

Mahdi Kamboozia CAAT - Studio

Spoglia ed ornata
Bare and ornamented
Fabrizio Arrigoni

“non può esistere buon uso senza l’arte”

Tommaso d’Aquino, *Summa Theologiae*, I-II, 57, 3 ad 1

Kahrīzak, in origine borgo della provincia di Rey, è un distretto di Tehrān, nella zona sudovest della capitale. Dagli anni sessanta del secolo scorso Tehrān ha subito un processo di espansione dei suoi confini, tale da raggiungere la corona dei villaggi agricoli che la cingevano - la metropoli copre oggi una superficie di oltre 86.500 ettari. In un arco di tempo relativamente breve, Kahrīzak è stato investito da trasformazioni incisive passando da piccolo centro rurale a quartiere di margine, ancora in attesa di una razionale riorganizzazione del suo territorio. La transizione ha lasciato tracce riconoscibili nel paesaggio che giustappone in un mutilo e sconnesso mosaico i trascorsi tracciati agricoli a fitti tessuti di case minute, blocchi isolati di stampo modernista ad imponenti assi infrastrutturali. Eterogenea al pari del costruito ambientale la compagine sociale composta in maggioranza da una classe lavoratrice, sia di confessione sciita che sunnita, di recente migrazione il cui tratto comune più consistente sta in una spartita indigenza. In un contesto siffatto è stato chiesto a CAAT Studio¹ di portare a termine una palazzina residenziale in un lotto fortemente vincolato: un quadrato di circa diciotto metri di lato su cui l’impresa appaltatrice aveva già eretto la struttura del piano terra e del piano primo. In una serie di diagrammi che accompagnano gli elaborati propriamente tecnici, gli architetti enunciano con chiarezza gli obiettivi che il progetto si è posto e le strategie messe in atto per raggiungerli. Mossa d’apertura trovare un punto di equilibrio tra istanze ed esigenze spesso non coincidenti, quando non esplicitamente in contrasto: quelle del

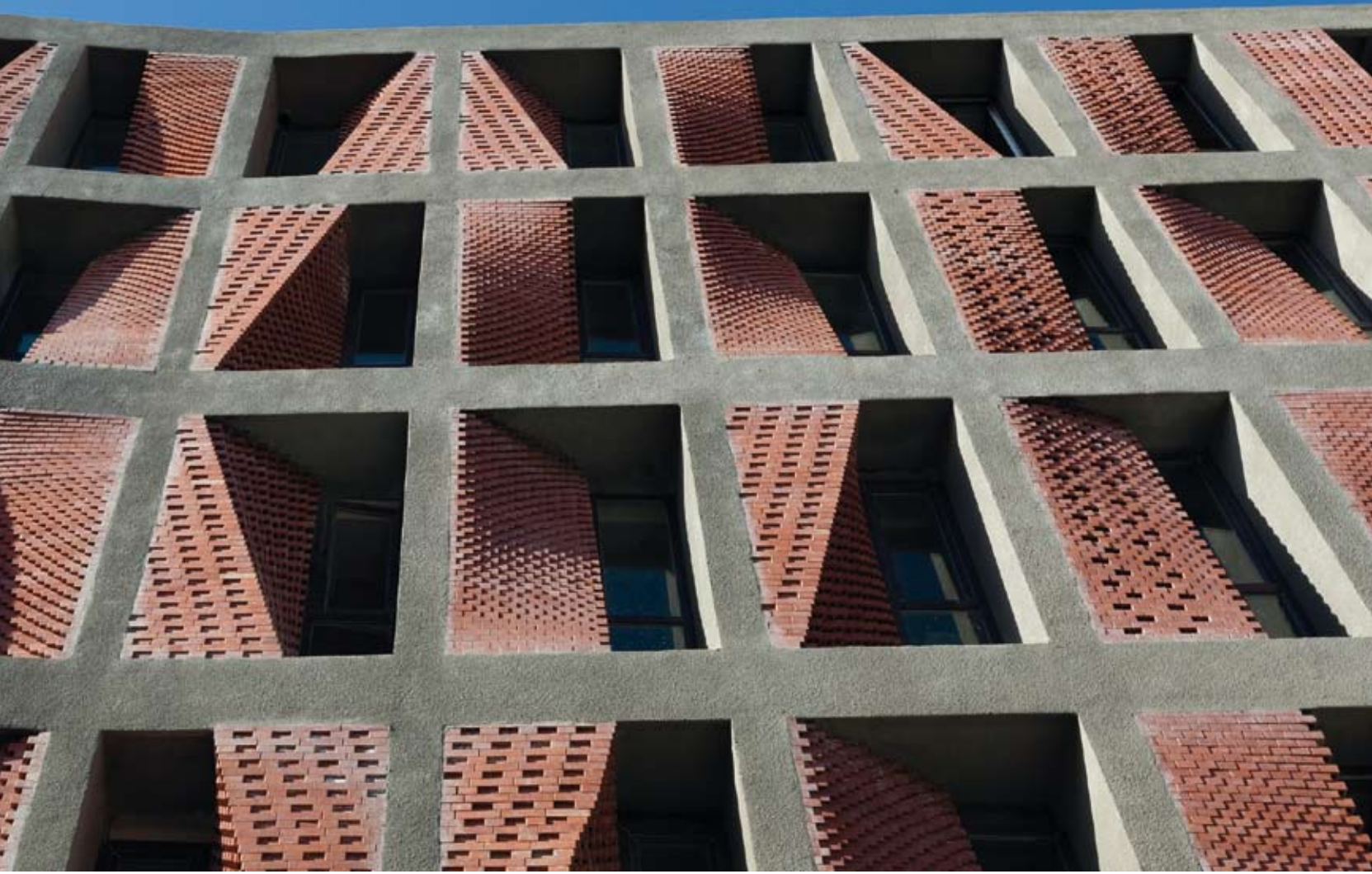


“there cannot be a good use without the art”

Thomas Aquinas, *Summa Theologiae*, I-II, 57, 3 - 1

Kahrīzak, originally a hamlet in the province of Rey, is a district in Tehrān, in the southwest section of the capital. Since the Sixties, Tehrān has gone through a process of expansion of its limits, until reaching the surrounding agricultural villages – the metropolis covers today a surface of more than 86.500 hectares. In a relatively short span of time, Kahrīzak suffered important transformations, which changed it from a small rural center to a suburban neighbourhood, as yet without a proper rational reorganisation of its territory. The transition has left recognisable traces in the landscape which juxtaposes, in a mutilated and disconnected mosaic, both agricultural lands with dense patches of minute houses, and modernist blocks with imposing infrastructural axes.

Just as the built environment is heterogeneous, so is the social composition of the area, mostly working class, both Sunni and Shiite, of recent migration, and often destitute. In this context, CAAT Studio¹ was commissioned to construct a residential building in a strongly conditioned lot: a square plot with approximately eighteen metres per side on which the contracting company had already built the ground floor and first storey structure. Through a series of diagrams that illustrate the technical drawings, the architects express with clarity the objectives of the project and the strategies undertaken to achieve them. The first question was finding a balance between often contrasting requests and needs: those of the client, of the company, of the users, and finally those derived by the specific technical-financial framework. A scrupulous exercise in realism where the *ratiocinatione* – the choices of ways of thinking and

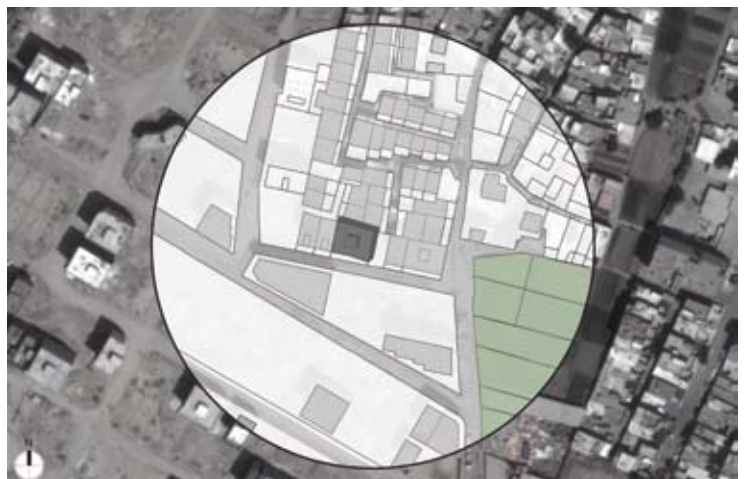


Kahrīzak Residential Project
Kahrīzak, Iran
2015

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Fotografie:
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cliente, quelle dell'impresa, quelle dei fruitori, quelle infine derivate dallo specifico panorama tecnico-finanziario dato. Un esercizio di scrupoloso realismo dove la *ratiocinatione* - le scelte di pensiero e di espressione - acquistano graduale fisionomia e necessità soppesando le possibilità ed i limiti posti perentoriamente dalla *fabrica* - la ratio manifesta dallo stesso prender corpo dell'edificio: «we started searching for potentials that will help us both in design and construction process. Redefining the connection between architects, clients and collaborators was the main potential for this project. This new type of connection resulted in creating a new and different aesthetic style of architecture in residential building construction of Kahrīzak District despite of limitations that exist in this project such as the culture, economic aspect etc.; this style has been effected directly from the around context and environment»².

L'edificio è un solido, semplice quanto compatto, sviluppato secondo cinque ordini fuori terra e sostenuto da una maglia di 16 pilastri in cemento armato; l'attacco al suolo non è tamponato e lo spazio si protende oltre il piombo della facciata, sino a chiudersi sul ciglio della strada con un muro intonacato. Ogni piano è suddiviso in quattro alloggi; Il nocciolo della distribuzione verticale separa i due rivolti a nord dai due, contrapposti, rivolti al mezzogiorno; quest'ultimi, di circa 50 metri quadri, presentano variazioni nella distribuzione, alternando una o due camere da letto. Costretti in tale schema generale gli autori hanno posto la massima attenzione nel disegno dell'ampio fronte a sud, l'unico libero da preesistenze.

Undici strette lesene verticali di calcestruzzo - che per finitura riprendono le linee dei solai rivelate in facciata - suddividono il fronte in una scacchiera regolare di cinquanta riquadri; una flessione secca del fronte quasi in mezz'aria ed un moderato oggetto del secondo piano stabiliscono un ritmo minore nell'impaginato principale, restituendo una percezione dell'insieme sottilmente articolata senza tuttavia minarne la ricercata unitarietà. L'intelaiatura cementizia, indipendente dal sistema dei sostegni, fissa lo spessore di una sorta di muro-camera di oltre sessanta centimetri. Quest'ultimo realizzato interamente in mattone d'argilla presenta 21 variazioni di montaggio - oltre il modulo base verticale -, introducendo nella rigida e continua sintassi del prospetto una complessità inattesa, fatta di permanenza e mutazione, serialità e caso.

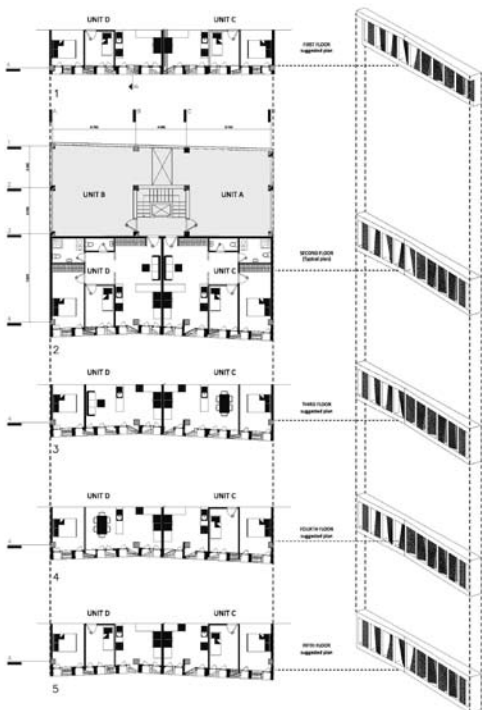
La soluzione adottata si fonda su due considerazioni; una prima si riferisce al modo in cui gli abitanti del quartiere sono soliti manomettere l'edilizia speculativa in cui risiedono al fine di ottenere alloggi dotati di maggiore superficie utile; ridotti in appartamenti che talvolta sono privi di illuminazione naturale diretta, gli inquilini sono soliti serrare i balconi riuscendo in tal modo a ricavare micro vani destinati ad armadi e depositi: «There was a huge gap between resident's lifestyle and the type of constructions happening in that region, for example; by observing the existing building in the neighborhood; balconies as a routine function in the facade were misused. People there needed different space requirements; they were adopting their spaces to their needs with basic solutions [...] the big balconies constructed in the apartments were walled in and roofed in to either add some space to the homes or be used as storerooms. There were also some balconies whose residents walled them in with colored glass bricks in order to prevent others from seeing the clothes they put out to dry and this in turn stifled the natural light and spoilt the look of the building»³. Il muro-camera si offre in guisa di nicchia di servizio eccedente il perimetro dell'appartamento e la sua configurazione dipende dall'uso del locale su cui è affacciata: scaffalatura, armadio chiuso, appendi abiti, asciugatoio. I moduli in laterizio non rivestono per intero l'intervallo tra gli intercolumni e piegandosi verso l'interno determinano la posizione di cinquanta finestre a tutta altezza, tra loro analoghe per dimensione e profilo. Abbiamo

of expression - gradually acquire shape and become imperative, considering the limits and possibilities of the *construction* - the *ratio* manifested by the shaping itself of the building: «we started searching for options that could help us in both the design and the construction processes. Redefining the connection between architects, clients and collaborators was the main source of potential for this project. This new type of connection resulted in creating a new and different aesthetic style of architecture for residential building construction in the District of Kahrīzak despite the limitations that exist in this project such as the cultural and economic aspects, etc.; this style has been effected directly from the surrounding context and the environment»².

The building is a simple and compact solid, developed according to five above-ground orders and supported by a mesh made of 16 reinforced concrete pillars; the connection to the ground is not cladded and the space projects beyond the plumb line of the facade, and ends with a plastered wall bordering the street. Each floor is subdivided into four apartments: the crux of the vertical distribution separates the two facing north to the two facing south; the latter two, of approximately 50 metres square each, present variations in their distribution, alternating between one or two bedrooms. Constrained by this general layout, the authors paid maximum attention to the design of the ample south facade, the only one that is free from pre-existing structures.

Eleven thin vertical concrete pilasters - which follow the lines of the floors as seen on the facade - subdivide the front of the building into a regular fifty-square checkerboard; a midpoint flexing of the facade and a moderate projection of the second floor determine a minor rhythm of the main layout, creating a perception of the whole that is subtly articulated without, however, undermining the desired unitary nature of the construction. The cement trestle, which is independent from the system of supports, creates a sort of wall-chamber that is over sixty centimeters thick. This structure is made entirely of clay bricks and presents 21 varieties of assembly - in addition to the basic vertical module -, introducing to the rigid and continuous syntax of the facade an unexpected complexity, made of both permanence and change, seriality and chance.

The adopted solution is based upon two considerations; a first which refers to the way in which the inhabitants of the neighbourhood usually alter the speculative real estate in which they live with the purpose of obtaining housing with additional useful surface; condemned to live in apartments that are sometimes lacking in direct natural light, tenants often block balconies in order to obtain small rooms for storage purposes or to be used as closets: «There was a huge gap between the lifestyle of the residents and the type of constructions built in the region, for example, observing the existing buildings in the neighborhood; balconies as a routine function in the facade were misused. People there needed different space requirements; they were adopting their spaces to their needs with basic solutions [...] the big balconies constructed in the apartments were walled in and roofed in to either add some space to the homes or be used as storerooms. There were also some balconies whose residents walled them in with colored glass bricks in order to prevent others from seeing the clothes they put out to dry and this in turn stifled the natural light and spoiled the look of the building»³. The wall-chamber is a sort of cubby-hole which extends the dimensions of the apartment, and its shape depends on the intended use of the space: shelves, closet, coat-hanger, airing cupboard. The brick modules do not completely cover the intervals between the columns and, bending inwards, mark the position of fifty full-height windows, akin in shape and size. We already mentioned the fact that the *features* depend on a play between repetition and difference, rule and exception; observing the placement of the modules with respect



pp. 138 - 139
Facciata
Planimetria
 p. 141
Fronte principale
Piante unità residenziali, sezioni A-A e B-B
 p. 143
Dettagli costruttivi e texture della facciata
Diagramma tecnico tipologie moduli
 p. 143
Particolare facciata
 p. 145
Interni

accennato al fatto che i *lineamenti* dipendono dal gioco continuo di ripetizione e differenza, regola ed eccezione; osservando la giacitura dei moduli rispetto alle forature riconosciamo: ai due estremi una simmetria specchiata, nelle prime tre campate da sinistra la finestra precede sempre l'inserito in argilla; poi una campata mista - successione vetro/mattone e mattone/vetro -, poi i penultimi quattro intervalli che rovesciano la scansione iniziale. La dimensione dell'intaglio smorza l'incidenza del soleggiamento ed accresce il senso di protezione ed intimità delle stanze; talvolta alcuni larghi giunti, ottenuti dalla posa obliqua dei mattoni nei differenti ricorsi, sono privi di malta consentendo il passaggio dell'aria. Scorto dal dentro possiamo accostare tale tramatura perforata al grande tema della *mašrabiyya* - autentica *symbolischen Form* - al suo costituirsi quale meccanismo di separazione dello sguardo dalla luce o, come suggerito da Hans Belting, di messa in scena della luce stessa, del suo apparire e del suo mobile riverberarsi e riflettersi⁴. Seppure indeboliti dal fiancheggiare aperture di foggia consueta, i minuti fori luminescenti sono il corredo fastoso e l'*ornamentum* dei locali che gli ospitano. Ma l'evoluzione del segno che abbiamo descritto non avrebbe avuto seguito se non fosse stato capace di intercettare, riscattandola, la condizione concreta, immanente, che ha preceduto l'opera. La scelta di impiegare cemento armato e laterizio discende dal controllo ferreo sui costi di edificazione e da un'analisi delle capacità artigianali disponibili sul campo: «The choice of material was a significant parameter in this project mainly because we had to choose something affordable and easy to freight to the site. As a result, we considered clay blocks which were produced in a factory nearby and this meant a considerable decrease in the freight charge of the materials. The modules were constructed with bricks and we tried to find a suitable material for the module frames. The least expensive material that gave us the ability to create our desired sense of space was concrete. This way, we could reduce the cost of the project to its minimum. We used this reduction of cost to create the high quality interior spaces»⁵. Una cautela al *farsi* dell'architettura nella-dalla contingenza che ha suggerito il collaudo preventivo, attraverso l'esecuzione di modelli al vero, della posa dei mattoni nei diversi moduli, si da contenere gli imprevisti nella fase ultima del cantiere e rendendo la manodopera maggiormente consapevole dell'impresa nel suo insieme.

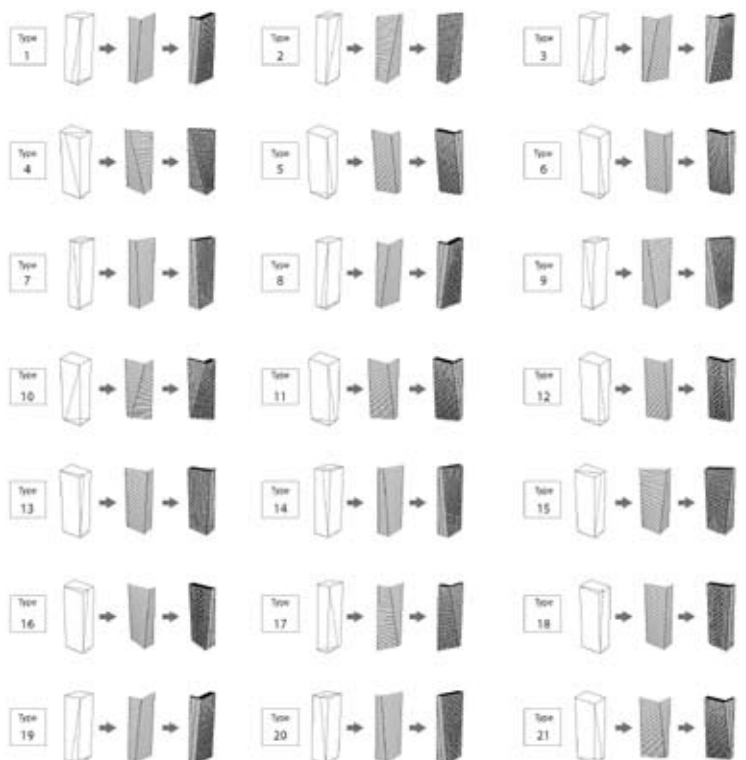
Dalla via il complesso appare terrigno, scolpito dalle ombre, di qualità umile; la rudezza tuttavia non compromette l'esatta geometria che governa sia il grande spartito che le tessere parziali, anzi ne accende la presenza e la forza. Geometria che produce l'eleganza di stile ed il rango dell'edificio oltre che imporsi quale suo principio trascendente: «there is a constant historical principle in Iranian architecture: the richness in details in coexistence with the representation of simplicity in overall scale which finally ends into merging with the context and matching to their functions»⁶. E qui il punto di primaria importanza, ovvero il legame che l'edificio intrattiene con una tradizione vulnerata e soggetta a lenta erosione. È sotto la dinastia Qâjâr - 1800/1925 - che ha esordio l'importazione e l'ibridazione di modelli europei nella cultura del progetto in Persia; sia il cosiddetto "periodo di transizione" durante gli ultimi anni della dinastia Pahlavi⁷ e sia il dopo Rivoluzione del 1979 possono essere interpretati come un lungo e faticoso confronto tra istanze ed universi culturali storicizzati, peculiari e circoscritti, ed occidentalizzazione: una vicenda affatto conclusa e che in molte sue articolazioni e snodi concettuali anticipa le contraddizioni presenti nella imperante globalizzazione contemporanea. Se confrontiamo tra loro alcuni convincimenti della critica disciplinare - Darab Diba, Seyed Hadi Mirmiran, Kambiz Navaee, Farshad Farahi⁸ - risulta assai evidente come il rapporto con l'eredità spirituale e materiale del

to the openings we can observe: to the two extremes a mirror-like symmetry, in the first three spans on the left the window precedes the clay insert; then a mixed space - succession of glass/brick and brick/glass - then the four before-last intervals which reverse the initial layout. The dimensions of the opening diminishes the incidence of sunrays and increases the sense of protection and intimacy of the rooms; on occasion, some of the spaces obtained by the oblique placing of the bricks are left without mortar, which allows the passage of air. Seen from the inside this pierced layout can be related to the theme of the *mašrabiyya* - true *symbolischen Form* - in that it is constituted as a mechanism for separating the gaze from the light, or as Hans Belting suggested, as a *mise-en-scene* for light itself, for its coming into sight and its mobile reverberating and reflecting⁴. Although weakened by the presence of common openings, the minute luminescent light-holes are the lavish *ornamentum* of the rooms they illuminate. Yet the evolution of the sign we have described would not have had a continuation if it had not been capable of intercepting, and thus redeeming, the concrete and immanent condition that preceded the work. The choice of using reinforced concrete and bricks is a consequence of the strict control regarding construction costs, and of the analysis of the craftsmanship available on site: «The choice of materials was a significant parameter in this project mainly because we had to choose something affordable and easy to freight to the site. As a result, we considered clay blocks which were produced in a factory nearby and this meant a considerable decrease in the freight charge of the materials. The modules were constructed with bricks and we tried to find a suitable material for the module frames. The least expensive material that gave us the ability to create our desired sense of space was concrete. This way, we could reduce the cost of the project to its minimum. We used this reduction in cost to create high quality interior spaces»⁵.

A precautionary measure of the architectural process resulting from the circumstances suggested by preventive experimentation, carried out on true scale models, of the placing of the bricks on different modules, was used to limit unexpected situations during the last phase on the worksite, and to make the workers more aware of the project as a whole.

From the road the building gives an earthen feeling, carved by shadows, of a humble nature; the unrefined quality, however, does not affect the exact geometry that governs it, both as a whole and in its parts, on the contrary, it increases its presence and force. This geometry produces an elegance in style and gives the building a certain quality, based upon its transcendent principle: «there is a constant historical principle in Iranian architecture: the richness in details in coexistence with the representation of simplicity in the overall scale which finally ends by merging with the context and matching its functions»⁶.

This is a point of fundamental importance, that is the connection that the building establishes with a vulnerable tradition which has been subjected to a slow process of erosion. The importation of European models and the process of hybridisation with the Persian tradition began to take place during the Qâjâr dynasty (1800-1925). The so-called "transition period", during the final years of the Pahlavi dynasty⁷, as well as after the Revolution of 1979, may be interpreted both as a process of westernisation and as a long and tiresome confrontation between historicised, peculiar and delimited cultural universes: a situation that is far from being concluded and which in many of its expressions and conceptual solutions anticipated the contradictions present in the prevailing globalising trends. If we compare some of the beliefs of the critics active in the field - Darab Diba, Seyed Hadi Mirmiran, Kambiz Navaee, Farshad Farahi⁸ - it appears as quite evident how the relationship with the material and spiritual heritage is interpreted as a deciding factor, even through





passato sia avvertito come questione dirimente, anche attraverso posizioni, giudizi e prospettive sul futuro non univoche. Al pari di numerose comunità tradizionali, l'antica casa iraniana è plasmata in modo da corrispondere al dominio naturale ed antropologico-sociale da cui origina; sviluppata secondo l'asse orizzontale ha come suo ombelico la corte giardino, *sahn*, fulcro topico e simbolico attorno al quale ruota l'intero sistema spaziale⁹. Una casa introflessa, raccolta su se stessa, limpidamente suddivisa tra *servant and served spaces* e dove le singole stanze sono definite dalla loro specifica morfologia e non dalla destinazione funzionale, risultando quest'ultima sovente imprecisata¹⁰. Una casa-mondo, *haram*, sorta per accogliere e riparare nuclei familiari estesi¹¹ e capace di aderire ai destini dei suoi ospiti evolvendosi costantemente per tramite di riordini e/o addizioni. La casa collettiva di Mahdi Kamboozia, in una cornice economica, sociale e demografica affatto stabile¹², prova a rinsaldare l'interazione profonda tra modi di vita ed artefatto, riaffermando la ricchezza dell'opera come perfezionamento indefinito di una prassi tramandata, di un abito operativo radicalmente umano poiché, come è stato detto, Dio prescrive la perfezione in ogni cosa, *Inna-Allâ-ha katabâ-l-ihsâna 'alâ kulli shay*.

¹ CAAT Studio è stato fondato da Mahdi Kamboozia nel 2012 ed ha sede a Tehrân; *Kahrizak Residential Project* ha ricevuto la *Special Mention - Residential Category* al 2A Asia Architecture Award, Istanbul 2015.

² CAAT Studio, *Project Significance*

³ *ibidem* e CAAT Studio, *Diagrams*

⁴ Belting H., *Florenz und Bagdad. Eine westöstliche Geschichte des Blicks*, Verlag C.H.

positions, judgments and perspectives concerning the future are not univocal. As in many traditional communities, the Iranian house reflects the natural and social-anthropological environment from which it originates. It is constructed following the horizontal axis and has at its core the garden courtyard, or *sahn*, topical and symbolic fulcrum around which the entire spatial system rotates⁹. An inward-looking and self-reflecting house, clearly subdivided into *servant and served spaces* in which the individual rooms are defined by their specific morphology and not by their destined, and often unspecified purpose¹⁰. A world-house, or *haram*, set up to house and shelter extended families¹¹ and capable of adapting to the destiny of its inhabitants by constantly evolving through reorganisations and/or additions. Mahdi Kamboozia's collective house, placed in an unstable economic, social and demographic environment¹², attempts to reinforce the profound interaction between ways of life and artifact, asserting the richness of the work as the undefined perfecting of an inherited practice, of an operative tradition that is radically human since, as it has been said, God prescribes perfection in every thing, *Inna-Allâ-ha katabâ-l-ihsâna 'alâ kulli shay*.

Translation by Luis Gatt

¹ CAAT Studio was founded by Mahdi Kamboozia in 2012 and is based in Tehrân; *Kahrizak Residential Project* received the *Special Mention - Residential Category* at the 2A Asia Architecture Award, Istanbul 2015.

² CAAT Studio, *Project Significance*.

³ *ibidem* and CAAT Studio, *Diagrams*.

⁴ Belting H., *Florenz und Bagdad. Eine westöstliche Geschichte des Blicks*, Verlag C.H.



Beck oHG, München 2008 (trad. it. di M. Gregorio, *I canoni dello sguardo. Storia della cultura visiva tra Oriente e Occidente*, Bollati Boringhieri, Torino 2010; pp. 242-248).

⁵ CAAT Studio, *Project Description*

⁶ *ibidem*

⁷ È in tale frangente che, a seguito di una accelerazione nei processi di modernizzazione del paese, si registrarono le alterazioni più marcate negli ordinamenti urbani quali la perdita della *mixité* funzionale dei quartieri, il ridimensionamento dei lotti edificabili, la riduzione dei patterns urbani a contorni rettangolari passivamente replicati, l'introduzione diffusa di nuovi apparati tecnologici.

⁸ Cfr.: Mahdaveinejad M., Doroodgar A., Moradchelleh A., *The Impacts of Revivalist Trends on the Contemporary Architecture of Iran (1977-2011)*, in «Middle-East Journal off Scientific Research» 11 (2), 2012; pp. 176-183; Diba D., Dehbashi M., *Trends in Modern Iranian Architecture*, in P. Jodidio, (edited by), *Iran. Architecture for Changing Societies*, Aga Kahn Award for Architecture, Torino 2004; pp. 31-41.

⁹ Mahdaveinejad M., Moradchelleh A., Dehghani S., Mirhosseini S. M., *The Adoption of Central Courtyard as a Traditional Archetype in Contemporary Architecture of Iran*, in «World Applied Sciences Journal», 21 (6); pp. 802-811, 2013.

¹⁰ Un lessico architettonico dove un uso univoco degli ambienti era relativo forse alle sole cucine: *hashti*, la soglia tra dentro e fuori, *biruni*, la parte più pubblica della casa, *andaruni*, la zona più segreta e riservata, *balakhaneh*, la stanza al piano primo, *haft-dari*, *panj-dari*, *seh-dari*, *do-dar*, le stanze rispettivamente con sette, cinque, tre, due porte-finestre contigue, e poi le stanze per il soggiorno invernale ed estivo e gli spazi di filtro, *talar* ed *iwan*, coappartenenza di interno ed esterno. Su questi temi: Mirmoghtadaee M., *Process of Housing Transformation in Iran*, «Journal of Construction in Developing Countries», n. 1, vol. 14, 2009; pp. 69-80.

¹¹ Basam Behsh M., *Towards Housing in Harmony with Place: Constancy and Change in the Traditional Syrian House from the Standpoint of Environmental Adaptation*, Department of Architecture and Development Studies, Lund Institute of Technology, Lund University 1993.

¹² Pur conservando un ruolo cardine nella vita civile persiana la struttura familiare ha subito rilevanti cambiamenti; vale menzionare che se nel 1966 la media di parti per ogni donna era di 7.7 figli - sia in aree urbane che rurali - nel 2000 essa si è ridotta a 2.17 bambini; cfr. Mirmoghtadaee M., *Process...* op.cit.; p. 75.

Beck oHG, München 2008 (Italian translation by M. Gregorio, *I canoni dello sguardo. Storia della cultura visiva tra Oriente e Occidente*, Bollati Boringhieri, Torino 2010; pp. 242-248).

⁵ CAAT Studio, *Project Description*.

⁶ *ibidem*.

⁷ It is in this context that, as a consequence of the acceleration of the processes of modernization of the country, the most pronounced urban alterations took place, such as the loss of the functional *mixité* of the neighbourhoods, the re-dimensioning of lots for building, the reduction of urban patterns to passively replicated rectangles, and the widespread introduction of new technological equipment.

⁸ Cfr.: Mahdaveinejad M., Doroodgar A., Moradchelleh A., *The Impacts of Revivalist Trends on the Contemporary Architecture of Iran (1977-2011)*, in «Middle-East Journal off Scientific Research» 11 (2), 2012; pp. 176-183; D. Diba, M. Dehbashi, *Trends in Modern Iranian Architecture*, in P. Jodidio, (edited by), *Iran. Architecture for Changing Societies*, Aga Kahn Award for Architecture, Torino 2004; pp. 31-41.

⁹ Mahdaveinejad M., Moradchelleh A., Dehghani S., Mirhosseini S. M., *The Adoption of Central Courtyard as a Traditional Archetype in Contemporary Architecture of Iran*, in «World Applied Sciences Journal», 21 (6); pp. 802-811, 2013.

¹⁰ An architectural lexicon in which an univocal use of spaces was perhaps limited only to the kitchen: *hashti*, the threshold between inside and outside, *biruni*, the most public part of the house, *andaruni*, the most secluded and reserved section, *balakhaneh*, the room on the first floor, *haft-dari*, *panj-dari*, *seh-dari*, *do-dar*, the rooms with respectively seven, five, three and two door-windows, and finally the winter and summer living-rooms and the filter-spaces, *talar* and *iwan*, which belong both to the inside and the outside. On these topics see: Mirmoghtadaee M., *Process of Housing Transformation in Iran*, «Journal of Construction in Developing Countries», n. 1, vol. 14, 2009; pp. 69-80.

¹¹ Basam Behsh M., *Towards Housing in Harmony with Place: Constancy and Change in the Traditional Syrian House from the Standpoint of Environmental Adaptation*, Department of Architecture and Development Studies, Lund Institute of Technology, Lund University 1993.

¹² Although maintaining a central role in Persian life, the structure of the family has suffered important alterations; as one example of this it is worth mentioning that whereas in 1966 every woman had on average 7.7 children -both in urban and rural areas- by the year 2000 this number had been reduced to 2.17 children; cfr. Mirmoghtadaee M., *Process...* op.cit.; p. 75.