

Review of the Biblical Geography of Jerusalem: Urban Layout and Suburbs

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Abstract

The urban layout of ancient Jerusalem during the United Monarchy era, under the rule of David and Solomon, has long been a subject of intense scrutiny and debate among scholars, theologians, and historians. This research delves into the complexities of reconstructing the spatial configuration of biblical Jerusalem during the Iron Age, emphasizing the critical importance of examining various sacred, historical, and archaeological sources. The pieces of this historical puzzle, drawn from biblical texts, the Talmud, and the accounts of Flavius Josephus, offer divergent perspectives, sparking debates and hypotheses. This study explores how misconceptions in interpreting these ancient texts may have led researchers astray in their attempts to map biblical Jerusalem accurately. The research statement highlights the ongoing discussions surrounding specific biblical locations in Jerusalem, such as Gibeon, Sion/Zion, and related features, which have not reached definitive resolutions. The study focuses on features of decisive historical importance in biblical Jerusalem.

Keywords: Jerusalem, Geography, archaeological.

1. Introduction

Studying the urban layout of Jerusalem during the United Monarchy era, under the rule of David and Solomon, exposes the researcher into various scenarios and propositions. The information provided become more critical when trying to reconstruct a spatial layout for biblical Jerusalem of the Iron-age. There is plenty of basic data, but the pieces of that data work like a puzzle; opens new possibilities and arguments if not solved rightly.

The enquiries about every piece come from several sides starting by the clerics, the academic scholars, and the architecture historians. The Talmud, for example, quotes significant questions by several Jewish clerics about the urban components of the biblical scene. Historian like Josephus provides descriptions, along with geographers, for the surrounding settlements and rural areas (Josephus & Whiston, 1737). Many current academic scholars are providing multi-discipline effort trying to discuss the biblical landmarks, including precious archaeological excavations.

Yet, key geographical features, whether urban or rural, have been under debate for quite a time. Misunderstanding the available scripts has significantly misallocated researchers within the biblical maps. Sometimes the interpretation of significant events would depend on the related geographical scene.

One example; the Zionist media repeatedly show an image of a reconstructed temple replacing the Dome of the Rock within the Aqsa Mosque. They depend on the location of

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the biblical City of David on Mount Zion. Another example; one cornerstone of the social archaeological team like Herzog and Finkelstein is to deny the glory of the kingdom of Solomon, depending on the geographical allocation of Jerusalem on the south east hill of Jerusalem's plateau (Herzog, 1999). On opposition to that opinion are academics like Amihai Mazar, who is still insisting that Solomon's capital was huge, however on the same tight location. The question is; what if the city's allocation by the biblical geographers was inaccurate in the first place?

2. Resources

The first resource of the biblical geographers was the bible, on the basis of "bible in one hand and the spade in the other". The direct analysis of the bible had an immense wave during the 19th century, where several names were glorified, like Edward Robinson (1794-1861) and George Adam Smith (1856-1942). However, they frequently re-interpreted the biblical scripts outside the traditional course, which provoked the traditional schools in several dimensions. They, nevertheless, initiated a new platform for the biblical research regardless of its accuracy in some crucial details.

Other biblical source is the Talmud, which is more a Jewish resource. Within the chapter Middot, it introduced an important cast of the architecture and the urban context for the religious practice within various buildings and territories. It is a highly detailed tour within features that recall the description of Ezekiel's account of the Old Testament (Ez 40). The significant details of the temple zone and province within the Middot script invoke important questions, and encourage for further investigation in the biblical script.

Another frequent resource is the accounts of Flavius Josephus (~37-100 CE) in his volumes about the Wars and the Antiquities. Mainly following the currently circulated versions of the OT, Josephus introduces one of his two architectural scenarios, again with partial variation from the previous ones (Josephus, Antiquities 8/3-4). The other description is far from the sacred script, mostly referring to absent resources rather than fabricated by the Jewish historian (Josephus, Wars 5). Other significant details about the urban form of the holy city are provided by him, which diverse from the common current understanding (Josephus, Wars 5).

The authenticity of the mentioned original resources is occasionally questioned or influenced by common interpretations, especially if their reports contradict with the scenario of a political agenda or a given author. The most obvious example is the OT, which is widely questioned as a historical resource. The Talmud also is regarded as a verbal culture of the Jewish scholars. As for Josephus account, his description of the Davidic Jerusalem is accused to contradict with the biblical script, and that he imposed the city's late conditions on the Davidic period (Smith 1906: 162).

The fact is that these opposing using the OT, they themselves depend on it. After they achieve their desired result from the OT, they criticize other works of depending on the same resources. For example, Herzog (1999) depended on the allocation of Zion on the southeastern hill of Jerusalem, which was suggested by Smith (1907) and others, to say that the area is very tight to contain a glorious capital.

3. Research Statement

The identification of several biblical locations related to Jerusalem, especially those of specific historical importance, was under continuous discussions that has not been settled in many cases. For instance: Gibeon, Sion or Zion, and related features. In this paper, the researchers will study some specific features that are related to the biblical Jerusalem, especially those of decisive impact on its history.

3.1. Methodology

This research will consider the sacred and historical resources that they should be read comprehensively to approach a wider horizon of the topic, and to conclude the historical conditions upon the archaeological findings. Thus comparing their records would not exclude any of these, it will endeavor to integrate them as much as possible. It is believed that the open result of this paper will lead to an interpretation to the main issues discussed about the topic.

Another factor is considering the archaeological activity descriptive outcomes, even if this research did not accept part of the excavators' analysis of the findings. The analysis will depend on the integration with the historical context, either from the historical accounts or from the sacred scriptures. This context will be handled in a criticizing manner to select the most authentic reports. From that point the research can rely on them to improve the vision to the whole historical view.

3.2. Research Hypothesis

The names of the Biblical locations have passed through scholarly discussions, and while some scholars considered them settled others still put them under reasonable doubt, being in need of further review. To analyze the related locations; this research will reconsider referring to multiple sacred, historical and archaeological resources. Some of these locations are incorrectly identified by the biblical geographic studies.

4. Review of the Present Research.

4.1. The Urban Features of the Area during the Biblical Period.

Based on a survey of the sacred and the historical scripts for the biblical Jerusalem, the research come across many topographical and urban features around the city. The selection criteria from these features to discuss in this paper depended on their magnitude within the biblical urban life, especially if related to one of the prominent biblical figures like Joshua, David and Solomon.

The list includes the most significant features, like:

1. Urban Districts:
 - a. Jerusalem;
 - b. Zion, the City of David
 - c. Gibeon, Gibeah of Benjamin
2. Topographical features:
 - a. The Valley of Tyropoeon.
 - b. The mount of Moriah
 - c. Gihon
 - d. Ophel
3. Buildings:
 - a. Temple
 - b. House of God
 - c. Zion Fort, Citadel

4.2. The Features of biblical Jerusalem as per the Western Studies

The western studies present biblical Jerusalem on the top of the eastern hills assuming that the City of David, which is Zion in their vision, located there ((1) in fig. 1). They start from a presumption that the temple was erected on the location of the current Aqsa Mosque to north of the City of David ((2) in fig. 1).

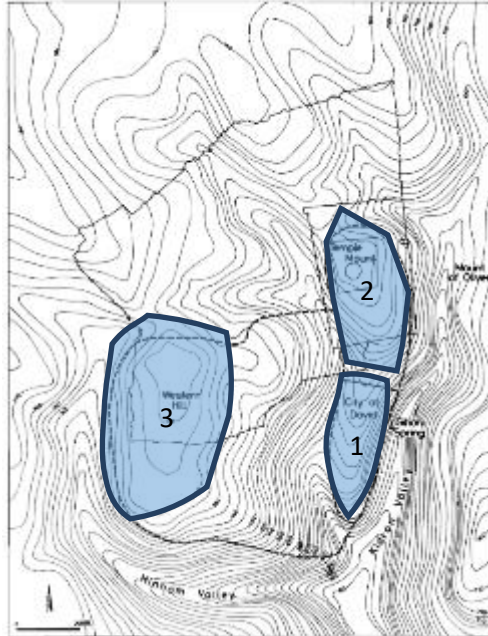


Fig. 1, Map of Jerusalem: The first temple period, (source: the authors)

The idea of dividing the city into several zones is still premature in the western literature, let aside that the unified kingdom could have built several cultic structures.

The expansion of the city towards the western hill in their view only started during the eighth century BCE, and it was swift because of an immense immigration wave ((3) in fig. 1), (Re'em 2022). This scenario is under debate for decades, either regarding the overall zoning or regarding the partial neighborhoods and quarters.

4.3. Jerusalem and Zion

Jerusalem and Zion appear in tens of occasions as a duology of (Jerusalem vs Zion), as if they are two major neighborhoods connected within the biblical urban events. The personality of each is distinct, they do not emerge however they cannot functionally separate. The biblical script introduces Zion as an armed center of power and decision making, described as a “high mountain” (Isaiah 40/9) with elders (Lamentations 2/10) and strength (Isaiah 52/1-2) that roars (Joel 3/16, Amos 1/2) and implements the law (Isaiah 2/3, Micah 4/2). On the other side, Jerusalem is portrayed in variant ways. Sometimes as the soft civil core of the duology, with beautiful garments (Isaiah 52/1) that utters voice (Joel 3/16, Amos 1/2) and protects virgins (Lamentations 2/10), and sometimes it is described as holy, “a city of truth, and the mountain of the LORD” (Joel 3/16, Zechariah 8/3), and raising the word of lord (Isaiah 2/3, Micah 4/2). Another perception for Jerusalem is provided by Josephus (Josephus & Whiston 1737: Wars, B.5, C.4, P.1), who described the biblical Jerusalem as the overall name of the urban center, as follows:

1. “The city [of Jerusalem] was built upon two hills, which are opposite to one another, and have a valley [Tyropoeon] to divide them asunder; at which valley the corresponding rows of houses on both hills end”.

2. “the upper city is much higher..., it was called the "Citadel," by king David... But the other hill, which was called "Acra" and sustains the lower city”.

3. “when the Asmoneans reigned, they filled up that valley with earth, and had a mind to join the city to the temple. They then took off part of the height of Acra, and reduced it to be of less elevation than it was before, that the temple might be superior to it”.

4. “Now the Valley of the Cheesemongers [Tyropoeon], as it was called, and was that which

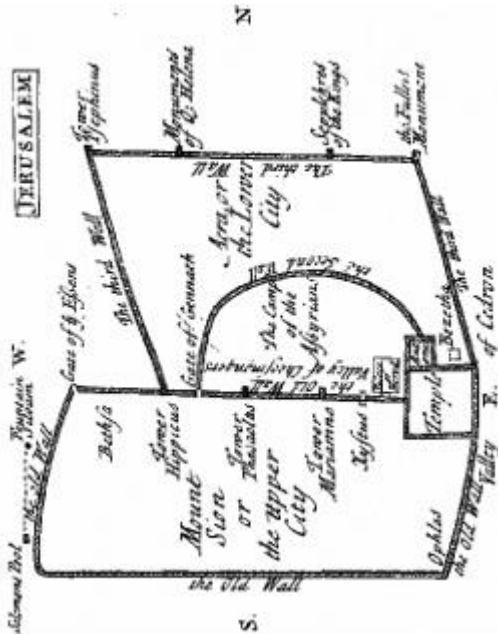


Fig. 2: Josephus & Whiston description of Jerusalem. (Source: Josephus & Whiston, 1737).

The following points are to summarize the topographic features of biblical Jerusalem, as described by Josephus (wars 4:4/1) (Fig. 2):

- Jerusalem consists of two districts: the upper (the Citadel) and the lower (the Acra).
- A valley that is called the Valley of the Cheese-mongers (the tyropoeon) distinguished and separated those districts, and extended as far as Siloam.
- Topographical projects were conducted by the Asmoneans:
 - o The level of the lower city was reduced to become less than the temple’s.
 - o The caused soil was employed to fill the intermediate valley, joining “the city” to “the temple”.
- In the days of Josephus, i.e. the first century AD, the built-up area extended until the edge of the Tyropoeon, were rows of buildings faced each other.
- Within the flat region of the western hill; the “city” was built upon two hills, which are opposite to one another, the Citadel (upper city) and the Acra (lower city).
- On the other side, the “temple” was erected on the eastern hilly region.
- The temple was built in a lower level compared to the Acra, therefore a significant amount of soil was cut from the Acra to reduce its level, so that not to supersede the temple’s altitude. That soil was employed to level parts of the tyropoeon.

- The city's components were fortified with three walls, unless a deep valley protects any of its sides. For such places, only one defensive wall was provided.

4.3.1. Jerusalem:

As aforementioned, Jerusalem is understood as the spiritual core of the duology, described as holy, “a city of truth, and the mountain of the LORD” (Joel 3/16, Zechariah 8/3), and raising the word of lord (Isaiah 2/3, Micah 4/2). Another civil nature of the city is perceived from expressions like having beautiful garments (Isaiah 52/1) that utters voice (Joel 3/16, Amos 1/2) and protects virgins (Lamentations 2/10). As per an overall revision, it seems that the total duology is called Jerusalem, with Zion as a neighborhood within; like it is implied in the statement: “Zion, the hill of Jerusalem” (Isaiah 10/32). Consequent to this, Jerusalem is an equivalent to the traditional city of Jebus. In its early stage until the Davidic conquest, the location of Jerusalem is frequently identified by being the traditional Jebus of the Canaanites (Judges 19/10, Joshua 18/28, I Chr. 11/5-8). The prophecy gives a sorrowful end of them that seems to come concurrently as Zion would be plowed as a field, and Jerusalem shall become heaps (Micah 3/12).

Accordingly, the controversy whether Joshua gained control over Jerusalem cannot be settled employing a direct script; the concept of separate districts in Jerusalem must be considered.

In Joshua's distribution of Canaan between the Israelites, the tribes around Jerusalem were three; Judah, Benjamin, and the Levites:

- Judah's boundary “passed toward the waters of Enshemesh, and the goings out thereof were at Enrogel. And the border went up by the valley of the son of Hinnom unto the south side of the Jebusite, the same is Jerusalem, and the border went up to the top of the mountain that lieth before the valley of Hinnom westward, which is at the end of the valley of the giants northward” (Joshua 15:7-8) (fig.3).
- Benjamin's border “came down to the end of the mountain that lieth before the valley of the son of Hinnom, and which is in the valley of the giants on the north, and descended to the valley of Hinnom, to the side of Jebusi on the south, and descended to Enrogel”, which included the townships of “Jebusi, which is Jerusalem, and Gibeath” (Joshua 18:16, 28) (fig.3).
- As the Levites were priests, they lived among the divisions of other tribes, like sharing the townships of Gibeon and Gibeath with Benjamin (Joshua 21:17). However, the existence of the Levites in the surrounding territories gives an impression of their ritual importance.

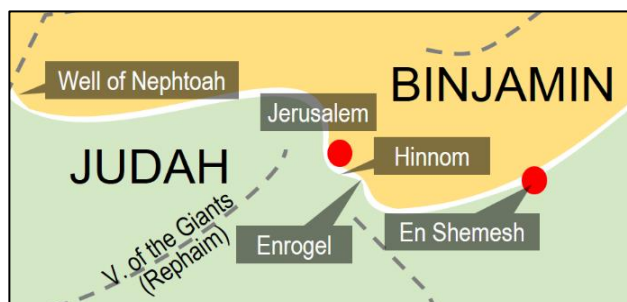


Fig.3: The location of Jerusalem's environs on the borders between the divisions of Judah and Benjamin (Source: the authors)

During the next Israelite era; the Judges, the biblical scripts reported that Jerusalem was described as a Jebusite city, Jebus and a stranger city, where “the Jebusites were its inhabitants, the children of Judah could not drive them out; but the Jebusites dwell with the children of Judah at Jerusalem unto this day” (Joshua 15:63, Judges 19:10-12). The biblical script supports this scene in a contextual manner, the related phrases have to be

read carefully, integrated with others, to have a reasonable urban organization within the provinces of Biblical Jerusalem. In a historic sequence; following Joshua's military campaigns, it is mentioned in (Joshua 15:63) that "Jerusalem" was in the share of the tribe of Judah but they couldn't invade it, so they accepted accommodating there with the Jebusites. In another phrase, (Joshua 18: 21-28), the Jebusite citadel of Jerusalem was part of Benjamin's share, added to Gibeath, Gibeon, Geba, and other settlements. Nevertheless, it does not seem that the Jebusites abandoned the area; they continued living at Jerusalem and controlling its citadel.

The urban scene here is divided between the Israelites and the Jebusites. The Jebusites dwelled in Jerusalem city and controlled its citadel, while the tribes of Benjamin and Judah accepted tribute from the Jebusites who lived peacefully among their Israelite farmer neighbors within Jerusalem region (Joshua 15: 63, Judges 1:21, Josephus 5/2:5). Since the invasions of Joshua, the tribe of Benjamin occupied the eastern hills (Gibeon in Hebrew), while the west outside the walls were in Judah's share (Joshua 15: 1-12, 63), although it seems a temporary occupation by the latter.

As the name Jebus appeared in the scripts only during this period, this implies that a constant differentiation occurred between Jerusalem neighborhood which was still characterized by the Jebusites, and the adjacent Israelite neighborhoods, so that the former was temporarily named the Jebusite.

There is a report that the nearby Judah tribe attacked the city "and had taken it, and smitten it with the edge of the sword, and set the city on fire" (Judges 1:8). Literal acceptance of that claim contradicts with the later statement that "Benjamin did not drive out the Jebusites that inhabited Jerusalem; but the Jebusites dwell with the children of Benjamin in Jerusalem [Jebus] unto this day" (Judges 1:21). It seems that Jebus have most likely accepted to pay tribute to Benjamin rather than been occupied by Judah (Judges 1:21, 27-34). Judah's invasion could have occurred to an external part of Jerusalem, especially that they settled as the city's neighbors across the Hinnom valley (Joshua 15:7-8). The absence of any biblical records about Jerusalem during the phase of Judges suggests that the city was outside the Israelite control by then.

The biblical scripts inform us that the closest urban adjacent neighbors should have been Gibeath and Ramah of Benjamin, denoting a biblical story when two travelers "were by Jebus, and the day was very far spent", so they decided "to lodge all night, in Gibeath, or in Ramah", "and the sun went down upon them when they were by Gibeath" (Judges 19:11-15). Apparently that Gibeath-Benjamin was very close to Jebus, so that the sun setting on the latter would not finish setting until a by-passer approaches Gibeath; it would have been as far as few minutes' walk.

Later, when David "set out for Jerusalem against the Jebusites who inhabited the region" he did not occupy it, "but David captured the stronghold of Zion; it is now the City of David" (Samuel-II 5: 6-7). Hereby it can be realized how he categorized Jerusalem into two quarters: a civil quarter (Jerusalem) which was saved, and a military district (stronghold of Zion) which he invaded. Afterwards, David meant to convey the ark from "the hill" or "Gibeath", as translations differ, where the process was delayed at Nothan's threshing-floor, to be pursued after three months and the ark was moved gradually to the city of David accompanied with dense rituals, becoming accommodated in a tent at David's house (II Samuel 6:1-17).

When Solomon became king, he completed "the wall of Jerusalem round about", and simultaneously he also built his own house, and the "House of the Lord" (I Kings 3:1). Around five centuries later, also Nehemiah rebuilt the city walls, and Jerusalem was accommodated by the rulers and one tenth of the Israelites (Nehemiah 11:1). As for the other quarters; the Old Testament mentioned that "Ophel" was dwelt by the Nethinims and "the House of Lord" was observed by the Levites (Nehemiah 11:21-22).

4.4. ZION

4.4.1. History and Description

Mount Zion is one of the significant features of biblical Jerusalem, it is described as “the hill of Jerusalem” (Isaiah 10/32). Mount Zion is mentioned as the hill where King David's palace was erected (II Sam 5/7) and the place where he brought the Ark of the Covenant (I Kings 8/1, II Chr 5/2). Moreover, the City of David was located on mount Zion to the south of the temple (e.g. II Samuel 5/7), or it identifies Zion as the City of David, sometimes as a geographical location (i.e. Zion (I Kings 8/1, II Chr. 5/2)). Zion is also identified as a stronghold (i.e. fort, castle, stronghold (II Sam 5/7, II Sam 5/9, I Chr. 11/5-8)). It overlooks a geographical feature that is called the valley of Rephaim on the way to Bethlehem (II Sam 5/17-18, II Sam 23/13-14).

There is an old debate among scholars about the exact location of Mount Zion in Jerusalem, with some identifying it with the eastern hill and others identifying it with the western hill. The conventional consensus between major resources identified Zion location as the western hill: “The tradition both of the Greek and of the Latin church identifies Zion with SW. This is followed by Robinson, Williams, Lewin, and DeVogue” (Paton 1907).

On the other side, subsequent studies consider that the earliest settlement was founded on the eastern hill to the south of the “Temple Mount”, due to its proximity of the “Gihon spring” as it was its main source of water (Ussishkin 2003: 105). Linking it to the City of David, as aforementioned, this team defended that also that settlement should be identified on the eastern hill of Jerusalem (currently considered Ophel). Paton (1907) summarized a “recent” approach that Zion was on the eastern hill, and mentioned that it was “advocated by Caspari, and has been adopted by Birch, Weikert, Socin, Guthe, Benzinger, Buhl, and G. A. Smith”. It was odd how Paton approached this view without presenting an introductive elaboration. He just unquestionably depended on the Western common culture about the site of the “temple” to join up an overall and spontaneous sequence: “the Temple was certainly situated upon the eastern hill; consequently, Zion also must be sought on this hill”. He added that “he knew” that the City of David and Solomon Palace were associated with the temple, and because they were “certainly” on the SE hill, that should have been the location of Zion (Paton, 1907).

One passionate advocate for the eastern location of Zion was G.A. Smith, who prepared a separate chapter to maintain his proposal (i.e. “VI: Sion, Ophel and ‘The City of David’”); summarized in table (1) below.

Table (1): Comparison between the SW and the SE Hills of Jerusalem; which of them is the Biblical Zion

Item	Description	Smith's Argument	Opposite Remarks
1	Traditional consensus and Josephus credibility	<ol style="list-style-type: none"> 1. Josephus “was not a trustworthy guide among the ancient conditions” (Smith 1907: 1/136) 2. The biblical script allocated Zion on the eastern hill (Smith 1907: 1/144-151) 	<ol style="list-style-type: none"> 3. “The accurate and minute account of Josephus is the highest authority to which the research can resort for ascertaining the form and limits of the Jewish capital” (Robinson 1881: 557). Even Smith himself accepted the authority of Josephus regarding sensitive topics like the Tyropoeon (Smith 1907/1: 35) 4. The biblical scripts have a clear description for the geography of the area around Jerusalem invaded by David PBUH, and they unmistakably allocate the City of David on the SW hill of Jerusalem. Jebus, which was the historical name of Jerusalem prior to David, is identified on the SW hill (Joshua 15/8), and Jerusalem is identified of being City of David itself in more than one occasion (II Kings 9/28, II Kings 14/20). Also, Zion is identified as being the same as

			<p>the City of David (II Samuel 5/7, I Kings 8/1, I Chronicles 11/5, II Chronicles 5/2). This interpretation is universally accepted and adopted by the Christian Church and almost all the traditional writers prior to Smith, as quoted earlier (Paton 1907: 327, Smith 1907: 1/161).</p> <p><u>Authors' Conclusion:</u> Smith's judgement about Josephus shows variance according to his arguments, and he failed to show that Josephus contradicted with biblical resources. On the other hand; he shows opposition to the Church and to significant names like Robinson.</p>
2	The appropriateness of the SW hill to accommodate a Bronze/Iron Age walled city.	<p>Disadvantages of the SW hill: Such a hill; so broad and long without any outstanding eminence, would have been unsuitable for such a citadel as that of the Jebusites.</p> <p>Wilson is quoted: "no broken ground or conspicuous feature upon it that would be naturally selected as the site of a castle" (Smith 1907: 1/137)</p>	<p>Advantages:</p> <ol style="list-style-type: none"> 1. Smith mentioned some of its advantages as follows: <ol style="list-style-type: none"> a. the height of the SW hill above its flanking valleys, W. er-Rababa and el-Wad [i.e. the Tyropoeon as suggested by Robinson] b. the steepness of the slopes by which it rises from the latter; c. its dominance of the other hills of Jerusalem, d. its fitness for fortification. (Smith 1907: 1/137) 2. The area of the SW hill from the citadel is wide; not less than 20 acres. 3. The SW hill is on the same level of the rest of Jerusalem and capable of expansion to the N and the E. 4. The historical fortress of Jerusalem is still apparent there, and no certain remains of another fort appears around the city.
3	The appropriateness of the SE hill to accommodate a Bronze/Iron-Age walled city.	<p>Advantages of the SE hill: Absence of features:</p> <ol style="list-style-type: none"> 1. Such a hill; so broad and long without any outstanding eminence, would have been unsuitable for such a citadel as that of the Jebusites. 2. Wilson is quoted: "no broken ground or conspicuous feature upon it that would be naturally selected as the site of a castle" (Smith 1907: 137) 	<ol style="list-style-type: none"> 3. Poor defensive location: the eastern hill is not so high as the western, which dominates it (Smith 1907: 138). Its level is 50m-lower. 4. Limited area (~ 10 acres). 5. Incapability for expansion: steep slopes from N, S and E obstruct the expansion of settlements.
4	Lack of water	<ol style="list-style-type: none"> 1. The South-west Hill is waterless and lies aloof from the ancient source or sources of water in the Kidron valley. (Smith 1907: 1/137) 2. Rock cisterns are few. 	<ol style="list-style-type: none"> 3. "some towns in Palestine are planted at as great a distance from their springs as the South-west Hill is from the Kidron valley". (Smith 1907: 1/137) 4. Biblical Gihon is neither definitely identified as a spring, nor it is surely located on the SE hill. Gihon could have been a water source located to the W of the SW hill (2 Chronicles 32/30, 33/14). There is a tradition that spring Gihon lay in the head of Wady er-Rababa adjacent to the western hill (Smith 1907: 137-138). 5. There was a Low Level Aqueduct providing the pool adjacent to the western hill with surplus water, "which seems to be the oldest conduit bringing water from a distance" (Smith 1907: 1/113). <p><u>Authors' Conclusion:</u> the importance of this factor appears to be controversial as the water is available</p>

			<p>in the nearby. In this sense Smith's debate included contradictions from a statement to another. He says that the western hill is waterless, far from sources, and has no cisterns. He himself stated that other walled-towns did not usually have water within, and that water was brought by aqueducts into large pools beside the western hill which might have enjoyed the waters of spring Gihon. Regarding the cisterns, Smith agrees that the hill was not thoroughly excavated by his time.</p>
5	Archaeological Findings	No remains have been discovered on the South-west Hill which can be assigned with certainty to the pre-Israelite period (Smith 1907: 1/138)	<ol style="list-style-type: none"> 1. In the Kishle/citadel site: "remains were found from the Bronze Age" (HCUW (n.d.): 16). 2. "The important and fascinating find from the end of the First Temple period (8th century BCE) is a segment of Wall W2... was exposed for a length of 15m. It was preserved to a height of 2.5–3 m. ... This is the westward continuation of the Broad Wall that surrounded the entire Western Hill from north to the area of the Citadel... W2 is the first definite evidence for the existence of the wall on the western edge of the Western Hill" (Re'em 2019). 3. Evidence of architectural finds, fortification remains and small finds dating from the late First Temple period (Re'em 2022: 99). 4. On the eastern slope of Mt. Zion, part of the First Wall from the Second Temple period was exposed (Re'em 2022: 95). 5. The overall topographical appearance of this area [about 100 m. east of the present-day Zion Gate] has changed quite substantially since the Iron Age II, with a noticeable fall of underlying rock levels towards the south and southeast" (Gibson et.al 2019). 6. The excavation did yield a rather substantial amount of pottery sherds dating from the Iron Age II, suggesting that this area was in use at that time (Schöpf et.al 2021: 1). 7. The researcher should note that such discoveries could have been reservedly published for political obstacles. <p><u>Authors Conclusion:</u> the field of archaeological research is not a constant factor, note that Smith opinion depended on research over a century ago where he commented: "It is true that the hill has not yet been thoroughly excavated". However, current discoveries raised serious challenges against Smith's view.</p>

As a conclusion regarding Smith's argument, the researchers think that it became obsolete referring to the accumulated knowledge since it was published. On the other side, the traditional view was solidly adopted by authoritative scholars like Josephus and Robinson and the Christian Churches as Smith admitted.

Apart from supporting the conventional view just referring to the consensus, several current reviews tried to adopt the eastern hill as the location of biblical City of David, however they casted their implied reservation on that location. For example; Ze'ev Herzog called the biblical Unified Kingdom a chiefdom with no name, stating that: "it is clear that Jerusalem in the time of David and Solomon was a small city, perhaps with a small citadel for the king, but in any event it was not the capital of an empire as described in the Bible" (Herzog 1999). Obviously, the area of the eastern hill (around 3-4 hectares)

was unable to accommodate the facilities of a capital of the Bronze age or Iron Age I, which needed more than 10 hectares (Strange 2000: 73), hence the objection of Herzog. On the other hand, the western hill could easily provide the required area. Also, Reich and Shukron studied the major urban features in Jerusalem during the 8th century BCE. They relied on the assumption that the city started from the SE hill and did not expand to the SW hill until the 8th century BCE. Yet they wondered about its sudden population growth, and decided that it was caused by the large immigration waves arrived from the N. The perimeter of the city was extended twice in this century. Their study concluded that the original area was 35-40 donums (donum= 1,000 m²) during the tenth and ninth centuries BCE, had suddenly expanded to 300 donums (900%) in the eighth century (Reich and Shukron 2003). That idea of swift influx cannot be accepted as probable, especially that other Israelite settlements appeared in the North and around Jerusalem simultaneously (Schniedewind 2003: 381). From an archaeological side, Re'em reviewed that hypothesis and concluded that it does not conform with the archaeological evidence: "The new finds from the Kishle contradict researchers' conclusion that Jerusalem, limited to the area the City of David and the Temple Mount, rapidly developed to occupy the Western Hill as a result of a mass influx of refugees... The settlement process on the Western Hill appears to have been gradual" (Re'em 2019: 139).

Another study by Ussishkin, also adopted the eastern location of the City of David as a start, stated that "the addition of a large royal compound, much larger than the settlement itself and at a distance from it, would be rather anomalous". He expressed his reservations about the location by suggesting four alternative possibilities for reconstructing the royal acropolis of the house of David and the cultic zone. He said that his alternatives are based "mainly on the interpretation and evaluation of the biblical text and on historical interpretation". In the second alternative he suggested that the royal acropolis was built as a separate entity by Solomon as described in the biblical text, and it was incorporated in the expanding city in a later period (Ussishkin 2003: 113-114).

Hence, the research can deal with the identification of the western hill as the location of the biblical sites of Zion, Jebus and the City of David, beyond reasonable doubt. This almost meets with the conclusion of Edward Robinson when he identified the name "Sion" as follows:

- (1) "the name of one of the mountains on which the city of Jerusalem was built, and
- (2) on which the citadel of the Jebusites stood when David took possession of it, and
- (3) transferred his court thither from Hebron, whence it is frequently called the city of David; and
- (4) from his having deposited the ark here" (Robinson 1881: 857)

4.5. The Valley of the Cheesemongers or the Tyropoeon:

According to Josephus; the "temple" and the "city" were separated by a valley where cheese production took place, more probably as a temporary activity within seasonal dairy facilities. That valley was called in Josephus Latin (tyropoeon) and translated into (cheesemongers) by Whiston.

Retrieving the scenario about Jerusalem as a pilgrimage destination in the tenth century BCE (see below) and the enormous quantities of non-consumed milk during pilgrimage activities, one of the most noticeable industrial liquid waste would be that of the dairy processing. Generally, dairy processing is usually considered the largest industrial food wastewater source (Slavov 2017), where up to 90% of the volume of the original material (milk) is left as wastewater. Accordingly, a flow of salty liquid waste would be seen running down the hill. That is estimated in table 2 above as 970 m³, which would remove topsoil to create its course throughout the centuries, and maybe it would expose parts of the bedrock. Hence, we could propose that that valley was temporary and shallow in

addition to creating an unfriendly environment. We also estimated that the area covered by its stream was around 20,000 m² (table 1).

Josephus reported that the Asmoneans, during the second century BCE, have filled up that insignificant dividing valley with earth, aiming to join the city to the temple. They then took off part of the height of Acra, and reduced it to be of less elevation than it was before, so that the temple might be superior to it (Wars 4:4/1). The script does not mention if that fill was partial or total, but we suggest that it has started partial in certain points for the needed infrastructure and pathway from E to W and vice versa, because the total fill would require vast resources in the measures of the Asmoneans. Furthermore, it seems that the strategic goals of the Asmonean kingdom would be fulfilled by extending the minimum links between the two settlements, while filling other parts of the valley would be left to the individual architectural projects.

Whiston proposed that that valley started from the very west of Jerusalem and moved east towards the pool of Siloam. On the other hand, Robinson proposed that it started as far as the recent Damascus gate of Jerusalem, and ran towards the same pool. No significant signs of that valley can be traced today. However, according to Josephus description and current geography, it seems more probable that it ran where the city was in the west towards the southeast, because the sheep and the cattle shelters and pitches should have been closer to the city.

5. Gibeon, Gibeath

The other quarters in the area around Jerusalem were the Ophel and the House of Lord (Nehemiah 11:1). The biblical script mentioned that “Ophel” was dwelt by the Nethinims and that “the House of Lord” was observed by the Levites (Nehemiah 11: 21-22).

The old testament reads: “So Solomon, and all the congregation with him, went to the high place that was at Gibeon; for there was the tabernacle of the congregation of God, which Moses the servant of the LORD had made in the wilderness”. (II Chronicles 1: 3)

Discussions about Gibeon are unconcluded; it is known as the Canaanite city that went into a treaty with the early Israelites (Joshua 11:19), and its location is frequently proposed where archaeological excavations were conducted at al-Jib around 13 km to the NW of the Jerusalem (Google Maps). Worthy of notice is that the archaeological activities from al-Jib did not yet uncover any architectural evidence of ritual buildings from the Iron Age, although the evidence shows that it was a wine-producing center by then (Pritchard 1959).

Eusebius’s Onomasticon describes “Gabaon” as follows: “It was a great metropolis and capital of the Hevites which was given by lot to Benjamin. There is even now a village called the same near Bethel [he means Gibeah], four miles to the west on the road to Rama. Set aside for Levites near Remmaa. Here Solomon while he was sacrificing was found worthy of an oracle from God” (Wolf, 1971). Nevertheless, Wolf expressed confusion about the accurate location: “A number of towns in the Onomasticon are related to Gabaon (K. 66:11, cf. 172:15) but even its location at el-Jib is contested. Here Bērōth is near Jerusalem while Gabaon is usually located with respect to Bethel. Eusebius’ biblical remark on Gabaon, however, is more political and economic than geographic. Archaeologists and geographers have had a lively debate over Bērōth and Gabaon which was not ended with excavations of el-Jib.” (Wolf, 1971). “Gabaon (Joshua 9:9ff.; K. 66:11; L. 253:6). The complications on Gabaon have been noted in discussion of Bērōth (K. 48:9). It is further complicated here by 4 miles west of Baithel (K. 40:20). Both the Latin of Jerome and Procopius 1020C accept this reading. This would make the Gabaon in Onomasticon near Ramallah. In the Onomasticon Gabaon, Rama, Galgala, Ailon and Aggai are near Baithēl (cf. Joshua 10:2, 18:25, 21:17; I Kings 3:4). The

Madaba map has a Gabaon at the location generally preferred for the OT site el-Jib. In Interpretation of Hebrew Names “Gabaon, hill of walls.” (Wolf, 1971)

Furthermore, there is an interesting biblical phrase that attracted the attention of rabbies, which reads: “And Solomon came to the high place that was at Gibeon-Jerusalem (בְּגִבְעוֹן יְרוּשָׁלַיִם) (II Chronicles-1/13). The Talmud mentioned a scholarly comment on that phrase by Rabbi Yonatan saying: “Now, what does Gibeon have to do with Jerusalem?” (Davidson). The point of issue in that query is that the biblical script put Gibeon as a geographical part of Jerusalem, while most biblical studies still debate that it was a remote settlement; at al-Jib as aforementioned.

The researchers studied the root of the term and its variant employments in Hebrew, and even compared it to close variants in Arabic, as the richest language of the Semitic family with 12,000 entries. The terms Gibeah (גִּבְעָה) and Gibeon are from roots that indicate height and superiority; a superior neighborhood of the city of Jerusalem for example: “Names like Ramah, Mizpah, and Gibeah (all from roots indicating height), which were very common in Palestine, indicate that a site on an elevation was preferred for a city” (Douglas and Tenney 2011: 626).

This would provide us with a silkier interpretation of the significance of the Solomonic Gibeon, the frequent biblical activities within the site, and the magnificent buildings it contained: “Gibeon was a great city, as one of the royal cities” (Josh 10/2, I Kings). Gibeon/Jerusalem is where Solomon frequented to sleep and slaughter (I Kings 3:4-5, 9:2) and where he accommodated his high priest (I Chr. 16/39); such a location is hardly not to be different from the Canaanite Gibeon.

After Solomon died, Pharaoh Shoshenq-I organized a campaign into Palestine, and invaded Jerusalem and robbed the treasures of the house of the King and the house of the LORD (Kings-I 14:25-26, Kings-II 12:9). In that Pharaoh’s list of invaded cities at Karnak, the name “Gibeon” was one of his stations (Wilson 2005) rather than “Jerusalem”, which may indicate that we are talking about the same place.

As per our common observation with the names of places, a particular name may be employed to call several locations during the same period, especially if it means a mutual description of topographic features. Examples from historic Palestine are many, like Jaba’- Jenin (32.325516, 35.219531) (fig.4), Jaba’-Wadi Mikhmas (Geva Benyamin)-Jerusalem Area (31°51'55.1"N 35°16'39.3"E) (fig.2), Jaba’ (Quomia)- Beesan (32°33'54.0"N 35°23'44.5"E) (fig.3), Jaba’- Haifa (32°39'04.3"N 34°57'41.0"E) (fig.4), and Jab’ah- Bethlehem (31°40'28.1"N 35°05'40.1"E) (fig.5). This sense is accepted among biblical geographers. For example; they mix the alternatives of Gibeah into three locations at least: Gibeah of Benjamin, Gibeah of Judah and Gibeah of Ephraim.

However, all mentioned sites share a characteristic location on top of a hill that overlooks a plain or a wide valley, which resembles the original topography of the Aqsa Mosque location.

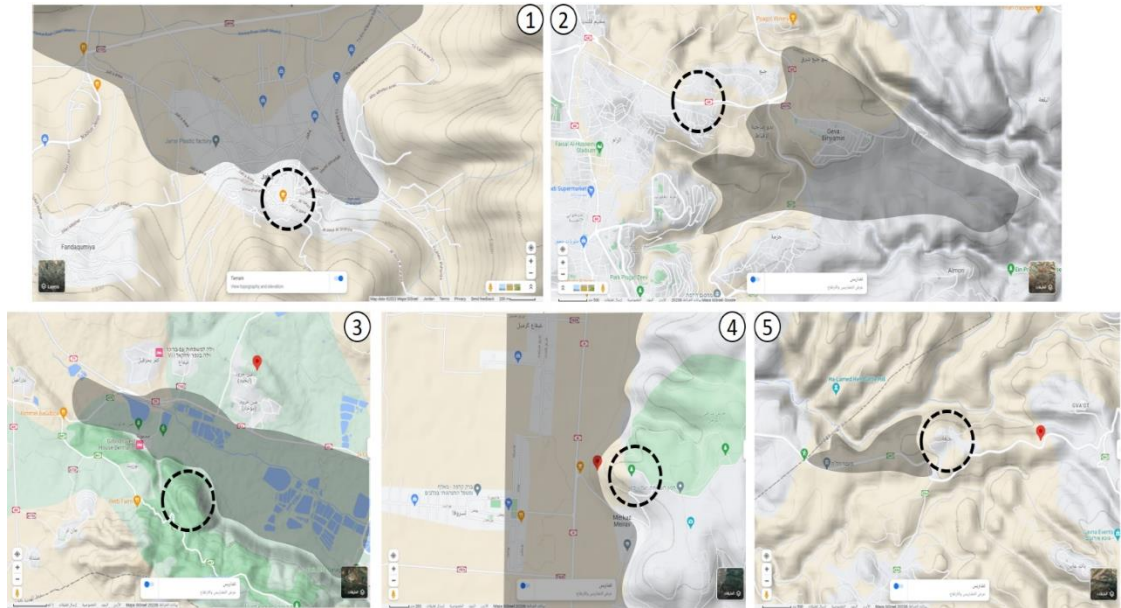


Fig.4: Examples of Palestinian sites that hold the names close to biblical Gibeon or Gibeah: (1) Jaba' Jenin, (2) Jaba' Wadi Mikhmas, (3) Jaba' Bethshan, (4) Jaba' Haifa, (5) Jebeah Bethlehem. (note: dotted circle illustrates the settlement and shaded area illustrates the plain or the wide valley) (Source: the authors, after Google Maps)

Hence, the researchers assume that the site where the Benjamites settled near Jebusite Jerusalem was called Gibeath, or simply the hill, of Benjamin. It was most likely on the eastern mounds outside the current wall, which is currently indicated as the opheh. Its holy hilly surrounding to the north was called Gibeon, or simply the hills as well, which is today the location of the Aqsa Mosque. The two Hebrew words are alternately used as names and descriptions for the same overall area, as aforementioned. Saul came from there; an unexpected character that belonged to a small family in the smallest tribe of Benjamin and lived at Gibeath-Haelohim, or simply the hills of God (I Samuel 9: 21). That “hills of God” is no doubt identified as a ritual location for the Israelites from early times; as early as Joshua. It is where they expected to meet their prophets, high priests and distinguished scholars. When Saul came back from his search journey, he apparently passed by that ritual location to meet Samuel, who came from the nearby Rama and announced Saul as a king (I Samuel 9:4). At that period, it appears that Gibeath-Haelohim, or the hill of God, was surrounded by ritual locations for the Philistine prefects (I Samuel 10:5), maybe within the nearby Jebus.

In accordance with the above, we have to accept that there were two significant buildings rather than a single one:

- The first was a clerical monument at the eastern district, that is Gibeon (I Kings 9/2), which holds a permanent holiness (II Chronicles 2/4-6) since Abraham (Genesis 13/3-4), Jacob (Genesis 28/22), Samuel (I Samuel 10/5), Joshua and David (I Chronicles 21/29).
- The second monument was a political sign that symbolized authority, erected proximate to David's new suburb, the City of David. It included several buildings connected by galleries and porches, one of them was the “house of the ark”.

6. Requirements and Spatial Needs of the Cultic Zone

the research understands from Josephus's Wars that the FT Israelites practiced their religious rituals in two dimensions, liturgical prayers and offering sacrifices. He reported that the temple of Solomon was restricted to a prayer house and an altar: “Now this

temple was built upon a strong hill. At first the plain at the top was hardly sufficient for the holy house and the altar, for the ground about it was very uneven, and like a precipice” (Josephus/Wars 5:184). Jewish resources state that “communal prayer is hardly found prior to the separation of Israel and Judah, and that praying was entirely voluntary during the time of the First Temple”. What became the only obligatory exercises are the “Davidic hymns sung by the Levites and the vows of repentance accompanying the sin-offerings”. On the same level that that change supported the priesthood with the offering system until its decline by the destruction of the consequent temples, it also minimized the role of the prayer spaces. Nevertheless, the ark was not mentioned of any importance to the Jewish prayers, whether communal or individual, voluntary or obligatory (Adler, Harris, and Eisenstein 1903). The same absence of the Ark applies to the sacrifice worship rituals, even the Holy-of-Holies is rarely mentioned (Hirsch et al., 1903).

Therefore, the cultic temple of Solomon was the center of an enormous institution in many measures; specialized in sacrifices and related services. Refer to the variety of functions for its fifteen appointed administrative offices as recorded in the Mishnah (table 2).

Table 2: Temple fifteen administrative offices and their functions as recorded in the Mishnah

	Temple Office	Remarks
1.	seals	given in exchange for money to purchase sacrifices
2.	libations	offering of water by spoiling it in special ceremonies
3.	allotments	the selection of priests for the day
4.	nests of fowls	birds for sacrifices
5.	health department	treating
6.	digging of wells	for the pilgrims
7.	announcements	the Temple crier
8.	gates	opening and closing them
9.	wicks for the candlestick	Menorah
10.	cymbals	leading the music of the Levites
11.	musical instruments	
12.	showbread	prepare
13.	incense	
14.	curtains	
15.	vestments	garments, dresses
Source	(Jacobs & Eisenstein, 1903)	(Hirsch & Ochser, 1903)

As for the temple treasury, seven trustees (amarkelim) and three cashiers (gizbarim) were assigned to manage the moneys of its donations and contributions (Jacobs & Eisenstein, 1903).

Let look at some temple activities, for example, to indicate the required facilities and to estimate the spatial needs for each of these facilities.

6.1. Israelite Pilgrimage to Jerusalem

Take pilgrimage to the First Temple for example: “Every male Israelite was required to visit the Temple three times a year, everyone should take an offering, [with minimum value of] three silver pieces. And while the appearance of women and infant males was not obligatory, they usually accompanied their husbands and fathers”.

Pilgrims journeyed to Jerusalem from all areas, their numbers should have been enormous. We have a figure from Josephus about the second temple period, while the

Jews lost their political independency to the Romans, around 2,500,000 pilgrims was the number estimated, on the basis of “256,500 paschal lambs at one Passover festival; allowing ten persons to one lamb”. Estimates sometimes were exaggerated to 12,000,000 pilgrims, from the census of Agrippa, who ordered the priests to take one hind leg of every paschal lamb, and counted 1,200,000 legs. Another estimate starts from the area of ancient Jerusalem that comprised an 2,400,000 square yards, and by allowing 10 yards for each person, would contain 240,000 persons (Deutsch et al., 1903). In all cases, a vast number always appear, and they might have varied throughout the seasons and the years, depending on different political and economic situations. That should have laid a massive burden over the natural resources of the ancient metropolis.

In this research we calculated a rough estimate in (table-2) for the spatial needs of a 1,000,000 pilgrim city with minimum facilities to meet their basic needs. As the table concludes, the area of a moderate pilgrims’ city should have been around 4,500,000 m², crowded densely within an area of around 2km x 2.5km on the relatively flat areas to the north and the west of the House of Lord at Gibeon (figure 5).

The House of Lord is the cultic facility where Abraham founded his alter (ref), which is believed by the Muslims to be an indication to the location of the Aqsa Mosque. That location was seized by Joshua from the Canaanites (ref), and resided Benjamin as neighbors to the Jebusites in the adjacent Jebus (ref). It is “Gibeon-Jerusalem” where Solomon visited and sacrificed a thousand sheep (II Chronicles-1/13). This facility was employed only for prayers, either ritual or individual, as the Israelite faith permitted both (Al-Messiri 2001).

Pilgrims would have resided in temporary accommodation during the pilgrimage seasons. Water tanks, wells, pools, ponds, channels and tunnels were provided to respond to their ritual and drinking consumption, with a

volume of drinking waters in the pools alone of much more than 600k m³ upon our estimate in (table 3). That volume vastly exceeded the production of Gihon spring with around 20 times, if the secular metropolis ever depended on it solely.

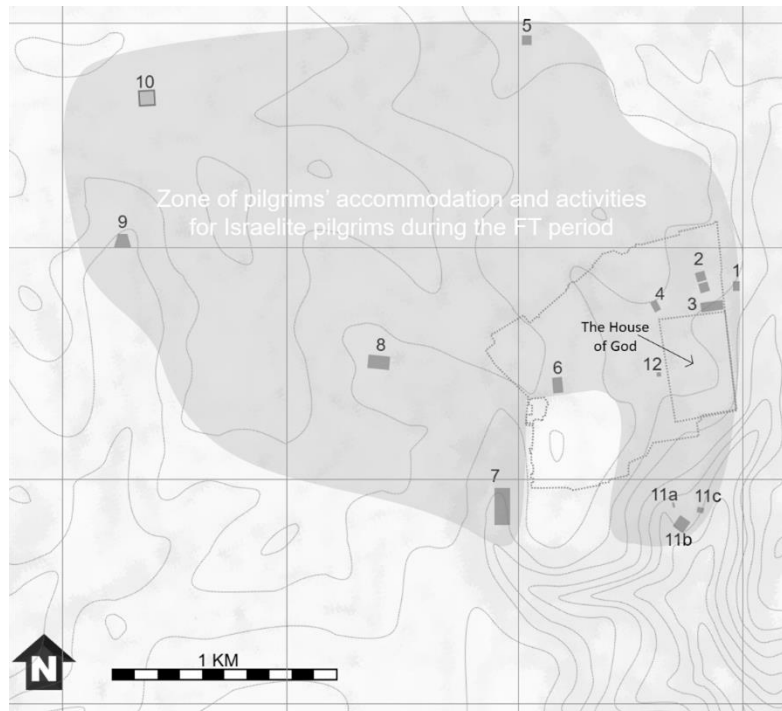


Figure 5: Main pools and cisterns in Jerusalem in the FT period (source: the authors)

Those pilgrims did not only need space for their accommodation, they needed spaces for circulation, gathering, and other requirements, either cultic or natural.

Table 3: Roughly Estimated Spaces required for FT Pilgrims- 1M pilgrims (the authors)

Facility	Unit area (M ²)	Number	Total (M ²)	Assumptions (minimized)
1 Pilgrims				1,000,000 number of Jewish pilgrims
1.1 Indoor accommodation	12	200,000	2,400,000	Temporary structures, each of 12 m ² (3x4) area, to house 5 persons
1.2 Urban circulation/ structure	3	200,000	600,000	2m road width
1.3 Multipurpose courts	2,500	13	12,500	Trading, eating, breaching, events... etc. expected around the main pools.
1.5 Wet closets	2	5,000	10,000	1 unit/ 50 persons
2 Livestock (LS)				assume 200,000 livestock for sacrifices (20,000 cow+ 180,000 sheep)
2.1 Open-lot market (all LS)	18,000	13	234,000	cow (2.5m ²), sheep(1m ²)
2.2 Hay storage (50k LS for 1 week)		13	20,000	cow (70kg), sheep (10kg), height 4m
2.3 Water drinking ponds	volume 48k m ³	24	24,000	Based on the monthly effluent for cow (1m ³), sheep (0.16 m ³), assume pond depth 2m
2.4 Cheese production liquid waste (for 1 month)	Milk volume 1,140 m ³ Waste vol. 970m ³	1 channel	20,000	2k cows (120 ltr), 50k sheep (18 ltr)/ 85% waste volume / assume channel depth 1m (assumingly the Tyropoeon)
3 Services				
3.1 Water Works: pools, cisterns, wells, tunnels, channels	net		62,000	The area is an estimate to the largest 10 pools as known today. Assumed to be used for drinking, washing, and liturgical needs.
3.2 Temple administration offices and maintenance servants	net		100,000	Compare to Nethinim on the SE hill in the days of Nehmia
3.3 Open green areas			660 k	20% of the sum area above
3.4 Circulation			375 k	10% of the sum area above
			4,517,500	Estimated total area of pilgrim spaces in FT period

Sources: (D. Adler, 1999)

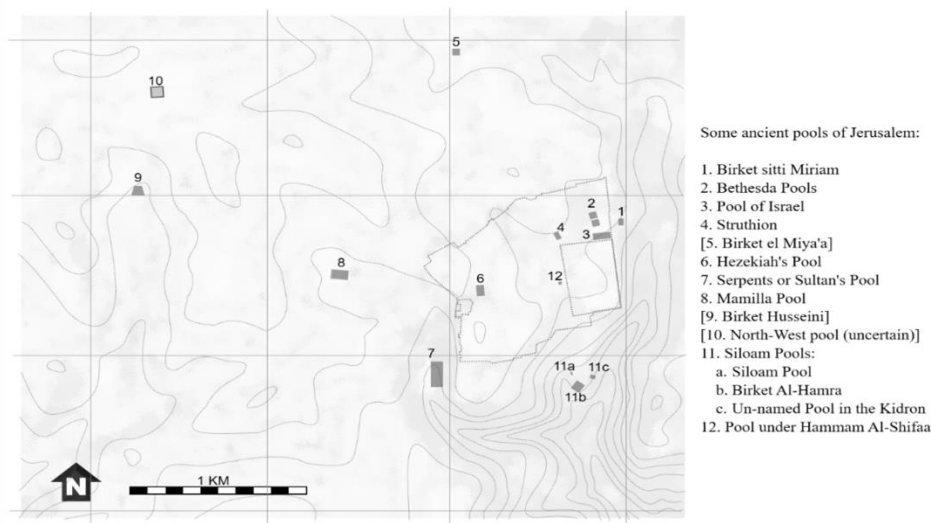


Figure 6: Main pools and cisterns in Jerusalem during the FT period (source: the authors)

Table 4: The Water pools and Cisterns in ancient Jerusalem, surface area and capacity

	Po of Jerusalem	Pool Area (m ²)	Capacity (m ³)
1	Siloam Pools	3,000	Unknown
2	Solomon's Pools	26,494	296,000
	2.1. Upper Pool	8,378	85,000
	2.2. Middle Pool	6,750	75,000
	2.3. Lower Pool	11,366	136,000
3	Temple Mount cisterns	NA	40,000
4	Hezekiah's Pool	4,180	30,000
5	Serpents / Sultan's Pool	11,323	50,000
6	Mamilla Pool	5,251	30,000
7	Bethesda Pools	6,000	90,000
8	Israel Pool	4,180	110,000
9	Struthion (Cistern)	867	4,500
10	Birket sitti Miriam	750	6,000
TOTAL		62,045 m ²	>656,500 m ³
Source: (Schram, 2013)			

6.1.1. Sacrifices

As aforementioned, the number of livestock offerings was enormous in the measures of that age. Modest calculations would assume that it was the tenth of the number of the pilgrims, with a figure of 24,000 livestock in the least estimated figure.

the researchers have calculated main spatial requirements of the live animals' yards, and here examine the functional requirements for sacrifice activities, and estimate their spatial needs.

Every Jewish male was obligated to submit four annual sacrifices; "holy of holies" ("kodesh ha-kodashim"): (1) the holocaust; (2) the meal-offering; (3) the sin-offering; (4) the trespass-offering; those are slaughtered at the north side of the court only. There are also other voluntary sacrifices of lesser holiness, which might be slaughtered anywhere in the court. (Hirsch et al., 1903).

The sacrifice process includes consequent activities, starting by slaughtering the animal, then by consumption ways, and the ways to get read of the non-consumed parts. The process of ancient Israelite sacrifice slaughtering and consumption practices is documented. In the animal offerings the following acts were observed: (1) laying on of the hand or both hands; (2) killing; (3) gathering the blood; (4) carrying the blood to the altar; (5) sprinkling the blood; (6) consumption by fire (Hirsch et al., 1903).

Strict regulations were applied for free-will offerings; for instance: they must be brought to the holy place, their blood, fat, bowels and kidneys are prohibited as food, and flesh must be eaten on the day of the sacrifice or on the following day (Hirsch et al. 1903, Schechter et al. 1903, Hirsch 1903).

It is expected by such practices to leave a considerable amount of waste of the excessive parts. In a recent study the boneless meat is 28.5% of the live weight of cattle while it is around 20% in sheep and goat, which leaves the unconsumed percentage more than 60%. If we consider abovementioned modest figure (i.e. 24,000 sacrifices) that means a weight of 1,440 tons of waste, reduced to around 750 tons if we assume that half of the sacrifice animals will be burned openly without cleaning. You can add the amounts of water needed to wash the slaughtered animals and the location of slaughter (Table 5).

Table 5: Approximate yield of byproduct from cattle and small animals

Meat/ Byproduct	% in Cattle	% in Sheep/Goat	Consumed by the Israelites (%)
Meat (boneless)	28.57	~20	yes (100%)
Internal parts + skin	20.81	28.96	partly (30%)
Bones	22.85	~20	no
Blood	3.14	3	ritual use (20%)
Paunch content and waste	16	22	no
Urine, body fluid, bile, dung	3.5	included above	no

Source: (Irshad & Sharma,(Hirsch et al., 1903) 2015)

When slaughter is operated in the north of the House of Lord (north of the Aqsa Mosque today), it has to be moved quickly before the smell of the rubbish travels to the sacred area by the NW primary wind. We presume that the closest dung location for solid waste is the eastern valley or the Kidron Valley. A related instant is mentioned in the days of Hezekiah shows how that valley was employed for rubbish in the First Temple period: “And the priests ... brought out all the uncleanness ... And the Levites took it, to carry it out abroad into the brook Kidron” (II Chronicles 29:16). Rubbish heaps have been mostly burned in the open out there moving the smoke westwards away from Jerusalem neighborhoods.

It is claimed that the priesthood organization of the Israelites was adopted in most of the features from the Canaanites, which aroused the opposition of their Prophets (Hirsch et al., 1903). However, if we consider the aforementioned circumstances and sacrifice procedures we think that such an institution with its administration (Levites) and servants (Nethinims) was highly inevitable, nevertheless it was influenced by the Canaanites or not throughout its development phases.

A significant part of food consumption, say 50%, would have taken place around the “House of Lord”, leaving bones and leftovers to be treated there, either by burying the former or burning the latter. The significant role of the Nethinims appears at these circumstances, when a swift and thorough purification is required for the area after the enormous ritual events of pilgrimage: “the Nethinims, whom David and the princes had appointed for the service of the Levites” (Ezra 8:20). So they settled with the priests in the nearby to the House of the Lord: “Nethinims dwelt in Ophel, unto the place over against the water gate toward the east, and the tower that lieth out” (Nehemiah 3:26).

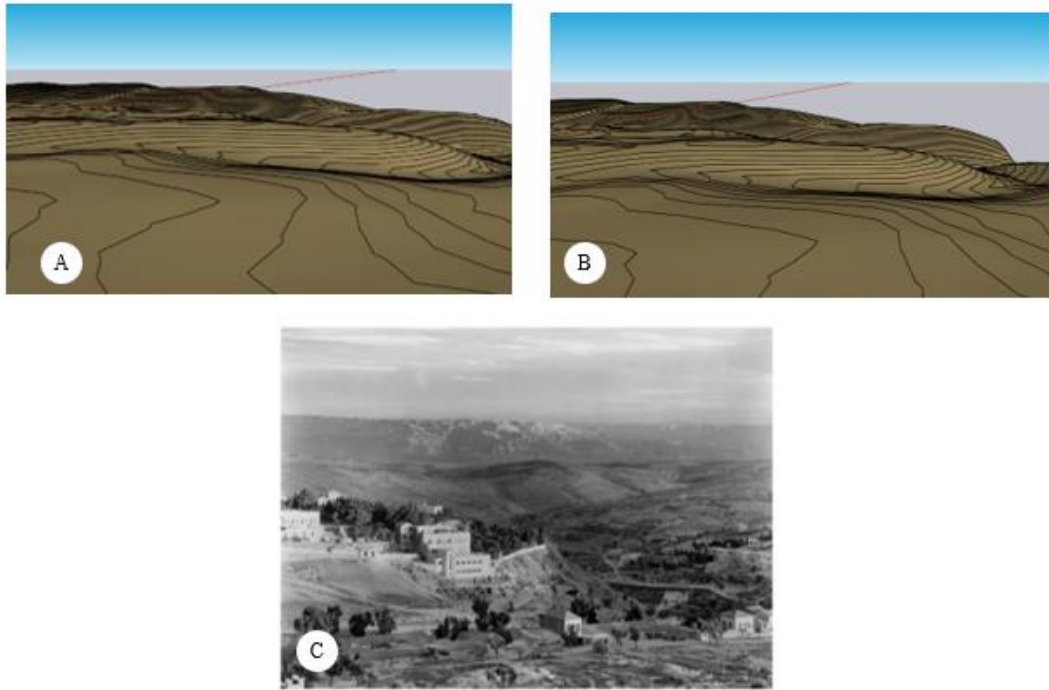


Figure 7: A panoramic view of the western slopes of MT. (source: A+B, The authors, C, Re'em 2022: 91)

7. The Urban Features of the Civil Zone:

As aforementioned, the civil zone of the city was described by Josephus as a duology, that included the districts of Jerusalem and Zion. Each of these civil districts accommodated significant urban features, such as the citadel, the ark, the field of Ornan the Jebusite, mount Moriah, the temple and the spring of Gihon.

7.1. The Citadel:

This feature is closely connected to Zion so that it is occasionally called as a stronghold, a castle and as a fort (II Sam 5/7, II Sam 5/9, I Chr. 11/5-8). It was also employed as the house of David, who “dwelt in the fort” (II Sam 5/9). Although we understand that there might have been some other defense devices around the city, but none was identified as if they all were inferior to the castle of Zion. Accordingly, that castle should have been in the current location of the citadel of Jerusalem on the western edge of the walled city.

7.2. The Ark:

The ark of covenant was a piece of great symbolic value for the kingdom and the king. David PBUH was guided to move the ark from the tabernacle of Moses to the citadel where he lived: “David made him houses in the city of David, and prepared a place for the ark of God, and pitched for it a tent” (II Samuel 6:17, I Chr. 15/1, II Chr. 1/4). Later, David expressed his will to accommodate the ark in a more lavish setting, but he was not permitted (I Chr. 17/1-6).

Whenever the Israelites followed a great leader, he used to display a certain symbol of God’s Protection; the Ark of the covenant. It was topped by the figures of two creatures (cherubim) as a sign of God’s protection (Alexander 1986: 123).



Figure 8: Retaining wall (W1) of the time of Herod the Great, which rests upon the stump of W2, dated to the end of the First Temple period; note the protrusion in W2 (Source: after Re'em 2019: 138).

Joshua lead his army across the Jordan with the priests holding the Ark (Joshua 3/11-17), and he accompanied the Ark when he invaded Jericho (Joshua 6/9), Ai (Joshua 8/33), and the other twenty-nine kingdoms (Joshua 12/24).

Thereafter, the ark was lost in the battle to the Philistines in the days of judge Eli; Samuel's custodian, who died due to the shock. It was said: "The glory is departed from Israel: for the ark of God is taken." (I Samuel 4/17-22)

However, in the days of Samuel, the ark was sent back to the Israelites (I Samuel 4/17-22). In the Quran (2/247-248) it is stated that Israel's prophet prophesied that the ark will be restored to them, and that its restoration will be a proof and a sign of the kingship of Saul, whom they discarded for his poverty and lower class.

When Saul became king, he also accompanied the ark in some of his military campaigns (I Samuel 14/18).

David PBUH followed Saul as a king, and he invaded Jerusalem to establish his seat in its outskirts at Zion, which was called the City of David. We are informed about his concern to display the ark in the new city, the trouble he faced, the sacrifices he offered, how he expressed delight, and how he distributed food generously. When Saul's daughter despised his dancing and described it as shameless, he commented: "It was before the Lord, which chose me... to appoint me ruler over Israel" (II Samuel 6/2-21). The ark was put in a specially-prepared tent at Zion, however the king accompanied it in some of his military raids (Jastrow et al).

Even when Solomon PBUH delivered a festival speech to house the ark, the introduction of his speech was political. It is reported that he was standing, identified Jerusalem as his

capital, mentioned his divine authority, his descendency to David PBUH, and his achievement, and indicated that the sign of these, the ark, was in his custody. Before the festival was off, he kneeled facing an altar, praised to God and delivered a brief prayer (II Chronicles 6/4-11).

In conclusion, the ark was considered as a leadership and kingship sign by the Israelite generations, starting from Joshua until Solomon PBUH. It was a portable device that accompanied several raids to raise the moralities of the soldiers, and it was not reported to be sealed it in any sort of building until the days of Solomon PBUH.

7.3. The Field of Ornan the Jebusite:

As per the biblical script: “The angel of the LORD commanded Gad to say to David, that David should go up, and set up an altar unto the LORD in the threshing-floor of Ornan the Jebusite” (I Chr. 21/18). So the king purchased the property “for six hundred shekels of gold, and built there an altar unto the LORD, and offered burnt offerings and peace offerings” (I Chr. 21/25-26). The script says that the place is far from the tabernacle of Moses at Gibeon (I Chr. 21/29), which implies that it was around the house of David.

7.4. Mount Moriah:

The threshing-floor of Ornan was called the Moriah in the early Jewish traditions, being the setting of Isaac’s claimed slay (Genesis 22/1-13). When Solomon became King, he started to build there a shrine for the ark: “Then Solomon began to build the house of the LORD at Jerusalem in mount Moriah, where the Lord appeared unto David his father, in the place that David had prepared in the threshing-floor of Ornan the Jebusite” (II Chr. 3/1). The topography of the location is flat although being on the top of a mountain, and is capable for agricultural activities. The script shows that it started as a “threshing-floor” and that it would end as a field plowed by oxen (II Chr. 3/1, Jeremiah 26/18, Micah 3/12), which is essentially different from the hilly topography of the Aqsa mosque area.

7.5. The Temple:

The term temple or house of the LORD is interchangeably used in the bible with other terms like “the house of the LORD”. Literature usually focus on the building that Solomon erected mainly to position the ark of the covenant, after it was kept in the house of David since the latter brought it from the Tabernacle of Moses. So, was that a religious building or a political one?

Here we have some notes, such as:

- The ark does not belong to a worshipping house, because there were no rituals mentioned to be related to that device.
- Sealing the ark inside a building would have been an unexpected behavior from King Solomon. Take into account that Solomon was a warrior king like his predecessors who should have been demonstrating that ark as a kingship sign in their raids and during their rule.
- The biblical script mentioned a sequence for the ark’s story that could be considered evocative, albeit the confusing terminology of the bible:
 - o David was destined to erect an alter within the near outskirts of the City of David: “the angel of the Lord stood by the threshing-floor of Ornan the Jebusite... And David built there an altar unto the Lord” (I Chronicles 21:15-18). Let us remind ourselves that it was unachievable to afford a threshing-floor at the hilly eastern vicinity of Jerusalem’s area by then (Aqsa Mosque today).
 - o Solomon erected two significant monuments within twenty years; the house of the Lord in three years (or seven) and the king’s house in seventeen (or thirteen) (I Kings 6/38, 7/1, 9/10, II Chronicles 2/1, 3/2, 8/1).

- o The house of the Lord is unclearly mentioned in the script (II Chronicles 2/4-18, I Kings 5/5), which might have been similar to the one described in the Middot (5/1-5).
- o Solomon transported the ark from the former tent within David's house (II Chronicles 5/2). Therefore, that house was considered a holy place. So he moved his wife, i.e. maybe the Pharaoh's daughter, from that house to another one because women were not allowed to reside where the ark once existed (II Chronicles 8/11).
- o The Lord appeared to Solomon in two occasions:
 - the first was at Gibeon once he built the house of the Lord (I Kings 9/2).
 - the second was once he finished king's house, in the threshing floor of Ornan the Jebusite (I Kings 9/2, II Chronicles 3/1),
- o We are also told that he was worried that the ark could fall again in the hands of the enemy, or under the authority of corrupted kings, so he prepared a special chamber for it in a house he built. In the days of Josiah the Ark was stored there: "He said to the Levites...: Put the Holy Ark in the House that Solomon son of David, king of Israel, built" (Altschuler, II Chronicles 35/3)

7.6. The Spring of Gihon,

The script describes it as follows: "Hezekiah also stopped the upper watercourse of Gihon, and brought it straight down to the west side of the city of David" (II Chr. 32/30). As we have accepted that Zion is the city of David, and identified it on the western hill, then the proposed location of Gihon to the south of the Aqsa mosque is inaccurate. The pool of that name should have been around the present pool of the Sultan on the mouth of the Valley of Rababa outside the west of the current walled city.

8. Conclusions

The layout of the biblical area of Jerusalem consisted of several neighborhoods, Jerusalem zone at the western hills, and Gibeon zone at the eastern hills.

Jerusalem was the civil zone of the area, which consisted of the defensive components and the domestic components. The defensive components mainly included Zion, the palace and the walls, while the domestic components mainly included the temple and the public quarters. These two major components were divided by a valley, the tyropoeon, that was insignificant so that it was buried by the Asmoneans almost without a trace. The temple stood there to house the ark, which was the symbol of the legitimacy of the ruler.

On the eastern hills, the activities were ritual, mainly related to the dense pilgrimage activities. There Gibeon was located, where the Levite priests inhabited. Benjamin resided there at Gibeah haElohim, and the Nethinime lodged at the near Ophel. The core of the activities was the House of the Lord, which was a distinct building from the temple.

Our description of the layout of the biblical area of Jerusalem provides an interesting perspective on the division of the city into different zones with distinct purposes and functions.

- Jerusalem Zone (Western Hills):
 - o Civil Zone: This area served as the civil and administrative center of Jerusalem.
 - o Defensive Components: Zion, the palace, and the city walls were crucial elements of defense, safeguarding the city from external threats.
 - o Domestic Components: The domestic parts of this zone likely included residential areas, markets, and other facilities for the city's inhabitants.

- o Temple: The temple was a central religious structure, housing the Ark of the Covenant, which symbolized the legitimacy of the ruler. It played a key role in the religious and political life of the city.
- Gibeon Zone (Eastern Hills):
 - o Ritual Activities: The eastern hills were associated with ritual and pilgrimage activities, indicating a strong religious presence in this zone.
 - o Gibeon: Gibeon was a location where Levite priests likely resided, suggesting its importance in religious affairs.
 - o Gibeah haElohim: Benjamin's residence at Gibeah haElohim and the Nethinim's lodging at Ophel further underline the religious and perhaps administrative aspects of this zone.
- House of the Lord: Distinct from the temple in the western zone, the House of the Lord in the eastern hills likely played a central role in religious activities.

The authors suggest for further studies to investigate the urban features of both main zones of Iron-Age Jerusalem. Detailed research into the historical and archaeological evidence could shed more light on the organization and development of Jerusalem during biblical times. Reviewing published historical features is a crucial step in gaining a deeper understanding of the city's layout, functions, and significance in ancient times. Such studies can contribute to our knowledge of the complex history and culture of Jerusalem and its role as a religious and political center in antiquity.

Further studies should take place to investigate more details about the urban features of both zones, and the published historical features should be reviewed.

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