

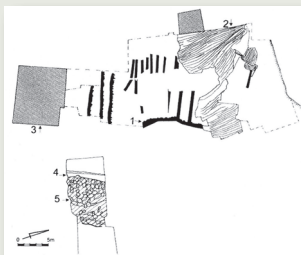
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THE "STEPPED STONE STRUCTURE" AT JERUSALEM: A MONUMENTAL SUBSTRUCTURE OF THE PRE-CLASSICAL CITY

The monumental stepped structure made of massive stones (Fig. 1), climbing upon the eastern slope of the narrow spur demarcated on the east by the deep brook of Kidron and on the west by the Tyropoeon Valley – the so-called "City of David" –, is one of the most famous archaeological remains of the ancient city of Jerusalem.

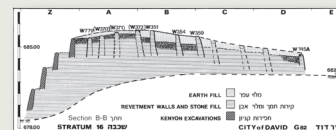
Uncovered for the first time by R.A.S. Macalister and J.G. Duncan¹ in their Fields 5 and 7, during excavations carried on upon the hill in 1923-25, this structure was named "Jebusite Ramp" or "Jebusite Eastern Rampart". K.M. Kenyon² exposed it again in the 1960s in her Square A/XXIII and in Trench I, in another part not recognized as a unique monument. In the years between 1978-1982, the Israeli archaeologist Y. Shiloh clarified its stratigraphy in his Area G (stratum 14, W.302-W.331), partly overlapping and extending previous excavations to the east, and gave it its definitive name of "Stepped Stone Structure - SSS"³ (Fig. 2).

The Stepped Stone Structure was subdivided into five parts or "components"⁴ (Fig. 3), resuming all the structural elements unearthed by several excavations on the crest of the ridge to its west. The maximum preserved width (N-S) is about 13 m long (but far more, around 40 m, when taking into consideration the discussed part excavated and refilled by Kenyon in square



A/XXIII⁵), and its height (E-W), comprising also the terraces in Trench I⁶, around 27 m. "Component 2"⁷, namely the "Stepped Stone Mantle" – defined as the "mantle wall" by several scholars – extended itself over the upper part of the slope reaching the city-wall located on the top.

The "mantle" (termed generally only SSS) is made by large limestone blocks roughly worked, set on place in degrading courses from west to east (55 steps preserved today), with an inclination of around 45 degrees; the 15 lowest steps are built of stones smaller than the 40 upper ones⁸.



The function performed by this structure remains debated and depends also on the different interpretations of the underlying series of progressive terraces, composed of regulars and interconnected compartments, a kind of rectangular blind rooms filled up by beaten earth in the upper part and of big- and medium-sized stones in the lower one⁹ (Figs. 4-5).

These terracing chambers are considered a part of the SSS, either as a substructure of the monumental defensive system represented by the same SSS, dating all the complex to the Late Bronze II - Iron I¹⁰ or, as a separate construction, dating from the Late Bronze II (14th-13th century BC¹¹); in the latter case, the

5 In the analysis of A. Mazar this part is named "Component 3" (A. MAZAR 2006, pp. 257-260 and fig. 1).

6 A. Mazar define them as "Components 4 and 5" (A. MAZAR 2006, p. 264).

7 "Component 1" are the inner supporting walls, discussed below.

8 SHILOH 1984, p. 17, pl. 29:1. This oddity in architectural terms has been explained by the hypothesis that, while the lower part of the structure probably dates to Iron IIA, the upper one, as support of the narrowest point on the ridge of the City of David, had to be renovated several times, the last during the Hellenistic period that is the structure as visible at the time of first excavations (FINKELSTEIN 2011a, pp. 1-2).

9 KENYON 1974, pls. 27-28, 95, figs. 3-6; SHILOH 1984, figs. 18, 16; STEINER 2001, figs. 4.8, p. 28; "Component 1" in Mazar's description: A. MAZAR 2006, pp. 256-260 and fig. 1.

10 CAHILL - TARLER 1993, pp. 625-626; CAHILL 2003, pp. 40-54; *contra* M.L. Steiner – STEINER 2001, pp. 24-41; EAD. 2003, pp. 351-361 – that considered the compartments independents from the SSS, erected in Late Bronze II - Iron I, and the SSS like as a separate and later addition of Iron IIA, covering the earlier terraces where they existed (like in Shiloh's Area G), but built up from bedrock where they are not attested (as in Kenyon's Square A/XXIII).

11 The recent retrieval of a small clay fragment of a cuneiform tablet written in Akkadian, whose sign-forms suggest that it is contemporary of the Amarna letters, including the letters of Abdi-Hepa, the

1 MACALISTER - DUNCAN 1926, pp. 51-55, pl. V.

2 KENYON 1974, pp. 47-48, 101.

3 SHILOH 1984, pp. 17, 27, figs. 1-2.

4 A. MAZAR 2006.

structure would have served as foundation and retaining wall of the acropolis of the Jebusite Citadel (recognizing in it the so-called *Metsudat Zion* - the Fortress of Sion, conquered by David according to the Bible¹²), totally destroyed by following reconstructions¹³.

The most widely accepted interpretation is that the SSS was a foundation, an articulated system of retaining walls, either for a public building with residential, administrative or defensive function¹⁴, or part of the city fortifications¹⁵ of the upper citadel of Jerusalem located on the top of the same slope.

The first interpretation echoes a Biblical passage primarily proposed by Kenyon¹⁶, who identified it with the *Millô*, which means “filling”, the description of which in the Bible¹⁷ allows to place it in the Ophel, that is the northern part of the City of David. Evidence for the presence of public buildings in that area at the beginning of the Iron II was in fact produced by Kenyon, who retrieved a Proto-Aeolic capital at the foot of the SSS¹⁸. Indirect confirmation of this usage is also found in the continuity of use of the same place, and in the presence, a little later until the end of Iron IIC, of the Iron Age city gate on the Ophel with the adjacent administrative quarter (Buildings C and D¹⁹).

The absolute dating of the SSS remains debated too, depending not only on the interpretation of its different components, but also in relation with recent revised Iron Age chronology. In traditional (or Conventional) Iron Age Chronology, the SSS is attributed to the Iron IIA - 10th century BC (on the basis of some pottery fragments found in one spot under the terraces²⁰). In the “Low Chronology”²¹ and in the

ruler of Jerusalem (MAZAR *et al.* 2010), hence dating from the 14th century, testifies that the Eastern Hill (the Ophel) was occupied during this period by public buildings.

12 CAHILL 2003, p. 53; A. MAZAR 2006, p. 265.

13 KENYON 1974, p. 95; SHILOH 1984, p. 16.

14 A. MAZAR 2006, pp. 269-270; E. MAZAR 2009.

15 STEINER 2001, p. 52.

16 KENYON 1974, pp. 100-101.

17 1 Kg. 9:24; 11:27; 2 Chr. 32:5.

18 Fragments of a capital together with some ashlar were found by Kenyon in square A/XVIII (STEINER 2001, p. 50, figs 5.9-10); Y. Shiloh (SHILOH 1979, p. 11), on the basis of comparisons of stylistic data, dated it to the 9th century BC.

19 MAZAR - MAZAR 1989.

20 KENYON 1963, p. 14; STEINER 2003, pp. 355-360, fig. 16.6.

21 According to the Low Chronology, the Iron IIA covered the period of time between circa 930/920

“Modified Conventional Chronology”²², this translates into a dating between the mid- to second-half of the 9th century BC.

More recently, the structure has been related to the massive walls constructed of large undressed stones unearthed on the top of the hill²³. E. Mazar, the excavator, has presented them as the remains of a single monumental building (the “Large Stone Structure” - LSS), dated to ca. 1000 BC and identified with the palace of King David which, according to 2 Sam 5:11, Phoenicians workers built there for him. This formed one architectural complex with the SSS²⁴, with the latter serving as a retaining substructure of the palace.

This reconstruction remains controversial. If a little part of the scientific community accepted the relationship between the SSS and the structures uncovered on top of the hill proposed by E. Mazar²⁵, most of the scholars questioned it²⁶ suggesting that all or the largest part of the LSS belongs to the Hellenistic period²⁷. Moreover, they noted that the upper part of the SSS itself can be considered as a Hellenistic construction (or a reconstruction over preceding retaining systems²⁸) built as a support for the late Hellenistic First wall²⁹ (the Hasmonaean fortification).

and the second half of the ninth century BC (FINKELSTEIN 2011b). Herzog and Singer-Avitz (HERZOG - SINGER-AVITZ 2004, HERZOG - SINGER-AVITZ 2006) proposed to date the Iron IIA to circa 950-800 BC. SHARON *et al.* 2007 pointed to the possibility of a circa 900 BCE Iron I/IIA transition.

22 A. Mazar introduced a third dating system that he titled the “Modified Conventional Chronology”, according to which the Iron IIA should be placed between circa 980 and 840/830 BC (A. MAZAR 2005; ID. 2011).

23 The excavation area is located west to Shiloh's Area G, in physical connection with the Stepped Stone Structure.

24 E. MAZAR 2006; EAD. 2007, p. 63; EAD. 2009, pp. 55, 64.

25 A. Mazar and A. Faust believe that the LSS and the SSS are part of a same structure, a combined building representing the main structure of Iron I Jebusite Jerusalem, but refuting the hypothesis that it was the palace of King David (A. MAZAR 2006, pp. 269-270; ID. 2010, p. 127; FAUST 2010, p. 123).

26 USSISHKIN 2003; FINKELSTEIN *et al.* 2007; FINKELSTEIN 2011a.

27 Herzog, Singer-Avitz and Ussishkin suggested dating all elements of LSS to the Hellenistic period while Finkelstein accepted the possibility that some of the remains may date to the Iron Age IIA (FINKELSTEIN *et al.* 2008, pp. 39-42; FINKELSTEIN 2011a, p. 2).

28 The upper sector of the SSS is clearly built with stones of different dimension (see footnote 5) and at least part of it was set in a different orientation. This could be attributed also at modern restoration works not well documented (FINKELSTEIN 2011a, p. 6).

29 The upper part of the structure is in fact erected between the two towers excavated by Macalister (MACALISTER - DUNCAN 1926), universally recognized as belonging to the Hasmonaean city-wall (WIGHTMAN 1993, pp. 88-94) and should be part of it.

The only thing that is certain is that after some time the SSS went out of use, losing its function as a defensive and/or retaining structure³⁰, and inside and over it a series of residential houses of Late Iron II were constructed³¹.

Therefore, beyond the conflicting interpretations about dating and function, the monumentality of the structure, and its uniqueness in the Iron Age II architectural panorama, point to an indirect confirmation of the importance of Jerusalem since the beginning of the period³², even though the city would only become the capital of the State of Judah in Iron IIB. This, of course, does not rule out the possibility that the SSS, and especially its inner lower supporting wall, could have been in place as early as the latter stages of the Late Bronze Age, functioning at the time as a support for the hill.

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30 A proof of the loss of the original use of the SSS is also the displacement of the fortification line more at east in the Kidron Valley (W.501: REICH - SHUKRON 2008), in order to defend the oriental scarp of the City of David.

31 Buildings excavated by Kenyon, in Area A, A/I-III and A/XXIII, and by Shiloh in Area G, in number of four distinct preserved units (SHILOH 1984, pp. 18-22; STEINER 2001, pp. 57-80).

32 It seems plausible that Jerusalem was chosen by one of the "habiru chief" like capital of one of the little regional states, in a fragmented political situation, which at a later stage would lead to the creation of the kingdoms of Israel and Judah (FINKELSTEIN 2001, pp. 107-108; LIVERANI 2003, pp. 104-113).

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RIASSUNTO

La "Stepped Stone Structure", imponente struttura gradinata costruita sul fianco orientale della collina sud-orientale (la cosiddetta Città di David) di Gerusalemme, è uno dei monumenti più noti della città pre-classica.

La funzione della struttura, così come la sua datazione, sono tutt'oggi oggetto di discussione e posano sulle differenti interpretazioni sia delle parti di cui essa è costituita, che delle relazioni stratigrafiche con le sottostanti concamerazioni cieche e le sovrastanti strutture di recente reinterpretate come il "Palazzo del re David". Lo studio della "Stepped Stone Structure" (SSS) offre nuovi elementi di riflessione sulla struttura urbana e le caratteristiche della città pre-classica.



Fig. 1 – The Stepped Stone Structure from north; Shiloh's excavations in Area G (after Shiloh 1984, p. 15, pl. 26, 2).



Fig. 2 – Plan of Shiloh's Area G: the Stepped Stone Structure in *Stratum* 14 (IA II) over the compartments in *Stratum* 16 (LB) (after Shiloh 1989, figs. 16-19).

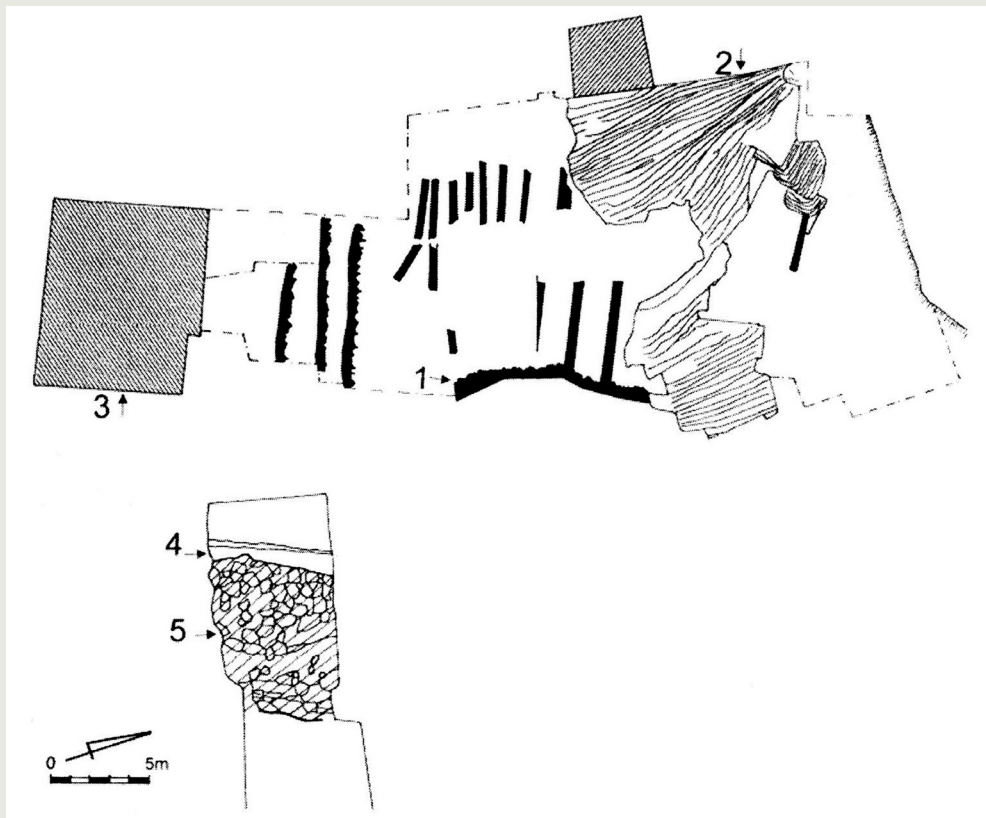


Fig. 3 – The “components” of the SSS, after excavations of Macalister, Kenyon and Shiloh: 1. terraces or compartment walls; 2. “mantle wall”; 3. stone structure recovered by Kenyon in square A/XXIII; 4. “terraces 4-5” in the upper part of Kenyon’s Trench I; 5. massive stone wall in Trench I (after A. Mazar 2006, pp. 257-260 and fig. 1).

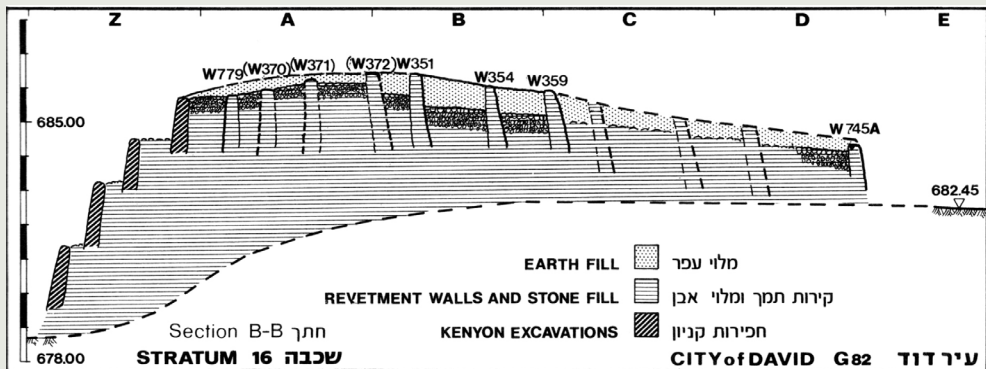


Fig. 4 – North-south section of compartment walls in Area G, *Stratum 16*; looking at west (after Shiloh 1989, figs. 18, 16).

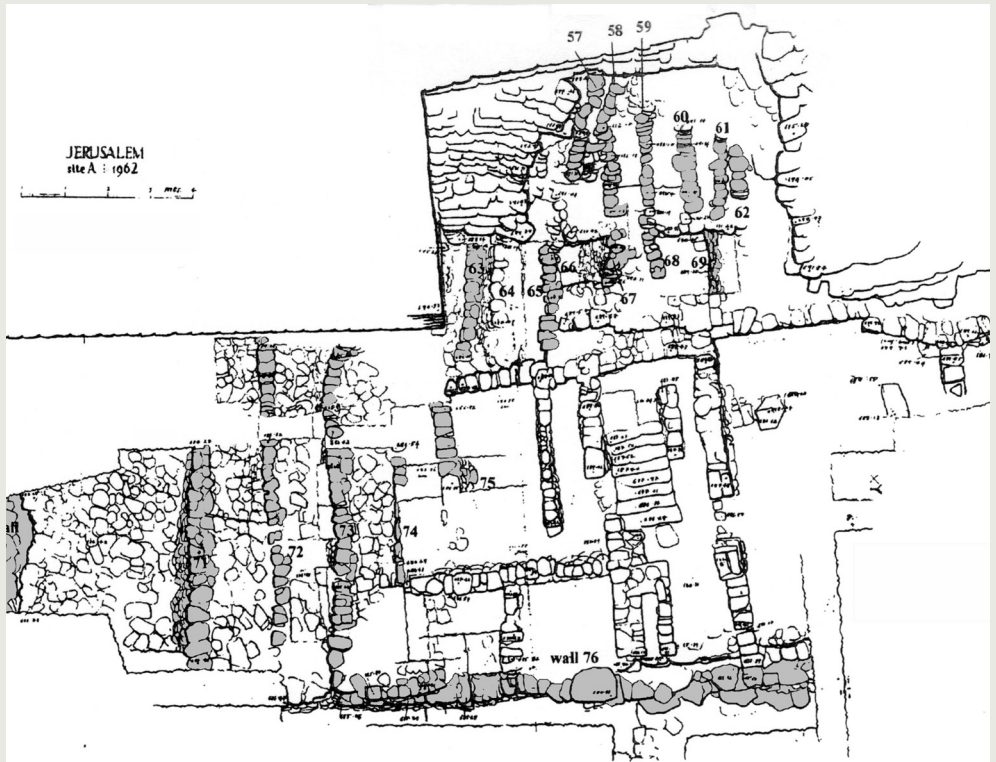


Fig. 5 – Plan of Kenyon's squares A/I-III with terracing walls (gray) with their stone filling in between (after Steiner 2001, figs. 4.8, 28-29).