

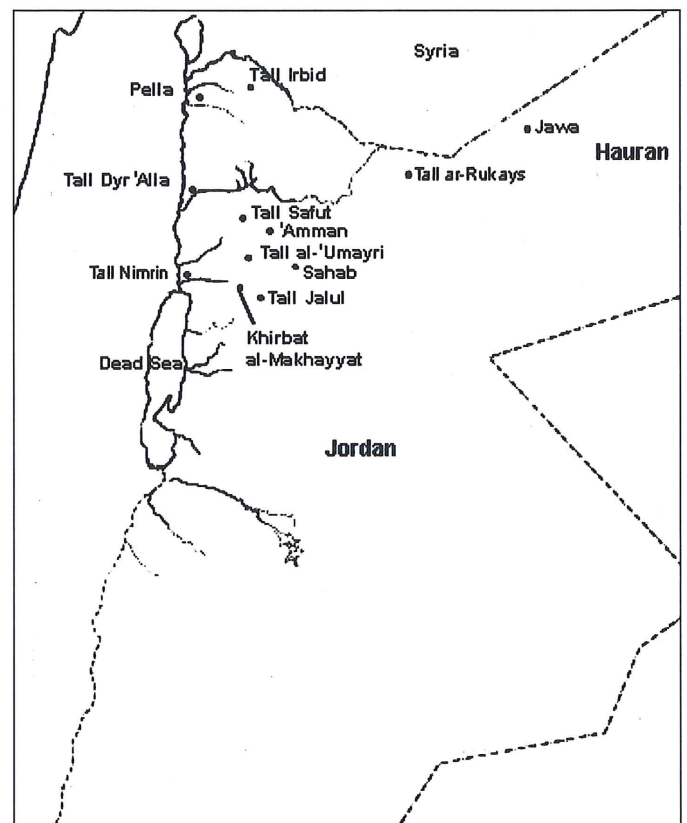
## Unusual Features of Middle Bronze Age Military Architecture at Tall ar-Rukays, Jordan

### Introduction

Recent excavation at Tall ar-Rukays in the Hawrān has revealed extensive military architecture of the Middle Bronze Age.<sup>1</sup> The most notable and instructive defensive feature is the gateway. Excavation during 1995-6 and 1999 revealed the entire gate plan, the first of such a structure of the MBA yet to be discovered in Jordan. The Tall ar-Rukays gate displays many features, which are noticeably different compared to standard MBA gates built elsewhere in the Levant at this time. Although the available evidence for MBA military architecture in Jordan is extremely limited, there is a possibility that the fortifications at Tall ar-Rukays represent part of a distinct tradition of military architecture on the 'desert frontier' of Jordan. This tradition (which may only be tentatively hinted at) appears to have differed from that of the MBA military architecture of the more verdant Levantine regions.

Tall ar-Rukays is situated in the Hawrān, immediately to the south of the border with Syria, and just north of the village of ad-Dafyāna (FIG. 1). The tall is situated on the southern bank of Wādī al-'Āqib, which curves around its northern face after approaching from the north-east (FIG. 2). Wādī al-'Āqib runs south-west from Jabal ad-Drūze and is one of a series of wadi's which cut through this gently sloping region. Tall ar-Rukays receives between 100 and 200 millilitres precipitation annually and is situated on the desert frontier.

The citadel of Tall ar-Rukays (FIG. 3) measures approximately 100m in diameter and is defined by a circuit of fortifications. The most striking feature of the site is the fortification wall, which is remarkably well preserved. In places, the exterior of the wall is still standing metres above the site debris. The wall is 3m wide, constructed of basalt boulders measuring up to 1.5m<sup>2</sup>, and laid without mortar. In places the wall is preserved to a height of 5m and has a slight batter. There is no clear evidence of in-



1. Map of Jordan showing location of fortified MBA sites.

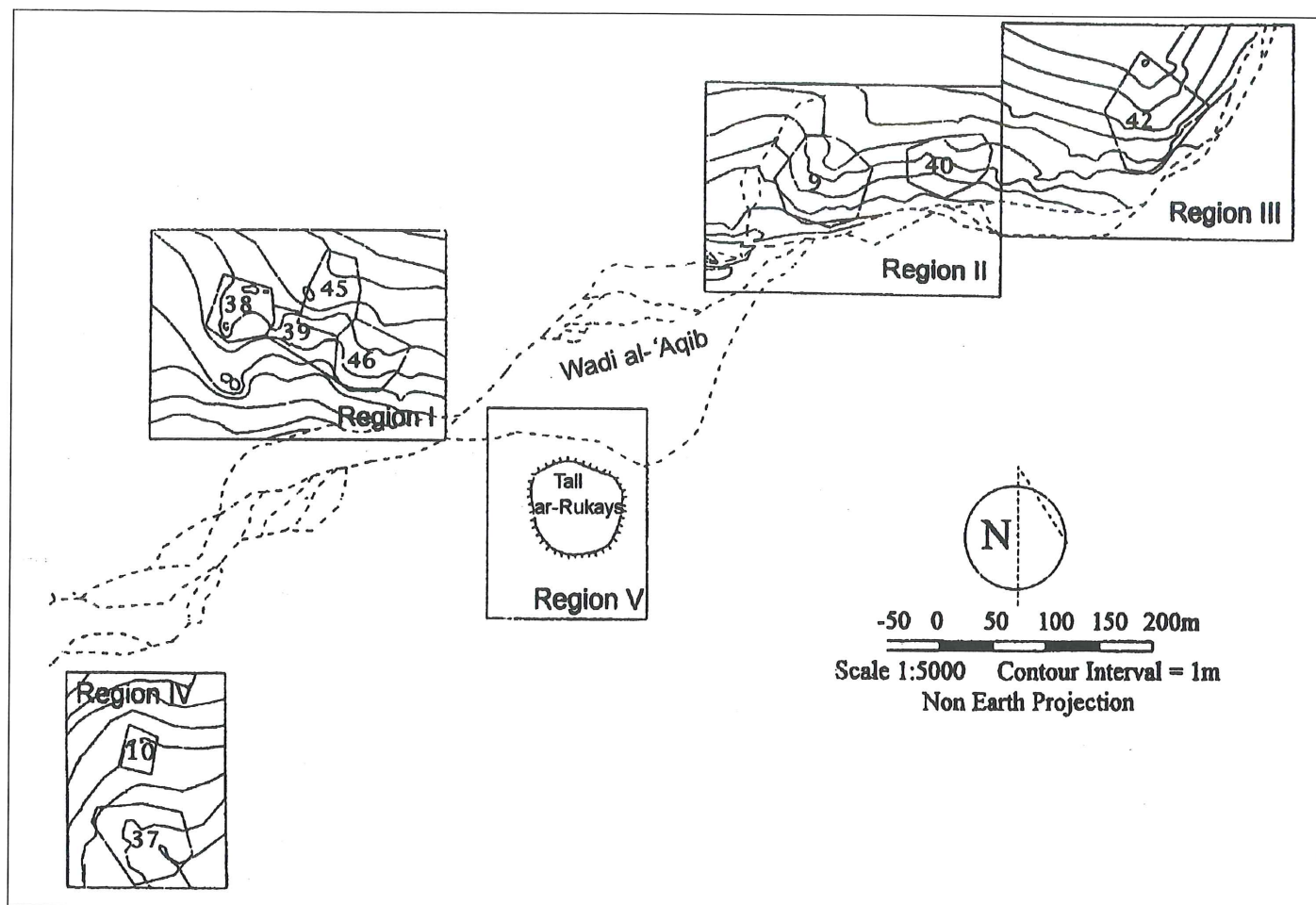
dividual towers and there were no towers protruding beyond the line of the curtain wall. The main entrance to the site comprised a gate located on the north-west line of the defensive wall trace (Area 16).

Four seasons of excavation were undertaken at Tall ar-Rukays between 1993-1999 as part of the University of Sydney Southern Hauran Research Project.<sup>2</sup> The aim of the project is to study the nature of MBA occupation in

<sup>1</sup> Hereafter 'MBA'.

<sup>2</sup> The project is sponsored jointly by the University of Sydney and the British Institute at 'Ammān for Archaeology and History, and is di-

rected by Dr. A.V.G. Betts. For previous preliminary reports see Betts *et al.* 1995; 1996.



2. Aerial photograph of the site of Tall ar-Rukays, showing major areas of excavation, perimeter wall and gate location.

the marginal agricultural land of this region. Enquiry into the nature of the defenses of the site was primarily undertaken during the excavation seasons of 1995-6 and 1999. Excavation in Areas 5 and 8 (FIGS. 2, 3) comprised the most important work undertaken with regards to studying the nature of the fortification trace and establishing a constructional date. Work undertaken in both areas confirmed a constructional date for the wall circuit during the MB II period (c.1775-1650 B.C.).<sup>3</sup>

During 1995-6, the location of the city gate in the north of the site was established through the use of aerial photography (FIGS. 3, 4). During the 1999 season a 3m<sup>2</sup> sondage abutting the south-east exterior corner of the gate-tower was excavated to a depth of 1.5m. A foundation trench for the exterior face of the east wall (Wall 1) was excavated, as were a series of occupational phases abut-

ting the wall and post-dating the construction of the gate. Pottery retrieved from these contexts was characteristic of the MB II period and the construction of the gate should be associated with that period.<sup>4</sup> Combined with the evidence from Areas 5 and 8 it appears most likely that the gate and wall circuit were constructed as part of a single building phase during the MBII period.

#### Gate Description (FIGS. 4, 5)

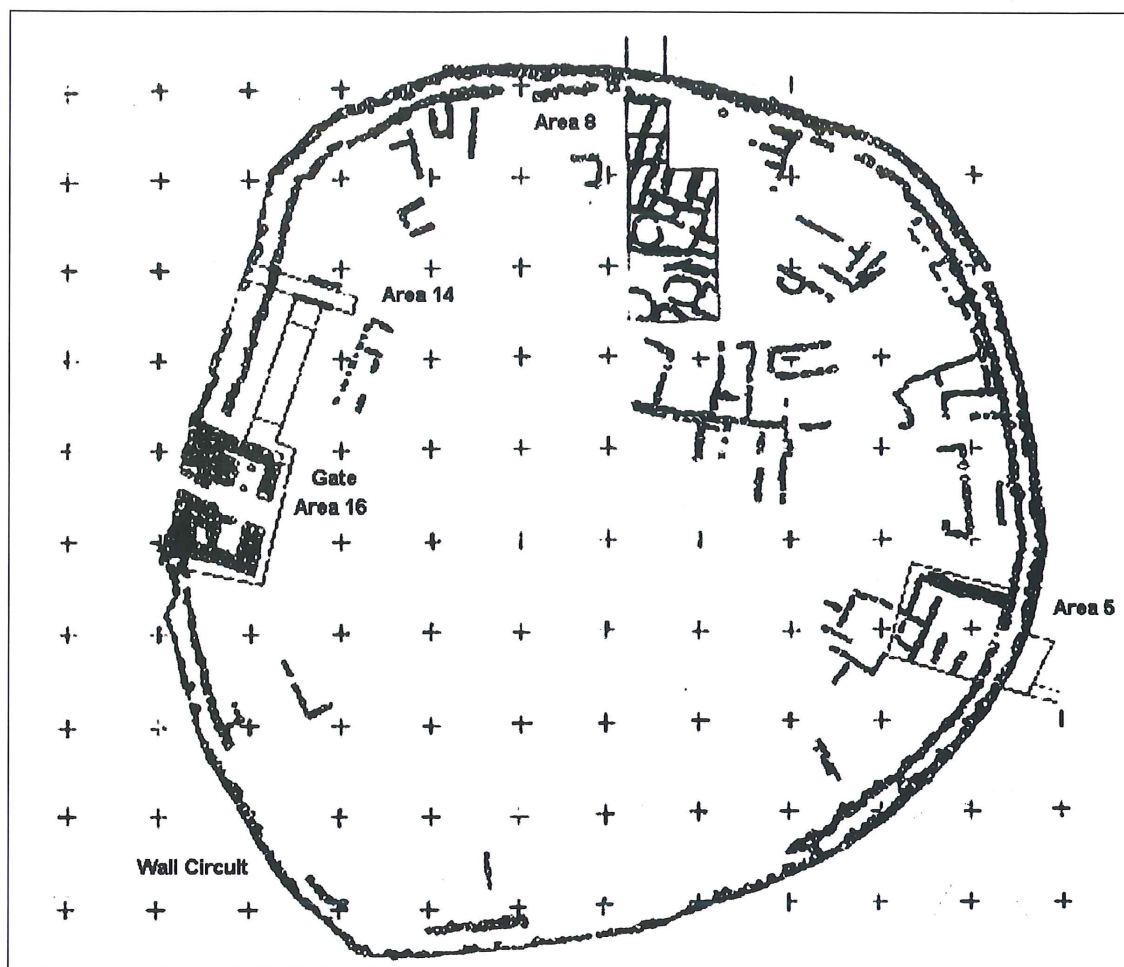
The gate has a rectangular plan, measures approximately 15.0 x 11m, and consists of two monumental bastion towers flanking a direct-entry passage. Both towers are approximately 5m wide at the south and 6.5m wide at the north. Both have open chambers, presumably guardrooms, at the rear, and heavily strengthened bastions at the exterior. The entire gate structure was built using large ba-

<sup>3</sup> The following abbreviated terminology and chronology is adhered to: EBA (Early Bronze Age); EB I (Early Bronze I. 3300-2950); EB II (Early Bronze II. 2950-2700); EB III (Early Bronze III. 2700-2300); EB IV (Early Bronze IV. 2300-2000); MBA (Middle Bronze Age); MB I (Middle Bronze I. 2000-1775); MB II (Middle Bronze

II. 1775-1650); MB III (Middle Bronze III. 1650-1550).

<sup>4</sup> Relevant pottery was subjected to a comparative ceramic analysis with sequences from other sites, and results were based upon a quantitative study. For analysis of the pottery methodology employed in this study refer to McLaren 2002.





3. Tall ar-Rukays plan showing major areas of excavation, perimeter wall and gate location.

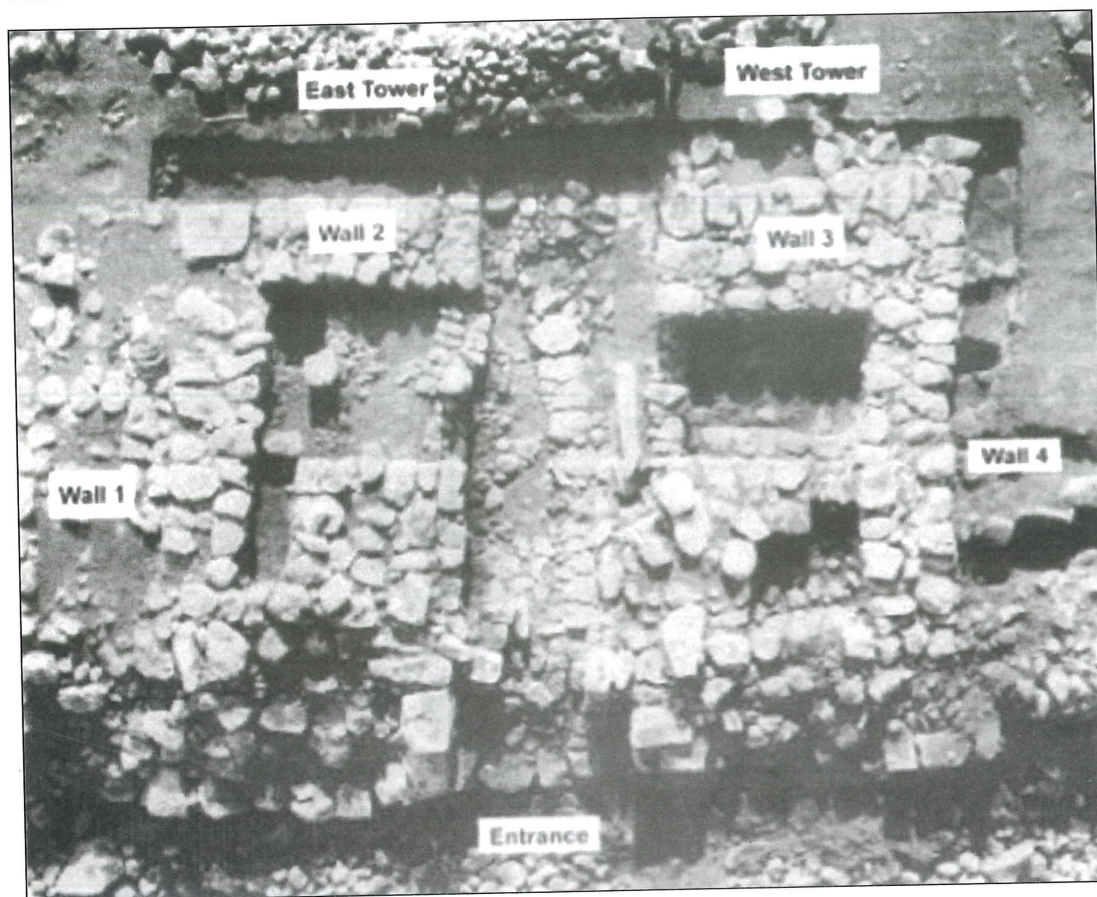
salt boulders, some of which were cut to shape. The largest stones were located along the flanks and exposed faces of the structure while smaller stones were used behind the exposed faces of the walls and flanks. As with the main curtain wall, the entire gate was built using dry-stone construction.

An unusual feature of the gate is that its exterior face did not extend beyond the line of the wall trace. It thus presented a 'flat' facade on the exterior, with the structure located behind the line of the wall trace. Strategically, the gate was placed in an ideal location, only being possibly approached by an indirect ramp running along the line of the curtain wall from the west. An attempted breach near the western tower indicates that the location of the approach ramp was to the west of the gate. The location of the *wadi*, which ran alongside the northern side of the site, meant that this was the only possible line of approach. Locations of antique dam systems indicate that the course of the *wadi* has not changed since the Classical era and probably since the MBA. The weakest point in the defensive circuit was thus placed at the best defensive position, with any attackers having to contend with an approach ramp

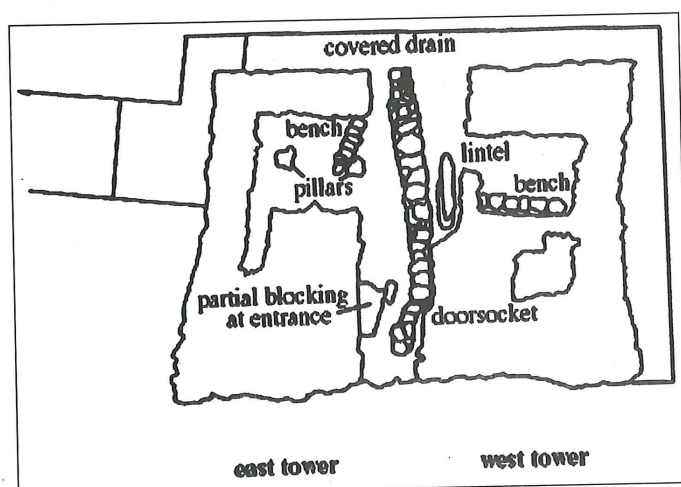
that ran parallel to the defensive circuit.

The flanking walls and interior walls that formed the south, east and west sides of the gate, were represented by Walls 1-4. Wall 1 comprised the east flank, was 11m long and 2m wide. Moving from south to north the wall curved slightly inwards before generally curving out towards the north-east corner. The northern 4m of the wall are integrated into the solid north-east bastion. Wall 1 was exposed to a depth of 1.5m in the south-east 'guardroom', however, the foundation courses of the wall were never reached. Wall 2 comprised the eastern extent of the interior gate wall, and formed the southern extent of the south-east 'guardroom'. This stretch of wall ran from the south-east corner of the gate, west for a distance of 5m, as far as the east side of the rear of the gate passage. Wall 2 was 2.5m wide, the stones forming the lining of the gate passage comprising particularly well-cut boulders.

Wall 3 comprised the western extent of the interior gate wall. The wall was 5m long, 2m wide, and formed the original southern boundary of the south-west 'guardroom'. Wall 4 comprised the west tower flank and measured 10.5m. Wall 4 also curved in towards the center of



4. Tall ar-Rukays. Aerial photograph of Area 16 gate.



5. Tall Ar-Rukays. Gate plan illustrating individual construction features.

the tower flank and out towards the north-west and south-west gate corners. The northernmost 3m were integrated into the north-west bastion. Wall 4 was exposed to a depth of 1.6m in the area of the south-west 'guardroom'.

The east tower bastion was more robust than that of the west tower. The exterior 6.5m of the tower bastion comprise an almost completely solid block, except for a small

chamber leading off from the guardroom. It is likely that this chamber was used for storage, however, no associated surfaces were reached. Apart from this chamber, the exterior bastion of the east tower formed a solid block of basalt measuring 5 x 6.5m.

To the interior of the east tower bastion was a room measuring 4 x 3.5m. This room was exposed to a depth of 1.0m across its entire extent and to a depth of 1.5m in a small sondage. Two pillars constructed from basalt boulders were also exposed, surviving to a height of approximately 1m. It is most likely that these pillars originally supported the ceiling of the chamber. A semi-circular basalt bench was partly preserved in the south-west of the room. The bench was a single stone course wide and was preserved over a distance of 3m. It is reasonable to suggest that the bench was used by those who operated the gate traffic and that the chamber served the function of a guardroom.

The west tower also comprises a heavily strengthened bastion on the exterior, with a room situated at the interior. The bastion measures approximately 7 x 6m. The most apparent difference in construction from the east tower is that the west bastion contains a casemate that was filled with a mass of small stones. It is possible that the casemate originally was an open chamber used for stor-



age, however, it appears to have been deliberately filled with small stones, similar to the method employed in the stone towers of MBA Gezer (Dever *et al.* 1970: 19; MacAlister 1911: 230). The casemate measures approximately 2.5m<sup>2</sup>.

The room to the south of the bastion also most likely served as a guardroom and contained a stone bench on the northern side of the chamber. The south-west room was entered by a 1m wide entrance to the south of the passage. A small, single course wide wall, partitioned the rest of the room from the passage. A final major difference with regards to the south-west room is seen in the absence of pillars. It is likely, though, that pillars were originally installed and that their foundations have not yet been exposed, as this room was not completely excavated down to the living surface.

The gate passage is well preserved. The original passage floor and exterior door socket were still in place, as was a covered drain that ran down the entire length of the passage towards the gate exterior. Also associated with the passage floor were two basalt lintels, which clearly collapsed from the door leading off the passage into the south-west chamber. These lintels measured approximately 2 x 0.3m.

The passage was approximately 2.5m wide, though was partially blocked to a width of 1.5m at the actual door. The door was located approximately 2.5m into the passage, from the exterior line of the gate structure. At this point a stone door socket comprising two bored holes in a basalt boulder was found *in situ*. The socket was situated against the west line of the gate passage and marked the position of the original exterior door. There was no other evidence for further doors located within the passage.

The gate passage itself comprised a patchwork floor of hard, compact earth and small, flat stones. Running through the center of the preserved floor was a covered drain. This was completely intact and ran from the western side of the passage interior in the south, to the door socket on the eastern side of the passage in the north. The drain is well paved in flat stones approximately 0.7m wide.

Due to the almost complete destruction (or erosion) of the original superstructure, any attempt to reconstruct the appearance of the original gate entrance and superstructure is problematic. The limited comparative material from the Bronze Age exacerbates the problem. The nature of the debris at Tall ar-Rukays, however, with a lack of evidence for finely worked stone or use of brick, indicates that the Tall ar-Rukays superstructure was horizontal rather than arched.<sup>5</sup> Ultimately, any reconstruction must remain conjectural.

### Comparative Study (FIG. 6).

The gate of Area 16 at Tall ar-Rukays is an important find for a number of reasons, the foremost being that it is the only confirmed MBA gate yet excavated in Jordan. EBA gates have been excavated at Jāwā (Helms 1973: 41; 1975: 27; 1976: 7; 1977a: 29; 1989: 149; Betts 1991: 34), Tall al-Ḥandaqūq north (Mabry 1989: 65; 1996: 123), Bāb adh-Dhrā' (Schaub and Rast 1984: 43-44) and Khirbat Iskandar (Richard 1983: 50; 1990: 44; Richard and Boraas 1984: 79). MBA gates almost certainly existed at the larger, defended MBA sites of Jordan, however, they are yet to be revealed.

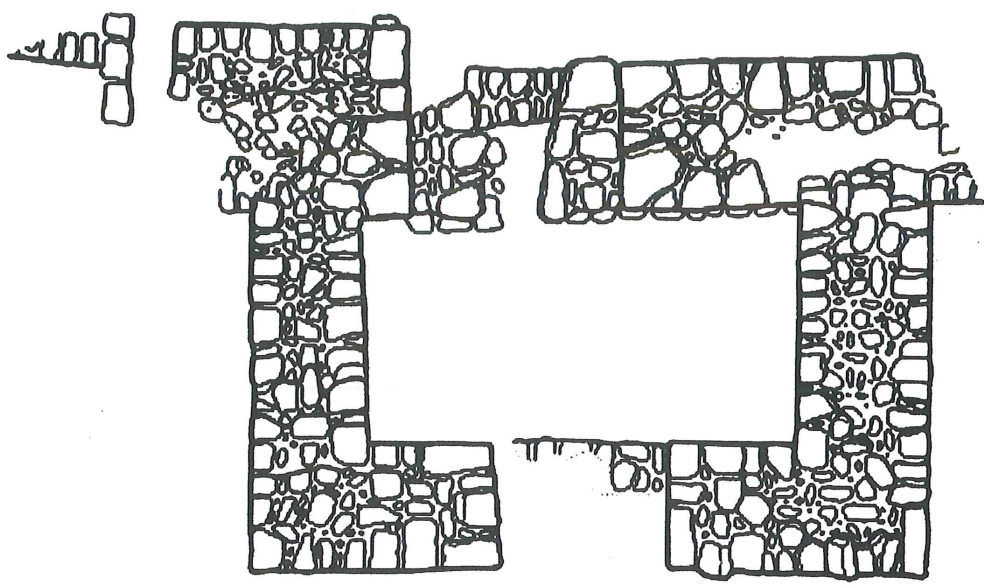
The possible exposure of MBA gates at 'Ammān in the Eastern Highlands and Tall Dayr 'Allā in the Jordan Valley has been alluded to, however, is yet to be confirmed. Greene has suggested that a large stone wall (L18) of the MB II period, located in the 'Deep Sounding' on the lower terrace of the 'Amman citadel, possibly represents 'part of the tower or gate' (1992: 116) and that the massive rock tumble (L19) may be collapse debris 'from such a tower or gate' (1992: 117). The exposed features, however, are extremely limited due to the confined nature of the sounding. The presence of a gate in this area is purely conjectural.

At Tall Dayr 'Allā excavations in Trench D revealed fortifications, which Franken described as resembling 'a casemate wall, but may in fact be part of a gate' (1961: 364). The Trench D defenses are abutted by LBA phases, however, they were possibly originally constructed during the MBA. The most extensive investigation of the Bronze Age defenses was undertaken during the seasons of 1976 and 1978. In Squares D.I 17; D/H 17; D/H 18 at the south-east foot of the tall, Franken and Ibrahim established a MB II date for the defenses (1978: 73-78). Most important, however, is the fact that the location of a MBA gate at the site is yet to be clearly established. At this stage the Tall ar-Rukays gate is the only known MBA gate yet revealed in Jordan.

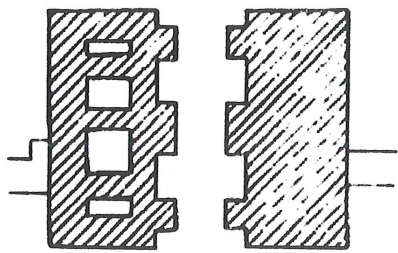
In terms of the overall gate plan the Tall ar-Rukays gate differs considerably from the 'standard' gate types which characterize the MBA elsewhere in the Levant and Egypt. During the MBA gate plans become increasingly standardized, with the 'triple entry gate' plan becoming one of the defining architectural features of the period throughout the Levant (FIG. 6, Tall al-Fār'ah south and Hazor Area K). The 'triple entry gate' was commonly employed at numerous MBA Syrian sites, including Tall Touqan (Guardata 1996: 64-72), Tall Mardikh (Matthiae 1968: 8), Carchemish (Woolley 1921: 104), Qaṭna (du Mesnil du Buisson 1928: 283-284) and Alalakh (Woolley 1955: 150). South Levantine sites include Megiddo (Loud 1948: 16-22), Yavneh Yam (Kaplan 1969: 120), Shechem

<sup>5</sup> As is evident in MBA triple entry gates elsewhere, for example, at

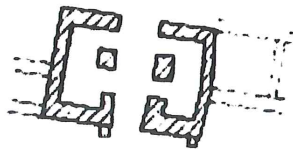
Tall Dan (Biran 1984: 1-19) and Ashkelon (Stager 1999: 237-238).



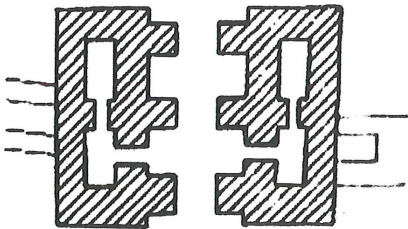
Tall al-Far'ah north  
Mallet 1987-Plan IV.



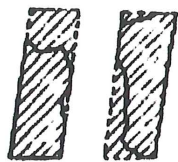
Hazor Area K



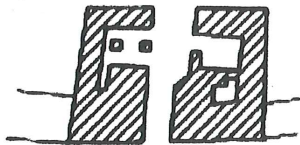
Khirbat Iskandar



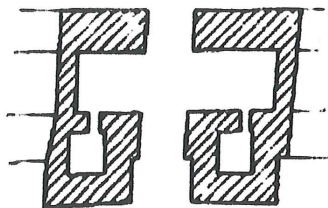
Tall al-Far'ah



Bab adh-Dhra'



Tall ar-Rukays



Nimrud

6. Comparative plans of gate types.



(Nablus) (Seger 1974: 117-130) and Hazor (Yadin 1989: 277-282). During the Middle Kingdom in Egypt a different, yet standard, gate type developed, forming a distinctive gate class. This gate type may be observed at Buhen (Emery 1959; 1960; 1961), Uronarti (Reisner 1960: 13) and Mirgissa (Wheeler 1961: 97).

The Tall ar-Rukays gate, however, has two rectangular towers flanking a direct entry passage, with no evidence of double or triple entry 'piers' flanking the passage. Unlike most MBA gates the Tall ar-Rukays gate is also entirely contained within the line of the main defensive trace, whereas most gate towers elsewhere protruded beyond the line of the main defensive circuit. In terms of the general plan, the Tall ar-Rukays gate falls outside of the spheres of standard MBA gates elsewhere.

Close parallels to the Tall ar-Rukays gate plan are rare. The closest parallel in terms of gate plan is to be found at EBIV period Khirbat Iskandar in the Eastern Highlands of Jordan (FIG. 6). During Phase A in Area C at Khirbat Iskandar, there were two sub-phases of gate construction. The second phase gate comprised 'a bench lined thoroughfare with two guardrooms' (Richard 1990: 48). The gate plan generally parallels that of the Tall ar-Rukays gate, with a few variations. The Khirbat Iskandar gate lacks the robust exterior bastions and casemates of the Tall ar-Rukays gate, however, the two flanking towers comprise guardrooms, are rectangular, and protect a direct entry passage. The architectural unit is also essentially enclosed within the line of the main defensive trace. Pillars were also employed to support the gate superstructure.

Apart from the Khirbat Iskandar gate parallels for the Tall ar-Rukays gate plan are rare. A variation of the Tall ar-Rukays plan may possibly be observed at MB II period Tall al-Fār'ah north (Mallet 1987, Plan 9) although the Tall al-Fār'ah gate lacked the bastions of the Tall ar-Rukays gate and the exterior face of the gate protruded beyond the main defensive line. A possible parallel may also be seen at Tall ad-Dabbah in the Syrian Ḥauran, just north of Tall ar-Rukays. Although the gate is yet to be excavated the site has been surveyed by Braemer, who briefly describes the extant gate remains and associates the site with the MBA based on ceramics (1984: 246). As at Tall ar-Rukays it is possible to identify much of the plan of the Tall ad-Dabbah gate on the existing surface. The gate is also of basalt, is of similar dimensions, with a passage 4m wide and 14m long, and comprises a large bastion clearly flanking the passage to the west (1984: 244). The situation to the east is less clear, and excavation is required in order to establish a true plan.

The Tall ad-Dabbah gate is largely located behind the defensive line, as at Tall ar-Rukays. With regards to the general gate plan, the location of the gate structure behind the main defensive line is an unusual feature during the Bronze Age. Apart from the parallels at Khirbat Iskandar

and Tall ad-Dabbah, the only direct parallels for this planning feature are known at EBA sites such as Jāwā (Betts 1991: 34), Rosh Hanniqra (Tadmor and Prausnitz 1959: 75) and Tall Dothan (Helms 1977a: 112).

Many of the individual architectural features employed within the gate construction (the paving in the guardrooms and passage, the dimensions of the walls, towers and general gate plan, the materials used) find parallels with gates of varied periods and regions throughout the Levant. These features were fundamental to most gates and often cannot be considered to be directly indicative of a specific period or region. For example, paved gate passages have been exposed at EB I period Arslan Tepe (Palmieri 1981: 104), EB III period Tall Taya (Reade 1968: 247), MB II period Tall Mardikh (Matthiae 1968: 13), MBII period Bethel (Kelso 1961: 7), MBII period Carchemish (Woolley 1921: 90) and at MBII period Hazor (Yadin 1989: 282).

Other features, such as the covered drain, the 'type' of door socket and the stone benches find fewer parallels. It seems most likely, however, that these features were originally commonly employed in gate structures, and are yet to be exposed. The covered drain within the Tall ar-Rukays gate passage, for example, is rarely noted elsewhere, one example being at MBA Boghazkoy (Bittel 1957: 21), though this feature was most probably commonly employed. The Tall ar-Rukays door socket, comprising two holes bored alongside each other in a single stone, is uncommon, though door sockets with a single bored hole have been commonly found at sites such as EB I period Jāwā (Helms 1977b: 29), EB III period Tall Selenkahiye (Van Loon 1977: 166), MB II period Bethel (Kelso 1961: 7) and MB II period Carchemish (Woolley 1921: 84). Stone benches in the guardrooms and passages have only been noted at a few other sites, such as EB IV period Khirbat Iskandar (Richard 1990: 48), MB I period Tall Akko (Dothan and Conrad 1978: 265) and MB II-III period Yavneh Yam (Kaplan 1969: 120). It is reasonable to assume, however, that they were originally commonly employed.

One of the more unusual architectural features within the gate comprised the employment of pillars in the guardrooms. Evidence for pillars in MBA gates elsewhere is uncommon, as it was the 'piers' within the standard triple entry gates that provided support for the superstructure. The Tall ar-Rukays gate guardrooms lacked piers and thus required pillars to support the superstructure, as these rooms were the most open horizontal areas.

The only parallel for this feature comes, interestingly enough, from EB IV period Khirbat Iskandar, one of the gates that most directly parallel the Tall ar-Rukays gate. The Khirbat Iskandar gate differs from the Tall ar-Rukays gate insofar as there is evidence for a central pillar flanking both sides of the passage, placed in the center of the



long-axis (Richard 1990: 48-50). The Tall ar-Rukays gate did not require pillars at this point because, unlike the Khirbat Iskandar gate, walls for much of the length of the long-axis flanked the passage of the Tall ar-Rukays gate. These walls provided support for the ceiling of the gate along the center of the passage, so no pillars were required.

The Tall ar-Rukays gate, therefore, represents a rare and distinct gate type, with few clear parallels. The Tall ar-Rukays gate falls outside the sphere of the commonly employed MBA triple entry gate. The comparative analysis demonstrates that the most distinctive features of the Tall ar-Rukays gate are the overall plan, the location of the gate behind the main defensive line, and the use of pillars. Although aspects of these features are found at sites elsewhere (such as Tall al-Fār'ah north), the closest parallel in terms of each of these features is at EBIV period Khirbat Iskandar.

### Discussion

The limited exposure of MBA military architecture in Jordan means that any current discussion relating to patterns of architectural development must remain confined to the realm of hypothesis. That being said, it is nonetheless interesting to note that the closest parallel to the Tall ar-Rukays gate is found at another site in Jordan, rather than in the more extensively excavated verdant regions of the Levant. Furthermore, this site is also located in the 'marginal' zones of urban settlement in Jordan. There is a possibility that this is coincidence, yet the similarities between the Tall ar-Rukays and Khirbat Iskandar gates, and their location along the desert fringe of Jordan should be noted.

Any argument for a direct connection between the two gate types would be much stronger if they were both of a MBA date. The range in dates associated with the two gates, however, could be viewed as a continued adoption of a gate type distinct to sites along the marginal zones of Jordan between the EB IV and the MB II. The continuity of this gate type throughout various periods could be the result of the unchanging role of most 'frontier' sites on the desert fringe. The location of marginal zone sites may have changed over time yet their roles probably remained the same. The existence of MB II period Tall ar-Rukays could be the result of many factors, however, it is most likely that it served as an outpost for the larger centres of the more verdant regions. The site experienced much of its growth during the MB II period, a period characterised by expanded trade and increasing urbanism. Tall ar-Rukays was not a 'city' and most likely served an intermediary function between the settled verdant land and the

nomadic frontier. The Tall ar-Rukays gate is perhaps more closely associated with 'forts' on the desert frontiers rather than with 'cities' in the verdant areas.

Khirbat Iskandar, though fortified during the urban 'hiatus' of the EB IV period, was still located close to the desert frontier and probably also served an intermediary function. Continuity in terms of site function on the desert frontier probably remained largely unchanged throughout many periods. This considered, it is possible that the concept of a distinct type of gate used specifically at frontier sites, was employed during a range of periods, even though the location of the frontier sites would change over time.<sup>6</sup>

The concept of a type of 'desert frontier' military architecture being employed throughout multiple periods cannot be based purely on parallels between the gates at Tall ar-Rukays and at Khirbat Iskandar. The limited available evidence, however, indicates that the Tall ar-Rukays and Khirbat Iskandar gates had a lot in common, though very little in common with the more rapidly evolving 'standard' gate types of the more verdant Levantine regions.

Evidence for a degree of 'regionalism' along the desert frontier may also be noted in other aspects of MBA military architecture in the Eastern Highlands and Ḥauran. The rampart type involving an earthen embankment thrown up against the exterior face of the main wall circuit was almost exclusively employed at fortified Eastern Highlands and Ḥauran sites during the mature MBA (including 'Ammān, Tall Šāfūt, Boşra, and possibly Tall ad-Dabbah and Saḥāb). This differed from elsewhere in the MBA Levant where more varied rampart types were frequently used (such as 'freestanding', 'core wall', 'crowning wall' and 'sandwich' ramparts). The general absence of rampart types that were commonly employed during the MBA in other Levantine regions emphasizes a degree of regionalism in constructional development in the Eastern Highlands.

Importantly, the preferred rampart type used in the Eastern Highlands during the MBA was also the typical rampart at most fortified EBA sites. This rampart type was also relatively common in the more verdant regions of the MBA Levant. The fact that it was almost exclusively employed in the Eastern Highlands, however, indicates that a stronger degree of continuity with the EBA existed in the marginal regions of Jordan, than in the more fertile parts of the Levant. This suggests that standard building practices existed for longer periods of time in marginal zones, than in the more rapidly evolving verdant zones. In the verdant regions of the Levant, although there were some features of military architecture that were employed

<sup>6</sup> As a tentative footnote it is also interesting to look at the EBIII period 'postern tower' in Field XI at Bāb adh-Dhrā' (Rast and Schaub

1981: 21), another desert frontier site.



both in the EBA and the MBA, the fortifications of the MBA were generally distinct from EBA fortifications in terms of gates, towers and rampart types. In the marginal zones of Jordan, the evidence again suggests that a greater degree of continuity existed in military architecture throughout multiple periods.

Whether there is any credence to any theory of a military architectural tradition on the desert frontier, spanning multiple periods, can only be established with further excavation. The desert frontier of the Levant could well reveal more MBA sites, which served a similar function to Tall ar-Rukays, and possessed a similar architectural tradition. Tall ad-Dabbah is possibly such a site. Saḥāb, located to the southeast of 'Ammān, is possibly another. In discussing his work at Saḥāb, Ibrahim explains that 'Saḥāb is probably the closest of these MB II forts to the desert area. It's position must have been important in defending the highland from desert attack' (Ibrahim 1987: 76). Future work, hopefully, will shed some light on this issue.

As a final note, Ibrahim has also suggested that 'archaeological survey should be carried out with an eye to locating a limes, or series of fortifications, for this (the MBA) and the following pre-Classical periods along the desert border' (Ibrahim 1987: 76). It is true that chains of fortresses along the desert frontier are known to have existed during the Middle Kingdom in southern Egypt (Lawrence 1965: 71). Elsewhere, in the *wadi* systems on the northern frontier of the Negev desert, it is possible that sites, such as Tall Masos and Tall al-Milḥ, were also part of a similar chain of fortresses.

It is also possible that Tall ar-Rukays was a 'frontier fortress', though there is no evidence that there was any concerted attempt to form a definite MBA limes along the frontier of the Eastern Desert. The MBA political landscape in the Eastern Highlands and Jordanian Ḥauran most likely consisted of individual city states (definitely at 'Ammān, possibly at Tall Jalūl, Jarash, Irbid, Boşra and Tall ad-Dabbah). Some had satellite centers, which possibly performed the function of an outpost to protect the frontier (such as at Tall al-'Umayrī, Khirbat al-Makhayyar, Saḥāb and Tall ar-Rukays). It is possible that such city-states worked in conjunction with each other to protect trade routes running through the region, but it is more likely that they were each primarily protecting their individual territory from raids. This, rather than a deliberate 'chain' of fortresses, was the more likely situation.

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