

QĀ' ABŪ ṬULAYḤA WEST, 2000 AN INTERIM REPORT OF THE FOURTH SEASON

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Introduction

The fourth excavation season at Qā' Abū ṬulayḤa West (قاع أبو طليحة), a Late Neolithic to Early Bronze Age site in the al-Jafr basin (الجفر), southern Jordan, was conducted from 26 August through 27 September 2000 with the kind cooperation of the Department of Antiquities of Jordan. The purpose of this season was to obtain further evidence for the pseudo-settlement hypothesis — a likely interpretation of the formation process and function of the Layer 4 unique complex at this site (Fujii 2000a; 2001). For the purpose, a total of nine structural units in the Northeastern Complex and three isolated burial cairns in the Southwestern Complex were excavated either completely or partially.

The following is the preliminary summary of this season. The description will be made in order, from north to south, roughly following the chronological order. To conclude, the formation process and function of the Layer 4 complex will be briefly discussed with a view to advancing the revised pseudo-settlement hypothesis.

The Site and the Layer 4 Complex

Before entering into the detailed description of the excavations, it is helpful to present an overall picture about the site. Qā' Abū ṬulayḤa West was first discovered during our preliminary survey in 1995 (Fujii 1996). Four excavation seasons have been conducted since 1997, including this season (Fujii 1998; 1999a; 1999b; 2000b; 2000c). The site is situated in the northwestern part of the al-Jafr basin, southern Jordan (Fujii 2000b: fig. 1). The surrounding topography is characterized by *Hammada*, abraded flint pavement desert. The site lies on a gentle hill between Wādī ar-Ruwayshid وادي الرويشد in the northwest and a small saltpan, Qā' Abū ṬulayḤa, in the southeast. The environmental conditions are very harsh today. It is extremely hot and dry in summer and very cold and stormy in winter. The annual average precipitation

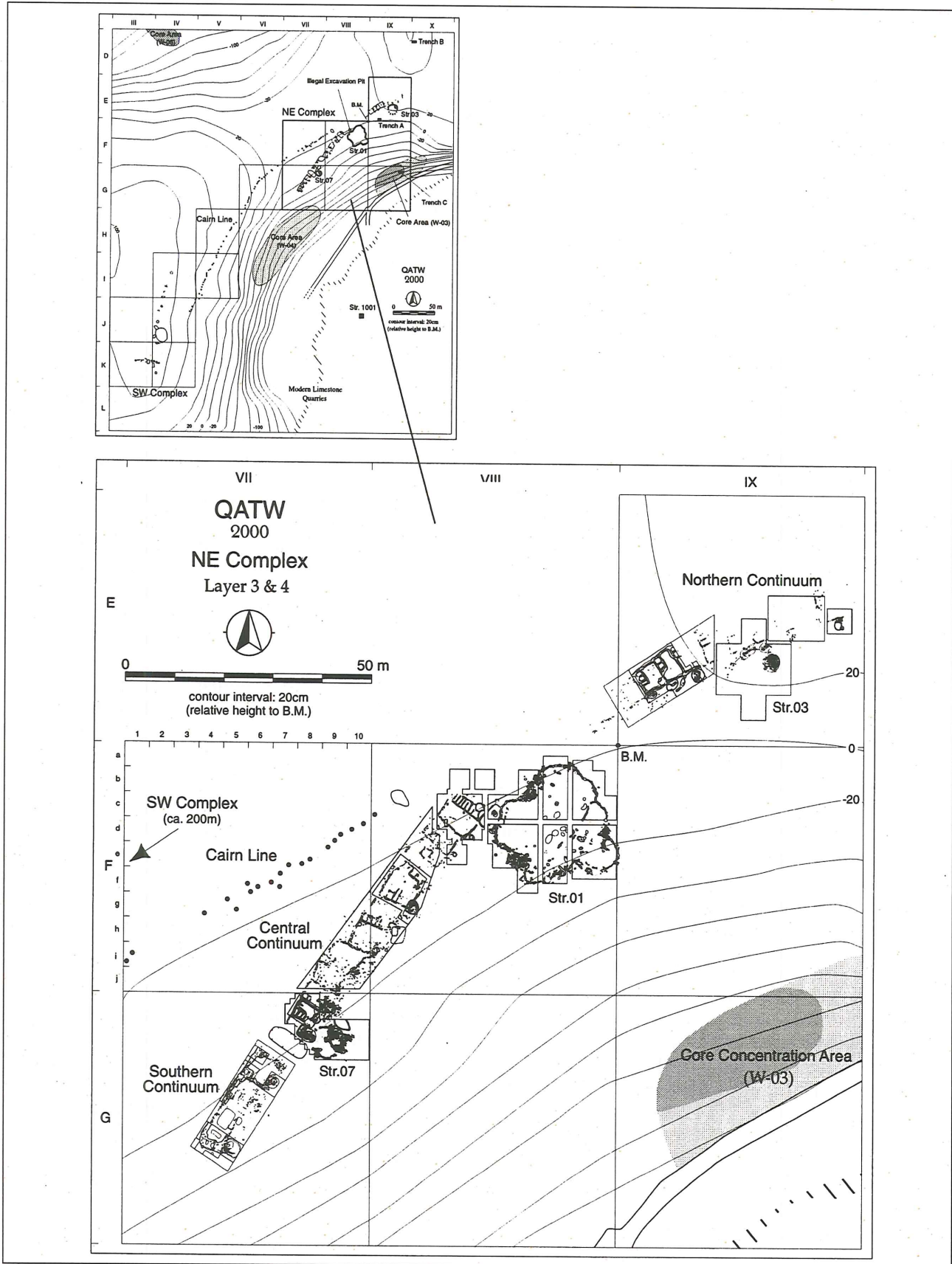
is less than 50mm; neither perennial water sources nor shrub stands are found around the site.

The site consists of two structural complexes, the Northeastern and the Southwestern Complexes, of which the former has so far been the main focus for the excavations (Fig. 1). To date, the following three cultural complexes have been confirmed:

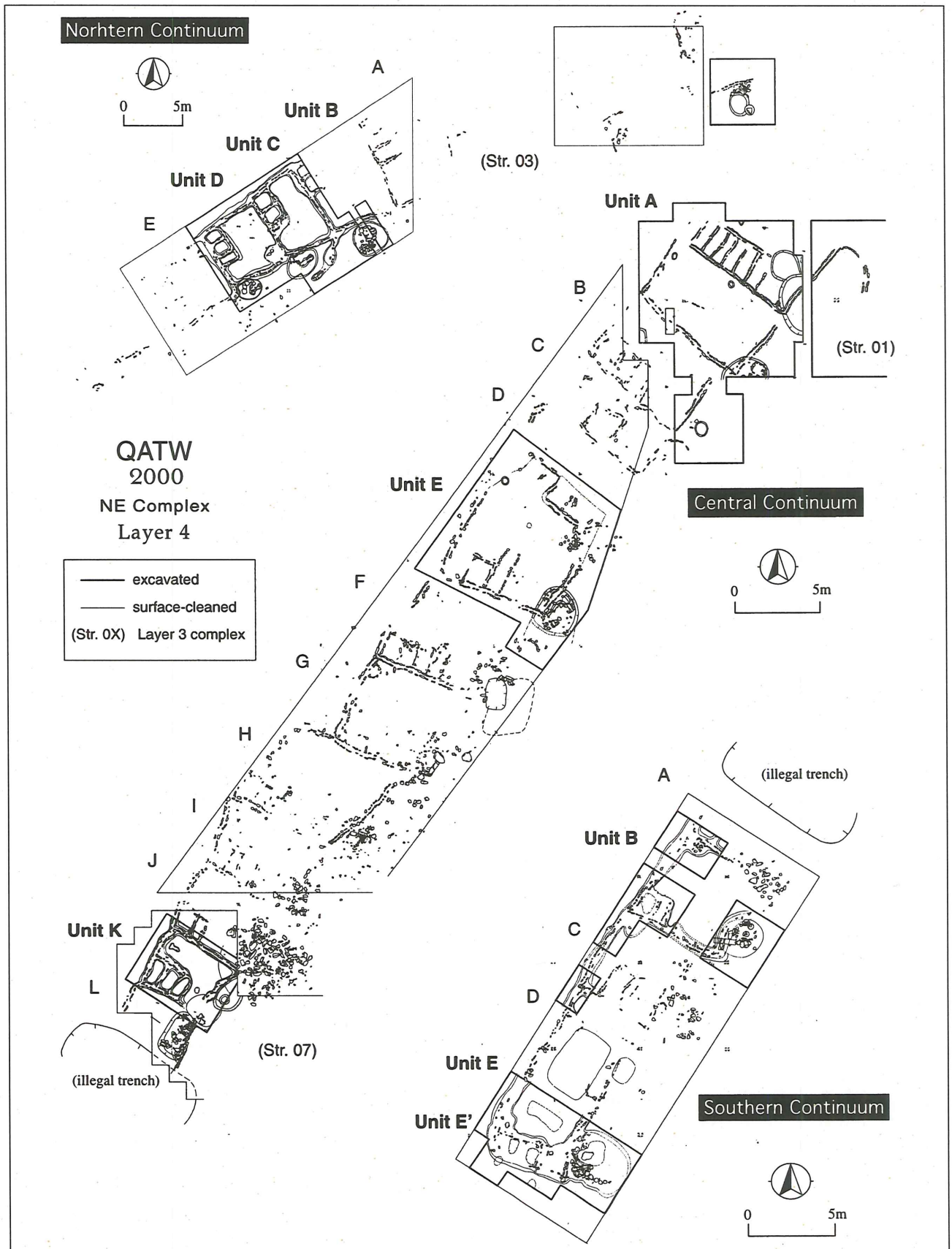
- 1) the Layer 4, probably dated to the Late Neolithic, complex represented by a series of two-rowed upright slab wall rectangular structures;
- 2) the Layer 3, Early Bronze Age, complex represented by a line of large, round to oblong, or even composite-style structures (e.g. Structures 01, 03, and 07) and several core concentration areas (e.g. W-03);
- 3) again, the Layer 3, probably dated to the EBA, complex represented by small, oblong, Jafr-blade workshops (e.g. Structure 1001 below the hill).

The Layer 4 complex, our main concern here, is located along the southeastern edge of the hilltop, thus facing Qā' Abū ṬulayḤa — possibly, the main seasonal water source for the population of those days. To date, some thirty structural units, each of which comprises a burial cairn and a two-rowed upright slab wall rectangular structure, have been identified either by the excavation or by the cleaning of the *Hammada* surface (Fig. 2). They form three long chains: the Northern, the Central, and the Southern Continuum. Each continuum, roughly oriented NE-SW following the contour, consists of at least five to twelve structural units that are connected with each other by both sides. The total length of a continuum varies from ca. 30m to ca. 60m depending on the number and size of the structural units it comprises.

The dating of this complex has not yet been fully established due to the scarcity of the diagnostic finds. However, the general comparison of structures and artifacts (e.g. two-rowed upright slab wall structures, proto-tabular scrapers, and red painted, hand burnished pottery sherds), coupled



1. Qā' Abū Ṭūlayḥa West and the Northeastern Complex.



2. The Layer 4 complex.

with a line of negative evidence (i.e. the total absence of PPNB naviform cores and bidirectional blades on the one hand, and that of Chalcolithic to EBA typical tabular scrapers on the other), probably suggest the dating to the Late Neolithic (Fujii 2000b).

In addition, three C14 data are now available for the dating: BP 5,500±90 (NUTA2-1975) and 5,270±30 (NUTA2-1976) for two hearths at Unit A in the Central Continuum, and 7,060±50 (NUTA2-1977) for Hearth-01 at Unit E in the same continuum. My tentative view is that the third datum represents the *terminus ad quem* for the Layer 4 complex, since this complex, as is referred to below, was probably a pseudo-settlement without any practical habitation and therefore these hearths seem to have been used by a group who was later encamped at this place. This interpretation, though sounding arbitrary, is reinforced by the total absence of hearths and artifacts in other units — a natural reflection of a pseudo-settlement. However, the final conclusion must await further excavation and C14 dating is still in progress (two C-14 data have also been obtained for the Layer 3 complex: BP 4540±70 (NUTA2-1978) for Structure 07, and BP 4245±30 (NUTA2-2022) for Structure 01. Both data suggest that the Layer 3 complex belongs to the later half of EB III).

The Excavations of the Northeastern Complex

A total of nine structural units were excavated, either completely or partly, during this season: three in the Northern (Units B to D), one in the Central (Unit K), and five in the Southern Continuum (Units A to E). When two units, Units A and E in the Central Continuum that had been excavated during the last season are included, a total of eleven examples of some thirty units have so far been excavated — a reliable basis for the comprehensive discussion on the formation process and function of the Layer 4 Complex.

Typologically, these structural units are homogeneous in many respects. First, they are rectangular in general plan, measuring ca. 3-7m wide and ca. 5-8m deep. Second, a narrow entrance opens to the southeast, the lee side for the predominant wind in this region, which is often equipped with a curvilinear windbreak wall at its northeastern side. Third, aside from a single exception (Unit A in the Central Continuum), a unit always consists of one main room on the right and a few small cells on the rear left. Fourth, the southwestern corner of a facade is usually disturbed by a single burial cairn — a key to the formation process and function of the Layer 4 complex.

Technologically, these structural units are unique in that a long banking, ca. 0.5-1m wide and ca. 10-20cm high, was first constructed following the expected plan of a unit, and then two-rowed (or sometimes one-rowed) limestone and/or flint undressed slabs were driven deep into this banking with their tops slightly protruding at the surface. It is, however, unlikely that some wall material was set between these two-rowed uprights (or along one-rowed uprights), since, as discussed below, there is a good possibility that these rectangular structures were not practically inhabited. In practice, no evidence for an upper structure has so far been found.

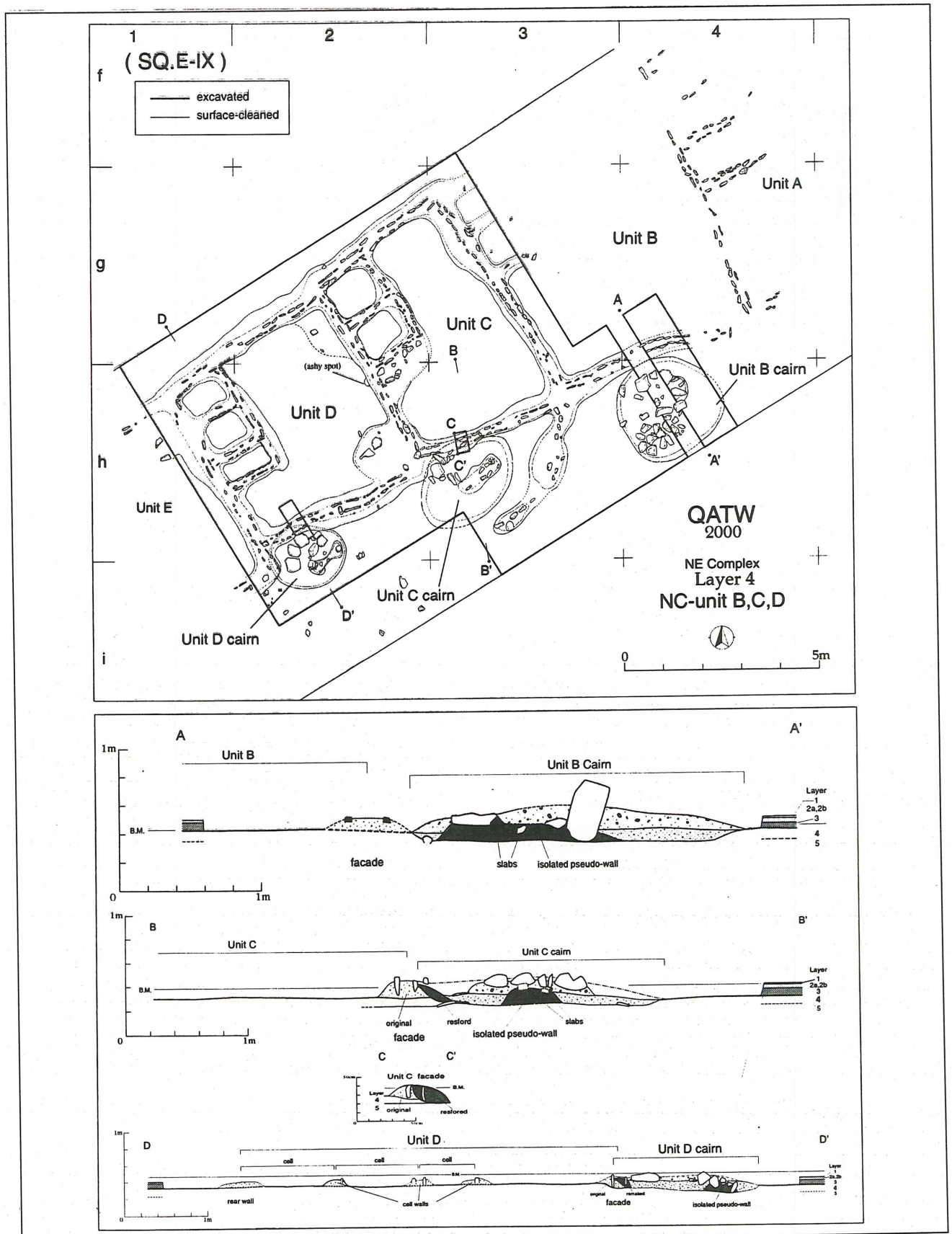
Incidentally, one may doubt whether a banking made of aeolian sand and silt, which characterize the geology of most desert sites including Qā' Abū Ṭulayḥa West, could tightly support upright slabs. However, our experimental reconstruction has demonstrated that the Layer 4 sand and silt, when puddled and sun-dried, changes into cement-like, very hard material probably due to the lime components in the bedrock (Fujii 2000a: figs. 15, 21). This in turn implies that the construction was put into practice from winter to early spring with the former less likely because of cold weather and heavy storms.

The Northern Continuum

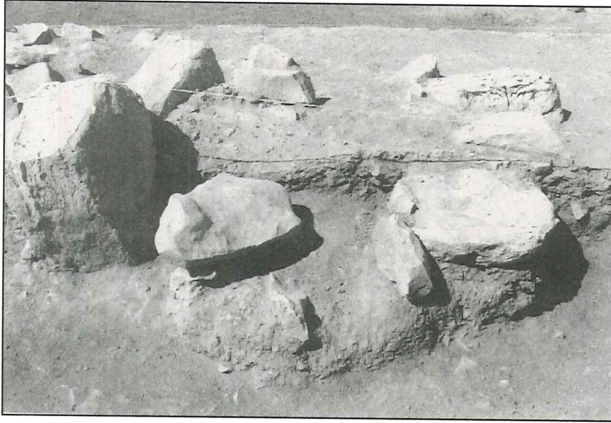
This continuum extends between (but slightly north of) two structures that belong to the Layer 3: Structure 03 in the northeast and Structure 01 in the southwest. At least five units, Units A to F, are included, but a series of two-rowed upright slab walls are dotted in both directions, indicating the further continuation of this continuum. It is different from the other two continua in a few respects, including the general orientation, the relatively poorer state of preservation, the higher frequency of abraded flint slabs as construction material, and the smaller size of each unit. As will be discussed below, these elements may serve as evidence for the earlier chronological order of this continuum.

Two adjacent units, Units C and D, were excavated during this season (Fig. 3). In addition, Unit B was partly tested in order to examine the relation between the facade and the burial cairn.

Unit B: The excavation has revealed that: 1) a shallow, roughly round pit, ca. 15cm deep and ca. 2.5m in diameter, was dug in front of the facade without disturbing it; 2) a short, isolated, two-rowed upright slab pseudo-wall was constructed roughly in the center of this pit (Fig. 4) and filled out with two layers of silty sand; 3) then, a number of lime-



3. Unit B to D in the Northern Continuum.



4. Unit B in the Northern Continuum.

stone cobbles and boulders were arranged roughly in a circle on this small mound, although some of them, especially heavy boulders, were put directly on the isolated pseudo-wall; 4) neither human skeletal remains nor burial gifts were found, as was the case with other burial cairns. Of special interest is the isolated pseudo-wall that was constructed on the pit. As will be discussed below, it is a key to tracing the techno-typological transition of the burial cairns.

Unit C: This unit, ca. 4m wide and ca. 6m deep, is typical of the Layer 4 structural units both in technology and typology. It consists of one main room on the right and a few small cells at the rear left. A narrow entrance is located in the southeast corner, the lee side, and protected by a curvilinear windbreak wall. Besides, the southwestern corner of the facade is partly disturbed by a single burial cairn.



5. Unit C in the Northern Continuum.

The structure of this burial cairn is basically similar to that of Unit B. An irregular stone circle was built on a short, isolated, two-rowed upright slab pseudo-wall, which in turn was constructed on a shallow, round pit, ca. 10cm deep and ca. 3 and 2m in two diameters (Fig. 5). However, a single but very important difference is the relation to the facade. This burial cairn, unlike the example of Unit B, partly cut it; more exactly, it erased the outer surface in the section B-B' and the outer-row of two-rowed uprights in the section C-C'. However, both damages were soon restored with the same soil as that of the isolated pseudo-wall — a practice repeated in the following units.

Unit D: The general plan was similar to other units, but there were some differences worthy of a brief comment. First, no windbreak wall was constructed in this unit, although a series of limestone cobbles in front of the entrance might possibly represent the remnants of such a wall. Second, a wide inner step ca. 10cm high, which incorporated two limestone boulders, was equipped at the southeastern corner of the main room. Interestingly, two-rowed upright slabs were interrupted there, suggesting the location of the entrance. Third, a similar platform, the function of which is still unknown, was found at the rear right corner of the main room. Fourth, a thin, ashy spot was found along the northeastern wall. Fifth, a pair of upright, cubic cornerstones was found at both sides of the entrance, and another example at the southwestern corner of the main room (Fig. 6). This may be the reason why this unit, unlike others, was not skewed



6. Unit D in the Northern Continuum.

in general plan.

The burial cairn is similar to that of Unit C. It erased the outer row of two-rowed uprights in the facade, and an irregular stone circle was built on a short, isolated pseudo-wall, which in turn was constructed on a shallow, round pit, ca. 10cm deep and ca. 2 and 1.5m in two diameters. However, two points deserve notice. First, the isolated pseudo-wall was irregularly mounted by limestone cobbles, not regularly driven by two-rowed upright slabs — a sign of technological deterioration. Second, the southeastern corner of the adjacent unit, Unit E, was constructed on this burial cairn — solid evidence for the gradual development of a continuum from the northeast to the southwest.

The Central Continuum

This continuum is located some 30m southwest of the Northern one. It extends between (but slightly north of) two Layer 3 structures: Structure 01 in the northeast and Structure 07 in the southwest. The difference in general orientation and preservation state, along with the spatial break, probably suggests some chronological gap between this continuum and the Northern one.

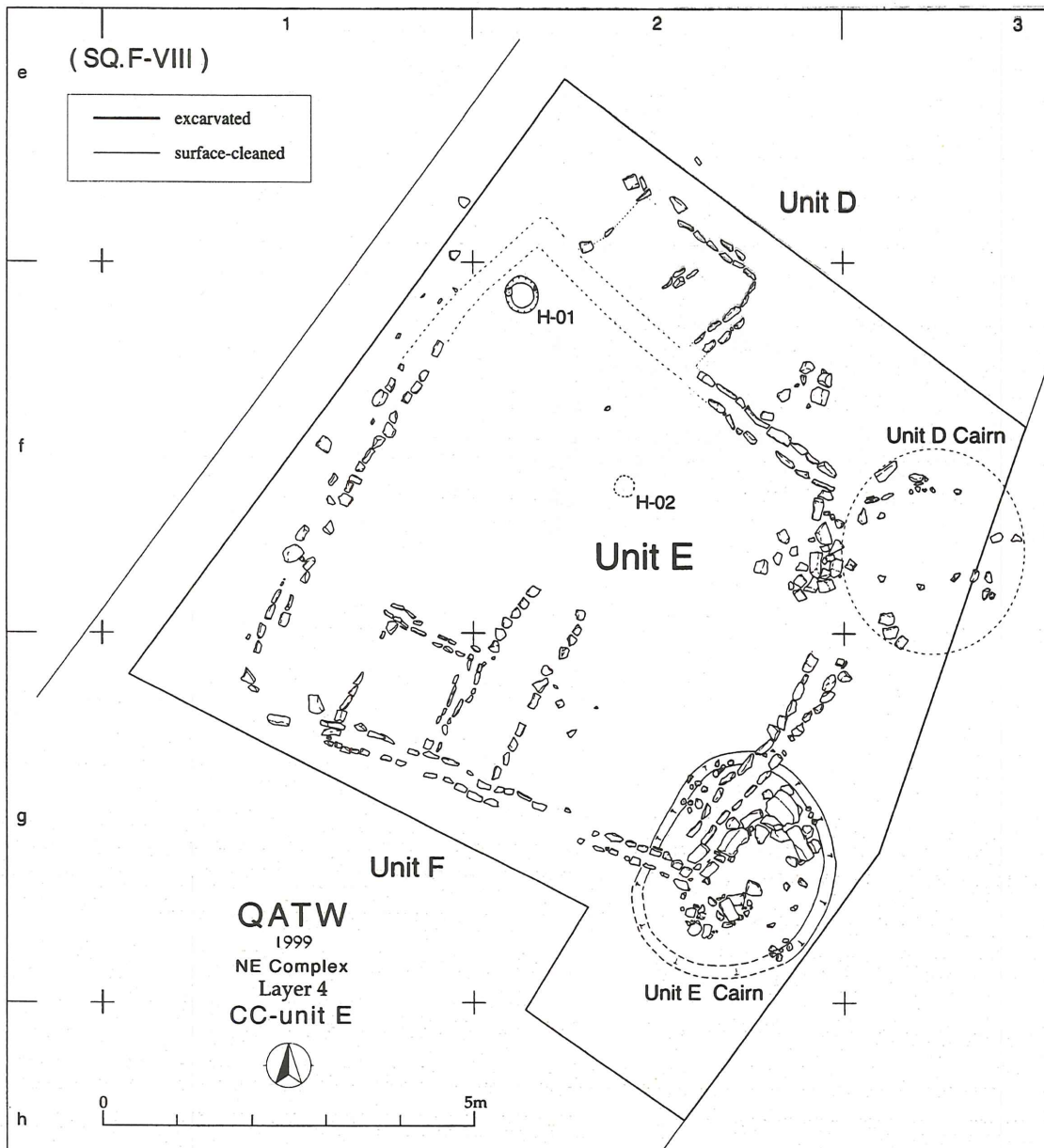
This continuum includes at least twelve units, from Units A to L, and measures ca. 60m in total length. Of them, two units in the northeastern half, Units A and E, had been excavated during the last season (Fujii 2000b). Besides, three units in the southwestern half, Units J to L, had been exposed down to the upper surface of Layer 3 on the occasion of the excavation of Structure 07. The excava-

tion of this season focused on Unit K of the latter group, but the description below includes a brief summary of Unit E, which had been omitted in the last report due to limited space.

Unit E: This unit is unique in that it is trapezoidal in general plan with both sides slightly fanning out toward the rear wall (Fig. 7). It is thus ca. 5m wide in the facade and ca. 7m in the rear wall, with the depth being ca. 7m. It is also unique in the set-forth of the left wing of the facade. Suggestive in this regard is the relation between the burial cairn of Unit D and the right wing of the facade of this unit. Probably, the slight protrusion of the former necessitated the setback of the latter, which in turn caused too much reduction of the indoor area. Thus the set-forth of the left wing was probably the last resort to offset this reduction (Fujii 2000a; 2001). Another device for this difficulty can be recognized in the setback of the rear wall of Unit H (Fig. 2).

The burial cairn of this unit, as was the case of Unit A in the same continuum (Fujii 2000b), was critically different from the examples in the Northern Complex. First, it completely cut the southwestern corner of the facade and partly invaded the floor of the main room. Second, an isolated pseudo-wall was no longer constructed on the pit — probably the consequence of the incorporation of the facade wall into the burial cairn.

Unit K: This unit is located almost at the southwestern end of this continuum. It is smaller in size



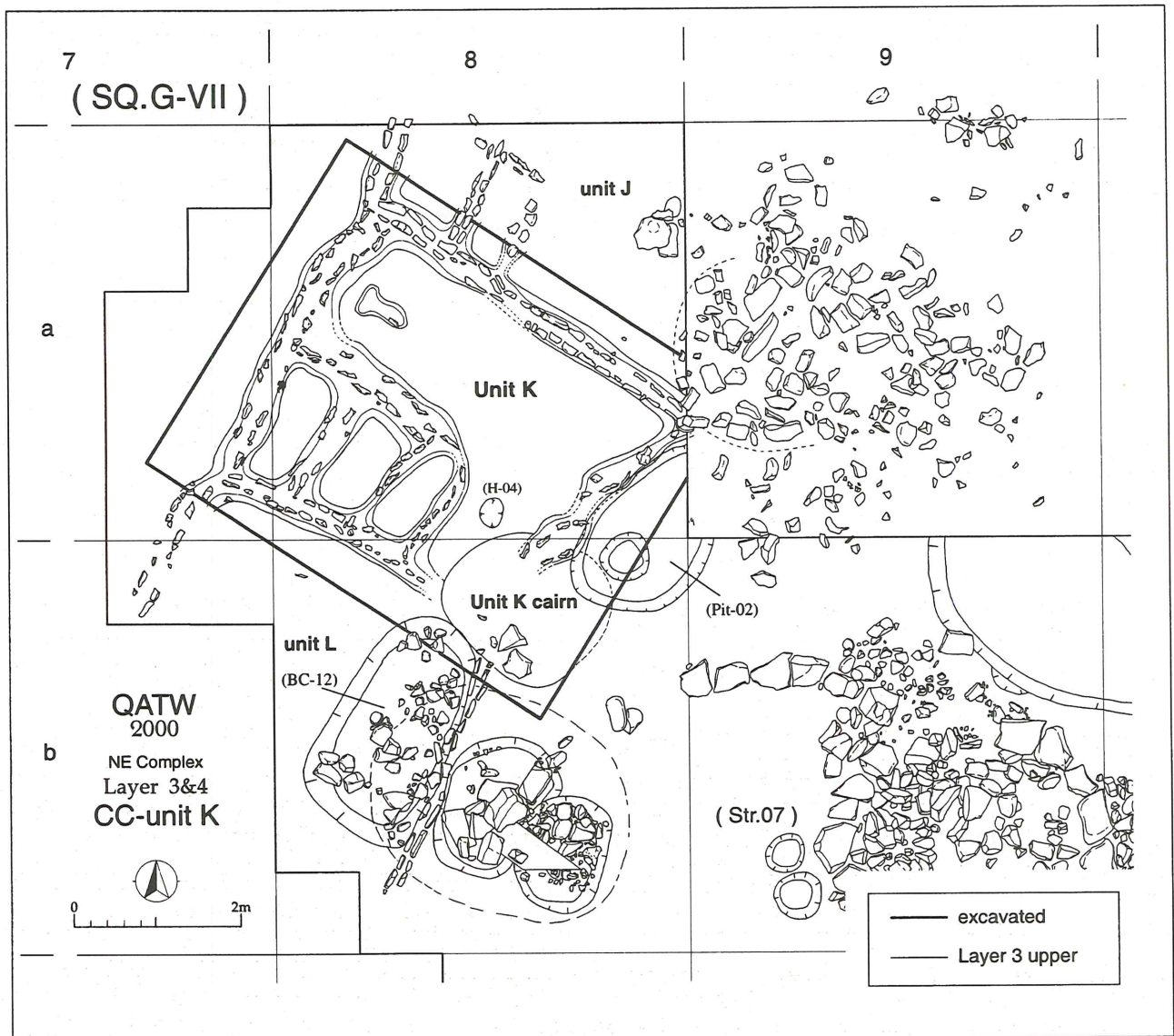
due to the gradual setback of a facade, measuring ca. 3.5m wide and 4.5m deep (Fig. 8). It is equipped with three cells on the rear left and a narrow entrance in their diagonal position. A short, amorphous platform, of which the function is still unknown, was found near the northern end of the main room.

Unfortunately, the burial cairn of this unit was not excavated, since the southwestern corner of this unit was heavily disturbed by BC-12 and Pit-02 that were dug from the upper surface of the Layer 3 (Fujii 2000b). However, the sudden interruption of the foundation banking, coupled with the occurrence of two limestone boulders that are still half buried, suggests that a pit type burial cairn, probably ca. 1.5m in diameter, exists in this corner.

The Southern Continuum

The Southern Continuum extends toward the southwest of Structure 07. A large, illicitly excavated trench, intervenes between this continuum and the Central one, thus making the relation between these two continua obscure. However, both the slight divergence of the rear walls and the substantial recovery of an indoor area suggest that this continuum represents an independent entity. It consists of only five or six units, thus being the shortest (ca. 25m) among the three continua. In order to save time and avoid a series of illicit pits and trenches, several small squares were separately opened, focusing on Units B and E.

Unit B: This unit was roughly square in general



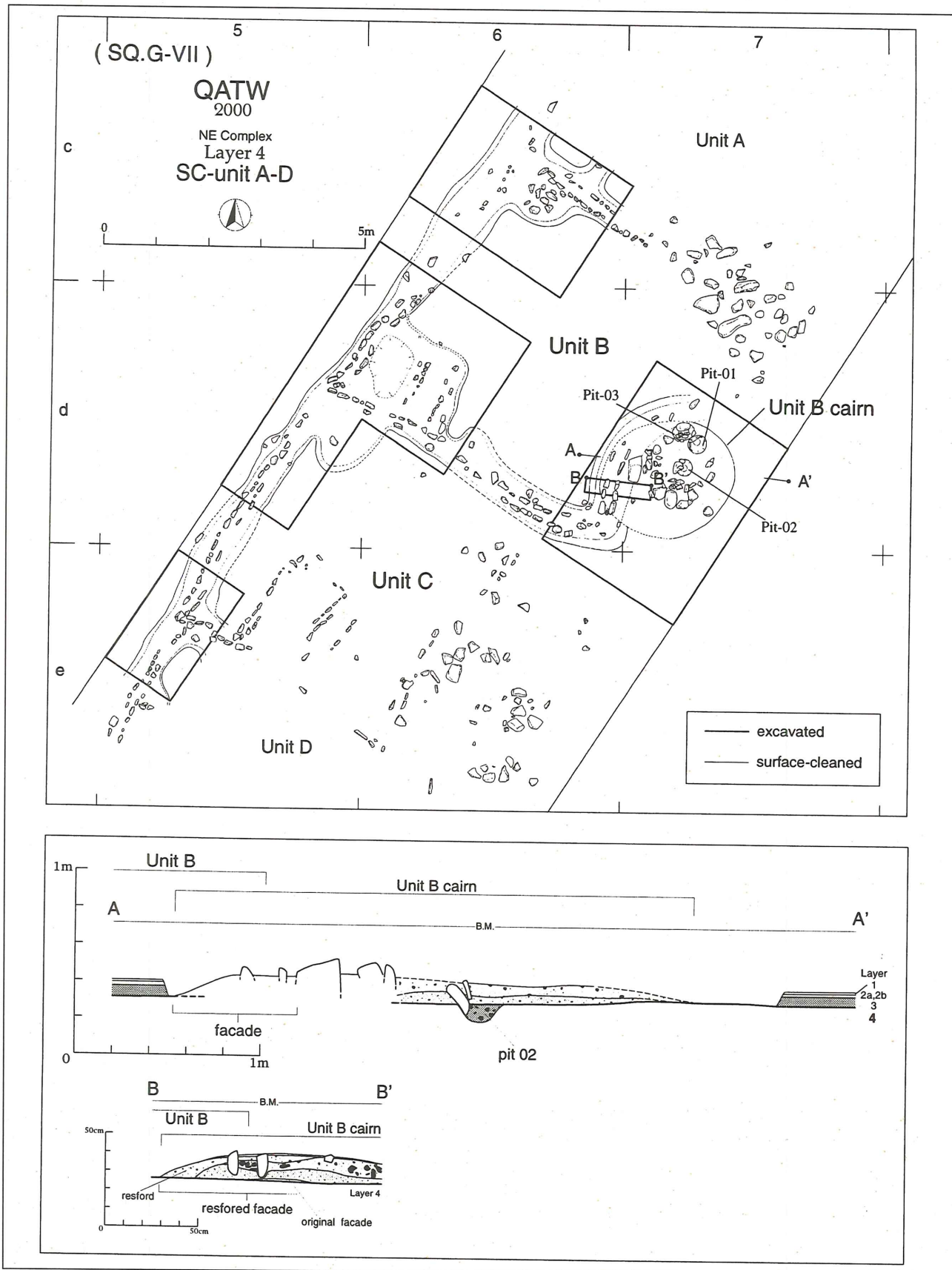
8. Unit K in the Central Continuum.

plan, measuring ca. 5.5m on both sides (Fig. 9). Some techno-typological changes were recognized in this unit. First, the burial cairn, ca. 2m in diameter and ca. 20cm high, was constructed on the ground surface of the Layer 4 — a critical difference from the former examples of the Northern and the Central Continua. Second, three small pits, ca. 30cm in diameter and ca. 10-15cm deep, were found roughly in the center of the base. Interestingly, a single or a few limestone slabs were leaned upright on the pit wall and packed with the fill including a large amount of abraded flint pebbles (Fig. 10). The function of these small pits is still enigmatic, but both their position and the inclusion of upright slabs probably suggest the origin in short, isolated pseudo-walls that characterized the burial cairns in the Northern Continuum. In ad-

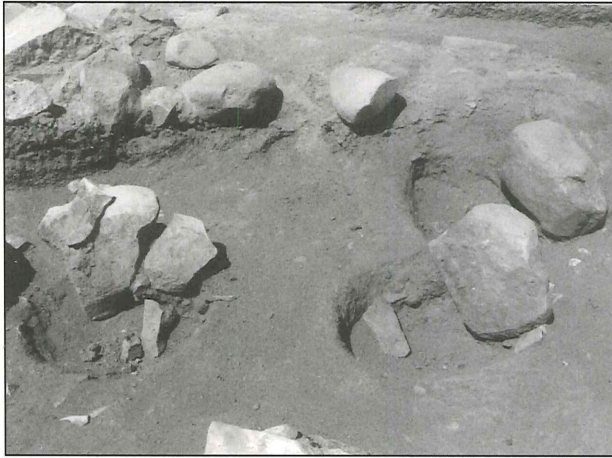
dition, too much invasion of this burial cairn into the main room necessitated the restored facade wall to make a detour, of which the indications had already been recognized at Unit K in the Central Continuum.

Another significant techno-typological change was found in the foundation banking of the two-rowed upright slab wall structure. It became wide and crude especially in the rear left corner, thus incorporating a few lines of two-rowed uprights into a single banking. It is also noteworthy that, despite the continuation of the foundation banking, two-rowed uprights were interrupted a few meters this side of the joint to the adjacent, northeastern unit.

Units C and D: In order to examine the way of connection between units, the rear walls of Units C



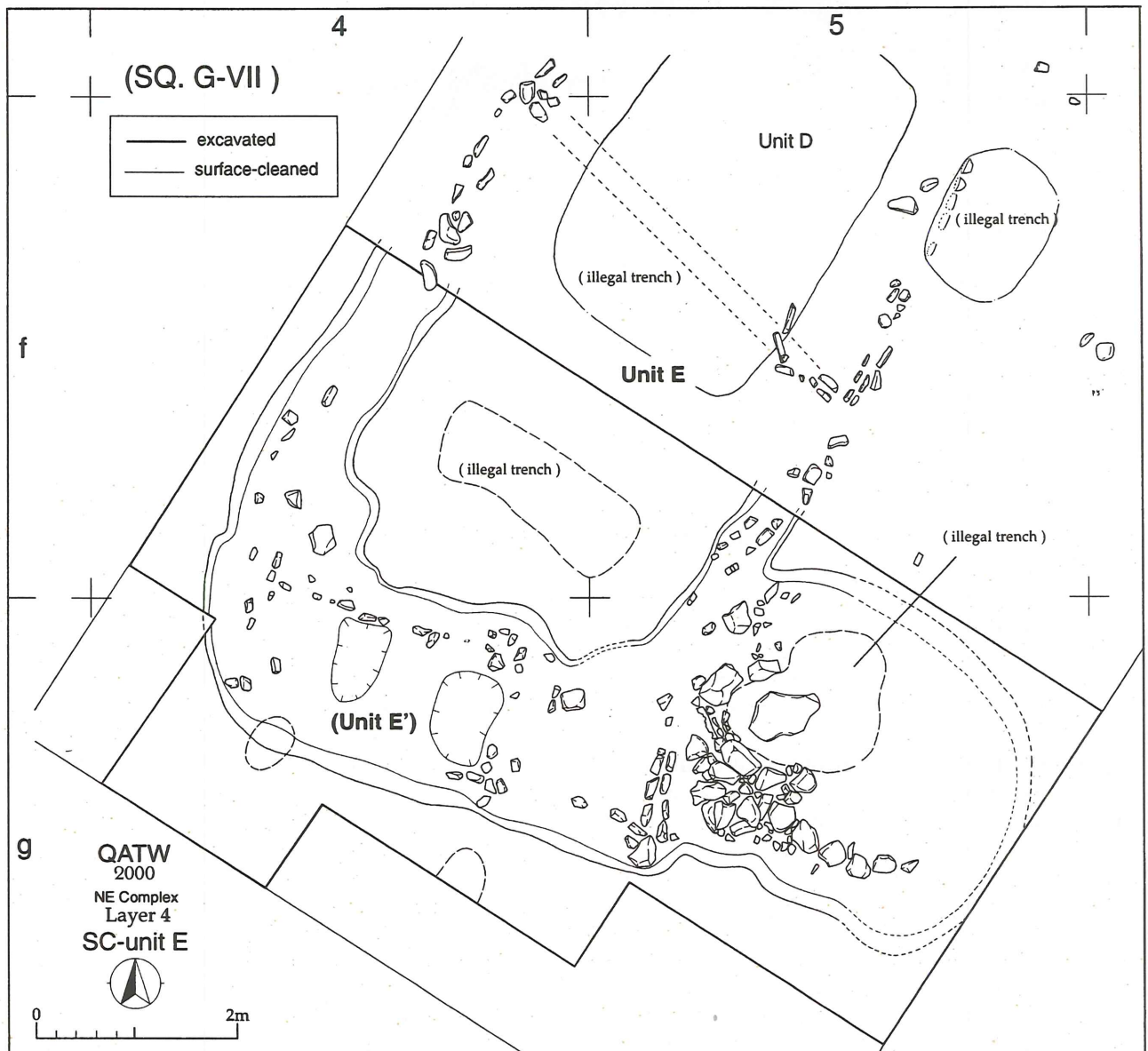
9. Unit B to D in the Southern Continuum.



10. Burial cairn of Unit B in the Southern Continuum.

and D were partly excavated. As a result, the same phenomenon recognized at Unit B was confirmed; in contrast to the foundation banking, two-rowed upright slabs stopped about 1m this side of every northeastern unit. It appears that the connection with an adjoining northeastern unit was in the process of gradual dissolution — a key to tracing the occurrence of the isolated burial cairns in the Southwestern Complex.

Units E and E': Unit E is highly important in that it is situated at the position to bridge the Northeastern and the Southwestern Complexes. However, since the northeastern half of this unit was heavily damaged by an illicit excavation, only the southwestern half was excavated (Figs. 11, 12).



11. Unit E and E' in the Southern Continuum.



12. Southern Continuum (from SW).

A line of intriguing facts were revealed. First, the orientation of the southwestern wall was distinctively divergent from that of the northeastern wall barely preserved at both ends. Second, the construction material in the southwestern half, along with its arrangement, was less standardized than that of the northeastern one. Third, the foundation banking was also less elaborated in the southwestern half. Fourth and probably related to second and third, the preservation state of two-rowed upright slab walls was poorer in the southwestern half than in the northeastern one.

These finds strongly suggest that this unit consists of two independent parts: Unit E as the original but partly disturbed unit, and Unit E' as a later addition. What is important here is that Unit E', the later addition, consists simply of a southwestern wall and a ground type burial cairn — evidently, the proto-type of the isolated burial cairns in the Southwestern Complex mentioned below.

The Excavation of the Southwestern Complex

The Southwestern Complex is located some 200m southwest of the Northeastern Complex. It comprises a number of small structures including more than ten isolated burial cairns, but the excavation during this season was focused on the northern half of this complex.

To date, a total of six isolated burial cairns, BC-101 to BC-106, have been identified either by the excavation or by the cleaning of the *Hammada* surface (Figs. 13, 14). They are lined NEN-SWS, roughly at ca. 5-10m interval, thus forming the fourth continuum. Each burial cairn, as was the

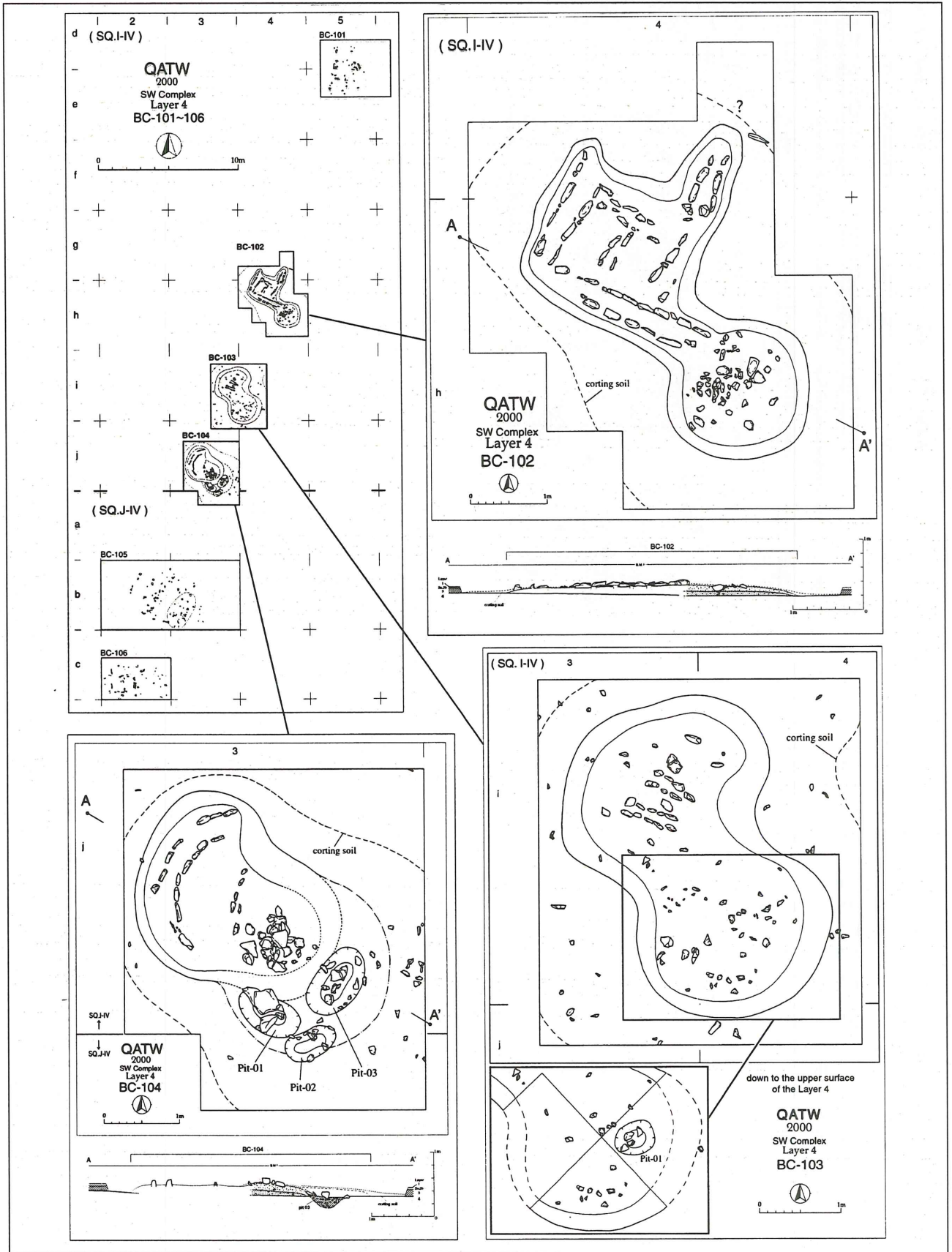
case of the structural units in the Northeastern Complex, is oriented NW-SE with a pseudo-wall in the northwest and the main body of a burial cairn in the southeast.

Among these, three relatively well-preserved examples, BC-102 to BC-104, were excavated in this season. They were all constructed on the upper surface of the Layer 4, thus being placed to the same horizon as the structural units in the Northeastern Complex (the other three burial cairns, BC-101, BC-105, and BC-106, were cleaned down to the upper surface of Layer 2a and then drawn at this level in order to minimize the damage due to illicit excavations that might occur during the off-season).

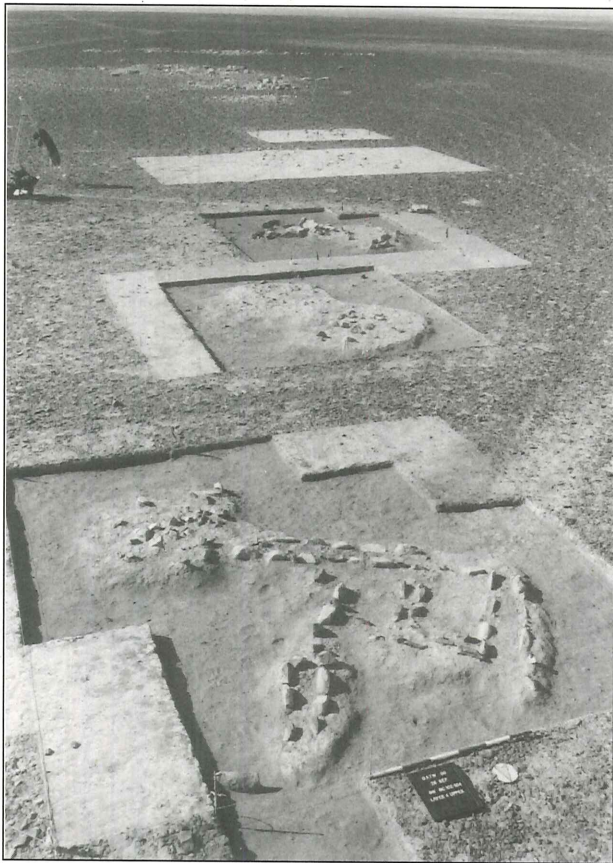
BC-102

This burial cairn, ca. 3.5m wide and ca. 4.5m deep, consists of two parts: two-rowed upright slab pseudo-walls on the one hand, and on the other, a ground type burial cairn that was constructed at the lower end of the former. Obviously, the former originated in the rear left corner of the Layer 4 structural units in the Northeastern Complex. The latter, on the other hand, is no doubt a direct successor of the ground-type burial cairns hitherto mentioned. Of special interest is the disappearance of the facade wall that was to be disturbed by the burial cairn. This is probably due to too much invasion of the burial cairn into the annexed pseudo-walls.

The construction method of this burial cairn is the same as that of the proto-types in the Northeastern Complex. The foundation banking was first



13. Burial Cairns in the Southwestern Complex.



14. Burial Cairns in the Southwestern Complex (from NE).

constructed roughly following the expected general plan, and then two-rowed upright limestone and/or abraded flint slabs were driven into it with their tops slightly protruding at the surface. However, a difference was recognized in the range of the coating soil that included a large quantity of abraded flint pebbles. In contrast to the proto-types in the Northeastern Complex where only the burial cairn was coated, the surrounding area was also coated in this example. This probably means that two parts of this burial cairn were constructed simultaneously — a critical difference from the proto-types where a burial cairn was later added to its annexed pseudo-house. It seems that such a technological change had already begun with Unit E' in the Southern Continuum.

Incidentally, a few small slabs were found driven into the then ground surface around the burial cairn. The distribution of these uprights was roughly consistent with the range of the coating soil, suggesting their function as a sign of a holy structure. Similar examples were recognized in the following two burial cairns.

BC-103

This burial cairn is no doubt a techno-

typological simplification of BC-101. The foundation banking was shaped in a simple, twin mound, no longer following the two-rowed upright slab walls. The two-rowed upright slab walls lost their original significance as pseudo-walls, thus being only roughly arranged. Further, to say nothing of the facade, the main longitudinal wall finally disappeared.

The lower part, the core of this structure, was also poorly constructed. A number of small limestone and flint cobbles were placed at random. However, interestingly, at least one small pit, ca. 7cm in depth and ca. 40cm and 50cm in both diameters, was found roughly in the center of the base. As was the case of three pits of Unit B in the Southern Continuum, a few limestone and flint slabs were put upright on this pit wall and supported by the fill including a large quantity of abraded flint pebbles.

BC-104

Further simplification or deterioration in techno-typology took place at this burial cairn. The two-rowed upright slab pseudo-walls lost their original straightness, and followed the general plan of the foundation banking (originally, the opposite was the case). Besides, the disappearance of both the facade and the main axis wall resulted in the formation of a single entity.

In contrast to the deterioration of the pseudo-walls, the main body of this burial cairn still keeps the original morphology. A small stone circle was built on the round banking, which in turn was constructed on three small pits that include upright slabs. It is, however, noteworthy that this burial cairn, as is shown in the cross section, seems to consist of two different kinds of foundation banking. A key to this phenomenon is the location of three small pits. Possibly, the builder(s) of this burial cairn, who forgot to dig small pits, erased the southeastern edge of the original mound and added them in a great haste together with another banking. Or possibly, they constructed two different burial cairns that belonged to a single pseudo-wall — a phenomenon that will be recognized at BC-300s at the southern end of the Southwestern Complex. It is, however, difficult to say something conclusive due to the poor preservation state especially in the quarter in concern.

The Finds from the Layer 4 Complex

As mentioned in the last report (Fujii 2000b), the Layer 4 complex is extremely poor in finds. A total of nine structural units and three isolated burial cairns that were excavated during this season are

no exception to this rule. The finds from them, even when both the surface finds and the collection from the fill layers are included, consist simply of a dozen of undiagnostic flint artifacts made on cortical flakes. Neither human skeletal remains nor faunal/floral evidence was retrieved despite of the 2mm-mesh dry sieving of the floor soil.

A single example worth commenting on is the keeled, nosed endscraper with lateral denticulation (Fig. 15). This flint artifact was found on the isolated pseudo-wall of the Unit C burial cairn in the Northern Continuum. The robust morphology and the heavy edge damage, along with the find context, suggest the use as a digging tool. Probably, the builder(s) of this burial cairn used this tool to dig the shallow pit and then left it there.

Discussions

On the basis of available evidence, a brief discussion will be made about the formation process and function of the Layer 4 complex with a view to advancing the revised pseudo-settlement hypothesis.

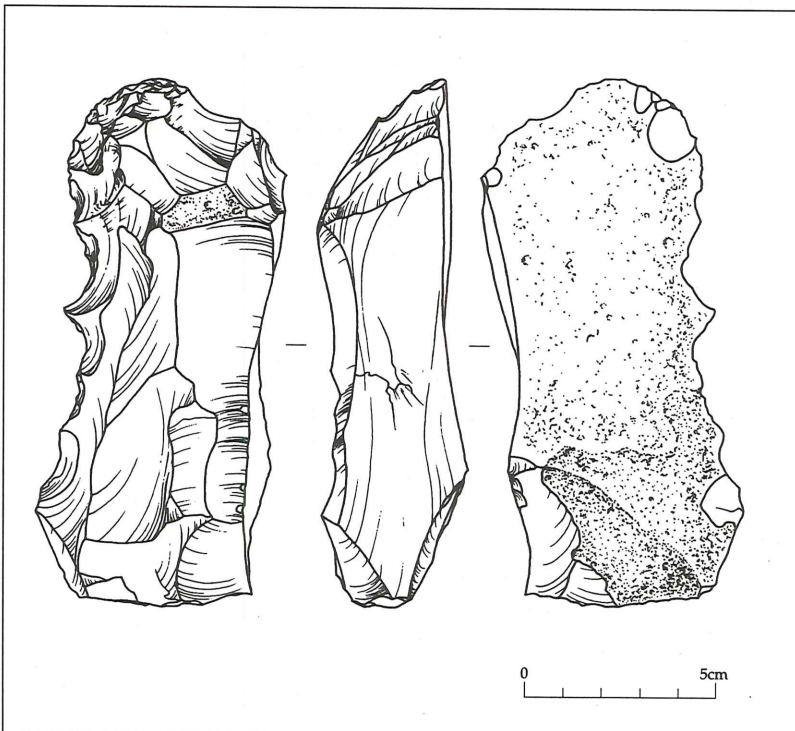
The Formation Process of the Layer 4 Complex

This issue must be discussed in the following two aspects: the construction order of the structural units within a continuum, and the chronological order of four continua including a series of isolated burial cairns in the Southwestern Complex.

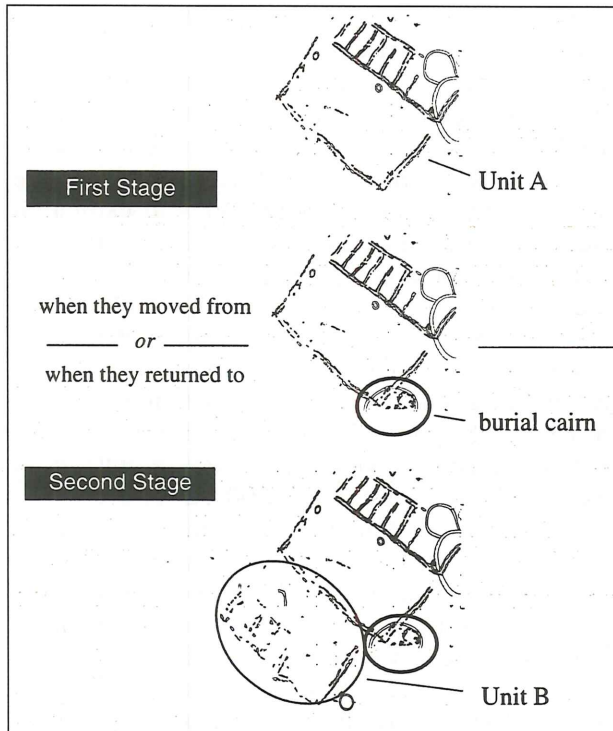
Construction Order of the Structural Units within a Continuum: Little needs to be said about the construction order of the isolated burial cairns in the fourth continuum. It is evident that they were constructed in order from the northeast to the southwest.

The same is true of the structural units in the Northeastern Complex. The gradual setback of a facade, the consequent reduction of an indoor area, the gradual deterioration both in the elaboration of construction and in the quality of construction material, and the occurrence of skewed units in the southwestern half of a continuum — all these suggest that the structural units within each continuum, as was the case of the fourth one in the Southwestern Complex, was gradually added one by one in order, from northeast to southwest (Fujii 2000c; 2001).

Suggestive in this regard is the construction method of a burial cairn. Two points deserve notice here. First, a burial cairn was constructed deliberately disturbing the original wall of a parent structure, which in turn was soon, though only irresponsibly, restored on the burial cairn in concern — as evidenced by the irregular arrangement of construction slabs on a burial cairn both in a sectional and in a bird's-eye view (Fujii 2000b: fig. 14). Second, it was always constructed at the southwestern corner of each unit, thus slightly protruding over the front space of the next, southwestern unit. Thus the following reconstruction can be made (Fig. 16):



15. Flint artifact from the Layer 4 complex.



16. A Reconstruction of the formation process of the Layer 4 complex.

- 1) a small group, after having returned to (or before having moved from) their seasonal encampment at Qā' Abū Ṭulayḥa West, constructed a single burial cairn deliberately disturbing the southwestern corner wall of the last unit, and only poorly restored it;
- 2) then (or after having returned again), they built a new, abutting unit, carefully setting back the facade in order not to disturb the last burial cairn;
- 3) this process was repeated up to forming a long chain, thus causing a series of inexplicable phenomena including the gradual setback of a facade and the consequent reduction of indoor area (or some device to offset this difficulty).

This reconstruction is also consistent with the way of connection of rear walls. Their examination clearly indicates that a southwestern unit was always later in construction order than its northeastern counterpart (Fig. 17). Also indicative is the fact that the facade of Unit E in the Northern Continuum, as mentioned above, was built on the burial cairn of Unit D, the adjacent, northeastern unit. All these lead us to the conclusion that a continuum gradually developed from the northeast to the southwest.

Chronological Order of Four Continua: The same is true of the chronological order of four continua. The development from northeast to southwest is attested by the following techno-typological se-



17. The rear walls of Unit F and Unit G in the Central Continuum

quence of the burial cairns:

- 1) the burial cairn shifted from the pit type (from Unit B in the Northern Continuum down to Unit K in the Central Continuum) to the ground type (from Unit B in the Southern Continuum down to the isolated burial cairns in the Southwestern Complex);
- 2) the relation to a facade also gradually changed from the adjoining type (Unit B in the Northern Continuum), through the one-row-slab cutting type (Unit C and D in the same continuum), the two-row-slab cutting type (Unit A and E in the Central Continuum onwards), the invading type (Unit K in the Central Continuum and Unit E in the Southern Continuum), finally to the abbreviated type without a facade (the isolated burial cairns in the Southwestern Complex);
- 3) a short, isolated pseudo-wall of the pit type burial cairn (Unit B down to Unit D in the Northern Continuum), though less continuously traceable, was replaced with a few small pits under the ground-type burial cairns (from Unit B in the Southern Continuum onwards);
- 4) the foundation banking deteriorated from the narrow and individual type to the wide and incorporated type especially in the rear left corner (Unit B in the Southern Continuum onwards);
- 5) the connection of rear walls also gradually became loose (from Unit B in the Southern Continuum onwards), finally resulting in the occurrence of isolated burial cairns in the Southwestern Complex.

All these techno-typological sequences, together with the difference both in the preservation state and in the general orientation, clearly indicate that four continua, as was the case of the structural units within a continuum, developed in order from northeast to southwest.

The Function of the Layer 4 Complex

There is no doubt that the isolated burial cairns in the Southwestern Complex functioned as tombs, more exactly, pseudo-tombs without any practical interment. Thus the point of discussion narrows down to the function of three continua in the Northeastern Complex. Although it seemingly looks like a small settlement, a line of evidence cast doubt on their domestic use.

A key to this issue consists in the extreme scarcity of the finds. As mentioned above, the finds from these continua were quite poor both in number and variety. Even hearths were rarely found. Thus the domestic use of these continua is highly doubtful. Another doubt concerning their domestic function comes from the environmental conditions around the site. There is little possibility that a settlement, even if small and only seasonal, could be established in such a harsh environment. The total absence of reaping and pounding implements (i.e. sickle blades, querns, pestles etc.) probably rules out the possibility of agriculture (Fujii 2000b). Also deniable is the possibility of a trade and/or craft center established by pastoral populations, since the Layer 4 complex is extremely poor in finds. Even flint artifacts, which characterize the Layer 3 complexes, are quite scarce in the Layer 4 complex, thus being also unqualified for a flint-knapping station. All these facts cast doubt on the *settlementality* of these continua.

Also noteworthy is the techno-typological sequence from the two-rowed upright slab wall rectangular structure to a few lines of pseudo-walls. The reason why such a simplification was able to take place is that the core of a whole unit consisted of a burial cairn, not a two-rowed upright slab wall structure. For this reason, the former was able to disturb the latter and the latter was left only poorly restored. It is also understandable within this framework why a unit is always accompanied by a single burial cairn. All these things, coupled with the careful setback of a facade in order not to disturb the neighboring burial cairn, illustrate that the two-rowed upright slab wall structure represents a ritual pseudo-house that is annexed to a burial cairn — the core of a structural unit.

Thus the revised pseudo-settlement hypothesis can be advanced; three continua, though they seemingly look like a small settlement, are in fact a long cemetery that comprises plural pairs of a burial cairn and its annexed pseudo-house. Probably, a small group of pastoral nomads were concerned with the formation of this cemetery, since both the harsh environment and the repeated encampment hint at the participation of a small population who

was based on pastoral nomadism. It seems that the timing of the establishment of this cemetery, if correctly dated, is also roughly consistent with the beginning of early pastoral nomadism in the southern Levant (Cauvin 1994; Garrard *et al.* 1996; Köhler-Rollefson 1992; Zarins 1989a; 1989b; 1990). Possibly, their successive *shuyūkh* were concerned with the construction of this long cemetery. Given this, the formation of a long chain might represent a claim of legitimacy of each *shaykh*. However, it must be stressed that neither human skeletal remains nor burial gifts have so far been found in these burial cairns. Thus it follows that they are secondary, symbolic, hollow tombs (i.e. *cenotaphs* as called in Egyptian archaeology) that were constructed at a holy place in the desert.

The Archaeological Implications of the Pseudo-Settlement Hypothesis

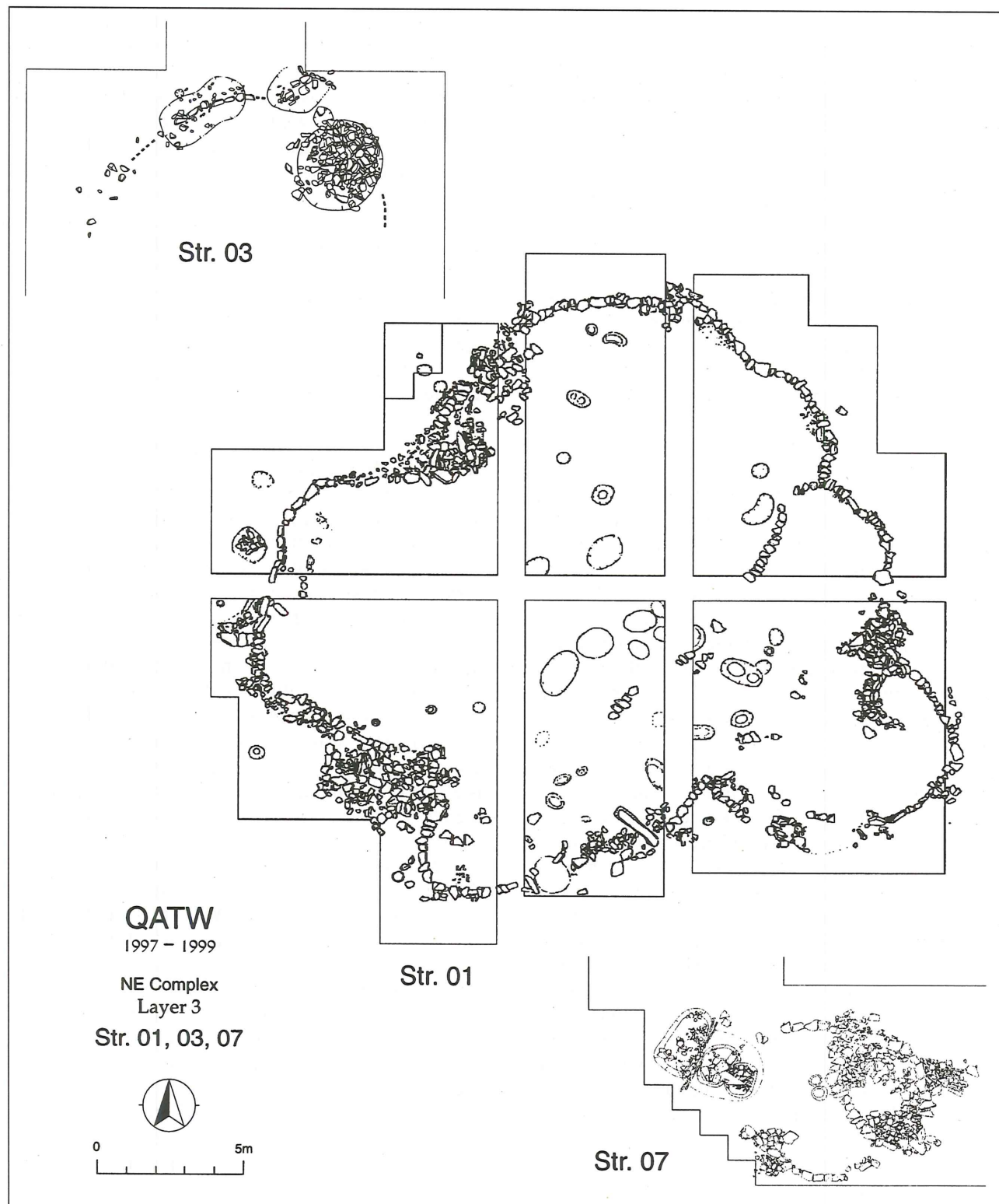
To conclude, a brief discussion will be made about the archaeological implications of the revised pseudo-settlement hypothesis.

First, a series of inexplicable phenomena referred to above can be best understood within the framework of this hypothesis. To list a few, the gradual setback of a facade, the consequent reduction of an indoor area, the gradual deterioration in construction quality, and the occurrence of skewed units — all these cause no difficulties in a non-domestic structure. The disturbance and the poor restoration of a facade are also negligible, if it is a part of a ritual annex. The scarcity of living evidence can also be understood as a natural reflection of a cemetery.

Second, this hypothesis would provide a clue to the reassessment of the *settlementality* of some desert sites. For example, Wadi Jilat 26, a PPNB site in eastern Jordan (Garrard *et al.* 1994), may be worth reexamining, although this site seems to include a line of living evidence.

Third, it would necessitate reconsidering the function and dating of desert “troughs” — isolated, often hooked, two-rowed upright slab walls that are often found in the inland Levantine steppe and desert. The example at Site 207-46 in the Riyadh environs (Zarins 1989: fig. 14.10-b), for example, is worth comparing with ours, especially with BC-102.

Incidentally, this hypothesis can also be applied to the Layer 3, Early Bronze Age complex at Qā' Abū Ṭulayḥa West itself (Fig. 18). This structural complex, which was referred to as being tabular scraper workshops in the previous reports (Fujii 1998; 1999a; 1999b), is now understood as another version of a pseudo-settlement, since the complex,



8. The Layer 3 complex at Qā' Abū Ṭulayḥa West.

as is best illustrated by Structure 01, consists of several adjoining units which are often, if not always, ended by a burial cairn. The difference from the Layer 4 pseudo-settlement consists simply in the techno-typology of pseudo-walls and the way

of connection to the last units. Otherwise, these two pseudo-settlements are essentially the same in that another pseudo-house (or pseudo-wall) was added to the last unit after the construction of a burial cairn. The small number and volume of fallen

stones around these semi-circular walls (Fujii 1998: 128) may also argue for their use as pseudo-walls.

A parallel to this can be found in a large structure at al-'Aḍaymah, an EBA site in the Jordan Valley (Neuville 1930; Stekelis 1935; Thomsen 1931; Webley 1969), for example. This is all the more likely because the site, though located in the *sown*, is included in a dolmen field — cemetery for the EBA pastoral population in this region.

Concluding Remarks

The fourth excavation season at Qā' Abū Ṭulayḥa West has clarified much about the Layer 4 complex. First, the long techno-typological sequence of burial cairns was established including the isolated ones in the Southwestern Complex, thus providing a reliable basis for the intra-site chronology of the Layer 4 complex. Second, the two-rowed upright slab wall structure in the Northeastern Complex turned out to be the ritual annex to a burial cairn, the main body of a whole unit, thus reinforcing the revised pseudo-settlement hypothesis. Third, the Layer 3 complex also turned out to be understood within the framework of this hypothesis.

The fifth and probably the last season at Qā' Abū Ṭulayḥa West is due from August to September 2001, focusing on the southern half of the Southwestern Complex.

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