

7.4. Beylerbeyi Bath (Edirne city)

Beylerbeyi Bey bath was located in Edirne city center which was built in H.820 (1417 A.D.) by the behalf of Yusuf Pasha. Famous Big Mosque was 200m far away from this bath. The current situation of this bath was ruin and underdressing area was not survived until today (Ayverdi II, 1989).

The warm space had two connections with underdressing area. The closure of this space was 24 sliced dome structure. There was fabulous arched located between iwan and center of warm area. Shaving cell was connected to the warm space (Ayverdi II, 1989).

The hot space was closed with eight sliced dome structure. Two iwans was connected to hot space with arches. The masonry wall structure was constituted three rows of brick with one row of cut stone (Ayverdi II, 1989).



Fig 7.40: Perspective view of Beylerbeyi Bath 1



Fig 7.41: Perspective view of Beylerbeyi Bath 2



Fig 7.42: Perspective view of Beylerbeyi Bath 3



Fig 7.43: Perspective view of Beylerbeyi Bath 4



Fig 7.44: Interior view of Beylerbeyi Bath 1 (Ayverdi II, 1989).

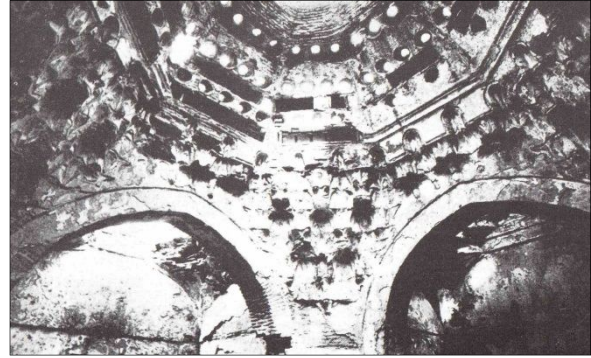


Fig 7.45: Interior view of Beylerbeyi Bath 2 (Ayverdi II, 1989).

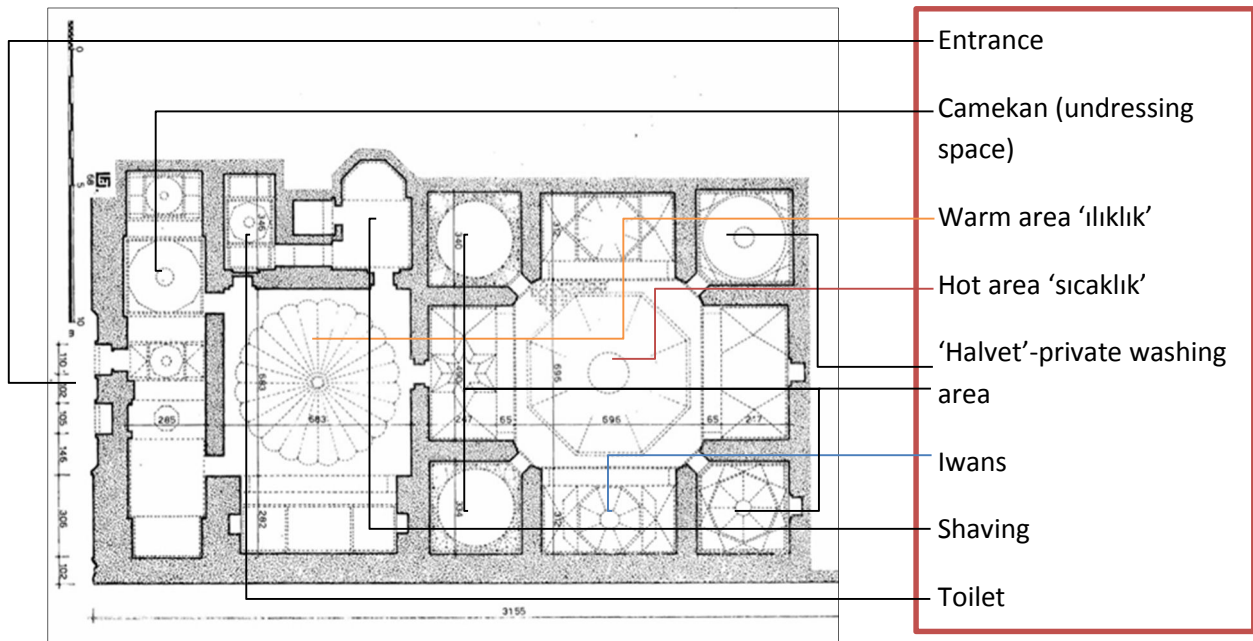




Fig 7.46: Beylerbeyi Bath, functional specifications (Ayverdi II, 1989).

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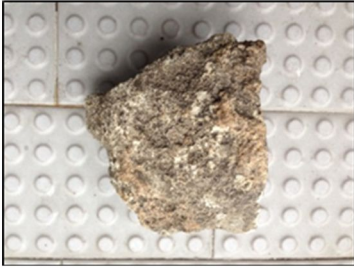

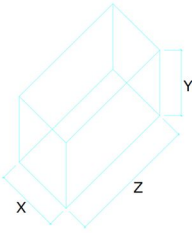
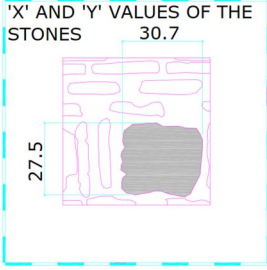
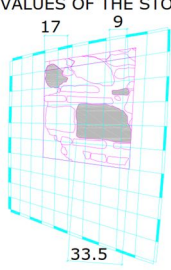
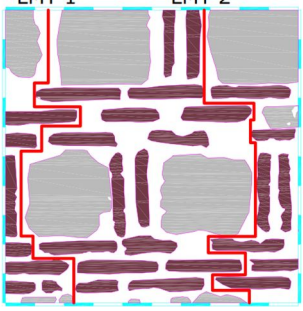
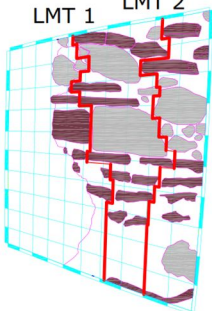
7.4.1. Methodological application (A)

Table 7.23: Qualitative methods for evaluating the quality of the walls in Beylerbeyi bath: A

Qualitative Methods for Evaluating the Quality of the Walls	
Edirne City, Beylerbeyi Bath	
Masonry blocks of stone flakes roughly squared with inner filling stones and divided horizontal brick layering	
	PHOTOS
	SCHEMA

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Table 7.24: Qualitative methods for evaluating the quality of the walls in Beylerbeyi bath: B

<p>Description of Beylerbeyi Bey Bath: Masonry stone structure is composed with stone flakes roughly squared , horizontal and vertical brick layering with pebbles infilling. There was openings for timber tie beam connection inside of the masonry stone walls. On the sections of the masonry wall small pebbles and stones could be seen. The wall fabric is three layered, it was respected to the horizontal rows and stagger with vertical joints. Diatone stones are not used inside of the masonry stone wall structure.</p>		DESCRIPTION	
<p>In Beylerbeyi bath; stone material is composed of micro fossil lime stone. And mortar is composed of quartz pebbles with rock pieces and Pınarhisar mines lime dust.</p>			
 <p>Stone Sample</p>	 <p>Mortar Sample</p>	MATERIAL	
	<p>'X' AND 'Y' VALUES OF THE STONES</p> 	<p>'Z' VALUES OF THE STONES</p> 	GEOMETRY OF THE MATERIAL
<p>APPROXIMATION OF STONE DIMENTIONS OF THE MASONRY X= 30.7cm Y= 27.5cm / Z=33.5cm - 17cm - 9cm</p>			
<p>LMT 1 LMT 2</p> 	<p>LMT 1 LMT 2</p> 		

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Table 7.25: Qualitative methods for evaluating the quality of the walls in Beylerbeyi bath: C

<i>P.D.</i>	<i>Q.M.</i>	<i>F.R.E.</i>	<i>S.V.J.</i>	<i>Q.R.E.</i>	<i>P.H.R.</i>	<i>S.R.E.</i>	<i>Category</i>	<i>Vertical</i>	<i>Out of Plane</i>	<i>In the Plane</i>	ANALYSIS OF IQM
NR	NR	PR	R	R	R	PR	Method of Scoring	A	B	B	
Vertical IQM							LMT		LMT1= 146.3	LMT1= 158.7	
0	0	1.5	1	1	2	0.5			LMT2= 143.5	LMT2= 172.4	
Out of Plane IQM							IQM	5	4.5	4.5	
0	0	1	1	1	2	0.5					
In the Plane IQM											
0	0	1	2	1	1	0.5	IQM=QRE x (PHR+PD+FRE+SVJ+SRE+QM)				
<i>f_m</i> (N/cm²)		min=286.03 max=456.1									
<i>E</i> (N/mm²)		min=1307.4 max=1859.03									
<i>T_o</i> (N/cm²)		min=5.01 max=7.4									
											MECHANIC PARAMETERS (MIN-MAX)

7.5. Gazi Mihal Bey Bath (Edirne city)

This bath was built in Edirne city center adjacent to the Tunca River near Gazi Mihal Bridge in H.824 (1421 A.D.) by the behalf of Gazi Mihal Bey. The condition of the bath was ruin and it remains under the ground level of the road (Say, 2011). The plan typology of this bath is constituted with two separated parts for man and woman (Kazancıgil, 1999).

The entrance of the men's part differentiated from the woman's part. In the men's part; the warm area closed with sliced spiral domed structure with lightening openings. There were two small iwan inside the space. Adjacent to this space there were two 'halvet' which opened to the warm area (Say, 2011).

Hot area was formed with square interior space with two iwan in two sides. The central dome was formed by eight slices. Pendentive and muqarnas transitional elements were used between the masonry and the dome structures. On the surface of the dome structure there was some Rumi ornamentation. Half dome structure was used on the surface of the iwans which were adjacent to the hot area. Between the iwans and the hot area, pointed arches were used. Two 'halvet' were open to the hot area. In these spaces the eight sliced dome structure with sliced squinch was used as closure and transitional elements (Say, 2011).

In woman's part, the entrance had a direct connection the warm area which was closed with ribbed dome structure. The 'halvet' and hot areas were directly connected to warm area in the woman's part. Hot area was a rectangular space which had triangular pieces of transitional elements. The dome structure was formed with six pieces (Say, 2011).

The masonry structure was constituted with three rows of brick and one row cut stone. The transitional elements of the bath were constructed by brick material. The workmanship of the structure was high quality. On the inside surface of the dome, there were different kinds of ornamentation with brick material, and the lighting holes 'filgözü' (Say, 2011).



Fig 7.47: Gazi Mihal Bey Bath south view



Fig 7.48: Gazi Mihal Bey Bath east view



Fig 7.49: Gazi Mihal Bey Bath east view in wide perspective



Fig 7.50: Gazi Mihal Bey Bath north view

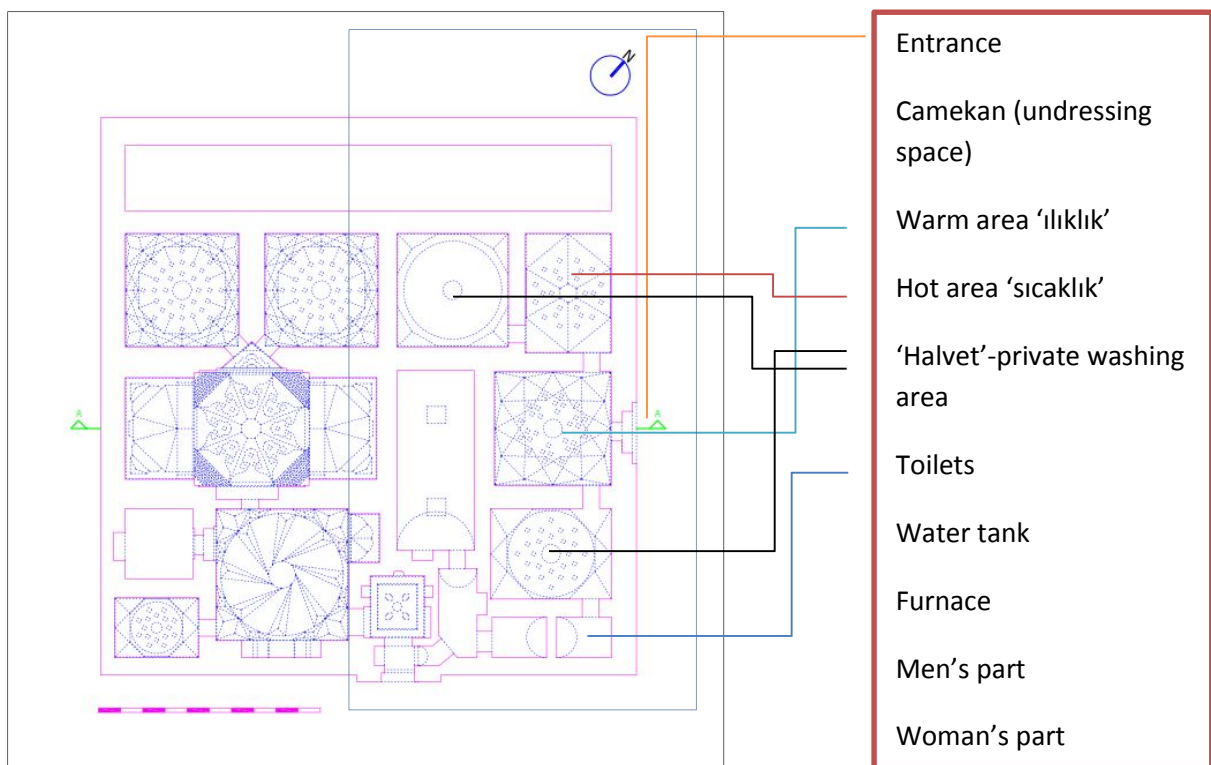


Fig 7.51: Gazi Mihal Bey Bath, plan and woman's area functional specifications

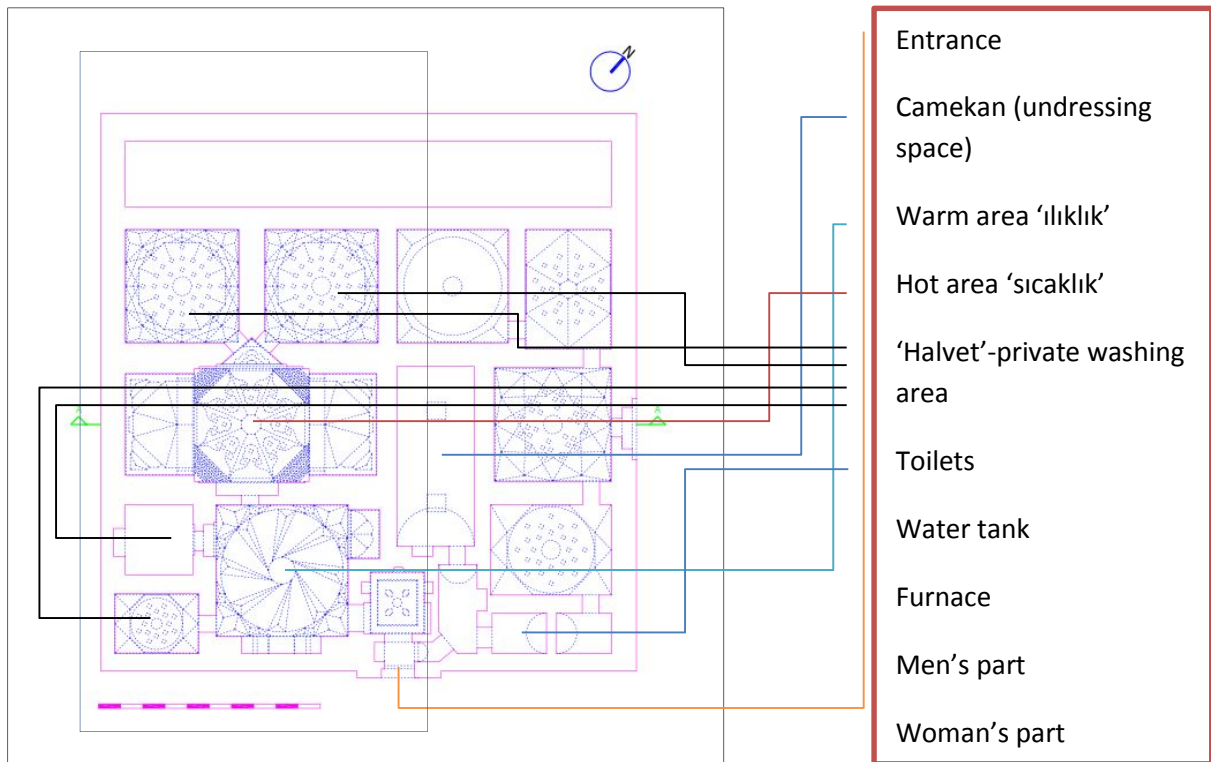


Fig 7.52: Gazi Mihal Bey Bath, plan and men's area functional specifications

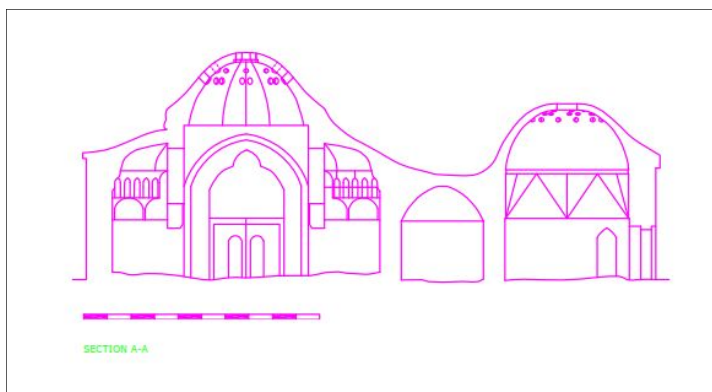
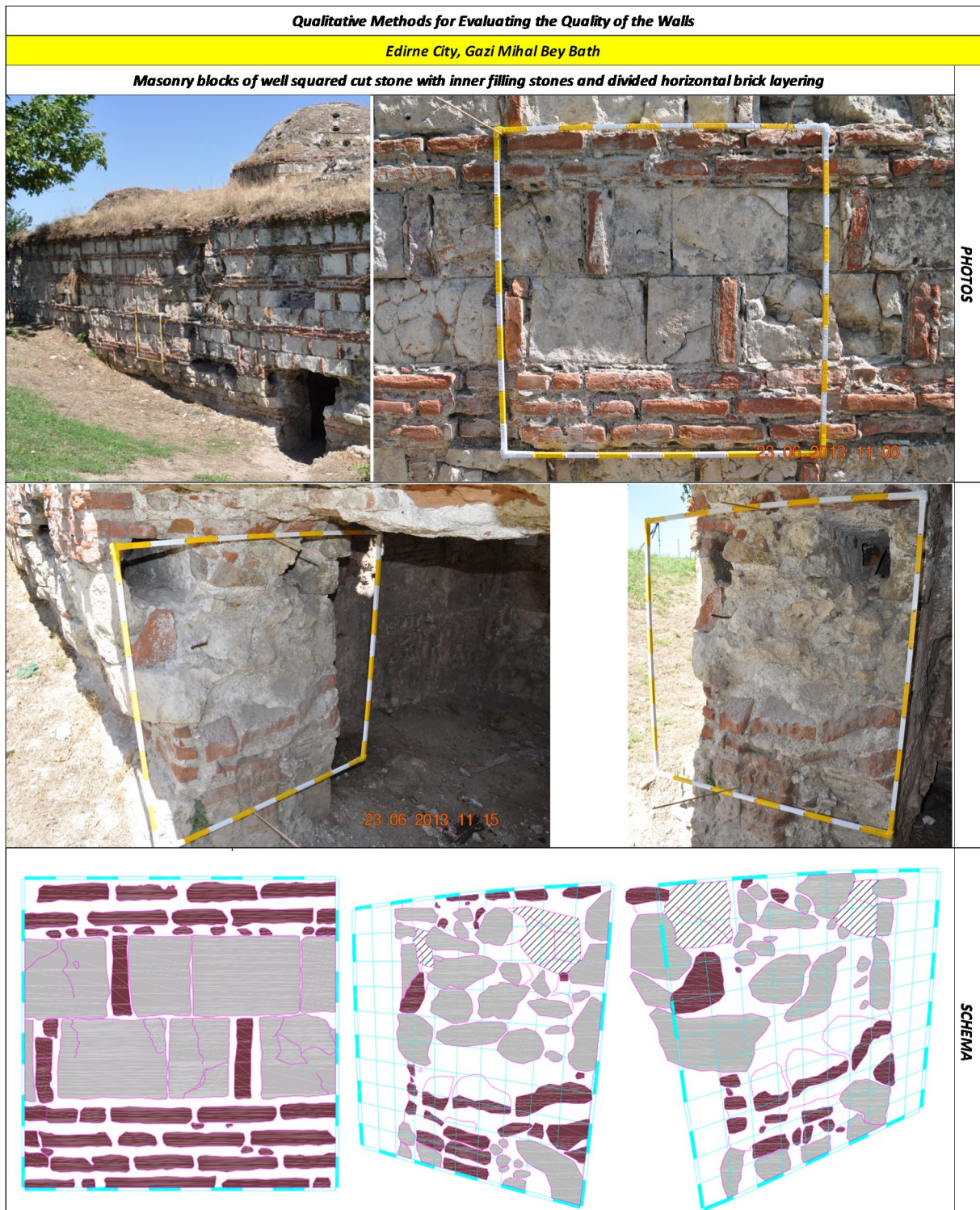


Fig 7.53: Gazi Mihal Bey Bath, section A-A

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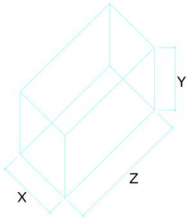
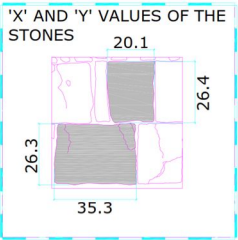
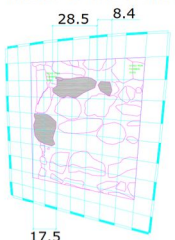
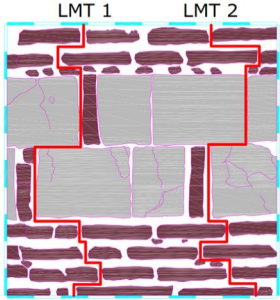
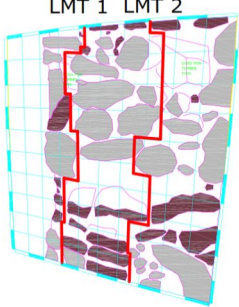
7.5.1. Methodological application (A)

Table 7.26: Qualitative methods for evaluating the quality of the walls in Gazi Mihal Bey bath: A



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Table 7.27: Qualitative methods for evaluating the quality of the walls in Gazi Mihal Bey bath: B

<p>Description of Gazi Mihal Bey Bath: Masonry stone structure is composed with well cut stones, horizontal brick layering with pebbles infilling. There was openings for timber tie beam connection inside of the masonry stone walls. On the sections of the masonry wall small pebbles and stones could be seen. The wall fabric is three layered, it was respected to the horizontal rows and stagger with vertical joints. Diatone stones are not used inside of the masonry stone wall structure.</p>	DESCRIPTION
<p>In Gazi Mihal bath; stone material is composed of lime stone with sand, clay and micro-fossil. Mortar is composed of quartz pebbles, aggregate pieces and cohesive lime.</p>	MATERIAL
 <p style="text-align: center;">Stone Sample</p>	 <p style="text-align: center;">Mortar Sample</p>
	GEOMETRY OF THE MATERIAL
<p>'X' AND 'Y' VALUES OF THE STONES</p>  <p>'Z' VALUES OF THE STONES</p> 	
<p>APPROXIMATION OF STONE DIMENTIONS OF THE MASONRY</p> <p>X=35.3cm - 20.1cm / Y= 26.3cm - 26.4cm / Z= 28.5cm - 17.5cm - 8.4cm</p>	
	

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Table 7.28: Qualitative methods for evaluating the quality of the walls in Gazi Mihal Bey bath: C

P.D.	Q.M.	F.R.E.	S.V.J.	Q.R.E.	P.H.R.	S.R.E.	Category	Vertical	Out of Plane	In the Plane	ANALYSIS OF IQM
NR	NR	PR	R	PR	R	PR	Method of	B	C	B	
Vertical IQM							Scoring				
0	0	1.5	1	0.7	2	0.5	LMT		LMT1=138,3	LMT1=168,98	
Out of Plane IQM									LMT2=132	LMT2=173,85	
0	0	1	1	0.7	2	0.5	IQM	3.5	3.15	3.15	
In the Plane IQM											
0	0	1	2	0.7	1	0.5					
IQM=QRE x (PHR+PD+FRE+SVJ+SRE+QM)											
fm (N/cm²)	min=204.6 max=338.5										
E (N/mm²)	min=1007.4 max=1454.9										
To (N/cm²)	min=3.7 max=5.6										
											MECHANIC PARAMETERS (MIN-MAX)

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7.5.2. Methodological application (B)

Perspective views and general bird eye views of “Gazi Mihal Bey” bath is shown on the following pictures.



Fig 7.54: Perspective view of “Gazi Mihal Bey” bath

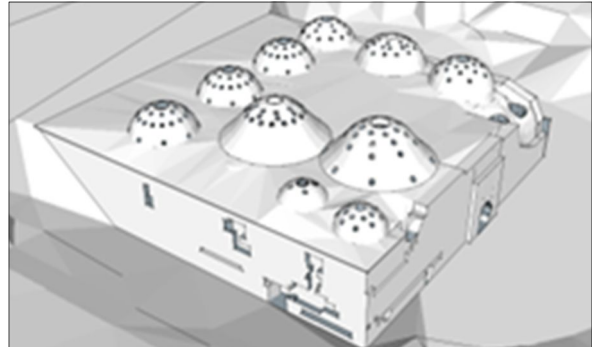


Fig 7.55: South-west view of “Gazi Mihal Bey” bath

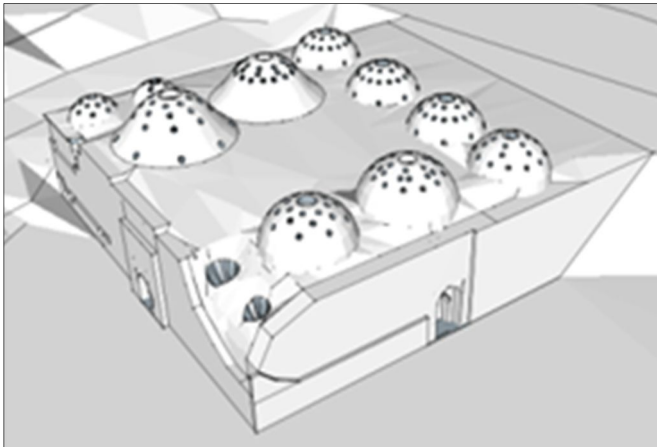


Fig 7.56: North-east view of “Gazi Mihal Bey” bath

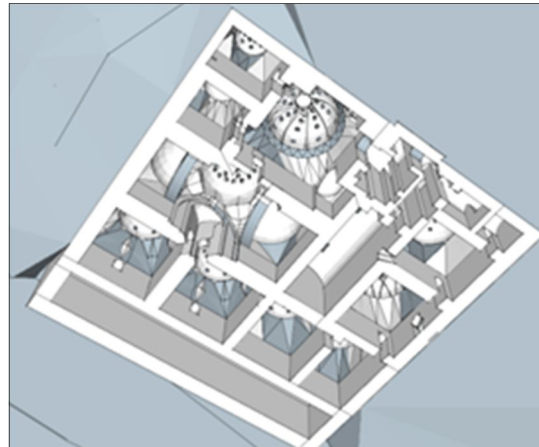


Fig 7.57 Perspective view of interior spaces “Gazi Mihal Bey” bath