



inside outside

contextual design, analysis, re-evaluation and re-interpretation of the courtyard typology
in the historic core of sulaymaniyah

Sulaimani • Iraq

architectural design workshop • November 2015



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sustainability, a much used term over the last decades, suggests a new outlook on the relationship between man and its built environment, but often focuses foremost on technological aspects - glass skyscrapers in desert climate are praised as examples of „green technology“ for their active use of renewable energies like solar cells or wind turbines, although they fail to follow one of the fundamental principles of sustainability, which would in the first place adapt a building to the specific conditions of the site.

In contrast to this, most vernacular architectural traditions are sustainable by necessity, since they had to adapt to the parameters of place. Only with the advance of modern technology was it possible to do anything anywhere and to overrule the sensible restrictions that derive from the adaptation to the context.

On the background of the debate about global versus local values and with a uniform architectural language spreading across the world, the need for a consideration of local aspects specific to culture and place is growing. Traditional settlements and building typologies are being replaced by the architecture of a globalised modernism that is used irrespective of location, climate and culture - mostly unsustainable, while at the same time obliterating rich local traditions. Without renouncing the benefits of modern technology, a re-evaluation of historic building traditions is necessary for a balanced combination of both aspects, to create distinct local identities.

To be sustainable by design, the method of learning from traditional architectural typologies should be a topic for research again, to form a deeper understanding of sustainability and use it for an adaptation of a contemporary architecture to its context.

brief

inside / outside _ the topic inside / outside refers to the mediating elements that define the thresholds and filter zones between open and closed, public and private spaces – on the urban scale, as well as on the scale of individual buildings and their details.

The courtyard house, a traditional building typology in the historic core of Sulaymaniyah, represents this topic very well. It constitutes the cell of many traditional settlements of the Middle East and North Africa, with private houses as well as commercial and public buildings like mosques, schools and khans following the same spatial ritual, thereby creating a distinct layout that seems to grow in an organic pattern.

In the historic centre of Sulaymaniyah only very few examples of this type are left, most in a bad state of maintenance and falling apart. Parking lots on the site of the demolished buildings leave huge gaps in the urban pattern but give us the chance to try and refill them again with a contemporary architecture that suits modern standards while at the same time re-interpreting the historic typology and re-activating the derelict areas with new meaning.

international crafts academy (ica) _ on several adjacent empty plots in the quarter of Malkandi we propose to create an international crafts academy that shall revive the local handicraft and building traditions. The site of the academy shall consist of three buildings, each with a different functional mixture:

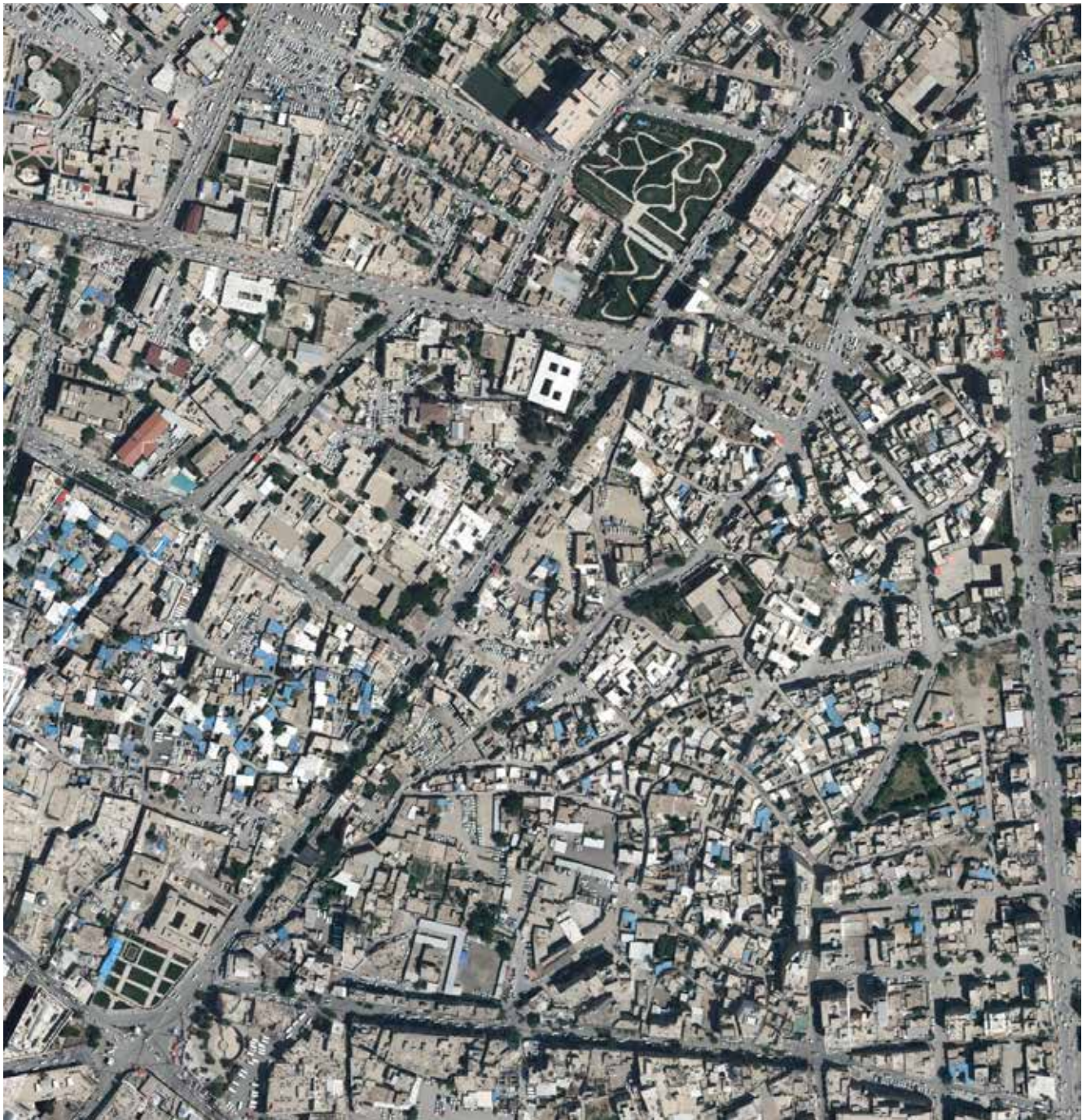
ica 1_ living & working - residential units for 25 students / apprentices, ateliers / workshops

ica 2_ living & research - residential units for teachers / researchers, library / archive

ica 3_ teaching & exchange – meeting spaces / exhibition / café / administration

The relation between inside and outside spaces shall be the main topic for each of the three units, the public functions generating interaction and communication among themselves and with the surrounding quarter, while their residential functions allow for reclusion and privacy. This intervention shall create a new public focus for the quarter and the city, while at the same time representing a case study for a sustainable re-interpretation of a local architectural typology that is fitting to the specific context of the historic inner city. It shall become an intrinsic part of the urban pattern, re-connecting and repairing it.

fig.1 the Malkandi quarter



design area

The Malkandi Quarter Sulaimaniyah

The Malkandi Quarter is part of the historical city of Sulaimaniyah. The main characteristics of the neighborhood are the irregular, narrow streets and the compact form of the urban pattern. There are less open and green spaces than in the new urban fabric surrounding the old quarter. Most of the houses are residential buildings having one to two floors.

fig.2 the old city of Sulaimaniyah

source of figures: Sulaymaniyah – history and current urban development



fig.3 original layout (yellow), 1st expansion (rosa) and 2nd expansion (red)

fig.4 original junction (red), target junctions and urban pillars (yellow)

source: Sulaymaniyah – history and current urban development



fig.5 and 6 narrow and irregular streets, source: Sulaymaniyah – history and current urban development



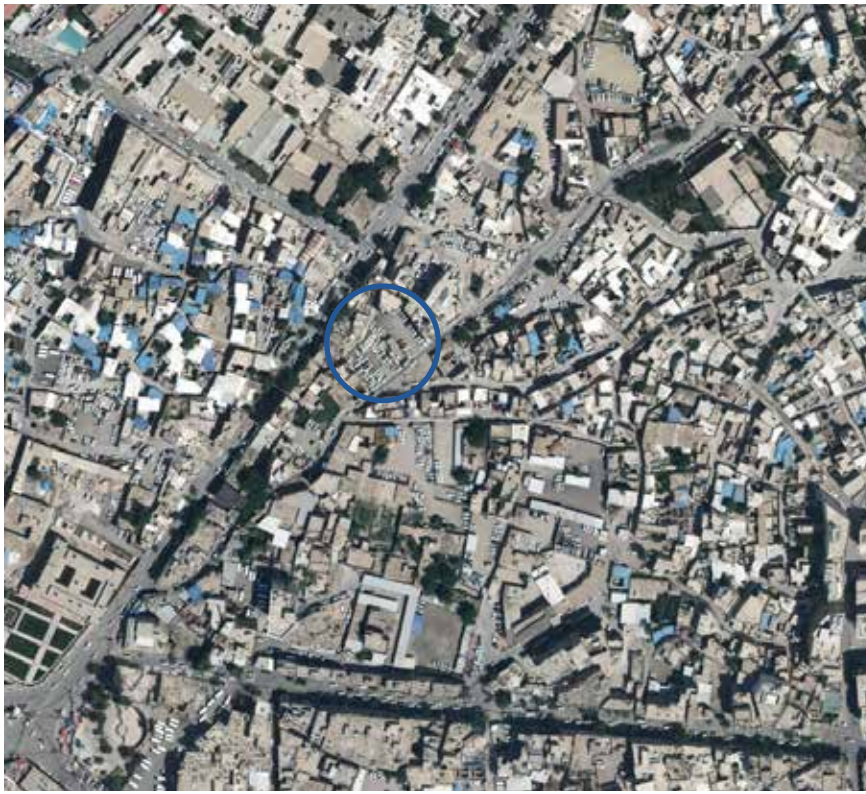


fig.7 the design area in Malkandi Quarter

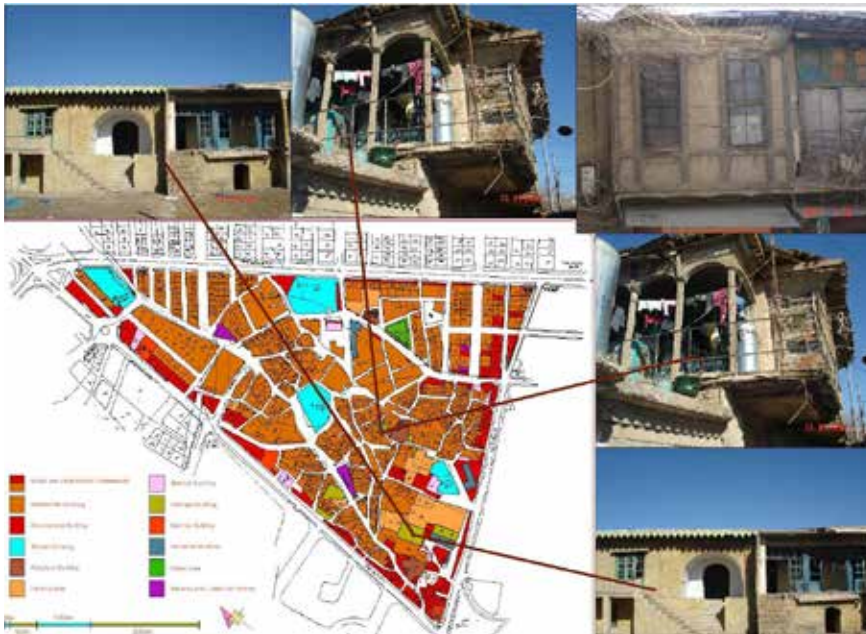


fig.8 existing land use in Malkandi Quarter, source: student work



fig.9 functions of buildings in Malkandi Quarter, source: student work

lecture 1 · Sulaymaniyah – history and current urban development / traditional architecture and typologies as initials for modernisation

Dr. Amjad Mohamad Ali, University of Sulaimani

Sulaymaniyah is characterized by its topography. The city is surrounded by Azmer, Goyija & Qaiwan Ranges in the northeast, Baranan Mountain in the south and Tasluja Hills in the west. The old part of Sulaimaniyah is very compact and it has irregular and narrow streets. The new urban structure surrounding the centre has a regular urban pattern with more open spaces and green areas. 84 houses in the city centre are heritage buildings. The ratio of existing heritage building among all the building in the city center is about 2%. The three mostly used building form types in the old town are the open-sided courtyard building, two open-sided courtyard building and the front yard building. The main characteristics of traditional buildings forms are their irregular forms, their low-rise (up to two floors), the large and private yard, the small openings and windows which are facing to the courtyard. Typical traditional architectural building elements are the Semi-circle arc (round), the Curved arc, the Pointed arc (in balconies) and the Ewan (Iwan). Traditional local founded building materials were brick, mud, wood, stone and gypsum.

lecture 2 · case studies of urban renewal in historic city districts

Dipl.-Ing. Christoph Wessling, BTU Cottbus - Senftenberg

In this context, revitalization and renewal means keeping and making historic areas attractive and vital for the needs of today and tomorrow by respecting the characteristic structures. This includes the reinterpretation and reproduction of historical structures, analogue to its nature, by using contemporary architectural facilities and integrating nowadays using requirements. Only a lively historic city centre can be preserved on long-term. The structures of the historic quarters are qualifying more for its development, then by their images. Different forms of urban renewal can be distinguished. At first the pure reconstruction of the urban structure. Secondly a new development of a historic building field. Thirdly the rehabilitation of an old town with new buildings on historic parcels. At last only the renewal of important urban objects can be fulfilled.

lecture 3 · inside / outside _ typological studies

Dipl.-Ing. Barbara Witt, BTU Cottbus - Senftenberg

The relation between the inside of a house and the outside as garden can have different forms. The outside can stand for itself as enclosed garden like in the paradise garden understanding of the middle age (Hortus conclusus). In connection with the building, the outside can be defined as garden in the house like in the traditional case of the courtyard house. The central element of this typology is the water mostly in form of a fountain. The passage between house and courtyard can be created by columns and window screens. The second form is the house in the garden. In contrast to the first typology it has the fire as the central element. The fireplace has an important role for the people living in the house. There can also be intermediate filter zones like bay windows, which are connecting the inside with the outside. Today the traditional courtyard house can be reinterpreted differently. In a first way the courtyard works as filter between open and enclosed space. In another interpretation they are operating as filter between public and private. In some cases they have an important function as climatic filter zones.

lectures



fig.10 Sulaimaniyah

source: lecture of Dr. Amjad Mohamad Ali



fig.11 traditional house and building of the early modern city

source: lecture of Dr. Amjad Mohamad Ali



fig.12 Renewal of the staircase of the new Museum Berlin

source: lecture of Christoph Wessling - case studies of urban renewal in historic city districts



fig.13 relation between inside and outside

source: program paper of the workshop

lecture 4 · Case-studies of Courtyard Archetype in Contemporary Architecture

MA Arch. Sepideh Ghalam, BTU Cottbus - Senftenberg

Courtyard housing is one of the oldest architectural archetypes that is commonly associated with hot and arid parts of the Middle East. Yet in fact this architectural configuration can be traced back in many regions of the world all the way from China to Morocco, as well as in Europe and America. It also appears in extensive variations, from central courtyards, to forecourts, patios, elevated courts and many other combinations. Architectural distinctions and diversity of the same typology comes from cultural and environmental adaptations within each context and represents the creativity of their creators in integrating local and universal architectural traditions into a sustainable and contextual architecture. Therefore, a selected series of case studies from different parts of the world shown here as examples of contemporary efforts towards re-adaptation of an ancient archetype into a site-specific design built.

lecture 5 · historic building typologies / re-invention?

Mrs. Mayade Hekmat, University of Sulaimani

lecture 6 · building in historic context / adaptive re-use

Dipl.-Ing. Barbara Witt, BTU Cottbus - Senftenberg

„Architecture is not an art, it is a natural function. It grows out of the ground like animals and plants or like a tree that unfolds and develops, so long as the man who planted it tends it with proper care. Genuine buildings always look, as if they are rooted in the landscape.“ (Aris Konstantinidis / Elements of Self-Knowledge. Towards a Real Architecture. 1975). This quotation underlines the importance of analysing the surrounding of an area to achieve a sustainable contextual design in architecture. The four main parameters for the analysing approach are the topos, the climate, the culture and the type. The topos can be subdivided into topography, morphology, water networks, geology, resources, vegetation, the flora and fauna. By analysing the climate, topics like climate zones, microclimate, solar radiation, temperature, rainfall, wind systems and ocean currents can be studied. As a third part the culture of a region or city plays an important role in the contextual design process. Road networks, pathways, boundaries, agricultural patterns, settlement structure, administrative and political boundaries, history, ethnicity, language, religion, traditions give us an impression of the main (human made) influences on the area. The last important analysis of a design area, the type, should give an understanding of vernacular traditions, the relation to the context, landscape and settlement, building typologies, orientation, zoning, services, circulation, construction methods, building materials, architectural elements and details.



fig.14 Madinat Al Zahra Museum Cordoba, Spain

source: lecture of Sepideh Zarrin Ghalam - Typological studies



fig.15 BF House Borriol, Castellón de la Plana, Spain

source: lecture of Sepideh Zarrin Ghalam - Typological studies



fig.15 the edge house Paros, Greece

source: lecture of Barbara Witt - Contextual

lecture 7 · presentation of the master program Urban Design – Revitalization of Historic City Districts

Dipl.-Ing. Christoph Wessling, BTU Cottbus - Senftenberg

The focus of the study program is revitalization of historic city districts with an integrated and applied approach on urban design. The interdisciplinary goals of sustainability is a basic aspects of all modules. Social and economic structures and networks and environmental aspects are integrated in the scientific and design orientated program. The intensive practical experience and applied approaches will be a crucial part in the study program. Internationally working development institutions will be integrated as permanent partners, to complement academic investigation with further practical experience. The structure of the curriculum builds on the strength of each university. The Master Program encourages studies abroad, with the goal of double degrees. Linked to the Master Program an exchange of faculty members will be strengthened. An Advisory Board is founded to advise the partner universities for the program, to control monitoring and evaluation of the program and to support the partner universities to strengthen the cooperation with further scientific and professionally practising institutions.



Cairo University, Egypt | Alexandria University, Egypt | Brandenburg University of Technology Cottbus, Germany



MASTER PROGRAM URBAN DESIGN

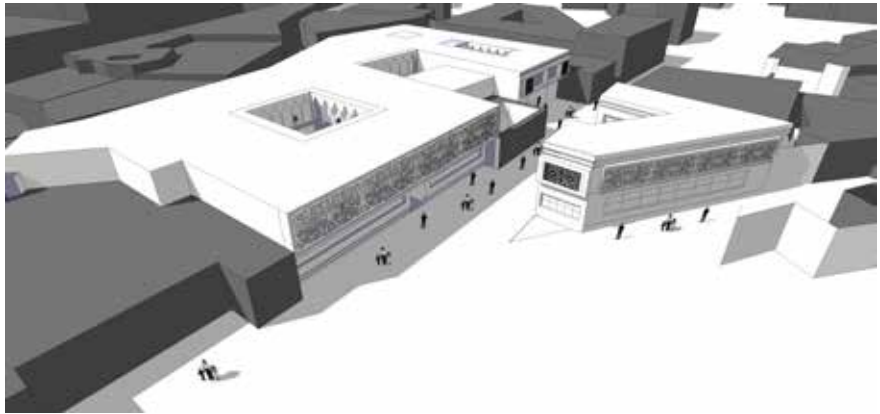
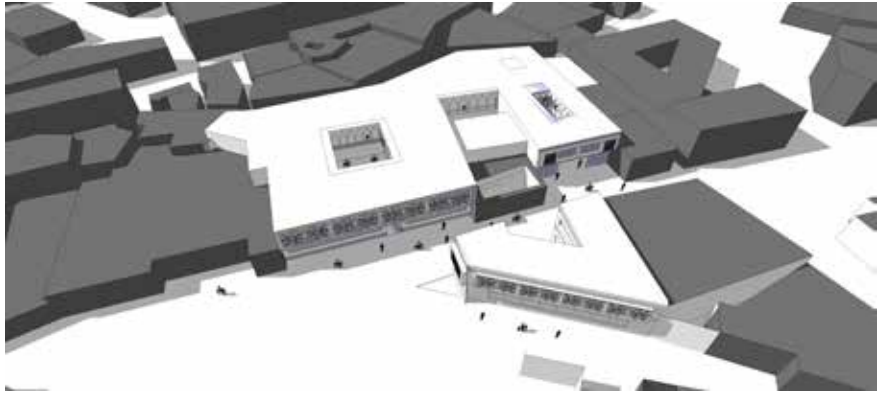
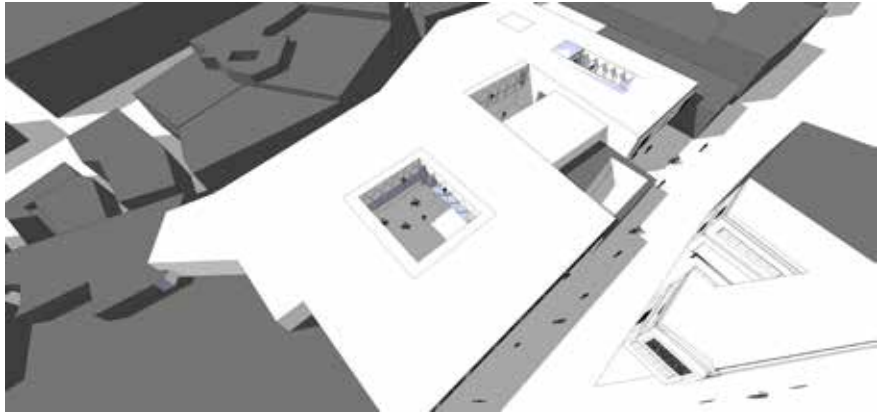
Revitalization of
Historic City Districts

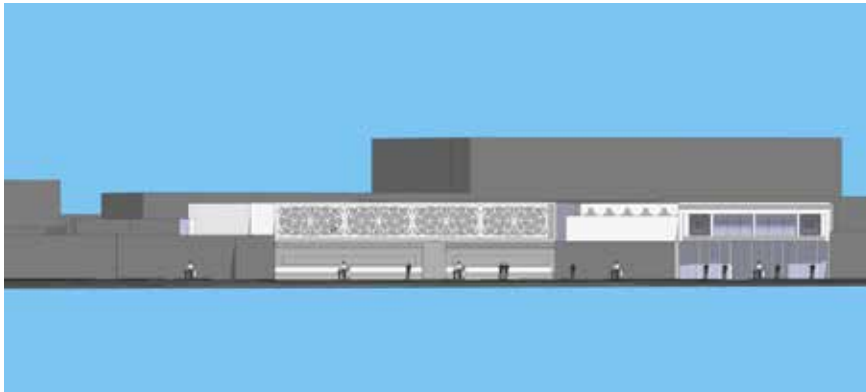
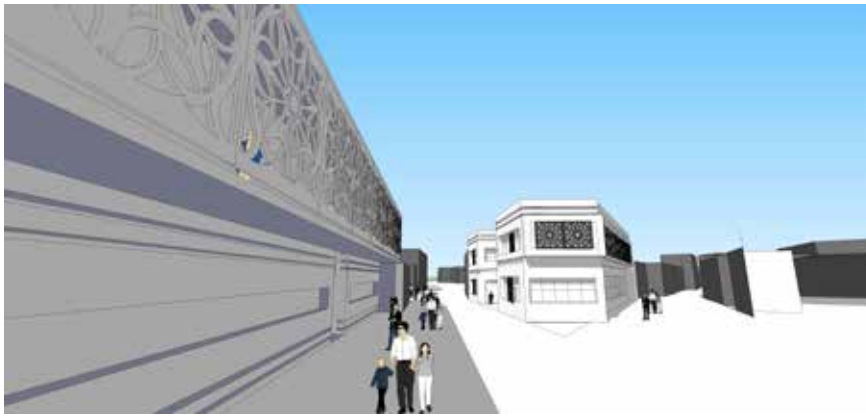
Program Overview



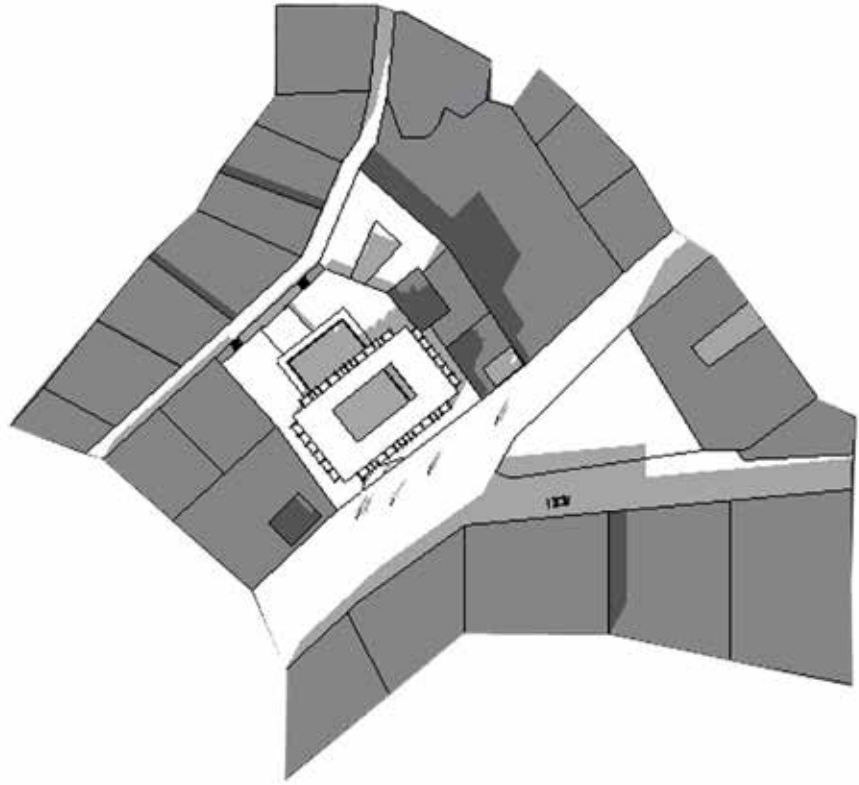
DAAD

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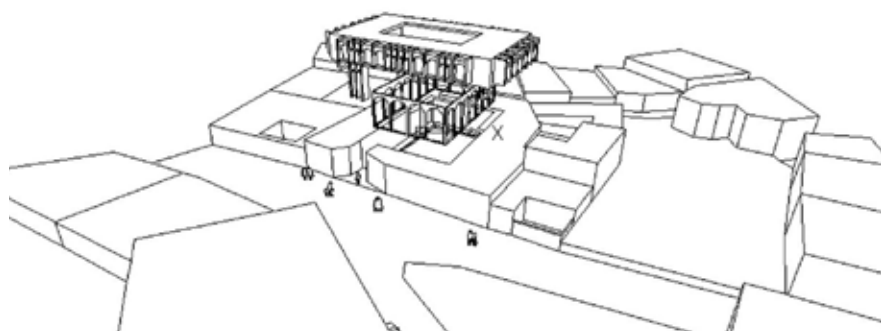
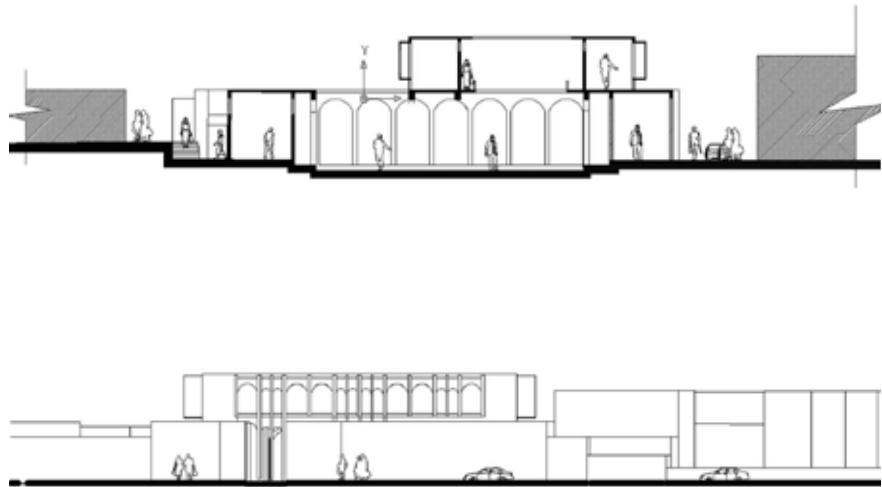


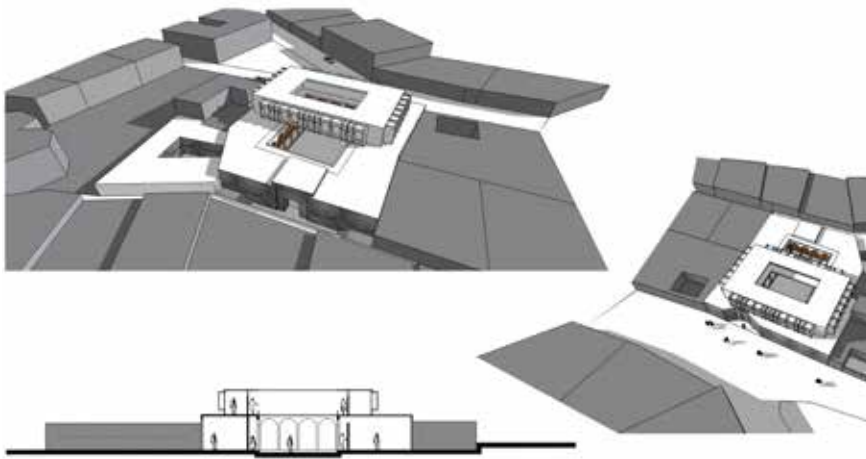


siteplan

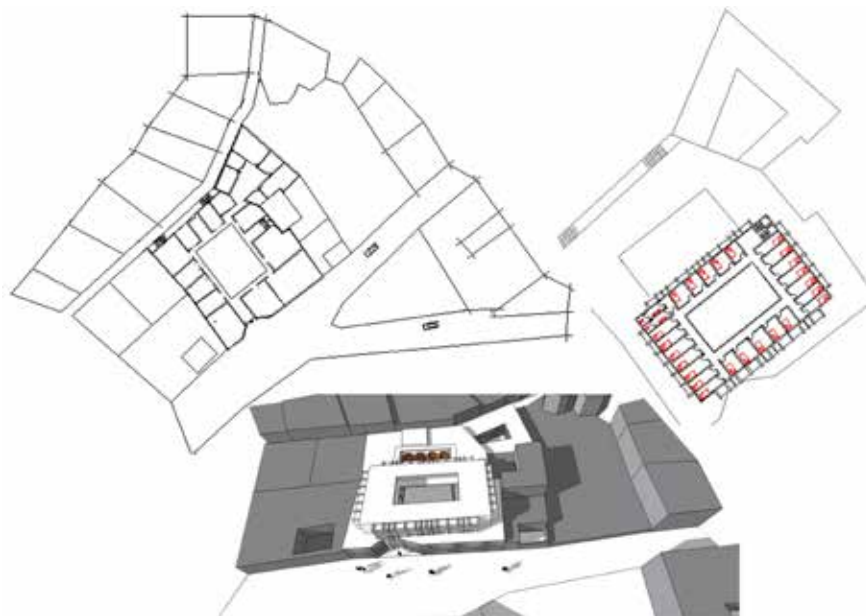


section





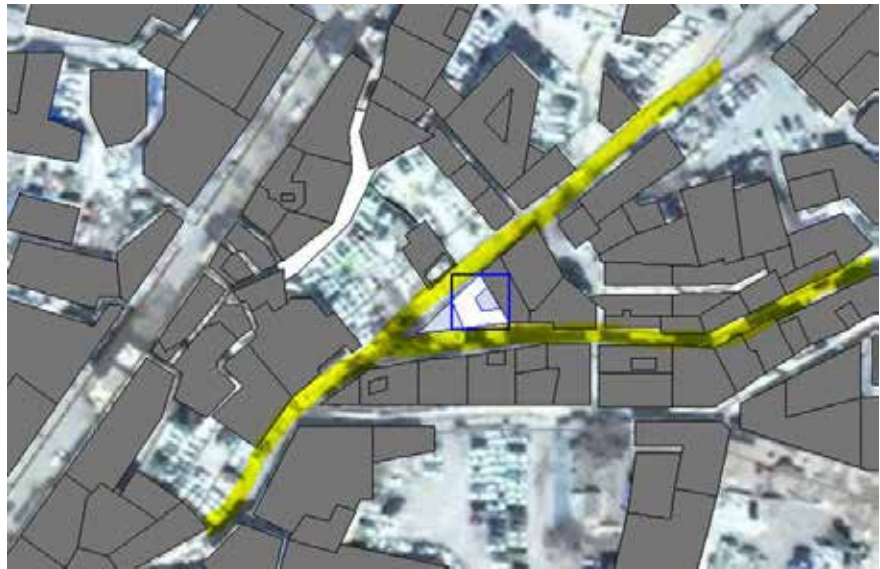
floor plan



perspectives



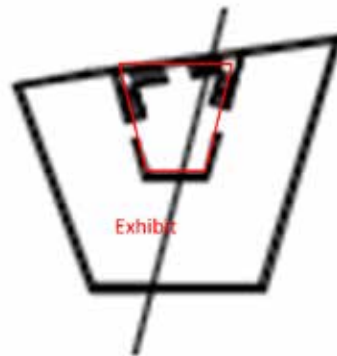
road access



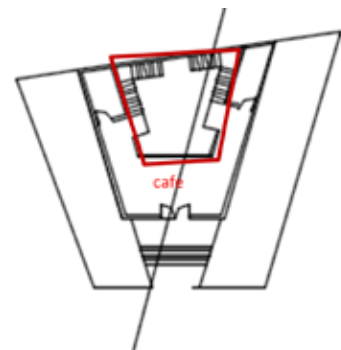
flipping tradition



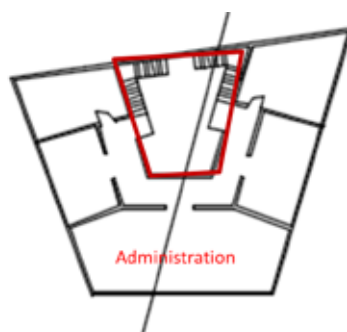
floor plans



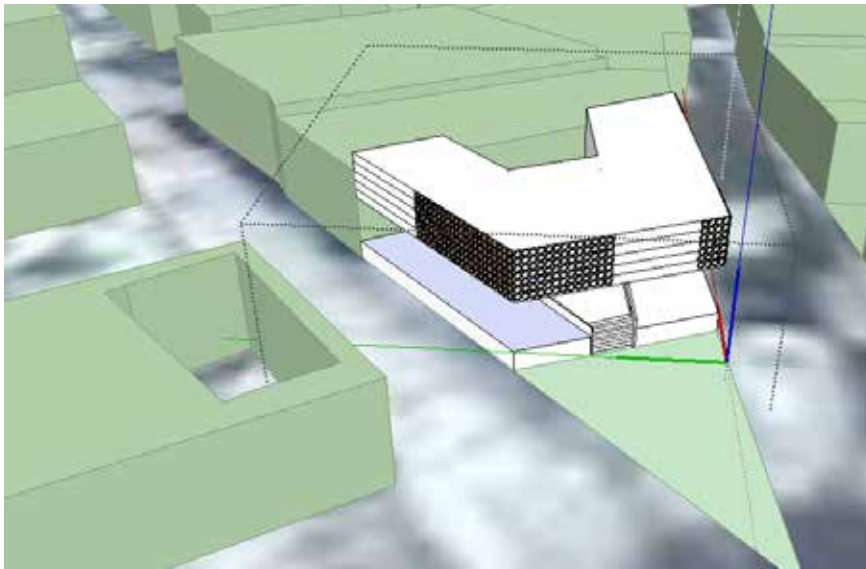
basement



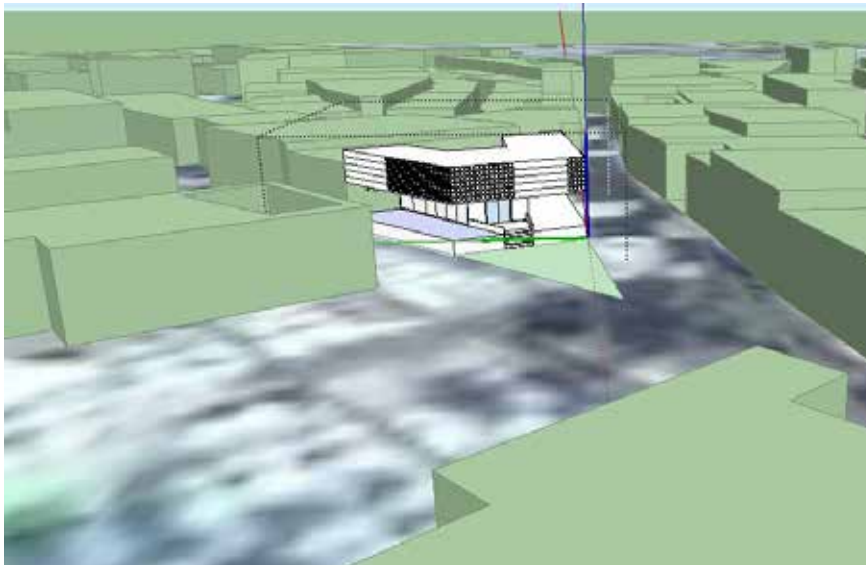
ground floor



first floor



height aspect

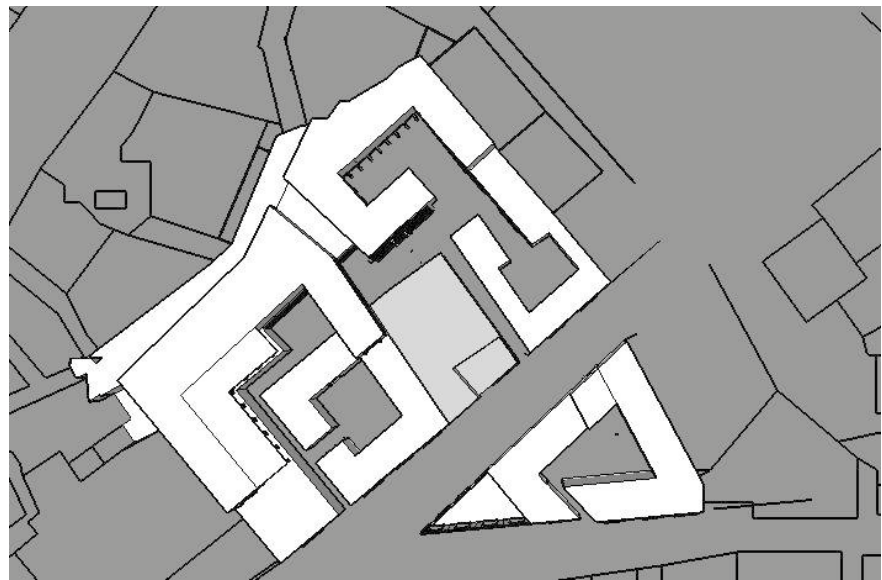


perspective



section

site plan

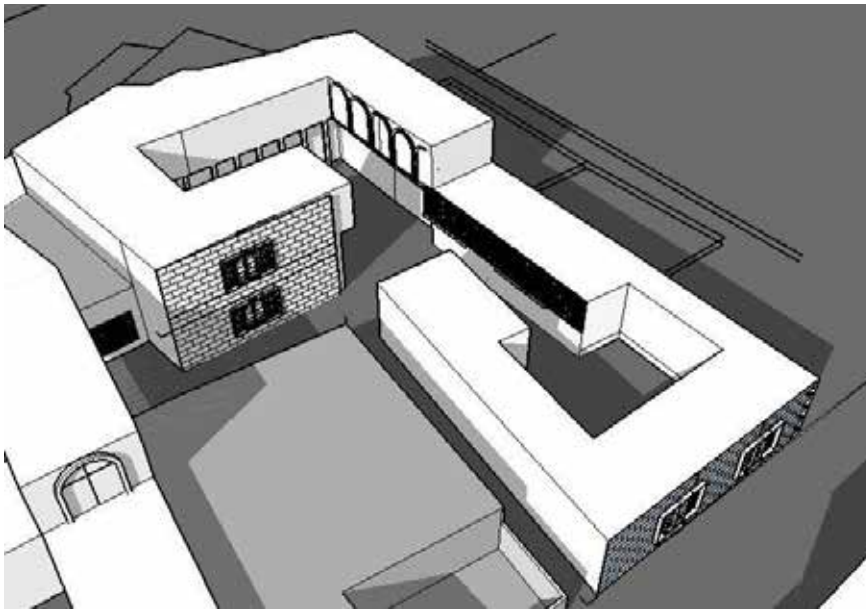


courtyards and pathways

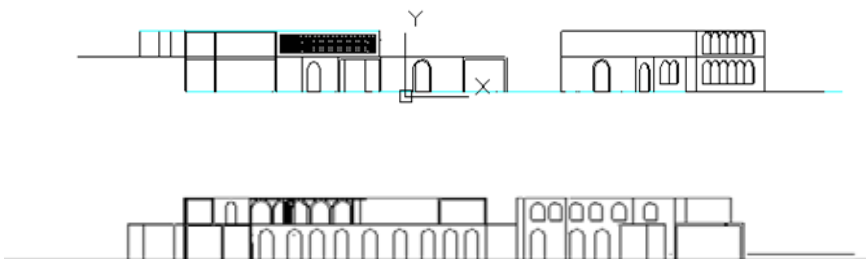


typology

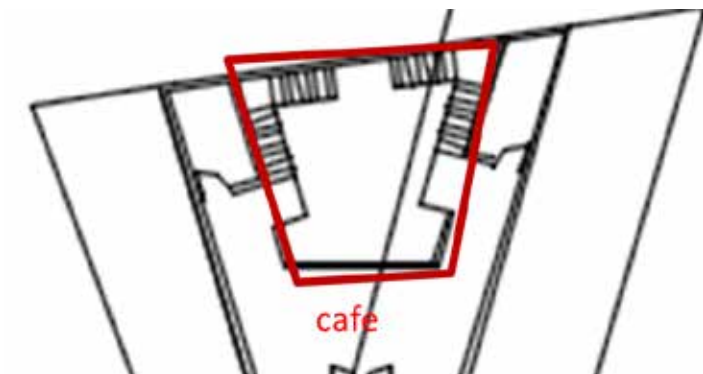




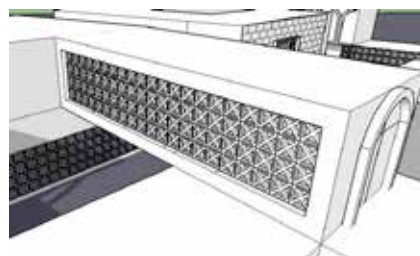
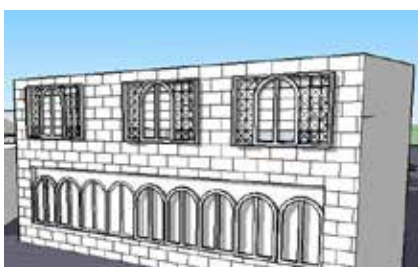
elevation



ground floor



detail





impressions



German - Middle East Cooperation in Urban Design and Architecture in Historic City Districts

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