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THE EB III FORTIFICATIONS OF TELL ES-SULTAN/JERICO IN AREA B AND B-WEST

At the beginning of the Early Bronze IIIA (2700-2500 BC), corresponding to Period Sultan IIIc1 of the Italian-Palestinian periodization¹, the city arisen at Tell es-Sultan, ancient Jericho, was defended by a complex defensive system composed of a double city-wall. The EB III fortifications were investigated by the different archaeological expeditions that worked on the *tell*. For the first time EB III fortifications were investigated by the Austro-German Expedition directed by E. Sellin and C. Watzinger in 1907-1909, which distinguished the two parallel walls, called respectively *Vor-mauer* (inner wall) and *Hauptmaue* (outer wall)². Afterwards, the same structures were brought to light in several areas of the site by two different British expeditions, carried out respectively by J. Garstang in 1930-1936³, and by K.M. Kenyon in 1952-1958⁴. At last, the double city-wall was excavated by the Italian-Palestinian Expedition, which renewed the excavations at Tell es-Sultan in 1997, and exposed the EB III fortification walls in Areas B and B-West, respectively at the southern edge and at the south-western corner of the site⁵.

As for the majority of Palestinian sites, the first fortification wall at Tell es-Sultan was built at the beginning of Early Bronze II (Period Sultan IIIb, 3000-2700 BC), when the settlement witnessed its first urban development⁶. At the end of the pe-

riod the earliest city of Jericho came to a sudden end due to a violent earthquake, which made all the structures fall down⁷. The city, however, was immediately rebuilt according to a somewhat new layout at the beginning of Early Bronze IIIA (Sultan IIIc1, 2700-2550 BC), and the defensive system was strengthened with the addition of an outer wall, protecting the flank of the mound⁸.

The EB III fortification system of Tell es-Sultan was composed of a double city-wall built all around the site with separated juxtaposed blocks⁹, sloping from west to east¹⁰, and overlapping the previous EB II city-wall on the western side and part of the northern side of the site. The new fortification system was made of a main Inner Wall, 4.0 m wide and 8.0 m high, and of an Outer Wall, 1.5-1.6 m wide. The gap between the inner and the outer walls hosted blind rooms (a kind of "casemates") used as storerooms or pathways¹¹, or simply filled up with crushed limestone (*haw-wara*)¹², or soil resulting from razing activities on the previous city collapsed structures¹³. This articulated system, which at several spots also included a ditch at the

fortifications were made of a single city-wall, around 1.5 to 3.0 m thick, generally reinforced with semicircular towers (KEMPINSKI 1992, pp. 68-69; NIGRO 2010, pp. 27-28).

7 NIGRO 2009, p. 182; ID. 2010, pp. 34, 326.

8 EB III is characterized by a general trend in the architecture of fortifications towards an increase in depth of the defensive systems, with the addition of outer walls, or the widening of glacis abutting the city-walls. The transition from a single city-wall to an articulated system with two walls, the outer one at times supporting a glacis, is attested in several contemporary sites: Tell Ta'annek (LAPP 1967, pp. 7-12; ID. 1969, pp. 10-11, figs. 2-7), Et-Tell/Ai (CALLAWAY 1980, pp. 41, 147-155, figs. 35, 95-96, 98-101, 103), Tell el-Mutesellim/Megiddo (LOUD 1948, p. 7, fig. 158; KEMPINSKI 1989, p. 108), Tell el-Hesi (ROSE 1979, pp. 11-15).

9 Such a device aimed at minimizing earthquake effects (KENYON 1957, p. 174).

10 The section of the main Inner Wall excavated in Area B-West was found at a higher elevation in respect of that excavated in Trench III, thus demonstrating that the EB III city arose on a slope from west to east, where it reached the lowest elevation around the spring (NIGRO - TAHA 2009, p. 738).

11 Some of these blind rooms were excavated by Sellin and Watzinger on the northern side of the fortification system (SELLIN - WATZINGER 1913, pls. 4b, 7).

12 Previously noticed by J. Garstang in site "d" (GARSTANG 1931, pl. 1), and by K.M. Kenyon in Trench III (KENYON 1981, p. 211, pl. 122a-b), this filling was at first erroneously interpreted as white ash from the destruction of the city-wall, due to charcoal fragments present in it and deriving from the city-wall burnt wooden components (KENYON 1957, pp. 176-177, pl. 37B). The renewed excavations carried out by the Italian-Palestinian Expedition in Area B-West definitively clarified the artificial nature of the thick whitish layer (F.1608) filling in the blind room in between the inner and outer walls (NIGRO 2006a, p. 9, fig. 8).

13 NIGRO 1998a, pp. 32-39, 81-94; ID. 2006a, pp. 8-9, 18.

1 NIGRO *et al.* 2011, tab. 1.

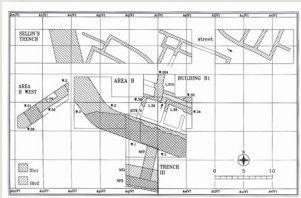
2 SELLIN - WATZINGER 1913, pp. 20-33.

3 GARSTANG 1930, pp. 128-130, pls. V-X; ID. 1931, pp. 186-187, 189-192; GARSTANG *et al.* 1935, pp. 147-154, pl. XLVII; 1936, pp. 73-74; GARSTANG - GARSTANG 1948, pp. 82-88, 135-137, pls. V.b, XVII-XVIII.

4 KENYON 1957, pp. 179-183; EAD. 1981, pp. 99-104, 161-163, 210-213, pls. 253b-254, 269b-270a

5 NIGRO 1998a, pp. 39-49, 81-94; ID. 2000a, pp. 130-138; ID. 2006a, pp. 18-20; NIGRO - TAHA 2009, pp. 738-739. The EB IIIA main Inner Wall was exposed in a further area, named Area Q, opened on the top of the *tell* on its western side, just south of Kenyon's Trench I and Site D (KENYON 1981, pp. 6-113, fig. 1; NIGRO - TAHA 2009, p. 740).

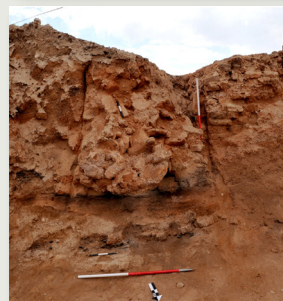
6 The erection of articulated systems of city-walls was identified as the distinctive marker towards the urban rank of the Palestinian settlements (NIGRO 2010, p. 11). The concept of fortifications and their achievement implied, in fact, an articulated socio-economic organization (ESSE 1989, pp. 85-89), a hierarchical social body (MAZAR 1992, p. 119; NIGRO 2006b, pp. 349-351), the capacity of gathering large quantities of building materials (NIGRO 2006b, pp. 371-372), and the necessity to protect the settlement nucleus and the city's goods from external attacks (KEMPINSKI 1992, p. 68). The earliest



bottom of the Outer Wall¹⁴, reached an overall thickness of 12 m. In Area B-West, the Italian-Palestinian Expedition identified both the main Inner Wall, which was named wall W.2 (prosecution of Kenyon's Wall NFB)¹⁵, and the Outer Wall (prosecution of Kenyon's Wall NFD)¹⁶ named wall W.56¹⁷ (Figs. 1-2). In the preserved section of the main Inner Wall brought to light in Area B-West burnt remains of reeds and wooden beams were also recognized, inserted into the massive mud-brick structure to allow air circulation for humidity absorbing and structural linkage; a regular row of protruding beams was probably used to support a

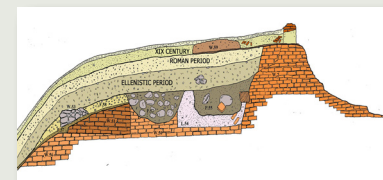
balcony running along the structure (Fig. 3).

A gate was opened through the EB IIIA main Inner Wall (W.2) at the southern edge of the fortification perimeter, and was exposed by the Italian-Palestinian Expedition in Area B, just 1.8 m east of Kenyon's Trench III¹⁸. The gate, called South Gate L.1800, was 2 m wide and 4.5 m long. Its doorjambs exhibited two wooden beams, each one about 0.2 m wide, set into the walls on both sides of the passage. A third better preserved tamarisk beam¹⁹, 0.2 m wide and 2.4 m long, was exposed upon the floor (L.1616) inside the passage, and possibly belonged to the lintel (W.1619) of the inner passageway (Fig. 4). Matching Kenyon's plans of Trench III, South Gate L.1800 was interpreted as a bent-axis entrance ex-



ploiting for a stretch the gap inside the double-line fortification: it introduced into a sort of corridor in between the Inner Wall (W.2) and the Outer Wall (W.56), approached from the east and blocked towards the west by Kenyon's transversal Wall NFF²⁰.

The EB IIIA city was destroyed by a fierce fire around 2500 BC²¹. After the violent destruction, the gate was blocked²² by walls on both the outer²³ and inner sides, while, inside it, collapsed structures were incorporated in the following reconstruction of the defensive system²⁴. At the beginning of Early Bronze IIIB (Period Sultan IIIc2, 2500-2350 BC), the city was rebuilt preserving its previous urban layout, the city-walls and related structures were reconstructed and further reinforced with the addition of rectangular towers and bastions²⁵. The EB IIIB main Inner Wall, exposed both in Area B and B-West, and named Wall W.1 (prosecution of Kenyon's Wall NFG)²⁶, was repaired in various spots, including the insertion of wooden beams and posts in it, probably with the aim of creating chain to oppose mud-brick disconnection in case of earthquake²⁷. At the same time the Outer Wall, named Wall W.51 (prosecution of Kenyon's Wall NFJ)²⁸, was moved inwards and rebuilt with a thickness of 3.0 m (Fig. 5). In front of the locked gate of the previous period, a multifunctional structure, called Building B1, was erected abutting against the inner face of the main Inner Wall, and has been



14 The presence of the ditch is certain, at least, on the western and southern sides of the *tell* (KENYON 1981, p. 98, pl. 236).

15 KENYON 1981, pp. 209-210, pl. 269b.

16 KENYON 1981, pp. 210-211, pl. 269c.

17 NIGRO 1998a, pp. 81-94.

18 NIGRO *et al.* 2011, pp. 194-195.

19 Tamarisk wood was identified by Kenyon's Expedition as the predominant species among the Tell es-Sultan charcoal samples (HOPF 1983, p. 577; WESTERN 1983).

20 KENYON 1981, pl. 269c.

21 Kenyon 1981, pl. 269c; Nigro *et al.* 2011, fig. 11. It is not clear if an earthquake was the cause of such destruction, or it was due to a military attack, since fierce fire is documented at some spots (NIGRO 2009, p. 185).

22 Also the postern excavated in Area Q, across the main Inner Wall on the western side of the fortifications, was blocked at the end of period Sultan IIIc1 (NIGRO - TAHA 2009, p. 740).

23 On the outer side the blocking was represented by Kenyon's Wall NFG (KENYON 1981, pl. 269c).

24 The stratigraphy of the two superimposed EB III fortification systems, belonging respectively to Early Bronze IIIA (Sultan IIIc1) and Early Bronze IIIB (Sultan IIIc2), was definitively established by the Italian-Palestinian Expedition thanks to renewed excavations in Area B and B-West, together with a more accurate review of the data collected by the previous expeditions (NIGRO 1998a, pp. 36-39, 90-91; *Id.* 1998b, pp. 99-1000; *Id.* 2000a, pp. 136-137).

25 NIGRO 2006a, pp. 18-19; *Id.* 2006b, pp. 267-269.

26 KENYON 1981, pp. 211-212; NIGRO 1998a, pp. 36, 91.

27 NIGRO 1998a, pp. 37-39, 81-94, fig. 1.1; *Id.* 2006a, pp. 9, 18; *Id.* 2006b, pp. 361-375.

28 KENYON 1981, pp. 212-213; NIGRO 1998a, p. 91.

explored by the Italian-Palestinian Expedition in Area B²⁹. It seems, thus, probable that a new gate was opened further to east, perhaps connected directly the Spring to the north-south road crossing the site³⁰.

Although the EB IIIB fortifications were the strongest ever built at Jericho, a definitive terrible conflagration occurred at the end of the period, around 2350 BC³¹, completely destroyed the city³², sanctioning the end of the first urban experience at Tell es-Sultan.

The double city-wall fortification system represents one of the major achievement of the EB III Jericho ruling institution. Fortification systems were one of the structural elements, together with the first public buildings, basically contributing to the life and development of this kind of early urban societies: the achievement of such monumental structures was possible thanks to different combined factors. The accumulation of agricultural surplus, the increase of means, and the development of building technology made possible the erection of fortifications, also in response to the deterioration in security due to the growing rivalry between the different urban centers. Moreover, the monumental defensive systems, and the building enterprise related to them, had an inferred ideological aim, representing the power of the ruling class, and making easier the linking of people to the ruling authority³³.

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29 NIGRO 1998a, pp. 97-99; Id. 2006a, pp. 18-20.

30 The investigations carried out by the Italian-Palestinian Expedition in Area D, on the eastern flank of the side just in front of the Spring, though not reaching EB III layers, supported the hypothesis that the main EB IIIB city-gate was located at the south-eastern foot of the Spring Hill, in front of the 'Ain es-Sultan spring (NIGRO 2000b, pp. 165-179; Id. 2006b, pp. 364-367).

31 This date is supported by radiocarbon data which have been provided by some charcoal samples yielded by the destruction layers excavated in Building B1 (NIGRO 2000a, pp. 136-137).

32 NIGRO 2009, pp. 185-187.

33 NIGRO 2009, p. 185.

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RIASSUNTO

La spinta propulsiva verso la prima esperienza urbana attestata a Tell es-Sultan agli inizi del III millennio a.C. è simboleggiata, come per la maggior parte dei principali centri palestinesi, dalla comparsa delle prime strutture di fortificazione.

La ripresa degli scavi archeologici a Tell es-Sultan, l'antica Gerico, da parte della Missione Italo-Palestinese diretta dal Prof. Lorenzo Nigro, ha consentito una migliore comprensione della stratigrafia e dell'impianto urbanistico della città del Bronzo Antico e, in particolare, dell'articolazione strutturale dell'imponente doppio muro di cinta del Bronzo Antico III (periodo Sultan IIIc, 2700-2350 a.C.), portato alla luce nell'Area B Ovest, nel settore sud-occidentale del *tell*. Nella vicina Area B, inoltre, l'identificazione di una porta urbana in uso nella fase iniziale del periodo (Bronzo Antico IIIA, Sultan IIIc1, 2700-2500 a.C.) ha offerto nuovi spunti per la soluzione del dubbio interpretativo circa la localizzazione delle porte che dovevano dare accesso alla città.

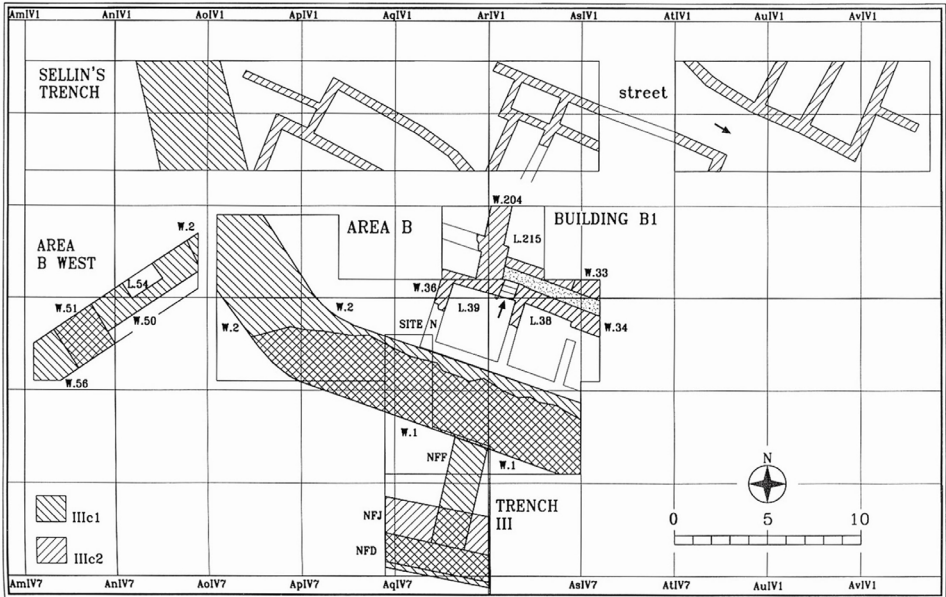


Fig. 1 – Schematic plan of the EB III (2700-2350 BC) double city-wall in Areas B and B-West, and EB IIIB (2500-2350 BC) Building B1 in Area B.



Fig. 2 – The blind room filled in with crushed limestone (hawwara) in between the EB III inner and outer city-walls in Area B-West (to the right); and EB IIIB (2500-2350 BC) Building B1 in Area B (to the left).



Fig. 3 – Area B-West: the plastered outer western side of EB IIIA (2700-2500 BC) Main Inner Wall W.2, with burnt remains of reeds and wooden beams inserted into the mud-brick structure.

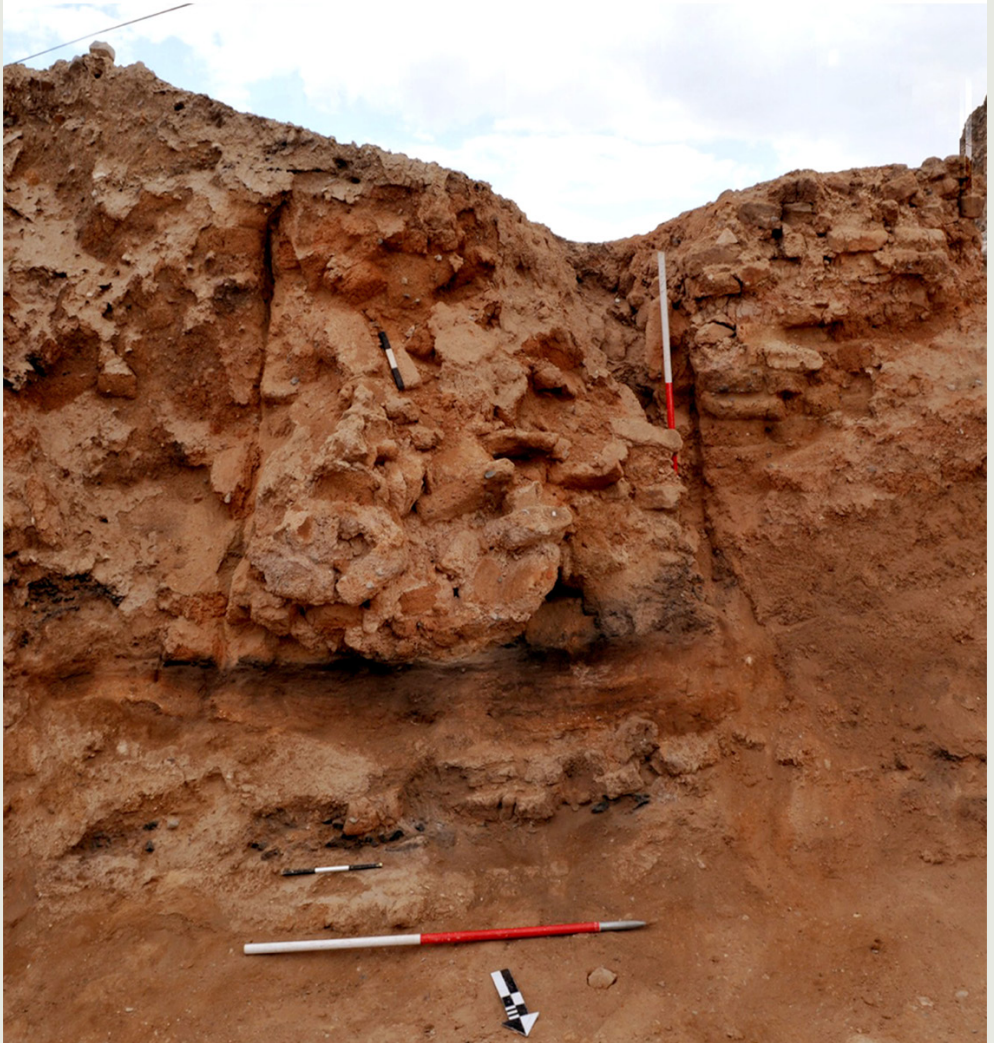


Fig. 4 – South Gate L.1800, filled up with collapsed mudbricks, from north; note the burnt wooden door lintel at the bottom of the passage.

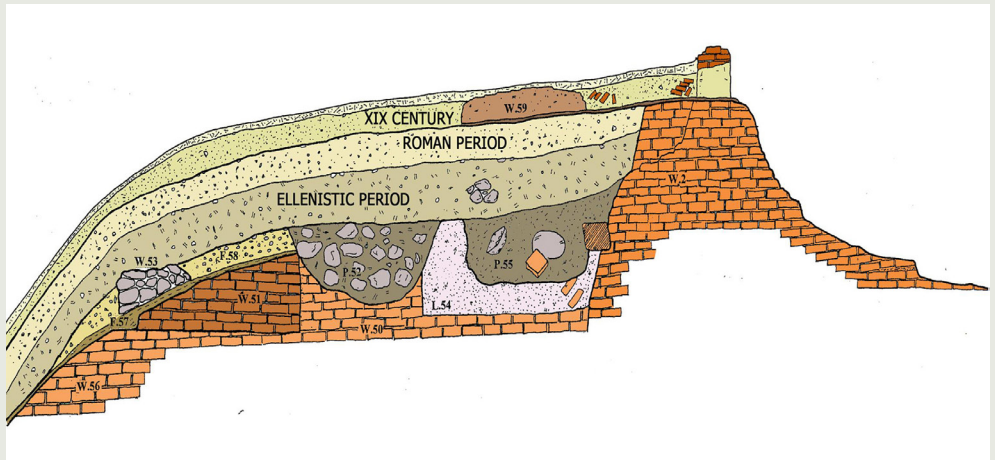


Fig. 5 – Northern section across the EB III (2700-2350 BC) double city-wall in Area B-West.