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**COURTYARD IN TRADITIONAL HOUSES** IN PALESTINE

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PALESTINE

Pregledni znanstveni članak https://doi.org/10.31522/p.27.1(57).7 UDK 728.01:721.011.72 (569.4)

## TABLE I ARCHITECTURAL TYPOLOGY OF A COURTYARD HOUSE

Tabl. I. Arhitektonska tipologija kuće s dvorištem

House with an internal yard with rooms oriented towards internal yard	House with an internal yard with rooms oriented outwards as well as towards internal yard	House with staircases located in the yard	House with a front yard	House with a back yard	House with an internal and a front yard	House with a lateral yard
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## TABLE II EXAMPLES OF DIFFERENT TYPES OF COURTYARD HOUSES IN PALESTINE

TABL. II. PRIMJERI RAZLIČITIH TIPOVA KUĆA S DVORIŠTEM U PALESTINI

House with an internal yard with rooms oriented towards internal yard	House with an internal yard with rooms oriented outwards as well as towards internal yard	House with staircases located in the yard	House with a front yard	House with a back yard	House with an internal and a front yard	House with a lateral yard
1 Main entrance 2 Entrance hall 3 Courtyard 4 Living room 5 Stable 6 Olive oil storage room 7 <i>Iwan</i> 8 Storage room 9 Jail 10 Security	1 Entrance 2 Guest room 3 Library 4 Bedroom 5 Kitchen 6 <i>Liwan</i> 7 Bath 8 WC 9 Open courtyard 10 Main entrance	1 Open court 2 Fountain 3 Living room 4 Bedroom 5 Main hall 6 Kitchen 7 Bath 8 WC	1 Courtyard 2 Multipurpose room 3 Storage room 4 Kitchen 5 WC	1 Terace 2 Radio room 3 Corridor 4 Bedroom 5 Guest salon 6 Kitchen 7 Bath 8 Rakseh 9 Back yard 10 WC 11 Veranda	1 Internal yard 2 Front yard 3 Room with a gallery 4 Living room	1 Courtyard 2 Living room 3 Kitchen 4 Storage 5 Economy entrance 6 Toilet
					RUGN	
Al-Qasem House, ground floor in Beit Wazan [Amiry, 2003: 121 /Arabic/, Draw: Firas Rahhal]	SHAWWA HOUSE, GROUND FLOOR IN GAZA [KHASWANEH, 2001: 48, Draw: Firas Rahhal]	Agha Tuqan house in Nablus [Khaswaneh, 2001: 116, Draw: Firas Rahhal]	House in Jaba'a [Bshara, 2011: 155]	HUSSEINI HOUSE, FIRST FLOOR IN JERUSALEM [KHASWANEH, 2001: 100, Draw: Firas Rahhal]	Plan of the ground floor of house Abu Ali in Awarta [Mofleh, 2009: 227 /Arabic/]	House in Ramallah [Bshara, 2011: 129]
COURTYARD IN AL-QASEM HOUSE [Photo: Mia Gröndahl]	COURTYARD IN SHAWWA HOUSE [Photo: Mia Gröndahl]	COURTYARD IN AGHA TUQAN HOUSE [Photo: Mia Gröndahl]	House with a front yard [Bshara, 2011: 154]	HUSSEINI HOUSE [Photo: Mia Gröndahl]	Perspective that depicts of Abu Ali House after rehabili- tation process [Mofleh, 2009: 230 /Arabic/]	A HOUSE WITH A LATERAL YARD [Photo: Mia Gröndahl]

# MUMEN ABUARKUB

ISRA UNIVERSITY FACULTY OF ARCHITECTURE Amman, JORDAN mumen.abuarkub@iu.edu.jo

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# COURTYARD IN TRADITIONAL HOUSES IN PALESTINE

# Dvorište u tradicijskim kućama Palestine

COURTYARD HOUSING TYPOLOGY PALESTINE REHABILITATION PROCESS TRADITIONAL ARCHITECTURE

The courtyard, an architectural composition in traditional architecture, has been continuously applied throughout history. It has been able to provide important, practical and logical organization of space for protection and intimacy of life. From a foreign and domestic perspective, the traditional Palestinian courtyard house is a significant housing typology that should undergo further research in order to allow for change during rehabilitation process. dvorište stambena tipologija Palestina proces obnove tradicijska arhitektura

Dvorište kao arhitektonska kompozicija u tradicijskoj arhitekturi trajno je prisutno u povijesti graditeljstva. Svojom praktičnom i logičnom organizacijom prostora, dvorište je oduvijek omogućavalo zaštitu i privatnost. Kako iz lokalne tako i iz strane perspektive, tradicijska palestinska kuća s dvorištem predstavlja važan tip stambene arhitekture pa bi ga stoga trebalo pomnije istražiti kako bi se omogućile promjene tijekom procesa obnove.

## INTRODUCTION

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he courtyard or any internal yard, as an element of architectural composition, has been applied continuously for thousands of years because of the factors that have always been crucial in the construction of living space: the need for protection of any kind. Its concept provides significant, functional and logical organization of space providing protection and intimacy of life. With the invasion of the individuality of living nowadays, the courtyard-house (individually or as a module in a collective structure) can contribute in the preservation of it. As a result, the house with a courtyard has a more frequent application in the traditional as well as in the contemporary architectural realizations. The courtyard is a common spatial component in the composition of any kind of architectural structure, whether it is a residential building or a public building, both today and throughout the history of architecture.

The traditional house in the old parts of Palestinian cities is the house with a courtyard, a typical traditional city house in the Middle East region. Its size and the basic plan depend on the owner's wealth. Its peculiarity is that the entire living area is closed with walls and is completely separated from the outside space. Rooms are built around the courtyard walls. The ground floor rooms can be entered directly from the courtyard. Windows and doors are turned towards the yard and serve for ventilation and lighting up of internal rooms. The kitchen, bathroom and ancillary rooms may be entered through common doors at the angles. The staircases lead to upper floors. A common characteristic for all the rooms in the house, except for the kitchen and the bathroom, is their multifunctionality i.e. they are intended for a sleeping and a living area at the same time.

The traditional house with courtyard was the most popular type of housing until the beginning of the twentieth century. Most of these structures are multistory houses. Upper floors have their open courtyard created by the terrace with a view at the main courtyard, which is located at the ground floor or the first floor. When several families used the floor, then walls were built along the edges of the upper floors in order to prevent the view toward the lower floors. As a rule, a large family, which consists of several separate families lives in the traditional house. Some house parts might be arranged and used independently from each other. Every family is in a great deal independent, but not guite, and often a house is divided in more vertical units.

## THE COURTYARD AS A BASIC ELEMENT IN THE PALESTINIAN TRADITIONAL HOUSE

DVORIŠTE KAO OSNOVNI ELEMENT PALESTINSKE TRADICIJSKE KUĆE

The yard is a frequent spatial element in the composition plan in all types of architectural objects, whether it be residential buildings or public buildings - today and throughout the construction history.<sup>1</sup> Alterations in the Palestinian architecture and the courtyard house are mainly due to the social and economic transformations that began in the late 19<sup>th</sup> century. These transformations were the result of many factors that contributed to the marginalization of agriculture, the fragmentation of the extended family property, and the trend towards the formation of the nuclear family. These alterations were evident in the buildings and construction. Canaan stated that the building techniques of houses in Palestine are rapidly changing, and modern materials such as iron, concrete, tiles and cement floors, which have become increasingly common, are used everywhere in villages and cities.<sup>2</sup> It is important to note the role played by the British occupation of Palestine in accelerating the modernization of the building systems in Palestine, in addition to the role it played in changing the economic structure of the Palestinian society and its transformation from an agriculture-based society within the

- **3** Al-Jubeh, Bshara, 2002: 30-43
- **4** GANGLER, 1993: 77
- 5 BAKALČEV, 1991: 44
- **6** GANGLER, 1993: 78

<sup>1</sup> Brzovski, 2005: 110

<sup>2</sup> HIRSCHFLED, 1995: 109-111

extended family mainly to a society based on the emerging jobs in the government of the British occupation and financial transformations of expatriates of Palestine.<sup>3</sup>

The main symbol of the traditional residential architecture in Palestine is the courtyard house. An architectural type has been accepted in the desert zones in the countries of the Middle East and is perfectly suited to climate conditions.<sup>4</sup> However, the social conditions were decisive for the advantages of courtyard houses as well. The enclosure provides a private sphere, and thus protection of the family. The independence of the building obtained through its introversion enabled the collection of houses in a narrow structure that originated from the pre Asian nations.

The boundaries determine the contours of the blocks, while the texture of the block indicates its character, the relation of the constituent basic relations house-yard. Globally, it is read in terms of parcellation and built-up units.<sup>5</sup>

In all types of houses from Morocco to India, the principle is that the entrances to the premises pass through the yard as well as the separation of the reception and presentation rooms.<sup>6</sup> The regional characteristics are the result of different local traditions, economic and political relations, climatic conditions, as well as the used local building materials and construction techniques.

The most significant element in the house is the courtyard, the focal point to which all the rooms lead. The courtyard is the basic element of the house. All residential premises are organized and oriented directly to the yard. The arrivals and departures are always directed towards and from the courtyard. The rooms enclose all or most sides of the courtvard, while the other exterior sides are enclosed with high walls. The space around the yard belongs to a single family or to several families, usually family-related families. If families are not related then everyone has their own yard.7 The windows on the ground floor usually face the courtyard, while the windows on the upper floor face toward the street. In the middle of the courtyard there may be a fountain with a pool, often surrounded by trees or flowers.8

The houses with courtyards in Palestine until the beginning of this century were surrounded by cultivated orchards, rich vegetation and water sources. Residents used these natural resources for picnics, parties and recreation. The new suburbs were landscaped

11 ROGERS, 1862: 270-271

with lines of trees along the new streets and almost every house had its own private courtyard. As a result, residents of the ancient cities of Palestine created gardens within their neighborhood. Private gardens inside the city could usually be found in private large houses and palaces. Often, they were located inside the houses, providing their owners complete freedom and full privacy. In other cases, the houses were enclosed with high walls. These gardens were irrigated by local sources. The water was brought with pipes from open pools near the main summer areas used for parties and recreation of residents and their guests.<sup>9</sup>

The great Egypt architect Hassan Fathy explains the connection between the man and the yard in a special way: "One of the basic reasons why Arabs live in city urban environment in house with courtyard is their care to be connected with heaven that is establishing of direct connection with god as he had learned to live in desert. In that way, he had connected heaven with earth, symbolizing four posts on yard angles, which carry heaven up wards."<sup>10</sup>

Many of middle class houses and almost all rich houses and mansions have private gardens. Mary Eliza Rogers, which was in British diplomatic service at that time, is the book author *Domestic Life in Palestine*.<sup>11</sup>

The lifestyle of the Palestinian, his social life and culture have an important role in the dynamics of architectural expression and designing of his own home in which the courtyard has an important role. Courtyard connection with other rooms confirms that this style comes from inside towards outside, and not vice versa. Because of that the largest internal exterior in the courtyard may be seen, with the use of various motifs, colour selection, manual processing of doors and window frames which give complete uniform picture of absolute art. He indicated that the Palestinian in his culture and spirit has always turned his attention towards the core, which is the essence.

The courtyard was a semi-private family compound, and was sometimes defined by a large, arched doorway leading from the alley. The organization of this open space, and the activities which took place there, reveal the significanance of the courtyard in the dynamics of Palestinian family life and the management of daily activities.

In the courtyard, women carried out their daily work and mixed with female relatives or neighbours without inhibition or restriction. It was also an ideal playground for the children. During summer nights, the courtyard became a meeting place for family members as they discussed affairs of the hamuleh or their work.<sup>12</sup>

<sup>7</sup> CANAAN, 1933: 40-41

<sup>8</sup> DALMAN, 1964: 171

<sup>9</sup> ABUARKUB, 2000: 52

**<sup>10</sup>** MUSTAFA, 1984: 50

**<sup>12</sup>** AMIRY, TAMARI, 2003: 17

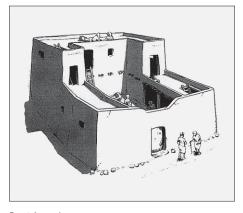
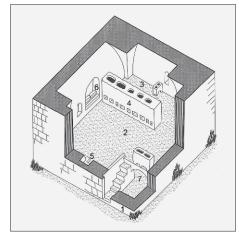


Fig. 1 Artist's impression of a two-storey house with central courtyard Sl. 1. Umjetnikov dojam o dvokatnici sa centralnim

DVORIŠTEM

Fig. 2 Axonometric view of the biggest room, in Abu Helweh House

- 1 MAIN ENTRANCE
- 2 FAMILY LIVING SPACE [MASTABE]
- 3 Food storage area [Rawiye]
- 4 MUD-BINS FOR FOOD STORAGE AND DIVIDING ROOM
- [Khawabi] 5 Fireplace [Mawqid]
- 6 BEDDING NICHE [QUS]
- 7 LOWER PART OF THE HOUSE [QA AL-BAIT],
- FOR LIVESTOCK AND AGRICULTURAL EQUIPMENT
- SL. 2. AKSONOMETRIJSKI PRIKAZ NAJVEĆE PROSTORIJE U KUĆI ABU HELWEH
- 1 Glavni ulaz
- 2 Prostor dnevnog boravka [Mastabe]
- 3 PROSTOR ZA SPREMANJE HRANE [RAWIYE]
- 4 Spremnici za hranu koji pregrađuju prostoriju [*Khawabi*]
- 5 Ognjište [Mawqid]
- 6 NIŠA S LEŽAIEM [OUS]
- 7 Donji dio kuće [Qa Al-Bait],
- ZA STOKU I POLJOPRIVREDNI ALAT



If in a house, the rooms were closed for a construction of a courtyard and the house was close to other houses, then on the public open spaces squares of different sizes were constructed depending on the density of buildings. Such rooms were not previously designed. They got various geometric forms jointly connected with narrow passages and passages for many uses (religious, family etc).

The Atrium or the courtyard is a common element of the spatial composition of different types of buildings; no matter of their function: family houses or public buildings. This refers to both households and public buildings in the past as well as today.

In the mid-XIX century, Professor Petermann, former Consul in Jerusalem, who travelled to Syria and other parts of Mesopotamia and Persia, describes a part of Palestinian houses in the following way: "Lower floors are mostly dark with narrow stone staircases that lead to second and third floor. At the last floor are located day rooms. They are vaulted, with more or less spaces, and narrow entrance. They have the same elevation as in other cities, but above them, a partially opened gallery is located. It is here that the elevation starts as they have a side hole in the middle that serves as a second entrance. Further more in every room, at the lowest place a stone is placed through which water flows; in this way, every house has several stone channels that serve for water drainage. Windows are made of iron lattices, behind which are located thick wooden lattices, and glassed windows or doors are rarely met. Besides that, internal wall of houses has more circular courses with peripheral brick at the upper part."13

A Norwegian theologian, Professor Halvor Moxnes, expert in New Testament and Early Christianity, with special interest to social anthropology, in one of his work gives us a family dimension of the role of the yard in Palestinian traditional houses: "The second type was the courtyard house, which consisted of several houses with a common courtyard. This was the most characteristic type of domestic architecture in Palestine. The complex was surrounded by an external wall with a single entrance that gave access to the courtyard. Around it were the family houses with two or more rooms each. In the common courtyard the domestic tasks were performed

– grinding the grain, cooking, spinning, washing – as well as some of the agrarian and occupational tasks. Courtyard houses from the Herodian period have been found in Dor, Bethsaida and in Capernaum. Those found in Dor were built in the Persian period, but were in use during the Herodian period. The building identified at zone B in Bethsaida was probably owned by a well-to-do family of fishermen. In the insula sacra of Capernaum, as well as in the rest of the insulae, the houses are of this type, with an average of four dwelling per complex and has been studied in more detail than insula III and insula IV."<sup>14</sup>

The elemental functions of closed households with private courtyards in Palestine are as follows:

- To regulate the microclimate in the home, the workplace, or the wider urban settlement. In climatic conditions with strong sunshine, the function of the inner courtyard will primarily be shading and refreshing the space activated by the water or green surfaces. In the climatic conditions in Palestine, the inner courtyard is normally exposed to the action of the sun rays otherwise it will lose the biological-hygienic role.

– To contribute to the creation of an intimate atmosphere in the home. The inner courtyard in this case serves as a substitute for the lost nature in today's overcrowded urban neighborhoods. Open, integrated with the outer space, the green areas will be active physicalpsychic elements for recreation. In most cases they are a necessity for both work and rest.

- To enrich and humanize the wider city space for living and leisure.

- Increase the sense of wealth of the interior in buildings in which the emphasized note of representativeness is not a disadvantage.

 Be a physical barrier against external noise, fire or other physical protection against enemy danger. In the end, they remain to serve as a barrier to preventing curious views from the outside.

#### **COURTYARD IN VILLAGE HOME**

#### **DVORIŠTE U SEOSKOJ KUĆI**

The Palestinian village consisted of groups of clustered buildings that were divided into residential neighborhoods, separated by open roads and closed roads that ended with a cluster of houses joined around a shared courtyard. The courtyard is usually made up of a semi-private main square, with some common facilities, as well as small courtvards prevailing the houses or the residential units with separate small families or independent families. The family usually lives in a single room with a door open to the yard or courtyard. The size of the house depends mainly on the livelihood and wealth of the owner, and is also associated with the construction style. The houses are clustered

**15** Amiry, Tamari, 2003: 26

17 AMIRY, TAMARI, 2003: 17

**<sup>13</sup>** Petermann, 1865

**<sup>14</sup>** Moxnes, 1997: 52

**<sup>16</sup>** Awad, 1996: 90

around the yards in various ways also in a compact and convergent manner, without any internal connection between these houses because each of them inhabits a single independent family.

The house and the yard were a single residential, social and economic unit, in which these units were closed to themselves because of customs, social traditions and security conditions. The yards differ from one another based on the yard's capacity, the nature of the houses composed of yards, the fences, the doors, and the annexed facilities. According to researcher Omar Hamdan, the yards are classified according to the social situation into three types: simple yards, complex yards and compound yards.<sup>15</sup>

As villages became the predominant pattern of life, the basic floor plan of a modest house changed. Now it had a central courtyard with a number of rooms, which were open to the courtyard. These rooms were small by our standards, with a minimum of windows. Latticework and shutters were used to cover window openings.<sup>16</sup>

Usually, the houses were single-room, with one vaulted entry. In the older houses, there were no other openings, except vents. Later on, the houses had relatively large windows, often in pairs. The walls were massive, sometimes up to one-meter-thick in order to hold the massive stone slab roof. Each row of stones consisted of outer and inner layer of stone blocks, with a plaster or stone rubble in-between.

Members of every big family lived in a group of adjacent houses connected by one or more courtyards. The houses were grouped round the courtyards in defferent ways depending on closeness to the family patriarch, and the family's needs for privacy and seclusion. Sons would move out of the family house after they married and would estabilish separate domestic units adjacent to those of their fathers, often sharing the same courtyard.<sup>17</sup> Theoretically, however, the houses still belonged to the same quarter.

It was common to whitewash part of the front façade, particulary the arched doorway, since white was a symbol of blessing, and gave the appearance of purity and cleanlinees. Other touches of colour were the wooden panels of the door painted blue or green. These auspicious colours suggested prosperity and benediction to the owners. For more blessings, the name of God, the prophet Muham-

21 DALMAN, 1964: 171

mad, or a cross were inscribed on the keystone of the door alongside other simple carved motifs.<sup>18</sup>

The courtvard in the country houses is usually located in front of the house, enclosed by a small low wall. Sometimes more families use a shared yard, often in front of the rooms they have a summer terrace with an awning usually used for sleeping in the summer. Usually the village houses have a rectangular shape with small openings. The internal space of the village house is divided into the house floor, which is intended for domestic animals and a higher level as a living room. which is usually 30-60 cm higher. The flat roof is used for storing and drying corn, grapes, olives and sleeping in the summer. This indicates the way of living in the Palestinian villages.19

The most important difference in the types of houses is the size; the simplest houses have only one living room, bedroom, kitchen and toilet. The large houses have more rooms and one *lwan*, a large hall or audience chamber open on one side to the courtyard as well as a pool for water in the yard. There is often one room on the ground floor equipped as a reception room. The big houses have more yards, one for men, one for women and one yard for servants and private activities. It is normal for more family related members to live in the traditional houses.<sup>20</sup>

Houses of richer families had urban architectural features; for example, nicely decorated stone processing, mostly above doors and cornices. They had been processed by famous skilled craftsmen, hired from big cities. In the households of the rich, there were two or three rooms and *llye* – a large room on the second floor: a symbol of family power and prestige. Such houses had many courtyards. Houses that were more luxurious had a vaulted hall [Riwaa], or central hall [Liwan] with bedrooms on both sides. In the household of the rich, there were also reception rooms or guest rooms. Almost every city house had a toilet.21 The house porch was narrow with curved sections, appropriate for hiding from unwanted views. There was also a space for doormans [Bauwab] stone seat, and sometimes for his bedroom. As a rule, city houses consisted of two or three levels/floors. On the upper floors, the courtyard was replaced with a balcony or a terrace.<sup>22</sup>

The private open space on the ground floor, also known as the courtyard, or the terrace located on the upper floor plays an important role for Palestinian family life with an intense respect for family intimate life.

**Tugan Palace** is located in the core of the old city of Nablus in the Al-Qaryun Square and bounded on the north by Al-Nasr Street and Al-

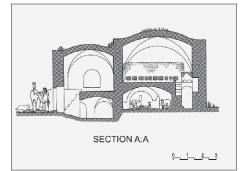
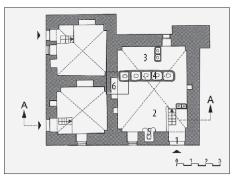


FIG. 3 SECTION PLAN A-A OF THE ABU HELWEH HOUSE SL. 3. PRESJEK A-A ABU HELWEH KUCE

- Fig. 4 Upper part of house plans Abu Helweh in the village Ebwein near city Ramallah
- 1 MAIN ENTRANCE
- 2 FAMILY LIVING SPACE [MASTABE]
- 3 Food storage area [Rawiye]
- 4 Mud-bins for food storage and dividing room [*Khawabi*]
- 5 FIREPLACE [MAWQID]
- 6 Bedding niche [Qus]
- Sl. 4. Tlocrt gornje etaže kuće Abu Helweh
- u selu Ebwein blizu grada Ramallaha
- 1 GLAVNI ULAZ
- 2 Prostor dnevnog boravka [Mastabe]
- 3 PROSTOR ZA SPREMANJE HRANE [RAWIYE]
- 4 Spremnici za hranu koji pregrađuju prostoriju [*Khawabi*]
- 5 Ognjište [Mawqid]
- 6 NIŠA S LEŽAJEM [QUS]

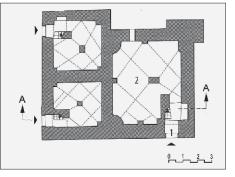


#### Fig. 5 Lower part of house plans Abu Helweh in the village Ebwein near city Ramallah 1 Main entrance

#### 2 FAMILY LIVING SPACE [MASTABE]

Sl. 5. Tlocrt donje etaže kuće Abu Helweh u selu Ebwein blizu grada Ramallaha

- 1 Glavni ulaz
- 2 Prostor dnevnog boravka [Mastabe]



**<sup>18</sup>** HAMDAN, 1996: 229-233

<sup>19</sup> DALMAN, 1964: 57-60

<sup>20</sup> SCHOLCH, 1982: 48

<sup>22</sup> CANAAN, 1933: 44

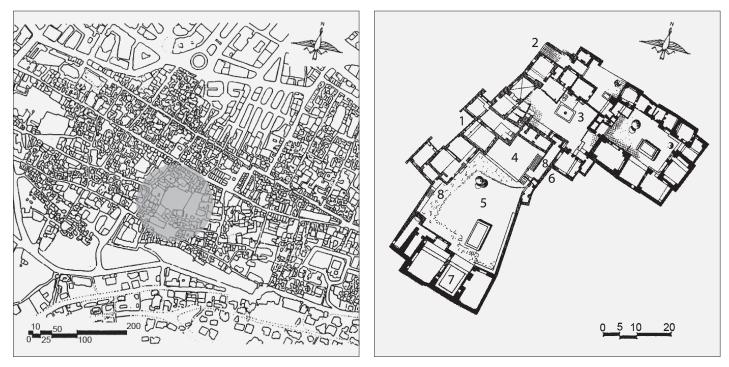


FIG. 6 POSITION OF THE TUQAN MANSION IN THE OLD CITY OF NABLUS SL. 6. POZICIJA VILE TUQAN U STAROM DIJELU GRADA NABLUSA

Fig. 7 Tuqan Mansion in the old city of Nablus

- 1 Main entrance
- **2** Northern entrance
- 3 Central courtyard
- 4 ENTRANCE COURTYARD
- 5 Central Garden
- 6 GARDEN OUTSIDE
- 7 *IWAN* HALL WITH THREE WALLS ONLY AND THE FOURTH IS COMPLETELY OPEN TO THE OPEN AIR
- 8 INTERNAL STAIRS

Sl. 7. Vila Tuqan u starom dijelu grada Nablusa 1 Glavni ulaz

- 2 SIEVERNI III AZ
- 3 CENTRALNO DVORIŠTE
- 4 ULAZNO DVORIŠTE
- 5 Centralni vrt
- 6 VANJSKI VRT
- 7 *IWAN* PREDVORJE SA SAMO TRI ZIDA; ČETVRTI JE POTPUNO OTVOREN
- 8 UNUTRAŠNJE STEPENICE

Bevk mosque and from the south by Abd Al-Hadi Palace. Tugan Palace is a historical palace located in the old city of Nablus that reflects the political and economic realities of the inhabitants of these houses. This palace is owned by the Tugan family, one of prestigious families of the city, a feudal family present in the city since in the late 18-century AD whose ancestor was the mayor of Nablus. Ebrahim basha Tugan. The palace includes five courtvards, each courtvard with rooms distributed around it. Each courtyard is for different home guests, as for guards, for the foreign guests and for the family itself. The palace has two entrances to courtyards. Its bigger garden is the most extended in the old city, it has two entrances from al Qaryun square. The palace was designed as a castle with a high wall to protect the family from the enemies (Figs. 6-7).

The palace consists of three floor plans, the first level contains the main courtyard and the main entrance rooms are distributed around the courtyard guards' rooms and horses stables for summer and winter season. It is possible to reach the second level through the courtyard (first floor) by stairs, to get to the guest space, a little courtyard for butler and workers, and finally the area of the ruling family. On each side, there is a separate entrance. Unfortunately, the Tugan palace suffered severe damage during the long period of war. The bombing raids in April 2002, led to the collapse of the structures of the upper wing and destruction of much of the entire building and surrounding houses. Only a part of the building is still used as a

nursery, whereas a large part of the structure is in total decay and neglect.<sup>23</sup>

## ARCHITECTURAL TYPOLOGY OF TRADITIONAL PALESTINIAN HOUSES WITH A COURTYARD

ARHITEKTONSKA TIPOLOGIJA TRADICIJSKIH PALESTINSKIH KUĆA S DVORIŠTEM

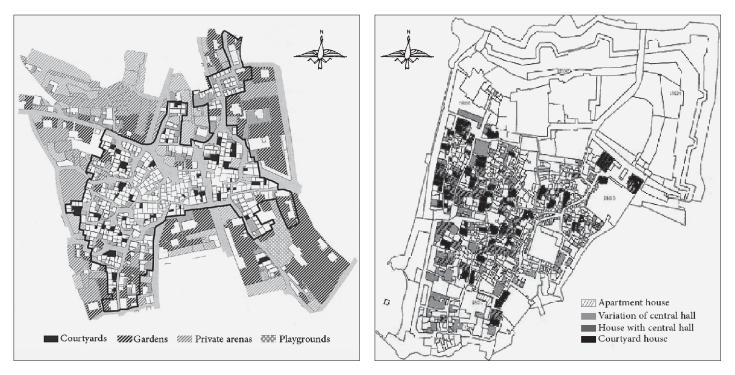
Almost all types of residential courtyard houses can be found in the traditional courtyard house in Palestine. The basic typology of the house is made according to the presence of open spaces, the disposition of the yard, and the reason for this is the special meaning of the open space for housing in Palestine.<sup>24</sup> The private open space on the ground floor, i.e. the courtvard or the terrace on the floor play a great role in the lives of Palestinian families, with a great respect for the family intimate sphere. Houses like palaces, castles with large courtyards in rural areas of Palestine have a distinct urban architectural style in terms of the size of the inner courtyards, design, function, volume and details, they are similar to the houses of wealthy merchants in the cities.25

The investigated houses with courtyards in Palestine have been researched by various

<sup>23</sup> CASTRONOVO, TRAPANI, PEREZ, 2012: 11-12

**<sup>24</sup>** ABUARKUB, 2000: 50

**<sup>25</sup>** AMIRY, 2003: 39



researchers, scientific institutions, research centers, specialists and experts. The houses are typologically divided into seven different groups (Table I). Table II presents different samples of courtyard houses in different places in Palestine, typologically divided by the disposition and the number of the yard.

Houses of the poor in the city significaly differ from those in rural settlements. The city houses of the poor have a joint courtyard, used by the whole family.

## CONCEPTS AND PROPOSALS FOR IMPROVING THE USE OF COURTYARD HOUSES IN PALESTINE

KONCEPTI I PRIJEDLOZI ZA POBOLJŠANJE ISKORISTIVOSTI PALESTINSKIH KUĆA S DVORIŠTEM

Based on the presented seven types of houses with interior courtyards, as well as the functional defects from a professional point of view, there are improvement measures of the usability of courtyard houses. Improvements apply to infrastructure (water, drain, utilities, energy, traffic) and immediate surroundings (social organization and shaping of public space). These suggestions for improvement apply to all types of courtyard houses in Palestine. Regarding other disadvantages such as diffusion and humidity, they can be assessed directly on site, after detailed inventory of the building and analysis of construction errors. • The basic functional deficiencies of courtyard houses are as follows:

- The kitchen is small and does not suit a family.

There are no guest rooms and bedrooms for children.

 The layout of the kitchen and the bathrooms is bad and they are usually built in the yard.

Sanitary arrangements do not meet modern standards.

- Often the kitchen and bathrooms do not have direct lighting and ventilation.

 If there is a connection between the ground floor and the upper floor with stairs passing through the yard there are usual problems in winter.

- The windows that are facing the yard are closed, which means that there is not enough natural light.

- The yard being private transferred into semi-private and belongs simultaneously to all tenants of the house.

 Large houses are divided into small apartments where the kitchen and bathrooms are additionally built.

• Measures to improve the usability of courtyard houses while retaining the characteristics of traditional architecture:

 Partial coverage of the yard to provide a covered connection between the living rooms, the kitchen and the bathroom.

 The yard can be completely or partially covered, but in order to provide lighting and **FIG. 8 COURTYARDS IN THE OLD CITY OF RAMALLAH** SL. 8. DVORIŠTA U STAROM DIJELU GRADA RAMALLAHA

Fig. 9 Houses with interior courtyards in the old city of Acre

Sl. 9. Kuće s unutrašnjim dvorištima u starom dijelu grada Akre

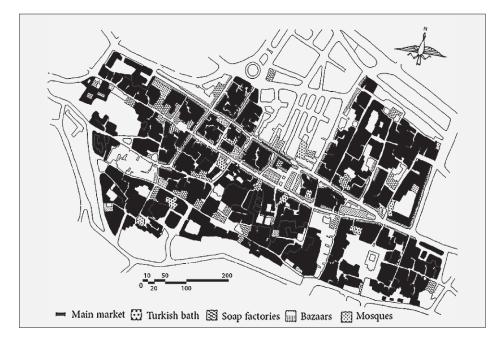


Fig. 10 Courtyards in the old city of Nablus Sl. 10. Dvorišta u starom dijelu grada Nablusa

ventilation, it is necessary to cover the yard walls again.

 In order to get more living space, it is necessary to replace the thick inner non-load bearing walls with light partition walls.

 Vertical extension of the kitchen on the floor provides more living space, if the roof allows that.

- The floor can be connected to external stairs through the yard.

 In houses with dome roof, it is possible that these should be compensated with a flat roof and use the space for vertical extension.

 The problem of views towards the courtyard from the upper floor must be resolved to preserve the privacy of the dwelling on the ground floor.

 The use of the yard must be clear, the entrances to the ground floor and the upper floor must be separated.

 The construction of modern kitchens and bathrooms is essential.

– Large houses could not be used further for living without significant changes on the ground floor, as they are usually very large for one family, and for this reason there is a proposal for their conversion, especially their ground floor.

- The upper floors of partially destroyed houses could be divided into small apartments that suit today's families, while meeting the requirements of modern living.

Suggestions for possible solutions

Maintaining the interior space of courtyard houses is basically not of primary impor-

tance. These houses should be maintained from within. They can be restored or modernized if necessary. The external facade walls should be maintained in order to keep the image of the old city.

The changes in the interior of the courtyard houses in Palestine have been very rare, except some sanitary improvements and necessary repairs. These changes are usually made when the tenant is the owner of the house, or when the rent price is very favorable. The tenant can neither, nor want to undertake such improvements, because the house is not in his possession. Changes have been proposed in the Law on rental lease in Palestine to suit today's conditions. Small houses that are not intended for families can be rented to students.

The problem lies mainly in the large houses with internal courtyards, which formerly belonged to large families. These houses are today very large for small families. They are today either completely or partially empty or decayed. At best, when they are still inhabited, the yard is either divided or enclosed, and thus privacy and quality of life are lost. The interior rooms, which were formerly oriented towards the yard, are now with closed windows, the yard has transferred from private to semi-private space. Large houses with internal courtyards are no longer intended for small families. The following proposals for improving housing in large houses with interior courtyards have been suggested:

- Renovation and conversion. They should be intended for public use.

 Planned reorganization with changes. Reorganization is possible in houses that have the potential for multiple families to live in comfortable apartments with minor changes, without losing their originality.

 New buildings and restoration with maintenance of the external facade walls and street facades. These measures are a proposal only when there are no other possibilities for that house and when most of the house is decayed.

#### CONCLUSION

### ZAKLJUČAK

Nowadays, many people are talking about the necessary interactions of people, but the necessary contact between the living space and nature is neglected. The ideal home should have uninterrupted contact between the apartment and nature. It should be composed of a series of carefully organized spaces each with its own integrity. Each inner space should have an external space that follows. As there is a hierarchical order for the purpose of areas and spaces within a single city, also the use of the space of an apartment requires a hierarchy and division, a transition from the pleasure in the vast natural urban lanscapes to the use of a cultivated outer space.

Apart from the protection factors (physical, psychic, visual), the application of the courtyard house is largely influenced by the previous tradition. If this tradition is the result of real objective factors (climate, available construction material, terraine features, religious-political influence, degree of technical development), when these factors change, the tradition will be extinguished and the architectural concept will disappear.

The courtyard house in Palestine, as an element of an architectural composition, has been used for thousands of years, because those factors that have always been decisive in building a living space have prevailed: a need for protection of all kinds. When the individuality of living today in urban areas is threatened, the courtyard house can contribute to its preservation and protection. Therefore, it is no coincidence that the courtyard house is more commonly used in modern implementations.

The climate of the area contributes to this architectural solution because the courtyard also provides the aeration in hot weather. The courtyard is the place where everyday activities take place, a place that is shared by one or more families, most often by different generations and offers protection to their privacy from the outside view. Many travelers described this space in their writings and research.

Palestinian traditional home with a courtyard is highly estimated from foreign and domestic standpoint of housing typology and it should be subject to further research and analysis of Palestinian and foreign architects. This research is necessary for eventual change in the rehabilitation process, as well as a lesson for the development of new residential areas.

The courtyard houses in Palestine respond to the traditional city house in the Orient. The size and the layout of the premises in the house depend on the social status of the owners. The feature of the house is its enclosure from the outside used as a protection from the outer space. Around the courtyard different rooms are grouped, the yard is directly accessed from the rooms on the ground floor, the doors and the windows that serve for ventilation and lighting are oriented towards the yard. The kitchen, bathroom and additional rooms are accessible through the door and stairs leading to the floor. All rooms except the toilet and kitchen serve simultaneously as bedrooms and living rooms. Multifunctionality is characteristic of this type of houses in Palestine.

In addition to the strategies to be developed for the renovation of courtyard houses, given the historical, natural and socio-economic circumstances, the following proposals for the maintenance and renovation of courtyard houses that need to be implemented throughout the territory of Palestine are listed below:

 The reconstruction plan for courtyard houses should be in accordance with the plan for reconstruction and development of the whole city;

- The strategy as a complete reconstruction or full modernization of courtyard houses should be rejected as unrealistic. Instead, the goal should be to maintain the valuable parts and characteristics of these houses. The architectural structure of these houses belongs to the past, and its inhabitants live in the present. The architectural structure should be maintained snd at the same time the requirements and needs of modern life should be taken into consideration as well;

 Housing should be the basic structure of the old cities in Palestine. The homes need to be provided with the basic sanitary infrastructure, in order to ensure freedom, peace and tranquility, which are necessary for a modern life style;

 An appropriate relationship should be established between the old and the new; new buildings should be in line with city tradition and Palestinian traditional architecture;

 In order to preserve the old city, the attitude and the awareness of the inhabitants and the city administration to the cultural historical heritage is essential;

 Participation in investment maintenance is an integral part of any concept of existing maintenance of courtyard houses, which should be taken into account not only during planning, but in the implementation of the idea as well;

 Improving the current situation, building a social and cultural infrastructure are rights of the residents of the old city and should be among the first priorities of the city administration;

- The city administration should start with a pilot project as a starting point. The renovation and restoration of courtyard houses aims to encourage private owners to return their abandoned houses to function.

[Translated by: ANETA TRPKOVSKA, Certified Court Translator, Skopje, Macedonia]

#### INDEX FOR ORIGINATED ARABIC WORDS

#### INDEKS ARAPSKIH RIJEČI

Bauwab	بواب	Guard or housekeeper
Ilye	علية	The room is
		in the second floor of the house
lwan	ايو ان	Hall with three walls
Iwan	יאָניט	only and the fourth
		is completely open
		to the open air
Khawabi	خوابي	Niches located
		between two central
		columns
Liwan	ليوان	A long, narrow space in front of the hall
Mastabe	مصطبة	Family living space
Mawqid	موقد	Fireplace
Qa Al-Bait	قاعالبيت	Bottom of the house
		stable area
Qus	خص	Bedding niche
Rawiye	راوية	Level above
		for humans
Riwaq	رواق	Vaulted hall

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SCIENTIFIC PAPERS ZNANSTVENI PRILOZI

#### SUMMARY

Sažetak

## Dvorište u tradicijskim kućama Palestine

Dvorište je u tradicijskoj palestinskoj kući jedan od najvažnijih materijalnih dokaza o odnosu pojedinca i društva te stoga predstavlja temeljni oblik palestinskoga kulturnog identiteta. Izbor prostora za stanovanje odražava ćovjekov pogled na život. Usto, kuća u kojoj se živi može imati kako negativan tako i pozitivan utjecaj na psihološko i društveno stanje ćovjeka, a od osobitog je utjecaja na formiranje njegova karaktera u ranim životnim razdobljima. Palestincu kuća pruža okoliš u kojem on ima veću slobodu izražavanja svoga identiteta pa stoga ona postaje zrcalo koje odražava njegovu viziju svijeta te pokazuje njegove vrijednosti i ideje koje oblikuju njegov pristup životu.

Dvorište je čest prostorni element u kompoziciji bilo kojeg tipa zgrade i danas i tijekom povijesti arhitekture. U povijesnim jezgrama palestinskih gradova tradicijska je kuća upravo ona s dvorištem. Veličina i temeljni tlocrt takve kuće ovise o imovinskom stanju njezina vlasnika. Važnost orijentacije i arhitektonskog rješenja dvorišta oslanja se na njegovu glavnu funkciju i stoga je njegova logična organizacija vidljiva u tlocrtu prizemlja. Cijeli prostor dnevnog boravka ograđen je zidovima i potpuno odvojen od vanjskog prostora. Prozori i vrata orijentirani su prema dvorištu i služe za ventilaciju i osvjetljenje unutrašnjih prostorija.

Zajednička karakteristika svih prostorija u kući, osim kuhinje i kupaonice, jest njihova polifunkcionalnost, tj. njihova namjena za spavanje i dnevni boravak u isto vrijeme. Tradicijska kuća s dvorištem bila je vrlo popularna do početka 20. st. Većinom su te građevine višekatnice. Gornji katovi imaju svoja otvorena dvorišta koja su zapravo terase s pogledom na glavno dvorište u prizemlju ili na prvom katu. U prošlosti palestinski su graditelji gradili svoje kuće vodeći raćuna o dominantnim vjetrovima i položajima sunca. Tako je kuća bila u skladu s vremenskim uvjetima i promjenama tijekom ćetiriju godišnjih doba. Tradicijska je kuća zato bila dobro prilagođena vrućoj i polusuhoj klimi tipićnoj za južne regije Palestine, pružajući umjereniju 'klimu', odnosno služeći kao tampon-zona koja je dijelila kuću od vanjskog prostora, osobito za ekstremnih vrućina. Tako su toplinske i sezonske promjene utjecale na promjene unutar dvorišta i kuće koja ga okružuje, stvarajući razlićite navike u kulturi stanovanja.

Arhitektonske studije palestinskih tradicijskih kuća s dvorištem klasificiraju te kuće u nekoliko skupina: kuća s unutrašnjim dvorištem i prostorijama orijentiranim prema van ili prema unutrašnjem dvorištu, kuća sa stubama smještenim u dvorištu, kuća s prednjim dvorištem, kuća sa stražnjim dvorištem i kuća s unutrašnjim i prednjim dvorištem. Iz svih analiziranih primjeca u ovome istraživanju i tijekom povijesti primječuje se da upravo veza dvorišta s ostalim prostorijama potvrđuje da se ovaj arhitektonski tip razvija iznutra prema van, a ne obrnuto. To pokazuje da se Palestinac po prirodi svoje kulture i duha uvijek okreće srži, koja je u temelju svega. Zato palestinski društveni život i kultura utjeću na dinamiku arhitektonskog projektiranja kuća.

Tradicijska palestinska kuća s dvorištem iz domaće i strane perspektive smatra se značajnim stambenim tipom. Stoga bi je i palestinski i strani arhitekti trebali pomnije istražiti. Ova je analiza kljućna za promjene u procesu obnove, a također i referenca za razvoj modernih stambenih područja.

Cilj je ovoga istraživanja približiti vrijednosti kuće s dvorištem u Palestini. Predmet je ovoga istraživanja tipologija kuće s unutrašnjim dvorištem, principi funkcionalne organizacije i prostorna konfiguracija tradicijske kuće.

Da bi se postigli zadani ciljevi u ovoj analizi, koristeni su sljedeci metodološki postupci: dokumentacija i prikupljanje podataka. Važnost je dokumentacije u tome sto ona omogućava drugim istraživaćima da se posluže ovom analizom i podatcima o tradicijskim stambenim zgradama u Palestini. Analitička opisna metoda omogućava detaljnu analizu sadasnje situacije s velikom preciznošću. Stoga je ova analiza utemeljena u analitičkom opisnom pristupu usmjerenome prema različitim stambenim zgradama u Palestini, povijesnoj metodi i pristupu koji ukljućuje uvid u prikupljene podatke iz različitih referentnih izvora kako bi se dobila slika povijesnoga razvoja arhitekture u Palestini.

Tradicijska palestinska kuća pruža uvid u vezu između duše i svemira. Ona je puna i prazna u isto vrijeme, prostor koji sadrži sve, prostor koji povezuje zemlju i nebo, a susreće se s četirima prirodnim elementima. To su: voda, zemlja, zrak i sunce. Svaki od njih ima ovdje svoje mjesto kako bi postao izraz cijeloga svemira. Upravo je zbog toga otvoreno dvorište tradicijske palestinske kuće promjenjive prirode jer svjedoči smjeni četiriju godišnjih doba u kojima kiša pada zimi, lišće pada u jesen, a cvijeće i ruže cvjetaju u proljeće i ljeto. Kozmička atmosfera dvorišta varira prema kretanju sunca i zraka, kontinuirano se izmjenjuju sjenke, osvjetljenje, toplina i hladnoća. Nije stoga čudno sto je dvorište simbol palestinskog čovjeka jer mu ono nadomješta prirodu koje je lišen u gradovima i daje mu prikladan prostor u kojem može ostvariti svoj svakodnevni društveni život.

## BIOGRAPHY

Biografija

**MUMEN ABUARKUB**, Ph.D., was born in 1965 in Dura, Palestine. He received his BSc, Master degree and PhD from Faculty of Architecture "Ss. Cyril and Methodius University" in Skopje and finished postdoctoral studies in Arhitecture and urbanism at the Faculty of Architecture at Zagreb University. He works as a professor at the faculty of Architecture at MIT and FON Universities in Skopje, Union University – Nikola Tesla in Belgrade and Isra University in Amman. Dr.sc. **MUMEN ABUARKUB**, rođen je 1965. u Duri, Palestina. Diplomirao je, magistrirao i doktorirao na Arhitektonskom fakultetu Sveučilišta sv. Ćirila i Metoda u Skopju te završio postdoktorski istraživački studij u području arhitekture i urbanizma na Arhitektonskom fakultetu Sveučilišta u Zagrebu. Radi kao profesor na Arhitektonskom fakultetu Sveučilišta MIT i FON u Skopju, Sveučilišta Unija – Nikola Tesla u Beogradu i Sveučilišta Isra u Ammanu.

