Framing a New Discourse on the Notion of Habitat in Transforming Societies

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This paper reveals how the second Iran International Congers of Architects (IICA), held in Persepolis-Shiraz in 1974, and the first UN Habitat conference, held in Vancouver, Canada in 1976 played an instrumental role in shaping a discourse on the notion of regionalism in the design for human habitats, especially in developing countries. Building upon a brief analysis of the works of Nader Ardalan, Kamran Diba, Charles Correa, Balkrishna Vithaldas Doshi and Raj Rewal, this paper discussed the incorporation of the ideas published in the Habitat Bill of Rights within their private commissions for large scale housing schemes and master plans in their respective countries, Iran and India. More crucially, this paper argues that both events helped bring together these architects who later, in different capacities, played significant roles as members of the Aga Khan Award for Architecture in fostering and promoting an alternative way of adapting modernism to industrializing countries.

Keywords: Iran, India, Habitat Bills of Rights, Aga Khan Award for Architecture, Vernacular Modernism, Large-scale Housing Design

Introduction

Shortly after the Second World War, modernist design principles, originating in the West and as discussed in various CIAM congresses, became a main source of inspiration for many architects, including those in developing countries. In the Middle Eastern countries, this situation was exacerbated during the Cold War, where oil-led geopolitics facilitated an intense import of American and Soviet models of development in the form of technical and economic aid.[1] Through the 1960s and 1970s, this led to rapid urbanization and the construction of several large-scale housing projects by foreign agencies, which largely ignored the specific geographical and cultural features of their local contexts. As a reaction to this situation, a group of young-leading Iranian architects organized, in collaboration with Iran's Ministry of Housing and Urban Development, a series of architectural events to discuss issues pertaining to local culture and the role of architecture in the design of appropriate human habitats, particularly in transforming societies.

Among these events, the Second Iran International Congress of Architects (IICA) became a turning point. Financed by Empress Farah Diba, the former queen of Iran, the event was held in Persepolis-Shiraz in 1974, and attracted many of the leading architects of that time, such as Paul Rudolph, Oswald Ungers, Moshe Safdie, Paolo Soleri, Buckminster Fuller, Jacob Bakema, Georges Candilis, James Stirling, and Josep Lluis Sert, among others. Along with these well-known western architects, a number of emerging architects from developing countries, such as Nader Ardalan and Kamran Diba from Iran and Charles Correa, Balkrishna Doshi and Raj Rewal from India also came to become important participants. One of the key outcomes of this congress was the 'Habitat Bill of Rights' - a CIAM-like Charter of Habitat - submitted by the Iranian government to the first UN conference on 'Human Settlements' that took place in Vancouver, in 1976.

This paper reveals how both the IICA and the UN conference played an instrumental role in shaping the discourse on the notion of regionalism in the design for human habitats, especially in developing countries. This is explored in two ways. Building upon a brief analysis of the work of Ardalan, Diba, Correa, Doshi and Rewal, the paper, firstly, discussed the incorporation of the ideas published in the Habitat Bill of Rights within their private commissions for housing schemes and master plans in their respective countries. Secondly and more crucially, the paper argues that both these events helped bring together these architects who later, in different capacities, played significant roles as members of the Aga Khan Award for Architecture (AKAA), which has been fundamental in fostering and promoting an alternative way of adapting modernism to industrializing countries.

The Second Iran International Congress of Architects

As mentioned previously, the 1974 IICA brought together leading-international architects from both the Western and non-Western world. It also formed a platform for discussing the issues related to the themes of 'Continuity versus Change' in local culture and society, 'Appropriate Habitat' in transforming societies, 'Ecology and Man-made Environment' in urban development, and 'Materials of Expressions' in architecture.[2] Arguably, the first two themes formed the main body of the conference discussions.

- *Continuity versus Change*

The influential figure who leads and fosters discussions regarding the theme of local culture and society was Nader Ardalan. Building upon a distinction between the notion of spiritual and material worlds, Ardalan's contribution became a point of departure for discussing the issues related to the theme of continuity versus change. In the 1974 IICA, Ardalan questioned the western notion of linear progression, as manifested in the idea of time, and as understood in its threefold aspects of past, present and future representing a material world.[3] Instead, by referring to the Persian-Islamic conception of time, taken from the Sufi-tradition, he proposed an alternative approach, where "commences with a specific beginning, the creation, and through a cyclical motion repeats the very act of the first creation in an ever ascending spiral which seeks transcendence and ultimate timeless union with the One."[4] He connected, then, this notion with his concept of *Khalq-e Jadid* (the New Creation) where the word 'new' expressed "a cyclical manifestation of archetypical ideas", for generating a timeless and spiritual architecture. This timelessness, he pinpointed, is developed "through time and form as simultaneous continuities."[5]

Ardalan's speech became a controversially talk within the context of the 1974 IICA. Western architects such as Buckminster Fuller and Georges Candilis criticized Ardalan's view on the notion of time and continuity, while non-western architects such as Balkrishna Doshi, and Hassan Fathy praised Ardalan's position on the concept of the New Creation. For instance, Candilis expressed that the idea of continuity is not just formal and spiritual, but also related to everyday practices. Similarly, Fuller challenged Ardalan's notion of spiral time. In Fuller's view, the concept of time and its linearity were essential for accumulating knowledge and human progress. According to Fuller, new technological innovations and findings proved that human achievements, to date, were very limited, and "99.9 [percent] of what is going on [in this world] is invisible." While he pinpointed that "[t]his invisible world is very much less psychic," he called for developing a new architecture based on integrity.[6] In Fuller's view, this integrity can be achieved through learning from experiences of the past, and simultaneously, employing available technologies and new techniques.

As opposed to Fuller and Candilis, Doshi and Fathy supported Ardalan's concept of the New Creation. In his speech, Fathy pinpointed that technology and industrialization depleted the value of traditional techniques and architectural patterns that created a sense of participation among people for developing their settlements.[7] He also argued that the application of new technologies should be limited to building materials production. This would ease, according to Fathy, the access of each member of community to the needed construction resources, and allow them to keep largely their design principles for the construction. Similarly, Doshi criticised the misuse of technology and called for a return to a human-scale architecture. According to Doshi, "[t]he pattern of change is due to the notion that all problems of development in the world are basically connected with economic affluence." Then, he argued that the purpose of industrialization is not only to achieve economic prosperity, but also "to give man increasing leisure so that his quality of work, through time and reflection, will improve." In line with Ardalan's proposal, Doshi suggested that "[w]ith today's technologies, it is easy to build a new world, which can link with the great past in terms of basic values, and with the future in terms of convenience for the larger number."[8]

Conspicuously, Ardalan and Doshi made a call for a study and in depth documentation of the adaptive architecture and technologies of traditional settlements as well as the analysis of the principles relevant today upon which the traditional architecture is based. Aside from the matter of local culture and society, the 1974 IICA extensively addressed the issues regarding the development of large-scale housing and human environment. In these discussions, Western and Japanese architects played a central role and the participants of the Team X group in the 1974 IICA led the debates on the theme of 'Appropriate Habitat'.

- *Appropriate Habitat*

In the 1974 IICA conference, the role of industrialization in developing human-scale habitat also became a main topic for the discussions, led by the two influential figures of Team X: Jacob Bakema and Georges Candilis. Interestingly, they described human habitat as a total environment where its structure is formed from a continuous string of identical fragments that would accommodate growth and change over time.[9] In this model, as Bakema argued, the continuity of the spatial units plays a significant role. In his speech 'Continuity and Change', Bakema put emphasis on spatial, physical and visual relationship between individuals and the built environment. He claimed that the architectural elements could change, while the relationship they produce should remain permanent. To

reinforce his claim, he compared the vernacular architecture of Bazaar in Tehran with that of in Lijbaan in Rotterdam and argued that in both cases the structure of urban space forms a relationship between different spatial units, creating a continuity. Then, by introducing the idea of *architecturban form*, Bakema claimed that this big form, the total environment, can be taken in bit by bit, for developing human habitats.[10]

Georges Candilis further elaborated on Bakema's notion of bit-by-bit development of space. In his speech, 'Appropriate Habitat', Candilis gave an overview of his contribution to the famous PREVI Experimental Housing Project Competition of 1969 in Lima, Peru, where he along with 13 international architects such as Fumihiko Maki, James Sterling, Aldo van Eyck and Charles Correa, among others, were invited by the Government of Peru to propose ideas for low-income housing. Candilis described this project as a big failure, since each architect would have to build his/her proposal as an isolated entity; and he defined the 'real problem' of housing as "to find the direction, the method, not only by building houses, but [also] what house one must built, a total house with its environment: a habitat."[11] Candilis also pinpointed that architects should enable people to build their own houses and environment, and for so doing, the only technological means that designers could employ is local materials and construction techniques that are dependent on available resources.

These diverse and extensive discussions catered for the provision of the 1974 IICA resolution. Expectedly, the discussions regarding the theme of 'Continuity and Change', and 'Appropriate Habitat' formed the main body of this resolution. Notably, the resolution indicated that "through research studies, a code of human habitat should be developed with such procedures and strategies necessary to the achievement of principles essential to the creation of a wholesome, balanced and equitable habitat."[12] As noted earlier, Ardalan and Doshi urged the significance of documenting the patterns of inhabitation. In this view it comes as no surprise to see that the resolution explicitly pinpointed the importance of translating the conference discussions into spatial codes and design patterns to "form a working tool suitable for use by all decision makers involved in the shaping of human habitat in time and place," all around the world.[13] Subsequently, within a year after the 1974 event, the discussions were drafted as a series of codes and patterns in a document known as the 'Habitat Bill of Rights', where Ardalan and Doshi played a crucial role in preparing the document.

First UN Habitat Conference & the Habitat Bills of Rights

Often referred to as 'Habitat I', the first-ever United Nations Conference on Human Settlements was held over 12 days in Vancouver, Canada in 1976. The largest UN meeting at that time, the conference was a global event that tackled the problems of adequate housing and urbanization, not just of the West but also of the Developing World. A major outcome of this event was the Vancouver Declaration – the founding document of what later can be to be known as the United Nations Human Settlements Programme (UN-Habitat) active even today[14].

The conference was also unique as it attracted people across the board, from missionaries like Mother Theresa to architects such as Buckminster Fuller. Among these participants were also several of the architects who had come together at the 1974 IICA, such as Charles Correa who was invited as a Consultant to the Director-General of the conference. It was also during this event that the 'Habitat Bill of Rights' was presented.

As Iran's contribution to Habitat I, the document Habitat Bill of Rights aimed to define the qualitative issues connected with the design of houses and their grouping into new communities as a supplement to other codes and regulations developed for quantitative issues related to the construction of buildings.[15] Drafted by 5 key participants of IICA, Nader Ardalan, Jose Luis Sert, Moshe Safdie, George Candilis, and Balkrishna Vithaldas Doshi, it was based on four main themes: 'Dwelling', 'Cluster', 'Pedestrian Precinct', and 'Urban Community'. Each theme was discussed world-widely, and started with a short introduction, substantiated with observations, and explained with additional photographs, diagrams and text. Indeed, this document was an attempt to identify common patterns of inhabitation in industrializing and industrialized societies, and describe problems which occur over and over again in our environment. Then the document provided the core of the solution to each problem. In other words, each solution is stated in such a way that it gives the essential field of relationships needed to solve the problem, but in a very general and abstract way.

To elaborate on these problem-based solutions, a few examples can be mentioned. For instance, in the category of Dwelling, the document defined a common issue among most large-scale housing schemes developed with industrialized methods in a short time as the rigidity of spatial layout; so this would not allow for the existing patterns of family life. As a solution, it referred to traditions of domestic architecture in each country that would provide valuable references for contemporary designs; and it proposed that "the interior and exterior layout of new dwellings should incorporate a contemporary reflection of the cultural values and living patterns of the prospective residents.[16] At the community level, the document, as an example, described that the design of much new housing "no longer relates to the human scale or the environmental needs of individuals." As a solution, it stated that "the

number of dwelling units in a cluster may vary from ten to fifty depending on family size and structure, social customs and housing density".[17]

Similarly, a series of issues and related solutions were described for the themes of Pedestrian Precinct and Urban community. Interestingly, most solutions emphasized the importance of developing a low-rise, high-dense, and car-free human settlements with optimum integration of communal facilities and income-generating activities to the structure of neighbourhoods. In all recommendation points, local patterns of inhabitation were described as the point of departure for designing human settlements and as a tool for the integration, arrangement and configuration of public and private urban spaces.

An Alternative Modernism

Arguably, these guidelines form a basis for fostering and promoting an alternative way of adapting modernism to industrializing countries. As mentioned earlier, along with the well-known western participants of the 1974 IICA, a number of emerging architects from developing countries, such as Nader Ardalan and Kamran Diba from Iran and Charles Correa, Balkrishna Doshi and Raj Rewal from India also came to become important participants. They incorporated the ideas discussed in the conference and those drafted in the Habitat Bill of Rights into their private commissions for housing schemes and master plans in their respective countries.

- *Nader Ardalan*

After his graduation from Harvard University in 1962, Ardalan experienced technological design at SOM in San Francisco. Upon his return to Iran in the mid-1960s, Ardalan received a generous state-funding support from Farah Pahlavi for conducting a research about the development of Islamic architecture under Iranian influences. While the general scope of this research was in line with the state-sponsored project of creating 'cultural nostalgia' that intended to romanticize Iran's Islamic heritage, in his research Ardalan offered a new typological insight into the evolution of Persian architecture. Ardalan believed that timeless architecture could be achieved through an understanding of traditional forms and archetypes.[18] Ardalan conducted an in-depth study about the relation of spirituality and materiality in architecture. In his seminal book 'The Sense of Unity: The Sufi Tradition in Iranian Architecture' published in 1973, Ardalan saw Islamic Sufi-tradition as the most direct manifestation of Iranian culture and he argued that these influences can be traced in geometric forms, spatial organization, orientation and place.[19]

Ardalan also offers a new interpretation of the concept of Iranian traditional house. Contrary to a common notion of public-private as a driving force for creating spatial organization in Iranian home life, Ardalan's division was based on the notion of the material and the spiritual. In this view, the spatial organization of the built form and its materialization are to transcend the spiritual life of men. While Ardalan described gateway, garden, and room as three main elements of traditional Iranian houses, he emphasized that "the architectural conception of garden reflects the 'sense of place', the garden being viewed as a defined space encompassing within itself a total reflection of the cosmos." He also defined walls as a prerequisite for defining and isolating garden, the sacred place', "within which the soul can be sensed and its spiritual quest fulfilled."[20]

While Ardalan in his early works heavily relied on technological innovations to incorporate modernist design principles with the characteristics of traditional Iranian architecture such as his designs for Tehran's Saman Apartment Towers (1968) and Central Office of Behshahr Industrial Group (1970), he employed the concept of the New Creation in his later works such as Iran Centre for Management Studies in Tehran (1974), Bu-Ali Sina University in Hamedan (1977), and Nutan Community Town in Isfahan (1978) [Figure 1].
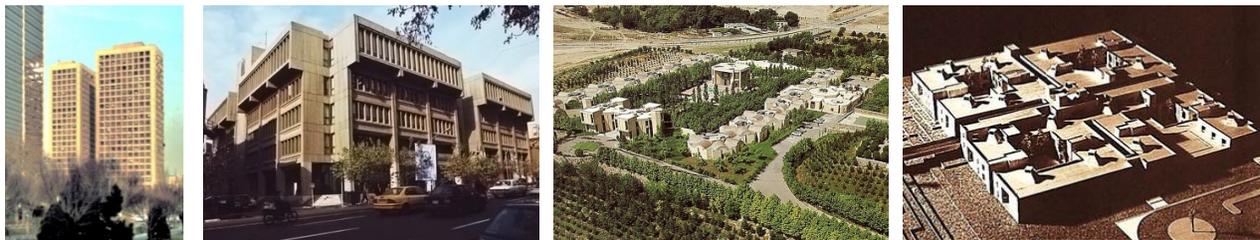

Figure 1: Ardalan's works before and after the 1974 IICA.

- *Kamran Diba*

While trained as an architect at Howard University, Washington, in the early-1960s, Diba has a keen commitment in asserting the phenomenon of architecture as something simultaneously universal and rooted in its circumstance. Taking inspiration from the philosophical discussions provided by his closest friend, Nader Ardalan, Diba's approach might be seen as an architectural manifestation of Ardalan's 'the New Creation'. Diba believed that critically looking at the past and adapting vernacular elements to new circumstances would upgrade the current culture of architectural design and provide a condition for moving forward. This dynamic phenomenon, according to Diba, runs parallel to the life of men, so people's everyday life and habitual practices represent their culture.[21] In this process, Diba contends, what should not be eliminated from people's everyday life is the original local culture as the root of their society, since this authentic culture creates a foundation on which new 'things', such as a new architecture, could be built. That is why Diba believed in a 'creative reinterpretation' and 'recreation' of the vernacular elements as a condition that local culture and universal civilization would synthesize.[22]

The architecture of Diba took one-step beyond the concept of the New Creation, though. While taking inspiration from local archetypes such as traditional Iranian courtyard house and the Persian gardens, Diba put more emphasis on the importance of developing a community that would accommodate growth and change and form a basis for a strong collective identity.[23] Arguably, Diba's interest in developing such a community model might be related to his critical view on the traditional structure of Iranian society. According to Diba, to a large extent, "Persian culture is individualistic, family-oriented and anti-community," so in the age of globalization that social issues and demands of urban life bring people together, new neighbourhoods cannot be constructed based on ethnic segregation and religious distinctions.[24] In this view, it comes as no surprise to see that the 1974 IICA's debates on the theme of 'Habitat' had a substantial impact on his later works such as the housing scheme for Shushtar-Nou.

In his early architectural projects such as Tehran Museum of Contemporary Art (1968) and Jondi-Shapour University (1970), Diba literally employed formal characteristics of traditional Persian architecture such as monumental appearance and took inspiration from representative architectural elements such as Badgir (wind-catcher) and enclosed courtyards. Obviously, these features can be traced in the two mentioned projects. However, the conference discussions and the Habitat document deeply influenced Diba's later works, in particular that of Shushtar-Nou, designed in 1976. For instance, as the Habitat document recommended, "the fundamental Persian sense of place [is] based upon the concept of the container and the contained [and it] should be incorporated in all urban developments at the scale of precinct, cluster, and dwelling." To clarify this point, the document provided a series of diagrams indicating a clear spatial network "defined by houses a buildings, with a clear hierarchy, from the court of the house to the court of the cluster, to the square of the precinct, and to the city as a while."[25] Interestingly, this hierarchy of ever-increasing levels of privacy and the related illustrations explicitly resembles Diba's explanatory sketches about the spatial configuration of Shushtar-Nou depicted in the 1986 Aga Khan's technical report. In this configuration, the districts, neighbourhoods, sub-neighbourhoods, and individual houses were clustered around a chain of communal outdoor spaces [Figure 2].[26]

Figure 2: Diba's works before and after the 1974 IICA.

- *Balkrishna Vithaldas Doshi*

In a career that has spanned more than sixty years, including projects across the board, from single-family houses to townships, and institutions and cultural buildings of national importance, Balkrishna Doshi (1927) has been instrumental in shaping the discourse on architecture not just in India, but globally. As Le Corbusier's assistant for close to 7 years, first at his atelier in Paris, and then later in Chandigarh and Ahmedabad, as well as Louis Kahn's assistant for the Indian Institute of Management, also in Ahmedabad, one could argue that Doshi's early works are a synthesis of what he learnt from both Corbusier and Kahn, but tempered to reflect and suit India's culture, climate and landscape.[27]ATIRA Housing, his first scheme for low-income housing in Ahmedabad from 1957 makes ample

references, in both form and material expression, to Corbusier's Villa Sarabhai, also in the same city. However, by the 1970s, one can notice in Doshi's works a gradual move away from the language of his masters, and a search for an 'Indian identity' in his architecture. In his designs for the Life Insurance Corporation Colony, also in Ahmedabad, from 1973, a series of stepped terraces allow for each family to colonize and extend their homes over time - an idea inextricably linked to his observation of life in India, and the housing one can find throughout the subcontinent.

This idea that architecture must allow for growth and change over time is explored to the fullest in Doshi's Aranya Low-Cost Housing project in Indore, for which he also won the prestigious Aga Khan Award for Architecture in 1995.[28] But more interestingly, this project also shows more clearly the translations of the ideas co-authored by Doshi in the Habitat Bill of Rights to an actual commission.

Designed in the 1980s and funded by the World Bank, Aranya is an outcome of both the Habitat Bill of Rights as well as the ideas of 'Sites & Services' championed by John Turner in the 1960s and 1970s. Planned to eventually house a population of 60,000 people in some 6500 dwellings across 85 hectares[29], Doshi's master plan for Aranya included a labyrinth network of roads, pathways and open spaces, and a variety in the type and size of plots available to different income groups. The poor, for example, were given just a plinth and service core that could be expanded by them into larger houses at a later time. However, apart from providing these plots in a detailed master plan, Doshi's office was also responsible for designing and building 80 demonstration houses, with the intention that future residents of this site could learn and educate themselves about the possibilities of each of their individual plots.[30] Here again, like in his design for the LIC Colony in Ahmedabad, there is a strong focus on establishing the relationship between dwellings and their neighbourhood, all the way from the individual unit to the scale of the community. Today, Aranya has grown to resemble those very settlements celebrated in the Habitat Bill of Rights, where an intrinsic mix of dwellings, narrow streets and open spaces create community, and not just mere compositions [Figure 3].

Figure 3: Doshi's works before and after the 1974 IICA.

- *Charles Correa*

Educated at the University of Michigan and at MIT, Charles Correa (1930-2015) played a pivotal role in shaping modern architecture in India. Widely credited as a pioneer in low-cost architecture and affordable housing, not just in India but around the world, Correa was from the very beginning of his career interested in issues of affordable housing and planning suited to India's climate and traditions[31]. Beginning with his early experiments in the 1960s with climate responsive architecture - what he referred to as "form follows climate" - we find a series of projects that dealt with creating an energy-passive architecture that through their very shape (often linear arrangements with complex sections) created the necessary environments needed to live in a hot country like India. Projects such as the Tube House (1958), PREVI Housing (1969), and of course, Kanchanjunga Apartments (1969) are all a result of this approach and showcased Correa's brilliant ability to adapt his Western education to the context of developing countries. However, by the 1970s and especially in the 1980s, we find in his work a turn towards a more vernacular approach. Rather than the linear arrangement of the earlier typologies, Correa now drew inspiration from the layouts and silhouettes found in Indian villages, focusing instead on houses clustered around courtyards and other shared community spaces.

While Correa was not one of the co-authors of the 1976 Habitat Bill of Rights, one can draw, especially in this second phase in his work, parallels between the ideas discussed in the Habitat Bill of Rights and Correa's own theories. In fact, in his seminal book *The New Landscape*, published in 1985, Correa makes his own argument for a "Bill of Rights for housing in the developing World" which advocated the following seven principles:

Incrementality, Pluralism, Participation, Income Generation, Equity, Open-to-Sky Space and Disaggregation.[32] However, it is especially in his understanding of the spatial hierarchy of urban form where one can find ample similarities with the themes of 'Dwelling', 'Cluster', 'Pedestrian Precinct' and 'Community' elaborated in the Habitat Bill of Rights with those advertised in *The New Landscape*. "The room (the cell) is only one in a whole system of spaces which a family needs" Correa wrote in the essay 'Architecture in a Warm Climate' "The system is usually hierarchical, starting with the private family zone and moving on to the doorstep (where you greet your neighbour), thence to the water tap or village well (the community meeting place), and finally to the great *maidan* (the principal focus of the city).[33]

A built, physical expression of these ideas can be found in what is possibly his most well-known plan for affordable housing: the Incremental Housing project located at Belapur in Navi Mumbai (formerly known as New Bombay). Designed in 1983, this project brings together all the principles mentioned in *The New Landscape* in a low-rise high density neighbourhood designed for a variety of income groups. At its most basic, the scheme is characterized by a cluster of 7 dwellings grouped around a courtyard measuring 8 meters by 8 meters. These dwellings, of which there are several types, range from single room huts of 16 square meters to two-storey townhouses of 75 square meters. Designed as individual free-standing units, each of these contain crucial open-to-sky space that allow for the possibility for growth and change over time. When mirrored, rotated and repeated at the scale of the urban layout, these clusters produce complex fractal patterns that together form a neighbourhood for 600 families at a density of about a 100 dwellings per hectare along with the provision of schools, open spaces and other amenities. More akin to the layout of an Indian village, the six-hectare site showcases Correa's skills as a site-planner and manufacturer of urban patterns concerned both with the scale of the dwelling and the city [Figure 4].

Figure 4: Correa's works before and after the 1974 IICA.

- *Raj Rewal*

The idea of designing low-income housing that is inspired by vernacular architecture has been thoroughly explored since the 1970's by another Indian architect who participated in 1974 Congress: Raj Rewal (1934). Educated in New Delhi and London, Rewal worked in the office of Michel Ecochard in Paris, before setting up his own practice in New Delhi.[34] However, unlike Doshi and Correa, whose portfolio's show at least two distinct phases (the first more Western approach, and the second, a search for more 'Indian' sensibilities), Rewal has managed to develop over the last three decades a consistent *oeuvre* of housing projects all based on the idea of stacking and staggering units clustered around courtyards inspired by the vernacular architecture of India.

Rewal has also been able to apply these principles in all categories of housing; from affordable housing to housing for middle and upper-middle income groups. A clear example of his design principles can be found in the Sheikh Sarai Housing project in New Delhi from 1984 that contains apartments for different sections of society. Here, a dense pattern of low-rise high density blocks are situated around a network of collective open spaces interlinked by shaded pedestrian pathways that recall the architecture of old Indian towns such as Jaisalmer and Jodhpur.[35]

Rewal worked on several variations of this idea of clustering and stacking, often also with stepped profiles such as in the remarkable low-income housing project for the City and Industrial Development Corporation (CIDCO) built in 1988 in New Bombay (Navi Mumbai). However, it is his design for the Asian Games village in New Delhi (1982) that best exhibit Rewal's ideas for generating habitat. Spread over 35 acres, Rewal's master plan included almost 500 dwellings (200 townhouses and 300 apartments) in an urban pattern that uses peripheral streets and cul-de-sacs to create a central pedestrian spine of "courts and streets" of various scales[36]. At the scale of the dwellings themselves, there is a wide variety in the sizes of units, all choreographed and clustered ingeniously to create distinct neighborhoods, with clearly defined private and collective areas. In many ways, Rewal's housing

schemes have a continuity in form, resembling megastructures of interlinked courtyards and passageways defined by buildings two to four stories tall often framed by gateways or *darwaza's*, that yet again, reference the vernacular architecture found throughout North India and echo the principles published in the Habitat Bill of Rights [Figure 5].
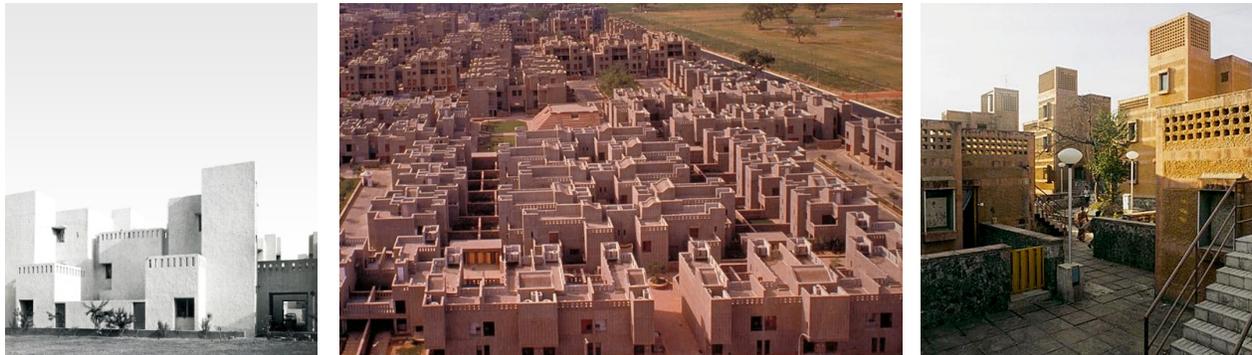
Figure 5: Rewal's works after the 1974 IICA.

The Aga Khan Award for Architecture

The conference of 1974 and the publication of the Habitat Bills of Rights also helped bring together Ardalan, Diba, Doshi, Correa and Rewal, among others, who later in different capacities, played significant roles as members of the Aga Khan Award for Architecture (AKAA). Established in 1977 by Aga Khan IV (His Highness the Aga Khan), the AKAA aims to recognize and promote excellence in the field of architecture in Islamic societies. As an agency of the Aga Khan Development Network (AKDN), the award is presented in three year cycles to a multiple of projects with a cash prize totalling 1 million US Dollars (making it the largest architecture award in the world). However, from its very inception, the award made a conscious decision to not only cover issues related to restoration and the design of public buildings, but strove to provide a platform that looked into - and celebrated - projects that dealt with issues related to squatter housing, community improvement and other forms of development. As such, the award stands out till today in being the only major architecture award that not only looks into these varied and complex issues, but does so while also promoting often unknown architects and agencies for their work.

This has been the case from the very beginning of the AKAA. For the First Cycle of the Award (1978-80), a Steering Committee comprising of some of the most well-known western and non-western architects, including Nader Ardalan, Charles Correa, Hassan Fathy, William Porter and Sir Hugh Casson, among others, held a series of meetings and discussions along with HH the Aga Khan where they formulated the agenda and scope of the award. In addition to this, a separate Master Jury that included the likes of Giancarlo de Carlo, Kenzo Tange and Muzharul Islam reviewed and judged the numerous nominations that cut across the length and breadth of the Islamic World. Recognizing their difficult task, the report of the Master Jury praised the AKAA for venturing into previously unchartered territory, and acknowledged that "The present is a period of transition - a period when traditional heritage is being rediscovered, when new experiments are being made to combine modern technology with cultural continuity in both richer and poorer countries, and when there is urgent search for socially responsive forms of architecture for the poor majority".[37]

The awarded projects are in themselves testament to the AKDNs broad outlook, which in the First Cycle included celebrating the design for a five-star hotel, as in the case of the Mughal Sheraton Hotel in Agra, India, as well as a government-assisted self-help community planning program, such as the Kampung Improvement Program in Jakarta, Indonesia. In many ways, this across-the-board thinking has remained the blueprint for AKAA through its many cycles, leading up to the present Fourteenth Cycle of the Award (2017-19), having now awarded over a 100 projects in countries all the way from Denmark to Burkina Faso.[38] Most crucially, what stands out about the AKAA is that unlike other major awards in architecture (such as the Pritzker Architecture Prize or the RIBA Gold Medal), the AKAA does not celebrate an architect's *oeuvre*, but evaluates very thoroughly, through an intense technical review process, projects that confront some of the most urgent issues that face society today.

Conclusion

It is without a doubt that the 1974 IICA played a major role in aligning western and non-western trajectories of architecture at a crossroads. As a result of the debates and deliberations that took place in Iran, and the subsequent publication of the 1976 Habitat Bill of Rights, the first UN Conference on Habitat and the formulation of the AKAA, soon after, it is clear that these events together helped broaden the discourse on architecture to include previously ignored regions. By facilitating discussions on adapting modernism to the architecture of transforming societies, one could even argue that these events had a role to play in the development of theories such as 'Critical Regionalism' - a term first coined by Alexander Tzonis and Liane Lefaivre in the late 1970s as a reaction to the placelessness of the International Style dominant at that time.

Charles Correa, for instance, often referred to as one of the prominent proponents of Critical Regionalism went on to build prolifically not just in India, but also abroad. A notable project is the very last building he built: the Aga Khan Ismaili Centre in Toronto that opened in 2014. Sharing a large 6.8 hectare site along with Aga Khan Museum, designed by the Japanese Fumihiko Maki, another participant of the 1974 Congress, the building is in many ways a monument to the ideas of modernity and identity that occupied much of Correa's work and thinking throughout his five decade long career. Perhaps, without any of these events, he may have never received the exposure necessary to acquire such international commissions. Or more recently, the "architecture's highest honor", the Pritzker Architecture Prize in 2018 may not have gone to Doshi.[39]

But of course, the impact of these events go well beyond helping private practices. The IICA, for example, also helped set the stage for forming collaborations amongst the various participants of the Congress. In 1977, Ardalan collaborated with Candilis to design the Bua-Ali Sina University in Hamedan, Iran. Whereas, Diba sought the assistance of Rewal and some other Indian architects to help work on the design for Shushtar-Nou, partly completed in 1978. In this view, it comes as no surprise to see a strong resemblance between the works of several of these architects, most notably in the similarities between the design for Shushtar-Nou and Rewal's Sheikh Sarai Housing project in New Delhi [Figure 6].

However, it is the AKDN through its many collaborations and platforms that remains even today the most important platform for recognizing - and promoting - architecture across the world. Through its extensive documentation of projects around the world (8000 at last count), and aided as well by the establishment of the Aga Khan Program for Islamic Architecture at Harvard University and the Massachusetts Institute of Technology (MIT), the AKDN has played an unparalleled role in helping widen the discussion on architecture to include previously ignored areas in the discourse on urban development. Arguably, in the absence of platforms for discussing architectural ideals such as CIAM and Team X, the AKDN remains as the leading platform for fostering debates in architectural knowledge and production, not just in developing countries, but globally.
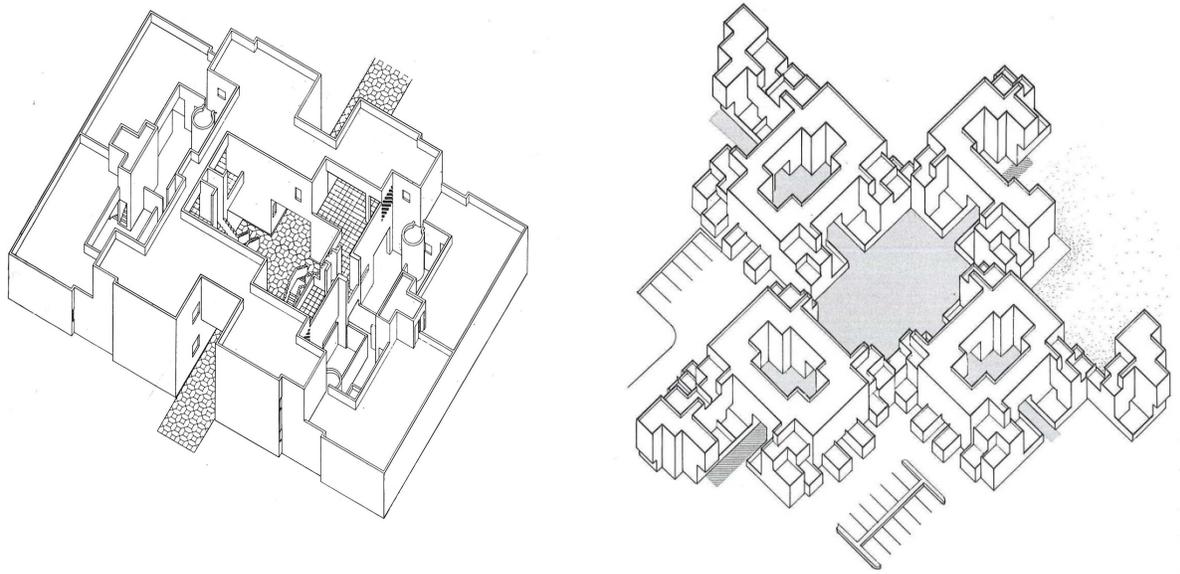

Figure 6: Shushtar-Nou (left) and Sheikh Sarai (right).

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Disclosure Statement

Notes on contributor(s)

Seyed Mohamad Ali Sedighi graduated as an architect from TU Delft, in 2009. Between 2010 and 2014, he worked as guest lecturer at and was co-founder of Architectonic-Group at the Iran University of Science and Technology (IUST). In 2013, he received an honourable mention certificate from the Ministry of Housing and Urban Development for his housing design in Abrisham Town, near Tehran. Since 2014, he has been working on his PhD research related to the design of affordable housing in Iran. He also works as guest teacher at the chair of Architecture and Dwelling, TU Delft. Recently, he awarded a MIT grant (GAHTC) for his research proposal: 'the Architecture of Public Housing in the Cold War Middle East: The Example of Iran.'

Rohan Varma graduated as an architect from the KRVIA, University of Mumbai. He was awarded both the Tata and Mahindra Scholarships for higher studies abroad and received his Master's in Architecture (with honourable mention) at the Delft University of Technology. Prior to coming to the Netherlands, he worked with Charles Correa for two years. In 2015 he established IND, a cross-disciplinary firm based both in Mumbai and Amsterdam. Varma combines his work as an architect with developing his PhD 'Public Housing in India' at TU Delft and is co-curator on a travelling exhibition on the housing designs of Charles Correa.

Endnotes

[1] See: Mohamad Sedighi, "Megastructure Reloaded: A New Technocratic Approach to Housing Development in Ekbatan, Tehran," *ARENA Journal of Architectural Research* 3, no. 3 (2018): 2.

[2] See: Laleh Bakhtiar, ed. *Towards a Quality of Life: The Role of Industrialization in the Architecture and Urban Planning of Developing Countries* (Tehran: Hamdani Foundation, 1976).

[3] Ibid., 35-42.

[4] Ibid., 36.

[5] Ibid., 40.

[6] Ibid., 74.

[7] Ibid., 303-05.

[8] Ibid., 346-347.

[9] See: "2nd Iran International Congress of Architecture - Persepolis. Shiraz. September 24-30, 1974," *Honar va Memari* 25-26, (1975).

[10] Bakhtiar, *Towards a Quality of Life*, 29-32.

[11] Ibid., 237.

[12] Ibid., 237-38.

[13] The Vancouver Declaration on Human Settlements, "Habitat: United Nations Conference on Human Settlements," (Canada 1976), 5.

[14] See: Lindsay Brown. *The Lost History of Vancouver's UN-Habitat Forum* (Simon Fraser University, 2012)

[15] Nader Ardalan et al., *Habitat Bill of Rights* (Tehran, Iran: Hamdami Foundation, 1976).

[16] Nader Ardalan et al., *Habitat Bill of Rights* (Tehran, Iran: Hamdami Foundation, 1976), 25.

[17] Ibid., 61.

[18] Laleh Bakhtiar and Leila Farhad, eds., *The Interaction between Tradition and Technology: Report of the Proceedings of the First International Congress of Architects, Isfahan, 1970* (Tehran: Shahrivar Press, 1970), 34-37.

[19] Nader Ardalan and Laleh Bakhtiar, *The Sense of Unity: The Sufi Tradition in Persian Architecture* (Chicago: University of Chicago Press, 1973).

[20] Ibid., 68.

[21] See: Kamran Diba, *A Garden Between Two Streets: 4001 days of the life of Kamran Diba* (Paris: Alborz, 2010).

[22] See: *Buildings and Projects* (Stuttgart: Hatje, 1981).

[23] See: *Bagh-I Miane Do Khiaban*.

[24] *A Garden Between Two Streets*, 11.

[25] Ardalan et al., *Habitat Bill of Rights*, 156.

[26] Diba, "Shushtar New Town on-Site Review Report," 13.

[27] Rohan Varma, "Doshi: A Life in Architecture", Archined, April 9, 2018, https://www.archined.nl/2018/04/doshi-a-life-in-architecture

[28] Ibid.

[29] "Aranya Community Housing", accessed April 14, 2018, http://www.akdn.org/architecture/project/aranya-community-housing

[30] Dick van Gameren, Rohan Varma "Shifting Scales: Affordable Housing in India" in *Global Housing: Affordable Dwellings for Growing Cities*, ed. Dick van Gameren, Frederique van Andel, Pierijn van der Putt (Rottedam: NAi 010 Publishers, 2015*)*, 10.
[31] Ibid., 6.
[32] Charles Correa, *The New Landscape* (Bombay: The Book Society of India, 1985), 53.
[33] Charles Correa "Architecture in a Warm Climate", accessed April 12, 2018,
https://archnet.org/system/publications/contents/3898/original/DPT0385.pdf?1384777193
[34] Dick van Gameren, Rohan Varma "Shifting Scales: Affordable Housing in India" in *Global Housing: Affordable Dwellings for Growing Cities*, ed. Dick van Gameren, Frederique van Andel, Pierijn van der Putt (Rottedam: NAi 010 Publishers, 2015*)*, 10.
[35] Ibid., 11.
[36] "Asian Games Village", accessed April 14th, 2018, http://rajrewal.in/projects/housing-asian.htm
[37] "1980 Cycle Master Jury Statement", accessed April 14, 2018, http://www.akdn.org/our-agencies/aga-khan-trust-culture/aga-khan-award-architectur/1978-1980-cycle/master-jury-statement
[38] "Aga Khan Award for Architecture", accessed April 14, 2018, http://www.akdn.org/our-agencies/aga-khan-trust-culture/aga-khan-award-architecture/about
[39] See: https://www.pritzkerprize.com/laureates/balkrishna-doshi

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Image sources

Figure 1: Ardalan Associates' archives.

Figure 2: Kamran Diba's archives.

Figure 3: Courtesy of the Vastu Shilpa Foundation (VSF)

Figure 4: Courtesy of the Charles Correa Foundation (CCF)

Figure 5: Raj Rewal's archives

Figure 6: Kamran Diba's and Raj Rewal's archives.