ANALYSING PAKISTANI ARCHITECTURE IN THE CONTEXT OF CRITICAL REGIONALISM

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by
Aujala Naveed BAHADUR

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ABSTRACT

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Pakistani architectural practise is adopting global trends and universal ideals without regard to its traditional roots, meanwhile critical regionalism has emerged as a significant global strategy for delivering a blend of legitimacy and contemporary architecture, particularly in developing nations. In addition, it promotes the production of architecture directly related to their surroundings and communities while being a component of the contemporary world. Therefore, using critical regionalism as a tool, this study will examine Pakistani architecture to understand the linkage between its tradition and modern technology.

Within the scope of this thesis, theoretical studies on Critical Regionalism are first explored, concluded by eight aspects that, according to this research, go beyond what Kenneth Frampton and others had established. Then, an examination of the persisting problems in Pakistani architectural practises is performed. The following chapter examines critical regionalism in Pakistani architecture using the same eight factors. The examination includes the ideologies, works, and interviews with Pakistan's three most prominent architects: Nayyar Ali Dada, Kamil Khan Mumtaz, and Naeem Pasha. The research concludes by determining, via observations and deductions, the viability of critical regionalism as a tool.

Due to a lack of publications on Pakistani architects and architecture, this study attempts to develop a framework for future studies on awareness and inspiration from selected architects' work.

Keywords: Critical Regionalism, Architectural Practice, Pakistani Architecture, Sense of Place, Tradition, Modern Technology.

ÖZET

PAKİSTAN MİMARLIĞINI ELEŞTİREL BÖLGESELCİLİK BAĞLAMINDA ANALİZ ETMEK

Pakistan mimarlığı, bir yandan zamanın ilerlemesiyle birlikte, geleneksel temellerini dikkate almaksızın küresel eğilimleri ve evrensel idealleri benimserken, diğer yandan, eleştirel bölgecilik, özellikle gelişmekte olan ülkelerde meşruiyet ve modern mimarinin bir karışımını sağlamak için güçlü bir küresel strateji olarak ortaya çıkmıştır. Buna ek olarak, çağdaş dünyanın bir bileşeni olurken, çevreleri ve toplumlarıyla doğrudan ilişkili mimarlık üretimini teşvik etmektedir. Bu nedenle, eleştirel bölgeselciliği bir araç olarak kullanan bu çalışma, Pakistan mimarlığını gelenek ve modern teknoloji arasındaki bağlantıyı anlamak için inceleyecektir.

Bu tez kapsamında ilk olarak Eleştirel Bölgeselcilik üzerine yapılan teorik çalışmalar incelenmiş ve bu araştırmaya göre Kenneth Frampton ve diğerlerinin ortaya koyduklarının ötesine geçen sekiz boyutla sonuçlandırılmıştır. Ardından, Pakistan'daki mimarlık uygulamalarında süregelen sorunların bir incelemesi yapılmıştır. Devam eden bölüm, aynı sekiz faktörü kullanarak Pakistan mimarisindeki eleştirel bölgeselliği incelemektedir. Bu inceleme, Pakistan'ın en önde gelen üç mimarının ideolojilerini, çalışmalarını ve onlarla yapılan röportajları içermektedir: Nayyar Ali Dada, Kamil Khan Mumtaz ve Naeem Pasha. Araştırma, gözlemler ve çıkarımlar yoluyla eleştirel bölgeselciliğin bir araç olarak uygulanabilirliğini belirleyerek sonuçlanmaktadır.

Pakistan mimarlığı ve mimarları üzerine yapılan yayınlardaki eksiklik nedeniyle, bu çalışma, seçilen mimarların çalışmaları üzerinden gelecekteki çalışmalar için bir çerçeve geliştirmeye çalışmakta, farkındalık oluşturmakta ve ilham kaynağı olmaktadır.

Anahtar Kelimeler: Eleştirel Bölgeselcilik, Mimari Pratik, Pakistan Mimarlığı, Yer Duygusu, Gelenek, Modern Teknoloji.

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LIST OF ABBREVIATIONS

National college of arts

N.C.A

National arts gallery

NAG

Oxford university press

OUP

Kamil Khan Mumtaz

KKM

Nayyar Ali Dada

NAD

Water and power distribution authority

WAPDA

CHAPTER 1

INTRODUCTION

1.1. Aim of the Study and Definition of the Problem

Due to the obvious detrimental repercussions of Climate Change and Global Warming, the architecture of the built environment is being rethought. It is also being seriously considered to move away from the identity-destroying "International style" of architecture and towards reviving local identities.(Udaykumar 2012) Restoration of cultural heritage through architecture is a way to revitalise local identities in the age of globalisation and provide a sense of belonging. Pakistan's growing contemporary Architecture is also facing the challenge of retailing its roots under globalised influences. One way to overcome the globalised influences is to gather inspirations from architectural legacy and tradition and apply them in a contemporary environment. Critical Regionalism is one such notion that contextualises in it the notions of regionalism and revival of architectural heritage. It rejects a blind return to tradition and promotes a critical reconsideration of old methods, where appropriate in combination with contextual changes. What was relevant a few decades ago is obsolete now since the context has changed over time due to social, economic, political, and environmental changes. Therefore, using Critical Regionalism as a tool, this study intends to analyse Pakistani architecture to comprehend the relationship between local tradition and modern technology.

When looking into the contemporary Pakistani practice, there seem to be several influences contributing to current practices. As Hassan Fathy defines, "—Now, if we are to reconcile time with the architect's definition of contemporaneity, … a work of architecture must fulfil these conditions: it must be part of the bustle and turmoil, the ebb and flow of everyday life; it must be related harmoniously to the rhythm of the universe, and it must be constant with man's current stage of knowledge of change." So, in order to analyse the "current stage of knowledge of change" some factors need to be considered.

The economy has always been the most important factor in the building industry, particularly in Third World nations like Pakistan. The government has long lacked

finances for megaprojects. The National Gallery of Art opened in 2007 after being built in the 1970s. Foreign investments have changed architecture by introducing global patterns. This provides economic stability, but it also forces global tendencies to adjust.

Globalization plays its part too, "A Case of Indigenous Development" by Kamil Khan Mumtaz discusses how Pakistani architecture is adapting to global trends. The author explains why we rejected our native architecture and embraced western trends. Khan argues, "In our pursuit for a regional architecture, we've overlooked the regional architecture." We, the successors of Wazir Khan's Mosque and Shalamar Gardens, bemoan the loss of regional connection and appropriateness in our modern design. (Kamil Khan. Mumtaz 1995, 56)

Education of architects is also a challenge. In Pakistani institutions, architecture history starts with Egypt, then Rome, Romanesque, Gothic, Renaissance, and Modern Movement. With it, the freshly schooled architect resolves to "to reject all styles and precedents, and rebellion against conventions and traditions had become an article of faith with us." (Kamil Khan. Mumtaz 1995, 56). The paper was published in 1995, yet the issues remain. Western philosophy is promoted in our schools. Therefore, students replicated curtainwalls, fair-faced concrete, and "minimalism" without considering regional features. Although the paper was published in 1995, the exact problems persist today.

Given the elements impacting Pakistani architecture, the present issue is integrating purpose and artistic value. Arif Hassan, a Pakistani architect, planner, activist, teacher, social researcher, and writer, writes: It is equally important that we apply modern technology to improve and make viable our traditional methods and materials of construction." (Hassan,1984) Addressing such issues requires a critical understanding of what to take from contemporary technology and what to keep from local culture.

Research by three architecture professors adds, "Globalization has a profound effect on present architectural practises throughout the nation." (Shah, Qureshi, and Akhtar 2021, 1). This absence of regional identity has disconnected our history, culture, and values. Further explains the energy and economic crises, then says, "Contemporary Pakistani architecture is insufficient in terms of social and regional considerations... Critical regionalism may be the key to a sustainable future" (Shah, Qureshi, and Akhtar 2021, 1). Despite the foregoing influences on Pakistani architecture, efforts are being made to integrate modernism with tradition, which we view as an attempt to confront critical regionalism. Therefore, this study aims to investigate how Critical Regionalism can assist Pakistani architecture in reviving the tradition and incorporating modern

technology into its practice. This investigation starts after deducing eight aspects of critical regionalism and then looks at the problems in the architectural practice of Pakistan. Followed by an analysis of three Pakistani architects' case studies through the lens of those eight aspects and concludes with thoughts on the viability of critical regionalism in providing the linkage between tradition and modern technology. To undertake this research, the following sub-questions were answered:

- 1. How has the idea of "Critical Regionalism" modified over time?
- 2. What factors contributed to the rejection of tradition in Pakistani architecture?
- 3. How do buildings in Pakistan encompass Critical Regionalism? Moreover, how effective is Critical Regionalism as a strategy for connecting local traditions with contemporary technology?

This study will serve as a platform to promote, encourage, and chronicles the works of Pakistani architects named Nayyar Ali Dada, Kamil Khan Mumtaz, and Naeem Pasha. It aims to analyze the architectural practices of Pakistan to understand the linkage between local tradition and modern technology with the use of Critical Regionalism. All architects have unique ways of practising, and since none label themselves as critical regionalists, this thesis will search for the aspects of Critical Regionalism in their works. The selection of these architects, along with their practices, is based on their ideological changes from education to practice and the geographical presence of their works. Nayyar Ali Dada's work represents the urban life in the heart of Pakistan, with most projects in Lahore. The works of Kamil Khan majorly exist in the periphery of the centre. Naeem Pasha represents the capital, Islamabad, and the north, and for the south, a project by Kamil Khan has been included to understand the dynamics of the region.

1.2. The Framework of the Study

The term "Critical Regionalism" was coined by Alexander Tzonis and Liane Lefaivre in the article "the Grid and Pathway", published in 1981. This study critiques literature from another publication by the same authors titled "Critical Regionalism and the identity in a globalised world". As the pioneer writing on the topic, it acts as the guild line on understanding the architects' work in its light. Moreover, since it was the first detailed explanation of critical regionalism, the book explains the authors' original idea. It is described as the ability to create a sense of place in our time. It provides extensive

literature on how the phenomenon of Critical Regionalism existed throughout centuries and is further elaborated through the case studies. The case studies consist of images of the buildings; each image tells many stories about the spatial experience of the case. However, the descriptions and explanations are pretty brief but in a poetic manifestation that is the true essence of the book. This research draws inspiration from this book's poetics aesthetics by incorporating it within its writings.(Lefaivre and Tzonis 2003)

The following writings by Frampton, "Towards a critical regionalism", "Prospects for a Critical Regionalism" in 1983 then the "Ten Points on an Architecture of Regionalism: A Provisional Polemic" in 1987, "Critical Regionalism Revisited" in 1991 and a more recent study "The Critical Construction of Critical Regionalism (1971-1983)" in 2010 act as the core sources for understanding and interpreting the ideology of Critical regionalism. Nevertheless, it was not until 2002 that the most succinct critique was presented by the title of "Placing resistance: A critique of critical regionalism" by Eggener, which provided the starting point for the discussion of questioning the idea, followed by "Critical Regionalism: A not so Critical Theory" by Carmen Popescu and many others. All of the critiques and additions suggested to the original idea are examined and concluded from within this research.

As far as the writings on Pakistani architecture are concerned, there were limited resources. There are few magazines (Archi-times, ARCH press, and ADA (Architecture Design Art) and two journals (Journal of Research in Architecture & Planning and Journal of Art, Architecture and Built Environment) that publish articles by several architects and researchers. But scarcely critical regionalism was mentioned. Writings by various architects, including Arif Hassan, Quratulain Asghar, and Munazzah Akhtar, on the other hand, helped develop the arguments on which the study is based. Most of them refer to transformations and changes that different segment of Pakistani architecture has gone through and the impact of those transformations. like the one by Neelam Naz on the Main Boulevard of Lahore and Dr Anila's account of Hunza's urban modifications. (HASSAN n.d.; Shah, Qureshi, and Akhtar 2021; Quratulain Asghar, n.d.; Naeem 2001; Naz and Anjum 2007)

Several more recent studies similar to this have been carried out in different nations, such as Bani's research on domestic architecture in Khartoum, Sudan. The author considers the Kenneth Frampton-identified facets of Critical Regionalism and examines several cases on each topic. Although the selected instances were not designed with Critical Regionalism in mind, they do encompass all features. The study summarises that

even though architects do not tag their work as Critical Regionalism, their contributions are consistent with its philosophy(Bani 2015). The situation is the same with Pakistani architects; none of them describes themselves as critical regionalists, but through this study, their efforts will be evaluated through the concepts introduced by the discussions on Critical Regionalism.

The study on the two houses by the architect Han Tümertekin in Turkey provides a straightforward methodology on how to examine cases under Critical Regionalism(Aycı and Boyacıoğlu 2012). This research will follow a similar pattern to its Pakistani counterparts.

Then there is a study by Sanyam Bahga and Gaurav Raheja, which looks into buildings built in the postcolonial times in India through a Critical Regionalism lens. (Bahga and Raheja 2018). However, instead of analysing architects' works in this research, the authors look into different building types (Cultural Institutions, Housing, Higher Education and Research) to examine the works done in that typology that portrays the ideas of Critical Regionalism. The study concluded with a timeline; the institutional architecture of the 1960s depicted strong cases of Critical Regionalism. And the 21st-century buildings, resort hotels, religious institutions, and healthcare facilities showed signs of it, too, but in all this scenario, housing that started regional became cosmopolitan oriented. As the socio-cultural setups of India and Pakistan are pretty similar, the housing sector here has taken a similar route, because of which housing was omitted from the building types of the architects studied in this research. Furthermore, the literature also supported discussing and analysing public buildings to learn about their impact on a larger audience.

Other writings on countries like China and Singapore intend to examine how the rapidly increasing urban development can be channeled through the architectural ideology and practice of Critical Regionalism. Both conclude on the point that Critical Regionalism might not be the only way but seems one possible route to achieving the conjunction of nature, site, context, culture, and technology. In the article by Changrui Zhang, Yong Tian and Dengjun Ren of the Hebei University of Technology, Tianjin, China, they also exam Chinese architects according to only one of the aspects of Frampton's. They discuss several architects' work in the same article. While it provides a firm idea of the architect's ideology, since there is no case-by-case examination, it lacks validation and details. However, how they summarised the architects' work within one aspect of Critical Regionalism was a guild for this research.(Zhang, Tian, and Ren 2012)

The Singaporean case was more quantitative than qualitative in its case analysis. Still, the study put forward a new age of Critical Regionalism, which was included in the conclusion of this writing. (Udaykumar 2012)

Furthermore, a study by Tohid Fardpour demonstrates that considering the lack of familiarity with the idea of "Critical Regionalism," the need to maintain a harmony between tradition and technology persists in traditional Iranian architecture. The author cites many examples of this harmony that predate the introduction and implementation of Critical Regionalism by 100 years. Again, it employs Frampton's six prospects to describe the presence of Critical Regionalism in its selected cases. Although this thesis will take cases not labelled as Critical Regionalism, they won't be as dated as those mentioned in that study. The cases considered here would be designed after independence in 1947 and by local architects.

The research by Rahmatollah Amirjani looks into how the design strategy of Alvaro Siza parallels the subject of Critical Regionalism. With his critical writings on one of the Siza's projects, the Malagueira housing project, the author demonstrates how an in-depth study of the case can be done without captioning it with Frampton's aspects,

Professor Johannes Kalvelage at Dessau International Architecture School published a magazine that contained the works of his students in the 2016 summer semester. In the booklet, the professor wrote detailed literature on critical regionalism. Then, the students selected and examined the works of renowned architects like Peter Zumthor, Carlo Scarpa and Barragan etc., in light of only one of the six points defined by Frampton.(Kalvelage 2016) The conclusions that the students determined after studying two-three cases by the architect were in line with how this research tried to conclude its remarks at the end of each architect's section.

Similarly, a dissertation by J. Orozco from the University of San Carlos, Guatemala, examines the Architecture of Luis Barragan in the light of Frampton's Critical Regionalism and William J.R. Curtis's Authentic Regionalism. (Orozco 2016). The research analyses the two discourses and concludes from both as to how they can provide a new criterion for looking at some houses by Barragan. The detailed explanation of how each point from the conclusions drawn from the literature can be depicted in physical environments is what is studied and tried to work on in this research.

1.3. Methodology of the Study

This dissertation is a critical study focusing on Pakistan's architectural practices in light of critical regionalism. The study examines the work of three architects; most of them are the pioneers of architectural practices in Pakistan and are still practicing in the field. The architects were also interviewed for personalized insight into critical regionalism. The study is primarily Qualitative and ethnographic in nature and investigates case studies. The architects described their ideology, and then the researcher used his perspective to analyse the projects through the extracted aspects of Critical Regionalism in chapter one. This study aims to understand how to revive the tradition and use modern technology.

For this study, firstly, a literature review is carried out to understand the theoretical background of the "Critical Regionalism" idea based on the writing by Alexander, Tzonis, Frampton and others. Additional examination of the latest papers and criticism on critical regionalism concludes with a summary of eight aspects studied in each case study to understand how critical regionalism works within that project. After carrying out the literature review, the next part contains further literature on the current situation of architectural practices in Pakistan. Due to a lack of studies, and writings by architects within Pakistan, it is a brief account of the present situation and its problems. Then comes the case studies. Firstly, the architects are introduced through a biography. The interview questionnaire consists of a set of seven questions. These questions are majorly grouped into three parts. The first two questions investigate the architect's ideology; the second part consists of two questions to know his view on Pakistani architecture. The third part consisting of three questions about the architect's take on Critical Regionalism. After preparing and grouping questions, in-depth interviews are carried out with these three architects. As Catherine Dawson states, by using the in-depth interview method, "the researcher attempts to achieve a holistic understanding of the interviewees' point of view or situation" (Dawson, 2009, p. 3). With two architects, face-to-face interviews were conducted, while one architect responded over mail. The interviews were recorded and then later transcribed. Further analysis was done through the contextual analysis method.

The chapter on conclusions has an explanation about the additions and inferences that were drawn from the case studies. Moreover, the research concludes with an analysis

of the novel eight aspects that were defined by the available literature on Critical Regionalism in chapter two.

1.3.1. Structure of the Study

The dissertation is divided into five main chapters. The introduction chapter briefly outlines the aim, definition of the problem, the methodology and the structure of the study. The second chapter, titled "critical regionalism", focuses on the literature on Critical Regionalism. The third chapter, "architecture in Pakistan", is related with a discussion on the current situation of the architectural practices in Pakistan with sections on all the factors influencing the practice. The fourth Case Study chapter examines the works of three architects whose projects are a tangible form of all the examinations and discussions done in the 2nd and 3rd chapters. Finally, the last chapter on conclusions contains a critical analysis of the whole study and relates the case studies to the research question

The second chapter examines the phenomenon of Critical Regionalism. In this chapter, the creation of the term Critical Regionalism to the critiques it faces in the present time is discussed thoroughly. Starting from the birth of the term by Alexander and Tzonis, the chapter explains its evolution. The chapter proceeds with how Frampton defined aspects of Critical Regionalism, and Douglas further details Frampton's points. It concludes with references to writers like Caremen and Eggener for the shortcomings of the concept of Critical Regionalism, followed by a summary of eight points that the researcher has extracted out of all the original Frampton points and all the other discussions in the chapter. These eight points lay the framework for examining the works of all the architects chosen for this study.

The third chapter of the study majorly puts forward all the problems that the architectural practice faces, and the nurturing of a future architect through his education plays a vital role in the type of architecture he produces in the field. So, after explaining the theoretical backgrounds of the architectural situation, the chapter proceeds to the second section that discusses architectural education in Pakistan through the writing of several architects. This chapter concludes on how the current practices, education and identity issues within Pakistani architectural practice need a concept like Critical Regionalism to create a blend between local traditions and modern technology.

The fourth Case-Study- chapter examines three architects' ideology and their works. It contained several sections: biography, case studies and evaluation of the architects' works. In the biography, his life and his practice, in general, are described too. Through this first part, the architects' architectural journey is seen, how all three of them were influenced by westernised teachings of modernism. Still, that education was quite different from the ground realities of Pakistan. So, in light of the culture and facts of Pakistan, the architects had to get a stronghold of the local practices and start practicing accordingly. Three cases of each architect are analysed according to the points summarised in chapter one. By the end of the case study, a summary table is presented with the points discussed and the case's features. Finally, based on these analyses, the architect's work is evaluated. It contains the observations about the three Cases studied earlier, along with the writer's take on how the ideology and practice of the architect encompass the idea of Critical Regionalism in it. In this last part of the chapter, the writer uses references from the one-to-one interview between the writer and the architect to further support the conclusions drawn.

In the fifth and last conclusion chapter, the analysis results obtained from the case study are evaluated in light of the literature review presented in the second and third chapters.

CHAPTER 2

LITERATURE REVIEW ON CRITICAL REGIONALISM

2.1. The Background

It is crucial to go back in time and recall the 'Modernity Project' to understand the causes of the emergence of critical regionalism. To draw a brief chronological account of its transitions from the emergence of CIAM conferences to the Second World War, to understand Critical Regionalism as a response to the continuing crisis in architecture.

A crisis in architecture resulting from rejecting conventions became palpable in the 1920s and 1930s. Perhaps, the 1924 residence of Le Corbusier's Pessac is one of the first tragedies to challenge the revolutionary concepts of modern architecture in local communities(Amirjani 2018). Le Corbusier incorporated into Pessac, as introduced in the first and second CIAM, the concept of "minimal housing" and a modern building as "a machine to live in"(Mumford 2019). Nevertheless, the considerations of Le Corbusier, including flat roofs and windows with strips of water, were too radical for the residents in Pessac to digest; his housing project was consequently not welcomed by the residents and was later demolished.

Nevertheless, the first and second CIAM congresses in the 1920s were the preliminary step for demonstrating a global disparity between architecture and local culture. In one of the sessions, Le Corbusier commented that the ultimate solution to housing problems is multi-storied-high-density living and that "economic, social, and cultural life were all dependent on a high density of settlements" (Mumford 2002). These ominous ideas which had become the rationale for the mass development of high-rise buildings are the same that had created a state of implacable architectural crisis and place-lessness.

The advent of the International Style could be another pivotal moment in the aforementioned architectural crisis. By encapsulating typical stylistic elements of modern architecture from particular progressive projects of carefully chosen architects, such as Le Corbusier, Mies van der Rohe, and Walter Gropius, the term devised by Henry-Russell Hitchcock and Philip Johnson, familiarised a standardised modern style for vast-scale

architectural development and urbanisation globally. Because of the scarcity of homes since World War II, this multinational alternative was exported across borders, invigorated by the advantages of being low cost and quicker in construction. However, it brought a feeling of cultural disorientation to the native communities.

It can be suggested that the advent of Regionalism, which stood against the powerful influence of International Style and the resulting dysfunctional architectural state in the postwar period, laid the groundwork for Critical Regionalism. But because of the rapid spread of the idea of international style, the connection of a building with a "place" had already become non-existent(Amirjani 2018). In his 1947 essay, Lewis Mumford re-introduced the concept of Regionalism, through the Bay Region style, as a "native and humane form of modernism". Although the idea of regionalism had been there since Vitruvius, Mumford tried to reinterpret it as a remedy to the failing project of modernity in the closing remark at the symposium "What is Happening to Modern Architecture?" at MoMA in 1948. As the title indicates, the question concerned the future of architecture postulated umbrella of international under the style architecture(Hartoonian 2006). Mumford said at that symposium, in response to the topic, that modernity has removed the element of humane design from architecture. He also suggested that the concept of flexibility in solving a design issue be incorporated—the introvert and extrovert aspects of a person's identity should be acknowledged ("What is Happening to Modern Architecture" V. B. Canizaro 2018, 293-309). Despite the regionalist sympathies of the younger, postwar American generation of architects who saw the sensitivity Mumford was attempting to accomplish, the influential, media-savvy MoMA and the CIAM-dominated architectural establishment in the United States and elsewhere waged a decade of unremitting anti-regionalist propaganda.(International Style versus Regionalism Lefaivre and Tzonis 2012, chap. 9). On the one hand, Regionalism was thought to have failed to ease tensions due to its rejection of modernisation influences and universal technological advances and its progressive use of obsolescent regional features.(Hartoonian 2006; Amirjani 2018) Mumford's progressive theories, on the other hand, became the foundations of critical regionalism. Tzonis and Lefaivre attribute their concept of regionalism to Mumford, whose writings were "read, praised, and dutifully ignored."("Why Critical Regionalism Today?" Nesbitt 1996, sec. Introduction by Tzonis and Lefaivre)

Mumford's Regionalism is explained as a, "a matter of using the most available local material, or of copying some simple form of construction that our ancestors used,

for want of anything better, a century or two ago. Regional forms are those that most closely meet the actual conditions of life and most fully succeed in making a people feel at home in their environment: they do not merely utilise the soil, but they reflect the current conditions of culture in the region." (Mumford, Lewis V. B. A. Canizaro 2007, sec. "Excerpts from The South in Architecture" page 100)

Mumford's regionalism was a progressive, self-reflexive that avoided revivalist pastiche and cheap nostalgia. For decades later, Tzonis and Lefaivre picked up this thread in their paper "The Grid and the Pathway," published in 1981. The word "critical regionalism" was coined here, and its popularity snowballed.

Through the term Critical Regionalism, Tzonis and Lefaivre wanted to bring the world's attention to alternative approaches, "The aim was to draw attention to the approach taken by several architects in Europe at the time, who was working towards an alternative to postmodernism, the dominant tendency of that period."(Lefaivre and Tzonis 2003, 10) In this regard, they decided to use the expression "Regionalism", although it was not a new idea. It was preferred by Tzonis and Lefaivre to express the fact that:

"This new movement resembled in many aspects the efforts of a long succession of architects who opposed an authoritarian, standard, and universal approach to design and who tried an alternative way of making buildings, landscapes, and cities that treasured the particularity of a region, its unique environment and materials, the special character of its culture, and the way of life of its people." (Lefaivre and Tzonis 2012)

However, because of its prismatic narrative, regionalism has been synonymous with various historically relevant concepts, such as nationalism, romanticism, historicism and kitsch. Thus, they had to incorporate the notion of Regionalism with the idea of Criticality, which was taken in the same sense as originated in the essays of Kant and established in the writings of the Frankfurt School. Amalgamating these two terms was required to avoid the possibility of oversimplification and make it distinct from the regionalism of previous eras. They further explain that the term regionalism is a derivative of what Mumford came up with. Still, it is "self-examining, self-questioning, self-evaluating, that is not only confrontation with regard to the world but to itself". (Nesbitt 1996; pg.174 Lefaivre and Tzonis 2012, chap. Regionalism Now)

Critical regionalism differs from regionalism in that it does not resort to blind use of vernacular. (Paiva Henrique 2013) By being critical of a region's building traditions, a practitioner can extract only the essence of these traditions rather than literal references (Lefaivre and Tzonis 2003, 10). As a result, critics of critical regionalism

criticise post-modern architecture for its use of various historical allusions without regard to their appropriateness in current works. (Mehrotra 2011, 122) As Tzonis and Lefaivre further explain the ideology behind Critical Regionalism by explaining that the features are chosen for their ability to enhance human engagement and community, what we may term "place-defining elements," but are included "strangely" rather than familiarly. This is in contrast to the more familiar use of these elements. As a result, they look remote, hard to comprehend, challenging, and even unsettling. Critical regionalism uses poetic tactics of defamiliarisation to create the illusion that the building is speaking to the observer in an imagined discourse. (Nesbitt 1996, 489)

Thus, personal or local history is possible in critical theory only by the process of defamiliarisation; otherwise, nostalgia is drawn.

Instead of the statutory requirement of appearance or physical configuration, Tzonis and Lefaivre tried to define a strategy. They quote, "the poetics of critical regionalism does not include a set of design rules of partitioning, motifs and genera as does the definition of classicism, the picturesque or de Stijl." (Nesbitt 1996, 490) In other words, it's not a stagnant or a closed term; this is a progressive, modernist approach. Richard Ingersoll also draws attention to critical regionalism not being a style. For him, it is a theory that is difficult to understand (because of its dialectical premises) and nearly impossible to visualise. He defines this idea while criticising some stylistic attitudes in architecture by saying that Frampton presents the seven aspects criteria. However, they do not appear axiomatic in the way of Le Corbusier's "five points" or reducible to symbols, such as Venturi's "duck and decorated shed. "Furthermore, buildings that might qualify as examples of critical regionalism do not appear cognate to each other, for it is not a style; one cannot unequivocally recognise a critical regionalist work." (Richard Ingersoll 2007, chap. Critical Regionalism in Houston: A Case for the Menil Collection pg. 387).

Summing on the idea of Critical Regionalism in light of how Alexander Tzonis and Liane Lefaivre wrote about: Critical Regionalism as the ability to create a sense of place in our time(Amourgis 1991, 3–23); that is, the ability to integrate global architectural and technological developments into contents emanating from the place.

Following Tzonis and Lefaivre's investigations, the compilation of essays by Frampton is undoubtedly one of the most contentious contributions to the maturation of the discourse. He came up with the word "Resistance" to be associated with Critical Regionalism due to the hyped postmodern stance; as is reasonably known that Frampton resigned and withdrew from the curatorial team assembled especially for the first international architecture exhibition of the Venice Biennale in 1980, just a few months before the exhibition's unveiling. His criticism of the exhibition's central theme, the socalled 'Presence of the Past', heralded his 'alternative' approach to postmodern architecture. In 1983, Frampton published his ideas in a groundbreaking essay, 'Towards a Critical Regionalism: Six Points for an Architecture of Resistance' in the anthology The Anti-Aesthetic, edited by the art critic Hal Foster(FRAMPTON 1983). Frampton discusses a 'place' architecture in this text, focusing on architecture's critical ability about particular features such as topography, temperature, light, and tectonics seen in various buildings at the time. He claimed that a form of resistance seemed to emerge within these ventures while culture became a global phenomenon. In other words, in his early writings, Frampton defended an architectural stance that sought cultural, economic, and political freedom within globalising trends.

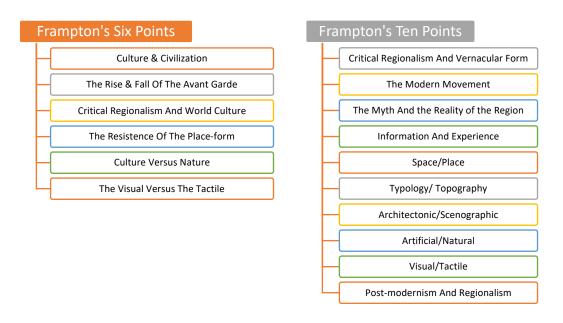


Figure 1.1. Frampton's points.

His second text, in which he expanded those six prospects to ten, was titled "Ten Points on an Architecture of Regionalism: A Provisional Polemic" (Frampton 1983). The following diagram summarises and compares both texts.(Bahga and Raheja 2018)

Frampton gives both context and particular controversy linked to criticism in the "Six Points" and "Ten Points" pieces (figure 1.1). The initial "points" reflect the fundamental issue of reconciling architectural practice with global and local contexts. The opening points establish a massive spectrum onto which the following pragmatic points are mapped. Each of the preceding points explores a pair of contradictory architectural practices: one practical embodying the humane and place-specific features and the other illustrating the less critical and less regional aspects of critical regionalist architecture; Experience and Information, Place and Space, The Architectonic and the Scenography, The Natural and the Artificial, The Tactile and the Visual. The writings are proficient in articulating the discourse's domain, suggesting many of its key terminologies, and establishing a central purpose: "The fundamental strategy of Critical Regionalism is to mediate the impact of universal civilisation with elements derived indirectly from the peculiarities of a particular place." (Carlson-reddig and Carolina 1990)

2.2. Frampton's Aspects Explained

This section briefing explains all the six points that are the ideological framework of Critical Regionalism as sectioned by Frampton in his writing.

• Critical Regionalism and the Vernacular.

The first argument made by Frampton, "critical regionalism and the vernacular," emphasises the importance of vernacular architecture in establishing regional identity and preserving historical roots in the built environment. Regionalism, according to Frampton, is sometimes linked with a sentimental return to the vernacular, resulting in an architectural form that appears archaic, obsolete, or irrelevant to present global needs.

To implement Frampton's first point, architects must study, interpret, and recreate the vernacular character of an area so that contemporary built environments keep their ties to place via the use of vernacular allusions to produce a modern and regional expression of local cultural identity.

• A Preference for Regional Intentions Over Normative Optimisation.

In comparison to the mainstream tendency of modernisation and a concentration on normative optimisation, Frampton sees critical regionalism as a fringe practice. The goal of normative optimisation is to optimise a building's performance compared to a benchmark or norm. Efficiency and utility in building construction and performance are standard optimisation criteria. As described by Frampton, the quest for normative optimisation makes use of universal technology created by industrialised countries and so accepts and is restricted to forms generated from applying these industrialised means. Critical regionalism, according to Frampton, is concerned with the associative qualities of a given place, such as local architectural fabric and cultural values, rather than normative optimisation.

A Consciously Bounded Architecture.

"Critical Regionalism manifests itself as a consciously bounded architecture, one which, rather than emphasising the building as a free-standing object, places the stress on the territory to be established by the structure," says Frampton (Frampton 1992, 327). A bounded design aims to integrate architectural form and cultural values rather than just the physical border. Critical regionalism's architecture should be determined by local fabric and tradition. Creating a bounded architecture relies on the architect's ability to create a form with a sense of location.

• More Than Simply Scenographic Episodes or Sentimental Historicism.

Frampton sees the necessity for architecture to be recognised as a "tectonic reality" rather than a sequence of scenographic episodes as his fourth aspect. He is against scenographic events, just an instance of a façade making (Frampton 1983, 32)). Instead of emotional imitations of local vernacular, Frampton advocates for reconsideration and mixing of such forms with outside influences. He advocates for acceptance of western influences, but he believes this tolerance necessitates an emphasis on the local. The scenographic event is, to some extent, a superficial approach, such as the kitsch of vernacular facets.

• Response To Local Conditions and Climate.

All openings are treated as delicate transitional zones in critical regionalist architecture, with the ability to adapt to the unique constraints imposed by the location, the temperature, and the light. He believes that architecture should organically interact with the environment and adapt to the physical characteristics of an area, as well as site-

specific variables such as terrain and the changing play of local light (Frampton 1992, 327). It is in opposition to relying on mechanical systems to provide comfort to the user.

• An emphasis on the tactile.

Frampton highlights light and its role as the principal agent for revealing the building's volume and tectonic significance. Still, he also emphasises the need to understand that the environment may be experienced in ways other than gaze (Frampton 1992, 327). Other elements of the environment, such as heat and cold, humidity, air movement, smells, and noises, are significant. The tactile, according to Frampton, is an essential factor in creating a sense of the constructed form. Along with the visual, critical regionalism emphasises the importance of other sensory experiences.

2.3. Doug Kelbaugh's take on critical regionalism.

After Frampton, Doug Kelbaugh, Dean of the Taubman College of Architecture and Urban Planning at the University of Michigan, also attempted to define critical regionalism(Kelbaugh 2016, chap. 2 Critical Regionalism). He came up with five points, in the continuity of the ones by Frampton (figure 1.2).

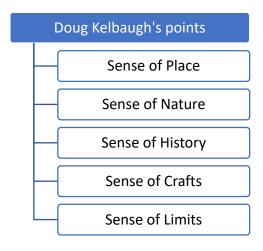


Figure 1.2. points by Doug Kelbaugh.

"Critical Regionalism is a term invented by architects that means thinking regionally in wary and sentimental ways. It guards against the mindless nostalgia for traditional architecture to which regionalism has been prone in the past. Critical Regionalism is more of an attitude than a theory. It is an attitude that celebrates and delights in what is different about a place." (Kelbaugh 2016)

On the one hand, Frampton provides a comparative analysis of what should be vs what shouldn't; on the other, Doug gives context and clarity to the notion of Critical Regionalism. His use of the word "sense" gives Critical Regionalism a more defined identity as a phenomenon. Following is a point-by-point examination of the Critical Regionalism comprehended by Doug Kelbaugh:

A Sense of Place:

Critical regionalism, first and foremost, starts with a love of place. It honours climate, topography, vegetation, building materials, and practices...It prefers local authenticity to sophisticated imitation...it is an "act of protection" as well as an "act of resistance." (Page 73-74)

• A Sense of Nature:

It deals with environmental concerns and the importance of using nature as a model for design. As a model to follow when designing, nature is our best option because "it holds the key to vitality and sustainability." (Page 75) Nature's processes have occurred for millions of years and will continue if we can achieve a better relationship between the built and natural environments.

• Sense of History:

Historical precedents should be used as a point of departure in building design. It allows for a continuity of design across generational boundaries. Designing "rhymes across time demonstrates a sense of history" (page 79). This will help retain a memory of the site's history and develop a place-specific architecture.

• A Sense of Craft:

It calls for the return of quality in construction and a reduction in the importance placed on quantity. Kelbaugh believes that "the construction of buildings has become junkier" because they are being built with less human care and less natural and less substantial materials (page 79).

A Sense of Limits:

It is "about the need for finitude and physical and temporal boundaries to frame and limit human places and activities. It is about the need for human scale in the built environment. It is about psychological boundaries- ones that make life more understandable and negotiable" (page 82). This is opposed to the International Style, which saw space as "abstract, neutral, and continuous" (page 81). Limits, according to Kelbaugh, are "what differentiates place from raw space" (page 82)

2.4. Critiques & Additions to the Idea of Critical Regionalism

Several scholars, including Eggener, Carmen, Botz, Hartoonian, and Ken de Cooman, have challenged the ideology and, particularly, the portrayal of Critical Regionalism. This section will briefly describe the abovementioned research articles and several others that propose additional add-ins to Critical Regionalism's philosophy.

This study by Eggener examines how Critical Regionalism has been present since the time of Vitruvius and how Mumford, Tzonis, and Frampton later reintroduced it. According to Eggener, determining the aspects of a region's cultural identity and how they might be expressed and utilised is exceptionally challenging (page 399). He strongly opposes the idea of Ando and Barragan representing an entire country; he refutes Frampton's claim that Barragan's buildings are Mexican architecture. It can be stated that Eggener opposes identifying one architect as the representative of a larger region. He fully supports Critical Regionalism's ideology but disagrees with Frampton's portrayal. And he believes the marginalised should be depicted as having their own cultural identity rather than being on the outside of the westernised core. (Eggener 2002)

Carmen begins by constructing the identity of Critical Regionalism from a historical and philosophical standpoint. All the historical evidence suggests that this phenomenon (now known as Critical Regionalism) existed previously. Carmen claims that Critical Regionalism took numerous forms, including "new regionalism," "expressiveness," and even Heidegger's idea of place. But they all lacked something that "Critical Regionalism" delivered. Consequently, it was greatly appreciated. Carmen recognised that Critical Regionalism was initially distinct from other "isms" at the time but, like Eggener, also believes it is ineffective. It also does not change histography, resulting in a misalignment of meaning and intent.

To sum up, he says Critical Regionalism was one of the Post-Modern movements used to generate resistance. (Popescu 2020) Nelson Mota seconds with Carmen by stating, "Frampton's notion of critical regionalism assumed an ambivalent tone. On the one hand, it praised a resistant practice, one that was able to challenge the commodification of the architectural artefact. On the other hand, it was charged with a kind of paternalistic reverence for peripheral practices, whose "contaminated" modernity was assessed using as a framework the "pure" and canonical modernity produced in the countries belonging to the core of the world system." (Mota 2014, 5) He goes on to say that the reactionary and populist resonances of postmodern speech were a shared opponent in Tzonis and Frampton's texts. The same postmodern ideology is what Botz suggests is the main agenda of Critical Regionalism, so much so he pronounces in his essay that Critical Regionalism is not a new idea. It is just the practice of regionalism within contemporary settings. (Botz-Bornstein 2010)

Hartoonian's argument focuses on the growth of the definition of Critical Regionalism by Tzonis in each of their writings. Furthermore, Frampton's publications had polished their concept of Critical Regionalism to the point where they had to quote him. Even CR's ideology and resistance cannot deny that commercialisation has taken control. He goes on to say that Frampton's points/aspects were essentially a critique of the architecture being done at the time and that they can't be generalised. According to Hartoonian, the answer to the problem of integrating modern and regional artefacts is divided into two parts: zeitgeist in terms of spiritual well-being and the influence of technology that can manufacture high-quality artefacts.(Hartoonian 2006)

As Hartoonian suggests modifications to the theoretical framework of Critical Regionalism, many other kinds of research revolve around the idea of what's beyond Critical Regionalism. Moreover, with the turn of the century, the world has been transformed with newer technology and beliefs. Critical Regionalism is a balance of culture and modern thinking, according to some needs and further ideological supports. This section will discuss them.

Ken de Cooman's article's opening statement is, "Looking at Kenneth Frampton's text 'Critical Regionalism' today immediately reveals a series of omissions; at least two (interwoven) paths towards 'Critical Regionalism' are not present in Frampton's text." He articulates that the first way is our environment's complicated situation, such as climate change and resource depletion. The second is inequality, which results from the imbalance created by globalisation and the concentration of wealth in certain areas.

However, this can be counteracted by using local materials, thus strengthening the non-peak regions. (de Cooman 2019) Cooman critiques Frampton by saying that although there existed a polarity between modernisation and regionalism by that time but trying to "theorising through dichotomies neglects the compromise which is architecture." The central theme of the short article is to put forward a more neutral stance toward how we see, build, and perceive architecture, according to which the practice of architecture is later theorised as a regionalist, modern or vernacular. Still, first, it is an 'act of building'. Each act of building must address all these concerns simultaneously along with the specific brief provided by the client, Extreme inequality, climate change, declining biodiversity, depriving resources, and population surges. Beyond Critical Regionalism is a shift in approach, according to which architecture should be practised with a Deleuzian philosophy, in which singularities and multiplicities generated by people, materials, and flows establish a living and breathing reality, rather than a Hegelian dialectic with thesis, antithesis, and synthesis as suggested by Frampton.

Hosseini seconds the idea of beyond-Critical Regionalism with the term sustainability. According to him, Critical Regionalism has gone through an evolutionary process and can be termed "Regionalism Now". This concept is one of the advances of regional architecture, which focuses on local cultural, environmental, economic and technological features. It describes the explicit or implicit outcomes of society and architectural works in various ways, including identical, economic, semantic, temporal, cultural, technological, and ecological elements. This idea tackles structure's adverse environmental and general wellbeing consequences by employing design processes, materials, energy, and quality initiatives that are not harmful to the region's ecology or communities. (Hoseini et al., 2019)

The third quality should be part of Critical Regionalism's identity according to Hadas; the most recognised quality of vernacular tradition; the ability to alter and adapt to the people's varied human and cultural situations. The argument is that Critical Regionalism is missing the evolutionary approach that it inherits from its regional/vernacular part. While architects continue building with the neglect of this approach, it has resulted in perfect, absolute projects. Thus, "Architecture has been perceived as an art of complete creations, not as an infrastructure for free human development and a means for empowerment. The social content was abandoned, and architecture served as just another commodity; when the commodity is unsuitable, it is replaced with a new one." (Shadar 2010, 230) The idea behind evolutionary spaces was

documented by studying three housing projects and how these evolved after 40 years of their erection. The inhabitants had made so many extensions to their homes, so the modernistic town planned by the designers had become unrecognised compared to the time it was conceived.

As the survey further states, despite making several changes to the inhabitable spaces due to cultural needs, the definition of the external spaces wasn't modified, which according to the author, was the core of the conceived space. He further states, "Today's architectural theories such as Critical Regionalist Architecture make a call to study the place through a Western-modernist prism, both mentally and aesthetically. Hence, studying the 'place' is flawed. This paper emphasised the lack of social content in theory."(Shadar 2010, 240) Most studies examined are for the elite class and significantly less for the marginalised ones. The essay by Hadas refers to projects belonging to the latter. Therefore, an architecture appropriately combines global and vernacular contents will, in any event, be able to evolve through time, forming social architecture. Kelly Carlson seconded the same idea in her Re-Reading Critical Regionalism essay.(Carlson-reddig and Carolina 1990)

2.5. Summarising the Chapter

From the above-composed literature, this section establishes a concluding set of aspects for Critical Regionalism. These aspects are a novel attempt by the research, on the concepts that were defined by the early theorists i.e., Frampton along with an addition of the newly written articles that suggested a betterment in the ideology of Critical Regionalism. These will then be used to analyse the case studies in chapter four.:

- 1. Depict the region by highlighting the specificities of the context being intervened in, from its topography to light and the call to create architecture in response to that particular context.
- 2. The use of local material attempts to depict both the context and empower the local economy.
- 3. Prioritise place-making over space-making; a place, which is a collection of spaces, expresses the character of a local environment and community.
- 4. The capacity to respond to the user's changing social and humanitarian needs.
- 5. Architectonic rather than scenographic.

- 6. Consider light as a fundamental aspect in revealing a building's tectonic qualities and enriching the quality of the space inside.
- 7. Apart from light, tactility and sensorial dimensions are also vital in creating a comprehensive experience of the built form. Aspects like temperature, humidity and air flow play a significant role too.
- 8. Compounding technological advancements within the local environment to address today's challenges. A thorough understanding of a region's vernacular approach is required to determine the extent to which it can be altered, reinterpreted, and innovated.

Despite its opposition to the sentimental use of local forms, it does allow for a reinterpretation of local aspects at times in an attempt to merge the assets and resources of the current culture with local tradition as naturally as feasible thus. A persistent conscious is needed to keep the instances as sustainable as possible. And it can be concluded that projects created as social impact in settings where the resources are limited are a valid instance of Critical Regionalism. Thus, the selected instance of Critical Regionalism should counteract the inequality between marginalised and core economic areas.

CHAPTER 3

ANALYSING PAKISTANI ARCHITECTURE

This chapter presents the situation of the architectural practices in Pakistan in terms of the problems faced, shortcomings and realities. Due to the limited data sources a brief account on the situation is presented with references to several case study-based writings. Starting with the explanation of the significant terms, the chapter concludes with how the discussion done on all the realities can be related with critical regionalism.

3.1. Defining the Terminology

Before proceeding into the discussion about the problems and practices within the architecture realm a brief description of some majorly referred terms is required. Terms like "regionalist" and "traditional" are place-specific and should be elaborated to inform the reader about its application in Pakistani Architecture.

The goal of "regionalism" is to encourage the use of regionally specific architectural vocabularies and construction materials. Regionalism is a way of thinking that focuses on the 'genius loci', or'spirit of the place', and seeks to connect with it. The word 'Regionalism' is used in architecture of the interwar era in a variety of ways. It is a method that can accommodate a wide range of differing views and interests. Any architect's approach to "Regionalism" should be highly organic; he should attempt to construct a built environment that combines traditional and contemporary elements in a balanced and cohesive manner (Meganck, van Santvoort, and Meyer 2013). Regionalism creates a feeling of location and significance in design by using contextual influences. Designs influenced by the regional climate and construction industry's technical limitations are known as "regionalist." Regionalism is a design philosophy that aims to merge global architectural with localised sensibility drawn from geographic, cultural, and historical settings (Agrawal 2013). The writings by Qurantulain Asghar describe how thru the consideration of five aspects in Pakistani Architecture; can produce a Regionalist Architecture. The article suggests traditional and passive practices like windcatchers,

courtyards and other techniques that an architect should incorporate in his work to make it suitable for the Pakistani climatic and social setups.

The term regionalist is broader in its sense and encompasses many aspects in it, some of which generate from the term "traditional"; which should be defined beforehand. Architecture that is rooted in a particular place's cultural history is referred to as "traditional," "vernacular," architecture. These phrases are sometimes used interchangeably. Traditional architecture, on the other hand, might be seen as an umbrella term for vernacular architecture. Both include the intangible qualities of a culture while using traditional methods and materials. Since traditional architecture deemed "built by the people," vernacular architecture has been referred to as architecture "created by the people." (Rudofsky 1964) Furthermore, in Pakistan, this phrase encompasses various elements, including the desired architectural orientation, spatial organisation, fenestration placement, and the usage of local material. Even while these elements may be clearly defined for private residences, the intricacy of utility and design prevents them from being broadly applied to public areas. (Bhatti 2018)

Regionalist architecture consists of traditional architectural styles, according to the definition discussed above. In addition, traditional is a consequence of employing local techniques and materials to produce a design that reflects local culture.

3.2. A Discussion of The Ground Realities

"There is the paradox: How to become modern and to return to sources; how to revive an old dormant civilisation and take part in universal civilisation."

——— Paul Ricoeur, History of Truth (1961, 267)

With the passage of time and development in Pakistan's building sector, this paradox's actuality becomes non-existent. Not due to the attained balance between the two realities but the ignorance of both. This leads one to wonder, if these realities aren't being addressed, what are the aspirations behind Pakistani architecture. Several factors are at play, some of which will be discussed herein. Still, one of the most leading is the client's, architect's, developer's, or bank's personal preferences over the context, typography, climate, culture, and socio-political situation of Pakistan(Ahmed 2016). This impulse of pursuing personal preference over what's necessitated results in a 'blandification'. It is often difficult to tell by architecture alone where a piece of

international style architecture might be sited on the earth. This brings into light a problem of local stylistic sources of innovation being lost, as universal styles of architecture, art, food, etc., of internationalist culture, take over. Thus, tension and sometimes an outright conflict between those who adopt a universal architecture of modernity and those who deplore it (Tell 2011). Dr Pervaiz Vandal has commented on this conflict as a well-known pedagogist who founded the Trust for History of Art and Architecture in Pakistan (THAAP) and the Institute for Art and Culture, Lahore. He summed up the issue in a paper presented at an architectural education workshop: "Because of the colonial background of the country, the sector (architectural practice and its education) which imitates the West has a higher status and is considered more modern, and therefore, desirable. This sector has official patronage in that almost all planning, economic and physical, has a strong bias in its favour. A ruling class brings forth a ruling culture embodying ruling aesthetics. There is a perpetual conflict between those who want to maintain the status quo and those who want change."(Bashir Ahmad 1986) It can be resolved by owning our local traditions and culture and portraying them as our strengths.

Adopting the ideas of the west in the name of universality without careful review is a threat to indigenous cultures, traditions, and the regional architectural character of Pakistan. This is the same threat that Dr Anila discusses in her paper. She describes how the provision of metallic roads to a previously inaccessible section of Hunza (a city in northern Pakistan) has resulted in devastating physical, environmental, and social changes. While highways provide economic prosperity, modernisation stresses have skewed the natural and built environment balance previously preserved by traditional principles(Naeem 2001). Arif Hasan's "Linking with the Past" is another noteworthy text about how universality and industrialisation have forced some of Pakistan's regional vernacular customs to shrink to a particular region and die out completely(HASSAN n.d.).

With the concepts of universality and modernisation, another significant phenomenon, Globalisation, enters the picture. Its manifestation is brought to reality by factors like commercialisation and design culture(Mostafa 2004). The former is being executed by erecting skyrocketing financial centres, standardised hotel chains, restaurant franchises, and shopping centres brimming with all-too-familiar name-brand shops. The global design culture is endorsed by trend-conscious architects who are inspired by eyecatching images in slick magazines and feel honoured to share these high-style concepts rendered in stylish materials with their clients, irrespective of the image's cultural context and site conditions. This results in a preferred use of imported materials as essential as

concrete, natural stone and steel over locally available ones. While these practices may be achievable in developed countries, doing so in Pakistan is erroneous.

But on the contrary, people here consider it as a way of showcasing their elitist lifestyle.(HASSAN n.d.) Here, it is worth mentioning the case of the main boulevard in Gulberg, Lahore, and its rapid commercialisation after 1980. Wherewith every decade and increase in height limits, the multi-storey construction culture bourgeoned and brought vast numbers of modernistic hoardings and traffic jams and transfigured a residential yet a vegetation-rich area into a "thoroughfare" with large-scale plazas". These unintended consequences resulted from greed at first and then from a desire to modernise without adequately planning and reviewing the pattern of future development(Naz and Anjum 2007). The argument here is not to dismiss these globalised ramifications but to carefully choose elements that can be implemented while keeping Pakistan's economy, culture, social structure, and political situation in mind. As architects, we should strive to balance global pressures and regionalist realities.

Some factors of the current situation of dismay are luggage of what history has given us. In its early years after independence in 1947, the new country had no time to concentrate on architectural progress Quratulain Asghar, n.d.). In those times, political turbulence and regional economic disparity were also obstructing progress, with very few buildings added in the private and government sectors. The government even faced shortages of office buildings to house its departments that worked on issues like food scarcity and distribution of property(Talbot and Nanda 2007).

The need to construct purpose-built complexes, offices and buildings led to another question: What would modern Pakistani architecture be like? A sustainable solution to this question could not be found because of the country's shortage of experienced local architects (rove Encyclopedia of Islamic Art and Architecture 2009). The government, therefore, decided to invite foreign architects to undertake essential construction projects that would set the base for modern Pakistani architecture. Also, there was a wave of adopting new architectural trends in South Asia. While India adopted the designs of French architect Le Corbusier, Pakistan went for the designs of Greek architect Constantinos Apostolou Doxiades (for both city and institutional planning) and US-based architectural firm Leo A. Daly (for specific buildings)(Quratulain Asghar, n.d.). It was marked as the beginning of external influences on architectural identity. Despite the humble efforts done by these architects to fuse modern ideology and practicality with the Mughal style of geometric décor in buildings, the subsequent

architecture gave the impression of perplexity. Not only that, but the long history of colonisation has also left everlasting marks on the mindset of the people of this region and made us question our identity. Consequently, to date, Pakistani architecture is in a state of confusion(Quratulain Asghar, n.d.).

The question of lost identity is so consistently evident that the desire to address it has driven contemporary architecture to a self-destruct route by adapting/replicating a well-designed element and sometimes the whole architectural design to fit an unsuitable Pakistani environment. According to architect Kamil Kham Mumtaz, the west has taken a position on the modern style of architecture based on its historical experience. It has adopted its philosophy after studying it. However, many professional architects in Pakistan have imitated the work without considering the local style, technology, and techniques of building and design (Ahmed 2016).

3.3. Architectural Education

If the effects of globalisation are causing the architectural business to depart from a regionalist perspective, then the trend-conscious architect and their education bolster this tendency. Most architectural schools cannot play a crucial role in recording building history, teaching and developing critical thinking, and stimulating the study and debate of modern practices. In an interview, Khawaja Zaheer-ud-Din, one of Pakistan's most known architects and founder of the institute of architects Pakistan, conveys his expression regarding the level of instruction provided by our architecture schools as "little disappointing". He further stresses that we (in Pakistani architecture) need a deeper study of our tradition and Islamic architecture, but this would require more effort from the professors and a fair bit of passion amongst students. He says, "Our dilemma seems to be that what is being taught in our schools has now become obsolete and discarded in the West." (Kausar 2000)

Because these educational institutions do not put forward platforms for critical discussion, they cannot properly instruct their students on how to critique theory and assimilate social realities into professional practice. (K K Mumtaz 1999) In addition, despite variances in culture and local customs, architecture schools in Pakistan offer a standardised curriculum with the same courses for each location. According to Dr Yasira Naeem Pasha and Shahla Adnan's research, the curriculum must be continuously updated

to keep up with the ever-changing world. Regional foundations should also be emphasised. (Pasha and Adnan, 2019) Dr Neelam Naz is the expert when preparing students for their future careers as architects. She explains the role of an architect and how it relates to the demands of society at large. It should bring the student architect closer to the construction site and the people and their culture; it should tie architecture to the forces that form, develop, and construct it. (Naz, n.d.)

In the article "Architectural Education in Pakistan and Problems of the Architectural Profession" by Kausar Bashir, which was included in the 2012 edition of Bibliography of Art and Architecture in the Islamic World, Arif Hassan explains that we must emphasise the cause rather than the result, the socio-economic aspects of technology rather than its theoretical aspects, climate, and purpose rather than the form. Furthermore, he declares that it should bring the student closer to the construction site and the local culture and lifestyle. Moreover, he tries to create awareness of the need for incorporating technological advancements in practice by elaborating that the most crucial responsibility of an architect is to produce a "comfortable building" that is compatible with the economic and technological limitations of the society in which he lives. He continues by expressing his concern, "We have failed to relate the technological revolution to our real needs and failed to fully grasp that our societies have changed overnight. As such, we have failed to relate our work and thinking to growing urban needs." (Bashir Ahmad 1986, 152). Through this examination, it can be established that there is a need for significant changes in architectural education and practice.

This research does not imply that specifically critical regionalism should be taught at schools. Still, the relation between the progression of technology and the preservation of local traditions must be embedded in the architects thinking, or at least an awareness of these aspects should be cultivated in architecture students throughout their academic learning. It is essential to quote my experience teaching design at two architectural departments in Multan. During two years of departing architectural education there, all the problems mentioned above have been faced hands-on. As far as technological advancements are concerned, structural and software courses are being updated regularly. But the problem lies in the knowledge he attains regarding the regional practices. Where history and style of the western world are taught so devotedly that many students, in their deep admiration for star architects like Frank Gehry and Zaha Hadid, start mimicry of their works in their design projects. As a design exercise, they can experiment with this admiration of theirs. Still, the problem lies in the fact that when he

is not educated about the exertions of local architects to cultivate local inspirations in his work. Moreover, the terms related to brick laying and other construction details are taught from books written in either England or America. Still, the ground reality is that the words used on sites within Pakistan are all in Urdu, which is not even mentioned in schools.

3.4. Evaluation

Based on an examination of all the factors influencing Pakistani architecture, such as universalisation and uniformity, globalisation, the need for individuality, and a shortage of resources, it is possible to conclude that the present challenge is to combine purpose and artistic value in architecture that performs in unison with ecological values and conforms with nature. Arif Hassan explains that to meet Pakistan's climatic and economic demands, current technology must be adapted. Traditional building techniques and materials may be improved and made practical through the assistance of contemporary technologies. Making it clear that to cater for all issues, a critical understanding of what to adopt from modern technology and what to sustain from local culture is required. Moreover, in her research, Shah mentions, "In current times, the contemporary architecture of Pakistan has become unfit in terms of social and regional aspects... The solution to these problems may be in critical regionalism through which we can move towards a sustainable future" (Shah, Qureshi, and Akhtar 2021).

The current issues in Pakistani architecture are similar to those that sparked the development of Critical Regionalism in the second chapter of this research. Both the universality of global architecture as well as the nostalgia of antique forms and local strands are avoided by this concept. Because critical regionalism has matured through time, it can be inferred that it has become a powerful worldwide tool for developing an architecture that is relevant to the contexts in which it is built while at the same time being part of the world of contemporary architecture. To that end, this dissertation examines the work of some architects whose work has not before been investigated through the lens of critical regionalism. Through this examination, this study will check the validity of the notion of critical regionalism within the context of Pakistani architecture.

CHAPTER 4

INSTANCES OF CRITICAL REGIONALISM IN PAKISTAN

In light of the literature seen in chapter one, this chapter will establish an analogy between the acquired knowledge and the selected architects. The following section will provide a general understanding of the background and architectural practices of three of Pakistan's pioneer architects. The rationale for choosing them is the presence of a consistent philosophy in their work, and because their practices transcend over 30 years, there is a lot for this research to examine, interpret, and discuss. This study proposes that their evolving understanding of local vs modern is consistent with the idea presented of critical regionalism in chapter one. Even though none claim to be a critical regionalist, this study's findings show a strong link between the two.

4.1. Methodology of the Case Study

This chapter is organized into three sections to explore the relationship between critical regionalism and architectural practice through the works of three architects. Each of the three sections is broken into two halves. The first half of each section covers the architect's biography and the broad philosophy with which he operates. In contrast, the second part focuses on three projects completed by the architect that, according to this research, are examples of Critical regionalism. The case studies begin with a comprehensive description of the project. Then the investigation of the eight aspects is carried out (determined by the end of chapter one) within the project. The selection criteria of the case studies is done on the basis of the social impact that they have, as defined in the concluding remarks of chapter two. Most of the buildings are purposely built educational or public spaces thus their impact on both the context and social life is much greater than residences that affect only one family (except for Shakir Ali Museum which was converted into a museum later).

Each of the three sections culminates with an overall assessment and interpretation of what was analyzed in the architect's projects and philosophy and how both represent

the phenomenon of critical regionalism. A table containing the summary of the three cases, along with the observations made by the researcher, is included in this section. Moreover, it also contains references from the contextual analysis of the interviews between the architect and the researcher. For Nayyar Ali Dada and Kamil Khan, the interviews were face-to-face, but the questions were answered through the mail by Naeem Pasha.

Following are the questions designed by the researcher to assist in understanding the architect's perspective on the concept of Critical Regionalism and how his work relates to it. The questions were divided into three types, and each had its own intent. The intent and the questions are as follows:

- a) For design ideology:
 - 1. What is your design philosophy?
 - 2. What is the reason for picking a project and normally what kind of projects do you like working on?
- b) To know about their point of view on contemporary practices:
 - 1. How do you see the current practices of architecture in Pakistan, in terms of problems, tendencies, shortcomings?
 - 2. As per your critical analysis, how are the notions of modernity and tradition implemented in contemporary architectural practice?
- c) For their perspective on Critical Regionalism:
 - 1. The following paragraph explains the term Critical Regionalism:

According to Frampton's "Towards a Critical Regionalism: Six Points for an Architecture of Resistance," critical regionalism should follow modernism, critically, for its universal revolutionary values, while still maintaining focus on the building's broad setting. As per Frampton, the priority should be on topography, climate, and light; tectonic form rather than scenography (painting theatrical scenery); and the sense of touch rather than just visual sense; Do you consider this phenomenon being practiced in Pakistan?

- 2. Can you name projects that you worked on which depicts the above-written idea?
- 3. In your opinion, does Critical Regionalism have a practicable future in Pakistan?

These questions were asked in an in-depth interview in an open-ended format. With two architects, Kamil Khan Mumtaz, and Nayyar Ali Dada face to face interview were conducted while the interview with Naeem Pasha was replied via mail. These face-

to-face interviews have been recorded with an audio recorder, whereas the last one was sent in a form of a typed response. These records of the face-to-face have been converted into written transcripts.

For analyzing and evaluating the written transcripts, content analysis method has been applied. Content analysis methods is described by Krippendorff as; "Content analysis is a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the context of their use" (Krippendorff 2013). Mathison says that when it comes to how content analysis works with a text; "This type of analysis may be qualitative or quantitative and involves breaking the text into manageable categories that are labelled, or "coded." These groups can be made up of words, phrases, sentences, or ideas. (Mathison 2005) Mathison also talks about two different ways to analyze content. These are analyses of ideas and relationships. "Conceptual analysis establishes the existence and frequency of concepts (perhaps by examination of the most frequently used words, phrases, metaphors, or concepts), and relational analysis examines the relationship among concepts in the text (perhaps by looking at the co-occurrence of particular concepts)" (Mathison 2005). This study uses the NVivo software to carry out a relational analysis of the interviews. Through the use of the software graphs (like figure 4.25), word clusters and relationship of codes with three main topics was seen. The main topics were the same used for the interview ideology, Pakistani architecture, and critical regionalism. For further details the conducted interviews were placed in the appendixes of the thesis.

The examination and references of the interviews conducted was majorly made part of the "analysis of the architects work" where an overview of the examined projects is presented along with tables that summarize all the case studies. The observations sections of the tables are referred to in the conclusion.

4.2. Merging Technology with Tradition: Nayyar Ali Dada

4.2.1. Biography

Nayyar Ali Dada, a pioneer in Pakistani architecture, is among the first graduates of the National College of Arts' (N.C.A). Here, a brief understanding of the school is required because it gives a quick insight into the school of thought that Dada was taught at N.C.A. Originally called the Mayo School of Arts, N.C.A was established by Sir

Lockwood Kipling and his son Rudyard Kipling in 1875. It was the country's only 'national' institution. Due to a shortage of qualified Pakistani lecturers, the five-year architecture program relied on residents or visiting foreign academics and architects. Professor Mark Sponenberg, the principal at the time, was crucial in putting together the N.C.A.'s architectural degree program. Professor Sponenberg and other foreign instructors, such as the art historian Baldinger, arrived from America in the late 1950s, when the Bauhaus movement was in full swing. The presence of workshops and local expert craftsmen at the Mayo School contributed a blend of local cultural context in their Bauhaus background's 'functional aesthetic' inclinations. The dominant ideas and attitudes in Europe and America had a significant impact on the pedagogical approaches being tutored at N.C.A. (M. Khan 1990). And Nayyar Ali Dada being among the first batches of N.C.A., was also taught the same ideology.

Nayyar Ali Dada was born in Delhi on November 11, 1943. His family moved to Lahore, Pakistan, in the early 1950s. Before studying at the National College of Arts in 1957, he completed his primary education at the University of Punjab("Nayyar Ali Dada - The Legendary Architect of Pakistan" n.d.). He received his architectural training from all the foreign-trained teachers and many local artisans that Mayo school had appointed(Vine 1972). While still a student, he formed a partnership (H. Khan and Associates), focusing on residential buildings. Therefore, he was already practising architecture when he graduated in the early 1960s. Nayyar Dada acknowledges that as one of Pakistan's earliest architectural professionals, he and his colleagues benefited from "an empty field... there was a vacuum in the profession at that moment" (M. Khan 1990, 57). However, there was the issue of a lack of understanding among the Pakistani people regarding architects and their work. Bold sculptural effects characterize Nayyar Ali Dada's architecture, "...capitalizing on a remarkably sensitive design sense..." (K K Mumtaz 1989, 169). However, when it comes to his philosophy, he believes in integrating historical and contemporary concepts. As an example, he points to Kipling's argument with the Viceroy of India over his desire to reproduce European architectural styles in the Indian subcontinent. Kipling sought to create a more indigenous architectural style, which Dada considers a critical idea to follow. Kipling's goal was to create structures that would serve as symbols of Pakistani culture and indigenous architecture, and the results are now considered cultural treasures in the country. ("Does Tradition and Modernity Exist Separately in Architecture? | Zameen Interviews - YouTube" n.d.). Following the same lines, Nayyar Ali Dada has several big projects to his name, and the government of Pakistan recognized his extraordinary achievements by awarding him with two of the most prestigious awards in Pakistan; President's Pride of Performance, and Sitara-e-Imtiaz, the highest civil honor in the country.

He is the founder of an internationally renowned architecture practice named Nayyar Ali Dada and Associates, which was instituted in 1978. It has built a diverse portfolio that includes work in commercial and governmental sectors. As a result of constructing several sensitive public projects across Pakistan, the company has established its strong and widely respected reputation. In 1998, the Alhamra Arts Center in Lahore, Pakistan, was designed by the firm and was awarded the Agha Khan Award for Architecture for it. In 1995, Nayyar Ali Dada served on the AKAA Master Jury, and other personal honours include the Arcasia Gold Medal and an honourable mention at the Kenneth Brown Awards, held in the United States of America.

In addition to its core workforce of architects, designers, interior architects, and landscape architects, Nayyar Ali Dada & Associates have creative, responsible, and responsive horticulturists working on landscape design projects. Instilling a sense of forward-thinking and innovative design has proven to be a successful endeavour for his team. Each of the firm's projects caters to a varied spectrum of building typologies and clientele, all illustrating the intricate urban fabric inherent in a growing nation. In addition to focusing on valuable and relevant concepts that convey a strong connection to the place, the office has maintained a sharp eye on modern ideas, practices, and futuristic thought. Sustainability and cost efficiency issues have been a concern in developing nations because of the unique circumstances. The firm's work has always infused pragmatic but artistic and creative thinking, and because of this orientation, it has received plenty of accolades.

The company also has a wealth of knowledge and expertise in restoration and rehabilitation projects all around Pakistan. Projects ranging from interior restoration to the creation of public plazas have all been attempted to restore the original values and purpose of historically, culturally, and aesthetically essential sites back to life. Many architectural icons have become associated with Nayyar Ali Dada & Associates, including the Alhamra Art Centre, Open Air Theatre, Qaddafi Stadium, Bahria Tower / Mall of Lahore (luxury retail mall outlet), Expo Centre Lahore, Shakir Ali Museum, and others. ("Nayyar Ali Dada & Associates" n.d.)

4.2.2. Case Studies

The projects listed below were created and implemented by Nayyar Ali Dada's office and evaluated in light of the results in Chapter one.

- 1. Expo Lahore- Lahore
- 2. Alhamrah arts council-Lahore
- 3. Shakir Ali Museum- Lahore

4.2.2.1. Expo Center Lahore

4.2.2.1.1. About the Project:

Expo Centre Lahore is a 4,000-square-metre (43,000-square-feet) conference facility in the Pakistani city of Lahore with a collaboration between National Engineering Services Pakistan (NESPAK) and Nayyar Ali Dada & Associates. The building started construction in 2007 and finished in 2010. On March 30th, 2002, Pakistan's Punjab province signed a Memorandum of Understanding (MoU) with the federal government to accomplish this goal. The centre was built on a 400-Kanal tract of land donated by the Lahore Development Authority on a 40-year lease in 2004 by Pakistan's provincial and federal governments. The goal was to provide local exporters with a place to showcase their goods and deliver product information to international trade delegations and purchasers under one roof.

4.2.2.1.2. Aspects of Critical Regionalism



Figure 4.1. Aerial view of the complex. (Source: Dialogue Pakistan, 2022)

• Regional Character & Indigenous Material

The expo complex shows original thinking being put forward in society; hence, the architect purposefully positioned a core brick building inside the grey structures to integrate modern design with a regional structure (figure 4.1, 4.3). A brick structure surrounded by glass and steel frames exemplifies how modern and traditional forms may coexist in harmony. The complex's centre is a brick structure which houses offices, conference spaces, a cafe, and a theatre. Exposition halls encircle the brick building, with various entrances from both the courtyard and streetside, making it easy to go in and out. As the halls are accessible from four sides of the complex, traffic and pedestrian movement are diverted towards the currently used hall. While visiting the central block, users may access all the exhibition halls via Gate One, which provides direct access to the central block. As shown in figure 4.2, the central building is encased in local brick,



Figure 4.2. The central brick building. (Source: Author, 2022)

which is smaller than ordinary construction brick. It is named "Gutka" in Urdu and is 2.5" x 2.5" x 9" in size. Because of its intricate size, the level of detail is enhanced both in the interior and the exterior brick finish.



Figure 4.3. Aerial view with building names (Source: Dialogue Pakistan, 2022)

• Represents Place-Making:



Figure 4.4. Lobby of the Central building (Source: Nayyar Ali Dada & Associates, n.d)

The architect's contribution to placemaking is shown by the centre block, which boasts a brick-clad structure that stands out against the grey building background. As seen in figure 4.4, there are expansive foyers in both the exhibition halls and the main structure, making it easier for people to congregate and talk. Lobbies are maintained massive in size in order to accommodate hundreds of individuals entering simultaneously. Moreover, the scale and spread of the building is in itself a place-making effort since it is located in big

commercial sector of Lahore, and no other building has the spread that it has. The adjacent structure, Nishat's emporium; a modern-gigantic building, further enhances Expo's horizontality and blend of tradition.

• Adaptive to human needs and architectonics:



Figure 4.5. Book Fair (Source: Nayyar Ali Dada & Associates,n.d)

All exposition halls were not completed concurrently; construction was done when needed. Over time, the facility garnered notice, and year after year, additional shows were added to the Expo's schedule, resulting in the need for more halls, which were included in the architect's master plan and required just the necessary materials and funding to be constructed. Now it has completed its master plan. The expo halls have been designed massive in size. With the most compatible structural design suitable to fit every exhibit, there have been car shows, book fairs and many other variable-size exhibitions



Figure 4.6. 1000 bed hospital (Source: Geo News, 2020)

in the hall, as figure 4.5 shows a book fair in the exhibition hall. Even when corona hit

the world and since all public gatherings were banned, this structure was not left vacant, it was converted to a 1000-bed field hospital where patients infected with corona could be isolated (figure 4.6). Later, it was equipped to become a vaccination facility for providing coronavirus vaccines. By 2021, it will finally return to its original purpose. ("1000-Bed Field Hospital at Expo Centre Lahore to Be Functional in Week | Punjab Portal" n.d.)

Despite being mechanically ventilated and lit, the halls have ample natural light entering them to get the load off from the lighting systems. The hall's structure and the mechanical systems further add to the modern look of the structure, enhancing the contrast with the central block.

• Use of light:

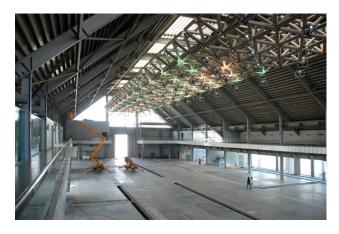


Figure 4.7. Skylights in the exhibition hall roofs (Source: Nayyar Ali Dada & Associates, n,d.)

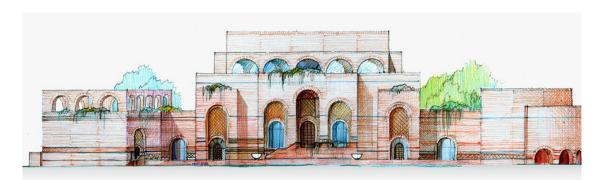


Figure 4.8. Elevations sketch by the architect (Source: Nayyar Ali Dada & Associates, n,d.)

Both the Centre Block and the exhibition halls contain fenestrations that let in light throughout the day, as seen in the placemaking aspect; the lobby is well lit by the

arched windows, the skylight and the clerestory windows in the exhibition hall (figure 4.7). Illustrating through his sketch, the architect also used shadows to balance out the light and dark areas of the elevation (figure 4.7) and the interior spaces (figure 4.9). Furthermore, a primary play in masses is observed as compared to the regular practice of giving large windows to fancy up the elevation of the buildings. And the play of mass is being complemented with the arched openings which allows in light, also adds to the huge break in the massing.

• Sensorial dimensions:

It is captivating to discuss how the architect created some abstract complexity in the structure that appears minimal on the outside. It is evident in Figures 4.7 and 4.8 that the elevation only has archways and arch doors as decorative elements. However, it appears to be a space with many abstract dimensions when the same orange-toned colours and freestanding arching beams are employed in the interior. Integrating architectural aspects, mosaic patterns to the walls, interior finishes and an intricate play of light within the interior space creates a unique user experience that contrasts with the relatively minimalistic massing (figure 4.4).



Figure 4.9. sketch of the hall's interior by the architect (Source: Nayyar Ali Dada & Associates, n,d.)

Due to the double-height roof design of the lobby, the temperature is maintained as colder than the outdoors, allowing a person to feel more comfortable entering the building from the heat of the climatic conditions outside. Furthermore, the interiors, with their earthy-toned colours, make users feel comfortable visually. Since the same "gutka" is used all over, a haptic connection is established between the façade and the interior details.

• The use of modern technology:



Figure 4.10. The exhibition hall exterior (Source: Nayyar Ali Dada & Associates, n,d.)

Modern technology is mainly depicted in the structure techniques used in the exhibition hall. Figure 4.10 shows the modern statement; its elevation. Steel truss roofing with pre-cast angular roofing above it is the primary structural system of the exhibition halls—all of the columns that hold up the roof project outwards like buttresses adding intrigue to the structure. The trussed roofing made it easier to incorporate skylights in the



Figure 4.11. Glass entrances (Sources: https://lahore.comsats.edu.pk/pcbf/venue.aspx)

roofing and hold up the mechanical systems within it. The glass entrance lobbies (figure 4.11) ejecting out of the building are boxed with spiderweb clamps, and the roofing is supported by the eight slanting columns, freeing the load from ground floor walls, which are made in glass now. The glass does not receive direct sunlight since the projected roof and the columns are shading it properly. It should be emphasized that the size and modern technology employed in this structure are extremely seldom in buildings constructed in

the city during that time, making it seem much more futuristic than the age in which it was built.

4.2.2.2. Alhamra Arts Council

4.2.2.2.1. About the project

In Lahore, Pakistan, the Alhamra Arts Council is situated on the Shahrah Quaid-e-Azam, a colonial-era avenue previously known as Mall Road. The Alhamra Arts Council (AAC), of which Nayyar Ali Dada was a member, commissioned him to construct a 1000-seat auditorium, where the arts complex started. The AAC had been given the location by the government in the years immediately following independence but had often staged its concerts outdoors. The auditorium was built in 1979 and took the place of a few temporary structures.

The auditorium was part of the first, out of the four phases of construction. The Lahore Arts Council, a government body that took over the project following a land dispute, commissioned Dada to design it. Four octagonal buildings housing offices and art galleries were finished in 1984 as part of the initial construction phase. An octagonal 250-seat facility for lectures and recitals was erected in 1992, after which the first auditorium was expanded to accommodate 450 patrons in a hexagonal theatre. Semi-enclosed courtyards and varied polygonal shapes in the architecture of the buildings are meant to improve acoustics when the structures are used for performances.

The building won Aga Khan Award for Architecture in 1998. The jury deemed the complex "a rare example of flexible spaces that has enabled several additions to be made over time, each of which has enhanced, rather than detracted from, its overall architectural value". This trendy and successful public structure projects its intricacies simply and forcefully. ("Alhamra Arts Council" n.d.)

4.2.2.2. Aspects of Critical Regionalism

The architect, explains the concept behind the building in the following words:

The design concept was conceived as ongoing phased out programme of construction. Inspite of a gap of more than 10 years between the first and last

phase, the building reflects unity of spaces and architectural language. First in 1971 the multipurpose hall was built, the theatre building followed with the Art Gallery and the music block, last block was completed in 1992. The building took a long time to complete. The polygonal form of buildings has grown out of fanshaped ideal seating plans, non parallel walls create excellent acoustic behaviour of the inside. Hollow hand made brick walls in the exterior create excellent thermal and sound insulation. As a group of buildings the concept displays unity of shapes and spaces. A central space feature with buildings around it as conventional traditional features. In case of the complex it is used unconventionally with spaces between buildings flowing purposefully following the building contours. The outdoor terraces and podiums create useful spaces for flow of functions in the evenings. Sparing use of glazing helps in keeping the buildings cool without use of any cliches like arches, domes, traceries etc. the building evokes the architecture of its region. This is achieved by used of spaces. The material, brick evokes the bold sculptural quality reflecting the contemporary spirit. Due to lack of funds and being financed by Government with low priority on culture, the buildings were built with extremely simple materials, with a low cost attitude.("Alhamra Arts Council, Lahore, Pakistan," n.d.)

As previously noted, despite being developed over a ten-year timeframe, none of the building blocks is isolated from one another in terms of architectural language or structure; this demonstrates that a well-thought-out strategy was established beforehand. The architect uses phrases like "conventional traditional features "and "unconventional



Figure 4.12. all the building masses have unity in them (Source: Nayyar Ali Dada & Associates, n,d.)

with spaces between the building", "architecture of the region", and "contemporary spirit" to describe the building that showcases the presence of an act of balancing both the traditional aspects with the conventional ones.

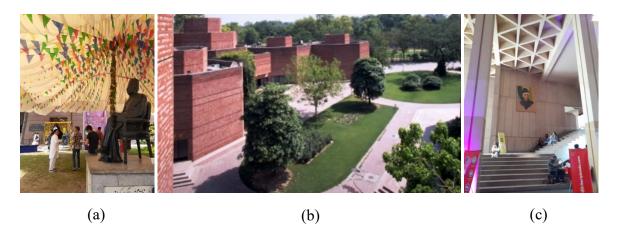


Figure 4.13. (a)a shading for the festival (Source: Author,2022) (b) open green spaces in the center of the buildings (Source: Alhamra Arts Council,1979) and (c) the foyer space leading to the auditorium. (Source: Author,2022)

Apart from the architect's words, the building truly exemplifies the idea of a merger between the technology and cultural settings or, more precisely, the concept behind critical regionalism.

• Regional character and indigenous materials.

In this case, the locally produced brick used on the building's exterior and interior is a good representation of the regional character. Regional character and indigenous materials are dealt with together because the materials used in the building are a good representation of the character. However, it is not just the use of local materials on the facade, but also its positioning and how it is viewed from the road, as well as how it fits into the rich setting of Mall-Road, that contribute to further enhancing the building's regional identity. By retaining its traditional identity, the structure depicts the historical value of the site and does not create a difference between the previously created structures that date back to before the partition of Pakistan and those that were constructed subsequently. Furthermore, although they were created over a period of more than ten years, all of the building blocks have the same character and are in harmony with one another, as seen in figure 4.12.

Due to the extreme heat in Lahore, the architect purposefully designed the structure with less fenestration to allow for better cooling of the internal climate and to conserve energy. Including trees and flora in the interior courtyard is an additional tool for protecting the structure and its users from the intense summer sun.

• Represents placemaking

The lush foliage of the trees in the courtyard between the buildings symbolizes the complex's ability to create a sense of place (figure 4.13 (b)). A covering for the internal courtyard was put up for a festival in mid-March 2022, which adds colour and shading to the convivial areas of the buildings, creating an environment that is pleasant to sit in on a hot summer's day (figure 4.13).

The courtyard is home to numerous statues depicting some of Pakistan's most illustrious public leaders, including Allama Iqbal and Mohd. Ali Jinnah (figure 4.13 (a)). Not only is the central courtyard the focal point of all art and a collecting place, but the gaps between two building blocks are also adorned with wall mosaics. The architect's attempts to make tiny areas appear human-friendly and not abandoned is a brilliant notion.

Even the inner staircase areas are utilised for seating. Making them available for people to sit and converse on is because the size, openness, and style make it easier for people to use it as a social place rather than just a utilitarian staircase (figure 4.13 (c)).



Figure 4.14. the brick massing at its window slits (Source: daily times, 2018)

Adaptive to human needs

Due to a lack of financial support, the building was built within a decade; yet this was a massive benefit for the project due to technological advancements and the ability to modify building blocks to the client's needs. In the beginning, a small theatre was built, but as public knowledge of the term art and culture grew, there was a need for a larger auditorium, which sits comfortably in the complex today. If the building had been constructed all at once, the anticipated demand might not have been factored in as it is

today. Again, less fenestration and more vegetation make the interior and atmosphere more comfortable to live in—figure 4.14 show windows as mere slits between masses.

As seen in the figure, one of the walls is draped with creepers, creating a cosy nook for the user to relax and sit (fig. 4.15).

Architectonics

A-frame structure supports the building, but its character is concealed from the eye, allowing the gigantic blocks encased in brick to take centre stage. Grooves split the massing within the brick, which breaks up the block's massiveness. In addition to the grooves, window openings are a gash in the enormous walls. A unique feature of this construction is that the typical column beam structure is slanted on the exterior, making the building broader at its base and slowly narrowing upwards, adding intrigue to the design. This deliberate effort on the architect's part aimed to reduce the bulk of the construction blocks. Upon studying the solid void relationship of the site, the massing's visual appeal is enhanced by the spread of the building.

• Use of light



Figure 4.15. Creepers covering the wall of the auditorium (Sources: Author,2022)

Since there are numerous blocks and sunlight strikes them from all sides, it is hard to remark on the influences of light on the exterior, but the use of less fenestration shields the building from the hot summer sun. Tinting has been applied to some slit windows to reduce the light that may be let into the structure. As shown in figure 4.16, most of the

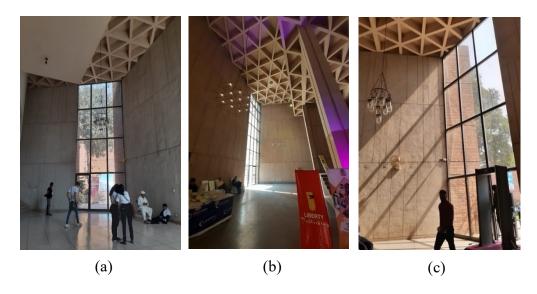


Figure 4.16. three different lobby spaces but same architectural details (Source: Author, 2022)

building blocks are illuminated by daylighting around midday in March. Other than acting as an internal break between walls, some slit windows let diffused light into the building, as seen in figure 4.16 (a). Throughout the day, the sun's path generates intriguing patterns on the wall and the floor. An equally divided frame in the window panel creates exciting shadow patterns that complement the trussed ceiling, further improving the visual appeal of those designs in the space. Apart from aiding in the illumination, the glass slit's function reverse during the night. The word "reverse" implies that these slit windows act as a light source on the exterior face when it is dark outside (figure.

• Use of sensorial dimensions

Most of the light-related debate may be quoted here as well. Aside from making the theatre area more fascinating, the light patterns give an appealing visual contrast to the interior space. Besides, when the light touches the fair-faced appearance of the walls inside, the haptic sense of a person is piqued (figure 4.16). As a second point, there is a noticeable temperature differential between a bright spot and the surrounding shadows. When it is a little chilly inside the building, the temperature near the window is a little higher, making it more comfortable for people to sit in.

As may be observed from the figure 4.15, as one looks up at this structure from the courtyard, one notices that the green wall and the tree in the middle provide a sense of harmony that synchronizes both its right and left sides. This may seem abstract, but it adds to the visual appeal of the outside and enriches the whole experience of the structure from the outside.



Figure 4.17. Nighttime showing the reverse of lighting. (Source: Peter Oborne, New Statesman, 2015)

• Use of modern technology:

As shown in the interior photos of the light in figure 4.16, huge spans have been covered with trust roofing, making it a very technological and modern approach that has been applied in its construction. However, the brick cladding on the outside gives it a highly regional and local appearance, even though the construction on the interior is modern and still in date. The structure contains theatres, and the mechanical ventilation and acoustic detailing were yet another constructional marvel of technological innovation at the time of construction.

4.2.2.3. Shakir Ali Museum

4.2.2.3.1. About the Project

A spectacular residence with dark burned bricks, gritty mortar, and antique heavy black doors of ebony wood conferred the title of Museum on the name of a prominent modernist artist Mr Shakir Ali: is situated in a short street named Shakir Ali lane at Kalma Chowk Tipu Block Lahore, Pakistan. The structure is a hybrid of ancient and contemporary architectural styles.(Islam n.d.)

Mr Ali pioneered contemporary painting in Pakistan. His style lasted over two decades, and he was appointed principal of the National College of Arts in 1961. Art schools in other countries provided him with training in a wide range of disciplines, including painting and drawing, mural decoration, classical drawing, textile design and industrial product design, to name just a few. Many other artistic disciplines and materials were introduced to him throughout his time in the arts program. Pakistani artist Shakir Ali is credited with popularizing abstract contemporary art and establishing the basis for the genre's devoted following. He received a Present's Pride of Performance medal in the art realm in 1962. He died on January 27, 1975.

His house was turned into a museum when he passed away to memorialise his contributions to the arts and the encouragement of emerging artists and artists. Mr Ali is a legend, and his abandoned home has become a cultural and artistic legacy. Nayyar Ali Dada, a well-known Pakistani architect, created the one-of-a-kind structure. The

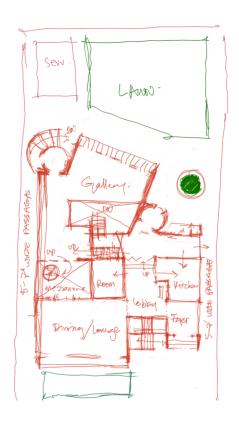


Figure 4.18. A sketch by the author on her visit to the place (Source: Author, 2022)

tranquilly, peace, and quiet provided by a merging of nature and waterfall in the backyard transports one away from the stresses of work and material existence into the serene domain of nature and colours, where every unique soul may build his or her vision. One may sit quietly and explore nature's inner perspective.

4.2.2.3.2. Aspects of Critical regionalism.

• Regional Character & indigenous materials:

This structure's distinctive regional character is expressed through the extensive use of burnt bricks on the exterior and interior. This indigenous material, typically discarded due to its uneven surface and overly burnt colour, is repurposed to convey the structure's distinctive regional character. With its single-story design and double-height rooms, the building provides a well-ventilated environment, which is essential given the climatic conditions of the area in which it stands (figure 4.18). The construction of a basement is an endeavour that will aid in creating rooms that will keep cool throughout the summer months even more. Had it not been for the fact that a written record might have been made public, we may have known more about Shakir Ali's requirements for the specific spaces in his house. However, due to the lack of written records on the structure and even drawings, this investigation relied on the observations and analysis conducted by the researcher.

Several walls inside the building are not plastered, displaying the uneven surface of the over-burnt bricks that make up the construction. This endeavour generates harmony between the indoor areas and the external ones.

• Represents Place-Making:

The outdoor green space (figure 4.19 (b)) is an example of placemaking and includes a seating area like a mini amphitheatre, which is presently utilized to hold events for children and adults. The amphitheatre seat can be seen in figure 4.19 (a), which is also utilized for musical performances in the area. Nighttime temperatures make it a pleasant place for artists and musicians to congregate, and during spring, several art events are held here. Adjacent to the landscape is two rooms that were previously servant quarters but are now utilized as storage spaces.

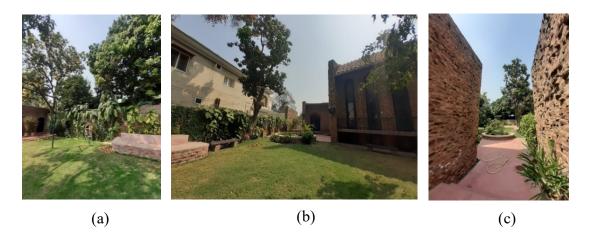


Figure 4.19. (a) vegetation and amphitheater (b) the lawn space (c) side alleys (Source: Author, 2022)

There are two entrances to the backyard: one from the side alleys around the building and another from the internal gallery area (figure 4.19 (c)). The side alleys, with both of their side walls made of burned brick, provide a holistic sense of strolling through the burnt brick structure; the red brick floorings add to the overall effect of the encounter.

• Adaptive to human needs:



Figure 4.20. (a) view towards the mezzanine (b) view from the mezzanine through to the slit windows (Source: Author, 2022)

Adaptive reuse may be shown in the simple transformation of a private residence into a public space. Although nothing can be stated about how the structure functioned as a home, it functions appropriately as a museum, with enough space for visitor's circulation

and ample illumination. The lounge area houses books and other artefacts that formerly belonged to the painter and are the central part of the museum. However, Shakir Ali's private spaces, such as his studio and reading space, are preserved as they were before his demise (figure 4.20).

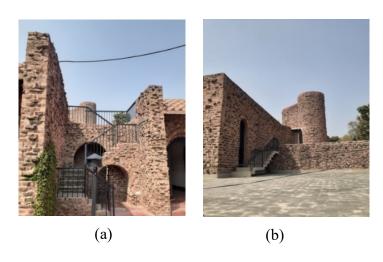


Figure 4.21. (a) view of the front of the building (b) massing visible on the roof (Source: Author, 2022)

• Architectonic

The use of massing may be observed in figure 4.20. The architect used variations in the internal space heights to add interest to a single-story structure and generate different roof levels. 13.5-inch-thick brick walls and a concrete roof sustain the gallery's twofold height and wider spans. Figure 4.21 (a and b) shows how horizontal and vertical elements work together to balance the roof load and overall mass, even though some of the vertical walls on the front elevation have no structural purpose other than to extend higher than the side walls in order to improve the aesthetics of the planar composition. The exposed steel staircase on the front adds function to the aesthetically pleasing massing of the structure.

• Use of light

The garden, in figure 4.19 (a), depicts that all plants receive plenty of sunshine for optimal growth. It indicates the architect's conscious attempt to locate the green space on the north side of the building, where sunlight balances the shading due to structures. When it comes to Lahore's sun orientation, the northernmost portion is the coldest. With the same orientation in mind, the architect has created narrow double-height windows that provide views of the lawn and let in ambient daylight (figure 4.20 (b)). The basement is the only darker area in the house. It is because it contains paintings that are often sensitive to light, but for air ventilation, ventilators open in the backyard garden also allowing views into the basement and the house. Louvres on doors and windows indicate that the architect has considered the weather while designing the house (figure 4.22). The louvre on doors and windows is a highly efficient instrument for blocking direct sunlight while facilitating ventilation.

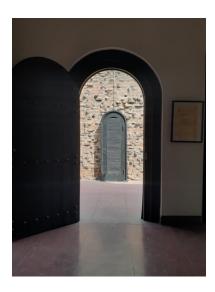


Figure 4.22. framing a louver window (Source; Author,2022)

• Sensorial dimension:

Figure 4.23 (a) displays the combination of two textures that are completely contradictory to one another. Incorporating a rough wall with finely carved black wood is part of the architect's strategy to add variation to the space, and it also demonstrates the degree of care that has gone into stimulating the sense of touch. It is desirable to be able to feel the carving and texture of the door frame itself. The same can be said about all of the furnishings in the museum as well (figure 4.23 (b and c)).

It is striking to see the black furnishings juxtaposed against such a stark backdrop as the shiny mahogany floors. The addition of a wrought iron chandelier, a dining table in the gothic style, and wooden dentils bring interest to the otherwise basic interiors.

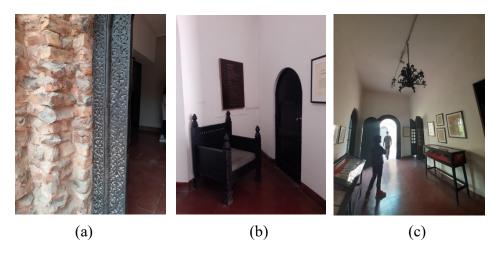


Figure 4.23. (a) variety of textures (b) utilization of corners (c) contrasting floor finish (Source: Author, 2022)

• Use of modern technology:

The architect did not neglect to apply modern-day technology when constructing the burnt-brick construction, as seen by the use of concrete stab and precast lentils above the doors and the lounge aperture. Although the structure could have had a brick roof since it is a single-story structure, the architect supposedly did not want to be restricted by the restrictions of the material, so the use of concrete made it easier to play with massing, the mezzanine and basement serving as clear examples of this. Aside from that, the building's planning style is indicative of a modern ideology (figure 4.18). The notion of a foyer connecting to an open spacious living and dining room, which then goes into the private rooms before terminating into the gallery space with an over-looking studio, is a modern way of planning. This open-plan design is a novel approach to housing compared to the ones typically built-in Pakistan back then and resembles the works of western architects. The author's hand-drawn diagram illustrates the layout of the place.

4.2.2.3.3. Analysis of the Architect's Work

After analysis of the cases and the contextual analysis of the interview with the architect (appendix A), a review of the gained knowledge was necessary. First, it is essential to inform the reader of the selection criteria for the three buildings, which were based on the discussion in the literature on critical regionalism. It was essential to see building structures with a more significant social impact than a single household, which is why residences were not included in this analysis.

The Expo centre was a large-scale undertaking that contrasted contemporary technology with elements of character, such as brickwork and arched windows. Nayyar Ali Dada himself even refers to the building; when he was asked about which of his projects does he think have a blend of modern and tradition; depicts critical regionalism, he said, "We did this Expo Center, it has a traditional flare in the central building and all the exhibition halls because they had the requirement of being a big span and other engineering requirements, were all forward-looking, high tech, so it has that blend…". (Appendix A)

Whereas the second was more regional than the first, its colossal size, social areas, and contemporary planning depict a combination of modern concepts in structures within a regional look. The play with massing, slit windows, and slanting walls gives the building a modern look, but when observing the brick detailing, its grooves, variation in bricklaying styles and carefully planned open spaces give it the regional flare. The idea of just the use of traditional methods of bricklaying is not what Dada incorporates, but he is open to integrating newer technology into it. Therefore, when he was inquired in his interview about his stance on the incorporation of technology along with local traditions, he believed that some architects say that one should manually grind the brick for finishing because old masons used to do it that way, but if a machine can achieve the same look, then why should one bother. Dada rejects the old cliches; if a technique saves time and delivers the same result, it makes no problem using it. Although he does not deny that handmade bricks are the finest material, they can even be used if the project requires machine-made bricks. He stresses flexibility in approach rather than rigidity.

According to the findings, the third case study had the most modern ideology. The interior and exterior of the compact museum exhibit a type of brick that is generally rejected and eliminated from the material list. Not only is the notion of utilising a

discarded material in a modern setting, but also the concept behind the building is minimalistic, bold, and creative; modern via the play with levels within an open plan, mezzanines, slit windows, use of sleek steel elements in interior finishes.

Upon seeing all the three different types of buildings and searching out aspects of critical regionalism, it can be realized that all of these buildings have different versions of modern thinking that blends into the regional profile (table 4-1). By this, we mean that all of these projects have brick exteriors, a traditional/regional and cultural depiction of architecture. However, they also showcase Nayyar Ali Dada's critical thinking of blending the modern technology and aesthetics of the modern world within the cultural aspects. All these projects truly depict the architect's ideology of architecture belonging to "its place".

The idea of Critical Regionalism, as put forward by Frampton, the monumentality, functionalism, and technology of modernism are vital in making regional architecture as well and is still relevant to contemporary. Frampton's critical regionalism seeks a balance between contemporary technology and traditional methods, relying more on modernism than tradition for formal expression, and Dada's work has that incline towards contemporary practices. Following is a diagram derived from the contextual analysis of his interview, and it can be seen that he referred to the idea of critical regionalism the most.

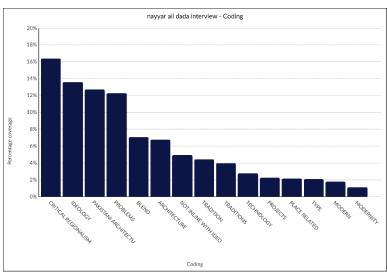


Figure 4.24. Contextual analysis from Dada's interview

Moreover, he does not adhere to forcing traditional elements in all the buildings that he works on, as he believes that there are projects where heritage is less significant, such as a showroom or commercial building. The designer should not force tradition in all his projects; however, considering its belonging to the site should always be contemplated.

He comments: "In architecture there should always and always be a blend of modern with tradition." (Appendix A). Consequently, when asked about critical regionalism, he openly agreed with the concept and admitted that this is what the contemporary practice demands. These remarks reveal that he can adapt his thoughts and ideas to diverse contexts and demonstrate that his designs represent his architectural expression. Moreover, he also stressed the importance of an architect's role in society. He believes architecture should be kind and thoughtful as it is not only about physical structures but also about the city's atmosphere and how it affects the context. Architecture influences everything; it impacts the society and even the people's psyche. Thus, it should be analytic of itself; no matter how contemporary or who is designing it, the architect should bring justice to his work. Lahore is home to several of his projects, each of which is exquisitely curated to the point that an architect or other architecturally astute observer may recognize the designer's work in a single loo

Table 4.1. Summary of Case Studies

NAYYAR ALI DADA									
Summary of Literature on Critical Regionalism		Expo Center Lahore	Alhamra Arts Council	Shakir Ali Museum	Observations and conclusions				
Aspect	Explanation	Features	Features	Features	Conclusions				
Regional Character	Depict the region, from its topography to light and the call to create architecture in response to that context.	The arches/character/lobby of the central building	Positioning of building blocks within the macro context. An overview of the details used.	Over burnt bricks, low height structure with massing that does not look dominant. Less fenestration due to weather conditions and orientation.	It varies to project but needs a holistic understanding of the character it depicts				
Indigenous Materials	The use of local material as an attempt to depict both the context and empowering the local economy.	Use of locally-produced-brick in the structures	Locally produced brick is used in all the exterior and interior walls	Using over-burnt bricks as the primary construction material.	Predominate use of locally produced red brick. And not just on the façade but in the interior detailing too				
Represents Place-Making	Prioritize place-making over space-making; a place, which is a collection of spaces, expresses the character of a local environment and community.	Foyer spaces and courtyards.	The division of courtyards, the distribution and design of communal spaces	The interlacing of the building with the outdoor spaces, especially the lawn space. Views of the window.	Generally, it deals with outdoor spaces (mostly courtyards) and its relationship with indoor ones				
Adaptive to human needs	The capacity to respond to the changing social and humanitarian needs of the user.	Construction of the side halls as per demands	The four-phase construction	The change from a celebrity house to a museum	Varies project to project but is generally considered as an addition of building blocks as per demands				

(cont. on next page)

Table 4.1. (cont.)

Architectonic	The focus should not be on scenography instead on architectural tectonics and details.	The frame structure holding the hall's building together is visible from the outside. Exposed ducting and trusses.	Interior's spatial effect, blending structure within the mass	The burnt bricks portray a rugged finish, not much scenic but enhance the character. Balancing of vertical elements versus the horizontal ones	A play with the massing. Profile and relation of one block to another. The use of arch makes a statement in all projects
Use of light	Consider light as a fundamental aspect in revealing a building's tectonic qualities and enriching the quality of the space inside.	Large span structures have skylights to let daylight in the structure	Vertical glass slits in brick masses	Gallery spaces and mezzanine opening in a central space with full length windows bringing in diffused light in all the spaces.	Skylights in the case of mechanical ventilated space but where spaces were smaller, the window size was kept elongated which too was shaded
Sensorial dimensions	Other factors like, tactility and sensorial dimensions are also vital in creating a comprehensive experience of the built form.	The experience generated by leaving one space and entering the other- indoor outdoor connection	Tree placement for smell, handrails, doorknobs	Carved wooden door frames, orange glossing tile in contrast to the white walls. Black and white contrast. private spaces attitude versus the public spaces.	Focus on in the micro level details of the projects and based on the experience of the spaces
The use of modern technology	Compounding technological advancements within the local environment to address today's challenges.	The grey exhibition structures with mechanic ventilation systems.	Frame structure, auditoriums sound proofing and design	The space planning/ use of mezzanine. Brick and steel for durability.	Mostly deals with the structural systems used. Concrete usage involved

4.3. A Pure Traditionalist in A Modern World: Kamil Khan Mumtaz

4.3.1. Biography

Kamil Khan Mumtaz was born in 1939 and took his early education from the Murree Convent. He completed his Advanced Levels (A levels) at the Aitchison College, Lahore and proceeded to the Architectural Association (A.A.) in London. K.K.M. studied at the Architectural Association in London (1957-1966), becoming proficient in modern movement principles. Among his professors was Otto Koenigsberger, whom he credits having the most significant impact on him due to the connection of his theories to the circumstances at home. Koenigsberger wrote multiple manuals and researched climate, housing, and infrastructural issues in developing nations, including India. Khan then taught architecture in Kumasi, Ghana, in 1964, where he collaborated with Buckminster Fuller and Keith Critchlow, both of whom had a lasting effect on his work.

Kamil Khan Mumtaz entered the Pakistani architectural scene when disappointment started to spread among many local practitioners who discovered their training was incompatible with the real world. Kamil Mumtaz was deeply ingrained in the 'liberal', 'progressive' ideals of the time, tinged with a touch of the leftist that many encountered in the charged and turbulent atmosphere of many elitist English institutions when he returned to Lahore in 1965 after a year of teaching in Ghana. He returned to a conservative; insular community largely unaffected by Western beliefs (M. Khan 1990). On his return, he became a member of the "Mazdoor-Kisan" (Laborer-Farmer) movement. Even while his mother's support for the Communist Party of India may have shaped his political views, the Modern Movement, where he received his political education, also significantly shaped his leftist political views. His wife, Khawar Mumtaz, was as concerned about the community's welfare as he was. After graduating from Karachi University with a master's degree in International Relations, she taught at Punjab University. She also founded "Shirkatgah," a non-profit organization that seeks to empower women in Pakistan. Activist, author, and member of the Women's Action Forum (W.A.F.).

After returning to Lahore, Kamil Mumtaz found that the National College of Arts' architecture program had been phased out and replaced by an architectural department at

the University of Engineering Lahore, a considerably more significant and more prestigious university. Foreign professors had all left by then, leaving the faculty in a condition of chaos. In the face of this opposition, Kamil Khan Mumtaz, as the Head of the department, forged on with plans to restructure architectural education at the National College of Arts, the country's sole accredited institution at the time. As soon as he established the five-year plan, the groundwork for a new institution was laid in 1969; Kamil Mumtaz began the process that would ultimately transform N.C.A.

Kamil Mumtaz's years at the National College of Arts are significant not only because they provide an additional overview of the evolution of this crucial architectural institution but also because they culminate in the evolution of entirely new intellectual positions in his mind, positions that give a better understanding of his approach to architecture. The most visible change at the National College under Kamil Khan Mumtaz's tenure was a shift from the school's approach toward modernism, particularly the generally unchallenged embrace of the foreign concepts that accompanied the conceptions of development and modernization. Under Kamil Mumtaz's influence at the N.C.A., these beliefs were thought to be challenging the survival of the nation's indigenous legacy, a heritage that Western-trained Pakistani intellectuals were only beginning to uncover.

While at N.C.A., his theories had a tremendous power to shape thinking and establish compatible beliefs among his pupils, one of whom remembered him as a "demigod." (M. Khan 1990). Sociology was taught alongside architectural design to promote a 'social science' based definition of architecture, and indigenous features of Pakistani culture were heavily emphasized at the cost of 'foreign' ideas. In 1977, eight years after teaching, Kamil Mumtaz left the National College of Arts (N.C.A.) and began a journey that led to a fundamental reappraisal of formal architectural education. Today, Kamil Khan Mumtaz is trying to apply this "insight" to problems affecting Pakistani architects.

When Kamil Khan Mumtaz writes about architecture, he stresses the importance of "rediscovering the deeper base of our own traditions" in order to "see if we can develop contemporary architecture rooted in a more fundamental sense of our culture".(M. Khan 1990, 73) It is a constant reminder of his schooling, its incongruity in the Pakistani setting, and the dubious proclamations about the rejection of all "...preconceived forms, antecedents and traditions" (Kamil Khan. Mumtaz 1995, 55) and the subsequent establishment of its own rigorous "symbols and style." "The crisis" facing Pakistani

architecture — and by extension, the developing world — according to Kamil Mumtaz is the rejection of history fostered by Western polemics and their adoption by local schools of architecture — speeding up "the alienation and isolation from our own regions' architecture" (Kamil Khan. Mumtaz 1995, 56)

In several of his writing, he talks about how his initial ideas regarding architecture had evolved. He quotes examples of the proposal he presented for the Faisal Mosque and then of the Data Darbar, concluding by saying, "An architecture based on appropriate technology will fail to convey its message unless it also employs a language that is appropriate and meaningful in the context of a specific culture." (Kamil Khan Mumtaz, n.d., 130). For his relentless efforts in protecting, repairing, and reviving Pakistan's architectural heritage, Mumtaz received the Sitara-i-Imtiaz award in 2007. As a result of his work, he has had a significant impact on architectural design in general. He has attempted to create architecture for Pakistan, sensitive to the country's environment, economics, and indigenous cultural elements.

For 25 years, he has served as an advisor to the Aga Khan Award for Architecture. He has also been a guest critic at the Aga Khan Program for Islamic Architecture at Harvard, and M.I.T. Kamil Khan is well-known as a member of Lahore's conservation and construction community. He founded and presided over the Anjuman-i-Maimaran. He is a founding member of the Lahore Conservation Society and the Board of Governors of the Authority for the Preservation of Moenjodaro, located in the Upper Sindh province of Pakistan.

4.3.2. Case Studies

The projects below are designed and executed by the office of Kamil Khan Mumtaz and will be reviewed considering the findings reached in chapter one.

- 1. Har Sukh Residency-Thetar village, outskirts of Punjab
- **2.** Dar-ul-Hikmat-Lahore
- **3.** Oxford university Press building- Karachi

4.3.2.1. Har Sukh Art Residency

4.3.2.1.1. About the project

Bina Jawad, a woman with a vision, tired of hectic urban life, came to Kamil Khan Mumtaz, commissioning the Har Sukh mansion, aspiring for alleviation from urban turmoil. The land she suggested for the project was her farm situated in the Thetar village, Bedian in Punjab. In the village, the building arises from the surrounding fields as something that has always belonged there. This setting is perfectly blended with the building design, as Kamil Khan erects the concept of this edifice from the historical roots of our traditional architecture. The design is a residential complex which houses multiple families. It is the residence of Mr and Mrs Jawad, their four children: a son and three daughters & their husbands and children.

The word "Har Sukh" means "divine peace," and the art residency, along with a residence, hosts all types of artists, from poets and musicians to yoga teachers, dancers, and students. Former Chief Justice of Pakistan Jawad S. Khawaja, the owner, set up a school in this building where free education is provided to needy students in rural areas after retirement. It also includes artists' studios and accommodation, a dance studio, an amphitheatre, a music facility, and an indoor swimming pool. These areas are used for teaching, training, and polishing different talents hiding in the underprivileged.

This building has been a testing ground for the designer, constructing labour and the client. The design was somewhat inspired by the principles and proportions of Mughal architecture, and its construction techniques were also based on vernacular ways of construction in Mughal times. The building construction took seven years to complete because they had to experiment and re-discover the vernacular construction techniques, which have been "forgotten" by our society, in the blind chase of modernism.

Har Sukh's design has been an exercise to solve the challenges faced by contemporary practice, which demonstrates that it has been an exercise of critical regionalism, unknowingly by the designer. It may not look like a modern design evolution, but the process overall has been evolving into a structure that is essentially regional in its essence while technically modern.

When asked about the architectural style of Har Sukh in a documentary, Kamil Khan answered and described the reason behind his design approach, which indicates that

he followed several aspects of critical regionalism. He stressed that no particular architectural style was followed, and even the word "style" annoys him; on the contrary, he appreciates the Mughal style of architecture and derives inspiration from it. His goal here was not to follow a style; instead, it is about expressing our individuality while keeping in mind the customer needs, site limitations, legal, financial constraints and climatic factors; an attempt to create the best possible design was a big aim. Since he opposes industrialization and its dominance, he had established a guideline to follow in Har Sukh, which was to utilize as little as possible of industrially manufactured items. Hence, in the region of Punjab, the material is this native soil; if one restricts its approach to indigenous materials, local materials & local crafts, brick and lime are the best options. To span the building, he did not use concrete beams or slabs to construct roofs but instead used brick in all shapes and sizes with steel reinforcements. The Har Sukh residence and its intricate structure system is the most reasonable solution according to the site and user requirements. ("HarSukh Art Residency | Red Brick Mughal Masterpiece (Pt 1) - YouTube" n.d.)

The project might not be, visually, a blend of modern and traditional concepts, but as Khan said himself, the building is the most probable outcome in the existing setting in every aspect. The look overall may look "traditional", but the aim to create a self-reliant building that consumes low energy and requires minimum maintenance is a modern approach. This strategy makes it a blend of traditional techniques and design approaches with a modern mindset of sustainable design, ultimately an aim of critical regionalism, which has been widely showcased in Kamil Khan's work.

4.3.2.1.2. Aspects of Critical Regionalism

Regional Character

Har Sukh is a fine example of "contemporary-traditional" works. Structurally, it is famous for the use of traditional flat and ribbed domes as spanning systems for double-story construction, using brick as the primary construction media without the use of concrete to withhold the enormous loads of the roof of large, spanned halls and studios (see figure 4.25 a, b & c). According to Khan, the most suitable material option was indigenous, locally made "red brick" in Pakistan. It raised questions about dealing with

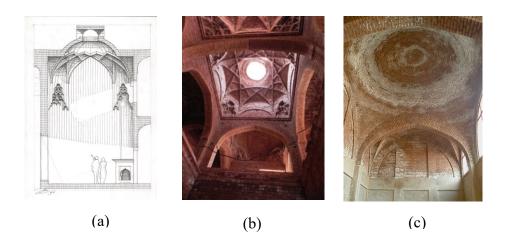


Figure 4.25 Different types of dome openings used (a) shows a sketch by the architect (b) an oculus light source (c) brick dome (Sources: Kamil khan Mumtaz official Facebook page,2012)

double-height halls' large spans and roofs. The only probable answer to this problem was found in the traditional construction techniques, which have been used for ages, especially in Muslim architecture worldwide. He used spanning systems like ribbed domes, flat brick domes to cover the large spans, and muqarnas for interior corner support of domes.

Even the landscape of the building also depicts the regional character as it is not alien to the site's surroundings. The vegetation is neither forced nor spread on distinguished lines and patterns. The local landscape spread in the area penetrates inside the building as well, depicting the regional character of the area (figure 4.26 a & b).



Figure 4.26. The landscape of the complex (a) shows the overall blended landscape of the locality and the complex (b)

(Source: Banjaiga project database, 2021)

• Indigenous Materials

The architect used the traditional building systems and indigenous materials to make the structure economical, cooling down the structure in scorching summers and reducing the carbon footprint of his design. The building, in essence, is constructed out of indigenous materials instead of the normative practice of giving it a "traditional" look by incorporating just traditional finishes. The locally produced material has been used as structural and finishing material, mainly locally produced "red brick", which can be seen in figure 4.27(a & b).

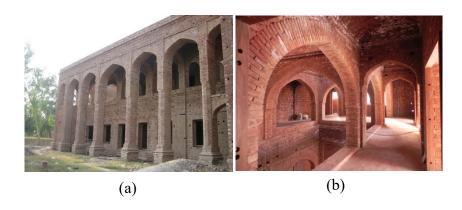


Figure 4.27. Red brick used as construction media (a) red brick used as finishing media (b)brick vaults (Source: Kamil Khan Mumtaz official Facebook page,2012)

For interior finishes, highly polished lime plaster (as shown in figure 4.28 b) is used, locally known as the art of "pukka kalli". It is not only used by Khan to bring the down carbon footprint of the building, but it also brings the interior temperature down by a couple of degrees in the blazing summers of Lahore.

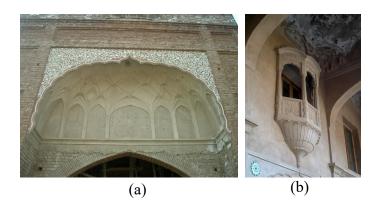


Figure 4.28. Lime plaster relief work (a) highly polished lime plaster finish (b) protruding window in lime (Source: Kamil Khan Official Facebook page, 2021

Plaster relief work at different parts for interior detail and some exterior ornamentation has been done by Ustad Jafar, as figure 4.28 (a & b) depicts. The ceiling of ribbed domes has been extensively ornamented by the traditional fresco work done by Ustad Rafaqat, as shown in figure 4.29. This type of fresco work has been vastly used in our historic architecture and is the most indigenous art form.

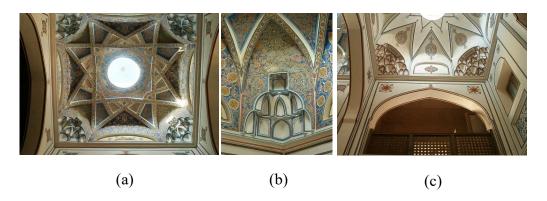


Figure 4.29. Fresco work by Ustad Rafaqat (a, b & c) (Source: Kamil Khan Official Facebook page, 2021)



Figure 4.301. Sindhi glazed tiles (a & b) (Source: Banjaiga project database,2021)

Sindhi glazed tiles from Nasar-purr are also used for interior finishes of the owner's family residential area, which are also indigenous and are locally produced in Sindh, Pakistan, a glimpse of which is shown above in Figure 4.30.

Moreover, the client also collected local antique items he found in local markets in Pakistan. As shown in fig 4.31 (a, b &c), the antiques were placed accordingly and incorporated into the interior and exterior design of the structure. All the indigenous materials are from different parts of Pakistan, but they blend in with the structure in a unified form.



Figure 4.31. Antique crafts collected by the client (a, b & c) (Source: Screen captures from Banjaiga documentary,2021)

All these elements and materials from different parts of Pakistan feel like a hotchpotch, but when it all comes together, there is an observation of the underlying governing aesthetic principle followed in design. A fundamental modular proportionality is examined with a standard size of 3ft x 3ft to connect everything.

• Represents Place-Making

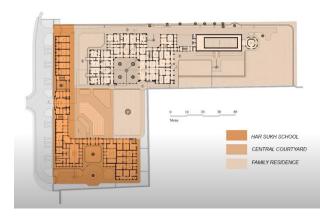


Figure 4.32. Plan showing major divisions of the complex (Source: Banjaiga project database,2021)

The planning of the whole complex is an arrangement of places and functions around several courtyards. These courtyards also serve the purpose of interlinking the spaces with different functions into a perfectly harmonized complex. Figure 4.32 shows

the division of the school from the residential complex. Both are interlinked with the central courtyard as a buffer zone marked by varying colour shades in the above image. The central courtyard with an amphitheatre is a mutual space for the interaction of the students, artists and the family residing in the Bina Jawad residence.

Making the central courtyard a pivotal place where there is no class segregation creates a harmonized place which depicts how social interactions should be. The courtyard represents a place rather than just a space comprising an amphitheatre amid a green landscape at one corner of the courtyard and a playground at the other, as shown in figure 4.33.



Figure 4.33. Central courtyard acting a pivotal place (Source: Banjaiga Har Sukh residency documentary screen capture, 2021)

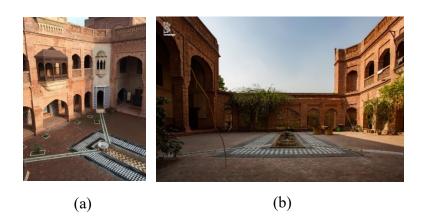


Figure 4.34. The courtyard acting as a gathering point of all family units (a & b)

(Source: Banjaiga Har Sukh residency documentary screen capture,2021)

The residential area comprises five residential units, all arranged around a central courtyard, which is used as a family gathering point. It can be seen in figure 4.34 (a & b) that all five family units have their privacy, yet the design ensures the essence of a connection between all of the family units due to the shared courtyard. Each unit has a

view of the courtyard and a beautiful water body, which promotes a sense of family unity and makes the place feel connected despite each family's separate residential unit.

• Adaptive to human needs

The narrative of establishing the school for the less fortunate demonstrates how the complex reacts to human needs. As the lady of the house and her daughters had a great deal of interest in music, painting, and classical dance, the complex was initially intended as a residential complex with a few dedicated facilities for the creative activities integrated. Several household staff was needed when the residents finally moved into their home once the construction was completed. They began by offering private lessons to the



Figure 4.35. School spaces adaptive to student needs. (a & b) (Source (b): https://harsukh.business.site/ Source (a):

children of their employees, but this quickly expanded into a whole school for the neighbouring poor. Teachers, artists, and experts from various disciplines of study lived there and taught the youngsters in a volunteer effort. The building is adaptive to however the human need evolves, and the evolution of the school proves it. A glimpse of it is shown in figure 4.35 (a and b).

Architectonics

The architectural character of Har Sukh is unique. It gives off an entirely different ambience as the structure transitions from the exterior into the interior of the building. As in figure 4.36, the overall massing is rather plain as compared to the interiors of the building. There is the presence of windows, arches and occasional jali work blended in a

unified form. The focal point of the front elevation is the main entrance, forming a frame for the entrance. It is a double-heighted multi foil arch with lime plaster relief work and decorated with floral patterns fresco in white. The main entrance contrasts with the rest of the elevation since it emits grandeur and is distinguished from rest of the front, yet at



Figure 4.36. The simple well balanced exterior form of the mansion (Source: Banjaiga Har Sukh residency documentary screen capture, 2021)

the same time, it is in harmony with the rest of the front façade. Even the lime mortar details are only used in the entrance, enhancing its uniqueness (figure 4.28 (a)).

From the entrance, one reaches directly into the courtyard. The exteriors view inside the courtyard comprises a series of arcades on both the building's ground and first-floor levels. The arcade is spread throughout horizontal lines and vertical lines where



Figure 4.37. The horizontal levels of arcade (a) vertical series of arcades (b) (Source: info3 360.com.2020

stairwells are located. (Fig. 4.37) The running arcade in L shape creates a sense of subtle repetition rhythm on the overall view of the structure.

On the contrary, the inside of the building is more elaborate and detailed. It is more structurally expressive and dynamic. The lightweight ribbed domes in double-height lobbies have more visual weight and a sense of rhythm and proportions, making their impact stronger. The detailed muqarnas, ribbed vaults and the elaborate flat brick domes show movement in the form of a spiral arrangement of red bricks, and these spaces described can be observed in figure 4.38 (a, b). Everything is controlled by the same system of harmony, rhythm, proportions, balance and symmetry, from designing the roof patterns to the plans based on the traditional art principles. These same principles are underlying in Khan's work.

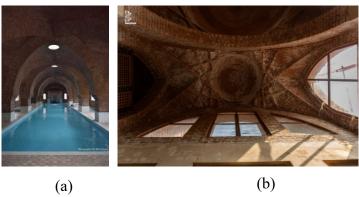


Figure 4.38. Strong impact of arched vaults (a) roofing over the pool (b) ribbed domes with double height (Source (a): info3 360.com, 2020 (b): Banjaiga Har Sukh residency documentary screen capture, 2021)

• Use of light

The architect has extensively and deliberately used different daylighting techniques like in ancient times, using oculus in the centre of double-height ribbed domes (as seen in the fig 4.39), flat brick domes and cross arched/ribbed vaults. The natural light entering through the oculus enhances the grandeur of these fascinating brick structures.

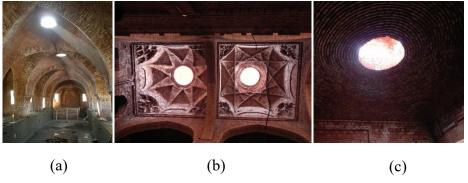


Figure 4.39. Oculus provided in double heighted spaces (a, b & c) (Source: Source: Kamil Khan Mumtaz Official Facebook page, 2021

Almost all the double-height halls are lit with clerestory windows, (as seen in the fig 4.40) another element which brings the daylight into the halls; however, the light is not direct; it gives a serene ambience to the studios and halls.



Figure 4.40. Clerestory windows in double heighted halls (a & b) (Source: Kamil Khan Mumtaz Official Facebook page,2021

The arcades also invite the light into the semi-covered walkways creating an exciting space to circulate within the building. The serene ambience of light penetrating the courtyard can be seen in Figure 4.41. Moreover, the periodic courtyards around which different building units are placed also act as a source of natural light in all parts of the building.



Figure 4.41. Sunlight infiltrating the running arcades (Source: Banjaiga Har Sukh residency documentary screen capture,2021.)

• Sensorial dimensions

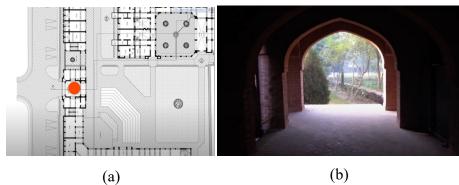


Figure 4.42. the spot from which the plan changes from a small dark space to an open space. (a)

The red brick façade is complementary to the lush green landscape of the site. When the viewer enters the complex from the massive gate into a small double-height lobby, the entrance from a small space to a big space creates contrast and enhances the openness quality. The sight of this openness is captured in the attached figure 4.42.

Once we enter through it, so much is happening at 360 degrees; all the angles consist of harmonized architecture and landscape detail that the viewer never gets bored with. The architect did not only focus on specific views but instead catered for the views from all angles. (Fig 4.43)



Figure 4.43. The view of surrounding landscape from inside the building (Source: Kamil Khan Mumtaz Official Facebook page,2021)



Figure 4.44. The bird eye view of harmonized complex (Source: Banjaiga Har Sukh residency documentary screen capture,2021.)

Consecutively, the architects designed the building to offer views of the surrounding landscape through arches acting as frames from inside the structure. Some parts also offer the views from inside of the complex, unifying the whole of the building. When a person stands in the residential complex or the artist's quarters, he can effortlessly be immersed in the activities being performed in the school as the central courtyard with the outdoor amphitheatre as the heart of activities of this complex. The section drawing attached can elaborate more clearly (figure 4.45). This courtyard also connects with the surrounding

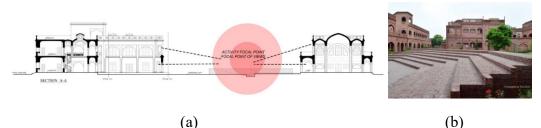


Figure 4.45.2 the courtyard acting as a visual focus (a & b) (Source (a): Banjaiga project database,2021. Source (b): info3 360.com,2020)

arcades, which further connects with the classrooms and studios, enabling the viewer from both sides of the building to be part of whatever activities are being conducted.

Due to the harmony and rhythm in the design, the shadows created give the viewer another sensory dimension. The Sciagraphy of columns in the arcade presents a unique sensorial dimension. The rhythm in construction creates the rhythm in shadows. (Fig 4.46)



Figure 4.46. rhythmic shadows forming in arcades (Source: Banjaiga Har Sukh residency documentary screen capture, 2021)

The shadows dropping on the elements on the ribbed domes and muqarnas enhance their three-dimensionality and add the element of mystery, thus, highlighting

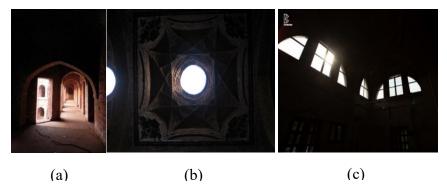


Figure 4.47. Daylight creating mystery in interior spaces and elements

(Source (a & b): Kamil Khan Mumtaz Official Facebook page,2021. Source (c): Banjaiga project database)

them even more. The mysterious aura is captured in the above-attached images (fig 4.47 a, b & c)

Use of modern technology

Although there is no typical use of modern techniques or materials in the construction of this building, khan has introduced innovation in building techniques to cater to the modern problems architecture is dealing with. The roots of our heritage architecture inspired the innovation he introduced. He experimented with covering large spans with just the local material, red brick, with steel reinforcements. He did that to make the structure energy efficient. He experimented with the techniques which have been lost and implemented them in modern times; thus, this effort of reviving forgotten local techniques back to the current day-architectural practice itself is an intelligent solution to modern-day problems.

4.3.2.2. Darul Hikmat School

4.3.2.2.1. About the project

Dar-ul Hikmat, a door/hallway of wisdom, is a non-governmental organization founded by Dutch Missionary Dr Professor Pieter Born and his wife, Mrs Else Born and designed by Kamil Khan Mumtaz. The aim of finding this organization was to create a platform for education and knowledge for Pakistan's deprived, marginalized, and underprivileged communities. Darul Hikmat was founded in 1987 on a land spread over 239572.35 square feet in the suburbs of Lahore near a Christian settlement. It was developed as a vocational training institute and a small primary school for the children of marginalized Christian communities located around that area.

The school is known to have been a victim of human corruption, which has left the building in ruins. A once-bustling double-story brick complex crowded with students is now a desolate ruin. Years of litigation have turned it into a ghost school. Noraiz Dilawaiz has allegedly hijacked the institute, a legal adviser of Darul Hikmat hired in 2016, through fake documents. The complaint about the illegal takeover was filed in 2020, and after the efforts of government and law enforcement agencies, it has finally been given back to the Christian community but the building has suffered an immense

loss. Almost all the electrical appliances like fans and light bulbs, classroom furniture, lab equipment and generators have been sold or stolen. Some part of the land owned by the institute has also been illegally sold. Some part of the interior finishes has also been damaged. Despite this vandalization, now the institute is in the process of restoration, and the Pakistani Christian community has high hopes for it to thrive as an institute for them.

Dar-ul Hikamat is a low-cost structure with several multipurpose spaces. The structure aimed to provide space for marginalized students, providing flexibility and scope for future expansion. The school later has been expanded to the high school level. Locally made red brick has been used both as structural and decorative material in the building. The overall emphasis of the design has been on local methods of construction and craftsmanship.

This design and construction strategy produces an ambience that is not frightening to students from low-income, marginalized urban and rural backgrounds. The building has been embellished with traditional crafts like frescoes, patterned marble floors, and carved wooden doors. Although the overall approach of khan in design and construction has been indigenous, he has still used modern spanning systems like RCC and waffle slabs. The spaces in the building consist of two hostels, playgrounds and multiple lawns and courtyards for school activities.

4.3.2.2. Aspects of Critical Regionalism

• Regional Character and indigenous Materials

The building in planning, the selection of material for finishing in most places, and even the structural element in walls has been indigenous, that is red brick (fig 4.48)



Figure 4.48. Walls made up of and finished with red brick (Source (a &b): Kamil Khan Mumtaz Official Facebook page,2021)

which is majorly responsible for giving the building "regional character". The overall planning of the building is in "courtyard style", which is very common in traditional Indian and Muslim architecture in south Asia. Apart from monumental structures, in ancient times, houses of the ordinary person were also planned in courtyard style, and this style is still dominant in old rural areas of Pakistan. The project is a low-cost design; the typical layout style in our land is most suitable for the project, and that is what the architect aimed for. The plan is a collection of courtyards along which arcades run, and classrooms are arranged in a symmetrical order.



Figure 4.49. Building exhibiting regional character through indigenous materials and landscape

(Source: Kamil Khan Mumtaz Official Facebook page,2021)

Red brick has been used as the structural material and left as unplastered, so it is the finishing material of the exterior too. Also, the semi-covered spaces like arcades have red brick as finishing material. The red brick characterizes the building as regional and indigenous, as shown in figure 4.49. The doors are made of locally carved wood, and the whole institute has been decorated with locally available plants.

Using indigenous materials and basic building techniques with no complex or massive structures led to financial savings. These savings were used in incorporating traditional crafts like frescoes, patterned marble floors, and carved wooden doors, thereby

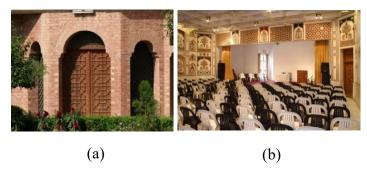


Figure 4.50. Details (a) wood carved door (b) elaborate fresco work (Source (a &b): Kamil Khan Mumtaz Official Facebook page,2021)

adorning the structure with traditional style and regional character. The incorporation of the crafts can be seen in the pictures. (Figure 4.50)

• Represents Place-Making

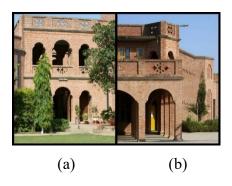


Figure 4.51. Multiple levels of arcades making a friendly space (Source (a &b): Kamil Khan Mumtaz Official Facebook page,2021)

The architect focuses on place making rather than space making, as seen through the design. The double-height courtyards run along the arcade, and classrooms around are provided with a surreal place for children to study, boosting their moods and creativity (figure 4.51). Moreover, the multiple courtyards' sizes are neither too big nor too small, giving a sense of relating and belonging to the children. They do not feel alien and



Figure 4.52. A visual access of both levels in courtyard (Source: Kamil Khan Mumtaz Official Facebook page,2021)

intimidated in the setting and can learn more efficiently in such an environment. Half of the courtyards are double-height on the front block of the building, where the structure is a double story. The running arcade on the first floor peeks into the courtyard on the ground floor; both the floors are connected by the voids, making the interaction of children on both levels easy. Image 4.52 shows this perfectly. It forms a focal point of activity for

children in their free time. The arcades formed around the courtyards serve as an activity area and playground for children in the hot climate of Lahore.

After entering the building, the central courtyard is divided into two parts through a bridge-like structure with an arcade underneath it. That architectural element is used to differentiate the spaces. The enormous courtyard serves as an entrance to the complex and an area for basketball for high school students, while the courtyard inside the arcade is more of a semiprivate place with an area for playgrounds for school children.

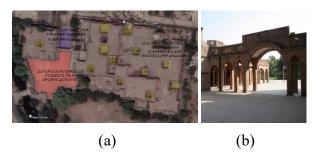


Figure 4.53. (a) Google earth view to give understanding of planning division (b)separation of main courtyard with an inner courtyard (Source (a): Google earth Source (b): Kamil Khan Mumtaz Official Facebook page,2021)

• Adaptive to human needs

The architect-designed the structure as adaptive as possible to keep the cost low and provide the users with more multipurpose spaces. The institute was intended to be a primary school for children of the marginalized Christian community, but later, a vocational training institute was also added. Also, after some time seeing this institute's success and response from the people, secondary and higher education was also included. The same building which used to cater for a primary school was able to cater for an entire school till higher education, which is evidence of the adaptive structure. It also has a multi-purpose hall, designed in such a way that it is used for events, gatherings, and

religious purposes. It can act as a hall and a church according to the need. The space can be observed in the image below. (Fig 4.54)



Figure 4.54. Interior view of the multipurpose hall (Source: Kamil Khan Mumtaz Official Facebook page,2021)

Architectonics

Although the structure is erected on a simple plan, the architect has used the ending of corridors and other areas from the exterior to create periodic angular corners with protruding archways leading to corridors and some simply to create symmetry and visual effect with blank walls. It feels like the architect has given these protruding corners to break the bland, monotonous form and create some repetition and variety in design without the presence of any exaggerating architectural form, the protruding chamfers can. (Figure 4.55). At some points of building these angular corners evolve into obtruding half hexagonal structure where the emphasis is required like entrances. These angular chamfers are mildly embellished with arches, arched windows, subtle cornice on the level of first floor slab and plain prick openings forming a simple brick jali.



Figure 4.55. protruding angular corners of the building (Source (a &b): Kamil Khan Mumtaz Official Facebook page,2021)

• Use of light



Figure 4.56. Double heighted courtyards acting as light wells (Source: Kamil Khan Mumtaz Official Facebook page,2021)

The arcades and courtyards acting as light wells at several locations in the building is a main element which invites the light inside the structure and classrooms making the ambiance warm and lively. The multiple courtyards located invite the light in acting as a light well and a beacon towards which the user is attracted, the ambiance can be felt in figure 4.56. The courtyards act as multiple focal points of light in plan which also makes it an activity focal points inside the building. The shadow engulfs the building but arcade and courtyards propagate the light inside the classrooms which creates a mesmerizing site.

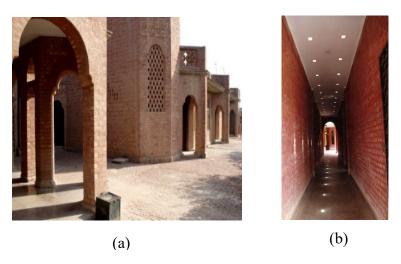


Figure 4.57. (a) brick jail inviting light inside the corridors(b) translucent light bricks used for corridor lighting (Source: Kamil Khan Mumtaz Official Facebook page,2021)

The protruding chamfers at the edges of corridors and classrooms are also a means to invite light inside the corridors through open arches or brick openings forming jali.(fig 4.57 (a))

In some corridors, on the roof, brick size spaces have been left open and bricks made up of glass like material has been fixed there, which acts a little light bulb. This is done to lit up to corridors which are dark and have no light source. The visual of the light bricks is shown in picture (fig 4.57 (b)).

• Sensorial dimensions



Figure 4.58. Entrance gate to the school (Source: Kamil Khan Mumtaz Official Facebook page,2021

The overall structure has a peaceful aura. The only massive element is the entrance gate arch, which shows a strong, intimidating front shown in figure 4.58. Once the user starts observing the complex, the local material, traditional crafts, and elements can be seen harmonized; balanced architecture elements and appropriate scale give a welcoming vibe. The overall structure is also in harmony with its landscape. The plantation is neither too messy and wild nor too plain. It seems like a structure where marginalized children can feel at home and be protected. The main multipurpose hall is contrasting and striking compared to the rest of the institute's interior. Its walls are embellished and adorned with



Figure 4.59. Elaborate fresco work with christian cross symbolism embedded in the art form of multipurpose hall (a & b)

(Source (a &b): Kamil Khan Mumtaz Official Facebook page,2021)

elaborate fresco work, incorporating Christian symbolism. It is almost as if the hall was designed with a special purpose; it has been given a special status in the whole building. The double-height hall is covered with elaborate and colourful fresco work on the walls, including several Christian cross-shaped niches. (Figure 4.59 (a & b)). The waffle ceiling above gives the hall a great atmosphere. Compared with other structures in the complex, the hall seems to have royal status—a place of gathering and worship, where something important takes place.

• The use of modern technology

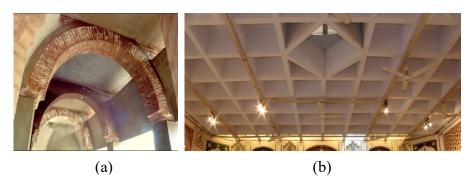


Figure 4.60. brick arch supporting RCC slab (a) waffle slab of multipurpose hall (b) (Source (a &b): Kamil Khan Mumtaz Official Facebook page,2021)

Although it seems that the structure is overall regional and indigenous, modern technology has been used to combat problems like cost-effectiveness, time-saving and reduced labour work. Concrete and RCC slabs, modern-day construction techniques for covering large spans like waffled slabs, have been used inside the building. The hints of modern modes of construction and techniques can be seen in figure 4.60 (a & b). Although the architect disagrees with using any modern tool, the structure cannot be economically viable if human labour is used in the way it was used in Mughal times. Window frames are also made of metal and are covered with decorative pattern metal jali to keep security in check and preserve the aesthetic point of view.

4.3.2.3. Oxford University Press Office, Karachi

4.3.2.3.1. About the Project

The idea for the Head Office Building was started by the Oxford University Press (OUP). Located in Karachi's Korangi industrial zone, the building has a basement and four levels. Kamil Khan Mumtaz designed this office building based on Karachi's British colonial-era architecture and is sensitive to the marine environment. The British colonial style is prevalent in most historic buildings and influences modern architecture in Karachi. The goal of the design was to create a "Karachi" building that merged with Karachi's regional flair. The publishing company wanted a structure that incorporated Karachi's essence and a dust-free structure. Since Karachi has windy weather typically, letting it to much air in the building may have brought in dust too. As a result, the architect planned the structure to be as functional as possible. Due to the building's limited purpose, he included HVAC systems, but he also added traditional craft and regional design to the exteriors and interiors, respectively.

The architect hired initially for its design was Kamil Khan Mumtaz, but in 1999, his appointment was cancelled due to unknown reasons, and his local associate Murlidhar Davani was assigned to take the project to the completion phase. In July 2000, khan was re-appointed as the architect. Until then, the frame structure had already been made, but his design's original concept was dead. He had to redesign the building based on that existing frame structure. The architect was dissatisfied with the final product because of the many adjustments made throughout the building's design and construction. It was made part of the research to look into the southern part of Pakistan and how the regional aspects can be used in architecture there.

A rectangular layout divides the building into three sections, two of which are open plan and the third of which has vertical circulation services for the structure as a whole. The MD's office and distribution department are housed on the ground level. The first and second levels of the building are used by the design, production, marketing, IT, the academic section and editing departments. On the third level, in the dining facilities. The uppermost level of the building is vacant for future expansion. The structure displays a variety of traditional arts and crafts, including brass and copper metalwork, lacquer

painted Naqashi in false ceilings, creating frescos, Sindhi glazed tiles on walls, stairways, and hallways, Sindhi Ajrak patterned floor tiles, and much more.

4.3.2.3.2. Aspects of Critical Regionalism

Regional Character

The architect has significantly imbued the building with regional character in two distinct regional styles, the façade portraying the regional representation of British colonial architecture and the interior exhibiting and adorned with traditionalist Shindi

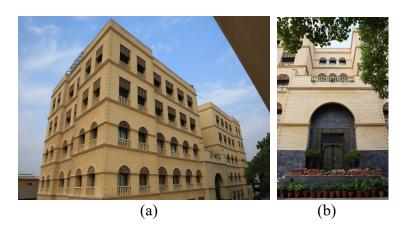


Figure 4.61. (a) the overall reflection of British colonial architecture style in building (b) contrasting traditional entrance archway (Source: Kamil Khan Mumtaz Official Facebook page,2002)

arts, crafts, materials, and components. The outside is a contemporary construction wrapped in regional design, with British colonial-style components dominating Karachi and light yellow "Gadap" sandstone from the foothills of the Kirthar Range near Karachi serving as the building's external cladding. The exterior is visible in figure 4.61 (a). The use of stone and the overall style of the elements reflect the city's British colonial architecture. It is responsive to the maritime environment and employs native stone and construction materials. When the user's eye moves from the macro-sized elevation to micro details of the main entrance; the material usage as well as the character of the entrance archway changes from contemporary to traditional regional style, which somewhat gives a trailer of the traditional interior of Shindi style (seeing from figure 4.61 (a) to figure 4.61 (b)). The main door is brass and copper "chitrai" door of pure Shindi style.

• Indigenous Materials



Figure 4.62. Indigenous "gadap" sandstone finish of a modern frame structure (Source: Kamil Khan Mumtaz Official Facebook page,2002)

The frame construction of the building is composed of contemporary elements such as reinforced concrete slabs, columns, and concrete blocks. However, the outside and interior of the building have been finished using indigenous materials. Despite the constraints imposed by the building type and functional requirements, the use of native materials for the structure's exterior reflects the architects' attempts to balance the structure and its surroundings. (Fig 4.62). With this endeavour, the architect demonstrates how the design and thought process underpinning all of his decisions leads to a genuinely critical regional perspective.

The external cladding of the structure is in pale yellow "Gadap" sandstone from the foothills of the Kirthar Range in the vicinity of Karachi. The finishing work has been



Figure 4.63. (a) elaborate indigenous embellishments for interior (b) chitarai antique brass and copper emboss work on door (Source: Kamil Khan Mumtaz Official Facebook page,2002)

done by a family of stone carvers who migrated to Karachi from Rajasthan. The wooden louvres on the windows are the choices that were not merely made to provide ethnic

touches but because they were functionally and economically better options compared to available modern alternatives. The main entrance door is embossed brass and copper work. This type of work used in the door is called "chitrai". A visual of the antique work on the door is shown in figure 4.63 (b). The traditional naqashi work on the false wooden ceiling (fig 4.63 (a)) employs natural mineral pigments in a water medium with Saraish (adhesive). Sindhi glazed tiles (fig 4.63 (a)) are used on walls of corridors, stairwells, and office areas. Sindhi ajrak patterned floor tiles are used in the entrance lobby and all other office areas. (fig 4.63 (a)).

• Represents Place-Making

The interior of the publishing house is a striking example of place-making. The aura of the office is very different from a typical office environment, this can be observed in figure 4.64. The warm and lively atmosphere in the office is created due to the incorporation of traditional crafts and materials, which are pleasing to the eye.



Figure 4.64. Warm lively and colorful office environment with a traditional touch (Source: Kamil Khan Mumtaz Official Facebook page,2002)

The circulation spaces, like the lobbies, corridors, and stairways, have dados in glazed Shindi-style tiles in different shades of blue. The Ajrak patterns on tiles, fresco art patterns, wooden ceilings, Shisham wood staircase, bamboo blinds on windows with jharokha installed with a skylight above in the main entrance lobby depict a characteristic feature of the street façade of the traditional Sindhi towns; all these elements express the character of the local community which makes instils in the user an immense sense of belonging. It also increases the productivity of the office workers since they work in an inspiring and stimulating place rather than just a space. Also, the architect might have smartly used the office space as an exhibition space for local crafts and art, as the OUP head office often hosts foreign visitors and delegates. This place also acts as a canvas and

promotion ground for local crafts and arts, strengthening the space's character and transforming it into place.

• Adaptive to human needs

The architect has designed the building so that most areas, excluding circulation spaces, are adaptive to the user's needs. The planning is divided into three parts: the



Figure 4.65. Major functional divisions in typical floor plan of the building (Source: nomination report submitted to agha khan trust by Kamil khan,2007)

central core of the functionality of the building like management offices, vertical and horizontal circulations, and services like toilets and storage. The remaining two remaining parts on the edge of the overall rectangle are open plan areas where most of the spaces are divided with furniture, apart from some rooms placed in corners divided by partition walls. The figure of the plan above highlighted with different colours can be observed (fig 4.65). Also, the building holds the potential for future expansion vertically as the fourth floor has been dedicated to it. Its plan is typical for other floors but can be modified later per human or functional requirements. So, the overall design is adaptive in its typology.

Architectonic

Despite the building being an overall block form, the architect has managed to make the building form divided into three masses. The two-block masses conjoined by an overall recessed mass break monotonous block form. The drawing of the front elevation attached depicts that. (Fig 4.66). The building's shape is further accentuated by offsets on both sides, which seem if the rectangle's corner has been cut and pushed outward. The middle mass is more in height than the rest, making the overall recessed mass and the entrance lobby the focal point of the overall structure. A massive double-height entrance archway embellished with traditional doors and contrasting materials distinguishes the form of the entrance, yet the overall structure is unified in perfect harmony.

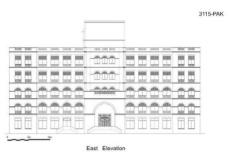


Figure 4.66. The elevation (Source: nomination report submitted to agha khan trusts by Khan,2007)

• Use of light



Figure 4.67. Diffused day lighting entering the building (Source: Kamil Khan Mumtaz Official Facebook page,2002)

The architect has not invited direct sunlight or sun rays into the building as the function of the building does not allow it, nor does the climate of Karachi, with hot summers and high humidity levels. So, he smartly allowed the diffused light into the structure by giving recessed windows on all sides of the building. The recessed arched

windows are accompanied by wooden louvres, which work together and allow only diffused light within the building, which is helpful for the building's function. (Figure 4.67).



Figure 4.68. Double height lobby with skylight and jharoka showing ambiance of traditional shindhi street

(Source: Kamil Khan Mumtaz Official Facebook page,2002)

To create an ambience of an old Shindi Street in the entrance lobby, a skylight has been designed over it, with a metal mesh-shaped frame and fibreglass to give the feeling of light infiltrating through the buildings of traditional congested yet mesmerizing Shindi streets. The user's view of the skylight in the lobby can be seen below. (Fig 4.68)



Figure 4.69. (a & b) Vibrant interior finishes (Source (a &b): Kamil Khan Mumtaz Official Facebook page, 2002)

Sensorial dimensions

The architect has developed a drastic contrast between the interior and exterior designs, which gives the user and the visitor a unique sensory experience through the building. The traditional entrance archway, amid a somewhat contemporary modern facade, acts as a focal point of the elevation from the outside and prepares the user for what he will experience inside. The entrance archway is just a glimpse of what the user will experience inside; it prepares the person for what comes next. However, at the same time ones gets shocked as they transition from the exterior to the interior as the vibrant

colors shine vividly in the users' eyes. (Figure 4.69) When one gets inside the circulation spaces also provide a beautiful sensory experience.

• The use of modern technology

The grey structure of the building has been totally made modern, by using modern materials and techniques. The basic structure is a frame structure made by using poured in situ reinforced flat concrete slabs, RCC columns and pile foundations. The building has been highly equipped with modern technology, like artificial lighting, mechanical ventilation, air conditioning systems (figure 4.70), information technology and other necessary services.



Figure 4.70. (a) Use of modern technology (b) Mechanical ventilation (c)modern means of lighting (Source (a, b & c): Kamil Khan Mumtaz Official Facebook page, 2002)

4.3.2.3.3. Analysis of the Architect's Work

Kamil Khan Mumtaz's previously examined projects suggest that his work is purely traditionalist, given the prominence given to brick and wood, frescoes, traditional architectural features and methods in the designs. However, these buildings also have a strong sense of critical regionalism at their core. Firstly, two of his initiatives had a significant social and economic influence on society since they both grew into a school serving the community, which was not initially intended for one of the projects. While the third is more of a symbol representing the southern region of Pakistan and its connection to Oxford, His designs are constructed with local resources to the extent the client permits and adaptable to the ever-changing human need.

According to the khan, "An architecture based on appropriate technology will fail to convey its message unless it also employs a language that is appropriate and meaningful in the context of a specific culture." Khan's approach to critical regionalism is to imbue the design with significance within the context of a particular culture, utilizing the appropriate technology. In his interview with the author (Appendix B), Kamil Khan endorsed the idea further by referring to himself as a student who is still learning the local tradition to practice them even better, although no one in the field has comparable knowledge to what he has.

In designing Har Sukh, the intention was to create a structure that provided the most plausible answer to the environmental degradation issues caused by mass-produced structures. The client shared the architect's values and imposed no financial limits. In developing Har Sukh, Kamil held that it is neither about romantic traditionalism nor glorifying tradition. It is only a matter of survival and doing the right thing. Since he sets a three-year deadline to survive on this planet genuinely, even that is feasible if we do not change our habits. (Appendix B) Therefore, throughout the design and construction of the project, a critical approach was chosen to cope with contemporary environmental and social challenges, which resulted in a critically regional perspective as he tested and solved contemporary challenges.

On the other hand, Dar ul Hikmat was required to be a low-cost and low-maintenance structure for the underprivileged minority; khan smoothly blended regional form and innovative materials with modern technology to save time and cost traditional

spanning systems and stay purely indigenous in materials as the finance and time was limited in this project.

His design for the third project has a more open and visible combination of current technology and regional characteristics. Partially owing to the role of the building, he tackled the design differently, including contemporary modern style and techniques that were required despite being removed and reassigned as an architect in the middle, but he somehow managed to provide the most suitable and regional solution. As he even describes himself in an interview with the author on how strange the experience was, "we had to retrieve whatever we could from the structure to make it as similar as to what we had conceived initially."

After analyzing his design process and results for each of these projects, it can be said that Kamil Khan Mumtaz addresses every project as a challenge. During the interview with him (Appendix B), when asked about the phenomenon of critical regionalism and his take on it, he commented that he practices what he considers right without actually following an "ism". Which, according to him, gives the writer the

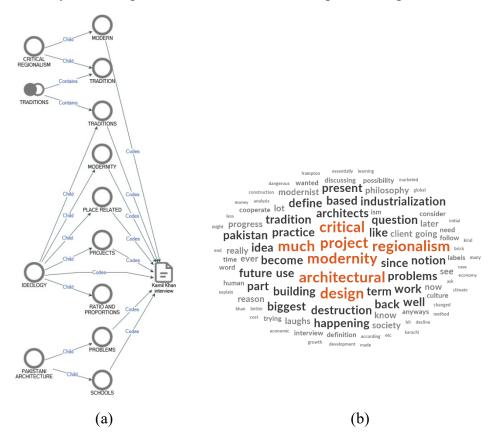


Figure 4.71. Contextual analysis of khan's interview (a) connection of terms (b) the cluster of words

(Sources: Author, NVivo software, 2022)

freedom of how he wants to interpret his work. After the contextual analysis of his interview, relationships were developed between the interview's main themes and his sayings, and the frequently used words were extracted (figure 4.71). The diagrams exemplify that even if he is not referred to as a critical regionalist, his projects and conversation can be analyzed as showing that direction. He admits that whatever he uses as technique or material has the modern term attached to it, and he already is a master of local tradition, and their blend is the idea behind Critical Regionalism.

It can also be stated that he approaches the project as a problem to be solved, considering limitations such as economics, energy efficiency, environmental effect, pollution, regionalism, culture, spiritual dimensions, users' identity, and time. Then, the design he presents is a meticulously conceived answer to all of these issues while preserving the regional character of our architecture, which, after studying his work, seems the most critical regional strategy.

Table 4.2. Summary of Case Studies

	KAMIL KHAN MUMTAZ					
Summary of Literature on Critical Regionalism		Har Sukh Art Residency	Dar-Ul-Hikmat School	Oxford university press office	Observations and generalizations	
Aspect	Explanation	Features	Features	Features	generalizations	
Regional Character	Depict the region, from its topography to light and the call to create architecture in response to that context.	The regional structural techniques used for spanning	Creating spaces that are well suited for the climatic conditions- materials used that are low-maintenance	The use of materials and styles to unify the building with the predominant regional style of Karachi. Elaborate interior with traditional art forms and crafting techniques.	It varies from project to project, and a in-depth analysis is required to understand the character.	
Indigenous Materials	The use of local material as an attempt to depict both the context and empowering the local economy.	Use the most common material, the red brick, as structural and finishing material.	Again, the use of locally produced brick, interior and exterior, decorative frescos, and wood-carved doors.	The use of pale yellow "Gadap" sandstone as external cladding. Variety of local materials used in interior detailing	Usage of locally produced brick (Lahore) and sandstone (Karachi)	
Represents Place-Making	Prioritize place-making over space-making; a place, which is a collection of spaces, expresses the character of a local environment and community.	The merging of 5 family residential units while maintaining their privacy yet having spaces to interact as a joint family and at the same time, harmonizing the social activities being conducted in the mansion with the residence.	Double-height courtyards, children's play areas-the arcade that encloses the inner-courtyard	Vibrant and lively interior designing of office spaces, with an overall warm atmosphere making a dull office space full of character. Opposite to what a contemporary office is. Traditional craft showcasing expressing character and environment of the local community	Social spaces and vibrant interiors	

(cont. on next page)

Table 4.2. (cont.)

Adaptive to human needs	The capacity to respond to the changing social and humanitarian needs of the user.	Adaptive despite the functional change of some part of the building.	Evolution of the institute from primary level school to high school. multi-purpose spaces	Open plans can be adaptive according to need, with a scope of future vertical expansion.	The prospect of future expansion considered
Architectonic	The focus should not be on scenography instead on architectural tectonics and details.	Flat brick domes, muqarnas, and interlocking ribs are used as spanning systems as well as aesthetic elements	The square entrances on the corners	Two block masses conjoined by an overall recessed mass breaking monotonous block form. Contrasting entrance in materials and style	Architectural features that were generated through play in structural elements
Use of light	Consider light as a fundamental aspect in revealing a building's tectonic qualities and enriching the quality of the space inside.	Use elements like oculus in domes, clerestory arched windows in double-height halls, and several courtyards surrounded by arcades for lighting spaces and design elements.	Corridor lights, triangles on the classroom corners	recessed windows invite-only diffused light into the structure. Louvre shades are used for diffusing direct light Entrance lobby skylight	Through the use of variety of light sources and shading, oculus in domes, clerestory windows, louvers etc.
Sensorial dimensions	Other factors like, tactility and sensorial dimensions are also vital in creating a comprehensive experience of the built form.	Brick facades compliment yet unify the landscape surrounding the building.	The internal courtyards, use of frescoes	Drastic Contrast between interior and exterior designs. The traditional entrance archway acts as the elevation's focal point and prepares the user for what he will experience inside.	It varies considerably. Experiential qualities are identified.

(cont. on next page)

Table 4.2. (cont.)

The use of modern technology	Compounding technological advancements within the local environment to address today's challenges	The use of old techniques to combat modern challenges. Adhering to the traditional principles to make the structure sustainable.	Concrete slabs, modem-day construction techniques- waffled slab. Although the architect disagrees with using any modern tool, the structure cannot be economically viable if human labour is used in the way it was used in	modem-day construction techniques Poured in situ reinforced flat Concrete slabs, frame structure, and pile foundations. Open planning	A more sustainable approach in recent projects. Mainly deals with spanning systems and concrete usage.
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4.4. Contemporary yet Traditional: Naeem Pasha.

4.4.1. Biography

"Just before my middle exams, I had a knee injury that got bad, and I was lying on the sofa most of the time. One day, my brother quizzed me about my plans, and I mentioned me wanting to be an architect. He laughed it off and warned me that I will end up with grey hair and thick glasses like all the other architects," he shares, adding how at the time, there were no colleges offering a degree in architecture and his family could not afford a foreign education either.

In his early years, He attended school in his hometown of Abbottabad, and after completing FSc Intermediate, he enrolled in the National College of Arts (NCA) in Lahore. So, he went to study there for a year and a quarter, till 1962. He enrolled in the Engineering University Lahore's new architecture department since it offered degrees, whereas the National College of Arts just offered a diploma. However, he claims that his heart remained in NCA despite spending five terms there. "Especially the first year, a combined year which teaches you much more than just drafting or architecture. You work with wood and metal — you design things, you draw things. You can go and do sketching and all that. I was fortunate that from a very early age, I could draw. Even at the age of seven, eight, nine, I could draw. I could enlarge little patterns that my mother gave me for putting on a pillow cover so that the women from the village could come and craft and stitch it." ("Lighting the Fire: Interview with Naeem Pasha | Artnow" n.d.)

Then, from 1962 until 1967, he studied architecture and worked in Multan and Lahore. After graduating in 1967, he joined the CDA as the Directorate of Architecture for three years. By 1972, he started a master's degree from Pennsylvania State University, State College. He spent five years in the USA, and after finishing his master's degree, he worked there for the remaining three and a half years. Mostly in Pittsburgh, but also Upstate New York, Watertown, and the Butler Town neighbourhood of Pittsburgh. When he was with the City Planning Department in the US, he also submitted a concept for the 1984 World Fair, which Pittsburgh was competing for. When he returned to Pakistan in 1977, he formed a partnership with architect Suhail Abbasi and established Suhail & Pasha Architects.(Samina Iqbal 2018)

The Peshawar Museum and Department of Archaeology, the State Life Tower in Islamabad, the PAF Academy in Risalpur, and the Art and Craft Village in Islamabad are among Pasha's works.

He was one of the architects of Islamabad's National Art Gallery. "In 1981, the first competition was launched and was awarded to Naqvi and Siddiqui," he wrote on his website, disclosing the facts of NAG. The People's Party administration rejected the original design criteria in 1989, and the same competent architects were invited to remodel under new rules. ("Naeem Pasha – Naeem Pasha" n.d.)

Several different architects, including Naqvi and Siddiqui, Nayyar Ali Dada, Habib Fida Ali, Suhail and Naeem Pasha, participated in the competition. An international jury of architects, artists, and theatrical experts evaluated all of the submissions and chose the winners to be Suhail Abbasi and Naeem Pasha of M/s Suhail and Pasha, Architects and Planning Consultants in Islamabad.

Although Pasha believes that buildings should always be designed from the inside out, he also believes that architects usually develop an envelope and then attempt to fit their purpose into it. It contradicts his belief that structures should always be planned from the inside out. Pasha looks up to Louis Isadore Kahn as a mentor, despite having never met in person. "Kahn believes we should start looking for the entire and then go seeking for the pieces after we have the whole," he explains. "If we start by putting together pieces, we will never make a whole. But while evolving an idea, always have a certain scale in mind," he adds. Pasha expands on his argument, saying, "People keep worrying about arches and windows, but not many cares about what's going on within." ("Naeem Pasha, National Art Gallery Islamabad Architect Receives Tamgha-i-Imtiaz - Culture" n.d.)

He refers to Kahn and adds, "When you are designing a building there is a lot of noise and excitement. When the building is being constructed, it is also very excited about being constructed and everyone listens to it. Once the building is in servitude, nobody listens. Again, when the grass starts growing out of its foundation, it tells a story, and people are eager to listen. If you go to Takhtbai or Taxila today, you can read into their story because of the scales and units." ("Creating Art out of Bricks" n.d.)

One of the buildings designed by Pasha that is most well-known is the Saint Thomas Church in Islamabad. Famous for its well-lit interior spaces, pasha presents the challenges when it comes to the construction of intelligently well-lit places; "The Europeans told us that north light is the best light, so we followed it blindly, not comprehending that in Lahore, Rawalpindi, and Abbottabad, the north is completely

black." Pasha adds, "As a result, the orientation is determined by where you are. Our building, like our art, will ultimately have its own idiom. Perhaps not today or tomorrow, but certainly in next 100 years. We are gradually but steadily creating our own architectural character." ("Creating Art out of Bricks" n.d.)

4.4.2. Case Studies

The projects below are designed and executed by the office of Naeem Pasha and will be reviewed considering the findings reached in Chapter one.

- 1. St Thomas Church-Islamabad
- 2. Pakistan National Council of Arts-National Gallery of Arts-Islamabad
- 3. WAPDA training center and residence- Islamabad.

4.4.2.1. St. Thomas Church.

4.4.2.1.1. About the Project

St. Thomas Church in Islamabad, established in 1970, is the Church of Pakistan. Today it also serves as the Community Health Network and the Literacy Project, which educates young children. Before its construction in the 1980s, the Lahore Diocese felt the need for a national Church to represent the Christians in Pakistan worldwide. Hence the architects Naeem Pasha and Sohail Abbasi were tasked to create a building that encapsulated all Christian beliefs and embodied Pakistani architectural ideologies. The result is the present-day Church located in the G-7/2 sector of the capital of Pakistan and is a successful manifestation of the architects' and the people's vision.

A red brick structure rising in the middle of a residential area invokes a modern minimalist Church form while simultaneously creating a nostalgic Mughal aura. The Mughals inspired the meticulous layering and patterned brickwork in keeping with the local skills of the labour. The overall form of the Church is in stark contrast to the monolithic Victorian churches built during the British era across Pakistan. However, it is still instantly recognizable as a church. Intercrossing panels of brick define the interior echoes the exterior facade as spaces, and light is used to sculpt the places of religious importance. Again, the brick has been treated in various forms; its varying textures and

sizes create and encourage the play of light within the space. The central worship's pace is shaped as a cruciform and simple cross of varying sizes, and intricate jalis are the only ornamentation.

The Church of Pakistan succeeds in preserving the religious sanctity and retaining the cultural history within its walls. Its balance between being a religious symbol while being so thoroughly steeped in Pakistani culture intercepted us to such a degree that we are now better able to understand our fellow citizens of the Christian community.

4.4.2.1.2. Aspects of Critical Regionalism

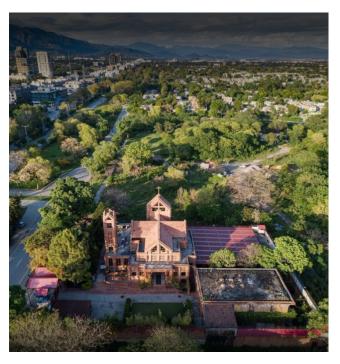


Figure 4.72. Aerial view of the church (Sources: Webpage, pk. worldorgs,2020)

• Regional Character:

As per Islamabad's master plan, this lush green sector was designated for a church (figure 4.72). So, it was the architects' task to design a building that fits well within the vegetation and acts as a landmark not just for the minority but for Pakistan. The contoured site made it easier to plan the church in two parts.

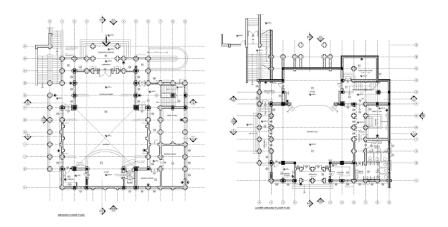


Figure 4.73. Ground and lower ground plans (Source Naeem pasha's office sent it by mail to author, 2022)



Figure 4.74. Cathedral of saint Peter and Paul (Source:https://commons.wikimedia.org/wiki/File:Sacred_Hear t_Cathedral, Lahore.jpg))



Figure 4.75. Sacred Heart Cathedral (Source:https://commons.wikimedia.org/wiki/File:Sacred_Heart_Cathedral, Lahore.jpg)

The ground floor plan (figure 4.73) is accessible from the main entrance and the lower ground accessing the recessed portion of the site. The overall character of the church contrasts with the majority of the churches built in Pakistan since most of them

were built pre-partition and the ones built later are all modern in their character. The cathedral of Saint Peter and Paul in Faisalabad is an example of a post-partition church built in 1969 (figure 4.74).

Whereas most churches resemble Sacred Heart Cathedral built in Lahore. It dates back to 1906 (figure 4.75). With a predominant gothic character, these structures have a character that stands out compared to other buildings built around them.



Figure 4.76. Front view of the building (Source: https://www.facebook.com/st.thomaschurchisb/)

As for the St. Thomas Church, its predominant usage of brick encased in the symmetrically divided plan and structure makes it seem more regional (figure 4.76)

Figure 4.77 shows that the boundary wall is stepping according to the site's natural level differences.



Figure 4.77. stepped boundary (Source: Google maps Thomas church,2020)

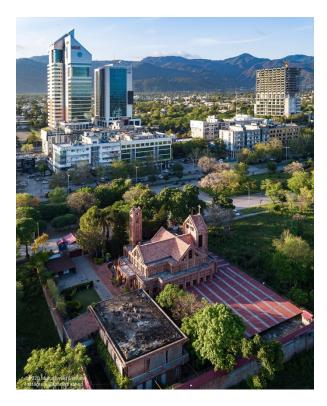


Figure 4.78. Aerial view with context (Source:https://www.google.com/maps/place/St.+Thomas%E2%80%99+Church/@3 3.7088763,73.0585417,3a,75y,90t/)

The right-side deals with the entrances, and the left lower portion of the building is accessed from the lower ground. Using the site levels and representing its profile with bricks depicts rich local tradition on the backdrop of multi-storey structures, as seen in figure 4.78.

• Indigenous Materials:

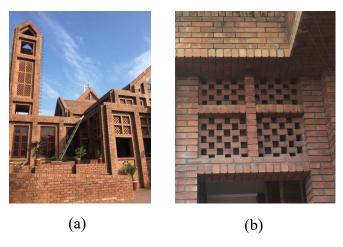


Figure 4.79. (a) Brick façade (b) brick jali details (Source: Naeem Pasha Office, 2022)

The architect chose orangish-brown bricks as the primary material for the construction as they are locally available, and affordability and maintenance costs are meagre (figure 4.79 (a)). They act as a vertebral column for construction. These bricks are excellent insulators and resist heat from being absorbed during the daytime; this helps sustain the church's temperature. Another reason for using red bricks was that it has a better sound performance where they can block the sound from outside.

Brick mesh pattern, also known as jalis (figure 4.79 (b)), is another indigenous technique to let air flow but block direct sunlight. These jalis were predominately used in Mughal-styled architecture as they relied on natural air movement through buildings. Moreover, since the building faces east (as all altars face west), these brick jalis block the morning sun and let the cool morning air hit the front elevation.

• Adaptive to human needs:



Figure 4.80. (a) The semi open space outside for school (b) multipurpose basement space for events (Source a: https://goo.gl/maps/3pcQ4hfqAvSm84KQA Source b: https://goo.gl/maps/sQhs1vQjNRfu2R667)

The approach for this church was to create a multi-purpose space accessible and well connected to other essential places in those areas and activities. The church was a complete unit for the Christian community as it performed its duties as a Sunday school (figure 4.80). Bazaar for their holy events and celebration. Playground attached for the tournament; in fact, this church act as a complete unit to serve the Christian society in every possible need.

• Architectonics and modern technology:

Upon looking at the structure of the building, which is majorly constructed in brick, there are still signs of being expressive in a modern language. The limited funds are another inspiration source for experiments and techniques used in the spanning systems. The architect wanted to keep the face-faced beams and roof covering the top so that the materials' true character and structure could be expressed (figure 4.81). The usage of cross-corner beams to support the massive load of the concrete roof is an attempt to cut down steel costs without compromising on the strength of the structure.

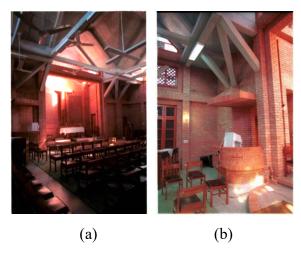


Figure 4.81. Cross corner beams supporting the concrete gable roof (a & b) (Source: Naeem Pasha official webpage. n.d)

Moreover, gable roofs, cross-shaped columns, interlocking ribs structure and waffle roof on the lower ground floor add further details and expressiveness to the interior of the building. An effective balance between the elevational details and the inner structural features has been accomplished effectively (figure 4.82). These attempts also represent a conscious effort on architects' behalf to incorporate modern construction techniques in a regional style.

• Sensorial dimensions via the use of light:

Architects employ exposed materials, like bricks, to finish those functions well for both inside and outdoors. In order to establish a feeling of homogeneity, natural wood for shuttering is exposed; this gives the impression of a wooden roof, which is common in Japanese architectural design. The structure is environmentally friendly, has minimal

maintenance, and does not include any plastering. Although these features have been discussed previously, these factors add to the overall experience of the building.

The high-pitched roof features clerestory openings above the altar and on the opposite wall that offer a sensation of heavenly light, which is particularly effective in



Figure 4.82. Front elevation (Source: Naeem Pasha's office, n.d)

churches (figure 4.83 (a)). The light travels over the altar throughout the day, adding a movement to the subtle and fixed finishing.

To keep the whole building cold, the main hall is encompassed by verandas on all sides, which take in the direct sunlight, thus not letting it reach the main hall and further aiding in temperature regulation within the building.

The Baptism area (figure 4.83 (b)), located in the north of the structure and left open to the sky, gives the feeling of being in direct contact with the sky.

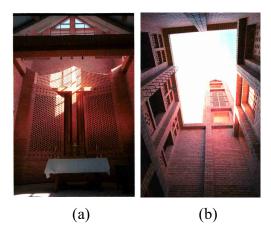


Figure 4.83. (a) Altar and its light movement (b) baptism area (Source: Naeem Pasha official webpage. n.d)

4.4.2.2. Pakistan National Council of Arts-National Arts Gallery

4.4.2.2.1. About the Project

By a 1973 Act of Parliament, the Pakistan national council of Arts (PNCA) was established to lead arts growth in Pakistan. It seeks to create a climate favourable to the development of the arts, where the arts are accessible to everyone and where artists and art organizations have the dedication, financial support, and resources to thrive at home and on the international stage. The Board of Governors, which reports to the federal minister for National Heritage and Integration in the Ministry of Information, formulates PNCA policy. National Gallery of arts is the council's headquarters in Sector F-5/1, Islamabad, Pakistan.

In 1972, Prime Minister Zulfiqar Ali Bhutto selected Faiz Ahmed Faiz as head of the Pakistan National Council of Arts and Crafts, which was afterwards divided into the Pakistan National Council of Arts and Lok Virsa, two separate departments of the same cultural lineage. The inaugural tournament was held in 1981 and was won by Naqvi and Siddiqui. In 1989, the administration of the People's Party rejected the prior design parameters and instructed the same competent architects to remodel according to new rules. Naqvi and Siddiqui, Nayyar Ali Dada, Habib Fida Ali, Suhail, and Pasha were participating architects. An international jury of architects, artists and theatre experts judged the entries and declared the Suhail Abbasi & Naeem Pasha of M/s Suhail & Pasha, Architects & Planning Consultants Islamabad winners. From 1990 to 1996, the project was shut down due to a shortage of finances, and the Prime Minister's office took over the original location. The foundation was erected in 1996, but due to financial issues and political upheaval, the incomplete buildings remained standing. Musharraf took notice of the initiative in 2005 and re-started it in 2007, costing 530 million rupees. ("NAG – Naeem Pasha" n.d.)

A total of 13 galleries make up the National Art Gallery, including two for periodicals, five for honours, and six for permanent collections. This facility is equipped with an auditorium with a seating capacity of 425 people, a lecture hall with a capacity of 30 people for lectures on music, dance, and visual arts, as well as classrooms, a children's play area, an art workshop, restoration labs, and climate-controlled storage for the reserve

collection. The administrative wing of the national art gallery contains the national council of the art offices.

On the architects' official website, an explanation of the spirit of the building is said to be the pride that people have in such national structures, and as it is situated on Constitution Avenue alongside other buildings of similar monumentality, including the White House, the National Library, the National Assembly, the National Museum, the Armed Forces Museum, and the Supreme Court Building. All of these structures must communicate the nation's aspirations. The National Art Gallery, despite its monumentality, has a different mood than the President's House, the seat of authority, or the National Assembly, where the will and power of the people dwell. The National Art Gallery does not compete with these institutions but has a poised magnificence that encourages citizen engagement. It solicits the participation of the people and makes plain that this is a cultural construction. A magnificent, enormous façade is intimidating, but the personal scale is diminished, and participation is intimidating. It concludes by saying, "Therefore, while achieving monumentality through its gradual, majestic rise and approach, the building we have designed keeps within itself a sense of visual surprise and humility, which we hope separates its purpose from those of the grand buildings around it."("NAG – Naeem Pasha" n.d.)

Some of the people who visited the building had the following comments:

One visitor commented that the exhibition rooms are spacious, lofty, well-lit with enormous windows, and have simple, beautiful lines. One of the principal rooms is a courtyard with a Zen-style Garden, a brick pathway, and a contemporary sculpture. The exhibits highlight 20th-century painters of diverse genres. The galleries, according to him, are large and uncluttered. ("Pakistan National Council of the Arts (Islamabad) - All You Need to Know BEFORE You Go" n.d.)

Another visitor commented that he was astounded to come across such a well-equipped auditorium and a soul-stirring location reflecting a shadow of Pakistan's tradition, art, and culture. "Everyone must visit this place, and the management of PNCA deserves massive affection for their role in maintaining the beauty of this place. ("Pakistan National Council of Arts Islamabad | Pakistan Places" n.d.)

Generally, the user seems to reflect the same spirit the architects stressed in his ambitions with the project.

4.4.2.2.2. Aspects of critical Regionalism

• Regional character and indigenous materials:

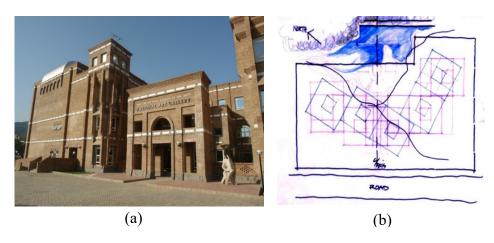


Figure 4.84. (a) front view of the building (b) sketch by the architect (Source: Naeem Pasha official webpage. n.d)

Upon examining the architect's first conceptual sketch for the building, It can be observed that the site had a natural reservoir of water on the northwest portion and how the site's natural contours facilitate the placement of building blocks. Despite the repetition of numerous squares, the massing produces a void precisely in the middle of the site because of the architect's placement. An amphitheatre fills this void, and overlooking it, is a semicircular building block. This circular element enhances the emphasis on the lake and stands out from all the rectangular forms because of its different shapes. Sketch of how the form evolved stage the consciousness of the architect regarding the site and its topology; he tried his best to fit the design perfectly within its region. Moreover, the building was strategically placed facing north to bring diffused light (figure 4.84 (b)). The materials were majorly concrete and steel since it was a frame structure, but the use of brick on all of the exterior.

• Represents Place-Making

The internal courtyards (figure 4.85 (a)) are designed not just to provide an interest in the massing but also as the visitors' collection space. The pavers' design in the courtyard flooring extends its pattern from the building, as seen in figure 4.85 (a). Grey lines extending in floor pattern are followed up and direct the observer's eye toward the elevational columns, and the green patches add softness to the hard flooring. Moreover, the patterned flooring is complemented by the tile patterns on the elevation too. The architect paid great interest in playing with this intricate detail, enhancing the user's



Figure 4.85. (a) internal courtyard (b) sculptures in the interiors (Source: Naeem Pasha official webpage. n.d)

quality of experience. He also planned the installation of sculptures on several points within and outside the building (figure 4.85 (b)). Some of them are even his work of art. It depicts the architect's intention of not only making functional gallery spaces and entrances but more of a place-making act, where even if the space is vacant still has a character and identity of its own.

• Adaptive to human needs.

The purpose of a gallery space is to provide adequate display space and circulation, achieved by the architect's effort in this project. This quality of not relying on the display size and giving ample space for all kinds of displays portrays it as adaptive to human requirements.



Figure 4.86. (a, b, c) A distributed exhibit of sculptures from the green area to the portico.

(Source: Google maps (a) https://goo.gl/maps/4MzZHVy4rHgMuxhp9 (b) https://goo.gl/maps/Bz9vVFt2zFgrcGL69 (c) https://goo.gl/maps/VJ7joxRBEww6LjPNA)



Figure 4.87. An event organized in the outer lawn spaces (Source: https://goo.gl/maps/ErFiwKxVHBKJHuoo7)

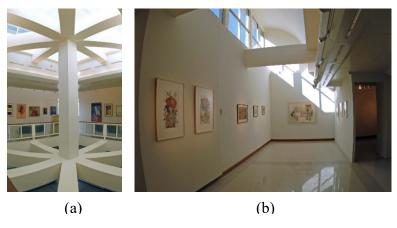


Figure 4.88. (a) column with protruding beams (b) beams intersecting the skylight area (Source: Naeem Pasha official webpage. n.d)

As the permanent sculptures add an element of placemaking to the spaces, all the nonpermanent ones further embellish the building, as many curators use the building's

outdoor spaces as their exhibition area. They were further enhancing the character of the space. As seen in figure 4.88, the sculptures are spread in the lawn area and the entrance portico. It is not only for the sculptures, but the building hosts several concerts and gatherings in its green spaces. As shown in figure 4.87, an event is organized in the open green space in the front. They are showcasing how the building reflects not just its purpose but also makes its statement as an arts hub in the national capital of the state.

• Architectonic & the use of light:

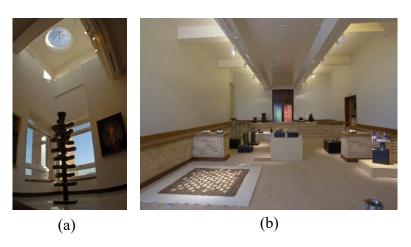


Figure 4.89. (a) glass dome (b) indirect lighting in gallery (Source: Naeem Pasha official webpage. n.d)

The play of light within the gallery space has a strong relationship with the structural elements used in the building. Figure 4.88 (a) shows a column that, with its branching beams, fulfils the structural requirement of bearing the load of floors but also diffuses the light that enters from the skylight. As in the building's skyline, the architect uses several skylights to intrigue its user's interest along with the building's stability. Figure 4.88 (b) also shows beams intersecting areas where a window lets in a dynamic light effect, which changes with the time of the day. The architect used several types of devices to let in sunlight in the buildings; some are dome-shaped skylights placed over double-height spaces, and some are purely functional ones in figures 4.89 (a) and (b), respectively.

When the same interior lighting devices are observed in the elevation, they appear haphazard (figure 4.90 (a)). The model in figure 4.90 (b) shows the rooftop of the building comprising different forms of arched cylinders and domes. Although the skylights in the model do appear to be blended within the overall profile, but when the elevation of the

building is observed in real-life, the grey color on the roof catches the viewers' attention. The grey structures on the roof dominate the whole structure visually.



Figure 4.90. (a) Skylights from a distance (b) model by the architect's office. (Source: Naeem Pasha official webpage. n.d)

On further examination of the elevational details, the architect uses some decorative elements to embellish the structure, which to some extent are farfetched. The fake arches that extend downwards from the grey skylights are mere decorations. Although, when examining figure 4.91, the fake arches balance the circular windows on the floor underneath, making its referral a bit difficult. All the elements are not this isolated, as the architect used the stepped column on both sides of the main entrance. These protruding columns increase in size as they ascend to the third storey as if they are holding the room in their finger-like structures. These columns might also have structural significance but cannot be seen in the plan to prove it. These details make the two sides of the entrance portico guarded by watchtowers, adding grandness and symmetry to the architectonic language of the building.



Figure 4.91. Elevational details Source: Naeem Pasha official webpage. n.d)



Figure 4.92. (a) View from interior (b) Stairs to auditorium (c) Passage leading to auditorium

(Source (a & b & c): https://goo.gl/maps/GuoKTxpX2UjwMLFS8)

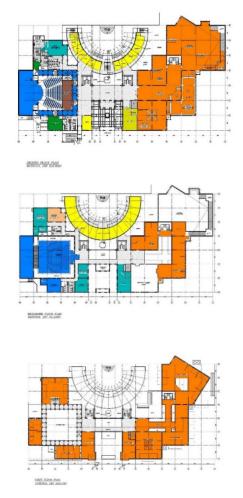


Figure 4.93. Plans. Ground, first and second respectively (Source: Naeem Pasha official webpage. n.d)

• Sensorial Dimension

From figure 4.92, it can be seen that these three spaces depict a dramatic play of light/shadow to create interest in them. Figure 4.92 (a) shows the green spaces along the entrance portico; both left and right are filled with vegetation to provide an excellent view to the user. Figure 4.92 (b) in the staircase leading to the auditorium and figure 4.92 (c) are the side alleys of the auditorium space. As in the plans, they are marked as ground, first and second, respectively (figure 4.93). These spaces enhance the quality of spatial experience as they contain an additional factor of intrigue, peace, and mystery (for the corridors). The shadows in the alleys highlight the materiality of the used surface finishes, thus making the user want to feel the indentations in the bricks (figure 4.92 (c)).

The spaces mentioned above, like the auditorium and its ambience, add life to the building. As it is the national art centre in the capital, it is usually occupied with musical concerts or exhibitions, thus making the building's experience evolve each time a new display arrives. With its fountains in the centre and the outer lawn, the sound of water welcomes the users. Then its play with double-height spaces (figure 4.94 (b)) near both auditorium and gallery spaces adds echoes and air movement to the building. With all these details, its unique fencing design further attracts the user from the outside (figure 4.94 (a))—a genuine effort to represent and encourage the arts and culture of Pakistan.

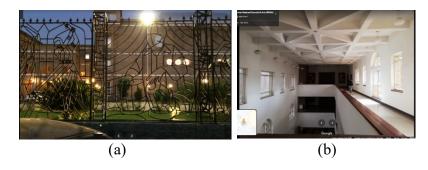


Figure 4.94. (a) fencing depicting folk-culture (b) double height spaces (Source a: Google maps https://goo.gl/maps/hqbYPU89RVwWk7Gn6 Source b: Google maps https://goo.gl/maps/BqJajnazcDYFk1pB7)

• Use of modern technology.

All the spanning systems are done using concrete with a frame structure. Although this is a modern-day norm, the structure is the most modern upon examining aspects of Critical Regionalism. Circular windows, protruding skylights and even a basement are all efforts that show that the architect was not restricted to using pure indigenous materials like brick. The basement level houses all the mechanical systems of air-conditioning, electricity, and storage spaces necessary for the building (figure 4.95).

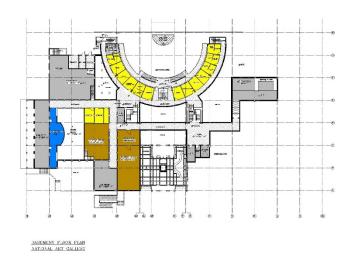


Figure 4.95. Basement level plan (Source: Naeem Pasha official webpage.n,d)

As for the auditorium, the sound quality is maintained despite having hollow spaces on both left and right sides (figure 4.96). The acoustic details are thoroughly working; although the auditorium is not a closed box that is typically seen, a place with its additional spaces enhances the aesthetic quality of the space.



Figure 4.96. Arches along the sides of auditorium (Source a: Google maps https://goo.gl/maps/4eB8mnot5cdXPbt48)

4.4.2.3. W.A.P.D.A (Water and Power Distribution Authority) Staff College and Residence.

4.4.2.3.1. About the Project

The project under discussion is a training academy for staff of W.A.P.D.A. An abbreviation for Water & Power Development Authority of Pakistan. It is located in Islamabad and designed by Architect Naeem Pasha; this project is said to be the first-ever large-scale US Aid-funded project in Pakistan to be awarded to a local Pakistani Architect. The distribution training academy design and project supervision was awarded in 1989 to the architect and was completed in 1995. It comprises an academic block and hostel facilities for training potential staff and employees of W.A.P.D.A. The academic block has been designed as a separate unit, and housing facilities are designed separately. A unique water distribution tank is also erected along with the housing facilities.

4.4.2.3.2. Aspects of critical Regionalism

• Regional character and indigenous materials:

This structure designed by Naeem Pasha is a precise blend of traditional and contemporary architecture. The essence of the design is entirely regional, that is, its planning. The entire administrative staff collage, the main building of the complex, has

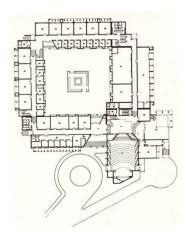


Figure 4.97. Ground floor plan of main building (Source: Naeem Pasha official website ,2022

been planned in courtyard style planning which has been a common trait of our regional and traditional architecture. The planning style can be seen in the picture below (fig 4.97). It has been balanced around a single massive courtyard with an auditorium and foyer spaces from the lower right corner. The three sides of the square stretched around the courtyard are almost the same form, with the right side being a bit multiplied in scale compared to the rest. The housing facilities in the complex are arranged in double-storey blocks, each having a small courtyard in between. The housing units are also arranged around small multiple courtyards, which overall follow the traditional courtyard planning concept, depicting the local tradition of providing air and sunlight to all sides.



Figure 4.98. (a & b) indigenous yet minimal form of the building (Source: Naeem Pasha official webpage,1995

The overall courtyard planning in the main block and the rest of the complex has been embellished with brown gutka brick, an indigenous material making it simple yet sleek visually. The spanning systems used are R.C.C and waffle slabs, but the walls have been made of indigenous brick. The massive brick buttresses are arranged along the inner



Figure 4.99. (a & b) double heighted lobbies acting as a common interaction point for trainees and staff (Source: Naeem Pasha official webpage, 1995)

and outer edges of the main building in a shape identical to the courtyard. They are also made up of bricks. Their form is simple and minimalist, being narrow at the bottom and periodically becoming more expansive as it goes upwards. The buttresses show a regional gothic character primarily used in Pakistan's churches and other British colonial structures.

• Represents Place-Making:



Figure 4.100. (a & b) Multi levels of arcades giving housing units a street like ambiance (Source: Naeem Pasha official webpage,n.d)

The simple courtyard planning of the administrative block provides a space for interaction for the students and staff of the training academy. The overall square is connected with an all-around corridor which meets from both sides into a main double-height foyer, making a common interaction point for its users. It is connected with double-height common sitting space for users with a visual connection to the first floor and a massive window making a serene place for people to interact. The visual connection of both spaces is visible in figure 4.99 (a & b).

The housing facilities are double-story single units separated by multiple small courtyards, giving each unit a home-like feeling. The units are still connected with multilevel arcades with access to the upper one with separate stairs. This placement gives the housing facilities a feeling of living in an actual street rather than a cramped apartment complex. The arcades are shown in figure 4.100. This design strategy makes the residential complex a place rather than just a hostel space.

• Adaptive to human needs:

The idea of a training centre is itself a notion of human need. The whole complex has been designed for human learning and living experience. All kinds of spaces needed for a person's professional and mental training have been provided. Scenic spaces, spaces

for social gatherings, sports activity spaces, central courtyards, the structure has it all. Figure 101 shows two such spaces.

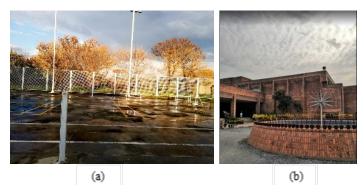


Figure 4.101. (a) outdoor space for sport activities prominent (b) fountain that acts as a landmark (Source (a & b): WAPDA administrative staff collage Facebook page.2019)

• Architectonic:



Figure 4.102. (a & b) minimal yet massive vertical buttresses used as a design element (Source (a & b): Naeem Pasha official webpage.1995)

The architect has designed the structure of the building so that the massiveness of the long-erected buttresses simultaneously gives an intimidating yet serene and minimal feeling (figure 4.102) As they are massive vertically yet rather slim horizontally. They are covered with a plain gutka façade with occasional brick jali openings giving a harmonized view to the eyes. In the water tank, vertical clasping buttresses, a series of arches covering spans and a top tank with a brick jali design present a homogeneous view. Moreover, the water tank acts as a visual attraction with its structure made up of concrete,

but brick support is also load-bearing; this can be concluded by how the brick is laid between the three columns supporting the tank.

• The use of light:

Courtyard planning in both academic and residential blocks ensures light availability in every corner of the buildings. The windows are recessed the arcade supported by buttresses at one end acts as a shading device, inviting diffused light into the structure. The spaces like corridors and informally social gathering spaces have massive bold double heightened windows (figure 4.99 (a)) to invite ample light into the structure making the spaces lively. The residential block has also been designed so that each unit gets its fair share of daylight through courtyards. The brick jali designs also invite serene light patterns into the structure.

• Sensorial Dimension:



Figure 4.103. Lush green landscapes with contrasting red brick (Source: Naeem Pasha official webpage,1995)

The lush green and brownish tint of gutka bricks has been smartly homogenized into a unified sight. The horizontal masses with a play through varying levels present a composed sight in both buildings, yet the vertical water tank stands differently than the rest of the structure and gives an intimidating feeling. The vertical and horizontal dimensions have blended well for a unique sensory experience. As discussed through place-making, the main attractions within the building are its courtyards, which provide views to each room within the residential block. Flowering plants and evergreen trees planted at the property enhance the sensory experience. Figure 4.103 depicts the sensory experience.

• Use of modern technology:

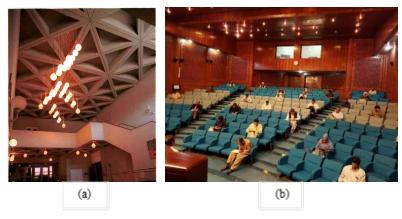


Figure 4.104. (a) waffle slabs for double heighted hall (b) traditional finish in auditorium designed with modern technology (Source (a): WAPDA administrative staff collage Facebook page. 2019 (Source (b): Naeem Pasha official webpage. 1995

The structures spanning systems are purely modern, with waffle slabs covering long spans as well as RCC slabs and beams in rest of the structures. Figures of different spanning systems are shown in 4.104. The massing itself is very modern as it has no extra ornamentation as commonly practised in the traditional design style. The brickwork is also in simple straight lines, a very minimal approach to design that is very popular in modern styles. The auditoriums have been done in a wood-like finish with a brick jalilike pattern and openings on walls (figure 4.104 (c)), but despite this look the structure and its acoustics are well managed according to modern strategies of design.

4.4.3. Analysis of the Architect's Work

Naeem Pasha is the youngest of all architects considered within this thesis, and yet his work and recognition are not less than any of them. Since Pakistan's cultural and festivity hub is majorly considered the city of Lahore, Islamabad, with its national character and is the legislative capital city, has more of a formal language in its architecture. Moreover, that is what is observed in Pasha's work too. A kind of disciple is maintained by using fixed proportions, adhering to the rules of symmetry, and thus communicating with the same formal language.

As for his projects, the first one is a building representing the minority of our society on a national level. St Thomas church sits beautifully on the hills of Islamabad

with its red brick facades giving it the regional feel amid the glass-glazed multi-story buildings and being minimalistic in its language. These modern lines with a regional feel are what he talks about in his interview (appendix C); when asked about how the notion of modernity and tradition are implemented in contemporary practice, he explains that we can upgrade our folk culture. The merger of vernacular with modern sophistications and sustainable materials is even possible. Furthermore, he admires Pakistan's historical heritage, but he does not use traditional elements as they are in his practice; instead, he tries to use them in a more minimalistic, modern way.

The remarks mentioned above can also be expressed about the national art gallery. Like the Thomas church, it is a national-symbolic building representing the capital city's art and craft activity. The brick here is more earth-toned than red, adding subtleness to the formal-language-depicting lines of geometry followed by the architect. Although the play with geometry has a formality in the elevation, the plan shows more of a diversity of forms that make up the massing, semicircular form arching within rectangular blocks. The architect poetically explains how his ideology revolves around geometry and proportions by referring to it as a creation of a story. According to him, synthesizing and grooming a program becomes a word, and a sentence may be constructed through its play. The sentence is analogical to the building design. The building becomes a tale in which ratio and proportion are crucial as grammar in writing. The same space unit connects everything. He further describes that the plan's main element determines proportions in the form of plans and sections. In this conception of design, the budget of the building is to be considered, too, since it is an architect's responsibility to safeguard the client's interests.

The work of the architect, on the whole, depicts this ideology. The third building is somewhat similar in attitude and design statement to the national art gallery. Its similarity exists between the most dominant elements in both the elevations; the two tower-like structures guarding the entrance portico of the national art gallery and the water tank in the distribution academy. These tower-like structures balance the horizontality with adding verticality to the mass. The more horizontally spread building is simple and subtle and thus feels more regional than modern in its outlook.

After analyzing his interview, the following figure was generated:

Since his detailed description of his ideology dominates the text, the second most referred notion was critical regionalism, and it can be said that Pasha's work is critical regionalist in its holistic sense. When he was explained that, according to Frampton,

critical regionalism should follow modernism critically for its universal revolutionary values while still maintaining focus on the building's broad setting and that the priority should be on topography, climate, light; tectonic form rather than scenography (painting theatrical scenery); and the sense of touch rather than just visual sense. He replied, "Any architect with any sense of reality will focus on the broad building setting while designing the project. It should include climate, typography, light, and tectonics. I do not know if I am a true follower of Frampton but all the buildings that I have designed can be related to the phenomenon as described above." (Interview in Appendix C)

The only conflict between the research and his ideology is where, according to the architect, every province/region has its cultural values and tradition; this "divides them rather than it creates a unity." This notion of the divide is not what critical regionalism portrays but is more about being unique and belonging to the place, thus making the architecture exhibit diversity in its regions, like dishes which have their own flavour; on the other hand, unity is pursued then monotony and homogeneity are expected which is what commercialism promotes, but the sense of place discourages.

Table 4.3. Summary of Case Studies

NAEEM PASHA						
Summary of Literature on Critical Regionalism		Thomas' Church, G-7/2, Islamabad	National gallery of Arts, Islamabad	Distribution and training academy	Observations and conclusions	
Aspect	Explanation	Features	Features	Features	conclusions	
Regional Character	Depict the region, from its topography to light and the call to create architecture in response to that context.	Surrounded by lush green trees, away from residential sites, a two-storey brick structure stands out in the multistorey structures	From the planning of spaces to the materials used in the construction all depict the region.	Use of buttresses, finishing with gutka, courtyard planning	Varies considerably but a connection of indoor and outdoor spaces with the use of brick is persistent	
Indigenous Materials	The use of local material as an attempt to depict both the context and empowering the local economy.	Use of the most common material, the brick as structural as well as finishing material. Wood and concrete for supporting roofs structure	Brick as major construction material	Gutka brick as finishing material	Use of locally produced brick-more of an orange brown tinted than red.	
Represents Place- Making	Prioritize place-making over space-making; a place, which is a collection of spaces, expresses the character of a local environment and community.	The church is in itself a place for congregation and represents a minority. Baptism area and the bell tower	Courtyards and sculptures in the outdoor spaces	Courtyards and arcades Multiple levels of arcades connected with staircases. Waterbody	Courtyard spaces or spaces that are ubique to the project brief	
Adaptive to human needs	The capacity to respond to the changing social and humanitarian needs of the user.	The provision of two halls to cater multiple events and extended with temporary structures.	Flexible gallery spaces with consideration of variable exhibit sizes	The idea of a training center is a human need in itself	Varies considerably as the project types considered had little consideration of it.	
Architectonic	The focus should not be on scenography instead on architectural tectonics and details.	Gable roofs, interlocking ribs structures, and waffle roofs are used as a spanning system and aesthetic elements. bricks	Skylights, massing, symmetry, fake arches, sectional details.	Massive towers with supporting buttresses, massive double-height	The use of elements like buttresses, fake arches, towers was observed. the	

(cont. on next page)

Table 4.3. (Cont.)

The use of modern technology	the built form. Compounding technological advancements within the local environment to address today's challenges.	The use of modern day structural systems along with managing the costs and aesthetics.	Modular planning	Waffle slabs, modern rcc structure. Even the massing has no extra ornaments its minimalist	Structural systems involving concrete. A unit based planning.
Sensorial dimensions	Other factors like, tactility and sensorial dimensions are also vital in creating a comprehensive experience of	brick facades complimenting yet unifying the landscape surrounding the building.	Lush green environment, the provision of lake.	Lush green environment Foyer spaces.	A structure that blends in with the landscape
Use of light	Consider light as a fundamental aspect in revealing a building's tectonic qualities and enriching the quality of the space inside.	It is surrounded by arcades to obtain diffuse lighting spaces and design elements—gable vents for a dramatic display of light at the podium.	Courtyards and skylights	Double-height massive windows, brick jali openings	Arcade, skylights a relatively bigger size of windows/ brick jallis for protection
				arcades supported with	structures were expressive

CHAPTER 5

CONCLUSIONS

This thesis looks at the contemporary architectural practices in Pakistan in light of the concept of Critical Regionalism. Focusing on the works of three architects whose ideology and line of practice, according to this research, show signs of Critical Regionalism in them. The three questions presented in the introduction are reviewed in this part.

How has the concept of "Critical Regionalism" evolved through time? The first question. It was presented in chapter one through the examination of relevant literature. The second question concerned the causes behind the rejection of tradition in Pakistani architecture; this was the premise of chapter three. Based on the examination of case studies, how do Pakistani instances include Critical Regionalism, was evaluated in the later chapter. While the research concludes with the inquiry; How effective is Critical Regionalism as a vehicle for bridging local traditions and modern technology was questioned

The paradigm of Critical Regionalism was presented in 1983, but it has since gone through periods in which various writers sought to refine it while others critiqued it. It was realized in chapter two. Nevertheless, it was not just a review of the literature; the chapter closed with eight points that went beyond anything Tzonis or Frampton had established for Critical Regionalism. Thus, these features were a novel perspective on the concept of Critical Regionalism in and of itself and to what extent were these newly defined aspects realizable is discussed here.

As presented by Frampton and further defined by Doug Kelbaugh, Critical Regionalism was a non-stylistic-critical look at regionalism. Still, the later writing and the criticism shaped the idea to fit in the present-day world. The aspect of adaptation to human needs with time is included in Frampton's aspects. Although it is an idealistic approach, an architect should be mindful of what the future holds and strive to incorporate it into his design in some way. The other addon was the specific use of local materials. Local materials have a significant part in the building's regional identity, but they were

introduced as a different topic to emphasise it. Secondly, the cases did not examine the conclusion of a sustainable approach to be taken and implemented. The term "sustainable" is too broad to address in a single study adequately. Sustainability and Critical Regionalism should be examined in greater detail to understand how they might be implemented together. Lastly, the projects and their social impact were to be considered. The only consideration the thesis extracted from it was to look at cultural, civil, or public projects; no residential building was analyzed due to its limited users. The social impact, if studied separately, is as broad as sustainability. It would have led the research into a more quantitative approach of conducting surveys and interviews of the users to calibrate the social impact that the building has. The idea of aspects of Critical Regionalism and the building's social impact can be a starting point for future research on this topic. The rest of the aspects are discussed in detail in the following paragraphs after they were used to assess case studies in chapter four.

The debate in chapter three focuses on Pakistani practice's persistent problems using global phenomena such as globalisation and universalisation. The dichotomy between tradition and modernity in architectural practices was the common denominator in these issues. In contrast, when seen in a narrower context, words such as local traditional practices and contemporary technology can coexist, and critical regionalism is one such concept. However, the architects interviewed in chapter four emphasized that the commercialization of the practice of architecture is a relatively recent issue that is becoming increasingly apparent. There was a discussion in chapter three about the commercialization of a significant avenue in Lahore, Pakistan, but now the whole has been subsumed under its influence. When Kamil Khan was asked about what he thinks is the biggest problem of contemporary Pakistani architecture, he responded: "The biggest reason for the destruction of this industry is the pursuit of economic growth based on industrialization, mechanization driven by global cooperate capital." (Appendix B) He further explains how regrettably, the architectural practice is integrated as part and parcel of this overall project. As a result, architects have evolved into advertising mediums, and architecture is the platform from which cooperative products are sold. The architect's task is to enhance the desire for these goods.

When the same was asked of Nayyar Ali Dada, he responded similarly: "In Pakistan, the architecture is controlled by commercialism" (Appendix A). Dada then

explains that architects in this business are primarily concerned with making money, which is why they are executing turn-key projects, dealing in real estate, and attempting to do everything but what is requested of them without pursuing any ideology. Therefore, he does not anticipate a bright future if such a situation pertains.

Both the architects stressed the same issue, which is what Pakistani architecture faces today. With this consumer culture, the regional architecture is being ignored entirely, and the practice is being saturated with the term "modern" in such a matter that every other client wants a "modern elevation" or a "modern look" of his house. Hardly any of the clients take a more regional approach and give the opportunity of playing with local brick in design. Others are searching for a perfect-looking building that they can refer to as a "Pinterest image". These remarks are based on my experience working in the sector for the past six years with one of the most prominent architectural firms in Multan, Pakistan.

Now, this tendency to display modern aesthetics and new products is something that cannot be avoided since, in this era of globalization, failing to embrace these cuttingedge materials and architectural products would make us seem antiquated; we must embrace it but within limitations. Critical Regionalism may specify the limitations. The philosophy underpinning Critical Regionalism is based on the idea that contemporary technology and traditional elements should coexist. As elaborated in chapter two, based on the concept of Critical Regionalism by Alexander Tzonis and Liane Lefaivre, Critical Regionalism can create a feeling of place in our time; that is, the ability to incorporate global architectural and technical advancements into the content emerging from the location. In the case of Pakistani architecture, all regions have their own topographical characteristics and cultural differences. All three discussed architects can be seen as role models to take inspiration from in balancing regional content and modern technology.

In my view, educational problems don't need significant changes except for the introduction of courses that teach the student both importance and sound knowledge of his land, its cultural richness, and its problems. He should be taught about Pakistan's architects and the ideology they follow. To induce in him the will and understanding to practice architecture analytically.

Elaborating further on the architects' works, a discussion on their approaches in relation to one another is essential here, as they each give a stimulus to develop an architecture that is much more environmental, adaptive, and has today's technology backing it in their unique way. Starting with Nayyar Ali Dada, he works primarily in the plains of Lahore, where the building is exposed to harsh summer heat most of the year, along with an annual rainfall of 636 mm (Nasim 2019). His work is characterized by "gutka" brick gladding. His red colour facades stand out in the grey monotones around them. The use of brick is not only for the façade but also due to the project's scale (as Expos central block). The construction is done with a concrete frame, but brick is predominantly used owing to its heat-resisting qualities and a low maintenance finish. He uses wood and detailed arches in windows to beautify and incorporate natural materials in these structures.

Furthermore, Naeem Pasha's work is on similar lines too. Except for the look and feel of the brick he uses, the beige brownish tint in the brick he uses is due to the difference in sand and all the local materials used in the production of those bricks. However, there is no difference in the strength of both bricks. It is more about the regional characteristics. In Islamabad, the reddish tinted bricks are less frequently used than in Lahore due to their appeal and availability. He is making the regional characteristics surface to architectural qualities.

As far as the outskirts of Punjab are concerned, Kamil Khan Mumtaz also works here, but this strategy is a bit more unique than the architects mentioned above. Dada and Pasha readily adopt newer technologies in their works, as seen in the Expo centre. Dada was not reluctant to use a futuristic look in the exhibition halls. The National Gallery of arts and its abstract composition of skylights is a one-of-a-kind architectural statement. Still, for Mumtaz, the selection of elements for his plans and elevations originates from the architectural elements used in the Mughal times. Khan is a practitioner of traditionalist architecture and resists contemporary fusion. But in line with the modern aspect of Critical Regionalism, his work can be seen as an attempt to solve modern-day challenges of global warming, ecological disruptions, etc., through the revival of the regionalist elements as a technique in this modern world. No matter how much Kamil Khan denies not following modern-day techniques, since this progressing world is being presented with much sustainable solution through is work, I believe that justifies it as modern thinking.

Furthermore, Mumtaz's oeuvre demonstrates his progression from belonging to a modern school of thought, actually practising modern architecture, to producing projects that were a blend of contemporary practices like Darul Hikmat, to creating purely works traditionalist like Har-Sukh. All of these stages can be seen in his work. At the same time, a direct link can be seen better with Critical Regionalism, when he was learning the traditionalist works where he experimented with modern-day techniques and a revival of the past.

All of the individuals mentioned above and their work are a significant source of inspiration for the next generation of architects. These architects demonstrate that it is primarily the architects' philosophy and the needs of the place that generate an architectural experience of value. In addition, the architectural practices of all three architects provide a glimmer of optimism that similar efforts can resolve the difficulties plaguing the architectural profession.

Lastly, progressing towards the last question, how effective is Critical Regionalism as a strategy for connecting local traditions with contemporary technology? This research will provide an answer to it based on observations and common factors deducted from the works of each architect in tables 4-1, 4-2 and 4-3, in light of the eight aspects used to analyze the cases (regional character and local material will be discussed in one) as the tables are shaded with three tones of grey, scaling from light being easily recognizable to not that difficult with medium grey and the darkest tone represents the most difficult to recognize as an aspect. For the explanation, each aspect will have three sub-headings:

- a) Definition (as extracted from chapter two)
- b) Observations and Inferences (In terms of how recognizable/relatively easier/difficult to realize was the aspect when seen in the cases and how tangible/intangible was it based on the colours they were assigned. And also conclusions from the works of the architects specifically for that aspect)
- c) Deductions (in the context of Pakistani architecture as a whole)
- Regional character and indigenous materials:
- a) *Definition:* Depict the region by emphasizing the particularities of the location being interfered in, from its topography to light and the demand to construct architecture in

- response to that particular situation. This was constantly discussed with the second component, as it provided insight into how using **indigenous materials** was an attempt to show the context while also boosting the local economy.
- b) Observations and Inferences: The material identification was straightforward, and, in most cases, locally produced bricks and mud were used. When it comes to the regional character, however, the concept was difficult to grasp since it requires a thorough knowledge of the region's culture, vernacular customs, socioeconomic status etc. As a result, it was impossible to have a comprehensive picture of the character via this critical writing since there were no writings on any of the instances. Through the attempt made here, all the architects had unique ways of bringing the regional character to the project. As concluded in tables 4-1, 4-2 and 4-3, all projects had their ways of depicting it. Nayyar Ali Dada used arches and verandas and played in massing to refer to the region (table 4-1). Kamil Khan referred to the Mughal era for his elements like the brick vaults, domes, and intricate wooden work for the interiors. He was the one who had the most regional elements incorporated in his work. Naeem Pasha persistently used buttresses that refer to the historical sites within Pakistan, and through his planning of spaces within the regional climatology was observed within the cases.
- c) Deductions: As far as the regional character is concerned, each region has its local values, and the same is true in Pakistan. Islamabad, with its lush green hills, provides a backdrop of vegetation and multi-storey buildings to be considered when working on a site there. This consideration is reflected in Pasha's work. Lahore and even Punjab, on the other hand, are regarded as the hub of Pakistan's arts and cultural activities; with numerous historical antecedents in the city, it gives a far more intricate framework in which to work. As a result, there is variation between Kamil Khan and Dada's work.

• Represents Place-Making:

- a) *Definition:* Prioritize place-making over space-making; a place, which is a collection of spaces, expresses the character of a local environment and community.
- b) Observations and Inferences: all three tables colour code the section as medium grey, which signifies that it wasn't that difficult to realize since consideration of place-

making can be vividly seen in all case studies. The consistent use of the courtyard as a design element in most works has several infers attached to it. It is a regional design element that has been used throughout ages to assist air circulation within a building. It is also a place for the congregation. Not only that, it provides sunlight within the building and a more intimate connection of indoor spaces with the outdoor. The placement of sculptures and fountains further enhances these spaces' character. The play with the outdoor-indoor relationship through views, massing, or even courtyards was seen as an attempt to make a space more meaningful to be labelled as a place, which was seen in all nine cases.

c) *Deductions:* since all the cases had the factor mentioned above, it means that the play of outdoor and indoor space with the use of courtyards can be implemented in hot climate areas (as the cases belong to regions with hot weather for the majority of the year). But here, it should be urged that this need not be the only way to represent place-making in a project. Other types of social spaces or even creating attractions within projects like food spots or just a sitting area under a tree where people can sit and converse can also be labelled as efforts of place-making commonly seen in Pakistani architecture.

• Adaptive to human needs

- a) Definition: The capacity to respond to the user's changing social and humanitarian needs.
- b) Observations and Inferences: the cases of Kamil Khan and Nayyar Ali Dada showed the capacity to adapt, but for Pasha, this aspect was quite challenging to explore, maybe due to the type of projects selected. As discussed earlier, this aspect is challenging to consider and identify. Still, the works of the first two architects had either the progression of the project in such a manner that it was developed in phases (Alhamra arts council), or new functions were incorporated later on, like in Har Sukh. Even the use of the Expo centre as a hospital was a novel tactic in showcasing this aspect. The construction periods of the majority of projects by both of them were prolonged, which provided the provision to incorporate social and humanitarian needs. Pasha's projects, on the other hand, lacked this privilege.

c) *Deductions:* These aspects as a consideration for future expansion are less thought off because of the limited resources and ever-increasing land prices. But for public buildings, this consideration is a must. Despite its limited resources, the Pakistani government puts a lot of funding and human resources into projects like these. The building should be able to adapt to modern-day uses to remain usable for decades.

• Architectonic

- a) Definition: Architectonic rather than scenographic.
- b) Observations and Inferences: the works of Kamil Khan had the most prominent play of structural elements because it was relatively easier to capture this aspect than the works of Dada and Pasha. The detailed Mughal structures are seen as an inspiration for Khan's work, so the intricacy is replicated in his work, too, through the muqarnas, vaults and precisely calculated arches. As per the analysis of this study, the other two architects' works resemble one other. The Expo centre, with its bold structural elements in the form of the exhibition halls, encompasses the idea of architectonics with modern technology. But here, it should be mentioned that the smaller brick (gutka) was plastered to the surface of the central block for the sake of décor, whereas the inner structure was of concrete and structural brick. This effort derails the architect's authenticity of purity of forms. As for the other architect, the WAPDA training and distribution centre has the play with massing, and so does the Thomas church, where the architect's skill of balancing the planes within a set of ratios and proportions showcases a unique way of depicting the aspect. Still, Pasha's use of elements for visual aesthetics (like fake arches) defers a bit from the concept of this aspect.
- c) Deductions: the play with massing, planes and frames is an art in itself, and this factor has a lot of influence on the type of architectural education departed to an architect. His skills to balance the vertical planes with the horizontal ones play a significant role in shaping the overall profile of the city. In the case of Pakistani architecture, consideration of the context and its building massing is significantly less considered. As mentioned in Alhamra's case, the architect had to have a subtleness in the project massing to not overshadow the rich cultural heritage around it, and he devoted significant attention to it. This should be taken inspiration from so that it's practised

more often in the Pakistani context. In addition, it is essential to avoid employing imitation elements or materials as simple pastings on the surface since doing so brings an aspect of fakery to the design.

• Use of light

- a) *Definition:* Consider light a fundamental aspect in revealing a building's structure and tectonic qualities.
- b) Observations and Inferences: a relatively tangible aspect among others. It was rather seen as how the architect played with the fenestrations and how he incorporated different types of lights within his building. Almost all works had their ways of using light devices in them. Pashas grey skylights in the national gallery of arts impacted the interiors by providing diffused light in gallery spaces. Moreover, the movement of light through these skylights and even the circular windows dramatized the internal structures. The oculus in Khan's work is a marvel in itself. Partly due to its construction with much complex material, brick, and the heights at which it is created. Dadas complexly arched structures in the lobby of the central block of the Expo centre are augmented through the sophisticated placement of light sources.
- c) Deductions: When examined in the case, this aspect brings forward several interesting instances that can be taken as inspiration for further works. And in Pakistani architecture, the role of fenestration is a vital factor in the comfort of users due to the summer temperatures faced in most areas. Deep-set windows with either courtyards or verandas are seen in khans and dadas work and are the best suited for hot regions of Pakistan.

• Sensorial dimensions

- a) *Definition:* Apart from light, tactility and sensorial dimensions are also vital in creating a comprehensive built-form experience. Aspects like temperature, humidity and air flow play a significant role too.
- b) Observations and Inferences: this was the most abstract factor in the aspects list. But even then, as far as the experiential qualities are concerned, these were based on the writer's observation of the building during its visit. Micro-level details are considered in the Shakir Ali museum (table 4-1), where the delicate choice of materials impacted

the experience. Even the expo's central block has the same style of detailing. But the overall mesmerizing impact unparalleled by any other project is the experience of Khan's Har Sukh. Each section of the building has the same level of detailing, which sits perfectly with the subtle facades. Considering the views and vistas, along with the placement of vegetation in provide shading, elevates the building experience to a new level. Pasha's church (although outsiders are not allowed in it, so it wasn't open for a visit) showcases similar efforts to enrich the experience. The baptism space with a bell tower adding further depth to the space is the focal area that enhances the experience of the whole building.

c) Deductions: After exploring the aspect, this research observed that the mere glance at the experiential qualities of the space does not justify the aspect. Since it was a pioneering effort to analyze Pakistani architecture in light of critical Regionalism, the consideration and understanding of this aspect were beyond the scope of this research. But this opens up the discussion for further research to see how the sensory dimension is practised in Pakistan's architecture. The works of the architects provide clues about the aspect's existence, but a detailed examination of the works is needed to grasp the idea entirely. Overall, the sensory dimensions are challenging to incorporate as the level of details is exponentially increased, but their inclusion enriches the building spaces.

• The Use of Modern Technology

- a) *Definition:* Compounding technological advancements within the local environment to address today's challenges. A thorough understanding of a region's vernacular approach is required to determine how it can be altered, reinterpreted, and innovated.
- b) Observations and Inferences: although ideologically, a thorough understanding of the vernacular attitude is required to conclude these aspects, since that expands the notion to several other directions, it was contained to the extent of the use of modern technology and the issues that it resolves. On the one hand, the works of Dada and Pasha are seen in tables 4-1 and 4-3. This aspect was more easily recognized. It was seen as the general use of concrete and frame structures as the addition of contemporary technologies to the regional character. Since these structural systems are the skeleton of the building, they instead add benefits to the regional attitude than

causing problems. For example, large-spanned spaces could not be created frequently in pre-concrete traditional practices. Although the techniques were present, as Mughal architecture is full of massive spaces, not everyone had the access to it, skill-wise and funding-wise. Therefore, a critical regionalist approach may be achieved in the current use of concrete with the inclusion of regional peculiarities. On the other hand, khans work incorporates modern technology in different ways. As mentioned earlier, he has revived traditional approaches to combat modern-day problems. Thus the traditional elements have become a modern-day tool for improved architectural practice.

c) Deductions: the building industry is using concrete frame structures dominantly, but the use of regional character to make the building part of the context is where it falls short. The works of these architects provide an insight into reaching a blend, but little is observed when an architect conceives a design. Again, the allusion is made to the absence of local knowledge that the architect did not acquire during his training, making his practice even more difficult for him. All the considered architects also lacked the regionalist approach at the beginning of their careers due to the foreign influences in their education. Therefore, they began learning the tradition while practicing it. But for the newer generations, the works of the pioneer architects stand as an example to take inspiration from and extract more recent ideas from their implemented techniques.

With this, the research concludes that despite none of the architects labelling themselves as critical regionalist, their practices validate the notion's presence. And since Critical Regionalism is not a stylistic approach, it is moldable and implementable in several ways possible. Despite some factors that were too broad to be encompassed in the research, critical regionalism appears to be an effective tool in examining the blend of local and modern techniques in the architectural practice within Pakistan. Its study has brought to the surface the qualities and shortcomings in contemporary practices, along with the knowledge that would inspire future endeavours both in the practical field and in the field of research.

REFERENCES

- "1000-Bed Field Hospital At Expo Centre Lahore To Be Functional In Week | Punjab Portal." n.d. Accessed June 8, 2022. Https://Punjab.Gov.Pk/Node/3698.
- Agrawal, Vedika. 2013. "Regionalism In Architecture As An Expression Of Appropriate Technology And Sustainably," 1–12.
- Ahmed, Muiz. 2016. "CONTEMPORARY BUILT FORM IN PAKISTAN: An Analysis Of Residences In Lahore" 20: 21–29.
- "Alhamra Arts Council." n.d. Accessed November 30, 2021.

 Https://Web.Archive.Org/Web/20120527111836/Http://Archnet.Org/Library/Sites/One-Site.Jsp?Site_Id=418.
- "Alhamra Arts Council, Lahore, Pakistan." n.d.
- Amirjani, Rahmatollah. 2018. "Alvaro Siza 'S Design Strategy: An Insight Into Critical Regionalism" 12 (October): 930–34.
- Amourgis, Spyros. 1991. Critical Regionalism: The Pomona Meeting: Proceedings. College Of Environmental Design, California State Polytechnic University.
- Aycı, Hilal, And Esin Boyacıoğlu. 2012. "A Reading In Critical Regionalism: Analysis Of Two Houses By Han Tümertekin *." Open House International 37 (1): 93–104. Https://Doi.Org/10.1108/Ohi-01-2012-B0009.
- Bahga, Sanyam, And Gaurav Raheja. 2018. "An Account Of Critical Regionalism In Diverse Building Types In Postcolonial Indian Architecture." Frontiers Of Architectural Research 7 (4): 473–96.
 Https://Doi.Org/10.1016/J.Foar.2018.09.001.
- Bani, Omer Maha. 2015. "Critical Regionalism: Studies On Contemporary Residential Architecture Of Khartoum-Sudan." Architects' 4th Scientific Conference.

- Bashir Ahmad, Kausar. 1986. "Architectural Education In Pakistan And Problems Of The Architectural Profession General Issues In Architectural." In Bibliography Of Art And Architecture In The Islamic World, 1st Ed., 152–61.
- Bhatti, Zara. 2018. "Understanding Traditional Domestic Buildings In Pakistan Lessons For Contemporary Design." Theses (Historic Preservation) 2018. Https://Repository.Upenn.Edu/Hp_Theses/646.
- Botz-Bornstein, Thorsten. 2010. "Is Critical Regionalist Philosophy Possible?" Comparative And Continental Philosophy 2 (1): 11–25. Https://Doi.Org/10.1558/Ccp.V2i1.11.
- Canizaro, Vincent B. 2018. "Competing Critical Regionalisms," No. April 2012. Https://Doi.Org/10.13140/RG.2.2.20636.95366.
- Canizaro, Vincent B Author. 2007. Architectural Regionalism: Collected Writings On Place, Identity, Modernity, And Tradition.
 Https://Search.Library.Wisc.Edu/Catalog/9911066771902121.
- Carlson-Reddig, Kelly, And North Carolina. 1990. "Re-Reading Critical Regionalism," 269–75.
- Cooman, Ken De. 2019. "Beyond Critical Regionalism Of Grey Zones And Radicality In Contemporary Practice." Oase, No. 103: 137–42.
- "Creating Art Out Of Bricks." n.d. Accessed October 18, 2021.

 Https://Tribune.Com.Pk/Story/2265317/Creating-Art-Out-Of-Bricks.
- "Does Tradition And Modernity Exist Separately In Architecture? | Zameen Interviews Youtube." n.d. Accessed August 19, 2021.

 Https://Www.Youtube.Com/Watch?V=Eaiaopnglyu.
- Eggener, Keith L. 2002. "Placing Resistance: A Critique Of Critical Regionalism." Journal Of Architectural Education 55 (4): 228–37.

 Https://Doi.Org/10.1162/104648802753657932.

- Frampton, Kenneth. 1983. "Prospects For A Critical Regionalism." Perspecta 20: 147. Https://Doi.Org/10.2307/1567071.
- Frampton, Kenneth. 1983. "Towards A Critical Regionalism." The Anti-Aesthetic.
- Frampton, Kenneth. 1992. "Modern Architetcure A Critical History," 424.
- "Harsukh Art Residency | Red Brick Mughal Masterpiece (Pt 1) Youtube." n.d. Accessed June 21, 2022. Https://Www.Youtube.Com/Watch?V=L0qas4z3vis.
- Hartoonian, Gevork. 2006. "Critical Regionalism Reloaded." Fabrications 16 (2): 122–39. https://Doi.Org/10.1080/10331867.2006.10539591.
- Hassan, Arif. 1984. "The Role Of An Architect." 1984.

 Http://Arifhasan.Org/Architecture/Education/The-Role-Of-An-Architect-In-Pakistan/2.
- Hoseini, Elahe Zoghi, Darab Diba, Hamed Kamelnia, And Mostafa Mokhtabad. 2019. "New Trends In Critical Regionalism Through The Lens Of Tzonis And Lefaivre" 2 (2): 7–20.
- Islam, Shumaila. n.d. "Shakir Ali Museum: A Plethora Of Aesthetics Art Now Pakistan." Accessed January 3, 2022. http://www.Artnowpakistan.Com/Shakir-Ali-Museum-A-Plethora-Of-Aesthetics/.
- Kalvelage, Johannes. 2016. "Critical Regionalism." Dessau International Architecture School Anhalt University Department, 2016.
- Kausar, Sajjad. 2000. "Architect Of The Month." Architimes, 2000.
- Kelbaugh, D S. 2016. Repairing The American Metropolis: Common Place Revisited. Samuel And Althea Stroum Books. University Of Washington Press. Https://Books.Google.Com.Pk/Books?Id=1tchcwaaqbaj.
- Krippendorff, Klaus. 2013. Content Analysis 3rd Edition: An Introduction To Its Methodology. Content Analysis: An Introduction To Its Methodology. Thousand Oaks: sage Publications Inc.

- Lefaivre, Liane., And Alexander. Tzonis. 2003. Critical Regionalism: Architecture And Identity In A Globalised World. Munich; London: Prestel.

 Http://Books.Google.Com/Books?Id=Lsxpaaaamaaj.
- Lefaivre, Liane, And Alexander Tzonis. 2012. Architecture Of Regionalism In The Age Of Globalization: Peaks And Valleys In The Flat World. Architecture Of Regionalism In The Age Of Globalization: Peaks And Valleys In The Flat World. Https://Doi.Org/10.4324/9780203720806.
- "Lighting The Fire: Interview With Naeem Pasha | Artnow." n.d. Accessed October 18, 2021. Http://Www.Artnowpakistan.Com/Lighting-The-Fire-Interview-With-Naeem-Pasha/.
- M. Khan, Nadir. 1990. "Searching For Identity: The Approaches Of Three Pakistani Architects."
- Mathison, Sandra. 2005. "Encyclopedia Of Evaluation." Thousand Oaks, California. Https://Doi.Org/10.4135/9781412950558 NV - 0.
- Meganck, Van Santvoort, And Meyer. 2013. "Regionalism And Modernity:

 Architecture In Western Europe, 1914-1940 / Leen Meganck, Linda Van Santvoort
 & Jan De Maeyer, Eds." Edited By Leen Meganck, Linda Van Santvoort, And Jan
 De Meyer, KADOC Artes; 14,.
- Mehrotra, Rahul. 2011. Architecture In India Since 1990. Mumbai, India; Ostfildern, Germany: Pictor; Hatje Cantz.
- Mostafa, Ibrahim. 2004. "GLOBALIZATION CHALLENGES IN ARCHITECTURE." Choice Reviews Online 41 (08): 41-4450-41-4450. Https://Doi.Org/10.5860/CHOICE.41-4450.
- Mota, Nelson. 2014. "The Ambiguities Of Critical Regionalism," 1–9.
- Mumford, Eric. 2002. The CIAM Discourse On Urbanism, 1928-1960. Mit Press. MIT Press.
 - Https://Books.Google.Co.Jp/Books?Hl=Nl&Lr=&Id=C4unelgkboyc&Oi=Fnd&Pg

- =PR7&Dq=Mumford+E.,+2002&Ots=Nixq-Kza4-&Sig=Baxahu5gwkrbviii1xi0vctewwg#V=Onepage&Q=Mumford E., 2002&F=False.
- Mumtaz, K K. 1989. Architecture In Pakistan. A Mimar Book. Mimar Book. Https://Books.Google.Com.Tr/Books?Id=Mspxsweacaaj.
- Mumtaz, Kamil Khan. 1995. "A Case For Indigenous Development," October: 55–57.
- Mumtaz, Kamil Khan. n.d. "A Search For Architecture Based On Available Technology.Pdf." In .
- Naeem, Anila. 2001. "Rural To Urban Transformation- Karimabad, Hunza." Journal Of Research In Architecture & Planning NED University Of Engineering & Technology, November. Https://Jrap.Neduet.Edu.Pk/Arch-Journal/JRAP-2001/06.Pdf.
- "Naeem Pasha Naeem Pasha." n.d. Accessed November 22, 2021. Https://Naeempasha.Com/.
- "Naeem Pasha, National Art Gallery Islamabad Architect Receives Tamgha-I-Imtiaz Culture." n.d. Accessed November 22, 2021.

 Https://Pk.Mashable.Com/Culture/5060/Naeem-Pasha-National-Art-Gallery-Islamabad-Architect-Receives-Tamgha-I-Imtiaz.
- "Nayyar Ali Dada The Legendary Architect Of Pakistan." n.d. Accessed August 19, 2021. Https://Www.Thecubicfeetdesign.Com/Blog/Nayyar-Ali-Dada-The-Legendary-Architect-Of-Pakistan/.
- Naz, and anjum. 2007. "Transformation Of Main Boulevard, Gulberg, Lahore: from residential to commercial." Journal of research in architecture and planning 6 (2007): 49–61.
- Nesbitt, Kate. 1996. "Theorizing A New Agenda For Architecture: An Anthology Of Architectural Theory, 1965-1995." Choice Reviews Online 34 (02): 34-0729-34–0729. https://Doi.Org/10.5860/CHOICE.34-0729.

- Orozco, juan carlos. 2016. "a comparative analysis of kenneth frampton's critical regionalismand william j. R. Curtis's authentic regionalism as a means forevaluating two houses by mexican architect luis barragan." University of san carlos, guatemala, 2007.
- Paiva Henrique, Karen. 2013. "Modernity And Continuity." Spaces And Flows: An International Journal Of Urban And Extraurban Studies 2 (4): 103–12. Https://Doi.Org/10.18848/2154-8676/Cgp/V03i04/53722.
- "Pakistan National Council Of Arts Islamabad | Pakistan Places." n.d. Accessed May 12, 2022. Https://Pakistanplaces.Com/Listing/Pakistan-National-Council-Of-Arts-Islamabad/.
- "Pakistan National Council Of The Arts (Islamabad) All You Need To Know BEFORE You Go." n.d. Accessed May 12, 2022.

 Https://Www.Tripadvisor.Com/Attraction_Review-G293960-D11621401-Reviews-Pakistan_National_Council_Of_The_Arts-Islamabad Islamabad Capital Territory.Html.
- Popescu, Carmen. 2020. "Critical Regionalism:" In The Figure Of Knowledge. Https://Doi.Org/10.2307/J.Ctv16x2c28.13.
- Quratulain Asghar. n.d. "Influences And Approaches Evolving The Architectural Roots Of Pakistan." Architecture Department, University Of Engineering And Technology (UET), Lahore., 1–26.
- Rudofsky, Bernard. 1964. "Architecture Without Architects," 1–137.
- Samina Iqbal. 2018. "Transcript Of An Audio Interview With Naeem Pasha."
- Shadar, Hadas. 2010. "Evolution And Critical Regionalism." Journal Of Urban Design 15 (2): 227–42. Https://Doi.Org/10.1080/13574801003638137.
- Shah, Sarah Javed, Rabia Ahmed Qureshi, And Munazzah Akhtar. 2021. "Quest For Architectural Identity Of Pakistan: Ideological Shifts In The Works Of Kamil Khan Mumtaz." Pakistan Journal Of Engineering And Applied Sciences 28: 1–15.

- Talbot, Phillips., And B R Nanda. 2007. "An American Witness To India's Partition." New Delhi; Thousand Oaks, Calif.: Sage Publications.

 Http://Site.Ebrary.Com/Id/10287679.
- Tell, Eric. 2011. "How Do We Sustain Regional Architecture In The Face Of Modern Models Of Universal Internationalist Architecture?," 1–62.
- The Grove Encyclopedia Of Islamic Art And Architecture. 2009. The Grove Encyclopedia Of Islamic Art And Architecture.

 Https://Doi.Org/10.1093/Acref/9780195309911.001.0001.
- Udaykumar, Anupama. 2012a. "The Response Of Critical Regionalism To Contextual Changes Over Time In South-East Asian Tropical Residential Architecture A Case Study Of Singapore." Proceedings Of 7th Windsor Conference: The Changing Context Of Comfort In An Unpredictable World, No. April: 12–15.
- Vine, Saamia Ahmed. 1972. "Mayo School Of Arts, Lahore."

 Https://Www.Academia.Edu/35948465/Mayo_School_Of_Arts_Lahore.
- Zhang, Changrui, Yong Tian, And Dengjun Ren. 2012. "The Effect Of Critical Regionalism Thoughts In Architecture On Contemporary Chinese Architecture Localization Trend Of Chinese Architecture In 21st Century." Applied Mechanics And Materials 209–211: 183–90.
 Https://Doi.Org/10.4028/Www.Scientific.Net/AMM.209-211.183.

Webpages:

——. 2012. "The Response of Critical Regionalism to Contextual Changes over Time in South-East Asian Tropical Residential Architecture - A Case Study of Singapore." *Proceedings of 7th Windsor Conference: The Changing Context of Comfort in an Unpredictable World*, no. April: 12–15.
——. 2019. "CIAM and Its Outcomes" 4 (3): 291–98. https://doi.org/10.17645/up.v4i3.2383.

- n.d. "Link with the Past." Accessed April 12, 2021b. https://doi.org/10.1093/nq/s10-ii.47.407a.
- "(20+) Facebook." n.d. Accessed June 21, 2022. https://www.facebook.com/Wapda-Administrative-Staff-College-Official-173277223184199/photos/576915419487042.
- "(20+) Info-360.Com | Facebook." n.d. Accessed June 21, 2022. https://www.facebook.com/page/137028363005183/search/?q=har sukh.
- "(20+) Kamil Khan Mumtaz | Facebook." n.d. Accessed June 21, 2022. https://www.facebook.com/kamil.khanmumtaz/photos_albums.
- "(20+) Saint Thomas' Church, Islamabad | Facebook." n.d. Accessed June 21, 2022. https://www.facebook.com/st.thomaschurchisb/photos/?ref=page_internal.
- "1000-Bed Field Hospital at Expo Centre Lahore to Be Functional in Week | Punjab Portal." n.d. Accessed June 8, 2022. https://punjab.gov.pk/node/3698.
- "Alhamra Arts Council, Lahore, Pakistan." n.d.
- "Alhamra Arts Council." n.d. Accessed November 30, 2021.

 https://web.archive.org/web/20120527111836/http://archnet.org/library/sites/one
 -site.jsp?site_id=418.
- "Archnet." n.d. Accessed June 21, 2022. https://www.archnet.org/publications/1582.
- "Creating Art out of Bricks." n.d. Accessed October 18, 2021. https://tribune.com.pk/story/2265317/creating-art-out-of-bricks.
- "Does Tradition and Modernity Exist Separately in Architecture? | Zameen Interviews
 YouTube." n.d. Accessed August 19, 2021.
 https://www.youtube.com/watch?v=eAIAopnGlYU.

- "Eid Gifts Distributed among Children of Martyred Police Officials Daily Times." n.d. Accessed June 21, 2022. https://dailytimes.com.pk/253300/eid-gifts-distributed-among-children-of-martyred-police-officials/amp/.
- "HarSukh Art Residency | Red Brick Mughal Masterpiece (Pt 1) YouTube." n.d. Accessed June 21, 2022. https://www.youtube.com/watch?v=l0QAs4Z3Vis.
- "HarSukh Art Residency | Red Brick Mughal Masterpiece (Pt 1) YouTube." n.d. Accessed June 21, 2022. https://www.youtube.com/watch?v=10QAs4Z3Vis.
- "Harsukh." n.d. Accessed June 21, 2022. https://banjaiga.com/megadatabase/Projects/View/Harsukh/MTQ0Mg.
- "Lahore Literary Festival | 'A Dazzling Celebration." n.d. Accessed June 21, 2022. https://lahorelitfest.com/a-dazzling-celebration/.
- "Lahore's Expo Centre Field Hospital Temporarily Closed after All Covid-19 Patients Discharged." n.d. Accessed June 23, 2022. https://www.geo.tv/latest/297646-lahores-expo-centre-field-hospital-closed-after-all-virus-patients-discharged.
- "Lighting the Fire: Interview with Naeem Pasha | Artnow." n.d. Accessed October 18, 2021. http://www.artnowpakistan.com/lighting-the-fire-interview-with-naeem-pasha/.
- "Naeem Pasha Naeem Pasha." n.d. Accessed November 22, 2021. https://naeempasha.com/.
- "Naeem Pasha, National Art Gallery Islamabad Architect Receives Tamgha-i-Imtiaz Culture." n.d. Accessed November 22, 2021.

 https://pk.mashable.com/culture/5060/naeem-pasha-national-art-gallery-islamabad-architect-receives-tamgha-i-imtiaz.
- "NAG Naeem Pasha." n.d. Accessed May 11, 2022. https://naeempasha.com/nag/.
- "Nayyar Ali Dada The Legendary Architect of Pakistan." n.d. Accessed August 19, 2021. https://www.thecubicfeetdesign.com/blog/nayyar-ali-dada-the-legendary-architect-of-pakistan/.

- "Nayyar Ali Dada & Associates." n.d. Accessed October 18, 2021. https://www.nayyaralidada.net/practice.
- "Pakistan National Council of Arts Islamabad | Pakistan Places." n.d. Accessed May 12, 2022. https://pakistanplaces.com/listing/pakistan-national-council-of-arts-islamabad/.
- "Pakistan National Council of the Arts (Islamabad) All You Need to Know BEFORE You Go." n.d. Accessed May 12, 2022.

 https://www.tripadvisor.com/Attraction_Review-g293960-d11621401-Reviews-Pakistan_National_Council_of_the_Arts-Islamabad_Islamabad_Capital_Territory.html.
- "St. Thomas Church in the City Islamabad." n.d. Accessed June 21, 2022. https://pk.worldorgs.com/catalog/islamabad/baptist-church/st-thomas-church.
- "St. Thomas' Church Google Maps." n.d. Accessed June 21, 2022. https://www.google.com/maps/place/St.+Thomas'+Church/@33.7088763,73.05 85417,3a,75y,90t/data=!3m8!1e2!3m6!1sAF1QipOLjVmX_jBQieYI9SNgFZag enXF8e-bf7-u3e52!2e10!3e12!6shttps:%2F%2Flh5.googleusercontent.com%2Fp%2FAF1Qi pOLjVmX_jBQieYI9SNgFZagenXF8e-bf7-u3e52%3Dw86-h86-k-no!7i1080!8i1072!4m5!3m4!1s0x0:0x8b283e483b91cb2d!8m2!3d33.7089817!4 d73.0584629.

APPENDIX A.

This appendix contains interview transcript of the author with Nayyar Ali Dada on 18th May 2022

1. What is your design philosophy?

NAD: We have a design philosophy according to which we believe that architecture is something that belongs to its place, so we strongly believe in that and what ever we do... it should relate to the place where its being built. And the program that is given to you has to obviously, delivered but in the whole world the architecture has become universal, international, hi-tech and some people are just too involved in making it traditional so it's a very floating kind of thing. So, we feel that architecture should belong to the place, this does not mean that it should to pakistan, it should belong to the piece of land, that region of Pakistan. That would mean that it would have its implications of climatology and traditions if an availability of materials etc. If you consider all these things, then you see one philosophy coming out of it automatically.

2. What is the reason for picking a project and normally what kind of projects do you like working on? Or do you work o every project that comes your way?

NAD: No, no, we don't do all the projects, we choose from them. Obviously, we can't wish for projects but we have to select from the ones available, so we choose form them and take the liberty of not doing the projects that are not in line with our philosophy. Sometimes we get commercial projects, where the client does not care about the architectural qualities of the space, qualities like, even balance, of proportions, of the purity of materials and all the general principles, they say that we don't care about them, you just design for us a glossy kind of thing because that is what we want, in that case we avoid getting involved. So, we try to decline projects like those.

3. How do you see the current practices of architecture in Pakistan, in terms of problems, tendencies, shortcomings? What do you think is the biggest problem that our architecture is facing?

NAD: In Pakistan, the architecture is controlled by commercialism. In this practice, architects want to make money, number one, architects are doing turn-key projects, architects are doing real estate, architects are trying to do all possible things except for what is wanted from them. They aren't trying to stick to any philosophy of any kind. so, I don't see a very bright picture in that scenario.

4. As per your critical analysis, how are the notions of modernity and tradition implemented in contemporary architectural practice?

NAD: It is something that has always been talked about, talks on tradition, modernity. And there are certain projects in which the role of tradition is not that important, like if you are doing a showroom, or a commercial building. You can't force to put in tradition

in that. So, the nature of the project dictates which side to take. If you are making a mosque, you can make it modern, but it is difficult.

5. The following paragraph explains the term Critical Regionalism: According to Frampton's "Towards a Critical Regionalism: Six Points for an Architecture of Resistance," critical regionalism should follow modernism, critically, for its universal revolutionary values, while still maintaining focus on the building's broad setting.

Do you consider this phenomenon being practiced in Pakistan? Do you think that modern technology should be part of the project?

NAD: As I mentioned earlier, Pakistani architects are so involved in commercial projects and its activities that they don't really care, well as for my practice, I totally agree with this notion of a blend and yes... technology is the tool, now if you start debating on what kind of method you use for the finishing of the brick, like some say you should manually grind it to achieve the finish just because the old masons used to work like that...but if the same look is being achieved by a machine, then whats the issue? I don't believe in sticking to those old cliches, whatever saves you time and delivers the same thing then why go in any hassles. Now if you see, the case with hand made bricks, obviously they are the best thing to use but if the nature of the project is such, that its usage is not suitable there, then you can take the help of technology and use machine-made bricks, there is no issue in that. This blend of modern and tradition should be there.

6. Can you name a project/projects that you worked on which depicts the above-written idea?

NAD: We did this Expo Center, it has a traditional flare in the central building and all the exhibition halls, because they had the requirement of being a big span and other engineering requirements, were all forward looking, high tech, so it has that blend. And we are currently in process of designing a religious building (a Mazar), Habib Pak daman, something that backs ages, but because the site conditions don't favor normal construction techniques, we are use steel and its joinery to construct the building. So it is also a combination of how one develops tradition from a very modern outlook, Here the usage dictated the character. Where the character was hi-tech, we kept it hi-tech, where it could be without it and capture tradition that was kept that way.

7. In your opinion, does Critical Regionalism have a practicable future in Pakistan?

NAD: In architecture there should always and always be a blend of modern with tradition. So its role is very important. Architecture is something that carries in itself a lot of human substantiality and thought. Its not a matter of physical usage only, it's a matter of environment, its a matter of what you are doing with a city as a whole and that effects the society as a whole. Architecture is affecting that. What kind of architecture you produce that affects that society, even psychology of the people is affected. So it should be analytic or critical about itself, no matter how modern it becomes or in which ever age it is being practiced. Your practice as an architect should be backed up with reasoning, always. Don't just do things because you as architects can do it!

APPENDIX B

This appendix contains interview transcript with Kamil Khan Mumtaz on 18th May 2022

1. What is your design philosophy? Although this question might seem too basic, but since I am introducing my Pakistani architects in international research especially where there is very less written on us, So I need to begin with this question.

khan: What should I say about it? (as he was a bit uncomfortable with this question since he has talked, interviewed and written so much about it that discussing it again was a bit tiring for him but then he answered.) Well, my Architecture education started off from a modernist environment, a modernist school, a modernist period, so my personal design philosophy changed from modernism to tradition. So presently I am trying and becoming a student to study and learning what is our own design philosophy in terms of tradition and as a nation and trying to work accordingly. (further adds, This is in the shortest way I can explain it, if we start discussing it in detail it might become a very long discussion).

2. what is the reason for picking a project and what kind of projects do you like working on?

khan: Reason for picking a project is to earn a living and don't choose what type of projects people ask me to do, we do it. And every project is what I like working on. (He wasn't much interested in the question till this point)

3. How to you the current practices of architecture in pakistan, in term of problems, shortcomings and tendencies. What do you think is the biggest problem faced by the architectural practice?

Kkm: The biggest problem is the collapse of the global ecology and economy and society, and these seen at a magnified scale are all national problems. In this, there is a very big contribution of the building industry, the makers of it, architects, so I see this is the biggest issue of the Pakistani architecture. And I am really sad that no one really cares about it. The biggest reason for the destruction of this industry is the pursuit of economic growth based on industrialisation, mechanisation driven by global cooperate capital. Unfortunately, the architectural practice, generally is completely integrated, cooperated, is a part and parcel of this whole project. So the architects have become the marketing platforms and architecture is were the cooperate products are marketed. The architect's job is to increase the desire for these products. (I said commercialisation)he says commercial is a mild word it is much worse than that.

4. As per your critical analysis, how are the notions of modernity and tradition implemented in contemporary architectural practice?

khan: The notions of modernity are now, you could even say obsolete and out of date, we are into a much more dangerous phase, post modernism, post industrialization, consumerism, and it is this culture in which we are locked-with together and we serve and benefit from as architects so we have become a part in the destruction of our planet and of our society and of our economy and of our everything, and our humanity.

5. The following paragraph explains the term Critical Regionalism:

According to Frampton's "Towards a Critical Regionalism: Six Points for an Architecture of Resistance," critical regionalism should follow modernism, critically, for its universal revolutionary values, while still maintaining focus on the building's broad setting. As per Frampton, the priority should be on topography, climate, and light; tectonic form rather than scenography (painting theatrical scenery); and the sense of touch rather than just visual sense.

Do you consider this phenomenon being practiced in Pakistan?

Kkm: See, critical regionalism, was it? There have been so many labels like these that architectural critics, writers historians present as an attempt to define what they find is happening. So they are defining something that is happening anyway, its not as if what the designer tries to follow this particular method of design, well this also happen with definitions, labels because they do effectively and accurately define a certain typology, a phenomenon, they then become common parlance and so much so that the schools, architectural studios teachers and history teachers use these terms so much so that the this for the students, becomes a trendy fashion, kind of words and any number of such "isms" regionalism, critical regionalism, this ism that ism, I am not concerned with any of them. I do what I believe is right. To it, some say its Mughal, its islamic some say its traditional and some say its Critical Regionalism, its your analysis and you can label it whatever you want. I do what I am doing.

6. Do you think you ever used modern elements in your projects?

Kkm: A lot! But the question here is how you define the word "modern". If you refer to present time, then what ever we use is modern, so its about what you mean by modern. Since there is another definition of modern, which as a culture. Which is based on the idea that the present is an advancement, a progress, a development better than the past, so by that definition, the latest is the best. So essentially behind this term like so many terms began to be gained currency so essentially it is rooted on the notion of a linear progress development evolution growth and so this is probably the most dangerous idea that drives enterprise of total destruction. We are so convinced that we are smarter, better than any body else, we know more, we have more facts we have more data, more science, more technology, all this destruction that you see, has notion of modernity at its base. Modernity is correlated with industrialization, mechanization. Now if you look at premodern times, all cultures recognize that we are in decline, leading back to the golden age, that was the normative human species, mankind and we have since agricultural revolution which was the first stumbling block we have been declining and moving further and further away from that normative position. This idea has been inverted by the modernism and saying that the further you go back, the more backward primitive, apelike, animal, half human you are but now we are going towards a future material paradise, progress. So this is part of the problems.

7. In your opinion, does Critical Regionalism have a practicable future in Pakistan?

Kkm: Laughs and cynically says nothing has future in pakistan or any where in the world. We have in total three years and if don't correct this path of destruction then we have no possibility of any future. That's the end.

8. when I was going thru your projects, and I have three of them as my case studies. I wanted to know what happened during the construction of Oxford university press that you were later un-assigned from the project and later resigned? What changes did the other construction do to you original design?

Kkm: laughs and says I really don't know, maybe it was because they needed a in-house architect and since we are a lahore based company, they hired someone to the work in karachi. Anyways it was later when the structure was erected, the client called us, worried, saying that we need you back, as we don't like how the project is going. So, it was a very strange experience, as then we had to retrieve what ever we could from the structure to make it as similar as to what we had conceived initially.

Well in the initial design we had considered a lot about Karachi's climate and how the wind should be made part of the building it should have a lot of air movement, ventilation etc, so we had planned a atrium in the center on the building and I wanted a more open plan than what the constructor made. Anyways we managed what we could possibly do revert back to the original idea.

9. And what about Dar ul hikmat? Why did you use concrete in the roofing etc, whereas you normally do spanning in brick?

Kkm: well the the client in this case had two constraints, one was the budget of the building and the second was that the design should not be intimidating and they should feel comfortable in it, since most of its users belong to a lower income group of the society, so we had to consider it and cut down the cost to its minimum. Moreover, it was a project that I did earlier in my work journey...so I too was learning we did not have enough knowledge of traditional use of bricks and timber at that time. So used what was most efficient and most economical method possible. We kept the costs less and ended up saving so much money that the client, was shocked and asked me what should we do with this extra money? (laughs) then I brought in Ustad saif (painter) and other artists to decorate the wall with frescoes.

APPENDIX C.

This appendix contains emailed interview transcript of Naeem Pasha with the author on 15th February 2022

1. What is your design philosophy?

Ar.Naeem Pasha: When I get any project whether it's the State Life Building, National Art Gallery or a house, the first element is to understand what you have been asked to design. For this, you need a lot of research about the project; you have to be careful of what you design. From your research you should be able to know what this specific building ought to be, and then programming is the key as it contains the alphabet, the basic unit for design. So, when you synthesize and groom the program it becomes a word and when you actually start implying these two elements you can make a sentence. The building comes with that sentence.

The building becomes a story in which you have to understand the ratio and proportions as it is very important in my work. I find common aspects of a unit of space and multiply it to get to the desired space. Everything comes in relation with other, the building block of which is the same unit of space. Each and every building that I design has a common denominator. It can be permuted and computed proportionately.

The proportions come from the basic element in the plan. I never design a building for elevation, I do two sections, one is the plan and the other is the section. These two work to form an envelope in which you can start stuffing things in. Louis Kahn in one of his lectures said that when you get a project then you have to find what this project demands from you, once you know the whole then go looking for pieces but if you start looking for pieces to make that whole, you would never be to complete it, there would be few missing pieces anyway and then he adds even if you know the whole probably you won't find all the pieces, one or two might still be missing. So the concept of knowing the holistic sense of the project decides everything, the proportions comes out from it.

Money also plays a part as it decides on what sort of finishes you want or how do you want to finish it most economically, because you are the guardian of the client. The role of the architect is to do which is morally and ethically correct and what serves the people makes you humble. We have to know where we come from and try to contribute what we can.

2. What is the reason for picking a project and normally what kind of projects do you like working on?

Ar. Naeem Pasha: I've been very lucky that I have done large projects like the Pakistan Air Force Academy, now called Asghar Khan Air Force Academy, Risalpur, the National Art Gallery, Saint Thomas Church and State Life Insurance Corporation (SLIC) Tower Building in Islamabad, and many other Governmental, Military and Private projects overall. I would say that I have a very successful Architectural Journey.

3. How do you see the current practices of architecture in Pakistan, in terms of problems, tendencies, shortcomings?

Ar. Naeem Pasha: Pakistan has major identity problems. With partition, we left all the cultural social aspect of what we stand for. India celebrates Allama Iqbal but we don't celebrate Mirza Ghalib because he was born there, if you don't have the seat to sit on, culturally speaking how can you say what my culture is?

The country is only 70 years old which is sort of more like an embryo rather than a fetus. You can't borrow architecture. Even it took two hundred years for America to actually come to some grips with what they now call democracy.

Considering Islamabad, the Capital Development Authority (CDA) should have been an agency rather than an authority. It is blown out of proportions in bureaucracy with no productivity. As the city is progressing it's getting deteriorated further and further. When you go from F8 onwards to F9, thankfully the park F10, F11, you can see the standard is getting down, people prefer these old sectors where one hates to say that their consultants and architects were British or polish or you know Americans or Japanese. The bureaucracy was listening to these foreign consultants, which is now quite opposite.

4. As per your critical analysis, how are the notions of modernity and tradition implemented in contemporary architectural practice?

Ar. Naeem Pasha: You can bring the folk to today. On the same basis you can bring the vernacular to merge it with the current sophistications and material sustainability. It's about continuing the history that makes them modern. I respect the old traditions, like the methods of British bricklaying or Hindu-Buddhist architecture, or the Mughal period etc. They took something from us and left something for us. The details I use are not folk but rather Modern, as it I use it in more of a sparse and minimal way, rather than using embellishments as it were being used traditionally over centuries.

5. The following paragraph explains the term Critical Regionalism: According to Frampton's "Towards a Critical Regionalism: Six Points for an Architecture of Resistance," critical regionalism should follow modernism, critically, for its universal revolutionary values, while still maintaining focus on the building's broad setting.

Ar. Naeem Pasha: Any architect with any sense of reality will focus on the building broad setting while designing the project. It should include climate, typography, light and tectonics. I don't know if I am a true follower of Frampton but all the buildings that I have designed can be related to the phenomenon as described above.

6. Can you name a project/projects that you worked on which depicts the above-written idea?

Ar. Naeem Pasha: As stated above all the buildings I designed can be related to the above written idea.

7. In your opinion, does Critical Regionalism have a practicable future in Pakistan?

Ar. Naeem Pasha: For any architectural project, the design ethos should come from the place you live in. The design synthesis should include regional elements incorporated according to the use and aesthetics. The buildings in Punjab or Sindh should relate to their regional dynamics, but this notion creates division rather than the union between different socio-cultural aspects.