JOURNAL OF RESEARCH IN ARCHITECTURE AND PLANNING

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CONTENTS

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EDITORS' NOTE

The following volume of Journal of Research in Architecture and Planning is the 31st volume and second issue of year 2021 and contains five papers contributed by international and local scholars. The papers cover multiple themes related to pedagogy during COVID and secondary education problems, history of colonial bungalows and their socio-spatial impact, historic cultural landscape near Misri Shah, Lahore during Sikh period and urban study into vendors of Lahore.

The first paper explores adapting to newer pedagogic and engagement models during COVID-19 taking examples from conservation projects that the author was engaged with. The paper examined three tiers of pedagogical engagements that are part of historic cities and area conservation namely planner – stake holder, professional – client and peer to peer. With the help of case examples the paper enumerates draw backs and potential of this newer pattern of relationship in the wake of pandemic.

The second paper deliberates on the typology of colonial bungalow, brought to Karachi during the British rule and how it can be read as culturally synthesizing the East and West. This paper also explores the evolution of the typology as per the needs of the "native" residents after independence but maintains that spatially the bungalow core remained same. The position authors take is supported by case example analysis.

The third paper in the volume explores, with the help of older archival maps of Lahore, the traces grand gardens that were planted during Maharaja Ranjit Singhs' time. Since the street patterns and land-use of the area has dramatically changed over time the paper posits the demerits of massive expansion, unchecked development and lack of maintenance of older city areas of historic importance of a heritage rich city of Lahore.

The fourth paper directly engages with architectural education in Pakistan and issues students face during the course of this five year program. These issues are co-related with the secondary education in the country where qualitative and quantitative analysis is made to compare O-A levels backgrounds with matric - F. Sc. backgrounds of enrolled students. The study is made from data collected from 14 different architectural schools in the country.

The last paper in the volume studies vendors in metropolitan city of Lahore as economic drivers and influencers, the challenges that are faced by them and how the study can lead to some policy measures to curb mistreatment of vendors by concerned authorities. The argument is built over the premise that vendors act as economy generators however the informal nature of economic arrangement they have leads to problems.

The volume also includes review of the book "Marginalization, Contestation and Change in South Asian Cities" edited by Nida Kirmani. The book is a compilation of essays / chapters by various researchers and scholars on the issue of marginalization and the fast paced changing urban dynamics of South Asian cities.

Editorial Board

PERSPECTIVES ON PANDEMIC: PEDAGOGIES, PREJUDICE, AND A PARADIGM SHIFT

Rand Eppich*

ABSTRACT

"Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody." (Jacobs, 1961)

Urban planning, particularly for historic cities, requires extensive community involvement, given a large number of public and private stakeholders. Unilateral top-down decisions of the early 20th century made it clear that community involvement was essential to planning. Understandably, this has been difficult with the ongoing global pandemic. Lockdowns, confinement, quarantine, limited travel, and outright bans on gatherings have made public participation in urban decisions nearly impossible – yet planning for the future has not ceased. Of course, technology is aiding communication, including multiple channels of video conferencing, instant messaging, VoIP or internet phone systems, relay chat, social media, and even email. But these means of communication are no substitute for in-person face-to-face interaction and have raised new and challenging questions – How can community involvement be accommodated? And what other relationships or forms of communication are impacted?

Successful planning also requires forming pedagogical relationships, another problem created by the pandemic. Most often, pedagogy refers to an academic setting or teacher-student relationship. But pedagogy also relates to other relationships necessary for auspicious planning, including the planner-stakeholder and professional-client associations. Frequently, architects, urban planners, and conservators must explain the problems, technical details, results of surveys, and other studies to clients, decision-makers, and stakeholders. Often people are involved in making decisions and are not well versed with urban planning, architecture, or the conservation of historic cities. Another relationship that is has been impacted by the pandemic is peer-to-peer exchange, essential for complex urban planning. This paper will explore various issues and challenges of this new mode of work inter-pandemic. First, there will be an examination of three types of pedagogical relationships: planner-stakeholders, professional-client, and between professionals or peer-to-peer. Second, three examples are included to illustrate the drawbacks and benefits of this new mode of work, specifically related to planning and conservation projects in historic cities. These examples are all drawn from projects executed by various firms during the pandemic and led by the author. Finally, the presentation discusses the disadvantages and advantages of new forms of pedagogy, including removing prejudices. Pre-pandemic, there were many objections to holding virtual meetings or relying extensively on digital communications from stakeholders, clients, and team partners. The pandemic has effectively removed this prejudice against online encounters and subsequently pedagogical relationships, thus accelerating the paradigm shift related to virtual communications.

Keywords: Pandemic, Urban Planning, Heritage, Conservation

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PANDEMIC - PLANNING

A brief internet search on the current pandemic and its impact on pedagogy will reveal hundreds, if not thousands, of results featuring numerous conferences, journal articles, and websites. These articles range from teaching guidelines to the use of online technology, such as in Technology Supported Learning and Pedagogy in Times of Crisis (Ahmed, 2021) and Perspectives of Technology Education Teachers during COVID-19 (Code, el. al., 2020). Social media and Facebook support groups also exist, such as Pandemic Pedagogy (Schwartzman, 2020). There are also numerous instructor and student surveys such as Impacts of the COVID-19 Pandemic on Field Instruction and Remote Teaching Alternatives (Barton, D. 2020). Understandably, most attention has been on the traditional teacher-student relationship. However, there are far fewer articles related to the impact of the pandemic on other pedagogical relationships, particularly with a focus on urban planning.

Planning for urban areas, especially in historic cities, must engage and involve local communities, groups, individuals, and stakeholders for whom these places are home. It is no longer acceptable that decisions about the urban environment are planned or executed unilaterally. The noted urbanist Jane Jacobs in her book The Death and Life of Great American Cities and Downtown is for People, argued for the people-centered urban planning approach. "There is no logic that can be superimposed on the city; people make it, and it is to them, not buildings, that we must fit our plans" (Jacobs, 1958). In the seminal work "A Pattern Language", Alexander (et al.) states, "We begin with that part of the language which defines a town or community… where each project built or each planning decision made is sanctioned by the community… "(Alexander, 1977). Much earlier, Socrates stated, "By far the greatest and most admirable form of wisdom is that needed to plan and beautify cities and human communities" (Messer, W. 2018).

So, it is clear that planning must involve communities and requires extensive proactive communication – but it must also include developing pedagogical relationships. Community members cannot be expected to understand all the issues of cities and the complex solutions proposed. Modern urban planning is also very technical and involves numerous experts; thus, professional-client or decision-maker pedagogical relationships must also be developed. Finally, planning practice demands a multidisciplinary approach. Therefore peer-to-peer interaction is the third form of pedagogy necessary. These three pedagogical research relationships will be explored in this paper, planner-stakeholders, professional-client, and peer-to-peer. The research methodology followed in this was from first-hand work on the examples described within. The opinions of those involved were collected from working on these projects. The following section will briefly define the pedological relationship, address the apparent drawbacks, and uncover the more positive aspects of new means of communication, including removing prejudices related to online pedagogy and the paradigm shift in delivering online resources. Pre-pandemic, there was hesitation and objections to holding online meetings with clients, stakeholders, colleagues, and students. Inter-pandemic, these opinion has changed and is now widely accepted. Three current examples illustrate these drawbacks and benefits associated with urban planning and conservation projects in historic urban environments.

PEDAGOGIES PLANNER-STAKEHOLDERS

The first pedological relationship is that of the planner and stakeholders. A critical aspect of community involvement is explaining the existing conditions, issues, and analysis related to urban spaces and planning projects. This situation is especially applicable in historic environments and the project's impacts on historical settings' values, integrity, authenticity, and significance. Often community members are well informed, but knowledge or experience is frequently

Figure-1: Slyline of Durres, Albania from the Ancient Citadel.

lacking or have lived with issues that are taken for granted thus no longer recognized as problems. Individuals may be shopkeepers, bankers, restaurateurs, religious leaders, and professionals. They may not know how to read design drawings, plans, mobility studies, or fully understand the implications of changing complex systems such as cities. Therefore, pedagogy is a crucial component of community involvement. It is essential to teach community members about their environment, describe any proposed project or plans in detail, and share models. This situation is particularly true if the planning projects have some aspect of archaeology, tourism, mobility, or involve the economy.

A recent example of the impacts of the pandemic on the planner and stakeholder relationship is the development of an Integrated Management Plan for the historic city of Durres, Albania. A project was initiated by the Albanian-American Development Foundation and executed by the international consulting company ARS Progetti to develop an Integrated Management Plan ARS Progetti, S.P.A. Ambiente Risorse Sviluppo . This project was begun during the depths of the pandemic in 2020.

Durres is an ancient port on the Adriatic Sea established by the ancient Greek colonists from Corinth around the 7th century BC. It was an important Roman port and the beginning of the Via Egnatia, a continuation of the Via Appia that started in Rome and continued to Constantinople. In the center of the city is an ancient amphitheater on the Tentative List for World Heritage. There is a tangible sense of place in central Durrës. Before the pandemic, residents enjoyed the numerous outdoor cafes, families visited the newly revitalized waterfront, and shoppers strolled along the main street. There is also a prevalent order to the city imposed by the natural geology– the sea and harbor, and hills defined boundaries. The city center also has a clear urban order, with the port linked to the main square through the strong axis of Bulevardi Epidamn. However, the city remained disconnected from its noble history with scattered, isolated archaeological sites. The historic assets and significant archaeological heritage were primarily ignored or only incorporated in the recent civic improvements or private development as afterthoughts. The 2,000 year-old amphitheater, located just one block from the central urban axis, was obscured with parked cars and encroaching
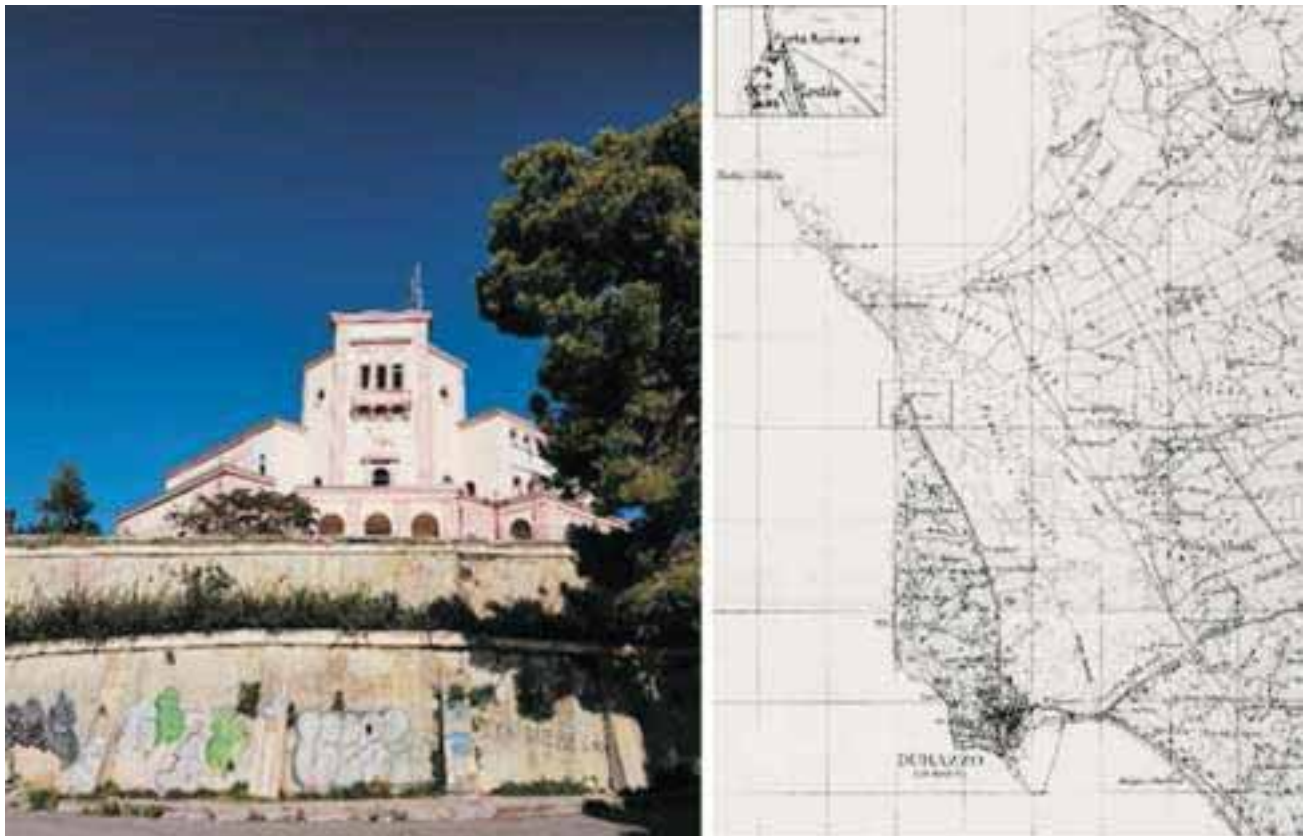
Figure-2: Left, Palace of King Zog, Right Map of Durres (Unknown).

buildings, seemingly forgotten behind retail shops, restaurants, and bars. The Integrated Management Plan was created to protect, conserve, and valorize these cultural assets and utilize the archaeological sites as an overlaying urban order. According to Decision No. 169 20.2.2020 on Management Plans in Albania, it is required to conduct stakeholder outreach. "The management plan shall aim at the planning and coordination of the competencies of stakeholders active in the cultural property domain, and at minimizing risks to cultural value, optimizing its enjoyment providing conditions for access, information, preservation, and safeguarding." This decision goes on in numerous articles to state that the plan is subject to public consultation. Consultation shall be conducted with stakeholders, the local community, and other interested groups (businesses, non-profit organizations, or potential donors). It was also against the law for people to gather. Following the Decisions of Council of Ministers, and Orders of Minister of Health and Public Protection based in the Law No. 15/2016 on the prevention and fight of infections and infectious disease stated "As of 8 March the gathering of people in public or open to the public, the organization of meetings, protests, conferences and concerts throughout the territory of Albania is prohibited". The planning team of ARS Progetti was in a dilemma. The creation of an Integrated Management Plan demanded stakeholder consultation, but public gatherings were forbidden. Thus, a series of talks were conducted at the very beginning to collect information, make decisions and eventually build consensus for concepts. Consultations were divided into three distinct groups: institutional, such as the Ministry of Culture, Institute of Archaeology, and Municipality of Durrës; the second was community groups, and the third was professional practitioners. The institutional outreach was initially held in person with key individuals, as permitted by law. Video conference sessions later supported these sessions. The initial face-to-face meetings facilitated the later less personal video conferences. Local expert and professional meetings were also held face-to-face but at a distance during open-air inspections of the city. Large community meetings could not be conducted, so the team adapted a multi-stage approach, first extensive stake holder mapping (Krupa, et al., 2018). Mapping the Stakeholders: Using Social Network Analysis to Increase the Legitimacy and Transparency of Participatory Scenario Planning, Society & Natural Resources, 2018: to understand the community's needs, then contacting individual leaders. Ideas and issues were discussed before conducting community meetings via video conferencing. Finally, follow-up telephone calls, if time-consuming, were also utilized. But the most effective tool was already in place – the requirement to provide sufficient time for institutional and community stakeholders

to review multiple drafts of the management plan after substantial completion. Issues discussed included blockages of pedestrian passageways between archaeological and cultural heritage sites, valorization of archaeological sites, encroachment into and over areas, and larger projects that impacted the city, such as parking, mobility, and conflicts in the cultural heritage protection measures. And critical for the amphitheater, holding cultural performances. The drawbacks of planning during the pandemic were obvious; widespread direct in-person communication with large groups was impossible. Also, it was recognized that not everyone has access to video conference technology, although efforts were made to contact stakeholders via direct telephone calls. It was also difficult and time-consuming to identify leaders and make personal connections. However, there were some benefits. The online video conference process was more economical, environmentally friendly, and more rapid. One of the most significant benefits was more frequent communication with institutional stakeholders, greater focus during meetings, and less stress, given that scheduling video conferencing is more accessible than long-distance travel. During some video conferences or telephone calls, some individuals were freer to voice their opinions as the online platform offered greater anonymity. There was also online simultaneous translation, and some meetings were recorded –making responses reviewable, a technique not typically used for in-person meetings. There were also more frequent inspections in the city with open-air walking meetings. Unfortunately, social media was not fully utilized, and interaction between different groups of stakeholders was limited.

PROFESSIONAL - CLIENT

The second pedagogical relationship that requires examination is between the professional and the client. Like stakeholders, clients often do not have the time or background to understand all the necessary technical details related to urban physical intervention. This type of pedagogy is especially critical if they are not well versed in conservation principles related to historic cities. Such was the case of emergency interventions at the castle in the center of Gjirokastra in southern Albania. Gjirokastra, the town, and its castle were inscribed on the World Heritage List in 2005. This city "bears outstanding testimony to the diversity of urban societies in the Balkans and longstanding ways of life which have today almost vanished" and "the town planning and housing of Gjirokastra are those of a citadel town…" (UNESCO, 2005) The castle sits above yet in the center of the town on an elongated geological formation with steep sides, which naturally form a defensive barrier. It was here,

Figure-3: The Castle of Gjirokastra, Albania Project video on the Albanian Develpment Fund Facebook Page ADF, 2020).

understandably, that a series of defenses contributed to the town's safety and growth. Today, it is an impressive structure looming over the town and valley with its sheer masonry walls, towers, and ramparts. From within, the views are sweeping, taking in the entire town, valley, and mountains beyond. However, the castle, despite its significance, is not without its problems. Issues with the underlying complex and often unstable geology have caused numerous structural complications, resident and visitor safety is an issue. The Albanian Development Fund managed this project (ADF) Albanian Development Fund , funded by the World Bank Albania, and it was executed by Cultural Heritage without Borders, Albania and Proskene Conservation and Cultural Heritage Proskene Restoration and Conservation of Cultural Heritage. This project was one part of a more considerable effort for Integrated Urban and Tourism Development (PIUTD) to develop the economy while improving living conditions and mainly focused on urban centers of cultural and natural interest to strengthen tourism. Previous elements of the overall project addressed urban upgrading, street improvements, pedestrian trails, museums, and lighting. This specific project started in late 2019, before the pandemic but continued until March of 2021. Albania, as mentioned earlier, requires stakeholder engagement, particularly for such significant cultural heritage sites. In addition, Gjirokastra, as a World Heritage property, must meet a higher standard. According to the World Heritage Convention, "States Parties [are] to adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community." It is recognized that not all urban areas are World Heritage properties; nevertheless these documents provide a basis for advocating and engaging with stakeholders This requirement includes the participation of local communities and other stakeholders, and the Conventions continues, "Inclusive social development is at the heart of the implementation (…)". States Parties should "further recognise that full inclusion, respect, and equity of all stakeholders, including local and concerned communities and indigenous peoples, together with a commitment to gender equality, are a fundamental premise for inclusive social development." World Heritage Convention Article 5, policy 6 section 17 Furthermore, the Budapest Declaration "seek[s] to ensure the active involvement of our local communities at all levels in the identification, protection and management..." UNESCO Budapest Declaration on World Heritage WHC-02/CON.202/5 and the Operational Guidelines seek "A partnership approach, underpinned by inclusive, transparent and accountable decision-making, to nomination, management and monitoring provides a significant contribution to the protection of World Heritage properties..." Operational Guidelines for the Implementation of the World Heritage Convention (WHC 19/021, 2019) The ICOMOS Charter for the Conservation of Historic Towns and Urban Areas encapsulates this in its 3rd Principle, "The participation and the involvement of the residents are essential for the success of the conservation programme and should be encouraged. The conservation of historic towns and urban areas concerns their residents first of all." International Council on Monuments and Sites Charter for the Conservation of Historic Towns and Urban Areas (Washington Charter, 1987) Finally, the necessity of involving communities and recognizing the impact on society and the environment has also been recognized by multinational lenders. The World Bank states in their Environmental and Social Framework that community participation and, "where projects are designed and conducted for the purposes of fostering community-driven development" the Bank's Environmental and Social Standards specifically require stakeholder consultation "The borrower will carry out meaningful consultations with stakeholders in accordance with ESS10 in order to identify cultural heritage that may be affected…".

So the project had some of the same issues related to stakeholder pedagogy, as mentioned earlier in the example. However, this was also coupled with the need to develop a greater professional-client pedagogical relationship given the complex technical and philosophical conservation issues such as geology, hydrology, and structural seismic problems. Fortunately, the ADF project manager was well versed in the problems related to conservation but was also managing several projects simultaneously. Thankfully, the initial meetings were held face to face before the pandemic and this facilitated later video conference meetings during the critical second half of the project. Numerous video conference calls were made between the technical team and the client. But most effective was a short video was created that could be copied and reused describing the problems, the technical investigations, and documentation. This video was posted on social media and served as an efficient delivery system of information if only one way. This also had the added benefit of reaching higher-level decision-makers that possibly would not have attended meetings. In addition, the ADF project manager insisted on monthly written updated reports which were helpful not only in informing the client of technical issues, but was also useful intra-team between professionals during their preparation. Incomplete data with limited analysis was also provided to the client before delivery deadlines along with pre-submittal informative meetings, which were particularly effective. In addition, as it became apparent that the pandemic may have an impact on the project schedule, the team developed a COVID-19 protocol. This anticipated any possible illness by key team members and the involvement of possible replacements. Given these measures, the project was delivered on time. The drawbacks to a lack of in-person professional-client meetings echo those of the previous example. While there were numerous virtual meetings with the client, these were of a technical nature and outreach to the community was hampered. It was difficult to read the body language and know if the technical information was being understood. However, the more frequent virtual meetings and the required monthly reports served to fill in for the lack of in-person meetings. There were also more side conversations between experts on various themes than would have occurred without becoming accustomed to frequent video conferencing. To explain the more complex planned interventions, 3D models were created using photogrammetry and laser scanning. There were few, if any, drawbacks between the technical team and the client. In addition, the project was of sufficient length to outlast the first wave of the virus, and limited in-person meetings were held in the late summer of 2020 and client-stakeholder presentations at the end of the project in the spring of 2021.

PEER-TO-PEER

Finally, the last pedagogical relationship to be examined is peer-to-peer. Modern urban planning is a complex process that requires a multidisciplinary approach. Working across boundaries and in an "interdisciplinary or transdisciplinary manner can lead to new insights" (Davoudi 2010: 245) Engineers, landscape architects, mobility experts, and conservators must interact with planners and learn from one another during project execution. Even before the pandemic, this was a daunting process requiring many professional interactions that often occurred during in-person planning exercises or design sessions. Collaboration was also developed following preparations for presentations or design submittals. In addition, young professionals learn implicitly as employees within planning or architectural studios, and the work is typically supported by young, less experienced professionals who learn through interaction and executing projects. Although not quite peer-to-peer, this aspect of pedagogy should not be forgotten as it are the young professionals that carry on the work between generations. The Reflective Practitioner, (Schön 1984) defines "reflective proactive as occurring when skilled practitioners responded tacitly to situations of uncertainty, instability, or uniqueness, through a combination of intuitive knowing-in-action" (Webster, 2008, p. 22). Finally, peer-to-peer pedagogy is also conducted in at professional or academic conferences where information is shared formally in presentations but also informally between conference sessions.

One example to illustrate the need for interdisciplinary (and intergenerational) pedagogy was the development of a Conservation Management Plan (CMP) for the Uganda National Museum. The Uganda Museum was the first built-for-purpose museum and the architect and planner Ernst May's last intact work in East Africa. Land use planning for Kampala is integral to the history of the city and museum. During the initial city planning, the key location and early inclusion of a museum demonstrated the importance of culture in Kampala. Ernst May, their head planner, was a founding member of the professional organization Congrès Internationaux d'Architecture Moderne (CIAM) or International Congresses of Modern Architecture . One of the key tenents of this organization was that architecture and, specifically planning, could improve the quality of life. The museum siting and design set the tone for subsequent government and institutional buildings, including the Parliament and National Theatre. The museum welcomes thousands of visitors per month, exposing them to Uganda's rich cultural and natural heritage. However, the museum has suffered from a lack of appreciation, ad hoc changes,

Figure-4: Map of the World Heritage Property of Gjirokastra (UNESCO).

Figure-5: Documentation Created During the Project Planning.

and insufficient maintenance over the years. Understandably, the focus was on its unique collection within and not the building itself. Hence, a comprehensive Conservation and Management Plan (CMP) was needed.

This project was led by the Uganda National Museum Uganda National Museum with a grant from the Getty Foundation for keeping it Modern . The museum brought together a multidisciplinary, international team of conservation architects, historians, engineers, curators, and planners, including African Architecture Matters and Adengo Architecture to craft the management plan along with the involvement of institutional and community stakeholders. While the project started in 2019 before the pandemic, it continued throughout 2020, leading to some delays given travel restrictions and the closure of the museum. Fortunately, the multidisciplinary team was already functioning well before the pandemic, mainly due to the rigorous application process for the grant. Thus, the high levels of cooperation of the core team were already well-honed during this process. Unfortunately, some team members became ill during the pandemic, but others within the group could increase their level of participation. In addition, all team members have extensive experience with international projects, so the transition to virtual meetings was without interruption. But, the need for more frequent communication on multiple channels became necessary. In addition, the museum provided strong leadership, given that a senior staff member, Joseph Ssebunya, led the project from inception throughout implementation. Finally, flexibility in deadlines and an extension of the final Conservation Management Plan from the donor was instrumental in allowing additional time for peer-to-peer pedological interaction.

One critical aspect of the CMP was dissemination. The symposium Building Beyond Borders, held in November of 2020 and provided a perfect platform at the mid-point in the project. This virtual symposium was designed to bring together academics, practitioners, students, NGOs, and community members to contribute to conservation and active contribution through discussions, presentations, and lectures. The symposium's goals were to architectural practices consider this building beyond borders, not just beyond geographical boundaries, but more importantly beyond cultural, social, intellectual, and professional barriers "Building Beyond Borders Fall Symposium". This symposium was sponsored by the Research Foundation Flanders and the Faculty of Architecture and Arts, Hasselt University in Belgium.

The drawbacks of a lack of face-to-face exchange between peers were obvious. It is impossible for a peer to successfully share if there is no way to interpret body language and there was delay in interaction even with the best video conferencing software. Often the bandwidth between professionals in Africa and Europe only allowed audio transmission. Also, young professionals involved in the project easily became distracted and were often executing multiple tasks or working on other projects. Technology was also a barrier given the frequent interruptions in transmission. But there were some benefits to this form of exchange, and peers became used to communicating more frequently with video conferences and measuring expectations concerning missed meetings. Concerning the conference, had it been held before the pandemic, it is likely there would have been mainly European contributors. Still, given its forced virtual nature, there were many international contributors.

Figure-6: Left, The Uganda National Museum Entry Canopy Planning Right, Kampala with the Museum in Mulago (May, 1947).

Figure-7: Building Beyond Borders Symposium (Research Foundation Flanders, Facultyof Architecture and Arts, Hasselt University, 2020).

PREJUDICE AND A PARADIGM SHIFT-CONCLUSIONS

Planning in a vacuum, particularly for historical sites, is ineffectual and worse without respect for those living and working in these places. It would be sheer hubris for any planning team to assume that they know about local culture sufficiently to make informed decisions without stakeholder involvement. For planning to be fully effective, it must be adopted legally by the recognized authorities, those who enforce the plan, and most importantly, embraced by local communities. A critical component of community engagement is the development of a pedagogical relationship, informing stakeholders about issues, problems, and potential solutions or changes planned for their environment. Two other types of pedagogical relationships that of the professional-client and peer-to-peer, are also essential for effective planning.

In the best of times, the default methods of holding open forums, conducting meetings, extensive travel, and preparing deliverables and presentations were only somewhat effective.

The current global pandemic with social distancing, prohibitions on gathering, and restricted travel made these levels of in-person communication and pedagogy nearly impossible. The pandemic has challenged professional planners as teachers in how they engage with communities, clients, and each other. The teams and projects highlighted in this article had some success in overcoming these barriers either through deliberate actions in response to the pandemic or by trial and error. These include:

- Mapping stakeholders to understand better the communities, their leaders, relationships; thus, more effective in reaching them.

- Comprehending the position of stakeholders and the level of involvement they require from simply being informed to active engagement; thus adjusting the level of pedagogy needed.

- Conducting limited in-person meetings with key individuals before resorting to virtual meetings. This

Figure-8: Stakeholder Mapping Tools Oline Smaply.

established a baseline relationship, difficult to be developed virtually.

- Holding open-air site visits with clients and other experts. Although less comfortable and less time-efficient than office meetings, it is more effective while on site.

- Developing a contingency strategy with redundancies to react to sudden changes in team members. While difficult, contingencies should incorporate flexibility with deadlines and budgets.

- Utilizing existing regulations, often ignored pre-pandemic, that require stakeholder interaction and sufficient review time.

- Submitting proactively incomplete data or designs while anticipating client needs and stakeholder questions. Although many professionals are reluctant to submit incomplete deliverables, this allows more time for clients and stakeholders to review.

- Using multiple forms and channels of communication. Already such technology was in use before the pandemic but has accelerated. One method or channel is insufficient.

- Realizing that peers in a complex multidisciplinary project may need more time and more frequent communication for successful collaboration. This includes working with young professionals.

Nothing will replace person-to-person interactions. This personal method is the best form of stakeholder, client, and peer-to-peer pedagogy. But the current pandemic has made other forms of interaction more acceptable – effectively removing the prejudices against online meetings, presentations, and teaching. Before, there were lingering prejudices against virtual communication, especially concerning stakeholder outreach, client presentations, team meetings, and pedagogy. Now, this method of interaction and teaching has cemented a paradigm shift. Any bias against virtual communication, presentations, and collaboration has been eliminated. The use of technology has also leveled participation in professional or academic conferences enabling interaction from those from lower-income countries. Finally, the pandemic has reduced or restricted travel making international planning work more environmentally friendly and less expensive.

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COLONIAL BUNGALOW DESIGN IN THE TWENTY-FIRST CENTURY KARACHI: A CULTURAL IDENTITY BASIS FOR ARCHITECTURAL IDENTITY OF PAKISTAN

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ABSTRACT

Culture; the essence of Pakistan's independence of 1947; has been impacted by various ideologies and civil powers like Mughals, Sikhs, Hindus, and most influential Britishers who ruled the land long before the country got its independence. Karachi, the port city of Pakistan has particularly attracted many powers for economic benefits, dominantly Britishers who later took over the land. Britishers brought the Bungalow-compound complex as a permanent residence typology due to their long stay in the city. The importation and transformation of this new housing typology have framed the architectural identity of Pakistan and have defined the lifestyle of its citizens, which is a cultural synthesis between the East and the West. Though the Bungalow design in Karachi has evolved with time as per the native's culture and needs having different plot sizes, shapes/forms, open/built ratio, space arrangements, and materials that have changed its overall aesthetic point of view but the core remain the same. This research aims to analyse the British reign in pre-independence India through their socio-cultural, economic, and political influence on bungalow design and its transformation over time in the context of Karachi, Pakistan, i.e., Western influence combined with modernity.

Keywords: Cultural Identity, Architectural Identity, Colonial Bangalows, Twenty-First Century Bangalows, Karachi

INTRODUCTION

CULTURAL AND ARCHITECTURAL IDENTITY OF KARACHI

Karachi- the metropolis city and seaport of Pakistan is identified by its multi-cultural traditions (Mughal 2017). These traditions formed the city's architectural identity as people's interpretation of the reality of their surroundings depends on individual aspects related to certain cultural, social, and contextual conditions of their experienced environment (Tran. n.d.). The architectural identity of Karachi is always recognized by the colonial buildings that were gifted by Britishers who ruled here before the independence of 1947. The city's architecture, now called modern, is influenced by the Western world, indicating the natives' fascination to imitate the West to become a modern and world-class city. Hence, the architecture of Karachi is classified as traditional and modern buildings having a distinct social, and cultural fabric. As architectural identity is an unstable, contextual construct that is culturally malleable and historically discontinuous across time, therefore resulted in the severe identity crisis faced by the city today (Mughal, 2017).

RESEARCH METHODOLOGY

The research is designed around the mixed methodology that involves quantitative i.e., case studies, and qualitative research i.e., collecting, analysing, and interpreting data. Primary data collection was done by selecting case studies as per their importance. Secondary data collection included research from relevant journals, articles and research papers, thesis, books, and websites.

THE EVOLUTION OF BUNGALOW DESIGN: A HISTORICAL BACKGROUND

Britishers came to pre-partition India further to the entry of the East India Company i.e., British officers in India and resided here from 1757 to 1947. This time period in history is considered as a transforming phase, as the built environment of the sub-continent saw the impact of the lifestyle and work of the Britishers in India. This period's designs and forms took inspiration from English scale and shapes, resulting in a distinctive indigenous-like architecture. This architecture resulted from their different socio-cultural traditions, practices, and locally available resources in an environment that was dissimilar to Britain. Their buildings are part of the culture of South Asia and Southeast Asia (Bhardwaj and Garg, 2016).

Britishers under their rule in India built numerous new towns and suburbs to house their needs bringing new town planning patterns. They followed certain urban design and planning principles that focused on building new areas separated from the old ones thus separating the Europeans from the locals both socially as well as physically (Nangia, 2004). There are dominant examples of colonial architecture at all levels. For instance, at the urban level, the cantonments and civil lines they developed, and at the building level, the dominant architecture was the Bungalow-compound complex i.e., a basic residential compound unit (Bhardwaj and Garg, 2016).

The bungalow's form is said to be Indian and British hybrids having an imported English vernacular form as of cottages achieved by the architectural skills of Bengalis evident in the mid of 18th century's Bengal Presidency which is considered as initial bungalows.

These Indian bungalows were made incorporating building techniques of Bengalis like using structural elements of wood with clay walls, bamboo, and thatched roofs to cater to the climatic conditions (Figure 1). In addition, according to Bhardwaj, this vernacular architecture seems to be designed and supervised by a civil engineer as the architectural techniques used were a cheap and easy-to-build solution for housing, hence was adopted by the Indians (Bhardwaj and Garg, 2016). The major urban design schemes including the cantonments and the civil lines i.e., the colonies of the elite, majorly depict the 19th-century British existence and have put an influence on the middle-class housing development of Pakistan today (Nangia, 2004). The elite natives were fascinated by the idea of imitating the Western ideology as they considered it to be modern therefore, were the first after Britishers to live in bungalows. Whereas, after a long time i.e., by the 1930s the development of a new class structure i.e., the middle class took place whose housing outlooks were defined by the economic possibilities as well as the city's rural-based elites' (landed gentry) customs. This class adapted the bungalow typology and customized it according to their finance, needs, and regions. Hence, the bungalow became a popular, beautifully ironic cultural representation that framed the mindset of the natives by

Figure-2: Plan of House Belton, Lincs, England, 1685-88.
Source: Summerson, 1959

Figure-3: Elevation of House Belton, Lincs England, 1685-88.
Source: Summerson, 1959

Figure-1: Rural Bengal House (Bangla).
Source: Jain, 2015

developing several socio-cultural meanings and technological, stylistic, and spatial distinctions associated with the modern house (Desai, Desai and Lang, 2011).

Furthermore, the introduction of bungalow typology greatly transformed the culture and lifestyle of the natives by introducing modern ideas and culture. Around the 17th and 18th centuries, the bungalow typology emerged from England and was imported by the Britishers to India under their rule in the 18th century. Therefore, in this paper, the bungalow typology in England is taken as the first of its kind while studying its introduction and evolution in India.

The first example of a bungalow was in England from where the typology emerged, after the Civil War of the 17th century, the architecture of the country-house/bungalow was monotonous and reserved as a whole i.e., one basic typology was followed as shown in a famous model of the house

Figure-5: Buckingham House, Westminster, 1703-05.
Source: Summerson, 1959
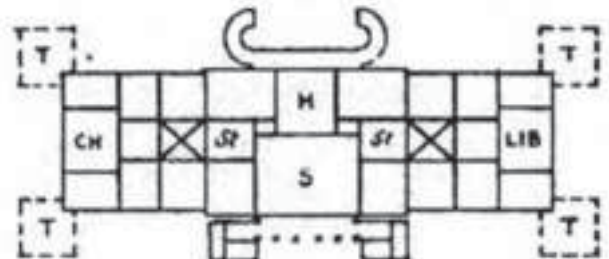
Figure-6: Plan of Wanstead Essex, 1702.
Source: Summerson, 1959

Figure-7: Elevation of Wanstead, Essex, 1720.
Source: Summerson, 1959

Figure-4: Detail Plan of Belton Lincs, England.
Source: En. Wikipedia.org, 2007

A: Upper storey of Kitchen (main dining room formed from the upper storey of kitchen). **B**: Service room- now Breakfast Room. **C**: Back stairs and West Entrance. **D**: Closet. **E**: School Room. **F**: Withdrawing room- now Red Drawing Room (smaller drawing room). **G**: Little Parlour- now Tapestry Room. **H**: Great Parlour-now Saloon (placed on an axis approaching to the northern official gardens). **J**: Marble Hall (serves as the grand entrance to the house). **K**: Withdrawing Room-now Tyrconnel Room (smaller drawing room changed to state bedroom).

L: Great Staircase (3 flights linking north, west and east parts to the Dining room above the marble room). **M**: Upper storey of chapel. **N**: Gallery of private pew overlooking chapel. **O**: Ante Room (now Chapel Drawing Room). **P**: Back stairs & east Entrance. **Q**: Sweetmeat closet. **R**: Bed chamber (now Blue Room).

Belton (Figures 2 and 3). It was built all over England since the 1650s as the illustrative basis of the country house of England and had the ability to expand or contract. The most vital element of the plan that alone makes the typical 17th-century house of a smaller category is the central part combining hall and saloon around which all rooms were arranged as shown in Figure 4. This is evident in all three examples i.e., Belton House, Buckingham, and Wanstead. Later, though a few essential changes were made to the country house, like enhanced or not, a short or long house with 2 or 3 storeys made in stone or brick but that did not distort its overall design (Figure 3, Figure 5 and Figure 7).

From the analysis of all three examples, the typical plan of the British bungalows is found to be symmetrical with a portico or an enhanced entrance leading to a centralized hall that served as a receiving space for guests. The rooms are placed back-to-back to achieve a "double-pile" i.e., a 2-room deep house. The reason for such placement of the spaces was to get better accessible and related rooms with better privacy along with enhanced lighting and heating in all rooms. In construction terms, this layout and form permitted a more compact and solid house with one roof that was easy to be constructed with lower building costs and having more than 2 facades. Service and staff rooms
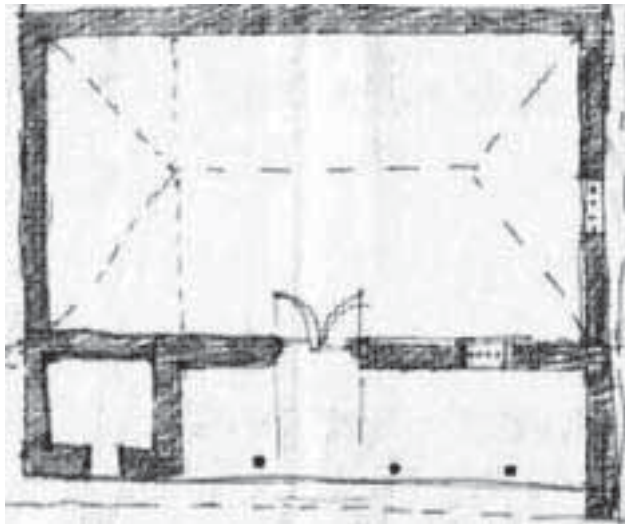
Figure-8: Plan of Rural Bangal House (Bengla).
Source: Jain, 2015

Figure-9: A Twentieth Century Delhi Cantonment Bungalow and Compound.
Source: Photo by Monalisa Bhardwaj in Bhardwaj and Garg, 2016

were placed on different floor levels encompassing the idea that employers wished to live separately from the servants. There used to be a prominent and grand staircase in the bungalow (Summerson, 1959).

Whereas, an example of the initial bungalow from pre-partition India was the Bengal house (Bangla); which became an inspiration for constructing the British bungalow; was a simple hut having a distinct curved roof as shown in Figure 1 (Jain 2015). In Bengal during the 18th century, the military engineers of the Colonials being the traders transformed a conventional local structure into a more permanent and stereotypical residence for the East India Company with the help of Indian contractors and craftsmen. Therefore, regardless of the construction advancements, materials, and techniques, the physical form of the bungalow has the essence of the Indian architectural heritage (Desai and Desai, 2016). The form of the initial Bangla as shown in Figue 1 was constructed up to 2 storey houses made of bamboo structures plastered with clay walls. The thatched roof was made for durability; extended 4ft to 5ft from the walls supported by bamboo poles in a row that served as a veranda and provided shelter from the rain as shown in Fig. 1 and Figure 8 (Jain, 2015). Later at the start of the 20th century, the bungalow became the standard dwelling that was associated with the British officers and a few of the wealthy Indians. The adoption of the bungalow by the Indians transformed the model as per the different climatic conditions and cultural variations of the regions in India.

As shown in Figure 9, in India Bungalow is a low one-storey spacious building with a compound that consists of a separate living, dining, bedrooms later added with attached

Figure-10: Veranda Around the Bungalow was a standard Element of Design
Source: Photo by Monalisa Bhardwaj in Bhardwaj and Garg, 2016

baths, and a Veranda Figure 10. The organization of day-to-day activities of Britishers formed the design of the bungalow. Landscaping was an important element of a bungalow as Britishers were fond of gardening. The

Figure-11: Early Bangalows of India.
Source: Desai, Desai and Lang, 2011

bungalows of India also represented discrimination in planning like for the wealthy people i.e., Britishers, the bungalow had a walled setback from the main road that was used as a compound. The open-built ratio of the bungalow was used to symbolize the status of the officers. For example; the senior officer's bungalow had a 15:1 ratio (garden: built form) and the ratio could be 1:1 for a beginning rank (Nangia, 2004).

As shown in Figure 11, bungalows that were made at first, reflected classical lines that were long and low accompanied by details. Whereas with the Gothic revival in England, the bungalow design changed with pitched roofs and ornately carpentered detailing like the " monkey tops" of Bangalore (Figure 18). The bungalow design of India not only depicts European heritage but also became the symbol of Britain's political and military power. The evidence of this is found in the exterior resemblance of the colonial bungalows with the European classical form/Villa and elements such as roof supported by Doric and Tuscan columns on the facade that was used to show the British social superiority (Nangia, 2004).

Economic, Social, and Urban Forms in Britain and India Forming Colonial Bungalows of India.

By the mid-19th century, India and Britain were affected by two economic systems of agriculture and industries. These systems of economic production affected social structure, land use, and urban form. India for centuries had well advanced urban centres but their city's physical form, population, and size were directed by technology that used animate energy. Whereas in Britain, technological advancement of the 17th century resulted in new sources of generating energy i.e., fossil fuel for the urban industrial economy of their 18th and 19th centuries. These differences in agriculture and industrial economies have developed distinct social structures (King, 1974).
The overall social structure of India remained comparatively stable, though was affected by the West along with the other inner influences in terms of their urban structures.

At the start of the 20th century, India experienced internal cities' growth, variations in population distributions i.e., urban and rural, and the development of a new class structure i.e., the middle class whose housing outlooks were defined by the economic possibilities as well as the city's rural-based elites' i.e., landed gentry customs. The urban middle-class consisted of people other than the European groups; who used to live in cantonment quarters, and suburban-style areas in detached compound bungalows- a typical residential unit (King, 1974).

During this time, change in living patterns of middle-class and working-class (natives performing functions) can be defined in two categories: as work; due to the advancement of factories, commercial activities, and focused office housings; and leisure; suburban areas, and transportation development with excessive finance generated. Therefore, in industrialized India, housing took into account not only the basic needs of its users but also provided spaces for leisure activities like a garden space around the bungalow that could now be afforded by new urban classes. By the mid-19th century, the concept of a nuclear family (a single-family house consisting of parents, children, and infrequent guests) prevailed regardless of the cultural parameters defining the family structure of the natives (who used to live in joint family housing previously) and metropolitan societies.

In addition, in structuring the industrial society the generalization of having one family in each house was inevitable because of the colonials coming from such backgrounds (separating home and leisure from the workplace) and emphasizing the indigenous culture having no such characteristics. Furthermore, in the second half of the 19th century, urbanization generated health along with physical and community problems. The important environmental problem was intolerable smells that resulted in pollution spreading disease. The result of this issue in the building and urban planning led to a solution of an aerial space that would restrict the disease transferal (King, 1974).

The bungalow-compound complex has two terms compound and bungalow. Firstly, the compound is a Malayan word that means an enclosure surrounded by fences. Since the late 18th century, the compound has been referred to as a fenced ground surrounding the Anglo-Indian house. Though the word has its origin in the Malayan language, it was manipulated in English form denoting the core norm of colonialism i.e., adopting from one culture and transferring to another. Secondly, a bungalow is a Hindi/Mahrati term that means a Bengali belonging was used to denote a native

structure from this chunk of India. Since the late 18th century, the structure of the bungalow was adopted as a basic European house type in India comprising main characteristics like detached/isolated building, a veranda, and having one storey. The external ornamentation of the bungalow was adopted from the metropolitan culture known as Classicism along with acquiring external recreational space and internal space divisions according to the standards of the metropolitan society (King, 1974).

Architectural Spaces in Colonial Bungalows of India

The Bungalow of India in Britisher's era was built on a brick base elevated 1ft, 2ft, or 3ft from the ground that consisted of only one storey. A vernacular building with a plain plastered rectangular block and a portico or porch at the entrance that acted as an essential element in the bungalow providing space for the vehicles parking and receiving of the guests while guards awaited (Bhardwaj, and Garg 2016; King, 1974). The boundary wall was a low fenced wall often used to mark the boundary rather than protecting against thieves as they had a guard (chowkidar) to look over people's movements (King, 1974).

As shown in Figure 12, the plan of the bungalow had a centralized large room i.e., the hall used to receive guests to maintain a high degree of privacy, lit from sides with windows and a door in the centre (Bhardwaj and Garg, 2016). On the left side of which is a dining room i.e., a completely separate compartment so that the servants can set the table and prepare the meal in disguise, and on the right side is the sitting room with 2 bedrooms and a bathroom at each corner. The hall is separated from the lounge using a screen for the privacy of occupants. All the bedrooms and bathrooms have a separate entrance to maintain privacy and ensure its use by guests without crossing the bedrooms. The built spaces were covered with a single thatch roof that goes low at corners (King, 1974).

In the civil station, bungalows were developed according to the professional community's needs. Therefore, the veranda provided a place for food serving of get-togethers and was used as a relaxation space that provided a sensational experience from the flora and fauna of the compound (Bhardwaj & Garg, 2016; King, 1974). The form of the bungalow was designed to complement the tropical climate of India. Later after 1857 when the East India Company was replaced by the British Imperial Government, the built form of the bungalow altered a bit. New construction materials were used like tiled roofs and sun- dried bricks
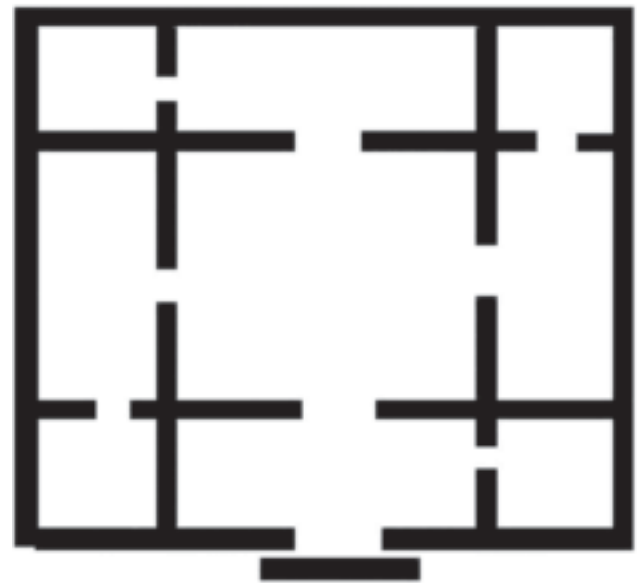
Figure-12: Typical Plan of an 18th Century Anglo-Indian Bangla. ***Source***: Cody, 2011

with structural changes like hipped gable roofs as per climatic conditions in different parts of India (Bhardwaj and Garg, 2016).

The covered area of the bungalow in proportion to the compound was hardly more than 1/10th. The huge compound space of the bungalow was used to buffer the residents from unwanted events providing a comfortable place having kitchen gardens, a storage space (godowns), and servant quarters. The services were placed far from the house; at least 20-30 ft. in small bungalows; to avoid the smell and noise of cooking and servants reflecting the social segregation between the leaders i.e., Britishers, and the locals i.e., Indian's lifestyle. The compound also had a garden for growing preferred fruits and vegetables i.e., exported seeds symbolically significant in celebrating colonial ritual festivals and was maintained by females because of their lack of duties due to more servants. Similar to the European classical Greco-Roman models, Britishers used compounds varying in sizes to show the owner's status-enhancing the appearance of the simple building in the visitor's eye. The cluster of trees in the compound was used to provide shelter from the sun and indicated Britisher's preference for a diversified built environment indicating their socio-culture of variegation. The hygiene and comfort around the bungalow complex were a key element in its design that is indicated from view/approach to the building, setback norms, and introduction of the veranda, landscape, and service roads far from the site (Bhardwaj and Garg, 2016).

Furniture in Colonial Bungalows of India

The standard of living and activities of the Europeans continued, though a bit modified in the colonial culture. Because of this, spaces were provided to accommodate their cultural equipment and objects. For example, three to four kinds of chairs were required depending on the use, like a dining chair for eating purposes, a chaise lounge for private relaxation (Figure 13), and an informal chair for conversations (Figure 14). In the twentieth century, though native elites adopted the utensils and practices from Colonials still the majority of the native residents were living a basic life without furniture i.e., eating with their fingers in a single dish or plates made from banana leaves. They used to either sit cross-legged on the floor or on a round mattress and cushion or place themselves on a charpai i.e., a four-legged cot made with knitted yarn. Figure 15 illustrates native hawkers sitting on the floor on a veranda. Colonials, unlike the natives, had special dining tables, chairs, utensils for eating, and repositories for keeping food due to their habits like eating meat and drinking alcohol. Figure 16 exemplifies dining room furniture pieces. Also, reading as a favourite hobby desired the occasional table, distinct cabinets, and storage for books; writing as a females' hobby, required a writing desk with a suitable chair; storage places to store instruments and materials for recreation activities like sewing, collecting and painting was required that resulted in distinct furniture products (King, 1974).

Figure-13: Cretonne Clad Chairs for Verandas.
Source: King, 1974

Figure-14: Sitting Room of a Colonial Bungalow in India, 1870.
Source: http://www.columbia.edu/itc/mealac/pritchett/00routesdata/ 1800_1899/britishrule/incontry/chandannagar1870.jpg retrieved from Ahmed, 2017

Figure-15: Hawkers (Natives) Sitting on Floor at East Parade Bangalow.
Source: King, 1974

Figure-16: Dining Room of a Colonial Bungalow in India, 9th Century.
Source: Anon., N. D.

Colonial traveling remained a practice hence, required storage and display areas i.e., shelves and cabinets for the souvenirs. These cultural objects were not only used for aesthetics but had psychological affiliations associated with them like the owner's achievements, a continuous identity, and a record of activities undertaken (King, 1974).

Context of Colonial Bungalows of India

Bungalows were usually used in three contexts:

- In rural context as an isolated or semi- isolated compound separated from other members of the colonial community. Example: planter's house, admin's rest house, the bungalow of a traveller, or inspection bungalow (Figure 17).

- Housing clusters outside and away from the native's settlements accommodating colonial representatives in politics, technical system, and administration fields (Figure 18).

- In civil lines; residence of citizens working on government positions along with other people belonging to the colonial community; and military cantonments; living zones of British officers; known as Colonial urban settlement that along with the native settlements formed the Colonial City. The area featured low dense, single-storey, horizontal bungalows with wide roads lined with trees giving access to the arrangement of huge compounds in which the bungalow was roughly centrally positioned as shown in Figure 19 (King 1974).

MODERN BUNGALOWS OF KARACHI: TRANSFORMATION OF CULTURAL IDENTIFIED BUNGALOWS

Colonial Bungalows in Karachi

Colonials and Hindus were attracted to Karachi because of the seaport and left a major impact on evolving housing typologies of Karachi. These housing typologies were named Colonial Bungalow and Hindu Ghar respectively. As evident in Figure 20, Hindu Ghar was an introverted i.e., a courtyard style mixed-use housing typology that developed as per the Hindu merchants and natives socio-economic and climatic needs. Whereas, as shown in Figure 21, Colonial Bungalow was an extroverted built form introduced by foreigners later adopted by the natives having compulsory open spaces for ventilation (Ahmed, 2014). This research focuses on colonial bungalows and

Figure-17: Travelers Bungalow in India, 19th Century
Source: Anon., N. D.

Figure-18: Typical Colonial Bungalow of a White Ruler in India, 19th Century
Source: Anon., N. D.
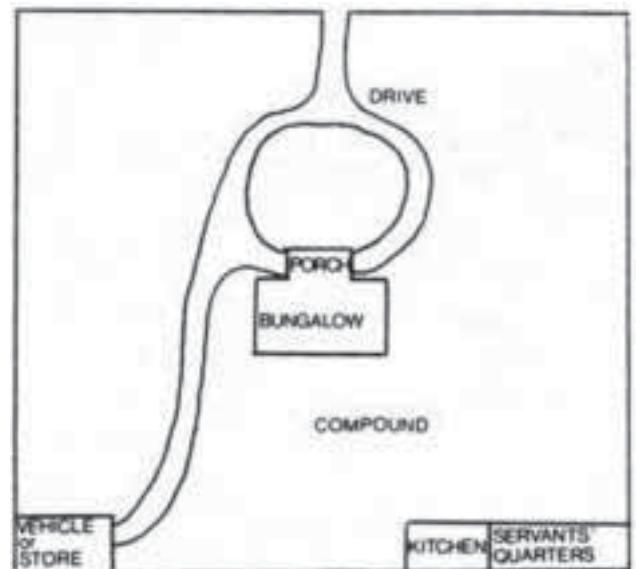
Figure-19: Layout of Standard Colonial Bungalow
Source: King., 1974.

Figure-20: Karachi's Native Town, 1900.
Source: http://www.bl.uk/onlinegallery/onlineex/apac/photocoll/k/zoomify 57510.html retrieved from Ahmed, 2017

Figure-21: Colonial Bangalows in Karachi, 1900.
Source: http://defence.pk/threads/old-karachi.386898 retrieved fromAhmed, 2017

Figure-22: Front Facade of Flag Staff House, Karachi.
Source: Ahmed, 2017
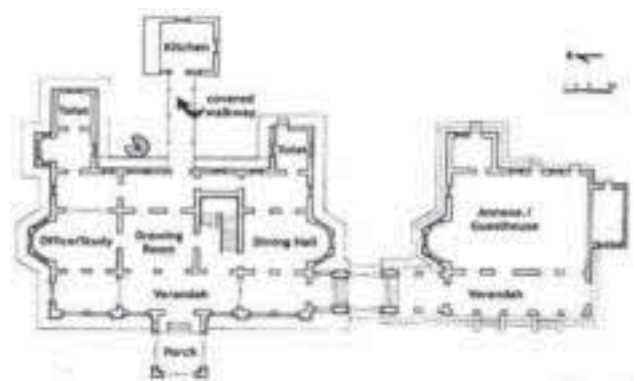
Figure-23: Ground Floor Plan of Flag Staff House, Karachi.
Source: Lari & Lari, 2001, p. 310. retrieved from Ahmed, 2017

their impact on the modern house design of Karachi, as was more prominent than other housing typologies and became an element of the indigenous landscape.

In Karachi, numerous Colonial-era-built bungalows still survive today; though they require some repair and restoration work; are an integral part of the city's history (Ahmed, 2014). The examples of colonial bungalows in Karachi were selected for the study based on their data and drawings availability in listed architectural heritage records for preservation, restoration, and alteration purposes. Also, these cases are restored almost in the original form (except for National Foods Ladies Club that has been changed in planning but that is also recorded); that is the criteria made in analysing the planning of colonial bungalows. So that comparison with the modern bungalows based on the planning evolution could be made effectively. The case studies selected were: Flagstaff House (Quaid-e-Azam House Museum), Mohatta Palace, National Foods Ladies Club, and Aman House.

From the analysis of the drawings of the examples above, it would be correct to say that the colonial bungalows fulfilled the Europeans' needs, wants, and entertainment forming an exclusive lifestyle for the British officers residing here rather than an inclusive one. The bungalows of the British Raj were huge in scale with an enormous lawn or compound having an open-built ratio of hardly 10:1 (garden/compound: built). Site plans of the examples in Figure 24, Figure 26 and Figure 32 proves this. The height of the boundary wall used to be 3ft only that was constructed just to mark the boundary. As shown in Figure 22, Figure 31 and Figure 33, usually, the facade was found to be symmetrical (other than Aman House Figure 36) with a central enhanced entrance i.e., a porch or a portico carrying the projected veranda. As shown in plans of the case studies above, the veranda led to a centralized drawing-room as in typical British Bungalows which then opened up to the other rooms. All the living spaces i.e., bedrooms were placed at the back or on the other floors to maintain privacy. In colonial bungalows, the service area i.e., servant quarter and kitchen was a separate
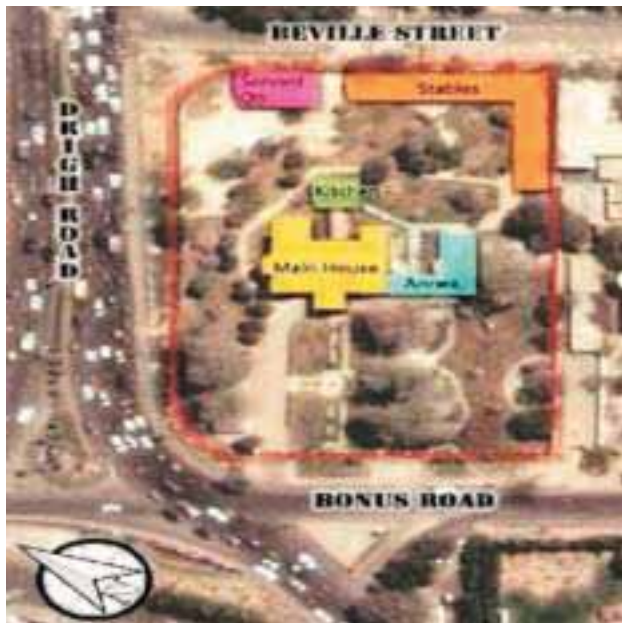
Figure-24: Site Plan of Flag Staff House, Karachi.
Source: Ahmed, 2017
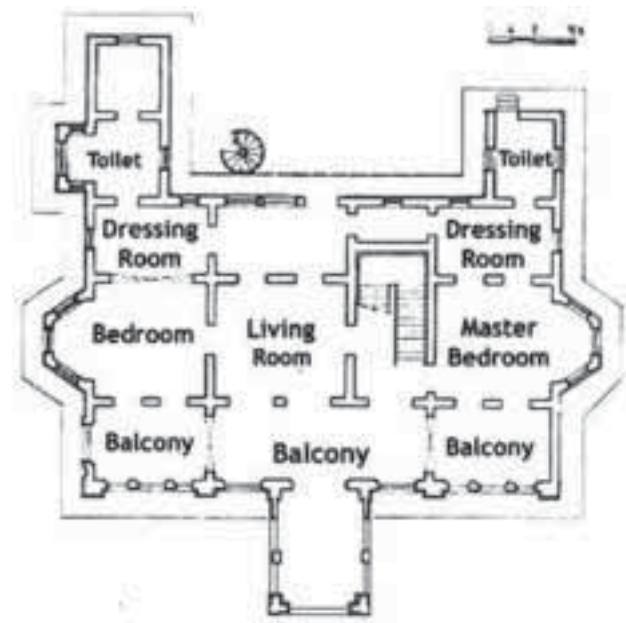
Figure-25: First Floor Plan of Flag Staff House, Karachi.
Source: Lari & Lari, 2001, p. 310. retrieved fromAhmed, 2017
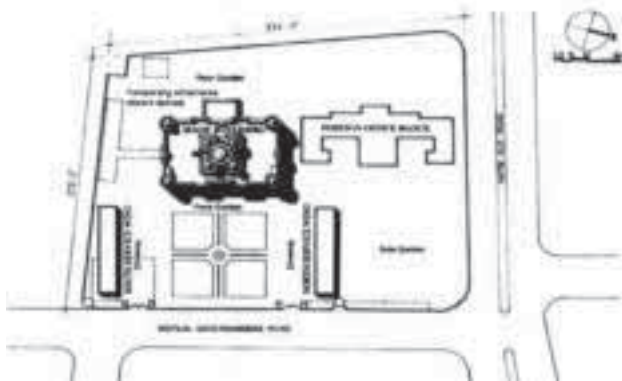
Figure-26: Site Plan of Mohatta Palace, Karachi.
Source: Heritage Foundation of Pakistan retrieved from Ahmed, 2017

Figure-27: Ground Floor Plan of Mohatta Palace, Karachi.
Source: Heritage Foundation of Pakistan retrieved fromAhmed, 2017

Figure-28: First Floor Plan of Mohatta Palace, Karachi.
Source: Heritage Foundation of Pakistan retrieved fromAhmed, 2017
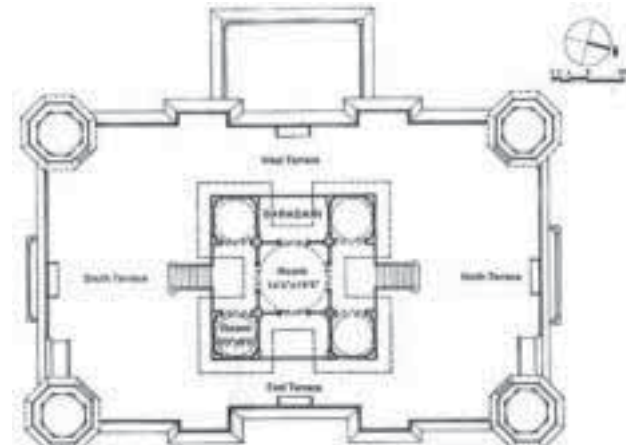
Figure-29: Roof Top of Mohatta Palace, Karachi.
Source: Heritage Foundation of Pakistan retrieved fromAhmed, 2017

Figure-30: Basement Plan of Mohatta Palace, Karachi.
Source: Heritage Foundation of Pakistan retrieved from Ahmed, 2017

Figure-31: Front Facade of Mohatta Palace, Karachi.
Source: Ahmed, 2017

Figure-32: Site Plan of National Foods Ladies Club, Karachi.
Source: Naeem and Soomro, 2010

Figure-33: Western Facade of National Foods Ladies Club, Karachi.
Source: Ali, 2016

Figure-34: Ground Floor Plan withAlterations of Natioanl Foods Ladies Club Karachi.
Source: Naeem and Soomro, 2010

Figure-35: First Floor Plan with Alterations of National Foods Ladies Club, Karachi.
Source: Naeem and Soomro, 2010

Figure-36: Front/West Facade of Aman House, Karachi.
Source: Naeem, et. al., 2016.

Figure-37: Ground Floor Plan of Aman House, Karachi.
Source: Naeem, et. al., 2016.

Figure-38: First Floor Plan of Aman House, Karachi.
Source: Naeem, et. al., 2016.

Figure-39: Roof Plan of Aman House, Karachi.
Source: Naeem, et. al., 2016.

block from the main house to avoid social and cultural amalgamation of the owners with the native servants (except in National Foods Ladies Club and Aman House where it was attached to the main house but had separate entrance). The form of the colonial bungalows was an essential architectural element that showcased the metropolitan culture and reflected the Britisher's social status, power, and a hybridized lifestyle i.e., incorporating traditional and modern practices within the captivity of the colonial house (Figure 22, Figure 31, Figure 33 and Figure 36).

Modern Bungalows in Karachi

After the independence of 1947, many native elites who favoured the idea of social division quickly adopted the bungalow typology that segregated them from the traditional compact quarter living urban population in the historic areas of Karachi (Khan, 1990). Today the bungalows in Karachi have been largely transformed from the colonial bungalow model according to the social needs of the locals. The change of material from brick to concrete has transformed the overall aesthetic of the building. Britishers also introduced materials that are still used today in the bungalows of Karachi. These materials include a new standard size brick of 9"x4.5"x3"

that was introduced in the early 19th century, steel girders, glass-introduced in the 1920s as a coloured decorative item, cement, corrugated iron, and lime plaster (Ahmed, 2014).

The Colonial bungalows influenced and framed the culture of Karachi, Pakistan introducing social segregation based on the income-class groups. This has not only shaped the localities within the city but also the spaces within the bungalow. The income groups formed the spaces within the bungalow as per their social and economic needs, hence varies throughout the city. The case studies selected for the research include 5th Street Bungalow, P.D.O.H.A., Karachi; Mehdi Residence, D.H.A., Karachi; Mallag Assa Dashti, DHA, Karachi, and 200 sq. yds Bungalow, DHA, Karachi. The selection of these cases was based on the locality and the income class i.e., the elite class and middle- income class bungalows. Also, these examples are more likely to incorporate the essence and spaces within the bungalow inspired by the Britishers and have adapted to their lifestyle in a lust to adopt modern ideas and lifestyle.

Figure-40: Ground Floor Plan of 5th Street Bangalow, Karachi.
Source: Zaman, 2019.

Figure-41: First Floor Plan of 5th Street Bangalow, Karachi.
Source: Zaman, 2019.

Figure-42: Basement Plan of 5th Street Bangalow, Karachi.
Source: Zaman, 2019.

Figure-43: Facade of 5th Street Bangalow, Karachi.
Source: Zaman, 2019.

Figure-44: Facade of Mehdi Residence, Karachi.
Source: Samani, 2018.

It is apparent from the plans of the above-mentioned examples (Figure 40, Figure 45, Figure 48 and Figure 50) that the modern bungalows of Karachi are small in size with fewer open spaces. Typically, more provision is given from the front for a lawn space that is used for gatherings having an entrance portal. The boundary wall height of the bungalows is about 8ft to 10ft high to avoid robberies. As shown in Figure 43 and Figure 44, facades of the modern bungalows in Karachi tend to have eliminated ornamentation and have a less decorated entrance to the house with an asymmetrical plan. The planning includes the drawing-room that is not centrally placed but is at the front for the guest's easy access and to maintain privacy. As shown

in the plans of the above-mentioned cases, all the bedrooms are placed at the back and on different floor levels to maintain the comfortability of its inhabitants and limit the guest's movement. The kitchen, servant quarters, and maid's room are part of the main house but have their separate access. The kitchen is accessed through grease kitchen having an entrance from outside the house (Figure 40, Figure 41, Figure 42, Figure 45, Figure 47, Figure 48 and Figure 49) i.e., the concept of social and income-class segregation. The form of modern bungalows varies but depicts modernity and Western influence.

COMPARISON BETWEEN COLONIAL AND MODERN BUNGALOWS OF KARACHI

The concept of the bungalow was opposite to the collective and community-oriented lifestyle of the natives. In the post-colonial time, it was absorbed in Pakistan's built environment like their own cultural and architectural identity as this typology had the ability to extend or contract and evolve as per different economic, social, and cultural needs. The social and cultural values of both the colonial

Figure-45: Ground Floor Plan of Mehdi Residence, Karachi.
Source: Samani, 2018.

Figure-46: First Floor Plan of Mehdi Residence, Karachi.
Source: Samani, 2018.

Figure-47: Basement Plan of Mehdi Residence, Karachi.
Source: Samani, 2018.

Figure-48: Ground Floor Plan of Mallag Assa Dashti, Karachi.
Source: Amin, 2018.

Figure-49: First Floor Plan of Mallag Assa Dashti, Karachi.
Source: Amin, 2018.

Figure-50: Ground Floor Plan of 200 Sq. Yds. Bangalow, Karachi.
Source: Amin, 2018.

Figure-51: First Floor Plan of 200 Sq. Yds. Bangalow, Karachi.
Source: Amin, 2018.

and the native communities formed the spaces and their use in a bungalow. From the above research following comparisons between the Colonial and modern bungalows of Karachi are abstracted:

- In pre-partition India, the bungalows were a standard dwelling unit for the members of the colonial community who stayed here. Whereas, the concept of a bungalow transformed in post-partition Karachi, Pakistan as per distinct income class groups and their affordability. Now, mostly elites and middle-class people live in bungalows.
- Colonial Bungalows was usually a low one-storey spacious building placed on an enormous lawn or compound. This was to resist environmental diseases and attain distance from the native community.

Whereas, the modern bungalows are not huge in scale and size but could go above G+1 and usually have a small lawn/compound/garden. Modern bungalows are comparatively small because of the population growth and land availability issues in the city.

- The open-built ratio of the modern bungalows, like the colonial bungalows is not 10:1 and varies according to different area's bye-laws but has fewer open spaces.

- The height of the colonial bungalow's boundary wall used to be 3ft only that was constructed to mark the boundary. The reason was the controlled entries and exits and no concept of theft. On the other hand, in modern bungalows, the boundary wall is usually 8ft-10ft high to avoid robberies.

- In modern bungalows, the entrance to the main house is less decorated, defined, and prominent as it used to be in form of a portico or porch in the colonial bungalows. The reason is because of the security concerns as per the city's situation.

- The plan of the colonial bungalow was mostly symmetrical with Veranda all around it, unlike the modern bungalows where the layout is usually asymmetrical with no concept of Veranda. Hence, now there is no transition space left between the main house and the lawn space other than the main entrance or entry portal reshaping the architectural identity of the typical colonial bungalow.

- In modern bungalows, unlike the colonial bungalows, the drawing-room/hall is neither centralized nor opens up to the other rooms. Rather it is placed close to the main entrance to ensure guest's separate entrance to maintain the privacy of the inhabitants transforming the architectural identity of the bungalow.

- The living spaces i.e., bedrooms of the modern bungalows similar to the colonial bungalows are either placed at the back of the house or on a separate floor for privacy purposes.

- Servant quarters of modern bungalows unlike the colonial bungalows, are attached with the main house but have separate access to maintain privacy and social segregation. Also, the kitchen is now attached to the bungalow having a grease kitchen for a separate entrance to and from the house unlike in the colonial bungalows. During the British Raj, there were usually 20 to 30 servants but in the post-colonial time there are lesser or no servants, hence does not require quarters for them.

- In the modern bungalows, the ornamentation on the facade is dependent on the client's requirement dissimilar to the colonial bungalows where it was an essential architectural element to showcase the colonial power/status.

CONCLUSIONS

Karachi having the Arabian Sea has attracted many communities. Most influential were Hindus and Britishers who left their impact in framing the housing typology of the area. Britishers not only brought housing typology to pre-partition India but also their culture, lifestyle, and class differences that framed the culture and architecture of the city. The modernism ideology generated by the Colonials in pre-partition India flourished in the region and affected the natives in evolving and framing their culture as they were not aware of the Modern trends of the West. Because of this phenomenon and the Western education of the natives, modern thinking prevailed among the natives that lead them to think and act for freedom, freedom of ideas, and culture. This led to the start of Pakistan's independence movement resulting in the establishment of Pakistan in 1947 as a separate nation. Pakistan suffered from the architectural identity crisis just after its independence because of the political deformity and instability along with the religious paradigm. Even today the state is surviving to cope up with the modern world and its trends. An example of this is the variation in the application of bungalow typology throughout the country irrespective of their economic, social, and cultural backgrounds, and beliefs.

This research attempted to study the colonial and modern bungalows of Karachi in the twenty-first century through some examples to analyse the transformation of the bungalow design over time. Hence, it can be concluded that the bungalow typology and its planning have evolved in Karachi from time as per the economic, social, and cultural needs of its inhabitants. Regardless of the change in spaces, their size, scale, and their purposes, the bungalow typology gave birth to social and cultural segregation among the locals. The elite class continued to practice the norms and essence of spaces in the bungalow as was initiated and brought by the Colonials, as they considered it to be modern. Furthermore, it would be correct to say that the introduction of the bungalow in Karachi not only mounted the culture and lifestyle of the natives that is an amalgamation of the East and the West along with becoming a symbol of their social and economic status but also became the basis for the architectural identity of Pakistan.

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THE HISTORIC AREA OF MISRI SHAH, LAHORE

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ABSTRACT

The north eastern side of the historic city of Lahore was always prone to floods, an alluvial area of river Ravi, fertile but destructive. The Mughals built several walls as barriers for the waters of river Ravi, still the area never attracted a permanent settlement. During his reign, Maharaja Ranjit Singh ordered his nobles to plant grand gardens in this area. The land was fertile, water was in abundance and the area had a large number of sweet water wells. Soon the entire area was converted into flourishing walled gardens with numerous trees and grasslands.

Nothing remains of these gardens, except some old Banyan, Peepal and Sumbal trees. Traces of the historicity of this area and the existence of these gardens now remain only in archival maps of Lahore.

During my research at IAC, my team could identify only three main streets which coincided with the historic streets of this area, and a handful of old surviving trees. Taking these as reference points, we traced the shrines which were historically located within various gardens, usually in proximity of a well, and under old Bunyan trees. Once these references were marked on the current map, the overlaying of old archival maps became possible. This approach showed us the exact locations of the gardens, if they had existed.

What we discovered was tragic. Once an area dominated by gardens, was now a scrap metal industry, and a tannery. The entire area became a victim of massive city expansion, inappropriate development schemes, sub-standard implementation and virtually no maintenance.

Keywords: History, Misri Shah, Lahore

INTRODUCTION

This research was conducted during one of IAC Faculty Research Initiatives focusing on the phenomenon of Urbanism. Ours was a sub-group of three faculty members (myself, Saniya Jafri and Meeza Obaid) who chose the north-eastern side of the Lahore city, known as the neighborhoods of Misri Shah and Chah Miran. The reason for choosing this part of the city was the sheer curiosity of not knowing the urban history of this area, the history of the area's name, and of the Sufi saint after whom this area gets its name. During the research, it was found out that we were not the only ones who were unaware of this saint and the history of this area, but the local residents were also unfamiliar with the origins of the name of this area which they called their home.

During this research we managed to locate the forgotten shrine of Misri Shah, along with the locations of many vanished gardens and *Takia/s* of Sufis and saints. It was tragic to observe how an area which was once associated with gardens planted by rich noblemen, sweet water wells, and abodes of Sufi saints, got transformed into a low to middle income housing society/ies and an ever expanding industry of scrap metal (Figure 1 and 2).

Figure-1: The Historic Street of Misri Shah.

Figure-2: The Scrap metal Shops.

METHODOLOGY ADOPTED FOR RESEARCH

As an initial step, the physical survey of the neighborhood of Misri Shah was undertaken for assessing the current situation of the area and for conducting a rapid Cultural Mapping. The process of Cultural Mapping involved:

- Retracing the original Street Layout of this area and identifying the original surviving streets / roads. For this task, a number of Archival Maps of Lahore were consulted. Some of these historic maps were available as published documents and others were obtained from the Punjab Archives collection catalogued under 'Maps of Lahore'.

- Recording / documenting of surviving historic structures within this area and along the identified original streets / roads. During this process, a number of old residences, apartment housing, and town houses were identified. A number of shrines were also identified including the Shrine of Baba Nakhudeh, a Persian title meaning 'the Lord of the Ship', the one who provides safe crossing. However, the Shrine of Misri Shah was not found during this survey.

- A number of old Banyan / Bohr, Peepal / Pipal and Sumbal trees.

- Senior residents of the area who could narrate the changing urban environment of this area. Community interviews were conducted, neighborhood groups were approached, local shop keepers and whole-sellers were contacted, and influential people of the area were consulted. These individuals were identified as Local Resource People (LRPs).

The gathered data was then marked on the Google Map through their coordinates, which generated a comprehensive Map showing all of the above locations. These locations were identified as the Urban Reference Points (URPs).

In addition to the Cultural Mapping and retracing through Archival Maps, a comprehensive literature review was also conducted through books and other published material, such as the publication of (Latif, 1892) recording the history of Lahore, along with the publication by (M. Baqir and the Gazetteers, 1984) of Lahore and Punjab, are to name a few. These publications provided the base line information regarding these neighborhoods, its built heritage and its historicity. Through this review, the data gathered during the physical survey was verified, and a substantial narrative of the history of Misri Shah became visible.

URBAN REFERENCE POINTS – URPS

While defining the uniqueness of a space, (Lefebvre, 1974) states that 'the production of space has been meaningful at every stage of human history' rather than being a product of a designed geometric or practical layout, thus generating a specific 'rhythm' of the space. Within this rhythm is embedded the uniqueness of that space. Applying his concept of 'rhythm analysis' over this area of Misri Shah, a number of Urban Reference Points were identified which gave a unique meaning to this area.

The identified URPs, constituted of the Built Heritage, the Shrines, the Original Streets / Roads, and the old trees. Located on the Google Map, these URPs provided sufficient points for overlaying the Google Map upon the Archival Maps.

The main URPs marked on all the maps were:

- The *Mizar* of Hazrat Miran Hussain Zanjani (Chah Meeran), a well-established and well-documented shrine. This shrine provided the northern URP.

- The three main Roads which were traceable in all the Archival Maps. These roads provided the southern URP.

- The main GT Road identified in early British maps, as the southern URP.

- The Railway Station which was mapped in the later British maps. This provided the south-eastern URP.

- The river Ravi providing the western URP, along with the Delhi and Yakki Gate of the walled city of Lahore.

PROCESS OF OVER LAYERING OF MAPS

After the URPs were highlighted, the Google Map was placed as the Base Map, upon which all the Archival Maps were layered (Figure 3 – 8) shows the archival maps used. The entire process was done digitally through Photoshop. Archival Maps had to be stretched so that the marked URPs on Google Map were aligned with the marked URPs of the Archival Maps.

Figure-3: The Sketch Map of lahore-1837.
Source: Rehman (2013) 57

Figure-4: The Map of Lahore-1846.
Source: Rehman (2013) 61

Figure-5: The Sketch Map of Lahore-1867.
Source: Rehman (2013) 65.

Figure-6: The Map of Lahore-1867.
Source: Rehman (2013) 66

Figure-7: The Sketch Map of Lahore-1893, 1907, 1931,.
Source: Rehman (2013), 75, 85, 184

Figure-8: The Map of Lahore-1901.
Source: Rehman (2013), 66

Majority of the open garden spaces located along the main GT road were consumed by the Scrap Metal Industry flourishing in this area since the establishment of the Railways during the British era *(the red boxes in the following images indicate these gardens)*. The railway workshop sheds dominate this area along with metal casting factories and scrap metal warehouses. Another historic industry located within this area is the Leather Tannery Limited open space has left this industry to rely more on the faulty drainage system for washing animal skins and disposing contaminated water from these establishments, developing an undesirable environment within this area.

On the other hand, some of the old trees marked on Google Map as minor URPs, coincided with the premises of various historic walled gardens which were once located within this area, away from the main GT road. These walled gardens planted by the Mughal and Sikh nobles are now transformed into densely planned residential housing schemes. A number of Water Towers coincided with the location of Water Wells marked on the Archival Maps. An old *Sumbal* Tree, once part of Rattan Chand's Garden, was now standing within a polytechnic college grounds.

The biggest find, however, was the Shrine of Misri Shah.

FINDING MISRI SHAH

While searching for the Original streets / roads layout of this area, the consulted Archival Maps showed a location which was labeled as '*Takia Misri Shah*',' providing a hint towards the approximate location of the Shrine of Misri Shah. This was highlighted for further investigation.

When the process of over layering of Maps was underway, the highlighted location of *Takia* Misri Shah coincided with

a location which was now inside a narrow residential street. During the field survey, this street was not investigated due to its relatively new character and lack of any surviving or mentioned built heritage.

The Shrine of Misri Shah was found at the very end of this narrow street, marking one of the outer corners of a Government Girls High School. The old Banyan tree once located within the gardens of the shrine was now growing within the paved playground of the school.

THE CARTOGRAPHIC STUDY OF HISTORIC MAPS OF LAHORE

While researching through the Archival Maps, a total of 15 maps were studied some of these maps are shown in (Figure 3 – 8). The timeframe of these maps started from 1837 till the 1947, almost a 110 years of cartographic development of this area. Following aspects were noticeable in these maps:

- The north and north-eastern region beyond the Walled City of Lahore, especially the area between the city's Delhi Gate and the historic Shalamar Gardens, was dotted with gardens, with a larger part being used as camping grounds for the British troops and Sikh armies. This fact was also confirmed by both by (Baqir, 1884) and (Latif, 1892), when they narrated the event of war between Khizr Khan Syad, viceroy of Lahore (1421) and the tribal Gakhkhar armies. It is recorded that the invading armies camped near the tomb of Hassan Zanjani (Chah Miran). It is further stated by Baqir (1984) that when Maharaja Ranjit Singh's first attack on Lahore was unsuccessful, he is said to have retreated to an area known as 'Chah Miran'.

Figure-9: The Location of the Tomb of Misri Shah.

Figure-10: The Tomb of Baba Misri Shah.

Figure-11: The Interior and Sarcophagus of Misri Shah.

Figure-12: The Old Peepal Tree Now Disconnected From the Tomb.

- The earlier Maps have no significant settlements marked in this area except wells and walled gardens.

- River Ravi and its 'Bodha' (rivulet) is the dominant feature of this area, directing towards the written record that the river once flowed near the northern gates of the walled city of Lahore, and this area was prone to seasonal flooding.

- Almost all the Archival Maps show the existence of an area now knwn as Chah Miran. Many names have been used for this area, such as 'Meera Bagh', 'Khui Miran', and Meera's Khoi'. This area is famous for the *Mizar* of Hazrat Miran Hussain Zanjani (Chah Meeran), whereas 'Khoi' or 'Chah' means water well. These names can indicate an early reference of this area when it was associated with the water well and garden of Hazrat Miran Zanjani.

- A number of gardens have changed names through time, but same location.

- In some of the maps, only green blocks have been shown without any labeling. This was clarified by over layering of maps with names upon maps without names. This showed coinciding garden locations, hence providing the identity of a specific unnamed garden.

A comprehensive table was developed as an outcome of this study. The following is a summary of that table, mentioning various gardens. Gardens with same location but different names are placed in the same row. The darker color represents those gardens which have been marked and labeled, whereas the lighter color indicates that the gardens have been marked but not labeled.

THE KNOWN GARDENS

During the Mughal period, Lahore became famous as the 'City of Gardens'. According to a comprehensive survey conducted by a total of approximately (Awan, 1996) 18 gardens and three garden gateways existed till the 1900s. From these only three groups of gardens and three garden

Legend: **T** = teal filled cell; **G** = light green patch; blank = not marked. The 1921 column note (spanning rows): *The Entire Area Has Been Marked Within a Dotted Line and Named 'Khui Miran'*. The 1932 column note (spanning rows): *Green Patches are Marked Without Any Labels, Industries are Highlighted*.

Gardens	1837	1846	1867	1893	1901	1907	1911	1912	1914	1921	1924	1931	1932	1933	1947
Merra Bagh	T	T	T	T	T	T	T	T			T	T		T	T
Village	T	T	T	T	T	T	T	T			T	T		T	T
Meera's Khoi	T	T	T	T	T	T	T	T			T	T		T	T
Khui Miran	T	T	T	T	T	T	T	T			T	T		T	T
Chah Meeran	T	T	T	T	T	T	T	T			T	T		T	T
Raja's Garden	T		T	G	T	G	G	G				G			
Raja Kapurthala's Garden	T		T	G	T	G									
Lehna Singh Garden		T			T										
Lunatic Asylum		T			T										
Radha Ki Shan				G		G									
Sham Das Garden			T	G											
Ventura's Garden		T													
Rattan Chand Garden		T	T	G	G	G	G	G				G			
Kirpa Ram Chopra Garden		T	T	G	G	G	G	G			G	G			
Dewan Kirpa Ram Garden		T	T	G	G	G	G	G			G	G			
Dahau Kul Singh Garden		T	T	G	G	G	G	G							
Teja Singh's Garden		T	T	G	G	G	G	G							
Sham Singh Garden		T	T	G	G	G	G	G				G			
Sham Singh Utlari Wala's Garden		T	T	G	G	G	G	G				G			
Maharaja Daleep Sings Garden		T	T	G		G	G	G				G			
Bakhsi Bhaggat Ram's Garden		T	T	G		G	G	G				G			
Takia Misree Shah			T	G	T	G								T	T
Takea Misri Shah			T	G	T	G								T	T
Bhai Vasti Ram's Garden			T	T	T	G	T				G	T			
Basti Ramydia's Garden			T	T	T	G	T				G	T			
Raja Deenanath's Garden			T	T	T	G						T			
Dina Nath Garden			T	T	T	G						T			
Raja Dena Nath's Garden			T	T	T	G						T			
Seeltanpura			T	T	T	G					T	T		T	
Sultanpura			T	T	T	G					T	T		T	
Hadi Shah's Tomb						T	T								

gateways survived till 1996, all of which belonged to the Mughal period. These were:

1. Shalamar Gardens
2. Gardens within Lahore Fort
3. Gardens of Shahdara
4. Gulabi Bagh Gateway
5. Chauburji Bagh Gateway
6. Nawankot Garden Gateway

There is no mention of the gardens planted, or maintained, by the Sikh court noblemen during the reign of Maharaja Ranjit Singh. The followings gardens of this era are mentioned by Latif (1892), but none are mentioned in later publications:

Table-2: Name of the Gardens mentioned by Latif as well as Marked Within the Archival Maps.

Name of Gardens Mentioned by Latif	Marked in the Archival Map
Ahluwalia Gardens Attached with the Gardens of Ali Mardan Khan	
Garden of Khushal Singh	
Garden of Raja Teja Singh	*
Garden of Raja Dina Nath	*
Garden of Diwan Rattan Chand	*
Garden of Bhai Maha Singh	
Badami Bagh	*

The publication of Steinbach (1846) mentions that not many gardens were found within the city, however, a large number were planted outside the city walls near the rivers of Punjab, as these areas were 'greater fertile land', had ample water and were scenic locations. These gardens yielded guava, date, mango, lime, lemon, peach, apricot, fig, pomegranate, plum, orange, mulberry, grape, almond, melon, apple, cucumber, carrot, turnip and a variety of flowers.

THE MAPPED GARDENS

The Gardens marked within the Archival Maps, once existed in an area between Badami Bagh, Walled City of Lahore and Shalamar Gardens. Majority of these gardens are credited to the Sikh noblemen. Only a few of these gardens and their owners were traceable through a comprehensive literature review. The over layered Google Map and one of the Archival Map with names and marked gardens is shown in Image 13. The red dotted lines show the old road networks and the yellow dotted lines show the existing roads. As a URP, majority of these roads overlapped with each other, showing the correct proximity of the over layered maps.

Some of the marked Gardens are:

Sham Singh Uttari Wala's (Atariwala) Garden

Various Atariwala / Uttari Wala family members are mentioned in archival documents as noblemen associated with the royal court of Maharaja Ranjit Singh. Sham Singh Atariwala / Uttari Wala was a general of the Sikh empire, father-in-law of Prince Nau Nihal Singh, and part of the Council of Regency for Maharaja Daleep Singh.

Figure-13: Overlay of Google an Archival map showing marked gardens with names..

No mention of his Garden was found in any written source, except the Archival Maps.

Raja Kapurthala's Garden

This garden belonged to the Ahluwalia royal family of Kapurthala. It is recorded that the family owned approximately 30 villages in the districts of Lahore and Amritsar. The most possible owners can be Fateh Singh, Nihal Singh or Randhir Singh Ahluwalia, all Sikh noblemen in the royal court of Maharaja Ranjit Singh and commanders of his armies. The later family members were also part of the British administration. Specific mention of this Garden was not found in any literary source, except the Archival Maps.

Rattan Chand Duggal / Darhiwala's Garden

This garden is described as "a place of great interest". It is said to contain 'picturesque buildings, elegant reservoirs and fountains along luxuriant walkways'. It had numerous fruit trees. It was looked after by Lala Bhagwan Das, son of Diwan Rattan Chand.

The digital records of the British Library have the only surviving image of this Garden, the water tank and the Shiv Temple constructed by Diwan Rattan Chand at Lahore. The records state that Rattan Chand was a small boy when he came to the courts of Maharaja Ranjit Singh, and grew into an individual who served the raja with great honor. This prime land was given to him by the Maharaja for his great service to the court. Diwan Rattan Chand was also part of the British administration. It was during this time that he constructed a huge water tank and planted various spices of fruit trees in his garden. He died in 1872. It is further recorded that the temple and gardens were 'irretrievably' destroyed during the partition riots.

Latif (1892), states that Maharaja Ranjit Singh's court had two individuals by the name of Rattan Chand. To distinguish between them, the raja titled one as Rattan Chand *Darhiwala* (with a beard), as the other ones full name was Rattan Chand Duggal. The text mentions that the garden belonged to Diwan Rattan Chand, which can either be Duggal or Darhiwala. The Archival Map of 1867 labels the garden as 'Rattan Chand Duggal Garden'.

Sultanpura Garden

The area of Sultanpur is mentioned as a suburb of Lahore city, in the memoirs of Emperor Jahangir, when he narrated the crushing of Khusraw's rebellion

Bhai Vasti Ram's Garden

Bhai Vasti Ram (1708-1802) was a disciple of Guru Gobind Singh Ji, and a resident of the city of Lahore. He became famous for his medicinal knowledge and skill of apothecary which he practiced through using indigenous herbs. The popularity of his healing powers was known by many Sikh courtiers including the raja himself. Maharaja Ranjit Singh also used to seek spiritual guidance from Bhai Vasti Ram. Upon his death (1802), a white marble Samadhi was constructed next to the outer defense wall of the Lahore Fort, where it still exists.

Bakhsi Bhaggat Ram's Garden

Bakhsi Bhaggat Ram was a General in the armies of Maharaja Ranjit Singh. It is said that within his gardens, he commissioned the 'most splendid and popular' temple for Shiv worship for the Hindu believers.

Teja Singh's Garden

The Bagh is described as located within the 'village' of *Khui Miran.* It is described as once being a 'splendid garden' with a summer house, numerous fruit trees and a canal running through the garden. The first mention of this garden is as the Gardens of Dhaukal / Dhau Kul Singh, who was a loyal commandant in the Sikh armies of Ranjit Singh. He played a major role in the sale of Kohi-i-Nur for Maharaja from Shah Shuja. The same garden was later labeled as Tara Singh's Garden. Tara Singh was one of the eight sons of Ranjit Singh, a twin brother to Sher Singh. However, this garden might also belong to Bhai Tara Singh (1717-1807) who was an ally of Maharaja Ranjit Singh and has helped him during his early expeditions.

The same garden is later labeled as Teja Singh's Garden. Raja Teja Singh was the nephew of Jamadar Khushal Singh (later the title of Raja was bestowed upon him by Maharaja Ranjit Singh) and a commander in chief of the Sikh Khalsa Army during the reign of Maharaja Ranjit Singh.

Dewan Kirpa Ram's Garden

Kirpa Ram was a civil administrator, soldier and a statesman in the court of Maharaja Ranjit Singh. No mention of his garden is found in any literary source, except the Archival Maps.

Raja Dena Nath's Garden

This garden is said to be located along the old road to Shalamar garden. This garden is said to be 'unrivalled' for

its beauty, fertile trees, and elegant layout of flower beds. It had reservoirs of water, tanks and splendid summer houses.

Raja Dina Nath was a Kashmiri Pandit who served as the Finance Minister (Diwan) in the court of Maharaja Ranjit Singh. He also served the raja's court in the capacity of civil administrator, counselor and the keeper of the privy seal.

LESSON LEARNT

Every urban settlement experiences expansion, pressure of creating new housing schemes which are space and cost effective. All urban expansions, on the other hand, require open green areas as Urban Breathing Spaces. However, these spaces are usually kept at the lowest priority. If sensitively designed, these Urban Breathing Spaces can become unique features in the urban expansion planning. The historic structures, gardens and natural features of the landscape can provide opportunity for developing such open spaces within a densely planned housing scheme.

If this sensitive approach would have been employed in the area of Misri Shah, by saving a historic garden, or a vital Character Defining Element (CDE) from each of the gardens, and developing this space into the new planned green spaces, then we could still have the evidence that Lahore was, indeed, the city of gardens.

In a fictional novel Marco Polo describes an imaginative 'perfect city' to Emperor Kublai Khan as one he would like to "……put together, piece by piece, the perfect city, made of fragments mixed with the rest, of instants separated by intervals, of signals one sends out, not knowing who receives them……".

For me, these intervals can be the Green Urban Spaces, and signals can be the Pockets of Fresh Air full of Fragrance within densely populated urban spaces. These can be some of the features which can make our cities almost 'perfect' for us. These sensitive safeguarding interventions will not only create a new rhythm for a historic space, but will also sustainably conserve our heritage assets.

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ROLE OF SECONDARY EDUCATION IN LEARNING ARCHITECTURE FOR PAKISTAN

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ABSTRACT

Most research on the global level indicates that the education students receive before entering higher education impacts the way they perceive their learning situation. In Pakistan's scenario, the different types of secondary education (Matric & F.Sc., DAE, and O & A levels) emerging from various early education systems are identified in the literature as imparting unique skills in students. Upon entering the schools of architecture these skills can be found helpful or not by students and define the way they perceive and experience architectural learning. This in return has some pedagogical implications for architecture schools. Through extensive research in 14 architecture schools in Pakistan, the current study explores the types of early education students had before joining the schools of architecture and what is their perception about its usefulness. Data is collected through both the quantitative and qualitative means and analysed using SPSS and Nvivo 12. The findings show that students have found the O and A levels education most helpful in learning architecture, primarily because of its training for critical thinking.

Keywords: Secondary education in Pakistan, Architectural Learning, learning conception, critical thinking

INTRODUCTION

The purpose of this study is to highlight the difficulties and problems faced by the students in learning architecture as a direct outcome of their secondary education. Higher education is more students oriented as compared to early and secondary education. Here students are expected to be active learners, as literature identifies that learning takes place through the active engagement of the students. Biggs (1999) mentioned that learning occurs when students can make sense of the knowledge provided in a learning context in conjunction with the skills and understanding they already possess. This study explores how different types of secondary education in Pakistan define students' skills and understanding which impact their learning ability in the school of architecture. For this, types of secondary education in Pakistan are explained, also the teaching pedagogy of architecture as elucidated in the literature is discussed briefly. After this, a relationship between these two is explored through data collected in fourteen architecture schools in Pakistan.

SECONDARY EDUCATION IN PAKISTAN

Early and secondary education in Pakistan is extremely stratified based upon several factors including social class, geographical location, gender, and education provider (Government or private sector) (Andrabi et al 2008; Rahman 2004). This division is implemented at the primary and middle stages of school learning based on different types of curriculums and pedagogical practices (Alderman et al 2001; Aslam 2009). However, this division becomes most evident at the secondary education stage, which starts with the school year 6th to 8th and finishes with year 12, before entering higher education. There are two basic types of secondary education, known as "Matriculation and intermediate" or matric and FA/FSc, and "Ordinary and Advanced levels" or O and A levels. After completing the 7 or 8 years of education in schools and upon entering the final phase of secondary education, students can choose which type of secondary education they want to take. Matriculation and Intermediate is the national examination framework and managed by the "Board of Intermediate and Secondary Education" commonly

known as BISE. Whereas O and A levels are managed by "Cambridge International Education" also known as CIE UK. One is the local education system, and the other is internationally recognised. However, this is not the only difference. There are significant differences in the syllabus and teaching pedagogies of these two systems. O and A level education is comprehensive, and concept-based, whereas the BISE system is identified to be based on rote learning with a focus on quantity rather than quality (Raja, 2019).

Moreover, the BISE system is very strictly defined in terms of the options of subjects, mostly divided into two categories of "Science" and "General" subjects. Whereas, in O and A levels students can choose from a range of optional subjects which better prepare them for a range of university subject areas. Despite its reputation of a better system, only 3% of students in Pakistan complete their secondary education under O and A levels. The primary defining factor is finances, O and A levels education is significantly expensive, and only a handful of institutions in Pakistan are providing this education. So, this form of education is only available to a small percentage of the elite in Pakistani society (Ishfaq, 2009). The Single National Curriculum (SNL) that is planned to be implemented in Pakistan in the coming years also focuses on mitigating this gap in school education in Pakistan (MFEPT, 2020), but its effects are yet to be seen. Moreover, although so far it is only implemented at the primary education stage, at the moment it is dealing with the language and curriculum at the schools and not focusing on Pedagogy. Pedagogy is expected to have a more profound impact on students' critical thinking ability (McDade, 1995).

Other than BISE, and O and A levels education system, there is a third system that is often not a part of mainstream education. It is called the Diploma of Associate Engineering or DAE and is a three-year post-secondary program offered in various engineering disciplines and architecture. This diploma is offered at a handful of government training institutions, individuals getting this diploma work as technicians, site supervisors, sub-engineers, operators, and draftsperson in their career. Families who cannot afford a full professional degree prefer this program for their young members. However, there is a possibility of further education; almost all universities have reserved seats for students with this diploma to get admission in different professional disciplines. These seats usually are very few, for example, 1 or 2 seats for a class of 40, so very few students entering this education system end up in university. However, there is not much competition on these seats, because mostly these students cannot afford a university education.

Language is another important aspect of learning in Pakistan,

as education is bilingual based on Urdu and English. The main language at a school majorly depends upon if it is a Government or private sector school, with Government schools being predominantly Urdu based and private schools English based. Also, within private sector schools, the fee structure is often found to be the defining factor for the quality of English language skills provided to students. Although a majority of the population in Pakistan speaks Urdu, English is considered as the language of power and it is believed to be associated with social mobility (Mansoor et al. 2005; Mehboob 2002; Rahman 2004, 2005). O & A levels education is mostly provided at expensive private schools, and these schools are also known for imparting good English language and communication skills in students, so students taking O & A levels are expected to be better in English Communication.

Based upon O & A levels training when students enter universities where academic language is predominantly English, and students are expected to think critically, these students are expected to perform better (Manan et al., 2017). This factor of English language and critical thinking ability is expected to have a deeper impact on architectural education, as it is an art field and students are expected to present and defend their work. This is further explained in the section below.

ARCHITECTURAL LEARNING

In order to explore the impact of early education on architectural learning, it is important to understand the pedagogical practice in the schools of architecture and students' position in this.

The design studio is at the core of learning in architecture, it is the most dominant subject in architecture learning with the highest contact and credit hours per week. Other subjects serve the design studio by providing the necessary information to support the design project. McClean et al. (2013) argued that a design studio is a culture that is dependent upon a collective will of people to work together. It is a problem-based learning environment that is focused on critical thinking (Barker, 1994). Critical thinking ability is often described in the literature as the most important quality in learning to design. Clune (2014) claimed that the focus of the design studio is to develop critical thinking skills and reflective practice. However, the ability to think critically is highly dependent upon the education students have received before joining higher education (Santn & Torruella, 2017). Similarly, reflective practice that is the ability to think about one's actions, learn from them and

improve the learning process, is highly dependent on students' thinking process developed as a result of their education. From the literature, it seems that if students were encouraged to think critically and question their actions and mistakes, it is more likely that they will find studio learning interesting and they will take initiative in developing pedagogical relations. Therefore, this study seeks to explore that how different schooling system in Pakistan impacts students' ability to think critically, and how it is impacting their learning experience in architecture.

Another important aspect associated with the design studio is the crit or review, which is identified as the most important activity in an architecture school's calendar (Webster 2005, 2006, and 2007). There is extensive literature on the importance and practice of architectural review. But the most relevant aspect of this practice that is affected by students' prior education is the ability to present their work. As mentioned before, learning in Pakistan is bilingual, however, university education is more dominantly based on the English language. Even though teachers do not always demand their students to speak in English, but the ones that do are often considered more intelligent and hard-working (Iqbal & Roberts, 2019). As mentioned before, only a handful of secondary education schools are able to provide a good grasp of the English language. So, it is important to investigate that how students' English language skill shaped up by their schooling is impacting their architectural learning.

METHODOLOGY

This study is part of a larger study conducted for PhD at the Welsh School of Architecture; the context of the study is Pakistan. The larger study was based on mixed-method research incorporating both the qualitative and quantitative means and investigated students' learning experiences and approaches in the schools of architecture defined by their social background. However, secondary education was found one of the most important factors in the data, defining students learning experiences. So, the same data set collected from the quantitative and qualitative means is used for this study where a direct relationship of students' secondary education and their architectural learning is explored.

As identified in the literature, all research methods have certain limitations (Atieno 2009, Queirós et al. 2017). Thus, using multiple approaches offers diversity and provides the opportunity to examine the situation from different perspectives (Tashakkori & Teddlie 2003). This is 'triangulation' in research. The importance of triangulation has been discussed extensively in the literature (Carter et al. 2014, Smith 2003). Williamson (2005) suggests that mixed methods research allows the limitations of each method to be transcended, as the scholar is able to take different perspectives on the same phenomenon. For this reason, this research uses methodological triangulation and uses both qualitative and quantitative methods.

The quantitative study was conducted through a questionnaire survey. For this, all 21 accredited Architecture schools on the PCAPT website were contacted for the questionnaire survey. 14 schools responded and agreed to a visit, upon visiting these schools, hard copies of the questionnaire survey were circulated among the students from all 5 years of study. A total of 1345 responses were collected from all 14 schools. However, when entering data in the excel sheet,

Table-1: Number of Student Responses from the Universities Involved in the Study.

No.	The University	Frequency	Percentage	Valid Percent	Cumulative Percent
1	BNU	127	9.5	9.5	9.5
2	BUITEMS	71	5.3	5.3	14.9
3	Comsats Islamabad	85	6.4	6.4	21.3
4	Comsats Lahore	117	8.8	8.8	30.1
5	Dawood	128	9.6	9.6	39.7
6	IVS	98	7.4	7.4	47.1
7	KU	70	5.3	5.3	52.3
8	NCA	88	6.6	6.6	58.9
9	NED	60	4.5	4.5	63.5
10	PU	100	7.5	7.5	71
11	Superior	81	6.1	6.1	77.1
12	UET	154	11.6	11.6	88.6
13	UMT	88	6.6	6.6	95.3
14	USA	63	4.7	4.7	100
	Total	**1330**	**100**	**100**	

15 questionnaires were discarded as the students had only completed their names and other necessary information and had not responded to the other questions. So, there are 1330 useable responses. Through frequency analysis, Table 1 shows the number of responses from all the universities in which the study was conducted.

The semi-structured interviews were conducted with a sample of students chosen at random during the visits to the schools. The researcher made this random selection after being formally introduced to the students. She began by introducing herself and explaining the research. A consent form was then given to the participants to be signed. As the interview was to be recorded, participants were given information about the recording methods, and their comfort was assured. A total of 44 interviews were conducted in 10 architecture schools.

Data is analysed separately for the quantitative and qualitative studies. Quantitative data is analysed using SPSS using frequency analysis and cross-tabulation. Qualitative data is transcribed in word and then analysed using NVivo 12 through the method of coding.

FINDINGS

The findings of this study are discussed based on the quantitative and qualitative data, a relationship of these is explored in the final discussion. For the quantitative data, along with frequency analysis on SPSS, the other test used is Crosstabulation. This test is used to find the correlation between two variables, in this study it is used to find the correlation between students' secondary education and different aspects of architectural learning. The Chi-square test is part of crosstabulation and it shows if the two variables mutually dependent or not. For each crosstabulation test conducted in this study, results of the chi-square show statistically significant evidence of very strong association ($p < 0.01$), and 0 (0.0%) cells have an expected count less than 5, so the null hypothesis is rejected. This means a statistically significant association exists between the two variables.

FINDINGS FROM THE QUANTITATIVE DATA

As mentioned above, data for this study is extracted from a larger study conducted as part of PhD. The original questionnaire was longer but it included 8 relevant questions for the current study. These are 1) what type of secondary education you had, 2) why did you choose to join architecture, 3) is your secondary education helping you to learn architecture, 4) Do you feel confident at the beginning of a new design project, 5) do you think that critiques are respectful and constructive, 6) Do you think Verbal skills in English are important in learning architecture, 7) How do you rank your ability to communicate in English before coming to architecture school, and finally 8) how much you think you are dependent on the guidance provided by the teachers. Findings from these questions are discussed in the next sections. The questionnaire is based on a four-point Likert scale to avoid the option of "neutral answers" that is often associated with the central or third option of 5 points Likert scale. This is done to get clear positive and negative answers from the students which make data more comprehensible.

DIFFERENT TYPES OF SECONDARY EDUCATION

The first question was focused on identifying different types of secondary education students had before entering the school of architecture. Four types of secondary education are identified in the data collected through the questionnaire survey as shown in table 2. Among these types, only 2 students among the total number of 1330 students had the secondary education of ICS. Therefore, ICS is not included in the further investigation process. Among the remaining three types, Matric and FA/FSc is the most popular among students, as 75.6% of students studied this before entering the school of architecture. O & A levels is the second most popular type studied by 20.1% of students. DAE Arch/ Civil is the third most famous type of secondary education, studied by only 4 percent of students.

Table-2: Types of Secondary Education in Study.

Type of Secondary Education in the Study				
Matric & FA/FSc	**Frequency**	**Percentage**	**Valid Percent**	**Cumulative Percent**
Matric & FA/FSc	1006	75.6	75.6	75.6
DAE Arch/Civil	53	4.0	4.0	79.6
Matric & ICS	2	0.2	0.2	79.9
O & A Levels	267	20.1	20.1	100
Total	**1330**	**100**	**100**	

PERCEPTION OF ARCHITECTURE

As an indicator of their perception of this profession, students were asked the reason for the choice of architecture. To comprehend their responses, the two variables, "secondary education" and "the reason for the choice of architecture" are cross-tabulated using SPSS. A statistically significant association is found between these two variables. The results of cross-tabulation are represented through pie charts in Figure 1. Students who entered architecture by being attracted to the profession indicate that they had done some research on the profession and develop an understanding before getting admission to the school. Only 24% of students with FA/FSc background, whereas 62% of students with O & A levels background chose architecture by being attracted to the profession. This shows that a maximum number of students with O & A levels understand the profession before entering the school.

Moreover, the difference is very clear for getting admission on the assigned merit by the university admission system, and this indicates a very important result. It shows that these students have no understanding of architecture and its learning requirements, and they entered this profession only because it was assigned to them. A maximum number of students with FA/FSc background, that is 29%, entered architecture school by getting admission on merit. 9% of students with DAE background and only 3% students with O & A levels entered the school for this reason. Some students in each group got admission to the school by getting inspired by some famous architect or some architect they personally know. Also, a significant number of students from each group entered architecture because of their family's advice. However, the percentage of these students is quite similar in all groups and does not communicate any significant differences.
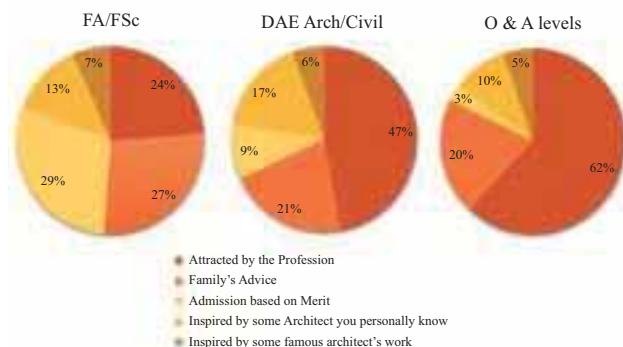
ROLE OF SECONDARY EDUCATION IN LEARNING

To draw a direct comparison between the type of early education and its usefulness, these two variables are cross-tabulated and found statistically correlated. Table 3 shows the cross-tabulation result; however, to make it more comprehensible, positive, and negative responses are added and shown in the form of a bar chart Figure 2. This result clearly shows a large variation in the level of satisfaction for the three types of secondary education. For O and A levels, a big majority (75.3%) of students responded that this education is very or moderately useful for them in learning architecture. For Matric & FA/FSc almost similar majority students (72.3%) expressed that this education is not helpful for them in learning architecture. The interesting aspect is that the subjects taught in both systems are mostly similar; only the pedagogical methods vary. DAE is also identified by the majority of students (65.8%) to be helpful in learning architecture. However, it was explored that the usefulness of O & A levels and DAE is very different in nature, which will be explained through qualitative data. Another way of observing the contrasting results of different secondary education is through the count and expected count in Table 3. For O & A levels students, the count of "very useful" is significantly high than the expected count, and for FA/FSc students it is significantly low. This shows that for O & A levels students, the usefulness of early education is much higher than expected in overall data, and for FA/FSc students it is much lower.

LEARNING EXPERIENCES

After the investigation of different types of secondary education students had, their reasons for joining architecture, and their opinion about the usefulness of secondary education in learning architecture. The remaining five questions focus
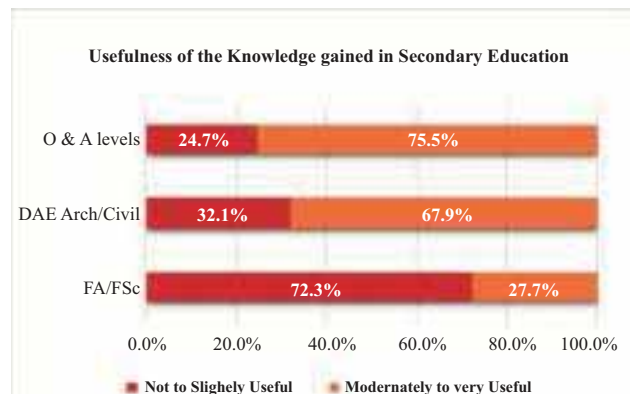

Figure-1: Students Response for Joining Architecture.

Figure-2: Student' Response to Usefulness of Secondary Education.

Secondary Education *Crosstabulation* Knowledge Gained in Secondary Education						
Secondary Education		**Not Useful**	**Slightly Useful**	**Moderately Useful**	**Very Useful**	**Total**
FA/FSc	Count	377	350	184	95	1006
	Expected Count	304.1	309.4	220.9	171.7	1006.0
	% within secondary education	37.5%	34.8%	18.3%	9.4%	100.0%
DAE Arch/Civil	Count	3	14	11	25	53
	Expected Count	16.0	16.3	11.6	9.0	53.0
	% within secondary education	5.7%	26.4%	20.8%	47.2%	100%
O & A Levels	Count	22	44	96	105	267
	Expected Count	80.7	82.1	58.6	45.6	267.0
	% within secondary education	8.2%	16.5%	36.0%	39.3%	100%
Total	Count	402	409	292	227	1330
	Expected Count	402.0	409.0	292.0	227.0	1330.0
	% within secondary education	30.2%	30.8%	22.0%	17.1%	100%
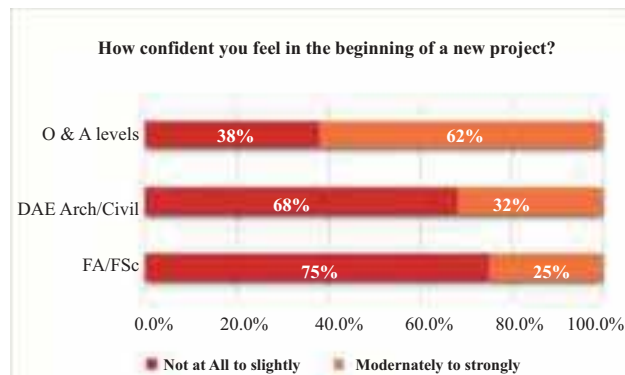
Figure-3: Students' Reasons to Confidence at the Beginning of a New Project.

Figure-4: Students' Respons to Critiques.

to understand students learning experience of architecture in relation to their secondary education. Responses of all these questions are cross-tabulated with the students' secondary education and a statistically significant association is found in the results. For a clear understanding of the responses, the results are shown in the form of bar charts by adding the percentages of not at all to slightly and moderately to strongly

For the question "confidence at the beginning of a new project" 62% of students with O & A levels background answered that they feel moderate to strongly confident at the beginning of a new project, whereas only 25% of students with FA/FSc background responded that they do. This percentage is not very high (32%) for DAE students as well Figure 3.

The question of "if critiques are respectful and constructive", shows a huge variation of response from different secondary education students. A majority of 73% of students said that they are, whereas only 29% DAE, 38% FA/FSc students

responded that they are Figure 4.

To investigate this variation further, students were asked about their perception of English language communication skills in architectural learning. This is important because the de facto mode of communication in most architectural schools is English, and it is mentioned in the literature though teachers do not always ask or expect their students to communicate in English, they appreciate those who do (Iqbal and Roberts, 2019). Students in this study also agreed with this fact, as more than 90% of students from each secondary education group somewhat to strongly agreed with the importance of English language communication skills Table 4. Next, students were asked "how they rank their own ability to communicate and present in English", this question showed a large variation of response as well. 88.4% of students with O & A levels said that they have excellent or above average English communication skills, 41.3% students with FA/FSc background gave a similar response, whereas, only 18.9% of students with DAE background gave this response. The significance of this

Importance of English Communication Skills in Learning Architecture					
	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Total
FA/FSc	1.2%	2.9%	25.3%	70.4%	100.0%
DAE Arch/Civil	1.9%	7.5%	35.5%	54.7%	100.0%
O & A Levels	0.4%	2.6%	18.4%	78.7%	100.0%
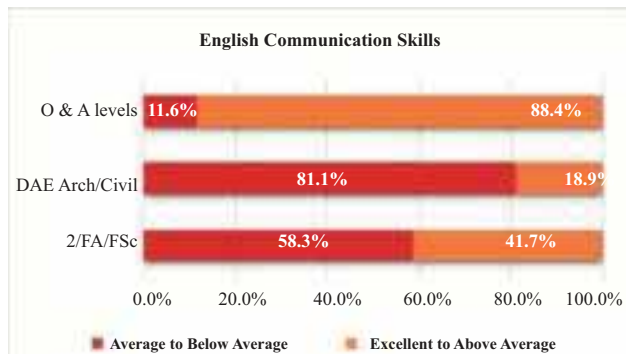
Figure-5: Students' Response to the English Language Skills.

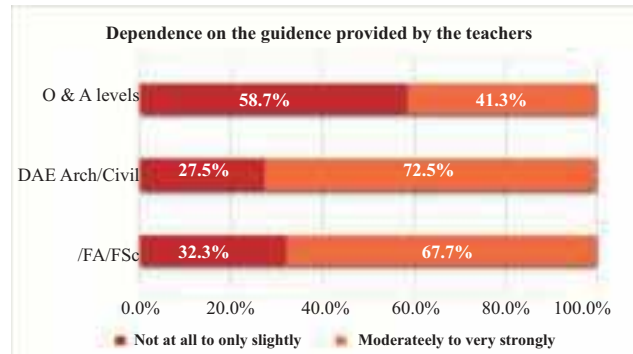***Figure-6:*** Students' Response to Dependence on Teachers.

finding is explored in the final discussion part of this paper Figure 5.

For the question of "dependence on teachers for guidance", there is a clear variation of response from students with O & A levels background and the remaining two groups, as majority O & A levels students (58.7%) responded that they are much more independent of the guidance provided by the teachers Figure 6.

FINDINGS FROM THE QUALITATIVE DATA

Interviews for the original study (conducted for the PhD) were longer with questions exploring students' learning experiences and approaches from a wide range of perspectives. But for the current investigation, four questions are found relevant. These are 1) how useful you have found early education in learning architecture, 2) Do you try to question or understand what you have learned from a particular design project, 3) How important is teachers' guidance for learning in the design studio, 4) What is your opinion about presenting and defending the work in juries. The first question is intended to explore a direct relation of architectural learning with secondary education, and the other three questions explore an indirect relation between these two.

As mentioned before, Nvivo 12 was used for the coding process to explore the data received from semi-structured interviews. Since there was no prior assumption about the

role of secondary education in architectural learning, open coding was used, meaning all the answers to the relevant questions were coded in one place. Once coding was completed, codes were reviewed to explore any missing points, and most importantly, to identify and remove any biases.

Figure 7, 8, 9 and 10 shows the graphical representation of students' responses. Students are mentioned as numbers and not names in the images and while quoting them in the explanation. This is to keep their identity hidden that is an ethical requirement of social research, also to make the data more comprehensible. Students' quotes from the interviews are used for two purposes, 1) to define the categories of responses by analyzing all the answers provided by all 44 students, and 2) to show examples of students' responses from each secondary education group. For all four questions, students' answers are categorized into three groups. It is important to explain that students did not exactly provide three types of answers, but the answers they gave could fall into these three categories. In figures 7, 8, 9, and 10 the three categories of responses are shown on the left-hand side, circles in these figures represent students, and they are placed in front of the category to which their answers belong. Moreover, the colors of these circles represent students' secondary education.

For the first question, "How useful you have found the previous education in learning architecture?" there is a clear variation of students' responses from different groups of secondary education. Figure 7 shows the three categories

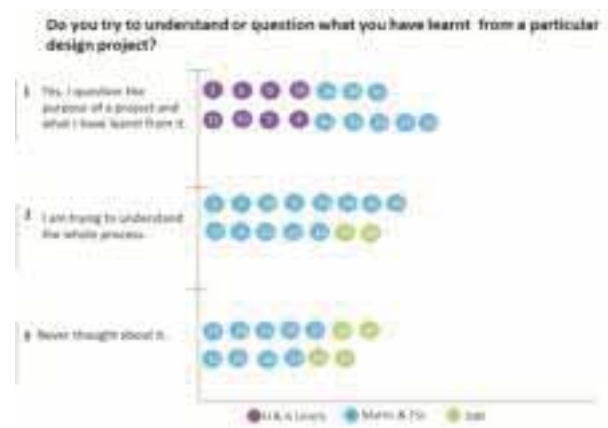**Figure-7:** Student' Response to Usefulness of Previous Education.

Figure-8: Student' Response to Critical Thinking Ability.

Figure-9: Student' Response to Importance of Teachers' Guidance.

Figure-10: Student' Response About Design Juries.

of students' responses. The response of the students with FSc. the background is majorly spread over the bottom two categories. Whereas the top category is filled up with students from O and A levels background. DAE background students' answers lie in the middle category, showing that they are finding secondary education helpful. This discovery confirms the finding of the quantitative study showed in Figure 2. However, qualitative data makes it possible to dig deep into the causes of students' answers.

Two students with O and A levels background stated:

- *I think a major difference was that we didn't memorise things rather tried to understand and question, now teachers ask everyone to question and to think critically, and I see my friends from FSc struggling with this concept. (Student No. 11)*
- *Students who have done O-A levels already have a habit of observing things very critically; they have this training*

in their education system they learn a thing by understanding the concepts. (Student No. 5)

Two students with DAE background said:

- *I am a diploma holder, so I had an understanding, but I saw everyone else struggling, teachers don't guide what a section is and how to draw sections, and in juries, they would point out that the sections are not right. (Student No. 13)*
- *Although they never taught us how to design, they taught us how to draw, and this has helped me here in architecture. Also because of the diploma, I had some idea about architecture that what I will be doing here. (Student No. 43)*

It is clear by these statements that students have found both O/A levels and DAE education helpful and they rely on it for learning architecture. However, there is a difference in

this usefulness, as O/A levels education has prepared students for critical thinking and self-reflection. Whereas DAE provided them with some tools and skills to be used while learning architecture. On the other hand, students with FSc background are not finding early education very helpful for learning architecture. As two of these students stated:

- *I do not think it is helping me; I mean, I understand that I could not get admission to this school of architecture if I had not gone through all those years of education. But I feel I do not remember what I learned in all the difficult science subjects. (Student No. 44)*

- *I have been never asked to think critically and give my own opinions about something than how I am supposed to develop an opinion. And now here teachers expect us to analyse buildings and the world around us and draw inspiration from it, I know I am supposed to do this I just don't know how. (Student No. 30)*

From the last quote of student number 30, it is clear that students' secondary education has impacted their ability to think critically and question the realities. This factor is further explored through the second question, which is "Do you try to question or understand what you have learned from a particular design project?". Figure 8 shows the three categories of students' responses.

It can be seen that all students with O & A levels background answered that they question the purpose of the project, as one student from this group mentioned.

- *I question the importance of design projects; if I don't understand the purpose of the work I am doing, I cannot motivate myself, I won't know what to think. (Student No. 9)*

Students' answers with FA/FSc background fall in all three categories of responses (see figure 7) however, the majority of students from this group mentioned that they are trying to understand the whole process, still showing some degree of critical thinking, as one student from this group mentioned.

- *Architecture is very different from anything I have studied before, that is why the first year was extremely difficult, it was challenging just to make sense of things, but with time I have learned to understand the requirements and purpose of projects, I had to learn how to ask right questions. (Student No. 34)*

Whereas majority of students from DAE group mentioned that they did not think about it, showing that their secondary education has not prepared them to think critically at all.

- *So far, I never question the purpose of the project, maybe because teachers explain it well and I never thought to question it. (Student No. 38)*

For the third question "how important is teacher's guidance for learning in the design studio?" Figure 9 shows the three categories of students' responses. Again, it is clear from the figure that O & A levels background students take charge of the pedagogical relations and believe that teachers' guidance is important but should not be blindly followed. One student from this group stated.

- *Teachers' opinions are mostly helpful, but sometimes they aren't, youÊhave toÊbe awake, you need to know what is happening because in the end it is your ownÊprojectÊand you need to take ownership of it. Teachers will provide crit, and they will guide you, but youÊhave toÊdecide what to pic from it and what not to pic from it. It happens many times that the teacher gives you advice without maybe understanding some aspects of your project, but you are the one who knows that project in much detail, and you know that implementing that advice will be a good idea or not. So, you have to use your own mind that which advice is worth taking and which is not. (Student No. 10)*

Whereas the majority of students with FSc background take a strategical learning approach and believe that it is important to follow teachers' guidelines for better grades.

- *I think it is extremely beneficial to follow teachers as my design improves a lot based upon teachers' guidance. I think I do not have enough exposure to decide what is a good or bad form or spaces, so when I design something and show it to teachers, they can tell me if my design is good enough to take forward or should I improve it or change it, and what aspects of design needs to be changed for better grades. (Student No. 27)*

Many students from FSc background and the majority of students from DAE background stated that teachers' guidance should always be followed.

- *I think it is very important to listen to teachers. In the beginning, when you have no idea what to do with the projects, you start following the instructions and guidelines and slowly become familiar with the concepts. (Student No. 29)*

For the fourth question "what is your opinion about the requirement of presenting and defending your work in juries?" Figure 10 shows the three categories of students' responses. A big majority of students among the 44 interviewed that design juries are tough and unfair practice.

- *I think juries are terrifying, no matter how confident you are and how good you think your design is when you have toÊstand in front of a panel and explain yourself it is very difficult. And I think if you have produced a good design but cannot explain it well in front of people, then your marks will suffer, because the people judging your design cannot understand your thought process behind it unless you explain it to them, you have to sell your design. (Student No. 40)*

However, almost all students from O & A levels background stated that design juries are a good learning and social experience.

- *I don't get very nervous in juries like my friends and class fellows. I did get nervous in the first one or two juries I think, but then IÊrealisedÊit is only about discussing my ideas and showing them what I have been doing and why so if I take it casually like a discussion I perform much better in juries, this is what I try to do now. I explain my work as I would explain to any friend and discuss with them my ideas and maybe because most of the time, I get good feedback I remain confident throughout in juries, and even if I get some criticism, I know I don't need to take it personally, and I only need to learn from it. (Student No. 4)*

FINAL DISCUSSION

It is clear from both the quantitative and qualitative data that students' secondary education has a profound impact on the way they learn architecture. It doesn't only define their perception of the profession before joining the school but also dictates their learning experiences in the school. A majority of students from O & A levels background enter the architectural education by their own choice, this shows that their secondary education has given them enough confidence and knowledge to make an informed career choice. In contrast, a big majority of Matric & FSc students rely on the merit system for their career choice. This is probably the reason when these students enter the school of architecture, they remain dependent on the guidance by teachers instead of taking initiative to develop the pedagogical relations as found in the quantitative and qualitative data (Figure 6 & 9). A majority of these students also find it

difficult to start a new project as they feel under-confident, in contrast to O and A levels students. An interesting finding of O & A levels students from the qualitative data is that a majority of them show critical thinking and try to dig deeper in the learning scenario (Figure 8), some FSc background students also showed this learning behaviour but a considerable number of students among them remain oblivious to the purpose of learning. It is mentioned in the literature as well that many students in Pakistan have an early education in which they were never encouraged to think and question, but rather to listen and learn (Iqbal & Roberts, 2019). After this analysis, it does not come as a surprise that the majority of students with O & A levels background have found their education helping them in learning architecture, whereas the majority of students with FSc background did not (Figures 2 & 7).

DAE is an interesting form of secondary education in the sense that it narrows down the career choices at a much early stage than the other two types, and that is why a vast majority of these students enter Architecture by their own choice as they get familiarised with the profession in the secondary education phase. However, once they are in the school of architecture, they find themselves dependent on the guidance provided by teachers (Figure 6 & 9). Also, 68% of these students responded that they do not feel very confident at the beginning of a new project. It is important to explore that even though these students joined architecture by their choice then why they don't feel confident in starting new projects and developing pedagogical relations. A reason for this is that DAE introduces the students to the world of architecture through tools and techniques and not through the theoretical concepts the profession is built upon, as found in the qualitative data (Figure 7).

Design crit or review is the one activity that is most impacted by students' past learning and training as mentioned in the literature review. In this study, a vast majority of students from FSc and DAE background (62% and 71% respectively) stated that they do not find critiques respectful and constructive. Whereas the majority of students with O & A levels background stated that they do. This fact is also proven through the findings of the qualitative study (Figure 10), even though a majority of students from all the groups stated that they find design juries very difficult and identified them as an unfair practice, none of these students are from O & A levels background. Almost all of the students with O & A levels background identified juries as good learning and social experience. This finding is in line with Stevens (2002), who stated that architectural crits favour the students from a certain social class and culture. Performance in the critiques is also widely dependent on students'

communication skills, as mentioned in the literature, the English language is associated with good communication ability in Pakistan. This study has also found that the vast majority of students with all kinds of secondary education believed that English communication is vital in architectural learning. However, students' confidence in their English communication skills is found to be greatly dependent on their secondary education (Figure 5). Also, as mentioned in the literature, only good quality expensive private schools are properly training students in the English language, hence, language skills and performance in the design crits remain associated with students' secondary education.

CONCLUSION AND RECOMMENDATIONS

This study has found that students' secondary education has a profound impact on their architectural learning as the training of critical thinking and good language and communication skills provided by the O & A Levels education has better prepared the students for architectural learning. But this is not the end of the story, schools of architecture have a major role to play in facilitating the students that are not well prepared for architectural learning. It is identified in this study that Matric and FSc education often do not provide students with the critical thinking ability, they feel underconfident at the beginning of the projects and they do not take initiative in developing pedagogical relations. DAE provides a better introduction to the architectural profession and equips students with some necessary tools to learn in the school of architecture but these students still feel underconfident and heavily rely on teachers for learning. Architecture schools need to practice empathy in their pedagogic practices and understand the unique challenges faced by students rather than considering the students with O & A levels background naturally genius or "gifted" for architectural learning.

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INTEGRATING STREET VENDORS AS ECONOMIC INFLUENCERS IN THE PLANNING OF METROPOLITAN CITIES - LESSONS FROM THE STUDY OF STREET VENDORS IN LAHORE, PAKISTAN

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ABSTRACT

The street vendors act as economic influencer in metropolitan cities because of their presence especially low income can bid routine items at low price. Street vendors not only fulfil the financial needs of their families, provide supplies to various formal enterprises, create jobs for co-workers, generate revenue through penalties and indirect taxes and reduce unemployment. This research paper highlights the contribution of street vendors in the economic state of an urban dweller by quantifying the number of dependents which rely on the vendor for their well-being and satisfaction level of the vendors regarding aspects like, attitude of regulatory authority and business safety also determines major challenges in their business and the economic factors that pushed them in informal sector. Lamentably there is insufficient research done in this area and this research gap has motivated researchers to grab the attention of local policymakers towards this significant aspect of an urban economy.

INTRODUCTION

Pakistan informal sector is estimated around 73% of non-agriculture job and this percentage majorly include daily wager, petty trading i.e. street vending to rickshaw drivers to shoe shiner (Budlender, 2009). Thus, the major percentage of urban economy based on jobs like street vending, but this sector is most neglected in policies. The workers in informal economy specially street vendors concerned about two negative factors i.e. value chain dynamics and government policies (Dias, Melanie, 2016). Beside this negative factors yet, large portion of urban population in developing world is living from informal sector and mostly this informality is in form of street vending (Davis, 2004). Since, growing population needs jobs and this demand fulfilled by informal sector and easiest way is street vending. Having a glance on city like Lahore is the second largest city of Pakistan accommodating population of 11,126,285 (PBS, 2017). Current population is approximately double of that represented by Census 1998 i.e., 6,318,745 which depicts that Lahore population has been increased by 59.65 percent in just 19 years' period (DCR, 1998).

There are no absolute or estimated figures available in Pakistan for street vendors. This lack of estimation of exact numbers of street vendors is due to negligence and limited work done in this subject (Mitullah, 2003). The Informal Economy Monitoring Study (IEMS) revealed the contribution of street vendors in the economy of a big city. The study's analysis shows that street vendors fulfil the financial need of their families, provide supplies to various formal enterprises, create jobs for helpers and co-workers, generate revenue through penalties and indirect taxes (Roever and Skinner, 2016a).

This is also in debate that Street vendors should not be forced to exit markets or streets with the only objective of making streets beautiful and appealing (Xue, et. al., 2015). They can also become the element of beautification of streets and city eventually. Developed countries have realized the importance of this statement and now they are taking steps towards legalizing street vendors. They knew the significance of street vending business, which attracts tourists through promoting local cuisine and handcrafted gifts.

Another research on informal sector in Pakistan focused on enhancing urban fabric by balancing street vendors (an important aspect of informal sector) and right of citizens to appreciate public sense of the built-up area. The street vendors are often allowed to use a public space by paying some sort of bribes to the police or city administration (Khan, 2012). Further, this informal sector provide range of services to lower income groups from education, health, transport, employment, recreation & entertainment and employment at quite reasonable price and yet contribution of informal sector specially street vending are not recognized at any governmental level (Hasan, 2002). With the above discussion, this research paper is envisioned to look into how street vendors act as an economic influencer in Pakistan as this aspect is missing and help policy makers to understand issues and benefits of street vendors in developing country like Pakistan.

LITERATURE REVIEW

Academic interest of street vending developed due to major involvement of poor in informal economy in urban areas and it also attached with rural urban linkages that provide opportunity for growth of attached rural areas (Xue and Huang, 2015). Street vending is an entry level job as one can easily start its own work with minimum initial investment and this characteristic makes it important sector in urban economy (Mahadevia et al., 2013). In Asian, African and Latin American countries street vending is increasing at tremendous rate due to low economic growth rate (Bromley, 2000). Similarly, street vending is emerging gradually in the big city like Lahore, perception regarding street vendors is changing as one group is in favor of this phenomenon while other only considers it as nuisance for society.

Street vendors are considered as entrepreneurs of poor which start up their set up with comparatively low cost (Haque, 2017, Suraiya, 2012). Having a look at Asian countries, street vending in Bangladesh considered as illegal trading and street vendors face harassment from local authorities though they are contributing to economy of big city like Dhaka as 90,000 are engaged in this activity (Bhowmik, 2005). Whereas, in Sri Lanka street vending is at ease as it is not considered as illegal whereas street vendors can pay daily tax to Municipal council (Bhowmik, 2005). Whereas, India is the home to more than 10 million street vendors not only responsible for earning for their families and dependents but also providing cheap and affordable things to low- income group of the country (Kishwar, 2005). Indian street vendors were under threat from police and municipal council as only less 10% were working legally means has license (Anjaria, 2006). To protect the rights of street vendors, their association in Mumbai filed a case in high court and later it regulated their identity (Anjaria, 2006). In response, parliament passed an Act called the street vendors (protection of livelihood and regulation of street vending) act, 2014 and according to this law street vendors will be registered and issued license. A study showed that this act is a mere piece of paper, as it is opposed by competent authorities in many states of India in way of implementation, thus true spirit of Act has not been attained in most parts of the country (Narang and Goyal, 2017). Apart from these limitations, this Act has achieved some character in distinguishing somehow the significance and distinctive function of vendors in the economy of the country (Neti and Guha, 2017).

Urban informal sector got greater share in Indian economy due to urban crisis led by lack of inadequate infrastructure and no policy for growth management and attached individuals seen as problem creator but they are result of weak policies and lack of initiatives (Roy, 2009). In India, these street vendors are seen through two lenses i.e. necessity driven activity in which vendors are compelled to choose as only option whereas other side is neo-liberal perspective and vendors are heroes reducing burden of government and boosting economic development (Williams and Gurtoo, 2012, Kapoor, 2007, (GOI), 2004). It has been witnessed that shift from socialist and populist regime to liberal economic policies that are lucre proposed by World Bank in Global South led to a decrease in jobs in formal sector and even educated individual those who belong to middle income groups are pushed to marginal urban poor status (Bayat et al., 2004). The urban informal sector absorbed these new marginal urban poor and thus street vending is not only considered for traditional poor rather educated, well skilled and people with greater status are dragged into this sector (Anjaria, 2006).

China street vending is not totally illegal and some municipalities designated places for vendors but and is selectively tolerated by authorities (Xue and Huang, 2015).

Street vending is a solution to unfavorable conditions of employment e.g. low wages, rural poverty and it helped to achieve autonomy and flexibility in earning of low income group (Huang et al., 2018). After some time, street vendors get expertise and are able to earn capital to transform their temporary structure into permanent and legal structure thus, entering the formal economy and attaining upward mobility. The success story of Daymond John (the founder and of FUBU) revealed that initially he was a street vendor but by expansion of his business, he became a millionaire (Richards, 2018).

In USA street vending is friendly as compared to Asian countries. New York is home to more than 20,000 street vendors, can be the best example of efficiently accommodating street vendor (Project, 2018). The street vendors must have a general street vendor license to sell products in a public space. The movement of allowing more street vendors was seriously opposed by developers and other stakeholders in the New York city which considered them not more than a parasite. Many street vendors are paying around $25000 for 2 years permit time period in black market (Bromley, 2000). This shows that a city like New York is also facing some sort of problems in dealing with the street vendors in a sustainable manner. While looking at African countries, majority of the street vendors are uneducated and are not fortunate enough to get job in formal sector, so they end up in informal employment. Owing to the fact that nearly 25 % of South Africa's population comes under unemployment category, street vending becomes the best option for them to feed their families (Petros, 2009). In Durban, third most populous city of South Africa, authorities are on their way in providing licenses to the street vendors but there are many hurdles and hindrances for vendors to feel secure and work freely. Even if they have permits, street vendors are still harassed by local police almost every week (Xolo, 2018). In the country like Zimbabwe, where there is much increase in rate of poverty and unemployment, informal economy plays its part in providing employment to a large proportion of population (Njaya, 2014). But policies as a whole are leading to the doubtful future of the informal sector especially the entrepreneurs like street vendors. Policy makers are not considering them as a significant element of the contemporary policies (Rogerson, 2016).
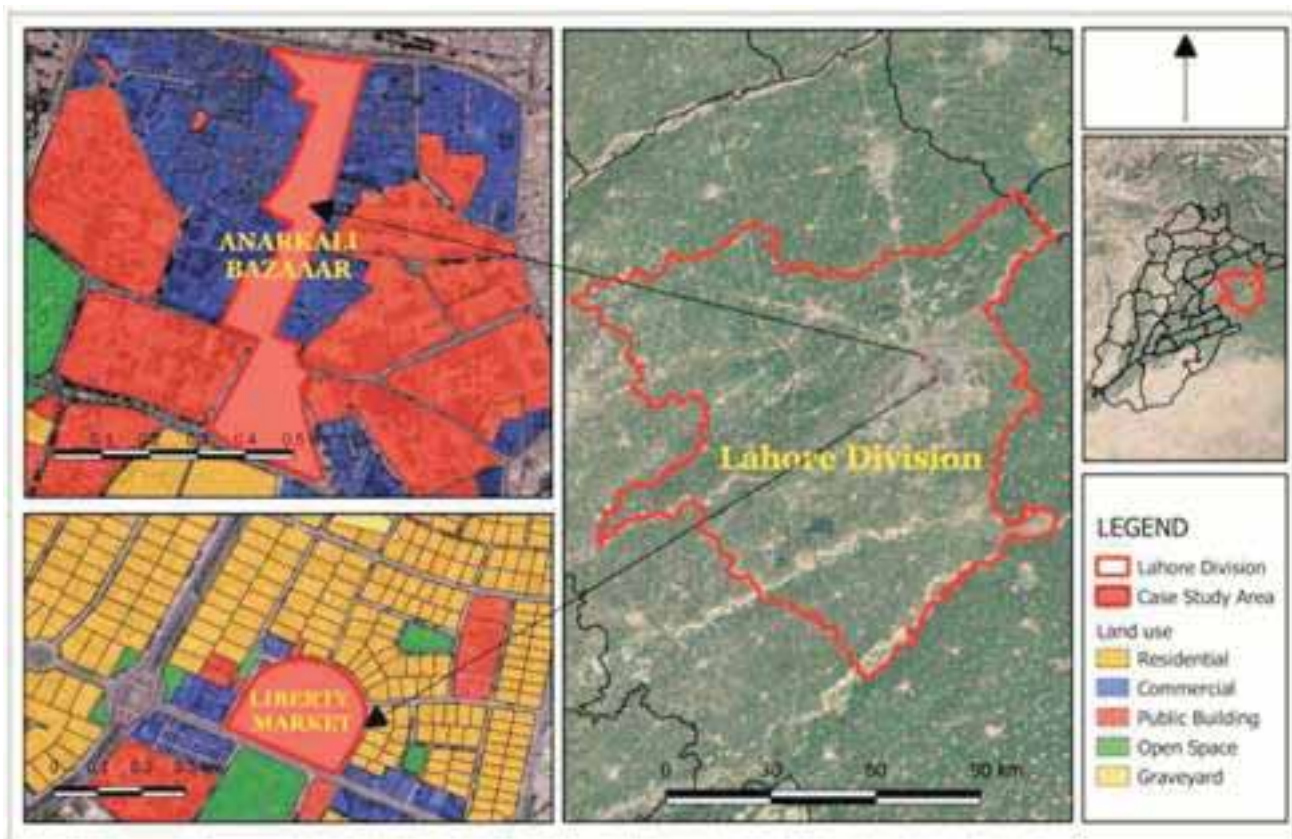

Figure-1: Location of Study Area.

Though, street vending is a sector that plays an important role in urban economy but over a three-year time frame, there were more than 50 instances of huge eviction operations of road vendors in urban communities worldwide (Roever and Skinner, 2016b). Looking at literature from Asian, African, and USA Street vending is seen as illegal business. Street vendors are facing issues of forceful eviction, bribes, absence of facilities, for example, toilets, electricity, so on and so forth. The situation is similar in Pakistan since Apex court of Pakistan ordered to rehabilitate markets and remove permanent and temporary structure of street vendors in Karachi, city of Pakistan. This leading towards loss of livelihood of large number of families. Therefore, this study is focused on street vendors, though from informal sector, but other side is they are economic influencers and reduce the burden of government toward unemployment at the same time contributing in economic development.

MATERIALS AND METHODS

A precise questionnaire was designed to conduct semi-structured interviews of street vendors and determine the factors resulting in the development of street vending and assessing the socio-economic state of street vendors.

Street Vendors can be found in almost every street of Pakistan from high to low income localities. To study this aspect a mega city i.e. Lahore in Pakistan is selected. This city has population of 11.12 million and street vendors can be seen in almost every locality but in commercial areas, they have groups and working for longer periods that is why commercial areas were surveyed to gather primary data. Anarkali bazaar is selected as the case study area because it is largest of all unplanned bazaars of Lahore and estimated commercial area is 26 Acre. On the other hand, Liberty market is one of the well-known and largest planned markets of Lahore. It is situated in Gulberg town and estimated area is 17 Acre and 4 Kanal. The reason behind selecting these commercial areas was to capture street vendors from the largest planned and unplanned commercial areas of Lahore. In liberty market, the street vendors are considered as encroachers and also deal as encroachment by the Enforcement Cell of Lahore Development Authority (said one of the officials of Lahore Development Authority (LDA)) as well as in Anarkali where street vendors were going through forceful eviction by Metropolitan Corporation of Lahore (MCL) in April 2019 to make space for on-street motorcycle parking (source: interviewed street vendors, 2019).

The sample size for Anarkali bazaar determined as 154 out of 251 population (observed during the reconnaissance survey) with 5 % of margin of error using Slovin's formula. Respectively, eighty vendors were to be surveyed out of 100 approximate population in Liberty Market to generalize the findings to the whole population of street vendors in the case study area.

The response rate in case of Anarkali Bazaar was 55 percent and in Liberty Market, it was 59 percent. As vendors do not want to talk due to fear of eviction in their mind as they thought authorities were collecting data.

RESULTS AND DISCUSSION

Socio- Economic Factors

Majority of street vendors have household size ranging between 4 and 6 and a greater number of dependents and only 13 percent of street vendors have household size of less than 3. Level of education is a dominant factor which propels the street vendor to enter in street vending business. 38 percent of street vendors who participated in the survey were illiterate and only seven percent went to college for higher secondary education. House ownership status is a determining factor to evaluate the economic prosperity of a household. Approximately 62 percent vendors were found living in rented dwelling units and cannot afford to have their own houses. Daily earning is the most important socio-economic factor. Maximum vendors i.e. 42.7 percent were earning up to Rs. 4000 (26 USD) on daily basis. Forty four percent were making money between range of Rs.1000 (6.5 USD) to Rs. 3000 (20 USD) every day and 5.3 percent were those who were earning less than Rs.1000 (6.5 USD) each day. Street vendors were asked that how many earning members are in their households to know about the rate of households' dependency on them. It was observed that 52 percent street vendors are sole earning members of their

Figure-2: Socio-Economic Status of the Interviewed Street Vendor.
Source: Field Survey, 2020

Table-1: Number of Children Getting Support by the Street Vendors in the Case Study Area.

N = 131	Frequency	Persentage
1	36	27.5
2	40	30.5
3	15	11.5
N/A	40	30.5

families which expresses their importance in the economic status of their household (see figure 2).

Pushing Factors in the Street Vending Business

Availability and non-availability of job in the formal sector is an important push factor which increases the number in street vending business. It can be illustrated in figure 2 that approx. 50 percent street vendors were in this business because of non-availability of any job in the formal sector. Twenty-one percent were those who have done jobs before, but they were no longer doing that job because of some reasons. Rest of the 24 percent were doing jobs before getting into street vending, but they were not satisfied with the nature of the job and the salary offered.

Most of the formal businesses and earning sources required huge investment and loan from banks while street vendors cannot avail such loans from financial institutions and there hardly exists any incentive or financing program which facilitates them to arrange for the capital. As a result, they are attracted towards this informal street vending business because of low start- up/capital cost (Haque, 2017, Suraiya, 2012). Approx. thirty percent respondents recorded that they have invested principle cost of more than Rs.0.2 million (1316 USD). Twenty-seven percent were those who were required with the capital cost ranging between Rs.0.15 (1000 USD) and Rs. 0.2 million (1316 USD) to stay in this business. 27 percent street vendors who spent between Rs. 50000 (330 USD) to Rs 0.10 million (1000 USD) to buy goods and kiosk.

In most of the metropolitan cities of developing and developed countries, greater numbers of street vendors have migrated from rural areas or nearby small towns and cities. Once they entered the city, they realized that because of their less competency they cannot enter formal sector consequently, they are pushed towards street vending business. Nearly, 37% of surveyed street vendors were originally from cities other than Lahore.

**Contribution Towards Society**

Street vendors are the remarkable addition to the urban fabric which offer a great contribution to any country's economy. But this contribution is looked down upon and neglected (Suraiya, 2012). Field survey showed that twenty-nine percent of street vendors have employed helpers for assisting them in completing certain daily functions. This shows that besides generating revenue for themselves, they are also responsible for a reasonable number of people's economic survival. These employees are also getting experience in the business of street vending and there greater possibility that they will start their own informal business in future by either saving from the earnings from this job or getting capital from one of the capital sources mentioned in figure 2.

Street vendors are thought as an important part of the society because they are responsible to feed a family of large size. Almost seventy percent of the surveyed street vendors send their children to school whereas 30.5 percent were those who were not sending any of their children to school (Table 1).

Challenges Faced by the Street Vendors in the Market Area

Whether we talk about developing countries or developed countries, street vendors are facing some sort of challenges in both but may be different in nature. To point out major problems, street vendors were asked to state the type of challenges they were facing in the case study areas.

Majority of the street vendors, i.e. 67 percent were of the view that harassment in form of restrictions by the controlling authorities is the major challenge which they are facing in their market area. Whereas, 35 vendors responded that they see "no legitimacy" a main reason behind street vendors' backwardness in Lahore City. While 16 percent street vendors
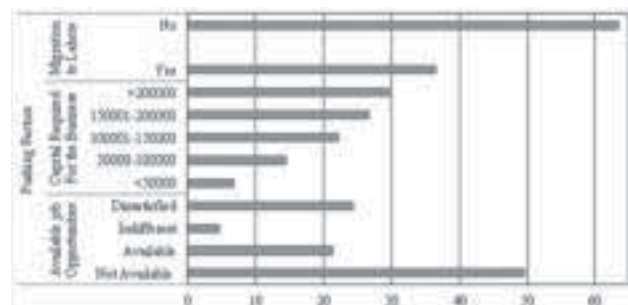
Figure-3: Pushing Factors in the Street Vending Business.
Source: Field Survey, 2020.

Number of Cases	20
Percent	100.0
Cronbach's Alpha	.701
Cronbach's Alpha Based on Standardized Items	.708
Number of Items	11

claimed low profits to be the main challenge for them in the market area where permanent shop owners were making high profits.

The vendors which responded that they were facing some sort of harassment in the case study area were asked to further classify the type to make clear understanding. Twenty-one percent were dealing with harassment in form of penalties charged by local authority i.e. Municipal Corporation of Lahore (MCL) and collection of bribes by security guards in Liberty Market (Source: interviewed street vendors).

Eviction is the major form of harassment by local authority on the street vendors and it was confirmed by twenty percent of the respondents. While twenty-four interviewed vendors claimed that the authorities not only evicted them but also charged them for using temporary market area. 24 percent vendors openly expressed that authority officials are involved in taking bribes from them. Maximum vendors of around 35% responded that they have been evicted on nearly daily basis.

Level of Satisfaction

The satisfaction of street vendor is an important factor in visualizing their chances of survival in this street vending business. A set of questions were asked to detect their satisfaction level regarding different aspects. These questions included satisfaction of the vendors regarding business safety, no. of buyers per day, the attitude of buyers, the attitude of the concerned regulatory authority towards them and daily earning. The scale of the above stated variables was kept 5-point Likert scale with options ranging from strongly disagree to strongly agree.

Majority of the street vendors i.e. 50.4% said that they are dissatisfied with the business safety in their area. This is mainly because of the challenges they are facing as mentioned in figure 4. 45.8 percent vendors were satisfied with the number of buyers to whom they are providing services every day.
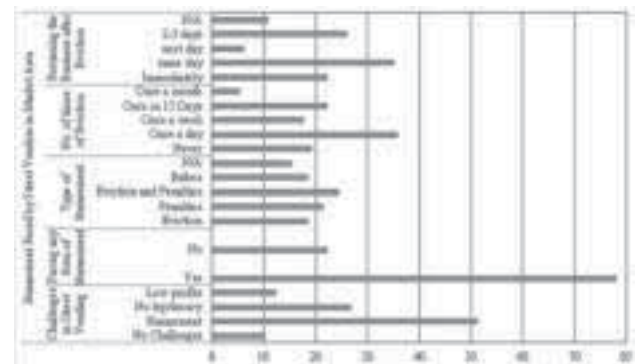
Figure-4: Harassment Faced by Street Vendors in the Market Area.
Source: Field Survey, 2020.
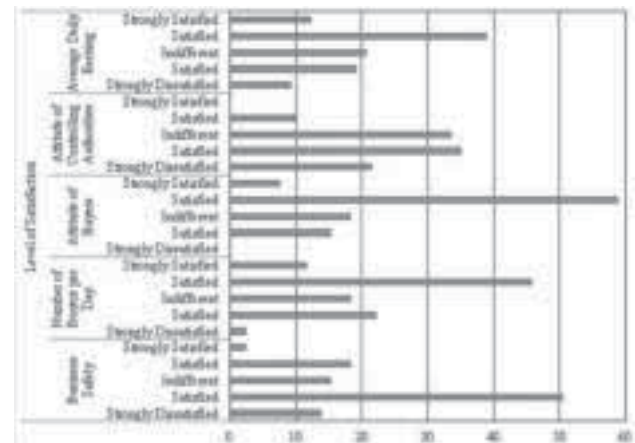
Figure-5: Satisfaction Level of Street Vendors.
Source: Field Survey, 2020.

Controlling Authorities are playing a crucial role in determining the satisfaction of street vendors in the respective case study area. It seems from the above chart that maximum i.e. approx. 35% street vendors who voluntarily participated in the survey, were dissatisfied with the attitude of regulatory authority which is MCL in case of Anarkali Bazaar and LDA in Liberty Market. Another study in Karachi reported that street vendor operating without any facilitation from the municipal agencies rather paying them portion of their daily income and suggested urban informality need policy support to solve issue of unemployment (Ahmed et al., 2020).

Street vendors are mostly contented people and it was confirmed by talking to them and inquiring about their satisfaction level of the daily earning. Around 39 percent recorded that they are satisfied with their daily profits. These are mostly those vendors which earn more than Rs. 3000 (20 USD) on daily basis. The people placed in the last category were making less than Rs. 1000 (6.7 USD) each day and were not able to maintain the balance between their

expenditures and earnings. These street vendors are not only earning for themselves but they employed others e.g. street sweeper to clean and lift waste and also pay security guards for protection of their merchandise and this aspect enhance significance of street vending in urban areas (Hasan, et. al., 2008).

Reliability Analysis

Reliability test was done in SPPS using 11 variables and 20 cases which generated results as shown in Table-2.

In general, 20 cases were considered enough to conduct this analysis in SPSS to assess that to what extent the questionnaire is reliable and internally consistence. Table 2 shows that the Cronbach's Alpha value is greater than 0.7, thus the research instrument is acceptable and reliable.

Ho = There is no significant prediction/change in business safety by attitude of controlling authority, earning satisfaction, attitude of buyers, average daily income and level of education of the street vendor in the market area.

H1 = Significant prediction/change is observed in business safety by attitude of controlling authority, earning satisfaction, attitude of buyers, average daily income and level of education of the street vendor in the market area.

The value of Chi-Square is less than 0.05 and is significant. So, the null hypothesis; Ho can be rejected based on this result, which in fact accepts the experimental hypothesis, which proposes that the business safety of a street vendor of the concerned case study area is predicted by attitude of controlling authority, earning satisfaction, attitude of buyers, average daily income and level of education of the street vendor in the market area. Further the value of Phi and Cramer's V is 0.738 which is greater than 0.25 and shows strong association between independent and dependent variables.

Regression Analysis

Regression analysis was used to predict the significance of relationship between the variables as shown in Figure 6. A path diagram was drawn in AMOS.

Average Daily Earning has a positive significant effect on Earning Satisfaction because the P value is less than 0.001. Higher the daily income leads to greater satisfaction of earning to the street vendors. Whereas Attitude of Buyers
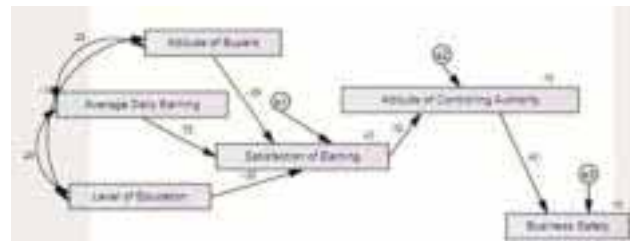

Figure-6: Path Diagram.

on Earning Satisfaction is significant and negative. So, Attitude of Buyers has a negative significant effect on Earning Satisfaction. Buyers negotiate more on prices while purchasing same goods as compared to buying same from shops which reduce the profit margin of vendors and take more time to deal a single customer. Education Level of vendors has negative significant effect on Earning Satisfaction, higher the level of education less will be the earning satisfaction. Because of non-availability of jobs in formal sector some educated people have to enter into the business of street vending and have low earning satisfaction as compared to the jobs in formal sector. Satisfaction of Daily Earning has a positive significant effect on Attitude of Controlling Authority likewise Attitude of Controlling Authority has a positive significant effect on Business Safety. Higher the daily earning satisfaction of the street vendors has strong influence on the controlling authorities to accommodate street vendors in the planning of metropolitan cities which increases the business safety of street vending.

The economic and social factors which motivates the street vendor to enter the street vending business apparently came out to be limited available start-up capital, traditional finance source, no job availability or dissatisfaction with the previous job, age factor and low education level. In most of the cases they are sole earning member and have large number of dependent family members (ranging from 4 to 9). It was also determined, based on the evidence, that 81 percent of interviewed vendors have size of their household in this range and nearly half of the street vendors interviewed were the sole earning members of their families. Forty four percent of the street vendors working in the case study market area are making money between range of Rs.1000 (6.7 USD) - Rs. 3000 (20 USD) every day and most of this earning proportion is spent to fulfil daily expenditures including buying saleable products and paying rent for their houses as approx. 62 percent of them are living in rented houses. Majority of the vendors which were paying rent have migrated from other cities. Around 36% of the street vendors in the case study areas have been migrated from remote or comparatively less developed areas. Survey from the vendors

revealed that nearly half of them were originally from northern part of Pakistan.

CONCLUSIONS

Street vendors are playing an important role in fulfilling the need of a large number of population as well as responsible for sustaining the employment need of illiterate population. The Labour Force Survey 2008-09 reported that around 73.3 percent of jobs in Pakistan other than agricultural activities are involved in informal sector and most of these jobs are occupied by street vendors in big city like Lahore.

Based upon the results/evidence it can be inferred that street vendors are responsible for the economic need of relatively large number of families in the metropolitan city like Lahore. Street vending informal business is expanding tremendously and certain policies are required to sustain in order to make them (street vendors) part of the urban fabric rather considering them as a nuisance as the attitude of the controlling authorities has significant positive effect on the business safety of street vending.

Strengths of the street vendor; motivation to do something on their own and knowledge of costumer psyche are pushing them forward while their weaknesses and threats; insufficient technical skills to enter formal economy, not enough finance to expand their business and continuous fear of eviction are pulling them backwards at the same time. Street vendors in the case study areas are contributing towards the society through various means for instance, 69.5% surveyed vendors were making sure to send their children to school and 29% of them were the employer of one or more helpers working at their stalls, which further clarifies that they are not only earning for themselves but also fulfilling the economic needs of other households as well. Street vending provides an opportunity to employ many unskilled labours in the metropolitan cities to fulfil their economic and social needs including affordability of housing and other amenities of life.

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MARGINALISATION, CONTESTATION AND CHANGE IN SOUTH ASIA CITIES
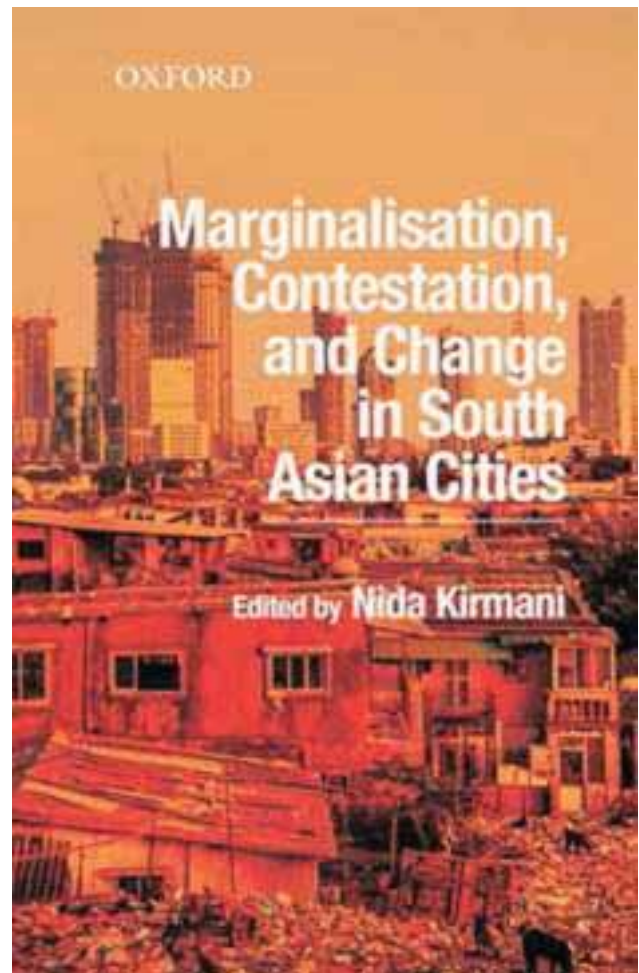*Nida Kirmani (Ed.), A Publication of OXFORD*

Reviewed by Saadia Bano*

BOOK REVIEW

"Marginalization, Contestation and Change in South Asian Cities" is an erudite compilation of research-based chapters by various intellectuals. This book is edited by Nida Kirmani. It is an essential contribution to the rapidly changing urban dynamics of Indo-Pak region. This scholarly compilation is very useful to understand current influx of utopian approach and its repercussion in future.

The prologue by the editor Nida Kirmani is a careful explanation of changes, challenges and opportunities in light of all nine chapter. On the other hand, the afterward by Nausheen H. Anwar successfully connects all the facts to view the changing profile of Indo-Pak region. She prudently summarized the state of neoliberal style so-called upliftment and urbanization in peripheral area, environmental and ecological depletion, emerging actors in changing urban fabric.

The first three chapters along with seventh one covers the case studies of extreme to moderate marginalization and exclusion of under privileged class of society. The first chapter 'Entangling the Global City': Everyday resistance in Gadap, Karachi by Shahana Rajani and Heba Islam examine the so-called Asia's largest real estate company's urban utopic project-Bahria Town Karachi; which claims to be a world class housing scheme cladded with strikingly questionable replicas of international monuments. The major point of this research-based compilation is to reveal the Asia's biggest housing scam, which initially prompted that, its 23,300-acre site as barren and empty, which was not the actual case. The duo of Rajani and Islam along with 11 other participants revealed the forced erosion of indigenous landscape of at least 45 Sindhi and Balochi communities and their basic means of livelihood. The systemic eviction leads to marginalization of more than a century old communities and their memories were brutally wiped out by force with pending cases in court against Bahria Town claimed by residents.

Second chapter by Hashim bin Rashid and Zainab Moulvi titled as "The Case of LDA City: How a Public-Private Partnership Fractured Farmers Resistance in Lahore" is an interesting case of initial resistance by the land owners of

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seven revenue village on demarcated site of LDA city housing scheme. This resistance eventually lost its inertia due to various nonviolent strategies and instruments to factualize dispossession. This chapter scrutinizes the adaptability of villagers in new professions other than their original agrarian works.

The case of Juggi Mokhampura housing development project is a thought-provoking chapter by Helena Cermeno cladded with creative mapping techniques to understand the state driven housing project with a high aim to improve life of under privilege which actually further accelerated the exclusivity and intangible divide between under privileged Juggi dwellers and other citizens in Amritsar. Chapter by Noman Ahmed is about connection between access restriction and barrier-based security with exclusivity in Karachi city. He analysed the rapid mushrooming of barriers on self-help basis by citizen and security personnel. A mega city with multiple ethnicities should be de-weaponised for the larger benefit of all but in case of Karachi it never happened due to several geographical and political reasons. This chapter includes several spatial and non-spatial solutions for this now declining trend of barrier cladded urban fabric.

The book also covers the declining transportation sector of Karachi. It is an extensive research by Kabeer Dawani and Asad Sayeed on "Mafia domination or Victim of Neoliberalism? Contextualizing the Woes of Karachi's Transport Sector" on history of Karachi's transportation sector after independence till date. It covers continual change in this sector; a transition from public sector service to private sector dominated enterprise.

Two chapters hit upon the main stream global issues of environmental pollution and sustainable waste disposal. Chapter "In the Time of Toxic Air: Environmental Knowlegdes, Collaborations, and Justice in Delhi and chapter "City Boundaries and Waste Frontiers: Exploring Nayandahalli as an Ecosystem Where Waste is Transformed into Resource" is a combine effort by of Rohit Negi & Prerna Srigyan and Pinky Chandran & Kabir Arora respectively. Negi and Srigyan tap upon the most pertinent issue tangled around Indian capital-Delhi. Authors able to identify several contributors of this toxic urbanism ranging from massive

rise in consumerism in neoliberal era to extensive industrialization and other capitalist activities to reach the world class city status. They efficiently reflect upon the contestation and mitigation measures taken by state and non-state actors.

On the other hand, Chandran and Arora explored the potential and input of marginalized working class of waste pickers in Nayandahalli. This chapter pave path for recognition of this essential environmental service providers and advocates their rights of existence in appropriate locations within city areas in the era of market led gentrification.

Shahana Sheikh, Sonal Sharma and Subhadra Banda exposed the electoral politics and largely unfulfilled promises of basic amenities and housing right of informal settlements residing in Delhi city and approximately measures half of the population of city. Writers focused on the most vulnerable strata of "unplanned settlement" i.e., jhuggi Jhopri clusters, resettlement colonies and unauthorized colonies residing in Delhi out of eight different local categories of settlements. It is a wholesome research of contestation, blame game, negotiation, favors and eventually exclusion because of unfulfilled promises.

Lastly, chapter by Mustasir Sattar titled as 'Studying in Mahol': Middle-Class Spaces and Aspiring Middle Class Male Subjects in Urban Pakistan is a thought-provoking exploration of newly emerging middle-class spaces in Lahore in the name of single-sex hostels for studying in feasible environment 'Mohal'. This is an interesting investigation about aim oriented spatial and social cohesion in cosmopolitan of Lahore.

Overall, this book is sensibly crafted with supporting facts and pragmatic analysis. Which can be very helpful for researchers, academics and practitioners to envision changes (both negative and positive) in the paradigm shift of urban utopic approach of short-sighted urban transformation in Indo-Pak region. But, one thing which is somehow misleading is the title of book reflecting studies on South Asian cities. Which should have been changed according to its vital content on Indo-Pak cities. Nevertheless, this book has significant value in urban development discourse.

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Visuals   All visuals (photographs, direction maps, diagrams, Google maps etc.) shll be in Jpg/Tiff format with minimum 300 dpi resolution at actual print size, These shall be properly captioned and clearly referred in the text. please do not insert them in the text.

Drawings   AutoCAD drawings shall be converted in tiff format with a readable size and legend.

Submission   Article along with visuals, diagrams, maps and drawings can be submitted through email and / or posted in a CD / DVD format.

Referencing System   Harvard Style

ISSUES OF JRAP

RANGE OF ACCEPTED TOPICS
Architectural philosophy, Building conservation, Building integrated renewable energy technologies, Conservation led urban regeneration, Eco-housing, Interactive architecture, Land use planning, Low carbon impact buildings, Secondary cities, Sustainable architecture, Urban ecology/ Urban renewal / Urban sprawl, Urban sustainablity / Urban transportation, urbanization ....and many more

BOOK REVIEW: Contributions for our 'Book Review' section are welcome in the form of a brief summary and a sample of the publication related to the field of archiecture, planning and development.

For Further Information, please write to JRAP Editor
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