

The Place of Wood in the Design of Oriental Type City Houses in Sarajevo

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Abstract— The aim of this paper is to show, through an overview of the field of application of wood, how wood stands, as a means of materialization, in relation to other factors that determine the oriental-type town house in Sarajevo. We especially want to highlight those places in the spatial structure of the house where wood, as an authentic material of the climate, influenced some materialization solutions, as well as places where specific requirements (primarily those from the spiritual sphere) reached for wood as the most suitable material for the realization of the desired architectural expressions. The paper presents examples of oriental-type townhouses in Sarajevo that have been preserved to this day. In the end, our wish is to bring the essence of this architecture closer to the scope of this work, so that with construction today and tomorrow we can achieve continuity with tradition, that is, those values that are still relevant for us today.

Keywords— Town house of oriental type in Sarajevo, wood.

I. INTRODUCTION

The residential complex never had a leading place in the construction of the Ottoman Empire. The organization of priorities in life, and therefore also in architecture, was determined by religion. Putting under its scrutiny not only the spiritual sphere of human life, but also human practical actions and everyday life, religion also influenced the house as a materialized and shaped space in which man manifested himself as a part of his overall life ^[1].

Individual human lives and destinies here (in the sphere of the Ottoman Empire) are not important, no matter who it was. Collectivity is the basic principle and fundamental principle of life. Hence, buildings intended for collective use (mosques, madrasahs, khans, hammams, bezistans, ...) occupied the first place on the scale of priorities in society. The use of stone, as the basic building material in their materialization, shows an obvious desire for the eternal duration of these buildings. The construction of these buildings is a state concern and is in the hands of the most gifted and capable, educated master builders.

The military, political, cultural (...) power of the state was defined by these objects, styles and entire epochs were determined by them.

On the other hand, the residential house was a purely private matter. In contrast to public buildings that were built according to the established canons of the era and (mostly) without visible local specifics, residential architecture is distinguished by its rich variety and specifics of each individual climate ^[2,3,4]. This, without a doubt, was made possible by its 'free' treatment in society and the fact that it is the work of (officially uneducated) folk craftsmen who transposed the primordial spirit of the climate and the intimate desire (immanent in every creative being) to express themselves in their building. way.

With the fact that a residential house in the oriental-Islamic world was not created with the intention of being a 'representative of history' ^[5,6], its more modest presence in professional literature (compared to public buildings) is

understandable. We encounter it far more often on the canvases and sketches of painters, in the diaries of travel writers [7], in folk literary creativity, than in scientific and professional studies.

If we go beyond the relationship between religion and society-dwelling and the individual (this future angle of viewing architecture is beyond the scope of this paper), the main reason that relatively little was known about the old oriental-Ottoman house is the material from which it was primarily materialized, wood, and fundamentally changed housing culture, from the time of its construction until today. Intended to last 'man's age', residential construction is made of dilapidated materials, adobe and wood (in most of Bosnia). For the level of residential culture of the time in which it was created (15th-19th century), these materials ensured solid physical stability by their place in the spatial structure of the building. By 'moving in' a new culture of housing into these objects (which is fundamentally different from the original oriental-Ottoman one), the object (whose disposition and materialization was not designed according to the new way of 'using' the space) is exposed to new influences (among which the process of parodifusion is particularly pronounced) and physically decays ^[6].

Sarajevo is a city that was created in the middle of the fifteenth century and developed according to the oriental-Ottoman pattern: in the center of the city structure (mainly in the plain) is a public zone (city) with facilities intended for collective use (mosques, madrasahs, inns, caravanserais, bezistans, hammams, imareta...) [8], while on the periphery (mainly on the slopes in the form of an amphitheater) the residential zone is organized through residential districts (mahales) with their usual facilities (Figure 1).

In addition, the residential area with slums has its own public zone and private zone. The public zone consists of the mahal square (mejdan) with public facilities (bakery, grocer, barber shop, greengrocer...), while the private zone consists of individual house complexes with emphasized entrances (gates) oriented to the mahal street ('sokak'), (Figures 2, 3). Residential complexes of richer families had a separated

public zone (the male part of the complex, selamluk) and an extremely private zone (the female part of the complex, haremluk).

Looking at the spatial organization, materialization and design of the oriental-type town house in Sarajevo, it is evident that wood is the key material (Figure 4).



Figure 1. Sarajevo. Location

Source:

<https://slidetodoc.com/regionalna-podjela-bosne-i-hercegovine-geografske-regije-bosne/> (left)

Google Earth: Accessed 7.23.2022. (right)



Left: plan of Sarajevo (1882)

Right: plan of the Vratnik residential district (Sarajevo) during the time of Austria-Hungary (1910). Topal Inhanova mahala: 1. mosque with cemetery, 2. bakery, 3. fountain, 4. school

Figure 2. Sarajevo at the end of the 19th century

Source: Grabrijan, D. (1983), *The Bosnian Oriental Architecture in Sarajevo*, Dopolisna delavska univerza Univerzum, Ljubljana

Source: <http://www.friends-partners.org/bosnia/cb1.html>, Accessed: 1.3.2015.

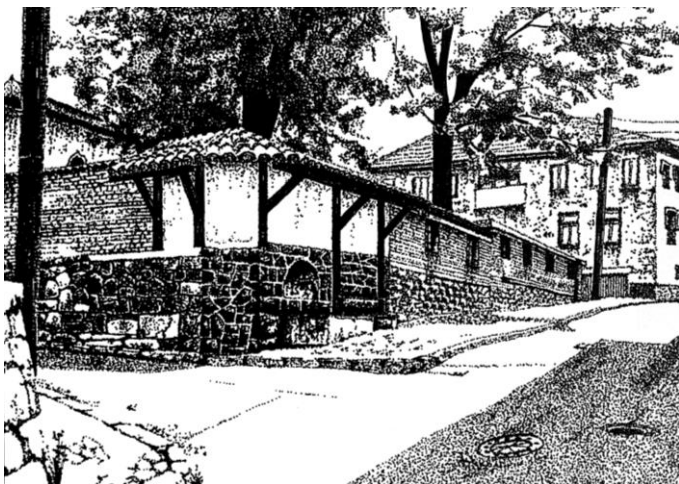


Figure 3. The fountain at the intersection of Glodjine and Cemerlina streets
Source: Author (Drawing, 1983)

Today, a small number of houses in Sarajevo have their authentic spatial structure founded in the time of the Ottoman Empire. A large number of houses have been demolished or adapted to new forms of housing culture.

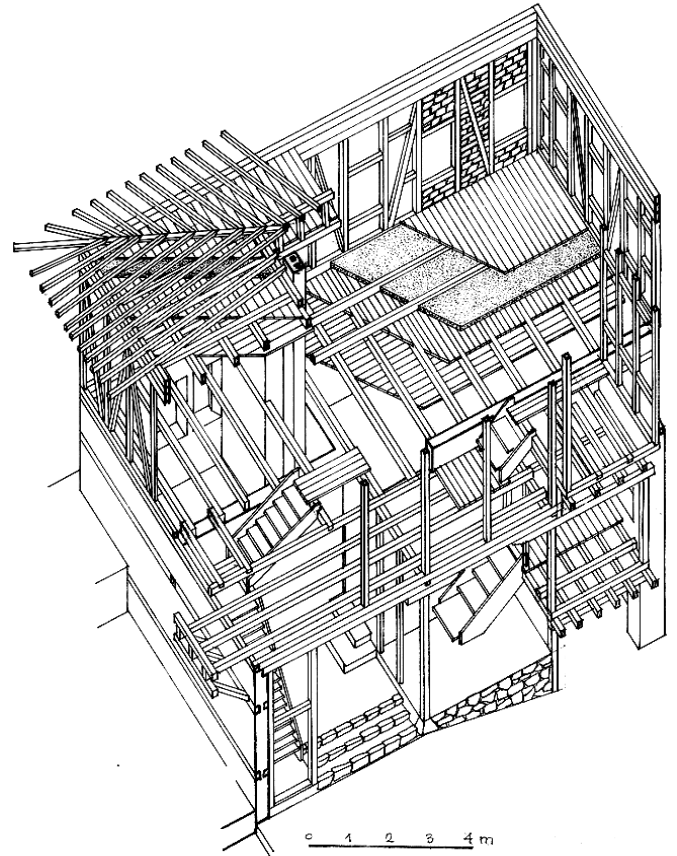


Figure 4. Sabura's house, structure of the building

Source: Author (Drawing, 1984.)

II. ENVIRONMENT

No other human activity is as connected to society, time and space as is the case with architecture. The very fact that it is the physical framework in which almost all human activities take place requires a versatile approach from people (who in any way participate in its creation). In addition to empirical parameters (economic power of society and individuals, range of available building materials, climate, geomorphology and geology of the terrain...) here, often decisive influence was exerted by 'immeasurable' factors: cultural tradition, current state of culture ('style', 'fashion' ...), the political power of the patron, (...) and the strength of the individual talent of the immediate creator of the architectural object. Since, from this broad mosaic of premises that determine the architecture of the oriental-type town house in Sarajevo, we deal with the place of wood in its spatial-constructive structure and design, it is impossible to draw any conclusions without observing a broader combination of factors that had their influence in the final appearance of this house.

2.1. Natural Environment

By the natural environment here we will understand givens in themselves, that is, those factors on which man has not

exerted his influence, and if he has, then it is to an insignificant extent.

The materials that were used in the spatial-constructive structure and the overall materialization of the oriental-type town house in Sarajevo were taken directly from nature, from the nearest surroundings, and until their final place in the spatial structure of the house, they mostly underwent small technological treatments. The main materials are stone, clay (earth) and wood.

The use of stone here has been reduced to the minimum possible, as a rule, in those places of the spatial structure of the house where the wood could not meet the constructive requirements and requirements of resistance to the influences from the environment, and this primarily refers to the foundations of the building. In addition to the foundation, stone was used to build storerooms (basements), floors that were partially buried in the ground, and served as the main storerooms for food, and sometimes also for goods that the owner of the house sold in the shops located in the bazaar. Stone pebbles, which were abundant in the bed of the river Miljacka (Figures 5, 6), were used to treat walking surfaces in open spaces (courtyards, hayati).



Figure 5. Stone rocks at the crossing of the canyon of the Miljacka river into the Sarajevo valley

Source: Author (3.19.2016.)

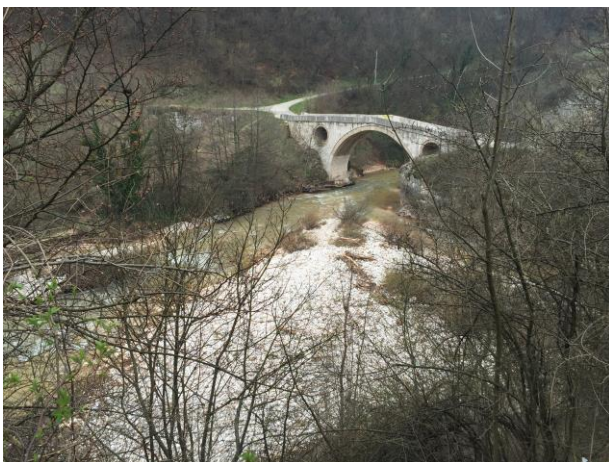


Figure 6. Pebbles in the bed of the Miljacka river

Source: Author (3.19.2016.)

The reasons why stone was not used more in the materialization of the oriental-type town house in Sarajevo were not its scarcity, but the opposite; in the vicinity of Sarajevo, there were well-known majdans of quality stone (among which was the one in Hreša and Sumbulovac, for example), but the exploitation of stone and its transport from the quarry to the city raised its price to the point of unacceptability for objects that are a purely private matter. The stone was used to make lime. Although lime and mortar are materials composed of natural components, we will not treat them as such here, since the materials from their original state in nature to the place within the architectural object have undergone serious technological requirements in which considerable energy was spent, i.e. money as its measure.

In the oriental-type town house in Sarajevo, clay (soil) was used to make elements for masonry, plastering, making charges (sound and thermal insulation) in the mezzanine structure and for covering. The masonry elements and charges were made of clay reinforced with straw and chaff, and the blocks were dried in the sun. The blocks (brick) prepared in this way, by themselves, had a relatively low compressive strength and resistance to moisture and frost. However, the walls made of them, with a thickness of about 80 cm and reinforcement from wooden beams (hatula), had an enviable bearing capacity. More than that, the walls materialized in this way had excellent thermal insulation, ensured thermal stability (of the room) in the summer regime, and were very favorable from the point of view of vapor diffusion [9]. Given the relatively small share of human labor and energy consumption in its production, adobe can be considered a natural material. Sarajevo is a city surrounded by mountains covered with high-quality forests (primarily Trebević, Jahorina and Igman). Traditionally, wood was the main material for construction here, and over time, a high level of skill in processing it and designing and making constructive assemblies from it developed.

Climate. Sarajevo is located in a belt of mountain-continental climate characterized by warm summers and mild winters (sometimes very cold, with plenty of snow). The transitional seasons, spring and autumn, are quite changeable. In fact, the year here is divided into a six-month long period of winter (when the rooms are heated) and a six-month long period of summer (when the rooms are not heated). This division of the time period of the year is directly applied to the spatial-functional structure and materialization of the oriental-type town house in Sarajevo. The area of Sarajevo is characterized by air currents as a result of geomorphology, i.e. the location of Sarajevo in the valley of the Miljacka River, which, entering the valley of Sarajevo from a rocky canyon in the East, flows towards the West, towards the vast Sarajevo Field, where it flows into the Bosna River (Figure 7). With its cardinal East-West orientation, the valley of the Miljacka river has two characteristic slopes, one with a southern exposure (on the right bank) and one with a northern exposure (on the left bank). The geomorphology of the river valley generates daily natural air currents, longitudinal (along and down the river valley) and transverse (slope, perpendicular to the flow of the river Miljacka), which change over the course of 24

hours. These natural air currents are a natural gift for healthy living conditions, which the man of that time directly noticed and experienced in such a way that he gave the name Koševo to another Sarajevo valley (transverse to the Miljacka river valley), in which the Koševski stream flows, from the foot of the Bukovik mountain to the mouth in the river Miljack near today's SRC Skenderi.



Figure 7. Panorama of Sarajevo: view from East to West
Source: Author (6.21.2015.)

Geomorphology. The river valley is an ideal natural place for the development of the oriental scheme of the city: a business-public zone (bazaar) at the crossroads, in the plain, and a residential zone (arranged in the form of a quarter-mahaal) on the slopes of the natural amphitheater [8]. The sloping terrain, in itself, provided the prerequisites for high-quality and hygienically arranged housing: rainwater did not stay on the surface of the land, but flowed down to the river through a natural fall; wastewater was also easily removed by more or less permanently arranged channels that followed the edges of the mahal streets; the sloping terrain provided ideal conditions for realizing the unwritten (but strongly present) principle of construction, the right to sight (Figure 8). Finally, the sloping terrain had a direct impact on some spatial relationships of the building, that is, on the overall physiognomy of the house.



Figure 8. Panorama jedne stambene četvrti Sarajeva (Kovači)
Source: <http://forum.klix.ba/sarajevo-vs-gradovi-u-eu-p7328992.html>,
Accessed: 1.3.2015.

2.2. Social Environment

By social environment he understood the sphere created by man, which consists of: socio-economic relations, culture, morality, philosophy, science, art, religion, (...) in the totality of their mutual relations.

Socio-economic relations. The time in which the oriental-type town house in Sarajevo was created and evolved to its mature form coincides with the presence of the Ottoman Empire in Bosnia and Herzegovina, from the end of the 15th to the end of the 19th century. It was the time of the Ottoman type of feudalism, characterized by the supremacy of agrarians over other forms of economic activity (craftsmanship and trade). Although Sarajevo at that time was considered an urban environment [4], the majority of its population consisted of large landowners, whereby their land holdings, in accordance with the nature of Ottoman feudal relations, were cultivated by subordinate peasants-serfs, with prescribed obligations to give part of the income to the property owners. . The second, smaller part of Sarajevo's population was engaged in trade and crafts, and some were various state employees (administration, army, education...). This profile of the urban man directly influenced the spatial solution of the house for living.

Morals. The basic characteristic of mutual human relations of the era in which the oriental-type townhouse in Sarajevo was defined is the existence of a sharp boundary between the business-public and private-intimate spheres of life. The personification of the private is the woman, and the public is the shop. And while the shop is located in the busy city center, in the bazaar, the woman is at home, in the ambience of intimate family life. Since in the houses (especially those whose owners are especially rich people) there is also an "other's" world (services), since they are visited by business people, (...), in short, the "public" comes into the house complex, the unwritten law of preserving family intimacy life resulted in the differentiation of the space into selamluk (public part) and haremluk (intimate part) of the home complex (Figure 9).

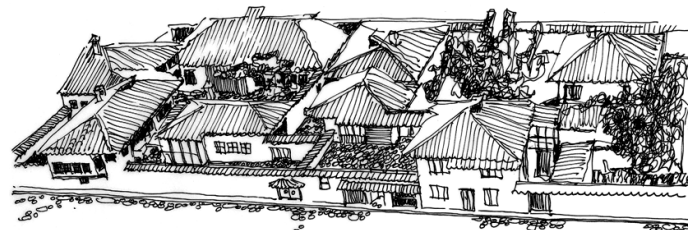


Figure 9. A complex of residential buildings next to Svrzo's House (view from Glodjina Street)
Source: Author (Drawing, 1984)

In addition to this basic differentiation of space, the requirement to protect family intimacy also resulted in a series of specific solutions for the conceptualization and materialization of the elements of the house object. Closed in the house, hidden from all eyes outside the circle of her family, rich and naturally curious, the woman was condemned to satisfy most of her needs, as a complex human being, within the domestic complex. The house was supposed to be the

solution that would reconcile her need to have everything and to see a lot, while at the same time she herself would remain unnoticed. Hence, it seems that the doxas are those elements of the architectural composition of the house that reflect the woman's need to 'peep' into the alley, to get involved in the events of 'public' life (Figure 10). That's why there is so much poetry in divanhanas and cameras. Hence the abundance of greenery, water and sunlight in the gardens and courtyards of residential complexes. Considering the available materials, wood was the most suitable for the spatial expression of a multitude of requirements, from utilitarian ones to purely hedonistic ones.



Figure 10. Motif from Kovaci hamlet

Source: Author (Drowing, 1985)

Religion. In the Introduction, it was said that religion was the factor that fundamentally determined human action, in practical and spiritual life (Figure 11). The influence of religion on the spatial organization of an oriental-type townhouse in Sarajevo is primarily determined by the place of the residential complex in the general social complex, that is, in the building priorities, and secondarily in relation to the appearance of the house itself. Namely, both Muslim and Christian houses of the same social class in the city have more or less the same architectural-spatial characteristics, while their differences can be seen in those elements that are the 'diferentia specifica' of each religion individually: there is no abdesthana (spatial niche, usually on the divanhana, where ritual washing, 'taking ablution' was performed), and the house itself was not differentiated into male and female parts of the house complex. Religion appears as a determining factor in the creation of the interior decoration of the space: while in Muslim houses there are no pictures or any figurative representations, in Christian houses the walls become a place for displaying portraits of household members, icons (pictures of saints), family genealogies... Spaces (main chambers) in a Muslim house are 'empty', while in Christian houses there are elements of furniture.



Figure 11. Sarajevo (postcard, 1920)

Source: <http://www.rajvosa-x.com/forum/viewtopic.php?f=6&t=1027&start=740>, Accessed: 1.3.2015.

Until the arrival of the Ottomans, the cities in Bosnia and Herzegovina, similar to the European cities of that time, were military fortresses and settlements of rulers, while trade and occasional large gatherings of people took place in their 'suburbs'. The Ottomans occupied Bosnia and Herzegovina for a full 65 years, from 1463 until the final conquest of Jajce (1528). The spread of Islam in Bosnia will significantly affect all future events. This is manifested in the construction and development of new cities [2], which express the Islamic understanding of man's position in the world. According to Islam, the whole world is a masjid (God's house, a place of prayer and showing respect to God), a place of reaching man's highest freedom - complete freedom from slavery to everything but God. This model of freedom is marked by the fundamental testimony of faith: There is no god but God! From this comes a complete scale of values, prohibitions and orders, which includes the term 'din' (Arabic-Romanized: 'dīn el-islām' = 'way of life'). Human society, when it is founded on Islam, conscious devotion to God, is governed by religion. Any place where such models and aspirations are accepted becomes a 'medina' (Arabic-Romanized: 'madīna' = 'city', 'settlement'). In contrast to the found cities-fortresses, the new cities become fully organized organizations. The need to connect with nature stems from the Islamic sense of the world, since it carries within itself signs of the Creator. That is why settlements and cities are built in carefully selected places, most often on the slopes of natural environments of fertile valleys, along rivers and natural passages. Cities are organized with a visible separation of the central public area (bazaar) and the private residential environment (mahala). A masjid (or more), a madrasa (that is, schools by level of education), libraries, bezistans, inns and caravanserais, hammams, mejdans with sebils, fountains and fountains, clock towers and shops (production units) are the contents of the bazaar. At the same time, all the mentioned facilities had their own water pipes and sewerage.

And while the bazaar is usually in the plain, the residential districts are on the slopes, in a natural amphitheater. Such placement of the residential area reflects a refined sense of natural features and the achievement of high family and personal requirements in the pursuit of human completion. A

properly chosen slope allows for good sunlight, soil drainage, and permanent air currents. By sliding the house units vertically and horizontally, it provides each house unit with good sunlight and a wide view. This rule was applied in all cases, in accordance with the requirements of each area. This followed and respected the found landscape, with the simultaneous 'incorporation' of human peculiarities, respect for the nature of the individual and his freedom, while restricting only as much as the rights of others require. The home unit is a space of strictly protected personality and personal rights. It is defined by a house, usually with a ground floor and an upper floor, a courtyard with a flower garden and a garden with an orchard. The connection with the street is achieved through a ropeway - a visibly emphasized and covered gate. In contemporary architecture, such an idea corresponds to the 'garden city', which is considered the highest achievement of residential architecture [7]. But even more interesting than that is the content of the overall life encompassed by the entire village. These common facilities are marked by the confluence of streets and alleys, with a public fountain, the existence of smaller or larger mejdans, with shops that meet everyday human needs (grocery store, greengrocer, barbershop, bakery, ...) and, especially, mehdan mosques with mekteb (primary school) and the mahal cemetery. Prominent examples of residential units, separated from urban units, and in a certain sense separated from the usual urban unit established around the central mosque and the bazaar, are the residential units of Begovina in Stolac and Velagićevina in Blagaj. With its spatial arrangements, both vertical and horizontal, and interior equipment, and ways of using interior spaces, types of connections with the neighborhood, the Bosniak town house encouraged many distinguished architects of the new era to explore it as a world treasure. Many of them rated the Bosniak house as the ultimate achievement of residential architecture [3].

III. BOUNDARIES

By 'environment' we mean any possibility in space in which man can realize his existence [1]. It is not possible to present water and man in autochthonous symbiosis in Bosnia and Herzegovina without first looking at the environment, both natural and social. Only when the natural and social environment, and water as a medium that binds the entire Universe, are in a relationship with each other, it is possible to understand the emerging forms of symbiosis of water and man in Bosnia and Herzegovina.

3.1. Wood as the basic construction material

The oriental-type city house in Sarajevo is functionally and structurally divided into ground floor, first floor and roof. This scheme is the result, on the one hand, of living arrangements (living on the ground floor in winter and upstairs in summer), and on the other hand, the choice of building materials and the terrain on which the house is built. The basic construction materials are wood and brick. Considering their load-bearing properties (and due to compliance with some unwritten rules of construction), building in height was out of the question. The land on which the residential complex from the period of

the Ottoman Empire in Sarajevo was placed is, as a rule, in decline and as such ideal for the realization of the unwritten but most respected precept of construction, 'right to sight'. Building in height would make this principle impossible. The wealth of different functions that housing implies is realized in the perfect balance of the horizontal and vertical plan of residential construction.

We will follow the use of wood in the structure of the building through its growth from the foundation to the roof, and through the final treatment of the surfaces that enclose its individual spatial units.

Ground floor. The ground floor is placed on a stone foundation, with a greater or lesser degree of stone processing. The walls of the ground floor are made of blocks of rammed earth mixed with straw and chaff, dried in the sun (brick). This was equally true for the houses of rich merchants, artisans and feudal lords, as well as for a broad social stratum of the population that was not rich. In order to ensure the bearing of the first floor, the roof (and sometimes heavy loads from snow, wind, useful load...), the walls of the ground floor are relatively massive, 50 cm to 80 cm thick, with an emphatically small number of perforations (windows), with smaller overall dimensions. These walls are plastered on both sides (with mortar of the same material composition as the adobe blocks) and whitewashed with lime milk. In order to provide them with greater rigidity and stability, primarily due to the effect of shearing forces (as a frequent consequence of the different subsidence of the terrain on which the building is built), a special reinforcement, a wooden 'reinforcement', was implemented in the walls of the ground floor and in the courtyard walls built of adobe. , 'hatula', along the entire length of the wall. Hatula consisted of two beams, one on each side of the wall, connected to each other by crossbars of the same section, at the height of the longitudinal beams (Figure 12). these reinforcements were placed according to the height of the wall, at a distance of 80-150 cm, according to the assessment of the possible subsidence of the ground on which the building is based. To bridge the opening in the wall (above the door and window), wooden beams were used (several of them, parallel to each other, across the width of the adobe wall).

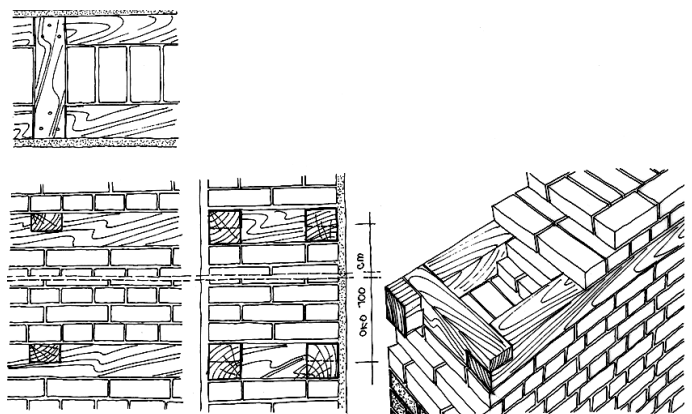


Figure 12. An adobe wall with a stiffener made of wooden beams ('hatula')
Source: Author (Drowing, 1984)

The thick adobe walls of the ground floor ensured the outstanding performance of the space (halvat) for living in the winter period due to good thermal insulation, heat accumulation and ensuring a stationary flow of water vapor in the parodifusion process (Figure 13).



Djerzelez's house (left) and Svrzo's house (right)
Figure 13. Vertical plan of an oriental-type city house in Sarajevo
Source: Author (3.19.2016.)

The ceiling structure is made of wooden beams, as basic structural elements. The primary beams, resting on load-bearing walls, are placed at a distance of 80-120 cm from each other. Secondary beams are placed orthogonally on them, at the height of which an embankment is made of fine sand, slag or clay "reinforced" with straw and chaff. This embankment served to ensure acoustic insulation between the spaces separated by the mezzanine structure (Figure 14).

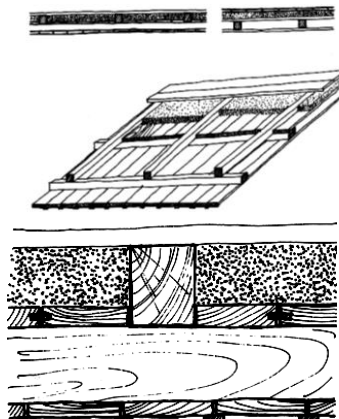


Figure 14. Oriental-style city house in Sarajevo. Ceiling construction
Source: Author (Drawings, 2016.)

On the secondary beams, on their upper side, a floor made of treated wooden boards with a thickness of 2.5-7 cm is laid. Floor covering boards were often processed with slits on the narrow sides ('shipilo'), into which a thin slat was installed, which ensured better continuity of the floor covering. As a rule, the primary beams were cantilevered over the outer wall, outside the contour of the ground floor, in order to ensure the construction of doxat, one of the specific features of the oriental-type town house in Sarajevo. From a constructive

point of view, the console of the mezzanine structure reduced ('extracted') the positive bending moments in the field of the main span of the beams, thereby reducing the possibility of their deflection. But more than that, the folk craftsman's idea was to 'go out into free space' with the first floor, to create an easy, airy and comfortable 'observatory' for observing the surroundings and enjoying the views [5].

Floor. The first floor is intended for living in the summer period. Freed from the task of thermal insulation, the external walls could now be thin, light and with a lot of perforations for windows, which ensured a strong penetration of the external and internal space, i.e. ensuring more natural light inside the space and achieving wide views towards the natural and built environment outside the residential building (Figure 15).

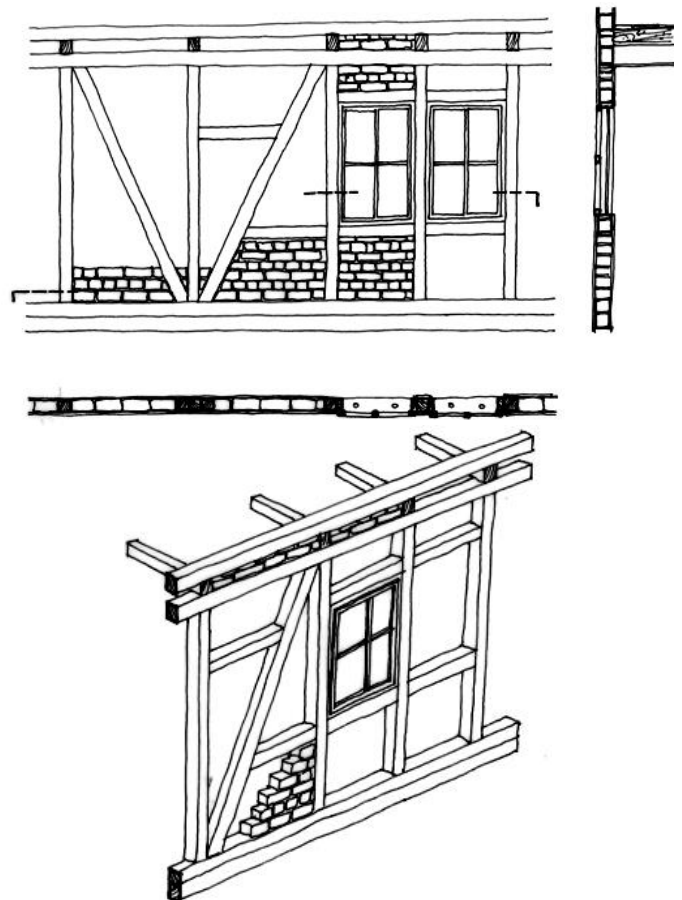


Figure 15. Oriental-style city house in Sarajevo. Floor wall with wooden skeleton ('bondruk system')
Source: Author (Drawings, 2016.)

The spaces of the floor, in addition to the function of residence (sitting, sleeping, dining...), also ensured the function of leisure, divan and akšamluk (pleasant, relaxing conversation). The accurate throwing out of the floor outside the contour of the ground floor and its floating above the alley (street), avlija (inner courtyard) or garden is not specific only to the oriental-type town house in Sarajevo, nor to oriental architecture as a whole. Doxates can also be found in the architecture of the West, both in public and residential buildings (where Gothic residential architecture is particularly

representative). However, the doxats of oriental-type townhouses in Sarajevo are particularly specific for their elegance, their closeness to the natural and built environment, which is why we could call them 'Sarajevo doxats' and that way we have a clear idea of them, completely different from the image 'doxat' or 'bay window' in general (Figure 16).



Figure 16. The Svanzo's house. Doksat towards Glodjina street
Source: Author (12.19.2015.)



Figure 17. Wooden staircase (basamac) in Sabura's house (left) and in Svanzo's house (right)
Source: Author (12.19.2015.)

The walls of the floor, both external and internal, are made of a wooden skeleton (bondruka) with a brick or wooden inlay (dizma, ukobica), (Figure 15). A staircase, by definition, is a special structure that ensures the binding of space vertically, into a single unit, with a more or less differentiated purpose of individual rooms. Far more than its basic utilitarianism, the staircase in an oriental-type townhouse has the role of a symbol of mastery of space, done in the manner of an attractive piece of furniture. Placed in such a way that it immediately 'catches the eye' whether it is approached from the street into the courtyard area or viewed from any position within the courtyard, the staircase contributes to the 'legibility' of the building^[5]. F. L. Wright's idea of 'flowing space' finds an illustrative example here. Through the staircase, the floor "flows" into the ground floor, the ground floor 'ascends' to the first floor, without a visible boundary between open and closed space. In an oriental-style town house in Sarajevo, the staircase is, as a rule, one-legged, straight or "L", usually

made of wood. These are Basamaks. A special accent was given to the railing of the staircase, which is often decorated as a real wooden drapery (Figure 17).

The roof. On the oriental-type town house in Sarajevo, the space occupied by the roof is freed from any utilitarianism. This fact, as well as the fact that tiles were mainly used as a roof covering, resulted in its slight slope and the relatively small height of its crown. The obvious tendency to 'catch' the playful floor level and cover it with a regular quadrangular contour of the roof resulted in strong (in places) protruding eaves (Figure 18). The calm horizontal line of the eaves further emphasizes the liveliness of the floor.



Figure 18. Semiz's house in Sagardzije Street
Source: Author (3.18.2016.)

Structurally, the roof is solved with a double or triple upright or slanting chair. There is no example of a roof hanger on an oriental-type townhouse in Sarajevo. This 'engineering' solution was not known to local craftsmen, nor was there any need for it considering the usual dimensions of the spatial units that needed to be covered. The most common roof covering is tiles on wooden battens. Tiles were used less frequently (Figure 19).

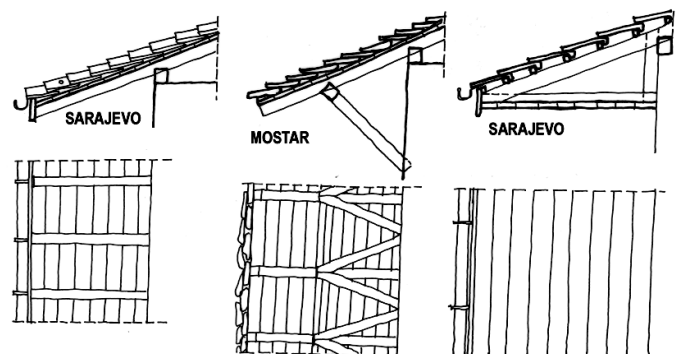


Figure 19. Some types of roof eaves of town houses in Sarajevo and Mostar
Source: Author (Drawings, 1984)

Opening elements. The openings of oriental-type townhouses in Sarajevo are quite specific. With their

construction and materialization, the opening elements (doors and windows) greatly contribute to the overall aesthetic expression of the house.

Door. Depending on the place where they were supposed to provide contact between the two spaces, the doors were given dimensions, construction, material and level of aesthetic refinement. At the entrance from the alley (street) to the avlija (inner courtyard) there are double-winged doors. The dimensions of the entrance door (kanata) from the street to the courtyard are determined by the size of the horse loaded with cargo. These doors are made of spruce, less often of oak. Since the courtyard door is a transition from the public world to the world of family intimacy, it represents a major event in the space, so it is adequately emphasized. The courtyard wall on the part above the entrance received a canopy in the form of a double-sided console (external and internal) or a strongly emphasized canopy. Great attention is paid to the details of the craftsmanship of the door: instead of ordinary nails, special forged nails with large oval heads are used, which, in addition to giving the impression of strength and rusticity to the door, have a decorative effect in themselves. Instead of a bell, an iron ring, zvekir, was used on the doors (both the one at the entrance gate and the inner door). The mechanism for closing the door is specific, and is a true masterpiece of product design. The door that connects the male (selamluk) and female (haremluk) parts of the residential complex is treated in the same way as the door at the entrance gate to the residential complex. The internal door is structurally simple: boards about 5 cm thick are connected by wooden crossbars that connect them to the unique surface of the door leaf (Figures 30, 35, 42). Depending on the representativeness of the space where the door is placed, or the wealth of the home owner, the door receives a higher or lower level of decoration. Sometimes the decoration is reduced to carving grooves that follow the profile of the door, and sometimes it is an extremely rich wood carving. The decoration motifs are, as a rule, geometric, although stylized floral motifs are also encountered. The doors to warehouses (basements, storerooms buried in the ground) are made of wrought iron.

Windows. The windows ('pandžeri') of town houses in Sarajevo are relatively small in size (most often 80 x 130 cm). This is a direct consequence of the constructive construction system. On the ground floor level, where the walls are made of adobe, the windows are only in function of minimal natural lighting and ventilation, since any perforation of the wall reduces its constructive performance.

The walls of the first floor have a skeleton construction (bondruk), they are less loaded, so the number of windows is much higher [6], and their dimensions came from the structural assembly of skeletonized walls (bondruk). The windows are single or double, double-hung or compound. The sashes on the windows generally open around a vertical or horizontal axis, although it is also possible to meet demanding craftsmanship of vertical-sliding window sashes, 'windows on the surma'. The window profile is rectangular, less often with an arch, semicircular or spiral. Even when the wall perforation for the window is overcome with an arch (as a constructive solution to relieve the cavity), the window is reduced to a

rectangle, where, obviously, the decision for the simplicity of the window performance prevails over the 'aesthetic power' of the arched window profile as a whole. The main reason that there are no complex window profiles in the oriental-type townhouses in Sarajevo (which are always more expensive than simpler, rectangular ones) is the already mentioned second-rateness of this architectural program in the sphere of oriental-Ottoman culture as a whole. The fragmentation of the glass panes in the window is a consequence of the low level of glass technology, i.e. its scarcity and high price at that time. Shape-wise, the fragmentation of the 'hatching' on the windows creates the impression that the windows are larger than they really are. On the ground floor, the windows regularly have physical protection in the form of a demir (grill of wrought iron bars), while the windows on the first floor have demirs and mušebak (a special network of wooden slats). Mušebak is a specific creation of oriental culture (although it is also found in western cultures). This element of the window in oriental-Islamic culture has, first of all, a symbolic meaning: it is a transparent curtain that enables one-way visual communication, i.e. ensures visual communication from intimate to public, while at the same time preventing visual communication from public to intimate (Figure 20).

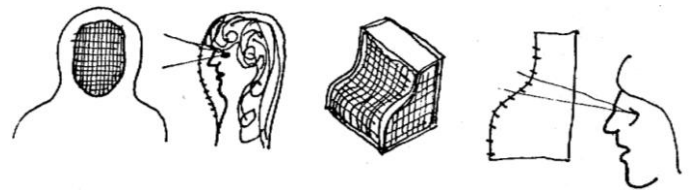


Figure 20. Providence looms in one direction: ('burka') and mushebak on the window

Source: Author (Drawings, 1984)

Mušebak emerged from the philosophy of inviolability of the personal and intimate. If one were to search for what in the oriental-Islamic world most personifies the personal, then it is a woman. We dare to say that it was precisely her position in the Oriental-Islamic society of that time that had the greatest share in the spatial organization of the house. Several basic types of mušebka town houses of the oriental type in Sarajevo are shown in Figure 21.

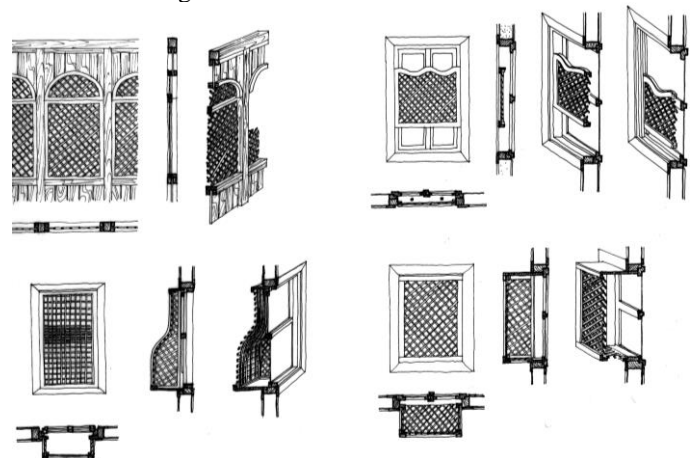


Figure 21. Oriental-style city house in Sarajevo. Mušebaks at the windows
Source: Author (Drawings, 1984)

Surface treatment. It was said earlier that the first and basic impression a person gets when he finds himself in the premises of an oriental-type town house in Sarajevo is the simplicity, intimacy and ubiquity of human measure. In order to create a certain, suitable, atmosphere of the space, individual furniture elements were not used here, which, fixed on the floor, ceiling or wall, would name the space: living room, bedroom, dining room, working niche, niche with a fireplace, by giving the furniture only its purposeful role (after use, putting it away so it doesn't get in the way), the local architect solves the question of the global relationship of the surfaces that make up the space.

The floor is the surface on which you walk, sit and sleep. Because of this, the floor is never bare, but regularly covered with a mat, thicker or thinner, more or less expensive. Depending on the space and the wealth of the owner of the house, the floor covering can be made of goat hair, woven from canvas or woolen yarn (tarpaulins), more or less expensive woolen celim (domestic or those imported from the East).

The walls of an oriental-type townhouse in Sarajevo are mostly bare, whitewashed (duvarovi), without any painting. There are no hanging pictures, souvenirs or similar decorations as we encounter in the West. The whiteness of the walls gives the space more light and contributes to the impression of cleanliness and airiness. One wall of the main rooms of the house (halvat and čardak) is always designed as a musander. The natural dark color of the musander wood perfectly matches the whiteness of the walls. Thanks to this contrast, the emptiness of the white walls and the richly arranged musandera (in which a large number of potential functions are concentrated) are emphasized. Wooden window sills, especially in rooms on the first floor (conservatories) where there are a large number of windows, stand out strongly against the whiteness of the wall, emphasizing the penetration of the surface and the connection with the environment. The floor plan of the room (ceiling, ceiling) is most often made of wood. In an oriental-style townhouse in Sarajevo, the wooden ceiling is called 'shishe'. Sometimes it's a piece of rough-hewn boards, and sometimes it's a real treasure in wood carving. Even when the owner of the house does not have the opportunity to make a richly decorated ceiling, he does not deprive himself of the need for a beautiful one: he gives the pockboard a simple profile in the form of a groove, enough to create a game of perspective of lines and rhythm. Of the six goya surfaces, they define a parallelepiped space (which is most often the living space of an oriental-type town house in Sarajevo), three are made of wood. This, in itself, creates a warm, 'natural' atmosphere of the space. If it was smooth, the question arises: why weren't the other surfaces treated in wood to make the atmosphere even 'warmer'? Of course, we can assume (and simulate with the project) such a possibility. There is no doubt that the space in such a case of surface treatment would not be much 'warmer'. In that case, the space would lose the brightness, clarity and freshness that the whitewashed surfaces give it, and it would become 'stuffy'. If we want to highlight something special, we use contrast and

stay alert. The builder of the Oriental-type townhouse in Sarajevo was very aware of this.



Figure 22. The Svrzo's house. Interior arrangement of the house
Source: <http://faktor.ba/svrzina-kuca-u-sarajevu-dragulj-kulturno-historijskog-naslijeda-foto/>, Accessed: 12.18.2015.

3.2. Wood in the materialization of the interior furniture of the house

If we exclude the economic group of spaces (magaz, mutvak, huđera) whose functions are unambiguous, the spaces of the oriental-type town house in Sarajevo are polyvalent and serve for a stay in all the complexity of the meaning of this term: rest, pleasant conversation while sitting (muhabet, eglen) and drinking coffee, sleep, dining, entertainment, in order for one space to be able to provide all of this, it must be 'empty', and for a specific 'program' receive the appropriate furniture that will define it^[10]. The only permanent piece of furniture in such spaces of an oriental-type town house in Sarajevo is a minderluk (seating sofa) which, placed against the walls, frames the space, that is, the floor as its measure, with all but one of its edges (Figure 23).



Figure 23. The large chardak in Sabura's house (shot during the renovation of the building)

Source: Author (12.19.2015.)

That edge and the corresponding surfaces in the floor and wall were left for the installation of the musandera, a special functional 'battery', specific only to the oriental-Islamic type

of house. Musandera is a wooden wardrobe with three basic 'compartments', a bath, a furun and a mattress. The spa is the equivalent of a modern bathroom, the furuna (earthen stove with glazed clay pots) was used to heat the space and water for bathing, while the duschekluk is a storage room for the mattress and bed linen. In addition to the large concentration of potential functions it implies, musandera is also a surface that defines space in the manner of a carved wooden drapery. The three basic functional groups of musanders are visually differentiated by spiral arches in shallow plastic, and special decorative motifs. As a rule, the musandera is placed on the surface of the space where the entrance door is. At the same time, the door does not break the continuity of the musander, which, at its height, transitions into a wooden entrance arch, which in the overall composition of the room looks like a ceremonial entrance arch, below which you pass into the hall. The decorative motifs on the musandera are geometric: in squares, rectangles, hexagons, triangles (...) arranged in primary plastic, abstract motifs of concentric circles are carved, whose closest association in the real world would be a flower. As a complement to the wood decoration, elements of iron fittings, rings and nails with large oval heads made of wrought iron were subtly added to the musander. In the contrast of these two materials, the wood seemed even warmer, and the iron elements gained in strength and constructiveness (Figures 35, 39).



Figure 24. Girl's room in Svrzo's house

Source: <http://bosnjaci.agency/svrzina-kuca-uzor-bosnjacke-gradanske-kulture-stanovanja/>, Accessed: 2.4.2016.

'Sinija', a low round wooden dining table, is only there when dining, otherwise it is stored in the hujera (pantry). In the past, the blue one in the form of a large copper pan on a wrought iron stand was a permanent piece of furniture in the space, as well as a brazier, a specially shaped copper vessel with an ember on which coffee was roasted. In the home pantry (huder), the specific solution of the built-in wardrobe (dolaf) for storing dishes and food is particularly interesting. It is a niche hollowed out in a thick wall, which is closed with wooden shutters with regular application of ornaments in wood carving (Figure 35). The room that served as the

intimate residence of the female members of the family (the queen's or girl's room) had, in addition to a chest of drawers with three compartments, a spacious wooden closet for the girl's wardrobe. A wooden chest, 'sehara', was used to store the girl's fine handicrafts (embroideries), jewelry and as a shelter for her 'intimate world' (Figure 23). It used to be a simple chest made of beech or spruce wood, and sometimes it was a luxuriously decorated chest made of precious walnut, ash or mahogany wood. Particularly valuable performances of the sekhara included decorative iron fittings with precious stones.

Apart from its primary utilitarianism, sehara was a metaphor for girlish youth, innocence, invulnerability, longing, hope...

In the oriental-type town house in Sarajevo, we can see the use of wood on the crockery and cutlery.

3.3. Wood in the exterior

So far, the spatial structure and materialization of an oriental-type town house in Sarajevo have been presented, as well as the place and role of wood in it. However, this side of the object is hidden, not only for the ordinary, everyday observer, but also for the expert. In the following, we will deal with the physiognomy of the object, that is, the psychological relationship between the object and the observer from the side. Observing the outside of an oriental-type town house in Sarajevo, the observer usually notices only two colors: the white color of the painted walls and the natural color of the wood in the various elements of the house. The builders of the oriental-type town house in Sarajevo do not use paint as a means of decorating the building. They model the space according to the logic (wide complex of properties) of the materials they use and the functional requirements of individual rooms. At the same time, every form, every function is visibly emphasized by the wood itself, that is, by the contrast of the color of the wood and the white color of the wall. At the junction of the street and the house complex are large wooden doors (kanata) which, with the color of the wood they are made of, contrast with the whitewashed wall, a barrier between the public world of the alley (street) and the intimate world of the house. The structure that carries the strong eaves above the entrance gate is made of wood, and since it is located above the horizon of a person moving (especially in steep streets when moving along the street), it is visible. The exact ejection of part of the floor level over the courtyard wall (that is, the contour of the ground floor wall) into the space of the alley is noticeable enough in itself. However, wood is used here as well, and not in the flat processing of the doxat sub-view (which would be correct from a constructive point of view), but as an elegantly shaped transition from a vertical to a horizontal surface. With this, the plasticity of the building is emphasized even more, and the alley, although an external (public) communication, received a series of warm tones that give it a human dimension. On the docks that protrude into the space of the alley are wooden windows that dissolve the white surface of the wall in a dense rhythm. Often, these windows facing the outside are covered with curtains, which makes them even more emphasized. Observed from a greater distance, the windows with mullioned windows seem like

holes in a white wall, and from close proximity like fine wooden lace. On the first floor of the house there is a divanhana and a bedroom, spaces exclusively intended for rest, leisure and enjoyment in close contact with the courtyard and the garden and spacious vistas [6]. It is a space that is a functional complement to what the doxat represents, and that is why it should be emphasized. Since people sit here only in good weather and on summer nights, a wall (as a fence against the cold) is not needed. A fence made of finely processed wooden planks and a net made of wooden planks are enough to create a boundary of the space, visually permeable only in one direction, from inside to outside. As these are the largest outdoor surfaces made of wood, special attention is paid to the design and materialization of the surfaces of sofas and bedrooms (Figure 25).

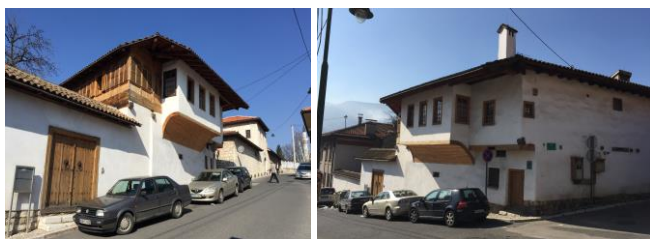


Figure 25. The Alija Djerzelez House, Sarajevo. Exterior
Source: Author (3.18.2016.)

Above the first floor, where the variety of internal functions of the space is outlined with rich plastic and the contrast of wood and whitewashed walls, comes the roof. It should be noted immediately that the contour of the roof, as a rule, does not follow the scattered contour of the floor below it, and that the effort to make the contour of the roof a pure rectangle can be observed. The result of this effort is the strong eaves protrusions in places, which, viewed from a short distance, look just as impressive. The effort to make the contour of the roof in the form of a pure rectangle also has its ultimate practical justification, since then the rainwater drainage gutters are located at the same level, and the subsequent reduction of rainwater is completely simplified. From the aspect of architectural design, the calm, straight, horizontal line of the roof eaves is in contrast with the broken contour of the floor, and the dark color of the wood in the eaves underside 'presses' the white volume of the floor, whereby these elements of the architectural composition emphasize each other more. In addition to the contrast of dark wooden surfaces and whitewashed walls, the effect of which was noticeable regardless of the distance from which the object is viewed, the local craftsman also uses wood in fine, filigree processing in the exterior, evoking a lyrical feeling in the observer. Specific elements, badges, stand out on the roof. These are the ends of flue ducts, the design of which is regularly given great attention, in which wood plays a key role (Figure 26). All horizontal lines on the house (transition from ground floor to upper floor, doxat, eaves edge...) are used for applying wooden lace, which is visible only from close proximity (Figure 27).



Figure 26. The Alija Djerzelez House, Sarajevo. Exterior
Source: Author (3.18.2016.)

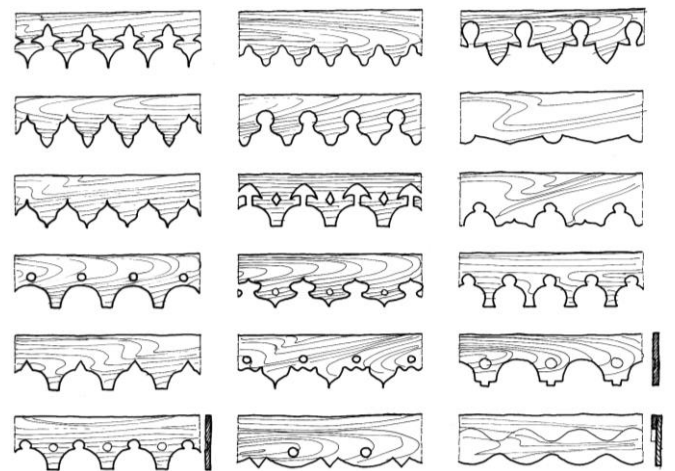


Figure 27. Oriental-type city house in Sarajevo: decorative front board of the eaves edge and doxat
Source: Author (Drawings, 1984)

IV. SELECTED EXAMPLES OF ORIENTAL-TYPE TOWNHOUSES IN SARAJEVO

After a general consideration of the topic of the use of wood on an oriental-type town house in Sarajevo, the same topic is reviewed below through a detailed presentation of several selected examples of houses. In this way, the aim was to show the universal validity of the conclusions along with a wide variety of their concrete expression. By analyzing selected examples of oriental-type town houses in Sarajevo, we wanted to make a contribution to understanding the complexity of architecture by observing the connection of the special in the general, the concrete in the contemporary, the current in the time continuum...

4.1. Djerzelez's house

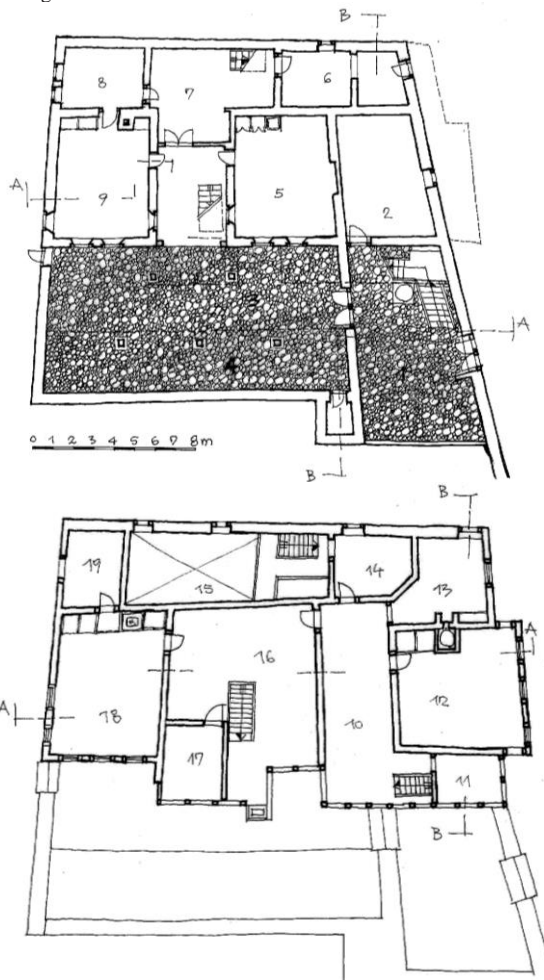
Djerzelez's house is located on the corner of Sagrdžija Street and Sunulah-Efendije Street in the municipality of Stari Grad Sarajevo, in the former Kadi Bali-Efendi Mahal, which was formed between 1578 and 1582 (Geographic coordinates: 43°51'51.75"N, 18°25'46.58"E, elevation: 595 m), (Figure 28). Djerzelez's house was built in the 17th century, and until the end of the 20th century it belonged to the Kazakh Cevanija family. It is the house of a rich family from Sarajevo, with a differentiated public area (haremluk) and an intimate zone

(selamluk). Both parts of the house were developed through the ground floor and first floor, with rooms typical for the developed type of town house (Figures 29-31). Today, Đerzelez's house has the status of a national monument and is subject to protection measures established by the Act on the Implementation of Decisions of the Commission for the Protection of National Monuments.



Figure 28. Djerzelez's house. Location

Source: Google Earth: Accessed 7.23.2022.



Left: Ground floor: 1. men's courtyard, 2. warehouse, 3. women's courtyard, 4. summer mutvak, 5. halvat, 6. hudjera, 7. mutvak, 8. halvatic, 9. halvat
Right: floor: 10th men's divanhana, 11. chamber, 12. men's chardak ('cosak'), 13. kahveodzak, 14. small chardak, 15. dimluk, 16. women's divanhana, 17. abdesthana, 18. women's chardak, 19. small chardak

Figure 29. Djerzelez's house

Izvor: Ljilja Pehar, Diplomski rad, Arhitektonski fakultet u Sarajevu (1984)



Figure 30. Alija Djerzelez's house: Part of the chimney (left), treatment of the interior surfaces of the halva (middle) and the door to the chardak (right)

Source:

http://kons.gov.ba/main.php?id_struct=6&lang=1&action=view&id=2581, Accessed: 12.19.2015.

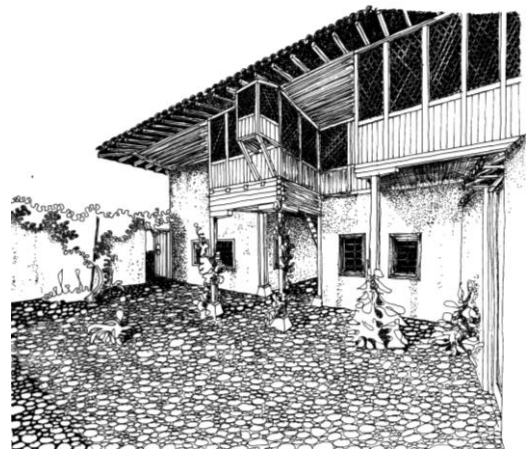


Figure 31. Alija Djerzelez's house. View from the courtyard

Source: Author (Drowing, 1984)

4.2. Sabura's house

Sabura's house is located on a plot marked as k.no. number 1711 (new survey), which corresponds to item no. number 14, mahala XCVI (old survey), registered in the civil registry. insert number XCVI/53, k.o. Sarajevo II, municipality Stari Grad Sarajevo, Sarajevo, Federation of Bosnia and Herzegovina, Bosnia and Herzegovina (Geographic coordinates: 43°51'49.53"N, 18°26'09.11"E, elevation: 610 m), (Figures 32-37). Sabura's house was built in the 18th century, and it belonged to the old Sabure family from Sarajevo, who

made and traded goods from Kazan. In addition to the house, this family had a garden, a mill, a garden in Medreset, a store in Tašlihan, a store with a store near Tsareva ćuprije, and shops, stores, land and buildings in the villages around Sarajevo. The current state of Sabura's house is the only preserved remnant (selamluka) of a former rich house that had a public (selamluka) and private part (haremluka). The harem complex of Sabura's house completely fell into disrepair after 1918. Selamluk (which was built in 1750) has been preserved and renovated several times. After the building was directly hit by shells during the war (1992-1995), its restoration was completed only at the end of 2015. Sabura's house in Sarajevo has had the status of a national cultural monument since 2006 and, accordingly, the building is subject to the prescribed protection measures.



Figure 32. Sabura's house. Location

Source: Google Earth: Accessed 7.23.2022



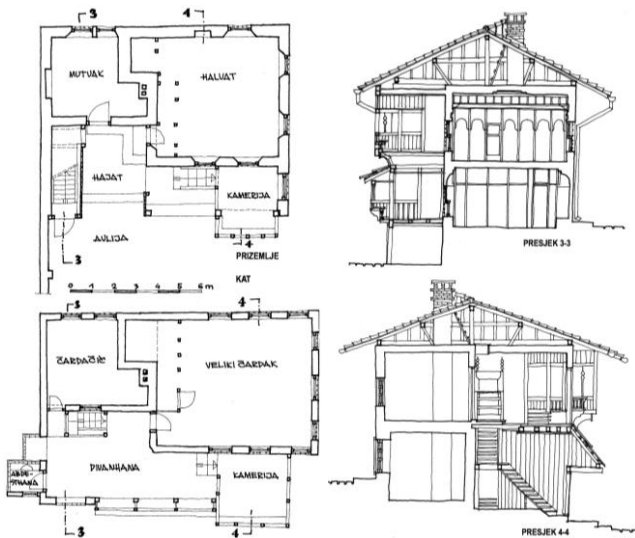
Figure 34. Sabura's house. Wooden ceiling (shish) in the large conservatory

Source: Author (Drawing, 1983), left
Source: Author (12/19/2015), right



Figure 35. Sabura's house. Doors

Source: Author (12.19.2015.)



Left: Ground floor and first floor
Right: Sections

Figure 33. Sabura's house

Source: Institute for the Protection of Cultural Monuments of the City of Sarajevo (1984)



Figure 36. Sabura's house. Treatment of the interior surfaces of the space

Source: <http://faktor.ba/ozivljena-nakon-260-godina-saburina-kuca-u-sarajevu-govori-o-velicini-nasih-predaka-foto/>, Accessed: 12.19.2015.



Figure 37. Sabura's house. View from the street

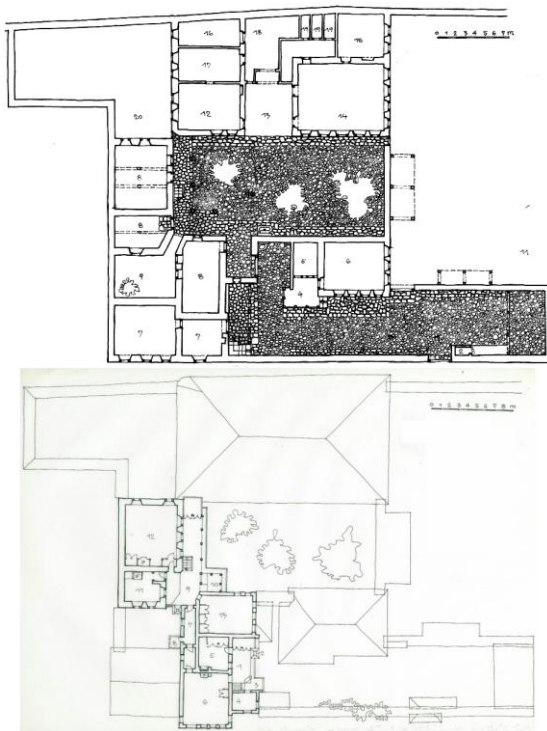
Source: Author (Drawing, 1983), left
Source: Author (12/19/2015), right



Figure 38. Svrzo's house. Location

Source: Google Earth: Accessed 7.23.2022.

hit Sarajevo (1697), Jahja Pasha's mosque burned down. The mosque was restored (1698) by Hadzi Salih-aga Curcic, after whom both the mosque and the mahal where it is located were named. Svrza's house is one of the most representative examples of an oriental-type town house in Sarajevo. The house was built in the 17th century by the famous Glodjo family from Sarajevo [11]. Svrza's house (as a national monument) consists of four connected residential units, two courtyards with gardens and courtyard walls. Most of the equipment in Svrza's house is original. Svrza's house is considered one of the most important and best-preserved examples of an oriental-type town house in the area of the former Yugoslavia. Svrzo's house has had the status of a national cultural monument since 2004, and in accordance with this fact, protection measures established by the Act on the Implementation of Decisions of the Commission for the Protection of National Monuments apply to this complex.



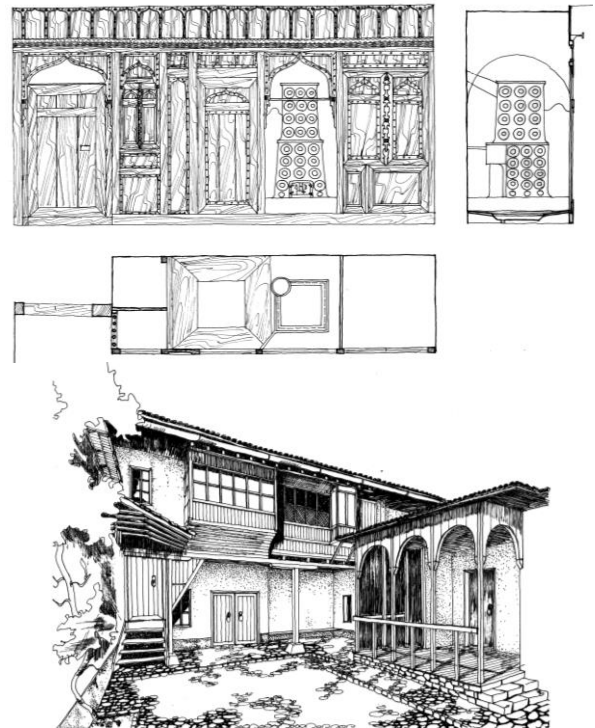
Left: Ground floor: 1. men's courtyard, 2. toilet ('kenifa'), 3. woodshed (odunluk), 4. hayat, 5. coffee-fireplace, 6. men's halvat, 7. stable for horses ('ahar'), 8. warehouse . 19. toilet ('kenifa'), 20. garden
Right: floor: 1. men's divanhana, 2. abdesthana, 3. chamber, 4. bachelor's room, 5. coffee-fireplace, 6. men's chardak ('cosak'), 7. mubedin, 8. toilet ('kenifa'), 9. women's divanhana, 10. chamber, 11. small chardak, 12. chardak, 13. chardak

Figure 39. Svrzo's house

Source: Zavod za zaštitu spomenika kulture grada Sarajeva

4.3. Svrzo's house

Svrzo's house is located on a plot marked as cp. number 1970 (new survey) k.o. Sarajevo III, which corresponds to k.č. no. 61 and 22 (old survey) k.o. Mahala LXXV Sarajevo, registered in zk. insert number LXXV/34, Municipality Stari Grad Sarajevo, Federation of Bosnia and Herzegovina (Geographic coordinates: 43°51'44.76"N, 18°25'45.11"E, elevation: 573 m), (Figures 38-43). Svrzo's house is located in Glodina Street, in the neighborhood known as Curcica brijeg, near the Jahja-Pasha (Curcica) mosque. In the great fire that



Left: Musandera

Right: Perspective from the men's yard

Figure 40. Svrzo's house

Source: Fatima Mehic (architecture student), archive of the Department of Architecture Development, left
Source: Author (Drowing, 1983), right



Figure 41. Interior arrangement of the house

Source: <http://faktor.ba/svrzina-kuca-u-sarajevu-dragulj-kulturno-historijskog-naslijeda-foto/>, Accessed: 2.4.2016.

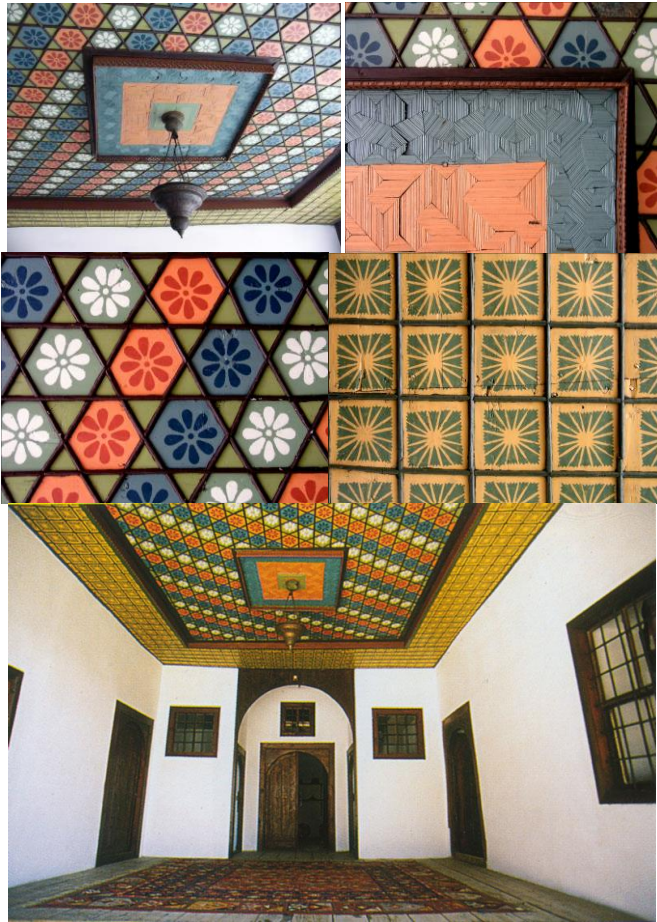


Figure 42. Treatment of the interior surfaces of the space

Source:

http://www.bhsavez.org/portal/index.php?option=com_k2&view=item&id=413:svrzina-kuca-uzor-bosnjacke-gradanske-kulture-stanovanja&Itemid=144

<http://www.source.ba/clanak/Cooltura/387978/Svrzina-kuca--Sarajevski-dragulj-kulturno-historijskog-naslijedja>

Accessed: 1.27.2016.



Figure 43. Exterior treatment

Source: Author (3.18.2016.)

V. CONCLUSION

After presenting the place and role of wood in the oriental-type town house in Sarajevo, the following conclusions can be drawn:

1. Wood is a key material, the application of which in an oriental-type town house in Sarajevo includes all building elements, basic construction, opening elements to elements of interior furniture, and surface treatment both in the interior and exterior.
2. The key role of wood is primarily determined by its abundance in the respective natural environment, and then

by the simplicity of its exploitation and application in defining the constructive-spatial structure of the building, while satisfying all empirical-technical and artistic requirements^[12].

3. In the spectrum of factors that determine the architecture of the oriental-type town house in Sarajevo, a strong mutual conditioning is noticeable. In some cases, certain requirements forced the use of wood: the need for wide vistas from the house to its surroundings required the precise ejection and openness of the external walls of the floor, whereby wood with its mechanical performance ensured the fulfillment of this requirement. The creation of interior furniture (especially musanders as a battery of potential functions) had the most suitable means of materialization in wood. At that time, the opening elements were most often made of wood, while the use of metal (then mostly wrought iron) was out of the question due to its high cost and, finally, its inadequacy to the requirements of the 'warm atmosphere' that the house should achieve. Thanks to its place in the building, thanks to the possibility of processing, its 'naturalness and warmth', wood has given certain details a special specificity: the ceiling ('shishe'), mushebki on the windows, the processing of the sub-views of the docks, the processing of the eaves, staircases, divans, chambers... Everything these are the details by which, among other things, we recognize this house. Other material (directly taken from nature) could not get to the listed places, and therefore to achieve such strong effects.
4. Finally, the builders of the oriental-type town house in Sarajevo (folk craftsmen, *dunderi*) contributed a great deal by introducing peculiarities in the creation of the standard elements of this house. The primordial aspiration of each individual to be original, to have 'his own style', has resulted in a wealth of details within the global style of construction in this climate.

The highest message of the architecture of the oriental-type town house in Sarajevo is the willingness and skill of its creators to encompass the widest range of parameters that determine it. If we are able to discover it^[13], continuity with the legacy will be ensured.

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