

Quest for Architectural Identity of Pakistan: Ideological Shifts in the Works of Kamil Khan Mumtaz

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Abstract

Pakistan has a rich cultural history, originating from the pre-historic civilizations that flourished thousands of years ago. Before ultimately becoming an independent country in 1947, the prolific lands that are now a part of present-day Pakistan, at one time or another, experienced the rule of Hindus, Buddhists, Greeks, Arabs, Mughals, Afghans, Sikhs, and British. Despite having such a diverse heritage, the contemporary architecture of this country appears to have lost its cultural and regional identity. Due to globalization and standardization, buildings of multiple architectural styles are visible throughout the country without any consideration of the context in terms of time and place. Such architecture is unable to evoke any connection between people, society, and culture. It is, therefore, unsustainable in its social, economic, cultural, and environmental framework.

Most of the contemporary architects in Pakistan imitate the West, without the understanding of their own roots, yet frequently question the architectural identity of this region. Focusing on the architectural works of the renowned contemporary architect, Kamil Khan Mumtaz, this paper attempts to analyze how such questions on architectural identity can be answered. Kamil Khan Mumtaz is among the most prominent figures of the architectural profession in Pakistan. A recent recipient of the prestigious Sitara-e-Imtiaz award, he aspiringly synthesizes both pragmatic and philosophical facets of architecture. Throughout his career, he has been breaking new grounds in the conservation of architectural heritage, in addition to discovering and endorsing the principles used in the historic buildings of Pakistan. Through the study of Kamil Khan's significant works, this paper explores the Architect's professional journey, beginning as a trained Modernist, and then avidly shifting towards regionalism and traditionalism. It outlines the discourse by mapping the works in three distinctive phases of Kamil Khan's professional life and discusses the shift in his architectural ideology through time, which was in fact a quest for an "Architectural Identity" in search of a more appropriate architectural expression for Pakistan.

Key Words: Contemporary Architecture of Pakistan, Kamil Khan Mumtaz, Architectural Identity, Modernism, Tradition and Traditional Architecture, Conservation, Architectural Heritage

1. Introduction

Originating in the pre-historic civilizations of the Indus Valley, Pakistan has a rich history having been ruled by dynasties belonging to diverse religions and ethnicities. These dynasties were led by rulers adhering to Hindu, Buddhist, Islamic, Christian, and Sikh beliefs, and belonged to diverse pedigrees such as Greek, Afghan, Mongol, Turkic, Persian, and British, before in due course Pakistan became an independent republic in 1947. All these eras marked their presence, as evident in the form of Pakistan's architectural heritage. On the other hand, globalization has a strong influence on the current architectural practices, visible throughout the country. This lack of regional identity has resulted in a loss of connection with our heritage, culture, and societal values.

Currently, the energy crisis and increasing utility prices have necessitated moving towards

energy-efficient buildings. Originally, a traditional Pakistani house, built with lime mortar and lime plaster, having a central courtyard, verandahs, thicker walls, clay roof insulation, and double-height ceilings with ventilators at the top to allow accumulated heat to escape, behaved well in the pre-dominantly hot climate of the country. However, once the air-conditioners permeated the urban houses, these traditional concepts of building gradually discarded in favor of the electronically operated machines for thermal comfort. In current times, the contemporary architecture of Pakistan has become unfit in terms of social and regional aspects, as well as energy consumption. The solution to all these problems may be in critical regionalism through which we can move towards a sustainable future.

2. Quest for Identity

The question of identity, as defined by Charles Correa, is meticulously knotted to the “principle ideas or beliefs that characterize a particular class, group, or movement” [1]. Correa explicates, “What is Identity? First, it is a ‘process’ and not a found object” [2]. It may be linked to the culture or identity left by civilization as it moves through history. “Secondly, being a process, identity cannot be fabricated” [2], it is developed by the process of attempting to solve the alleged problems of society. “Thirdly, identity is not a self-conscious thing” [2]. Identity is found by understanding ourselves and our environment; climate being a major factor.

The concept of identity in Pakistan is considered to be an amalgamation of Historicism, Nationalism, and Islam. The pre-dominant dialect has tended to be quite diverse; in some cases, it is strongly associated with colonial and pre-colonial times and in most cases, indigenous architectural countenance. The latter is identified with Islamic values and national development and is synonyms with international ‘Modern’ architecture. The contemporary architecture of Pakistan appears to be hybrid in style and context. Most of the buildings are easily perceptible with the ‘International’ or ‘Modern’ style with little sense of place or idiosyncrasy to the distinct climatic and environmental conditions. Therefore, search for an appropriate architectural identity is crucial, and started soon after Pakistan came into existence. However, it has remained an unresolved encounter of the secular concept of nationalism and the ideology of Islam.

The first attempt to depict the identity of Pakistan was to develop the new capital city, Islamabad. As narrated by Kamil Khan in his book *Architecture of Pakistan*, N.A. Farooqi, the chairman Capital Development Authority explained: “... though a new country we, as a people, are an old nation, with a rich heritage. Inspired by a historical past... (we are) eager to build a new city which, in addition to being an adequate and ideal seat to the government, should also reflect our cultural identity and national aspirations” [3]. At the time Islamabad was planned, there were a few trained local architects, and hence many foreign architects were commissioned for important state projects and brought with them the ideas and trends of the West, not much responsive to the local environment [4]. Prominent architects include Edward Durell Stone, Gio Ponti, Constantinos A. Doxiadis, and Louis Kahn, who not only worked for state projects but also educated the local architects about the concepts

and philosophies of ‘Modern’ architecture. Most of today’s contemporary architects, exposed to these foreign trends, continued to work under the influence of Modernism and Modern Movement, however, a few of them are exploring the tradition, and prescribing a return to roots for the development of architectural identity.

3. Tradition and Traditional Architecture

Formulating a theory of tradition, Karl Popper put forward a question, “How does tradition arise and persist?” Popper argues that “...tradition arises because of our need for certain predictability in social life”. In this sense, tradition provides order and regularity in our natural and social environment; it provides us with a “means of communication” and a set of “conventional usages and ideas” upon which we operate. Thus, the function of tradition is “explanation and prediction” and our need for structure and regularity in social life sustains it [5]. Kamil Khan explains that “Tradition is a set of beliefs or practices common to, and in current usage within, a specific group” [6]. It is different from ‘heritage’ in the way that an entire legacy including those aspects which may no longer exist in present practice or may never have become integrated into the popular culture are a part of heritage. Tradition, significant as it is passed on from one generation to the other, based on its own deep-rooted culture and acquire a common identity. Some of the traditional forms become icons of an area or an era and replicated on a superficial level to symbolize and exalt the dreams of its patrons. However, several buildings based on tradition are evidence of a search for alternative theoretical bases for contemporary architecture in Pakistan [6]. It is important to note that some people are of the idea that traditional architecture is something different than modern architecture, while others think that modern architecture is just the continuation of traditional architecture. According to Kamil Khan, ‘modern’ and ‘traditional’ worlds are essentially different, not in terms of forms, or styles, materials, or techniques, but in attitudes, values; beliefs, and the intended function of art [7].

4. Kamil Khan Mumtaz

Kamil Khan Mumtaz, a renowned figure in the field of architecture, who recently received the esteemed *Tamgha-e-Imtiaz* award [8], has repeatedly demonstrated through his designs and writings, the true principles of architecture in Pakistan. Trained as a modernist architect at the Architectural Association, London (from 1957 to 1966), being apprehensive of the needs of his own

country, he took up a post-graduate course in the tropical department about designing for comfort in tropical climates by Dr. Otto Koenigsberger [9]. Then he joined Kwame Nkrumah University at Kumasi, Ghana, and worked with Keith Critchlow and Buckminster Fuller who had a long-term influence on his work, conducting experiments with the geometry of forms derived from single basic units [10].

Later, when he came back to Pakistan in 1966, he remained Professor and Head of the Architecture Department, National College of Arts (from 1966 to 1980). Since then he is educating younger architects through various platforms and has widely lectured in Europe and Asia. He became a member of the steering committee of the Aga Khan Award for architecture (from 1981 to 1984), where he learned much about Islamic Art and Architecture. He is the founding member of the Lahore Conservation Society (established in 1984) as well as the founder president of *Anjuman-i-Mimaran* [11] (founded in 1988). In recognition of his efforts for the conservation of architectural heritage, Kamil Khan was awarded *Sitara-e-Imtiaz* [12] in 1990 and later *Tamgha-e-Imtiaz* in 2019. He has written a great deal about the architectural heritage of Pakistan in general, as well as about his own ideology in numerous research articles. His two outstanding publications are 'Architecture in Pakistan' [13] and 'Modernity and Tradition.' [14] He established his private practice in 1966 and then became a partner with BKM associates from 1975 to 1985. Afterward, he established his private firm, Kamil Khan Mumtaz Architects, and since then has been working on numerous private and government projects. He has actively conducted various workshops, lecture series, and discussion forums about the traditional principles and techniques of Islamic Architecture.

Kamil Khan, trained under the experts of Modernism, [10] not at the superficial level but at its philosophical depth, was very clear right from the start of his career that the modern movement was not about a particular form or material, but it was a logical, rational attitude to problem-solving. Consequently, he was very clear that there is a need to develop an architectural vocabulary that is 'Modern' in its spirit but also reflects the regional realities of climate, economy, and culture. Kamil Khan states that the turning point of his work came in the 1980s when he became a member of the Aga Khan Steering committee [10]. Only then he realized that he knew nothing about the indigenous architecture, artistic tradition and heritage, and traditional design principles. He didn't want to imitate the west nor copy our traditional forms so

he, throughout his career, has constantly tried to learn from traditional architecture and then practice his knowledge as an architect [15]. Through the buildings that Kamil Khan has designed, it appears that he feels that human beings, nature, and architecture should coexist in the harmonious balance because for him architecture should reflect the personal habits and traditions of a community rather than reforming or eradicating them [16]. Kamil Khan's emphasis on appropriate technologies, local materials, and construction techniques concerning contemporary, environmentally conscious architecture, renewed the use of traditional materials and techniques. As a result, he established a deeper understanding of the social and cultural values of the nation, as a professional, traditionalist, who is in full support of sustainable architecture and the primary architect of Pakistan to start the thought process of such concepts, Kamil Khan narrates: "I am a full supporter of life and human values as such... I am a full supporter of the breathing green architecture with lesser use of mechanical systems... We, the Pakistani's are rather way behind, late comers in 'this race'... the race in which countries like China and America are way ahead of us and are probably the biggest culprits, taking the world to the bottom and destroying it because of their contemporary structures and architecture. This architecture is creating pollution and environmental disasters and we want to be a part of it" [17].

This philosophy has turned Kamil Khan towards the use of traditional materials and methods in construction, as according to him, these have proven to sustain the environment [18]. Used for thousands of years, these traditional-vernacular construction methods have created a healthy sustainable environment, thus the only way architecture could prove to be worthy of its existence. Kamil Khan further emphasizes that anything you want to practice; the need for the hour is contemporary, and right now sustainable traditional architecture is badly needed [18]. In this way, Kamil Khan arrived at a national style in architecture, setting out his views on how this style, when linked to traditional building materials and practices, could yield the solution to Pakistan's architectural problems and the crisis of identity. He is sensitive to the environmental degradation and de-humanizing of our values and calls them a result of 'Modernism' and 'Capitalism' [18].

This research analyzes the contribution of an architect, who is not only conserving the traditional building design and techniques but also experimenting to improve upon them, that can be served as guiding principles for contemporary

architects. His architectural works, based on traditional methods, are discussed here, with the intention to endorse our otherwise passing away building traditions and to search within these for the architectural identity.

4.1 Phase I (1966 to 1980): Learning About Culture, Climate, and Local Materials

Kamil Khan Mumtaz was trained under the Modern Movement and brought the same design approach and philosophy to his homeland. Phase - I portray his initial work based on modern ideology and modular planning (Group 1). Based on his prior knowledge of designing for comfort in tropical climates and energy-efficient designing, he started to experiment with locally available materials along with suitable technologies and climatic considerations [10]. Kamil Khan was educated in the philosophical depth of modern movement and has come to know that it was not about a precise form or material but an analytical approach to elucidate various issues. Initially, Kamil Khan experimented with a low-cost housing system to evolve his ideology [10]. Most of his initial projects, including Zaka Residence in Karachi (Fig. 1), were apparently influenced by the 'Modern Movement' of the early 20th century. Important characteristic features include straight lines, cubic volumes like a composition of boxes, and narrow punctures on the south-facing façade.

In 1960, Kamil Khan worked on a project for Mr. Zahid Karamet, 50 km away from Lahore (Fig. 2). The project brief consisted of a farmhouse, eight storage sheds, a three-room school, and low-cost worker's housing. Kamil Khan started this project with an ambition to construct prototypes for local villagers and to develop a low-cost housing system with a new idea of flexible spaces to be used for multiple functions. Since the cheapest and sustainable material existing was brick, he decided to explore its potential to the utmost. Because of such accepted wisdom, a structural system was implemented which could provide a roof using brick. Accordingly, 'vault' was brought in to play with a module of 3 feet 4 inches (1m approx.), concerning the dimensions of brick and formwork used to build the vault (Fig. 3). The size of the vault was the basic module with 13 feet wide span and a height of 6 feet. Most of the construction workers were unskilled labour and were trained under the supervision of one or two master masons. The project was one of the earliest ventures of Kamil Khan after his return from AA, London, and shows his quest for appropriate technology with the use of locally available materials and labour. His

knowledge of modern structural design was pertained to develop efficient forms and economical use of materials. Vault roof was not accepted as a prototype by the locals following the multi-purpose needs i.e. to sleep on the roof in summers and drying their agricultural products on flat roofs [10]. The plan of worker's housing was based on the module of the brick vault and appeared to be a sequential reminiscent, possibly of the 'Row Housing' in the UK, a creation of the machine age of modern movement. Kamil Khan, himself, submits to the shortcomings of the project as an instance of the mistakes of his past approach to architecture, based on modern movement, which differs fundamentally in most ways from that of the present [10].

Later in 1970, Kamil Khan designed several private residences with exposed brick masonry structures and extensive use of overhangs and balconies as a response to climatic conditions. A fine example of this type is the residence of Asad Qurban Ali, located on Upper Mall, Lahore (Fig. 4). Kamil Khan designed sequential concrete arches to define various spaces without the use of walls and brought the concept of open-planning. He also introduced the enclosed garden, a breathing space within the interior of the house. This was a new type of courtyard with a surrounding wire mesh on which the vines grew. Sprinklers were installed to shower water over the plantation to keep the space cool and fresh in hot summers.

In 1969, the joint family residence for Kamil Khan himself and his extended family consists of an arrangement of independent compact private residence units having enclosed gardens and protected by lightweight wire mesh, as protection from flies (Fig. 5). The structure consists of exposed concrete slabs and cavity walls and planning was based on a modular system. An additional floor was added at a later stage to accommodate Kamil Khan's office, having a steel structure with pipe trusses. The major consideration was to develop the design with a low budget, so he adorned the whole of the façade with over-burnt bricks. The modern approach of design is overriding in the project, though the architect has incorporated the local materials with climatic control strategies e.g. balconies and cavity walls. The scheme of independent dwelling units is possibly stimulation of the western concept of individual apartment blocks. The potentials of brick have been explored even in its most deformed and cheaply available form. These over-burnt brick façades turned out to be a lot popular and were later used by many other architects. Pre-cast concrete frame with single brick tile was brought into play

as parapets in the errand of a low-cost alternative of iron or steel grills. Balconies and overhang projections were provided, along with plantation as effective shading devices to reduce solar gains. Instead of using walls, Kamil Khan used arches to separate various spaces in interiors, that allowed the

flexibility of layouts and visually spacious interiors. Light mass roofing steel structure with pipe trusses on the first floor provided a quick and economical solution to accommodate the office on the upper floor.

Group 1: Phase I (1960 to 1980) Learning About Culture, Climate and Local Materials



Fig. 1: Zaka-ullah Khan Residence, Nazimabad, Karachi, 1966 (source: Kamil Khan Mumtaz Architects Archives)



Fig. 2: Workers House, Kot Kramat, 1969 (source: architexturez.net Kot Karamat Village | AÇ South Asia, <https://architexturez.net/doc/az-cf-166701>)

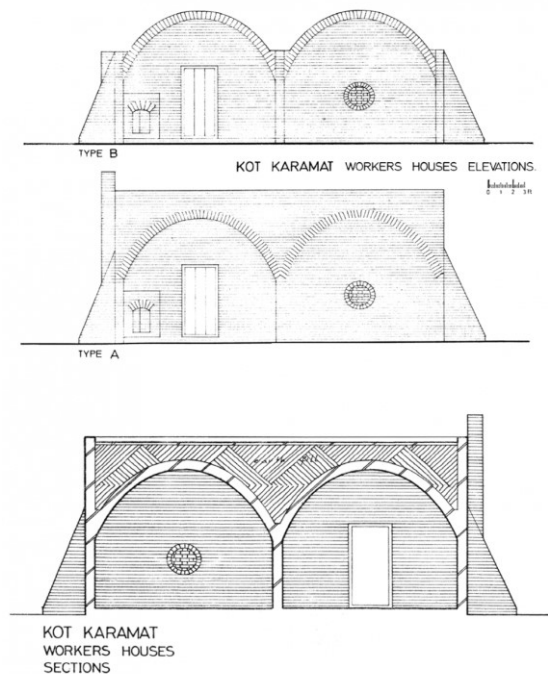
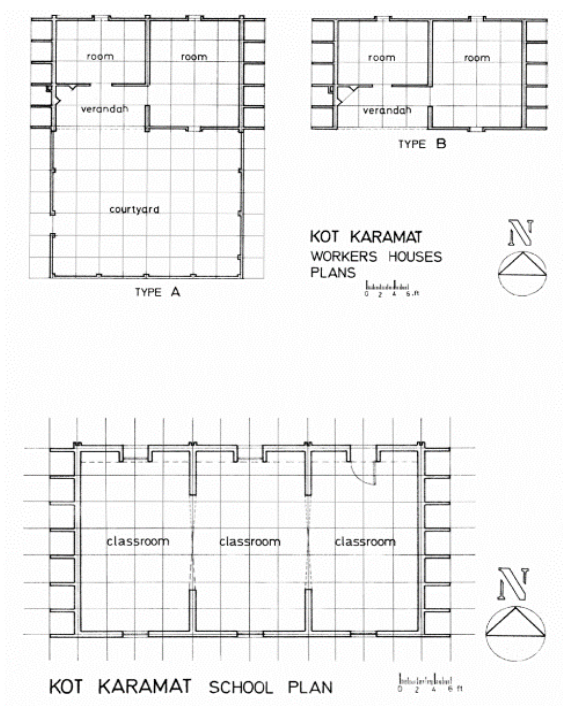


Fig. 3: Workers House Plan, Section and Elevation at Kot Karamat Village, (source: architexturez.net Kot Karamat Village | A South Asia, <https://architexturez.net/doc/az-cf-166701>)



Fig. 4: Asad Qurban Ali Res, Lahore, 1980 (source: Kamil Khan Mumtaz Architects Archives)



Fig. 5: Kamil Khan's family Residences, Lahore, 1978 (source: Kamil Khan Mumtaz Architects, <https://www.kamilkhanmumtaz.com/projects>)

4.1.1 Assessment: Phase I

Phase I is a period where Kamil Khan endeavored to achieve a level of maturity in his work based on modern principles, along with the regional contemplation of climate, economy, and culture. He experimented with the geometry of forms, derived from simple basic units. The philosophy of the Modern Movement is manifested in the modular planning grid, the composition, and the verbalization of the brickwork. At the same time, he also endorsed a low-cost housing system with the use of locally available materials as well as availed the skill of local labour. The components such as balconies, verandas, vaults, and plastering of bricks with lime mortar specify his ongoing search for the importance of the regional climate, local resources, technologies, and morphologies.

4.2 Phase II (1980 to 2000): Departing from Modernism; Towards a Traditionalist Approach

In 1980, with the joining of the Steering committee of the Aga Khan Award for Architecture, Kamil Khan came to realize that he needed to educate himself about our own architectural heritage and traditional design principles (Group 2) [10]. The turning point of Kamil Khan's work came with the reading of two significant publications: *Sense of Unity*, written by Nader Ardalan and Laleh Bakhtiar, and *Sufi*, written by Laleh Bakhtiar. These publications made a huge impact on the architect, expediting his

rediscovery of traditionalism, and increasingly distancing him from the tenets of modernism [10].

In 1989, Mr. Sonu Abdur Rahman hired Kamil Khan to design a residential project on the Munir Road, Lahore. This project corresponds to a stage where Kamil Khan went ahead with the use of traditional crafts and extended his ideas of incorporating traditional building materials and techniques into his designs (Fig. 6). Brick perforated walls were designed as parapets to enclose the terrace, making it a private social space as well as suitable to the local climate by making available the shade to low sun. External *jharoka(s)* [19] and balconies were provided as a tradition of old *haveli(s)* in the Walled City of Lahore. Traditional crafts were incorporated in the form of Multani glazed tiles in shades of blue.

Another example of the similar design concepts is the house of Ms. Ghazala Rehman, completed in 1989 and located on Nisar Road of Lahore. The house is coordination of courtyards enclosed with mosquito netting and wire mesh. The prime constraint was to make plantation and landscaping a part of the interior and at the same time permitting natural light and ventilation into the interior of the house (Fig. 7). Reinforced concrete slab roof was brought in use for most parts, apart from the central lounge, where a brick cross-vault with arches at the intersection has been used. In patios and courtyards, brick arches were used with the mosquito netting. The diagonal arches were segmental, whereas the barrel vault was derived by projecting the segmental curve onto the orthogonal plane at 45 degrees.

In 1989, Darul Hikmat Education Centre envisioned a project of Vocational Training Centre: Hostels and College, for 100 boys and 100 girls with a Primary School for 180 pupils, and staff residences in Village Dullu Kalan, Lahore (Fig. 8). The spaces were deliberated around a courtyard - eight squares amid a central courtyard, stimulated by the concept of *Hasht-Bihisht* [20]. The client demanded a low cost, flexible building where the spaces could be converted for diverse uses, according to the need. The obligation was to make the complex adaptable to future expansion, both horizontally and vertically. An additional prerequisite was to use local materials to create a milieu that is not daunting rather with which students from rural surroundings could relate with them. Brick was used as both the structural and decorative material with an emphasis on local techniques and craftsmanship, to create an ambiance that is amicable to the students who have come from poor urban and rural backgrounds. The indigenous materials and simple building technology used resulted in savings in the budget which was effectively used to incorporate traditional crafts such as frescoes, patterned marble floors, and carved wooden doors thereby also embellishing the building with traditional symbols and associations. Kamil Khan used perforations in the brick parapets as the prototype existing in the Walled City of Lahore. Nine courtyards along with covered verandas were used extensively to act as buffer zones between comfortable interior spaces and extreme outdoor climatic conditions.

In the early 1990s, the Doon School Society of Pakistan initiated the project of Chand Bagh School – a fully residential Public School for 600 boys in eight boarding houses and 350 staff families. The site selected was a 188 acre land in Muridke on Sheikhpura Link Road. The project was a joint venture of boy's boarding school in Dehra Doon, India, and the client brief was to design a school that is a continuation of ideas of the old school, yet with a distinctive Pakistani identity (Fig. 9). Kamil Khan, therefore visited the school in India to grasp the concept of a continuous sequence of movement across various buildings within the campus. He started on the design concept for Chand Bagh School as an exhilarating try-out with 'fractal' geometry, which was later discarded after Kamil Khan visited the site. The school is a manifestation of a divine garden; the buildings are secondary to the extensive landscaping done all over the campus. A variety of buildings based on their functions such as administrative, academic, and residential; connected by a system of courtyards of altering sizes, planted with trees for shade, or aromatic trees to create a delightful

ambiance. Verandas and arcades are provided along with the buildings in a connecting series, in consideration of extreme climatic conditions. Many trees are present in the surrounding area of boarding houses; avenues and footpaths are lined with flowering trees. Fruit orchards, vegetable gardens, and wheat fields on parts of the 450 acres of the site stand to make the compound self-sufficient in organically grown food for the boys. A sophisticated water system of tube-wells, canals, and drainage channels and fountains has been employed to provide for the entire site. Surface-water and rainwater harvesting are done with the help of *baoli* [21]. Kamil Khan uses an economical structural system of load-bearing walls with waffle slab for roofing. *Pakka-qalai* (glazed white-lime plaster) was used in the interior, while lime mixed with *surkhi* (red pigment) was used for pointing of brick on the external façade.

In 1998, Mrs. Sarah Zaman came to Kamil Khan with a wish that her house should be designed with traditional design principles and vocabulary (Fig. 10). The site was to be found in a posh area of Cavalry Ground, Lahore. The central space has a double-height atrium space having eight sides; a square lantern-shaped wooden skylight is used in the center of the ceiling and is surrounded by various rooms. The ceiling height of all the spaces is diverse forming lots of levels of varying stature, boosting up the exquisiteness of the building. The key aesthetic features include; use of lime plaster in various compositions as finishing material, wooden *jheroka(s)* to act as balconies, segmental arches, a huge multi-foil arch at the porch, intricately carved huge wooden *dewrhi* [22] for entrance, and traditionally designed cornices to hold up the shades. *Kankar* lime, in its unfinished form called *panna*, is used for the interior walls, while in the formal areas finishing of *pakka-qalai* was hand-smoothened to attain vigor and polish. The use of modern construction techniques is kept to negligible as reinforced cement concrete is used only for the roofing. Nevertheless, the porch roof is a brick flat dome. Traditional crafts include elaborately carved fireplaces, fresco paintings, and decorative features in lime plaster, in addition to famous Lahori glazed tiles joined together to form various geometrical patterns. One of the fireplaces is a replica of that at the Lahore Museum, while the other is stimulation from a wooden *mohawk* at Fakir Khana Museum (Walled City, Lahore). The project is an admirable example of the use of traditional elements and crafts with a petite muddle up with modernism, however, where utterly obligatory. Kamil Khan got the chance to allow an interplay with the traditional vocabulary, as Sarah Zaman, herself is a great aficionado of the traditional art,

embracing the design and aesthetics Kamil Khan proposed for the project. Thus, every detail of the project is a live example of Kamil Khan's proficiency and theoretical approach and seems to be an exhibition referring to the traditions of our culture and local arts and crafts.

In the same year, the renowned Oxford University Press (OUP) initiated the project of Head Office Building (Fig. 11), with a basement and four stories in the industrial zone of Korangi, Karachi. The building exhibits a variety in traditional arts and crafts, for instance: brass and copper metalwork, lacquer painted *naqashi* [23] in false ceilings, Sindhi glazed tiles on walls, Sindhi *ajrak* [24] patterned floor tiles, and so on. The cladding chosen for the external façade is pallid yellow sandstone, locally called Gadap, transported from the foothills of the Kirthar Range in the outskirts of Karachi. The main door for the new OUP Head Office building is based on Kashmiri design, in forms such as the *suraj mukhi* (sunflower) motif. The embossed brass and copper work used in the door are called *chitrai*. The traditional *naqqashi* on wood employs natural mineral pigments in a water medium with *saraish* (adhesive). The OUP ceilings are designed with *tilli-murabba* patterned borders and geometric *girah* (grid) based on an eight-pointed star. A wooden carved *jharoka* is installed with a skylight above in the main entrance lobby: a characteristic feature of the street façade of the traditional Sindhi towns. The circulation spaces, including the

lobbies, corridors, and stairways, have dados in glazed tiles in different shades of blue. The project seems to be inspired by the British Colonial architecture of Karachi and is responsive to the maritime climate of the city, utilizing local stone and traditional crafts. Kamil Khan's first intent was to develop a much more open and well-ventilated building with open courts and generous balconies to incorporate cross-ventilation, supported by the natural weather of Karachi. However, he abandoned this idea later as it was not practically possible due to the printing function in OUP and the polluted dusty industrial environment around the site. The stone details on the façade, the brass and copper entrance door, the pressed cement floor tiles, *kashi* glazed wall tiles, *sheesham* wooden staircase, the use of *chiq* blinds and wooden louvers 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 alternative.

4.2.1. Assessment: Phase II

Phase II is a period where Kamil Khan completely understood and established that traditional architecture should not be placed in time and space or in terms of forms and materials. Rather it is an art and architectural expression rooted in the traditional world view that is radically different from that of modern perspective. Hybrid construction techniques and composite structures have been used in most of the projects: atriums and

Group 2. Phase II (1980 to 2000) Away from Modernism and Towards being a Traditionalist



Fig. 6: Abdur Rahman Residence, Munir Road Lahore, 1989 (source: Aga Khan Trust for culture, <https://archnet.org/authorities/36/sites/80>)

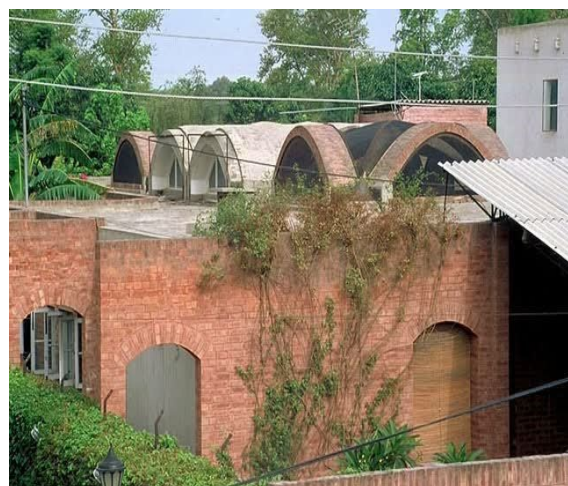


Fig. 7: Ghazala Rahman Residence, Nisar Road Lahore, 1989 (source: Aga Khan Trust for Culture, <https://archnet.org/authorities/36/sites/843>)



Fig. 8: Chand Bagh School, Muridke, 1997
(source: Chand Bagh School,
<https://chandbagh.com.pk/>)



Fig. 9: Darul Hikmat Education Centre, Gullu Kot, Lahore, 1995 (source: Kamil Khan Mumtaz Architects,
<https://www.kamilkhanmumtaz.com/projects>)



Fig. 10: Sara Zaman Residence, 1998-2003 (source: Kamil Khan Mumtaz Architects,
<https://www.kamilkhanmumtaz.com/projects>)

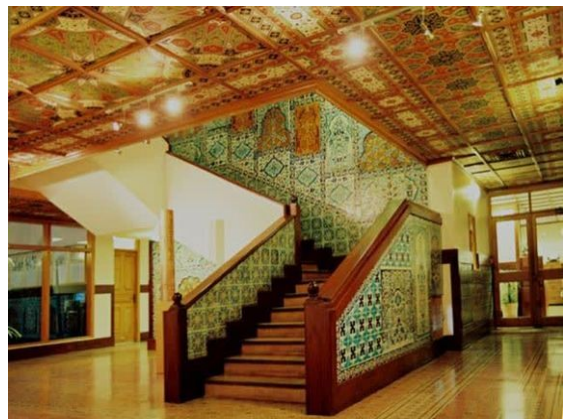


Fig. 11: Oxford University Press, Head office Karachi, 1998 – 2002 (source: Oxford University Press,
<https://oup.com.pk/about-oup>)

patios have structures like domes and intersecting vaults for the roof, while most of the other parts have typical RCC or in some cases, RBC slab; both supported on load-bearing brick walls. Reviving the local crafts: wood-carved *jheroka(s)* and doors, geometric patterns, fresco work, glazed tiles decorative use of brick, and lime plaster technique for wall finish were introduced. Use of lime as a regional, rational response to the economic realities, and environmental concerns because of its comparatively low price and environment-friendly character. In response to climate-responsive architecture, he has extensively used courtyards, verandas, and balconies for diffused light and cross-ventilation and incorporated green architecture by using passive cooling techniques, such as by creating stack-effect for cooling through atriums, evaporative cooling through patios, and solar shading with the help of verandas. Most of the buildings belonging to this era demonstrate that the use of indigenous materials and technologies can bring into being an architecture that is not only relevant to our times but also functionally competent yet rooted in our cultural milieu.

4.3 Phase III (2000 to present): Mastering the Techniques of Traditional Architecture

This period corresponds to the latest and most established epoch of Kamil Khan's philosophy and his understanding of Islamic architecture in terms of its divine principles of 'unity' and 'beauty' as well as the techniques of materializing various structural components and continue to evolve them. This phase completely rejects modern materials in favor of sustainable development. Most of the works include monumental mosques, mausoleums and residential buildings belong to the intellectual elite, who gave full support so that Kamil Khan could stick to his principles of Traditional Architecture (Group 3).

In 2005, the Shrine of two Sufi saints: Baba Hassan Din & Hafiz Iqbal, prompted by the local community of the followers in the residential sector of Baghbanpura Lahore (Fig. 12). The design extensively follows the Mughal traditional design principles and construction methods. The prime building materials include brick and lime mortar with extensive fresco work, *ghalibkari*, and mosaics of Lahori glazed tiles. The shrine is approximately rectangular in plan, measures about 93 feet by 54 feet. Kamil Khan carefully incorporated the proportions of various components. The taller archway on the shorter side of the plan, with a grand *pishtaq* [25] is edged by

two tall minarets, having a pointed arch made with the support of *muqarnas* [26].

The entrance archway leads to a corridor, which further leads to the hall of Baba Hassan Din's shrine. Having a square plan, the hall has profound brick walls and a large double dome over the grave in the center. The dome has an octagonal drum with elaborately painted squinched pendentives. Clerestory arched windows are provided on the base of the drum to invite the play of natural light. An open courtyard with a covered verandah on one side is present at the rear of the chamber which can also be approached by the main entrance *dewrhi*. The shrine project was set off by a disciple of Baba Hassan Din, with the prime demand that the design should be fashioned after the Mosque of Imam Ali at Najaf in Iraq (c. 977 CE), that is noticeable. It is one of the most exhilarating projects of Kamil Khan's professional career, being the first project utilizing brick as the primary construction material for all the domes and flat dome roofs. Façades are finished with brick and Lahori glazed tiles. The technique of *kashikari* [27] in shades of green and yellow has been applied in a similar way as used in the Mosque of Wazir Khan, Lahore (c. 1634 CE). The technology with which the flat domes and vaults are made to hold the domical roof is astounding; perhaps the best way to completely negate the use of steel and concrete. Kamil Khan holds the credit of re-introducing this Mughal technology somewhat successfully. He has revived various traditional building crafts. The engraved tablets on the walls of the shrine are inspired by those in the Sheesh Mahal at Lahore Fort, the Taj Mahal at Agra, or Jahangir's Tomb at Shahdara. The *ghalibkari* [28] on the entrance portal is analogous to that found in the tomb of Dai-Anga nearby [29]. The project is still under-construction, going on for the last many years now. It is indeed a sublime piece of architecture in terms of engineering and aesthetics, which gives an idea about our indigenous building traditions and cultural heritages.

In 2006, Sally Textiles initiated the project of a community Mosque in Sally Town, Tajpurra (Fig. 13). The entire Masjid is built with lime plaster, bricks, and tiles, with the roofs being assembled with small bricks in a circular dome to avoid the use of steel, concrete or cement, nor any of the modern devices used for construction. *Muqarnas* was executed by Sultan, a young hereditary craftsman from Multan. He had never before made something like this and was able to complete the challenge after Kamil Khan's office made him a cardboard model of *muqarnas*. An array of fresco and floral designs were painted with original dyes, inside the

central dome. A golden and black arched *mihrab*, gesturing towards the direction of the Kaaba, is fashioned after the one in Mashhad-i Bayazid Bastami at Bastam, Iran (c. 877-1120 CE) [30]. The *ghalibkari* pattern is enthused by the famous Begum-Shahi Mosque, also known as Marium-Zamani Mosque, built during Mughal emperor Akbar's reign (r. 1556-1605 CE), inside the Walled City of Lahore [30].

One of the latest and finest examples of Kamil Khan's traditional design concept is the residential complex of Mrs. Bina and Justice Jawad Khawaja – The *Har-Sukh* Mansion in Thaeer village on Bedian Road, Lahore. The mansion complex has recently been completed (Fig.14). The complex consists of various independent units joined together with an open court having a stepped amphitheater in between. The program includes a residential area: having three individual dwelling units with master beds with attached dress baths associated with other rooms, a music and recording studio, dancing and painting studio, garages, servant quarters, and a swimming pool with a water tank. Kamil Khan got a unique opportunity and freedom to experiment with brick and exploited its potential to create a variety of structures without using factory-produced materials. Covered verandas with four-centered arches, well-lit courtyards, star-shaped domes on double-height atriums, terracotta jalis as parapets, staircase supported on a series of arches, double-height *dewrhi*, *muqrnas* at the corners, *barandari* [31] on the roof, *jheroka(s)*, and flat domes to create useable first floor are the main features of this complex. While one is moving around the building, it is manifested that brick is being celebrated; used in its best possible form in every nook and corner. Architectural forms and spatial organizations reinforce a sense of place and history, reflecting ideal forms with embedded meanings related to and metaphysical worldview. The function of every space is designed to meet the requirements of a modern family, such as study room and independent dress areas for all the members, but with creating an ambiance of a traditional *haveli*. A huge dome with *muqarnas* at the base corners with a skylight at the top is one of the most interesting features, probably inspired by the central hall of the Mosque of Cordoba in Spain. The massive brick and lime structure will gain its maximum strength in the next forty years and can withstand the test of time for centuries. Kamil Khan also incorporated passive energy techniques in favor of sustainable architecture, such as the use of biogas for cooking purposes and photo-voltaic cells for electricity production. Structurally, it is the most efficacious example of his contemporary works, with the use of

traditional flat-dome and ribbed-dome, which allows laying the upper floor, while completely rejecting the use of steel and concrete [32].

4.3.1 Assessment: Phase III

The present phase depicts a complete rejection of the materialistic approach of Modernism, Kamil Khan states that we have reached a critical phase of destruction of humanity and the environment, we must stop and think about it. He explains: "We are a poor country and can't afford throwing foreign exchange importing material. Secondly, glass and metals are inappropriate for our climate. We are culturally very destructive because these are kinds of images that point to a certain value system, which is dangerous. I am opposed to irresponsible industrialization and uncritical modernization. Today I call myself a traditionalist. This is my personal position" [33].

At present, climate and environment have become the prime concern of Kamil Khan's designs, in favor of sustainable architecture. Pastiche approach is also obvious in most of his designs; according to Kamil Khan, 'copying' is very important in traditional practice and it has significance as it is inherited from generation to generation; *Ustad* (teacher) to *Shagird* (student). However, copying, and working from prescribed models is never in practice simply a mechanical process of reproduction. It involves intelligent interpretation, adaptation, and application of critical judgment and discernment at every step of the way [34]. He further exclaimed that this very method of traditional practice makes architects extremely humble, as they know that they are not 'innovators' and 'inventors', rather they are continuing the legacy of their ancestors [16].

In this reference, admiration and inspiration from the Islamic architecture of Central Asia, Iran and India, has reached its maximum in the latest phase, where he emphasized to comprehend the techniques involved in traditional architectural forms. Pure traditional construction techniques are used in all his latest projects. Ribbed and flat domes without formwork, pointed and multifoil arches, vaults, *muqarnas*, and other traditional forms have extensively been used to completely avoid the use of high- embedded energy materials such as steel, concrete, and cement. He is doing a lot of experimentation with the traditional techniques and methods of construction on project sites and in the office with the help of computer modeling. He is also conducting various workshops to revive the traditional arts and crafts, thence he has not only contributed to conserving architectural heritage but

at the same time conserving the traditional techniques of construction. He is using lime mortar and brick in his buildings the same way it has been used in Mughal architecture. He has also explored the decorative use of materials: using the decorative potential of brick, lime, and natural stone in the form of marble inlay, fresco painting, brick and lime *jheroka(s)*, wooden carved doors, and so on. Most of his recent projects have the monumental scale and iconic status, the reason being increasing

awareness among the masses about environmental degradation and the popularity of his ideas.

Through his personal experience with craftsmen and his readings about traditional crafts, Kamil Khan proposes that traditional crafts have a role in Islamic architecture that is distinct from building and decorative crafts of other sacred architectural traditions and need to be studied and understood about the religious doctrines and practices specific to Islam [35].

Group 3. Phase III (2000 to present): Mastering the Techniques of Traditional Architecture



Fig. 12: Shrine of Saien Baba Hasan Din Lahore, 2000 – 2009 (source: Kamil Khan Mumtaz Architects, <https://www.kamilkhanmumtaz.com/projects>)



Fig. 13: Sally Town Mosque, Lahore, 2006 (source: Kamil Khan Mumtaz Architects, <http://kamilkhanmumtaz.blogspot.com/2013/>)



Fig. 14: Bina Jawad Khawaja Residence (HarSukh Mansion) Village Thaeter, 2007 (source: Authors)



5. Conclusion

This research is an attempt to initiate a significant debate on the quest for Architectural Identity in Kamil Khan Mumtaz's architectural works within the context of Pakistan. His ingenuity to use traditional building elements made him distinct from other contemporary architects. His

professional journey of architecture is remarkable in terms of conserving the traditional techniques of construction, experimentation to improve upon the elements such as arches, domes, vaults, and *muqarnas*, exploring the potentials of brick and using it in the best possible way. To some extent, he has also been able to achieve a similar level of comfort as found in traditional buildings in terms of its indoor temperature and humidity level. He used

modest design principles and elements for climate control, such as verandas, open to sky courtyards, double height living room for effective air movement, overhang projections and balconies for shading, as well as the passive technique of evaporative cooling. Due to the use of low-tech building materials and labour-intensive construction technology, the buildings have a comparatively low impact on the environment with a reduced carbon footprint.

In most of his recent projects, architectural forms and spatial organization reinforces a sense of place and history, reflecting ideal forms with entrenched meanings related to traditional worldview. The geometric proportions, copying from masters, and the profound connection between the traditional arts and crafts are the intrinsic qualities of the architect's works. He emphasized on the role of art as a support in the spiritual journey towards enlightenment, which is the ultimate progress of a society.

Kamil Khan's works somehow lack novelty and are mostly an assortment of traditional building elements as he believes that copying is very important in traditional practice and is significant as it is inherited from one generation to another. He started his journey of architecture as a pure modernist and ended up being a traditionalist. Most of his recent works reflect a complete divergence from his early works. It is, perhaps, limited to a clientele who can afford to spend that much amount of money and time, in addition to wanting to contribute in keeping alive our otherwise passing away building traditions. Nevertheless, his work and philosophy do portray a question of relevance to our mainstream contemporary architecture. His works have high labour costs due to the non-availability of skilled labour of traditional construction, less usable plot area due to thicker walls and heavy domes, whilst the prevailing bylaws of smaller plots do not support the courtyard planning. The traditional construction process is typically slow, which increases the total time of construction and is adversely affected by the high inflation rate. However, the traditional typology of construction, which is labour extensive and low technology can help in strengthening the country's economy and creating job opportunities for local people. Rather than spending a huge amount of foreign exchange to import foreign building materials and technology, we can make use of locally available materials and labour. Our country has extensive manpower, which should be employed after training them to achieve the skill of traditional building construction.

Kamil Khan's lifelong efforts and struggles deserve appreciation for exploring the traditional building elements which had evolved over centuries. Additionally, for him ingeniously using available material resources and skills, designing buildings that are responsive to the climate, and forming an architectural vocabulary that creates fascination to the public. He has experimented with making basement retaining walls with brick without the problem of seepage, as well as upper floors with the help of flat domes. The need is to advance this development to make this typology not limited to residential or institutional buildings but be more accepted for commercial buildings as well. Though, the affordability of his ideas is still open to discussion for the people who belong to the lower-income group, who can only afford to buy small plots of land and are forced to build multi-story houses for large families. This requires further research and development on the traditional building techniques and elements to assimilate with contemporary trends.

The appropriate architectural identity of Pakistan is yet to be found. Identity is sometimes rooted in the prevailing ideological and sometimes political system. For example, during the General Zia era in the 1960s, Islam was the dominant theme, manifested by generic arch and dome. It also depends upon the type and availability of materials, resources and skills, and existing levels of technology and industry. Significantly, according to Kamil Khan, identity is found in the deeper cultural values of people, architectural vocabulary that is meaningful to the people and relevant to their culture and history, buildings which are sensitive to prevailing social values and norms [10].

Kamil Khan Mumtaz, through his architectural journey, has come to strongly reject the concept of 'Modernism' in favour of returning to the 'roots' and leaning from traditional architecture to cultivate a more meaningful architectural identity of Pakistan.

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- [19] *Jharoka* is a type of overhanging enclosed balcony used in Indo-Islamic Architecture served not only the basic need for lighting and ventilation but also attained a divine concept in Mughal Architecture.
- [20] In Architecture, *Hasht-Bihisht* (lit. Persian – Eight paradises) refers to a specific type of floor plan common in Persian Architecture and Mughal Architecture whereby the plan is divided into eight chambers surrounding a central court.
- [21] *Baoli* is stepwells, in which the rainwater is harvested. These water reservoirs are below ground level and can be reached by descending sets of steps up to the water level.
- [22] *Dewrhi* is a double-height entrance portal, a common feature of Mughal Architecture.
- [23] *Naqashi* is a delicate art of painting motives derived from nature.
- [24] *Ajrak* is a unique name for of block-printed shawls and tiles found in Sindh, Pakistan and have become a symbol of Sindhi culture and traditions.

- [25] *Pishtaq* is a rectangular frame around an arched opening, usually associated with an Iwan.
- [26] *Muqarnas* is a brick masonry configuration put together from the angle in corbelled courses, by substantiating the corner using a vise positioned diagonally.
- [27] *Kashikari* (lit. mosaic art) is a form of decorative art that involves shades of blue.
- [28] *Ghalibkari* is a traditional technique used to finish lime plaster on the dome ceiling.
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