# Preliminary Report on the 2018-2019 Excavations in Area 33 at Shahr-i Sokhta

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**Abstract**
The MAIPS excavations at Shahr-i Sokhta in 2018 and 2019 revealed an unbroken stratigraphic sequence from Phase 6 to Phase 3. The archaeological evidence collected has allowed us to fully determine the site's paths of development and decline and to make some preliminary socio-historical considerations. Indeed, the aforementioned sequence, the numerous archaeological finds and the reconstructed archaeological associations provide a coherent picture of the site's role within a broader regional system. Area 33 has yielded evidence that cogently explains the historical dynamics affecting eastern and south-eastern Iran during the first half of the third millennium BC, making Shahr-i Sokhta one of the major settlements of the Iranian plateau.

## 1. Introduction

The excavation and research campaigns carried out in 2018 and 2019 at Shahr-i

Sokhta have given us a more complete picture of the function of 'Building 33' and the stratigraphic sequence of the entire area (Fig. 1). The investigations, carried out in November and December of both years, returned an unbroken sequence for the area, which was definitively abandoned during Phase 3 of the settlement (ca. 2450 BC).

Similarly, the recent research has expanded our knowledge of 'Building 33' (Ascalone 2019a; 2019b; 2019c), whose eastern extension has now been revealed, and the main buildings of the most ancient phases of the area, i.e. the 'House of the Courts' for Layer 3 and the 'Western' and 'Eastern' buildings for

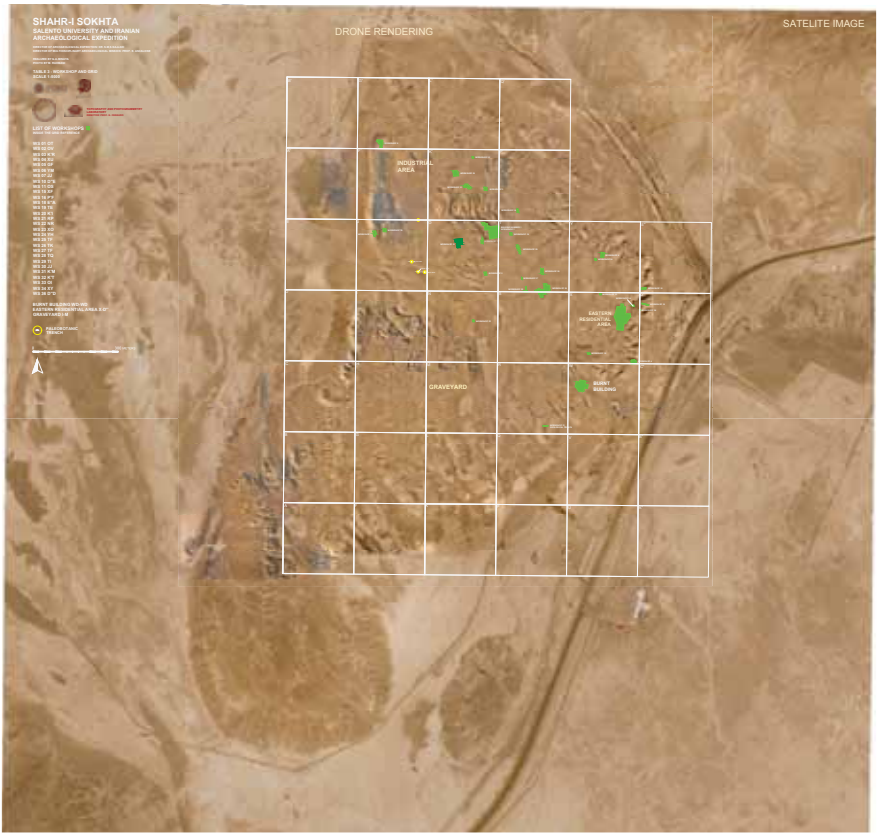


Fig. 1: topography of Shahr-i Sokhta.

Layer 4. The excavations in Area 33 were combined with bioarchaeological research (palaeoenvironmental, archaeozoological and anthropological; see the relative papers in this volume) and employed non-invasive analysis techniques, including: (1) systematic reconnaissance of the area with the collection of ceramic material, (2) analysis of anomalies identified by geomagnetic survey in 2017 and (3) remote sensing with the aid of drones, satellite images (suitably processed) and Corona photogrammetric images (Figs. 2-8).

Excavations were also carried out throughout the campaign, based on the division of Area 33 into two sectors, thanks to the tireless work of Aida Torseh, Javad Marashi, Silvia Festuccia, Pierfrancesco Vecchio, Rosa Rivoltella, Vittoria Cardini, Ratko Krvavac, Alessia Leone, Giuseppe Minaya and Serena Siena.

**2. Stratigraphic sequence, contextual analysis and archaeological associations**

In addition to the two stratum units identified in 2017, two other architectural phases have been excavated, making a total of 4 Layers that are believed to have unfolded over a period of 6/7 centuries between 3000 and 2450 BC, as indicated by C14 analyses of material collected in clearly stratified contexts.

On the basis of what has been set out above, the sequence of Area 33 of Shahr-i Sokhta can be summarised as follows (Fig. 9):

Layer 1: ‘Building 33’
Layer 2: Squatter occupation
Layer 3a-b: ‘House of the Courts’
Layer 4a-b: ‘Western Building’ and ‘Eastern Building’

Layers 3 and 4 each yielded two major architectural sub-phases (3a-b and 4a-b respectively) that are documented by at least two rebuilt floors and structural interventions that changed the internal circulation of the individual dwelling units (particularly in the ‘House of the Courts’).

This stratigraphic sequence, which occurred between the formation of the first complex socio-economic communities on the Iranian plateau (ca. 3000 BC) and

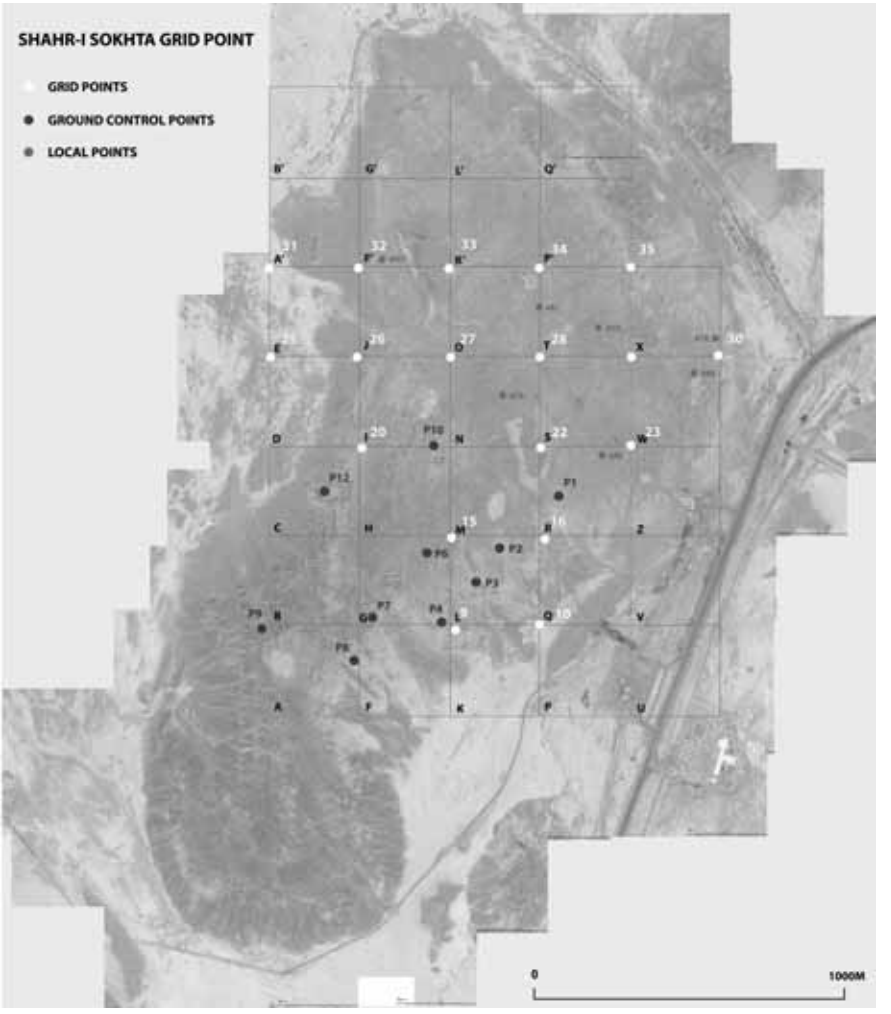


Fig. 2: Shahr-i Sokhta grid point.

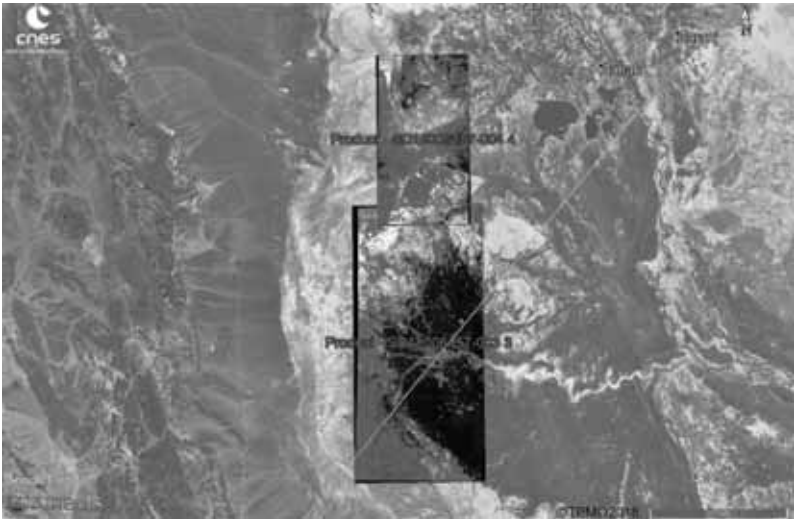


Fig. 3: satellite images of Shahr-i Sokhta areas.

Fig. 4: drone images of Shahr-i Sokhta.

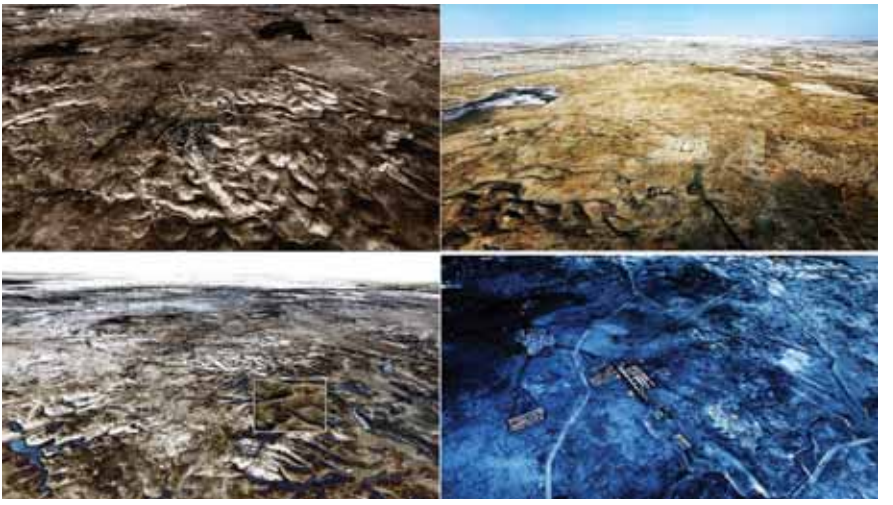

Fig. 5: drone images with filters applied.

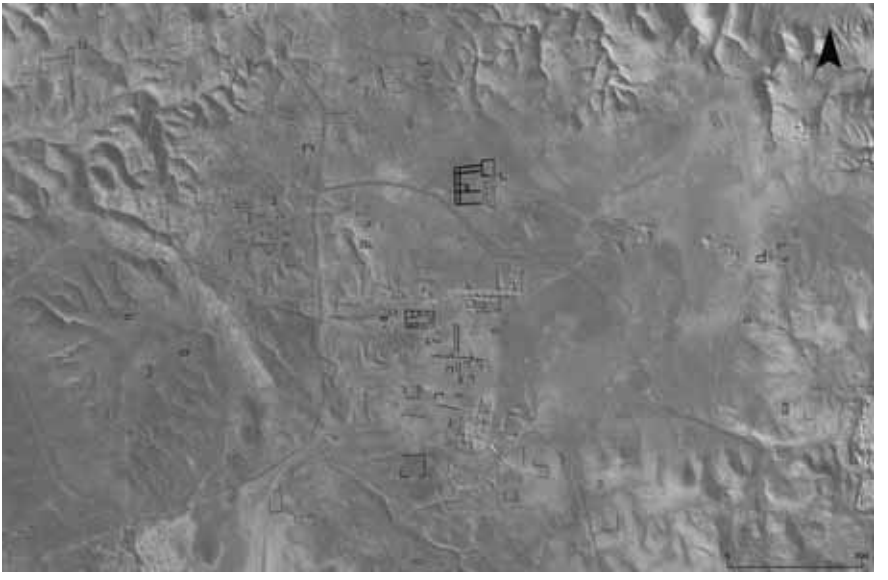

Fig. 6: building reconstruction using not-invasive methods.

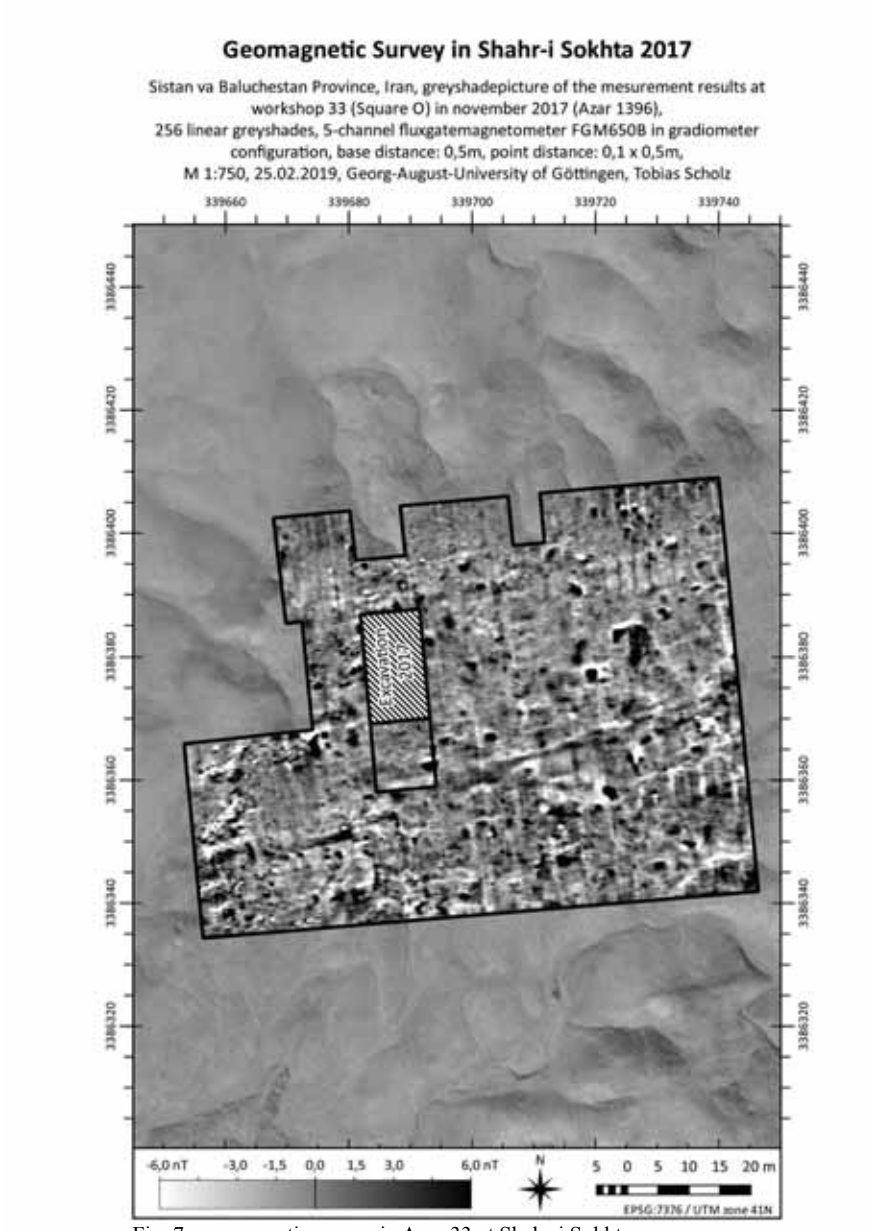


Fig. 7: geomagnetic survey in Area 33 at Shahr-i Sokhta.

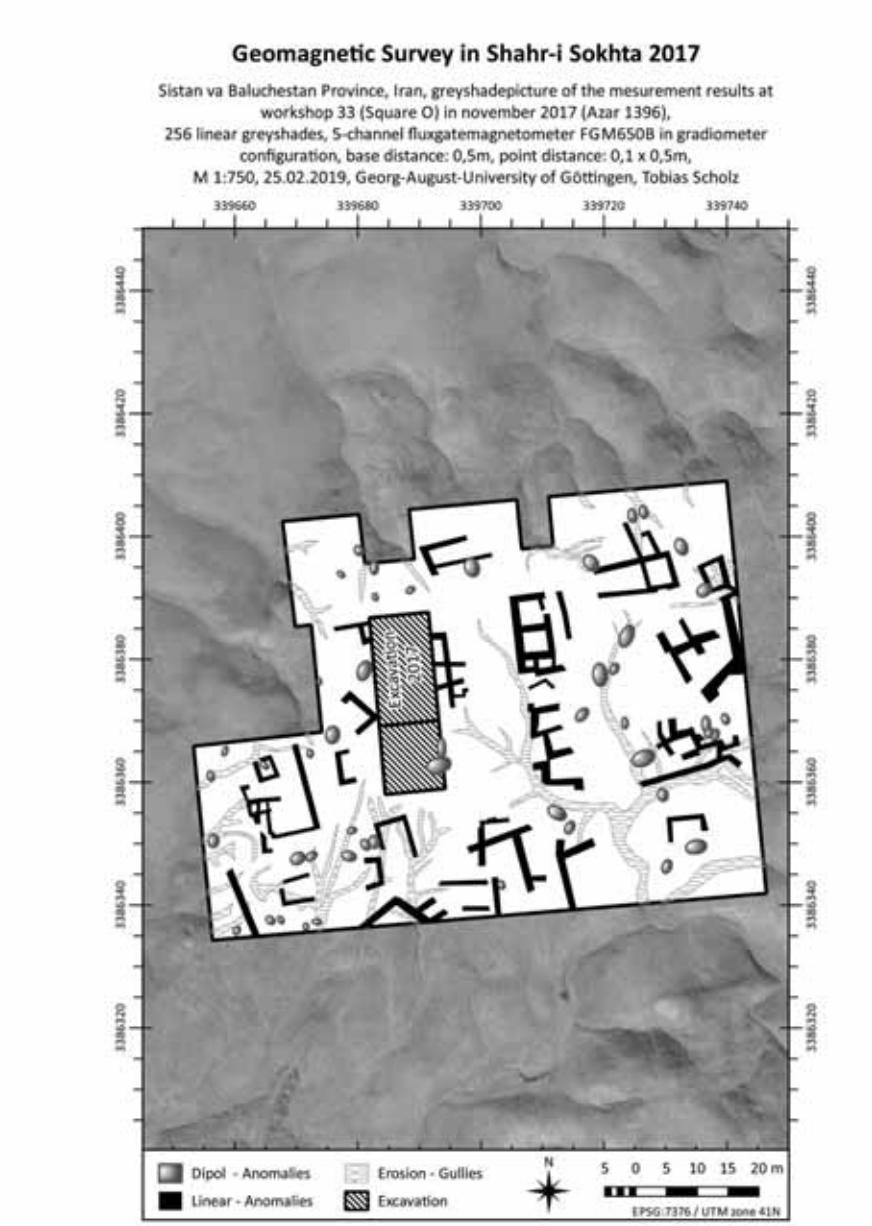


Fig. 8: preliminary results of geomagnetic survey in Area 33 at Shahr-i Sokhta.

| Absolute chronology based on 14C analysis from Shahr-i Sokhta<br>Ascalone - Moradi - Sajjadi - Vecchio<br>In press | Shahr-i Sokhta<br>Ascalone - Moradi - Sajjadi - Vecchio<br>In press | Area 33<br>Ascalone<br>2021 |
|---|---|---|
| **PERIOD IA**<br>3550-3350 BC***<br>3525 BC (92.5%) 3338 BC | SiS I.10<br>(Early Uruk)<br>(Harappa 1) | |
| | SiS I.9<br>(Early Uruk)<br>(Harappa 1) | |
| **PERIOD IB**<br>3350-3100 BC****<br>3371 BC (93.7%) 3096 BC<br>3351 BC (87.1%) 3079 BC<br>2930 BC (56.4%) 2837 BC | SiS I.8<br>(Late Uruk)<br>(Harappa 1) | |
| **PERIOD IC**<br>3100-3000 BC | SiS I.7<br>(Jemdet Nasr)<br>(Harappa 1) | |
| **PERIOD IIA**<br>3000-2850 BC*<br>3017 BC (78.1%) 2857 BC<br>3017 BC (77.1%) 2856 BC<br>3021 BC (82.9%) 2857 BC<br>3030 BC (92.1%) 2874 BC<br>3029 BC (91.5%) 2871 BC | SiS II.6A-B<br>(ED I)<br>(Harappa 2) | **Layer 4a-b**<br>**Western Building**<br>**Eastern Building** |
| **PERIOD IIB**<br>2850-2620 BC*<br>2880 BC (92.0%) 2617 BC | SiS II.5A-B<br>(ED II)<br>(Harappa 2) | **Layer 3a-b**<br>**House of the Courts** |
| **PERIOD IIC**<br>2620-2600 BC<br>Abandon and sporadic occupation | SiS II.4<br>(ED II)<br>(Harappa 2) | **Layer 2**<br>**Squatter occupation** |
| **PERIOD IIIA**<br>2600-2450 BC*<br>2635 BC (91.4%) 2437 BC | SiS III.3<br>(ED IIIa)<br>(Harappa 3A) | **Layer 1**<br>**Building 33** |
| **PERIOD IIIB**<br>2450-2400 BC***** | SiS.III.2<br>(Harappa 3B) | Abandon |
| **PERIOD IV**<br>2400-2300 BC**<br>2500 BC (80.7%) 2295 BC | SiS IV.1<br>(ED IIIb)<br>(Harappa 3B) | |
| **GAP**<br>2300-2100 BC | | |
| **PERIOD V (RUD-I BIABAN PHASE)**<br>2100-2000 BC | SIS V.0<br>(UR III)<br>(Harappa 3C)<br>(BMAC) | |

*14C calibrated on Shahr-i Sokhta samples collected from Area 33 archaeological layers;
**14C calibrated on samples from Building 26;
***14C calibrated on Shahr-i Sokhta samples collected from Area 36 in Eastern Residential Area;
****14C calibrated on Shahr-i Sokhta samples collected from room 88 in Area 35;
*****14C calibrated on Tappeh Graziani samples in Helwing *et al.* 2019.

Fig. 9: chronological and stratigraphical sequence in Area 33.

the establishment of the Greater Indus Valley civilisation in Harappa 3A (ca. 2450 BC) coincides with the development of Shahr-i Sokhta's first commercial and cultural relations with the Early Dynastic period settlements of Mesopotamia, before the rise of the Sargonid dynasty.

### 2.1. Chronology and periodisation of Area 33

The new research in Area 33 has also profoundly changed the absolute chronological sequences of the settlement as a whole. Isotopic analyses carried out on organic material collected in Areas 26, 33, 35 and 36 have allowed us to create a new chronological grid that is the subject of more extensive and detailed presentations in publications currently in press (Ascalone *et al*. in press) (Fig. 10).

| Absolute chronology based on 14C analysis from Shahr-i Sokhta<br>Ascalone - Moradi - Sajjadi - Vecchio in press | Shahr-i Sokhta<br>Ascalone - Moradi - Sajjadi - Vecchio<br>In press | Area 33<br>Ascalone<br>2021 | Area 35 and 36<br>Moradi - Sajjadi<br>In press | Area 26<br>Moradi - Sajjadi<br>In press |
|---|---|---|---|---|
| **PERIOD IA**<br>3550-3350 BC***<br>3525 BC (92.5%) 3338 BC | SiS I.10<br>(Early Uruk)<br>(Harappa 1) | | **Layer 6-7** | |
| | SiS I.9<br>(Early Uruk)<br>(Harappa 1) | | **Layer 5** | |
| **PERIOD IB**<br>3350-3100 BC****<br>3371 BC (93.7%) 3096 BC<br>3351 BC (87.1%) 3079 BC<br>2930 BC (56.4%) 2837 BC | SiS I.8<br>(Late Uruk)<br>(Harappa 1) | Virgin soil | **Layer 4-3** | |
| **PERIOD IC**<br>3100-3000 BC | SiS I.7<br>(Jemdet Nasr)<br>(Harappa 1) | **Layer 5**<br>**Sounding in L.386** | **Layer 2** | |
| **PERIOD IIA**<br>3000-2850 BC*<br>3017 BC (78.1%) 2857 BC<br>3017 BC (77.1%) 2856 BC<br>3021 BC (82.9%) 2857 BC<br>3030 BC (92.1%) 2874 BC<br>3029 BC (91.5%) 2871 BC | SiS II.6A-B<br>(ED I)<br>(Harappa 2) | **Layer 4a-b**<br>**Western Building**<br>**Eastern Building** | | |
| **PERIOD IIB**<br>2850-2620 BC*<br>2880 BC (92.0%) 2617 BC | SiS II.5A-B<br>(ED II)<br>(Harappa 2) | **Layer 3a-b**<br>**House of the Courts** | | |
| **PERIOD IIC**<br>2620-2600 BC<br>Abandon and sporadic occupation | SiS II.4<br>(ED II)<br>(Harappa 2) | **Layer 2**<br>**Squatter occupation** | | |
| **PERIOD IIIA**<br>2600-2450 BC*<br>2635 BC (91.4%) 2437 BC | SiS III.3<br>(ED IIIa)<br>(Harappa 3A) | **Layer 1**<br>**Building 33** | | |
| **PERIOD IIIB**<br>2450-2400 BC***** | SiS.III.2<br>(Harappa 3B) | Abandon | | **Layer 1** |
| **PERIOD IV**<br>2400-2300 BC**<br>2500 BC (80.7%) 2295 BC | SiS IV.1<br>(ED IIIb)<br>(Harappa 3B) | | | **Layer 0**<br>**Upper Layer** |
| **GAP**<br>2300-2100 BC | | | | |
| **PERIOD V (RUD-I BIABAN PHASE)**<br>2100-2000 BC | SIS V.0<br>(UR III)<br>(Harappa 3C)<br>(BMAC) | | | |

*14C calibrated on Shahr-i Sokhta samples collected from Area 33 archaeological layers;
**14C calibrated on samples from Building 26;
***14C calibrated on Shahr-i Sokhta samples collected from Area 36 in Eastern Residential Area;
****14C calibrated on Shahr-i Sokhta samples collected from room 88 in Area 35;
*****14C calibrated on Tappeh Graziani samples in Helwing *et al.* 2019.

Fig. 10: chronological and stratigraphical sequence in the later excavations at Shahr-i Sokhta.

The Italian mission of the last century, directed by M. Tosi, had identified four periods and 10 archaeological phases that were not fully borne out by later research (Salvatori - Tosi 2005). Indeed, these chronological proposals, already contested by French studies (Jarrige - Didier - Quivron 2011), must now be revised on the basis of the new datings, which also explain certain inconsistencies in the work of the Italian mission (Fig. 11).

Specifically, the uranium isotope datings, which had been used to date Phase 10, Phase 5 and Phase 1, have margins of error ranging between ± 390 and ± 570 years and are thus not useful (Salvatori - Tosi 2005: 285-286 and 290). Equally problematic seem to be the C14 datings of Phase 7, which all fall between 2170

| | Salvatori & Tosi 2005 | | Jarrige et al. 2011 | Kavosh et al. 2019 |
|---|---|---|---|---|
| Period I | phase 10 | 3100–2900 | 3100–3000 | pre-2900? |
| | phase 9 | 2900–2800 | | |
| | phase 8 | 2800–2750 | | |
| Period II | phase 7 | 2750–2700 | 3000–2900? | |
| | phase 6 | 2700–2600 | | ?–2850 |
| | phase 5 (A, B) | 2600–2500 | | 2850–2600 |
| Period III | phase 4 | 2500–2400 | 2900–2800? | 2600–2550 |
| | phase 3 | 2400–2300 | | 2550–2450 |
| | phase 2 | 2300–2200 | | 2450–2350 |
| Period IV | phase 1 | 2200–2000 | 2800–2600 | |
| | gap | | | ? |
| | phase 0 | 1900–1700 | | ? |

Fig. 11: French proposals for Shahr-i Sokhta chronology and its comparisons.

± 50 and 2080 ± 60 BC (Salvatori - Tosi 2005: note 8), which is not consistent with the datings subsequently proposed by the same authors (ca. 2800-2700 BC) (Salvatori - Tosi 2005: fig. 12). The chronologies obtained from the Carbon 14 decay of organic material from Period IV published by Raffaele Biscione are also not congruent with the chronologies assigned to the final phases of the settlement's life (Biscione 1979: note 2). Indeed, the 11 samples analysed return a chronological range of 2950 BC to 2110 BC, with a concentration of values (8 dates out of 11) between 2950 ± 70 and 2440 ± 70, a chronological range too high to justify the dating to 2200-1800 BC as proposed by the author. To these results may be added those published in R.W. Ehrich (1992: tab. 1), where again the C14 dates seem to be higher, with Period III (28 samples) dated to 2665-2540 BC and Period IV to 2405-2180 BC, in line with our results. In addition to these results, which are also based on the same isotopic analyses carried out in the 1970s, there is the comprehensive review by J.-F. Jarrige, J.-F. Didier and G. Quivron, who, on the basis of comparisons with archaeological material found in Baluchistan, significantly raise the chronologies of Shahr-i Sokhta (Jarrige - Didier - Quivron 2011).

Our sequence, associated with the archaeological finds and the contexts of the samples subject to C14 analysis, yield a chronological range of 3000 to 2450 BC, which corresponds to M. Tosi's Phases 6-3.

The newly established sequence in Area 33, together with the work carried out by our Iranian colleagues in Areas 26, 35 and 36, also allows us to change the periodisation of the settlement as a whole. It is still organised into five macro-periods, but it is now divided into 11 phases (Tab. 1; see Ascalone *et al*. in press).

The first period (IA-C; SiS 11-7; Layers 7-2 in Area 35 and 36) was followed by the end of the settlement (SiS 7), clearly documented in the 'Central Quarters' (Layer 5 in Salvatori - Vidale 1997: 23-26), and its reoccupation coincides with the second period, which in Area 33 may be divided into three sub-periods (IIA, IIB and IIC in Layers 4-2) that correspond respectively to SiS 6A-B, 5A-B and 4. Period III is also clearly documented in Area 33 by the construction of a building ('Building 33'), completely different from the architectural formulations of the

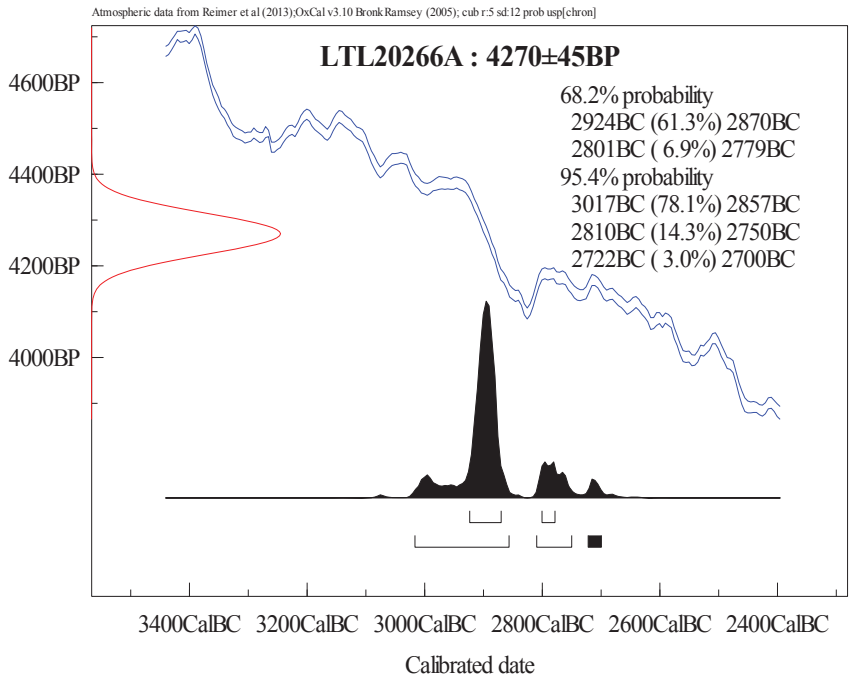


Fig. 12: calibrate date from Layer 4 of Area 33.

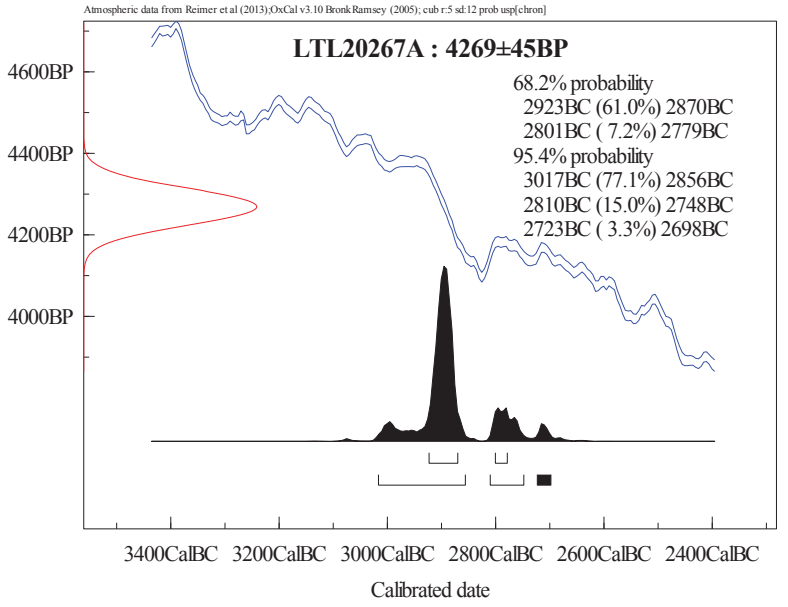


Fig. 13: calibrate date from Layer 4 of Area 33.

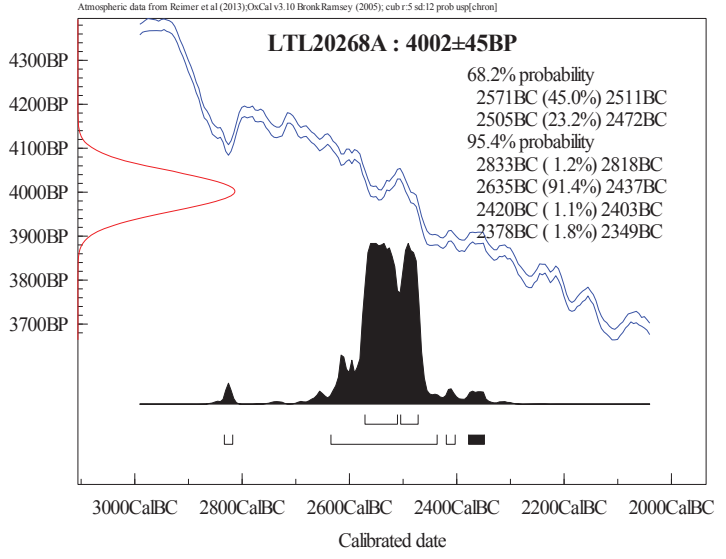


Fig. 14: calibrate date from Layer 2 of Area 33.

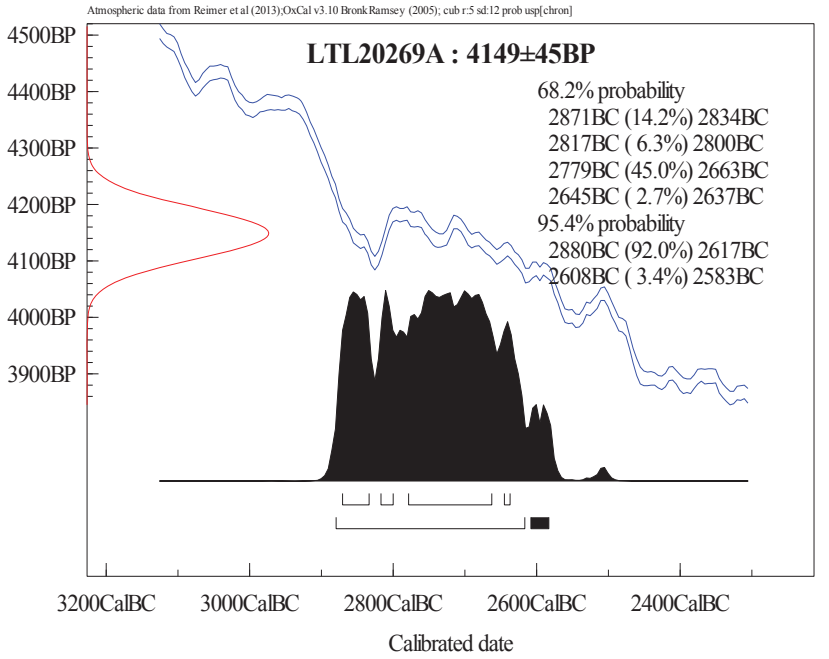


Fig. 15: calibrate date from Layer 1 of Area 33.

previous period, corresponding to a new occupation (IIIA, SiS 3 in Layer 1). After a period (IIIB) of definitive abandonment of both Area 33 (Ascalone 2019a) and the 'Central Quarters' (Salvatori - Vidale 1997), the fourth and final period is well documented in Area 26 (Sajjadi - Moradi 2015: 152-158), specifically in Layers 2-0 and the 'Upper Layer', where C14 datings have made it necessary to raise the date of definitive abandonment of the settlement to 2300 BC (Tab. 1).

To summarise, while Period IV of Shahr-i Sokhta must now be attributed to 2400-2300 BC, the earliest period of occupation (IA-C) must be ascribed to 3550-3000 BC. The data arising from the C14 analyses of Periods I and IV will be published by our Iranian colleagues who carried out the research in Areas 35, 36 and 26 (Ascalone *et al*. in press). Here, we offer preliminary details on the contexts of origin of the organic material subject to isotopic analysis in Area 33.

| Absolute chronology BC | ICS period Ascalone 2019 | Elam Miller - Sumner 2003 and 2004 | Jiroft Madjidzaedh 2008 Eskanderi 2021 | Kerman Hakemi 1997 | Sistan | Greater Indus Meadow - Kenoyer 1993 | Central Asia Kohl 1984 | Baluchistan Görsdof 2005 Jarrige et al. 2011 Cardi 1968 | Susiana Ascalone 2006 | Mesopotamia Ehrich 1992 |
|---|---|---|---|---|---|---|---|---|---|---|
| 3550-3350**** | | Middle Banesh | Mahtoutabad II<br>Varamin III | | Early Chalcolithic<br>Sistan IA<br>SiS I.10-9 | Ravi Culture<br>Harappa 1 | Late Aeneolithic<br>Namazga III<br><br>Kara depe | Sohr Damb I<br><br>Miri Qalat IIIA | Susa transition | Early Uruk |
| 3350-3100***** | | Late Banesh | Mohtoutabad III<br>Varamin IV | | Late Chalcolithic<br>Sistan IB<br>SiS I.8 | | | | Susa II | Late Uruk |
| 3100-3000 | | | | | Early Bronze I<br>Sistan IC<br>SiS II.7 | | | Sohr Samb II<br>Nausharo IB-D | Susa IIIA | Jemdet Nasr |
| 3000-2850* | **Pre-ICS** | Transitional phase | | Takab IV.2 | Early Bronze IIA<br>Sistan IIA<br>SiS II.6 | | Early Bronze<br>Namazga IV | | | ED I |
| 2850-2650* | | | Konar Sandal South<br>Lower Town | Takab IV.1 | Early Bronze IIB<br>Sistan IIB<br>SiS II.5 | Early Harappa<br>Harappa 2 | | Sohr Damb III<br>Miri Qalat IIIB<br>Bampur I-IV<br>Nausharo II | Susa IIIB | ED II |
| 2650-2600* | | | | | Early Bronze IIC<br>Sistan IIC<br>SiS II.4 | | Shortugai I | | | |
| 2600-2450* | **Proto-ICS** | | Konar Sandal South<br>Citadel | | Middle Bronze I<br>Sistan IIIA<br>SiS III.3 | Mature Harappa<br>Harappa 3A | Middle Bronze<br>Namazga V | Miri Qalat IIIC | Susa IVA | ED IIIa |
| 2450-2400** | **Early ICS** | ? | Mohutatabad IV<br><br>Varamin V | Takab III.2 | Middle Bronze II<br>Sistan IIIB<br>SiS III.2 | Mature Harappa<br>Harappa 3B | Shortugai II | Sohr Damb IV | | ED IIIb |
| 2400-2300 | | | | | Middle Bronze III<br>Sistan IV<br>SiS IV.1 | | | Nausharo III | | |
| 2300/2200-2000*** | **Late ICS** | Kaftari | Konar Sandal North | Takab III.1 | Late Bronze I<br>Sistan VA<br>SiS GAP (2300-2100)<br>SiS V.0 (2100-2000) | Mature Harappa<br>Harappa 3C | Late Bronze<br>Namazga VI<br>Gonur depe phase | Nausharo IV<br>Miri Qalat IV<br>Bampur V-VI | Susa IVB<br>Susa VA<br>Susa VB1 | Akkad<br>Lagash II<br>Ur III |
| 2000-1800/1700 | | | | | Late Bronze II<br>Sistan VB | Late Harappa<br>Harappa 4-5 | Shortugai III | | Susa VB2 | Isin/Larsa |

Tab. 1: Regional archaeological and historical periods in Sistan, Indus, Iranian highlands, Baluchistan, Mesopotamia, Susiana and Southern Central Asia on the basis of 14C dating analysis collected in Shahr-i Sokhta excavations and earlier publications (*14C calibrated on Shahr-i Sokhta samples collected from Area 33 archaeological layers; **14C calibrated on samples from Building 26; ***14C calibrated on Shahr-i Sokhta samples collected from Burnt Building, see Biscione 1979; **** 14C calibrated on Shahr-i Sokhta samples collected from Area 36 in Eastern Residential Area; *****14C calibrated on Shahr-i Sokhta samples collected from room 88 in area 35).

The samples on which isotopic analyses were subsequently carried out were taken from furnace T.38 in L.33 for Layer 1, room L.142 for Layer 3 and L.176 for Layer 4 (Figs. 12-15).

On the basis of the foregoing, the chronological sequence associated with the stratigraphy and architectural units of Area 33 can be summarised as follows:

Period IIIA - ca. 2600-2450 BC - SiS 3 - Layer 1 - 'Building 33'

Period IIC - ca. 2650/2620-2600 BC - SiS 4 - Layer 2 - Squatter occupation

Period IIB - ca. 2850-2650/2620 BC - SiS 5A-B - Layer 3a-b - 'House of the Courts'

Period IIA - ca. 3000-2850 BC - SiS 6A-B - Layer 4a-b - 'Western Building' and 'Eastern Building'

The results achieved represent a middle ground between what was proposed by M. Tosi and S. Salvatori (Salvatori - Tosi 2005) and what emerges from the French historiographical tradition (Jarrige - Didier - Quivron 2011). However, they also find cogent confirmation in the results of radiocarbon analysis performed on material from Tepe Graziani, which show that the dates of Shahr-i Sokhta Phases 6-3 are very similar to those based on material collected during our excavation campaigns in Area 33 (Helwing - Vidale - Fazeli 2019: 151-156). The combination of the two results, obtained independently, seems to decisively confirm the correctness of our proposed chronology.

These chronological observations therefore seem to offer the most reliable basis for the reconstruction of a definitive sequence at Shahr-i Sokhta. The new proposal is based on the following data and considerations:

1) the absolute dates obtained from carbon isotope analysis by M. Tosi at the site for Phases 7 and 2-0 (respectively in Salvatori - Tosi 2005: note 8 and Biscione 1979: note 2);

2) the uranium-based dating given by M. Tosi and S. Salvatori is not useful for dating Phases 10, 5 and 1 of the site, given its very poor accuracy (to within ca. 5/6 centuries (Salvatori - Tosi 2005: 285-286 and 290);

3) the absolute chronologies based on C14 analysis given in R.W. Ehrich (1992: tab. 1) regarding Periods III and IV of Shahr-i Sokhta are in line with our findings;

4) the absolute dating of 11 samples from Tepe Graziani returned chronologies that correspond closely to our final results (Helwing - Vidale - Fazeli 2019: 151-156);

5) There is very little BMAC material in the archaeological excavations of Shahr-i Sokhta; indeed, only sporadic material was found, in contrast to what is seen throughout Sistan and southern Iran in the late third and early second millennia BC;

6) the presence of Proto-Elamite material (seals and a tablet from Shahr-i Sokhta Period I) has recently been discussed on the basis of stratigraphic and chronological documentation; it seems likely that the rise of the Proto-Elamite cultural horizon occurred between 3400 and 2900 BC (Dahl - Petrie - Potts 2013: 360-365);

7) There is very little Nal pottery at Shahr-i Sokhta dated to period I, the majority of specimens being dated to Period II, with production seemingly of the regional type (see also the specimens from Grave 413 in Amiet - Tosi 1978: 22; Biscione 1984); this production is familiar from Mehrgarh VB and Nausharo IA-B (ca. 3000 BC), and it fits well into the new chronological contexts of Shahr-i Sokhta;

8) The Emir Grey Ware or Faiz Mohammed Ware recovered from Shahr-i Sokhta II also appears in Mehrgarh VI-VII (ca. 3100-2600 BC) and Nausharo I (ca. 3500-2800 BC) in chronological contexts higher than those previously assigned to Shahr-i Sokhta; similarly, it has been found in Miri Qalat IIIa (ca. 3600-2900 BC);

9) There are numerous similarities between Shahr-i Sokhta I and Namazga III pottery (ca. 3500-3000 BC) (Biscione 1973);

10) There are similarities between Shahr-i Sokhta pottery from Phase 5 and Namazga IV (ca. 3000-2500 BC);

11) The hook-like pierced handles (scorpion type) found in the 'Central Quarters' and dated to Phase 5b (Salvatori - Vidale 1997; Salvatori - Tosi 2005:

286, fig. 7) are also attested in Mundigak IV1-2 and Yahya IVC, which are dated to the late fourth and first few centuries of the third millennia BC (Mutin 2013: 292, tab. 1.2);

12) The Wet Ware associated with Shahr-i Sokhta Phase 3 (Salvatori - Tosi 2005: 287-288, fig. 10) is also seen in Mundigak IV.3 (Casal 1961: fig. 98.465) and Nausharo ID-II (ca. 2800-2500 BC; Quivron 1994: 636);

13) The ceramics from the final phase of Shahr-i Sokhta have similarities with Namazga V (ca. 2500-2200 BC).

14) Seal SiS.19.33.159 (Figs. 61-62 and Tab. 3) found in L.122 in Layer 3 has parallels with material from sites in the Greater Indus Valley, e.g. Damb Sadaat III, Mehrghar VII, Nausharo I, Rehman Dheri II, Harappa 2, Kunal III, Baror I and Tharkanewala Dera (Early Harappa) (Tabs. 5-6), in contexts dated to no later than 2600 BC.

On the basis of the new chronological grid, it is possible to resolve numerous problems that have arisen over the years and to propose new hypotheses on the historical role of Shahr-i Sokhta within a wider historical system involving Oxus, Jiroft, Baluchistan and the Indus valley (Tab. 1).

The earliest occupation of Shahr-i Sokhta is attributed to the second half of the fourth millennium BC, to which therefore the seals, seal impressions and the only tablet of Proto-Elamite origin must also be dated, along with the spread of Namazga III pottery.

The presence of artefacts linked to the Proto-Elamite tradition as early as the mid fourth millennium BC raises numerous considerations that unfortunately cannot be addressed in this paper. Clearly, raising the chronology of the spread of Proto-Elamite archaeological markers is fundamental for understanding the timing and mode of the development and dissemination of the Proto-Elamite presence on the Iranian plateau. Similarly, the presence of Namazga III and Baluchistan ceramics at Shahr-i Sokhta fits into a broader historical framework characterised by the foundation of the settlement around the middle of the fourth millennium BC.

The end of the settlement around 3000 BC (SiS 7), clearly documented in the stratigraphic sequences of the 'Central Quarters' (Layer 5), must have represented a break with respect to the first period. Its rebirth, as documented in Area 33, seems to be completely distinct from the cultural experiences of Period I, with a new pottery horizon that would continue to be used, with some variations, until the end of Period III (ca. 2400 BC). In Period II (ca. 3000-2600 BC), Shahr-i Sokhta seems to have played a fundamental role in the relations that were established throughout the Iranian plateau, especially with the alluvial settlements of Mesopotamia, which has yielded textual evidence that often recalls the commercial activities and relations with the major settlements of the lands east of the Zagros. It is precisely in this period that Shahr-i Sokhta saw the use of new accounting and economic recording tools. The cylindrical seal of proto-Elamite origin was abandoned in favour of locally produced stamp seals, often in steatite/chlorite, with geometric designs. Similarly, the presence of cretulae and clay blocks with numerical annotations on their surface, on the one hand, confirm the strong differences with respect to the accounting systems of the previous period and, on the other, reveal a previously unrecorded situation concerning the dynamics of socio-economic development in Iranian Sistan during the first half of the third millennium BC.

In Period III, although the pottery horizon remains mostly the same as period II, with some morphological variables, the production of a new red pottery (widespread during Period IV) increases and a new buff slip on Red Ware and a black on buff slip on Red Ware appear. The beginning of Period III (ca. 2600-2400 BC, Period IIIA), as also documented in the stratigraphy of Area 33, came after a major contraction during the second half of the XXVII century BC in Period IIC (SiS 4), when many sectors of the settlement appear to have been partially abandoned.

Its recovery, dated to between 2600 and 2400 BC, occurred in Period IIIA-B, just when new architectural forms (Ascalone 2019a: 36-62) and 'morphological-cultural western convergences' seem to be documented at Shahr-i Sokhta (Piperno - Salvatori 1982; 1983: 177; Ascalone 2019a: 68-69).

Period IV is marked by the total abandonment of the entire sector facing the small lake inside the settlement, and in particular of the two sectors excavated so far: Area 33 and the 'Central Quarters'. The suggestion is that the entire settlement in this period must have been confined to the central ridge, shifting its centre of gravity towards the east, which in any case represented its oldest sector. The drastic crisis hypothesised by M. Tosi (Moradi 2019: 24-117) can be ruled out, but the settlement must have undergone a contraction, perhaps due to changing environmental conditions and the over-exploitation of the site's lake, which must have been an important resource in Periods II and III. Indeed, the abandonment of all the neighbourhoods facing the lake suggests a reduction in the water supply of the entire district.

In conclusion, Shahr-i Sokhta seems to show five major collapses. The first, around 3000 BC (period IC, SiS 7), put an end to a cultural complex that is believed to have been responsible for the foundation of the settlement (the transition from Period I to Period II). The second historical break is documented around 2650/2600 BC (Period IIC, SiS 4), when the stratigraphy of Area 33 shows an abandonment of Area 33 followed by its reoccupation with the presence of new ceramic types, which however form a corpus that is directly related to the production of the previous period (the transition from Period IIC to Period IIIA, from SiS 4 to SiS 3). A third break corresponds to the abandonment of the sectors facing the lake (Area 33 and the 'Central Quarters') around 2400 BC, when the entire settlement seems to shift towards the central plateau. This coincides with the rise of a new red pottery that for the first time displaces the buff pottery of more ancient tradition as the dominant type (transition from Period III to Period IV, from SiS 2 to SiS 1). The final 'historical leap' entails the definitive abandonment of Shahr-i Sokhta around 2300 BC, the causes of which remain unresolved. After a period of about two centuries the site was again sporadically reoccupied (transition from Period IV to V, from SiS 1 to SiS 0) in the area of the Burnt Building (see in this volume Moradi *et al.*) to be abandoned again around 2000 BC.

From the historical point of view, the new absolute dates help to better understand the dynamics of the settlement's growth (Tab. 1): if Period I indissolubly links Shahr-i Sokhta to Turkmenistan and the Kopet Dagh, with clear links to Baluchistan, and Periods II and III seem to unfold in a context of strong internationalisation against a cultural background reflecting the tradition of Hirmand and western Baluchistan, then the raising by ca. 5 centuries of the chronology of Shahr-i Sokhta can also explain the total absence of BMAC material in the settlement, considering that the BMAC rose around 2200 BC, just after the collapse of the site in Sistan. In contrast to the large amount of Oxus/BMAC material found in recent surveys in Sistan by our Iranian colleagues (Shirazi in press), its absence in Shahr-i Sokhta seems to confirm that the occupation of Shahr-i Sokhta ended no later than 2300 BC, with a very brief reoccupation in the 'Burnt Building' area around 2100 BC which was immediately and newly abandoned around 2000 BC (see in this volume Moradi *et al.*). As to whether there was some connection between the end of Shahr-i Sokhta and the rise of the BMAC in eastern Iran, the question remains open, but in the absence of other clear evidence a scientifically valid theory cannot yet be formulated.

In the same way, one can explain the near absence of Harappan elements in the cultural horizons of Shahr-i Sokhta: the settlement in Sistan collapsed around 2300 BC, but it began a slow and inexorable decline around 2450 BC, when many sectors were abandoned: a decline that began just as the Greater Indus Valley civilisation (Harappa 3A) was beginning to lay the foundations of a new system of control over its territory and neighbouring areas. In this system, which has been called the 'Middle Asian Interaction Sphere' (Possehl 2002: 215-236), Shahr-i Sokhta played little part because of its slow decline, which prevented it from being an effective interlocutor with the Harappan market (Fig. 16).

In 2300-2200 BC, the entire Iranian plateau seems to show a clear break with the tradition of trade and cultural relations that had made Iran the main commercial interlocutor of the kingdoms of Mesopotamia in the first half of the third millennium BC. The rise of Sargon and the continuous wars throughout the area, at least up to the reign of Naram-Sin, must have undermined the longstanding

equilibria of Iranian-Mesopotamian trade, while the rise of the maritime market, developed and later monopolised by Akkad, also had an impact (Steinkeller 2013: 415). Sargon's wars against Hishep-rater and Luhhishshan (the ninth and eight kings of the Awan dynasty), Dagu (a brother of the king of Marhaši) and Ulul, Shidgau and Kundupum (the latter described as the 'judge' of Marhaši) are extensively described in royal inscriptions (Steinkeller 2021: 185). Later, Rimush describes Akkadian victories in the eastern regions against Abalgamash and his general Shidgau (Potts 1994: 28 and note 179). Furthermore, Rimush killed 16,212 men and captured 4,216 (among whom was the Elamite sovereign Emahsini) (Potts 1989: 128, no. 20). In addition, he returned to Babylon with a booty of 30 minas of gold, 3,600 minas of copper, 300 slaves and numerous vessels in diorite and *duhšu* stone (Steinkeller 2021: 186). After Rimush, Parakshum again allied with Elam to resist the Akkadian conquests of the region, although Naram-Sin claimed the conquest of 'all the land of Elam up to Marhaši. The ren

| | MEHRGARH E NAUSHARO | cronologia assoluta (ceramiche) | HARAPPA | cronologia assoluta (14C) |
|---|---|---|---|---|
| **età della localizzazione** | Sibi, necropoli e abitati | *ca*. 1800-1700 a.C. | Periodo 5 'Cimitero H' (tardo) | 1800-1700? a.C. e oltre |
| **età della localizzazione** | ? | *ca*. 2000-1800 a.C. | Periodo 4 'Cimitero H' (antico) | 1900-1800 a.C. |
| **età della integrazione 3** | Nausharo IV | *ca*. 2300-2000 a.C. | Periodo 3C | 2200-1900 a.C. |
| **età della integrazione 2** | Nausharo III | *ca*. 2500-2300 a.C. | Periodo 3B | 2450-2200 a.C. |
| **età della integrazione 1** | Nausharo II | *ca*. 2600-2500 a.C. | Periodo 3A | 2600-2450 a.C. |
| **età della regionalizzazione (fase tarda)** | Mehrgarh Periodo VII Nausharo I (Lal Shah) | *ca*. 2800-2600 a.C. | Periodo 2 (fase Kot-dijana) | 2900-2600 a.C. |
| **età della regionalizzazione (fase media)** | Mehrgarh Periodi IV-VI | *ca*. 3500-2800 a.C. | Periodo 1 (fase della cultura del Ravi) | 3300-2900 a.C. |

Fig. 16: Harappan chronology and periods (after Vidale 2005: 7).

lationships between the Akkadian kingdom and the Iranian plateau seem to have changed under Shar-kali-sharri, or perhaps his son, who may have subsequently travelled to Marhaši to marry a native princess of the Iranian region (Westenholz 1987: 97, nos. 133, 154). In the final years of the third millennium BC, during the Ur III period, people from Marhaši probably soldiers (Steinkeller 1982: 261; 1989; *contra* Francfort - Tremblay 2010, where it is suggested that Marhaši is located in Margiana; see also Guichard 2021: 73-75), were stationed in Mesopotamian outposts near the Zagros mountains.

In any case, the wars on the Iranian plateau between Sargon and Naram-Sin (ca. 2300-2200 BC) must have seriously damaged the long-established trade model that had been adopted throughout Iran by the mid third millennium BC. The political vacuum that was created following the collapse of the major Iranian settlements and the fall of Akkad around 2200 BC was filled in eastern and south-eastern Iran by substantial migratory movements from the north, involving peoples whose cultural horizons were closely connected to the BMAC.

In this context, it is useful to remember that around 2200 BC, several settlements show strong breaks in their stratigraphic sequences (Tab. 1): in the Kerman region in the Takab plain, there is a shift from Shahdad III2 to III1 (Hakemi 1997), in Jiroft itself the settlement seems to move northwards (from Konar Sandal South to Konar Sandal North) (Madjidzadeh 2008; Eskanderi in press), in Elam a new phase begins with the Kaftari period (Ehrich 1992; Miller - Sumner 2003) and in Iranian Baluchistan, a new stratigraphic sequence and a new cultural horizon (Bampur I-IV to V-VI) is documented at Bampur (de Cardi 1968). Similar historical shifts seem to be documented in Central Asia, at the Kopet Dagh (Namazga V to VI), Shortugai (from period II to period III of the site) and Geoksyur (Kohl 1984). A break is also documented in all the Indus settlements in the transition from Harappa period 3B to 3C (Meadow - Kenoyer 1993), while in neighbouring areas such as Makran and Pakistani Baluchistan, the sequences show a strong change in cultural horizons between Miri Qalat IIIC and IV (in Makran; Besenval 1994) and between Nausharo III and IV (in Kachi-Bolan; Jarrige - Didier - Quivron 2011), while at Sohr Damb/Nal (Görsdof 2005),

as at Shahr-i Sokhta, the settlement disappears completely around 2300 BC.

In conclusion, the new chronology of Shahr-i Sokhta that we propose convincingly fits into a broader historical framework that helps on the one hand to better understand the reasons for the collapse of the Sistan settlement around 2300 BC and on the other to explain the almost total absence of BMAC material at Shahr-i Sokhta (but not in Sistan) during its life span. Moreover, the revised chronology enables new hypotheses regarding the settlement's formative periods in the second half of the fourth millennium BC, the dynamics of formation of the major proto-state settlements in eastern Iran and their relations with the Proto-Elamite phenomenon. Likewise, it explains the limited presence of the Indus culture of the Harappa civilisation, whose definitive rise occurred only when Shahr-i Sokhta seemed to be in sharp decline. In conclusion, the historical path followed by Shahr-i Sokhta seems to be much more similar to that of Sohr Damb/Nal, whose formation however is dated to the beginning of the fourth millennium BC, while both settlements were abandoned around 2300 BC. The only settlement in Baluchistan that seems to have survived is Miri Qalat, on the Makran coast, which however saw the replacement of its indigenous cultural experiences with new formulations clearly coming from the Indus valley. The suggestion is that inland settlements (such as Shahr-i Sokhta and Sohr Damb) suffered from the collapse of terrestrial trade as a result of the Akkadian campaigns, while the settlements along the coast (such as Miri Qalat) were able to survive because they were well placed to take advantage of the new maritime routes, which favoured new trading partners such as those in the southern Indus and Gujarat.

**2.2. Stratigraphic sequences**

As previously mentioned, four archaeological phases can be distinguished in Area 33, two of which may be divided into at least two sub-phases (Figs. 17-18):

Period IIIA - ca. 2600-2450 BC - SiS 3 - Layer 1
Period IIC - ca. 2650/2620-2600 BC - SiS 4 - Layer 2

Period IIB - ca. 2850-2650/2620 BC - SiS 5A-B - Layer 3
Layer 3a - ca. 2850-2750 BC - SiS 5A
Layer 3b - ca. 2750-2650 BC - SiS 5B
Period IIA - ca. 3000-2850 BC - SiS 6A-B - Layer 4
Layer 4a - ca. 3000-2900 BC - SiS 6A
Layer 4b - ca. 2900-2850 BC - SiS 6B

The stratigraphic relations and the distribution of the material give a unified picture and allow us to form hypotheses concerning both the use of the individual buildings and the complex forms of social organisation that arose in Shahr-i Sokhta during the first half of the third millennium BC.

#### 2.2.1. Layer 1 - Shahr-i Sokhta IIIB - Phase 3 (ca. 2600-2450 BC)

Layer 1 was the subject of study in the first preliminary excavation in 2017 (Ascalone - Sajjadi 2019), which explored the individual functional sectors of 'Building 33' (Ascalone 2019a: 36-49). The 2018 excavations increased our knowledge of the building, especially the eastern part, where new sectors were found. This entailed extending the dig eastwards by 10 m, bringing to light a total area of 550 $m^2$ (Figs. 19-20).

As in the sector excavated in 2017, the walls of the building are in poor condition, with heights not exceeding 30 cm, while in the central part of the trench, towards which rainwater naturally flowed (Fig. 21), the remains have been completely washed away.

The structural features remain the same as those already described, with the flooring (mostly simple walking surfaces) composed of a single layer of small stones, preserved only in a few places. The new excavation of the outer courtyard (still part of 'Building 33') and its enclosed part located further east seems to confirm previous assumptions regarding the importance of the building (Ascalone 2019a: 33). 'Building 33' can be recognised as an architectural unit which, given

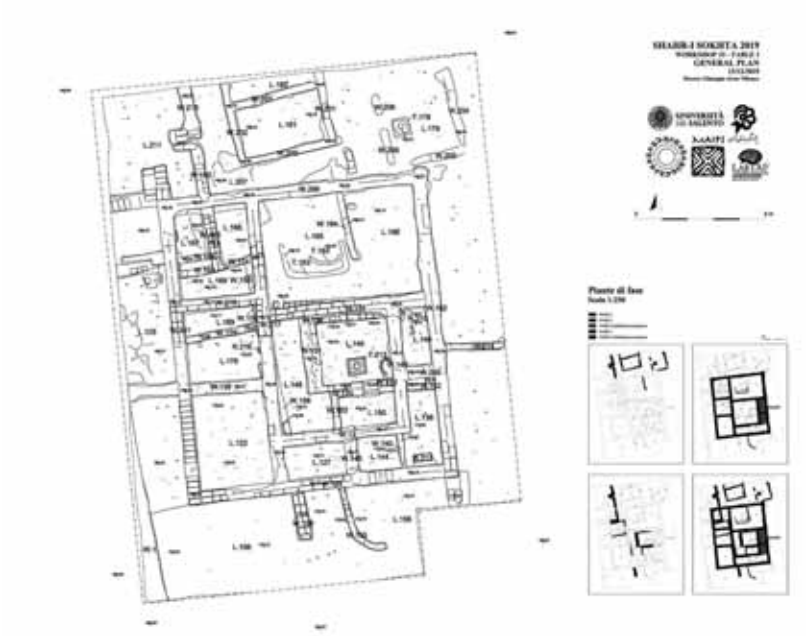

Fig. 17: detailed map of Area 33 excavations.

its topographical position (near the lake inside the settlement), dimensions and functional arrangement, must have played a significant role in the urban and social organisation of the site around the middle of the third millennium BC.

*US - Layer 1 (Shahr-i Sokhta IIIA - Phase 3) (ca. 2600-2450 BC)*

US 1; US 2; US 3; US 4 = P.65; US 5 = L.68; US 6; US 7; US 8 = L.35; US 9 = L.34; US 10; US 11 = P.65; US 12 = P.65; P.71; US 13 = L.5; US 14 = C.69; US 15; US 16 = L.34; US 17 = C.70; US 18 = L.77; US 19; US 20 = L.33; US 21; US 22 = P.84; US 23 = L.68; US 24 = L.81; US 25 = L.43; US 26; US 27; US 28 = L.85; US 29 = L.86; US 30; US 31 = L.16; US 32 = L.92; US 33 = L.85; US 34 = L.15; US 35 = L.15; US 36 = L.94; US 37 = I.98; US 38 = L.97; US 39.

Elevation: between 0 m and 0.35 m.

Artefacts: SiS.18.33.1; SiS.18.33.2; SiS.18.33.3; SiS.18.33.4; SiS.18.33.5; SiS.18.33.6; SiS.18.33.7; SiS.18.33.8; SiS.18.33.9; SiS.18.33.10; SiS.18.33.11; SiS.18.33.12; SiS.18.33.13; SiS.18.33.14; SiS.18.33.15; SiS.18.33.16;

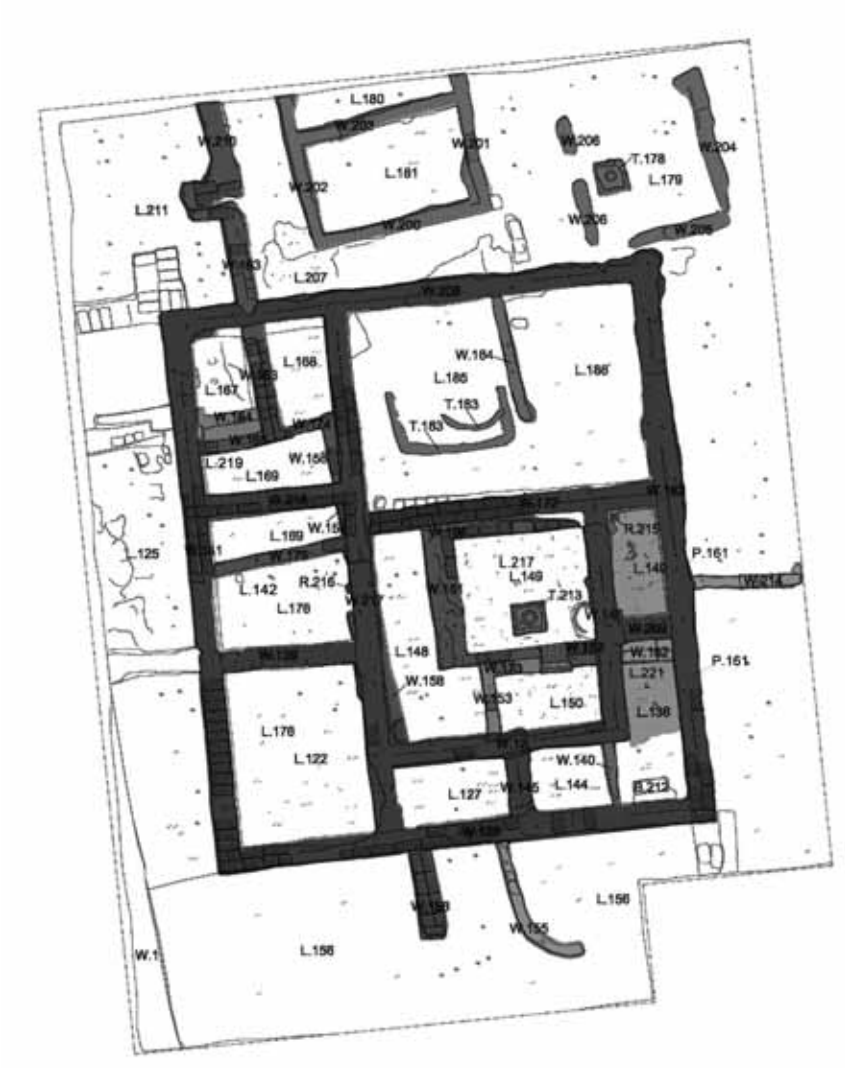


Fig. 18: schematic map of Area 33 excavations.

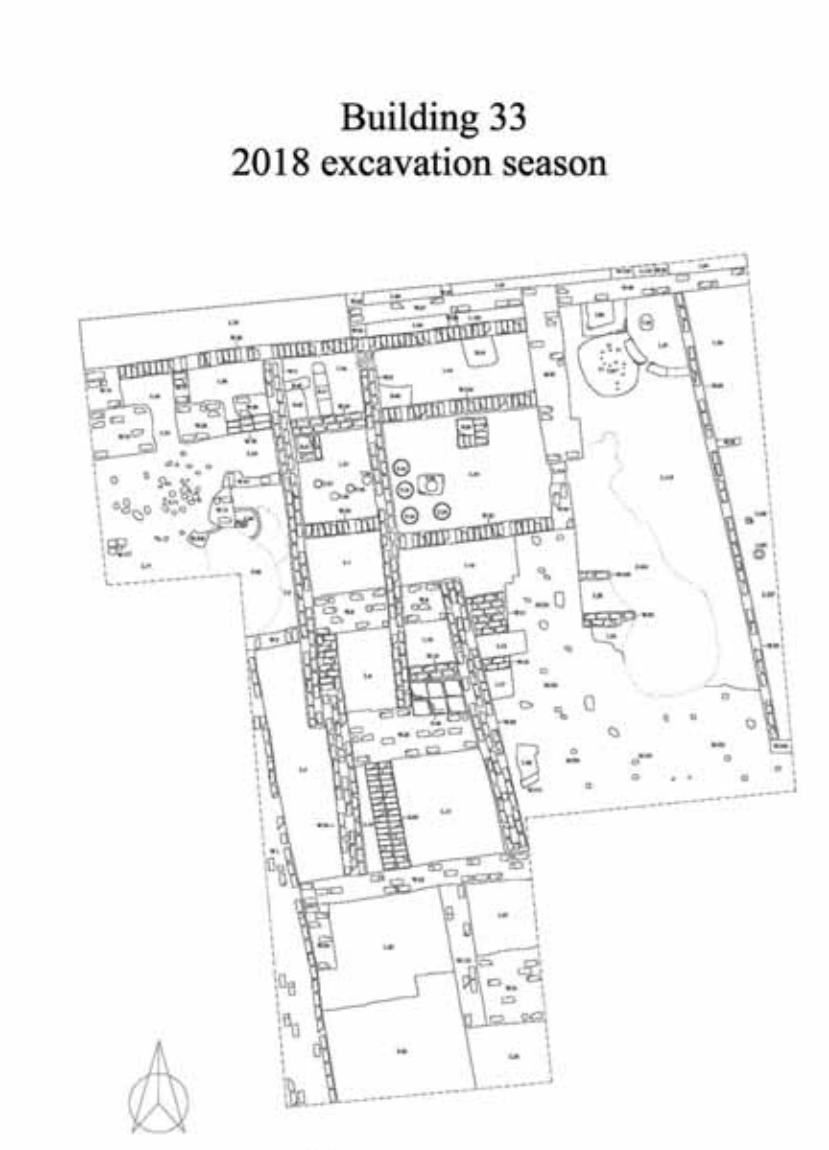


Fig. 19: detailed plan of ‘Building 33’.

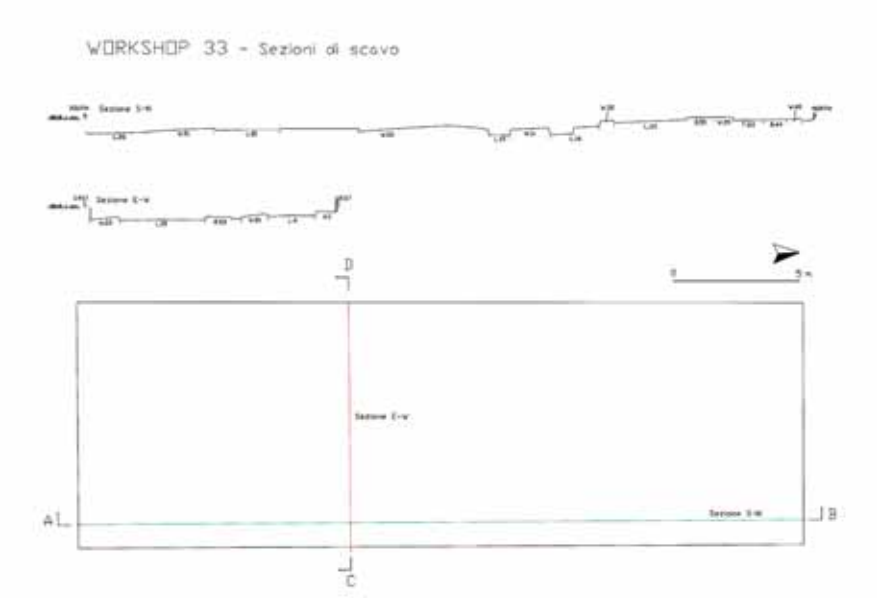


Fig. 20: archaeological sections of Layer 1.

Fig. 21: northern view of 'Building 33'

SiS.18.33.17; SiS.18.33.18; SiS.18.33.19; SiS.18.33.20; SiS.18.33.21; SiS.18.33.22; SiS.18.33.23; SiS.18.33.24; SiS.18.33.25; SiS.18.33.26; SiS.18.33.27; SiS.18.33.28; SiS.18.33.29; SiS.18.33.30; SiS.18.33.31; SiS.18.33.32; SiS.18.33.33; SiS.18.33.34; SiS.18.33.35; SiS.18.33.36; SiS.18.33.37; SiS.18.33.38; SiS.18.33.39; SiS.18.33.40; SiS.18.33.41; SiS.18.33.42; SiS.18.33.43; SiS.18.33.44; SiS.18.33.45; SiS.18.33.46; SiS.18.33.47; SiS.18.33.48; SiS.18.33.49; SiS.18.33.50; SiS.18.33.51; SiS.18.33.52; SiS.18.33.53; SiS.18.33.54; SiS.18.33.55; SiS.18.33.56; SiS.18.33.57; SiS.18.33.58; SiS.18.33.59; SiS.18.33.60; SiS.18.33.61; SiS.18.33.62; SiS.18.33.63; SiS.18.33.64; SiS.18.33.65; SiS.18.33.66; SiS.18.33.67; SiS.18.33.68; SiS.18.33.69; SiS.18.33.70; SiS.18.33.71; SiS.18.33.72; SiS.18.33.73; SiS.18.33.74; SiS.18.33.75; SiS.18.33.76; SiS.18.33.77; SiS.18.33.78; SiS.18.33.79; SiS.18.33.80; SiS.18.33.81; SiS.18.33.82; SiS.18.33.83; SiS.18.33.84; SiS.18.33.85; SiS.18.33.86; SiS.18.33.87; SiS.18.33.88; SiS.18.33.89; SiS.18.33.90; SiS.18.33.91; SiS.18.33.92; SiS.18.33.93; SiS.18.33.94; SiS.18.33.95; SiS.18.33.96; SiS.18.33.97; SiS.18.33.98; SiS.18.33.99; SiS.18.33.100; SiS.18.33.101; SiS.18.33.102; SiS.18.33.103; SiS.18.33.104; SiS.18.33.105; SiS.18.33.106; SiS.18.33.107; SiS.18.33.108; SiS.18.33.109; SiS.18.33.100; SiS.18.33.111; SiS.18.33.112; SiS.18.33.113; SiS.18.33.114; SiS.18.33.115; SiS.18.33.116; SiS.18.33.117; SiS.18.33.118; SiS.18.33.119; SiS.18.33.120; SiS.18.33.121; SiS.18.33.122; SiS.18.33.123; SiS.18.33.124; SiS.18.33.125; SiS.18.33.126.

#### 2.2.2. Layer 2 - Shahr-i Sokhta IIIA - Phase 4 (ca. 2650-2600 BC)

This phase corresponds to a period of sharp contraction of the Area, which after the ‘House of the Courts’ appears to have been abandoned for a short period (20/50 years). The entire area ‘leans’ on the previous occupation, reusing, in certain sectors, the pre-existing walls to support furnaces and mobile installations (Fig. 22).

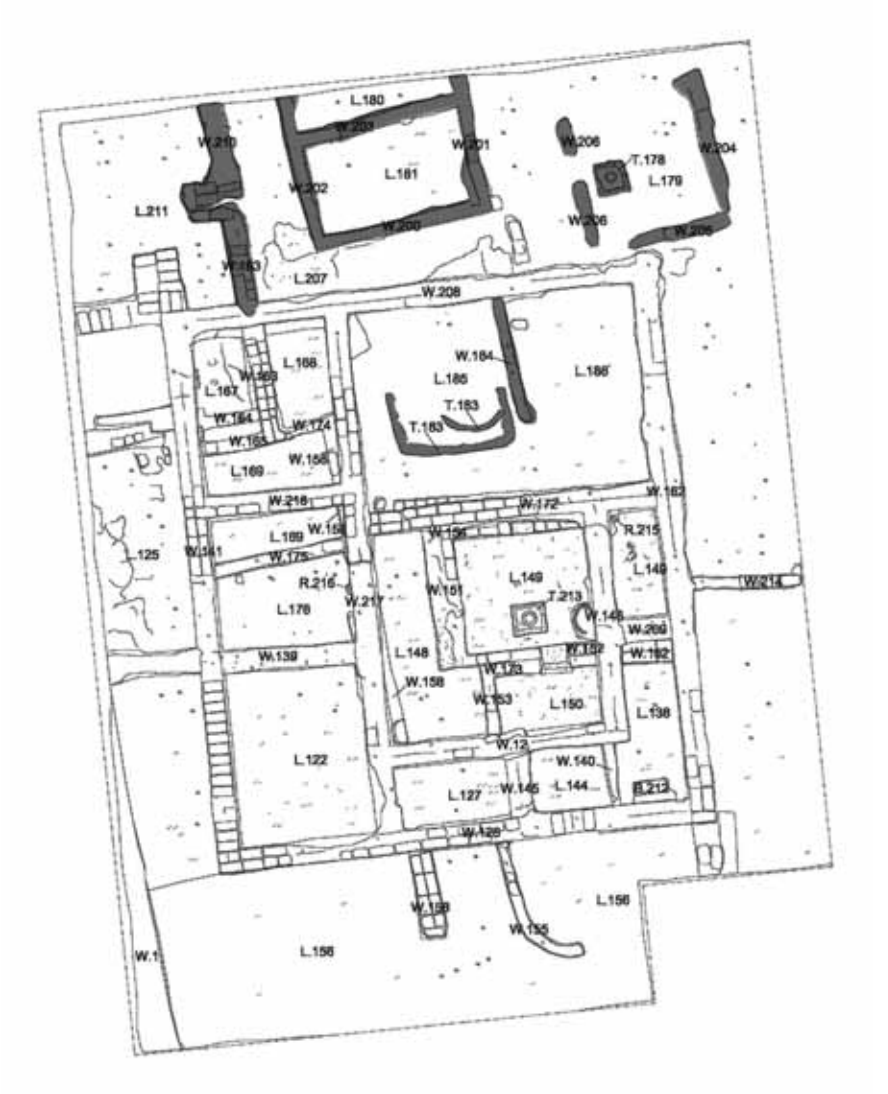


Fig. 22: schematic plan of Layer 2.

Indeed, the only structural evidence of Layer 2 appears to be the furnaces for processing metals, particularly copper, clearly attested by the numerous pieces of slag found. From a stratigraphic point of view, following its abandonment, the area was used sporadically, with the construction of installations including kilns and furnaces. A few isolated rooms (L.179, L.180, L.181), with very thin walls (ca. 60 cm wide), were also built, with an orientation differing from that of Layer 3.

*US - Layer 2 (Shahr-i Sokhta IIC - Phase 4) (ca. 2650-2600 BC)*
US 25; US 45; US 57 = L.180; US 58 = L.181; US 65 = L.185; US 66 = L.186.

Artefacts: SiS.19.33.220; SiS.19.33.230; SiS.19.33.259; SiS.19.33.265; SiS.19.33.281; SiS.19.33.282; SiS.19.33.283; SiS.19.33.284; SiS.19.33.286; SiS.19.33.290; SiS.19.33.336; SiS.19.33.380.

#### 2.2.3. Layer 3 - Shahr-i Sokhta IIB - Phase 5A-B (ca. 2850-2650 BC)

Layer 3 is the best-known archaeological phase, for which our knowledge is most complete. The excavations revealed an architectural unit, typical of the Shahr-i Sokhta tradition, called the 'House of the Courts', characterised by two courtyards aligned with each other, with small rooms arranged around them (Fig. 23).

The entire area overlaps with the previous period, sporadically reusing the masonry structures of Layer 4. Specifically, the changes concern the orientation of the building, which, as can be seen from the superimposition of W.9 on W.158, is not aligned but rather deviates by approximately 20° from what was built in the previous period. Thus, while an alignment can be found between 'Building 33' and the 'House of the Courts' (see in particular the reuse of the large wall W.9 from Layer 3 to Layer 1), no structural relationship or reuse can be recognised between the building of Layer 3 and the older ones of Layer 4. The layer sequences make it clear that, with the end of Layer 4, filling and levelling work was performed

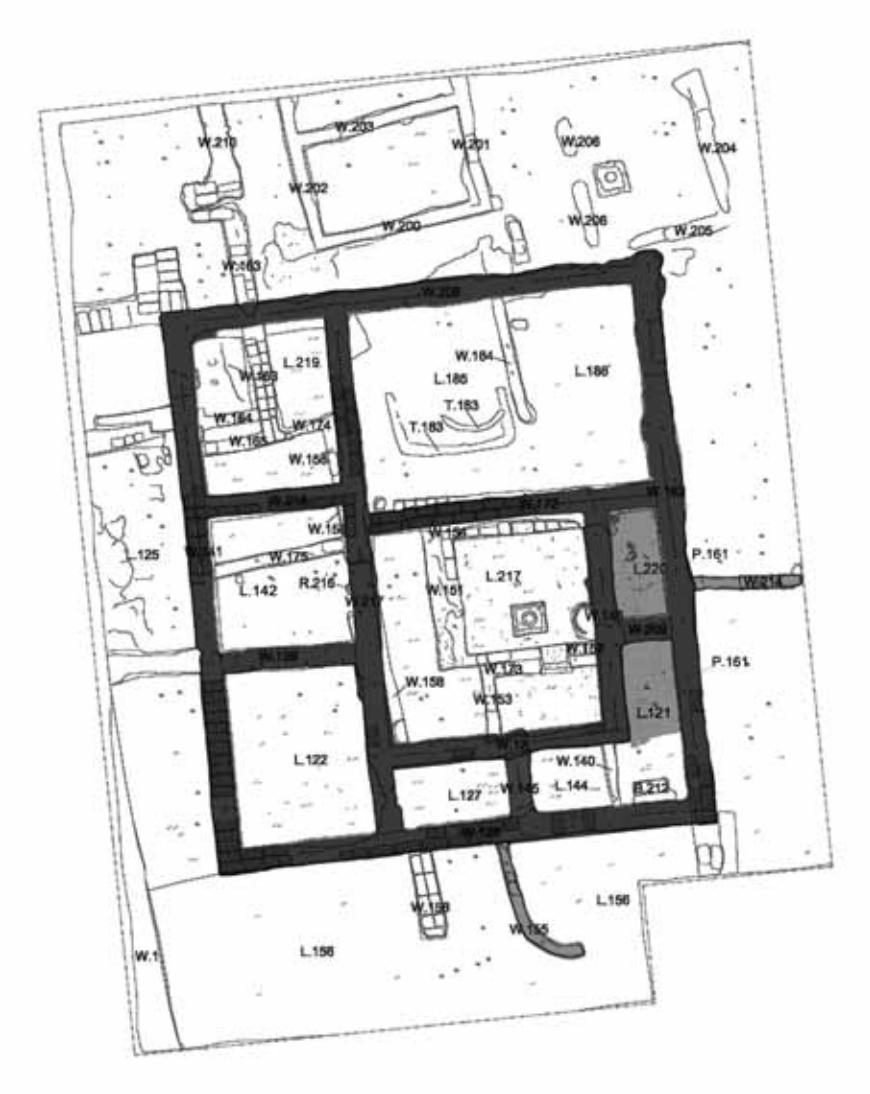


Fig. 23: schematic plan of Layer 3.

across the whole of Area 33 before the construction of a new architectural unit, whose orientation differed with respect to the past. The walls of the new building are made of bricks measuring 11x22x44 cm (1:2:4), while the paving is finely crafted, especially in L.122 and L.142, consisting of layers of plaster on a preparation of medium-sized pebbles. Two architectural phases (3a and 3b) have been identified on the basis of the discovery of two superimposed floor levels and structural changes mainly affecting the eastern sector of the building. Indeed, in the final phase (3b), the entire eastern wing of the complex, consisting of rooms L.138 and L.149, was covered with bricks forming a new long and narrow room that has been interpreted as a stairwell leading to a second floor.

*US - Layer 3 (Shahr-i Sokhta IIB - Phase 5A-B) (ca. 2850-2650 BC)*

US 2 = L.122; US 5 = L.125; US 7 = L.127; US 22 = L.138; US 23 = L.217; US 26 = L.142; US 27 = L.217; US 32 = L.156; US 34 = L.122; US 35 = L.127; US 36 = L.142; US 38 = L.142; US 39 = L.159; US 46 = L.142; US 47 = L.125; US 54 = P.161; US 60 = P.138; US 62 = L.159; US 64 = L.156.

Artefacts: SiS.19.33.1; SiS.19.33.2; SiS.19.33.3; SiS.19.33.4; SiS.19.33.6; SiS.19.33.7; SiS.19.33.8; SiS.19.33.9; SiS.19.33.10; SiS.19.33.12; SiS.19.33.16; SiS.19.33.17; SiS.19.33.19; SiS.19.33.20; SiS.19.33.21; SiS.19.33.24; SiS.19.33.25; SiS.19.33.26; SiS.19.33.29; SiS.19.33.31; SiS.19.33.34; SiS.19.33.35; SiS.19.33.36; SiS.19.33.37; SiS.19.33.39; SiS.19.33.42; SiS.19.33.43; SiS.19.33.44; SiS.19.33.46; SiS.19.33.49; SiS.19.33.51; SiS.19.33.53; SiS.19.33.54; SiS.19.33.79; SiS.19.33.80; SiS.19.33.81; SiS.19.33.82; SiS.19.33.83; SiS.19.33.84; SiS.19.33.85; SiS.19.33.86; SiS.19.33.87; SiS.19.33.88; SiS.19.33.90; SiS.19.33.91; SiS.19.33.99; SiS.19.33.100; SiS.19.33.106; SiS.19.33.108; SiS.19.33.109; SiS.19.33.115; SiS.19.33.118; SiS.19.33.120; SiS.19.33.123; SiS.19.33.126; SiS.19.33.128; SiS.19.33.129; SiS.19.33.130; SiS.19.33.132; SiS.19.33.133; SiS.19.33.134; SiS.19.33.136; SiS.19.33.145; SiS.19.33.146; SiS.19.33.147; SiS.19.33.148; SiS.19.33.154; SiS.19.33.155; SiS.19.33.156; SiS.19.33.157; SiS.19.33.158; SiS.19.33.159; SiS.19.33.160; SiS.19.33.161; SiS.19.33.162; SiS.19.33.163;

SiS.19.33.164; SiS.19.33.167; SiS.19.33.182; SiS.19.33.183; SiS.19.33.184; SiS.19.33.186; SiS.19.33.187; SiS.19.33.188; SiS.19.33.189; SiS.19.33.190; SiS.19.33.191; SiS.19.33.192; SiS.19.33.193; SiS.19.33.194; SiS.19.33.195; SiS.19.33.196; SiS.19.33.197; SiS.19.33.198; SiS.19.33.199; SiS.19.33.200; SiS.19.33.201; SiS.19.33.202; SiS.19.33.207; SiS.19.33.208; SiS.19.33.212; SiS.19.33.213; SiS.19.33.216; SiS.19.33.224; SiS.19.33.226; SiS.19.33.228; SiS.19.33.231; SiS.19.33.232; SiS.19.33.233; SiS.19.33.243; SiS.19.33.244; SiS.19.33.248; SiS.19.33.251; SiS.19.33.252; SiS.19.33.253; SiS.19.33.257; SiS.19.33.258; SiS.19.33.261; SiS.19.33.262; SiS.19.33.310; SiS.19.33.312; SiS.19.33.313; SiS.19.33.314; SiS.19.33.315; SiS.19.33.316; SiS.19.33.317; SiS.19.33.321; SiS.19.33.322; SiS.19.33.323; SiS.19.33.333; SiS.19.33.335; SiS.19.33.337; SiS.19.33.340; SiS.19.33.342; SiS.19.33.343; SiS.19.33.344; SiS.19.33.346; SiS.19.33.352; SiS.19.33.357; SiS.19.33.379; SiS.19.33.382; SiS.19.33.383; SiS.19.33.391.

#### 2.2.4. Layer 4 - Shahr-i Sokhta IIA - Phase 6A-B (ca. 3000-2850 BC)

The last phase investigated is represented by two architectural units separated by the road L.148 (the 'Western Building' and the 'Eastern Building'). As previously mentioned, the orientation of the walls differs from that of the subsequent phase, as does the quality of the walls and plasters (Figs. 24-25).

Two sub-phases (4a and 4b) have also been identified for Layer 4 on the basis of the paving sequences and the change in internal circulation that occurred with the closure of the passage at W.152 and the addition of walls W.153 and W. 173. The bricks measure 11x22x44 cm, and the walls are now covered with a double layer of very well-preserved blue-grey plaster. The flooring is also finely crafted, with the addition of a layer of plaster over a bed of small stones, particularly in L.217, where the quality of the architectural solutions seems to be much higher than what is known from the western unit or 'Western Building'.

*US - Layer 4 (Shahr-i Sokhta IIA - Phase 6) (ca. 3000-2850 BC)*

US 28 = L.149; US 29 = L.149; US 30 = L.150; US 31 = L.149; US 43 = L.167;

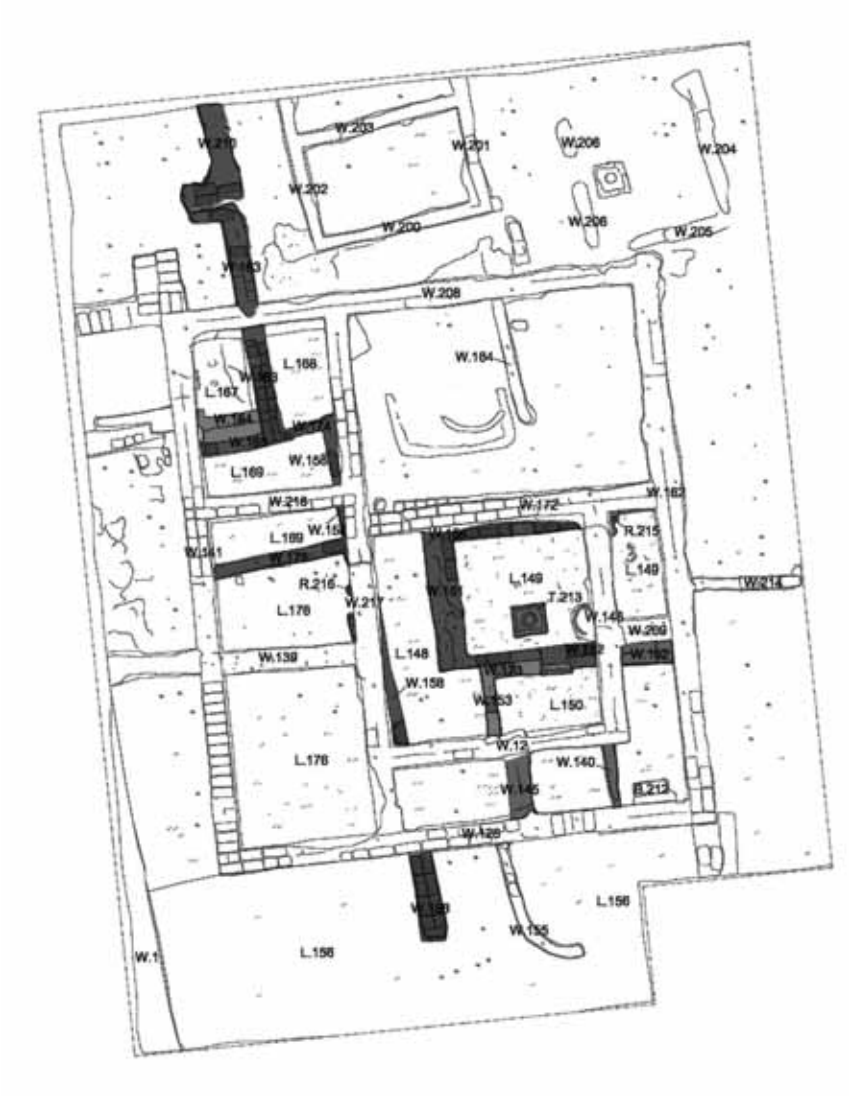


Fig. 24: schematic plan of Layer 4.

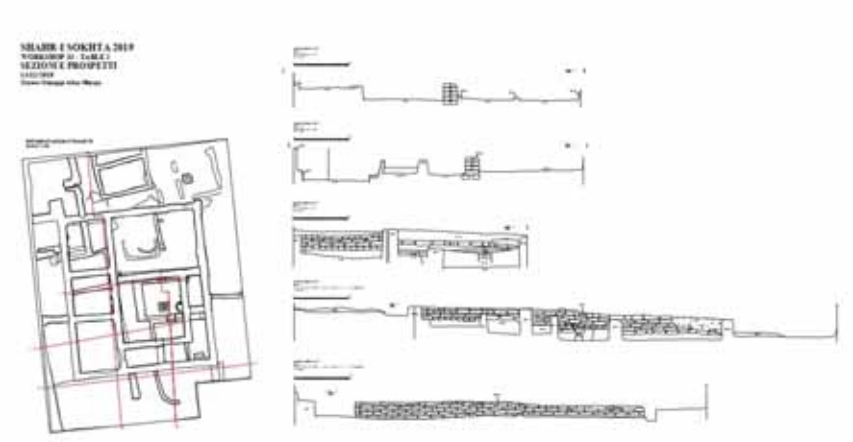

Fig. 25: archaeological section of Area 33 (Layers 2-4).

US 44 = L.168; US 48 = L.169; US 49 = L.169; US 51 = L.169; US 52 = L.169; US 53 = L.176; US 61 = L.149; US 63 = L.176; US 67 = L.149; US 68 = L.169.

Artefacts: SiS.19.33.92; SiS.19.33.93; SiS.19.33.94; SiS.19.33.95; SiS.19.33.96; SiS.19.33.97; SiS.19.33.102; SiS.19.33.103; SiS.19.33.104; SiS.19.33.105; SiS.19.33.111; SiS.19.33.117; SiS.19.33.119; SiS.19.33.121; SiS.19.33.122, SiS.19.33.124; SiS.19.33.125; SiS.19.33.127; SiS.19.33.135; SiS.19.33.137; SiS.19.33.138; SiS.19.33.139; SiS.19.33.140; SiS.19.33.141; SiS.19.33.142; SiS.19.33.143; SiS.19.33.144; SiS.19.33.149; SiS.19.33.150; SiS.19.33.151; SiS.19.33.152; SiS.19.33.153; SiS.19.33.165; SiS.19.33.166; SiS.19.33.168; SiS.19.33.169; SiS.19.33.170; SiS.19.33.171; SiS.19.33.172; SiS.19.33.173; SiS.19.33.174; SiS.19.33.175; SiS.19.33.176; SiS.19.33.177; SiS.19.33.178; SiS.19.33.179; SiS.19.33.180; SiS.19.33.185; SiS.19.33.203; SiS.19.33.205; SiS.19.33.211; SiS.19.33.217; SiS.19.33.218; SiS.19.33.219; SiS.19.33.221; SiS.19.33.222; SiS.19.33.223; SiS.19.33.225; SiS.19.33.234; SiS.19.33.235; SiS.19.33.236; SiS.19.33.237; SiS.19.33.238; SiS.19.33.239; SiS.19.33.240; SiS.19.33.241; SiS.19.33.245; SiS.19.33.246; SiS.19.33.249; SiS.19.33.250; SiS.19.33.254; SiS.19.33.255; SiS.19.33.256; SiS.19.33.260; SiS.19.33.263; SiS.19.33.266; SiS.19.33.268; SiS.19.33.269; SiS.19.33.270; SiS.19.33.271;

SiS.19.33.272; SiS.19.33.273; SiS.19.33.274; SiS.19.33.275; SiS.19.33.277; SiS.19.33.278; SiS.19.33.279; SiS.19.33.280; SiS.19.33.285; SiS.19.33.287; SiS.19.33.288; SiS.19.33.289; SiS.19.33.291; SiS.19.33.292; SiS.19.33.293; SiS.19.33.294; SiS.19.33.295; SiS.19.33.296; SiS.19.33.297; SiS.19.33.298; SiS.19.33.299; SiS.19.33.300; SiS.19.33.301; SiS.19.33.302; SiS.19.33.303; SiS.19.33.304; SiS.19.33.306; SiS.19.33.307; SiS.19.33.308; SiS.19.33.309; SiS.19.33.311; SiS.19.33.318; SiS.19.33.320; SiS.19.33.324; SiS.19.33.325; SiS.19.33.326; SiS.19.33.327; SiS.19.33.328; SiS.19.33.330; SiS.19.33.331; SiS.19.33.332; SiS.19.33.338; SiS.19.33.339; SiS.19.33.341; SiS.19.33.345; SiS.19.33.347; SiS.19.33.348; SiS.19.33.349; SiS.19.33.350; SiS.19.33.351; SiS.19.33.352; SiS.19.33.353; SiS.19.33.354; SiS.19.33.355; SiS.19.33.356; SiS.19.33.358; SiS.19.33.359; SiS.19.33.360; SiS.19.33.361; SiS.19.33.362; SiS.19.33.363; SiS.19.33.364; SiS.19.33.366; SiS.19.33.367; SiS.19.33.368; SiS.19.33.371; SiS.19.33.372; SiS.19.33.373; SiS.19.33.374; SiS.19.33.375; SiS.19.33.376; SiS.19.33.377; SiS.19.33.378; SiS.19.33.381; SiS.19.33.384; SiS.19.33.385; SiS.19.33.387; SiS.19.33.388; SiS.19.33.389; SiS.19.33.390.

**3. Architectural, functional and distributive analysis**

The four phases identified in Area 33 constitute an uninterrupted sequence covering more than half a millennium of the settlement's history. In addition, within each single layer it was possible to reconstruct the functions and activities carried out within the individual buildings. Indeed, the association of the material with its stratigraphic context helps on the one hand to diachronically reconstruct the typological evolution of the recovered material (first and foremost ceramics) and on the other to determine the functional and typological characteristics of the buildings.

'Building 33': Layer 1 - SiS 3 - period IIIA (ca. 2600-2450 BC)
Squatter occupation: Layer 2 - SiS 4 - period IIC (ca. 2650/2620-2600 BC)
'House of the Courts': Layer 3a-b - SiS 5A-B - period IIB (ca. 2850-2650/2620 BC)

'Western Building' and 'Eastern Building': Layer 4a-b - period IIA (ca. 3000-2850 BC)

The sequence of the excavated buildings shows a typological transformation from the first to the last Layer. Specifically, stratigraphic breaks are easily documented in the transition from period IIA to period IIB, when a new architectural concept is introduced in place of the plurality of buildings of the previous period. Indeed, Area 33 passes from the presence of two large architectural units (the 'Eastern Building' and the 'Western Building') not communicating with each other, inserted in a complex urban layout characterised by narrow streets (Layer 4), to a new urban concept in which the entire area is now occupied by the 'House of the Courts', which is surrounded by broad open spaces (Layer 3). The idea is that in the transition from period IIA to period IIB, in addition to the architecture, the way of thinking about the space in which the building was created, above all its topographical relations with the external spaces, also changed. While the 'Western Building' and 'Eastern Building' of Layer 4 are inserted in an apparently chaotic topographical context characterised by streets of limited width, the 'House of the Courts' is sited in a broad, open topographical layout, as evinced by the large open areas surrounding the complex.

This difference in urban layout between the two periods also seems to have affected the space inside the buildings themselves: although further investigations should allow us to broaden our knowledge of the buildings of Layer 4 in the near future, an initial partial typological reconstruction helps us to identify an architectural type that projects spaces within the architectural unit, rather than towards the surrounding urban environment, which is confused and lacks a true urban plan. While the 'House of Courts' of Layer 3 represents a well-defined unit in a broad open space, the 'Western Building' of Layer 4 seems to introject this spatiality inwards with the courtyard L.176, which has at least two very long sides, providing a refuge from the surrounding urban environment, apparently cramped and disorganised.

Similarly, the transition to Layer 1 and 'Building 33', after the abandonment of the Area in Layer 2, seems to express a profoundly different idea of the building's inner space, which now appears to be multi-sectoral, autonomous and divided into functional sectors, as seen in coeval monumental buildings in Mesopotamia. Between Layer 3 ('House of the Courts') and Layer 1 ('Building 33') there seems to be a transition from a domestic to a large-scale economy, employing a large workforce with specialised craftsmen. 'Building 33' is an architectural structure that implies completely different social organisation from what is assumed for period IIB, when the family/tribal tradition seems to be organised around a single standardised architectural unit lacking the division into functional sectors seen in 'Building 33'.

### 3.1. Layer 1 - Shahr-i Sokhta IIIB - SiS 3 (ca. 2600-2450 BC)

'Building 33' has been the subject of previous publications that have highlighted its multifunctionality (Ascalone 2019a: 36-49; Ascalone in press a) (Fig. 26). The 2018 campaign confirmed the preliminary observations concerning the role that the building may have played within the urban fabric of the settlement (Fig. 27).

Specifically, the research focused on extending the limits of the 2017 excavation eastwards, revealing new sectors of 'Building 33' and confirming its status as a monumental complex that was completely autonomous with respect to the surrounding urban layout (Figs. 28-30).

The kitchen sector is divided into areas for food preparation (L.36+L.43), cooking (L.33+L.37), storage (L.68+L.80+L.81+L.120) and the public (court L.19), as well as a probable residential area, already addressed in the preliminary excavations report (Ascalone 2019a). In addition, the new investigations have allowed us to recognise a large open courtyard (L.119) whose relationship to the central nucleus is mediated by W.88, which represents the eastward continuation of W.67 and clarifies the stratigraphic relationship of the central complex excavated in 2017 and the slender wall W.93 that marks the eastern edge of the courtyard L.119 (Fig. 31). Indeed, courtyard L.119 divided the living area, with its multiple functions, from an enclosed area (L.92).

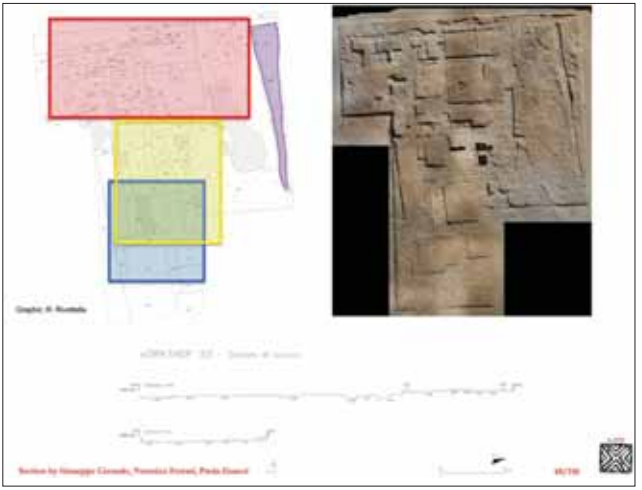

Fig. 26: functional division of 'Building 33'.

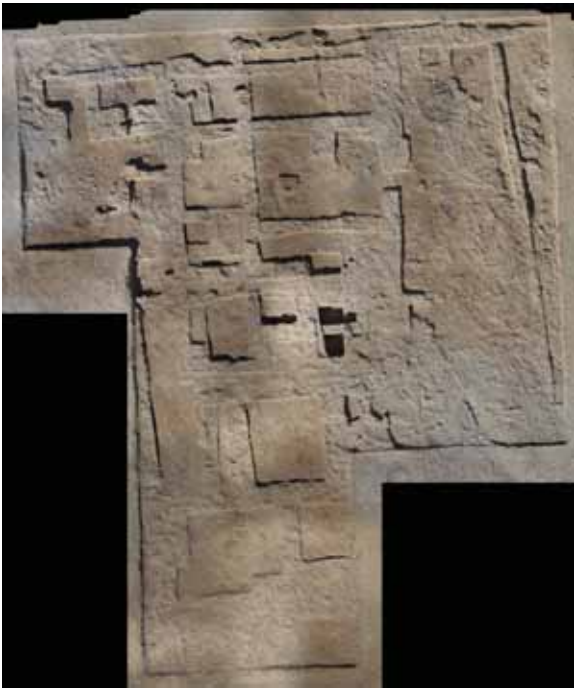

Fig. 27: 'Building 33' from drone.

Fig. 28: north-east view of ‘Building 33’.

Fig. 29: east view of ‘Building 33’.

Fig. 30: north-west view of ‘Building 33’.

Fig. 31: north view of L.119.

Like the rest of the building, the courtyard L.119 is better preserved to the north, while it has been almost completely lost further south, due to a large pit for dumping animal bones (L.104) attributed to the later period, when the area was abandoned, and because the soil and structures have been completely removed by runoff in this sector. Specifically, M.121 seems to have been completely destroyed by erosion, to the point that the entire wall with its bricks has been completely washed away in the southern and south-eastern sectors of the trench. Given the state of preservation of these sectors therefore, it is not possible to know the layout of the building, preventing us from knowing the stratigraphic relations and the circulation between the probable staterooms around the court L.19. The presence of an open courtyard, i.e. an open-air space with no structural elements, must have contributed to the formation of drainage channels in this area, where there were no architectural remains and therefore no structural elements that could in any way counteract the flow of water. Although our understanding of the layout of the southern sector of the courtyard appears rather limited, its northern part has allowed us to study specific functional aspects: first of all, it was possible to see a relationship between this courtyard and the core of the building thanks to the doorway separating W.87 from W.89 represented by a threshold (L.113) that led directly to the cooking areas in L.33 and L.37. In addition, the courtyard yielded a basin lined with plaster for storing water (I.98, measuring 1.20x1.70 m), a circular silo (L.97 measuring 1.80 m of diameter; Fig. 32) delimitated by a single row of bricks and a large oven (T.84, measuring 1.81 m of diameter; Fig. 33). The whole courtyard seems to be strongly linked to the storage functions recognised in L.68, L.80, L.81, L.94 and L.120 (as documented by silo L.97), but also to food preparation and cooking activities, as suggested by the presence of ovens (T.84 and T.99) and the basin for liquids (I.98).

This open courtyard divided ‘Building 33’ from an area enclosed by a low wall composed of mudbricks laid without mortar (one row) whose function remains uncertain, although some considerations can be made. The enclosed area, called L.92+L.107, was bounded to the west by a small wall running north-west/south-east (W.93) and was divided by a partition (W.96) that divided the enclosed

Fig. 32: silo L.97.

Fig. 33: oven T.84.

Fig. 34: mat from L.92.

Fig. 35: bowl I.100 from L.107.

area into two sectors (a northern one, L.92, and a southern one, L.107). The two sectors yielded distinct evidence: in L.92 several well-preserved mat fragments were found (Fig. 34), while in L.107 two bowls (I.100 and I.101) were directly embedded in the ground (Figs. 35-36). It seems possible that even within this enclosed area there was a specific intention to divide it into sectors on the basis of their use.

The bowls embedded in the ground and their moderate size suggest that space L.107 was used to keep goats or hens and represented a sort of enclosure for animals destined for the production of wool and food products (i.e. milk, eggs), where they were also slaughtered. In essence, we see documented in 'Building 33' the internal food cycle from conservation to consumption, including storage, processing, slaughter and cooking.

| Locus | Artefacts |
|---|---|
| L.5 | 1 alabaster vessel body |
| | 1 smoother |
| L.33 | 1 alabaster vessel body |
| | 1 stone discard |
| L.34 | 2 indeterminate bronze objects |
| | 1 stone vessel rim |
| | 2 grindstones |
| | 1 smoother |
| | 1 token |
| | 1 stone discard |
| L.43 | 1 bead |
| L.77 | 1 perforated alabaster disc |
| L.81 | 1 spindle-whorl |
| L.85 | 2 grindstones |
| | 2 alabaster vessel bodies |
| | 1 alabaster vessel rim |
| | 2 smoothers |
| | 1 blade |
| L.86 | 1 stone discard |
| | 1 bronze vessel |
| L.92 | 1 bead |
| | 1 alabaster vessel base |
| L.107 | 1 alabaster vessel rim |
| P.65+P.71 | 1 piece of bronze slag with charcoal |
| | 2 indeterminate bronze fragments |
| P.84 | 1 piece of slag |

Tab. 2: archaeological associations in 'Building 33'.

Fig. 36: bowl I.101 from L.107.

The extension of the excavated area towards the east confirmed the building's clear division into sectors and its complete autonomy with respect to the urban fabric, as well as showing that it was responsible for an entire economic cycle of food production. Although 550 $m^2$ of the building has been excavated, its perimeter remains unknown, meaning that our typological analysis of the building is incomplete. However, given what we already know, it must be considered very far removed from the formulations of previous periods. The construction in accordance with a pre-established architectural plan devoid of later agglutinative additions, the functional division into distinct and specialised activities and its topographical location free from external urban conditioning are all characteristics not seen at Shahr-i Sokhta in its earlier periods (SiS 7-4). When analysed in its entirety, 'Building 33' appears to be an organic building, whose architectural and urbanistic characteristics seem to indicate a complex intended for one of the settlement's elite groups.

In conclusion, after the period of abandonment (Layer 2), the area seems to have returned to a new vitality in a period of numerous and frequent contacts

Fig. 37: north-east view of L.181.

Fig. 38: north-east view of L.179.

Fig. 39: furnace T.183 in L.185.

Fig. 40: furnace T.186

with other Iranian state and proto-state entities, the Indus (Harappa 3A) and Mesopotamia (the dynasties of Lagash and Ur). This lasted until around 2450 BC, when the settlement was struck by a sudden but clear crisis, exemplified by the end of the occupation of Area 33. The crisis continued until the settlement's final collapse around 2300 BC, when the Akkadian expansionist policy in Iran put an end to the longstanding commercial arrangements dating back to the first half of the third millennium BC.

### 3.2. Layer 2 - Shahr-i Sokhta IIIA - Phase 4 (ca. 2650-2600 BC)

This is a phase of abandonment of the entire area, which sees only sporadic structural presences (W.184, W.200, W.201, W.202, W.204, W.205 and W.206, enclosing L.179, L.180 and L.181; see Figs. 37-38), mainly furnaces (especially T.183), used for working bronze in the open air (Figs. 39-40).

To this period must be attributed the abundant slag, also found on the surface, which greatly complicated the geomagnetic prospections carried out in 2017 (Scholz - Scholz 2019: 246-249). In this phase, therefore, subsequent to the 'House of the Courts', the entire area is first abandoned and then reoccupied by bronze workshops partially reusing the old structures of Phase 5.

| Locus | Artefacts |
|---|---|
| L. 186 | 1 piece of bronze slag<br>1 'triangular cake' |

Tab. 3: archaeological associations in Phase 2.

The abandonment of Area 33 is difficult to explain, as is the brevity of this phase. It does however precede by a small margin the definitive rise of the Indus culture following the shift from Harappa 2 to 3A and the appearance of a new ceramic horizon in the Kopet Dagh, reflected in the transition from Namazga IV to V. It is also contemporaneous with the end of Miri Qalat IIIB and Nausharo I.

### 3.3. Layer 3 - Shahr-i Sokhta IIB - Phase 5A-B (ca. 2850-2650 BC)

Layer 3 contained a new building completely different from anything found in

Fig. 41: the ‘House of the Courts’ by drone.

Fig. 42: north-east view of the ‘House of the Courts’.

Fig. 43: north-west view of the ‘House of the Courts’.

Fig. 44: south-west view of the ‘House of the Courts’.

Fig. 45: south view of the ‘House of the Courts’.

Fig. 46: south-east view of the 'House of the Courts'.

Layer 4, with a total change in the orientation of the walls and a new urban layout (Figs. 41-43). Indeed, while in the previous period (Layer 4) the area housed two buildings (the 'Western Building' and the 'Eastern Building') separated by a road running north-west/south-east, in Layer 3, the whole of Area 33 is occupied by a new building, called the 'House of the Courts' due to its specific floorplan type, which reflects an architectural tradition that is amply attested in Shahr-i Sokhta during Phases 6 and 5 of the site.

The building yields bricks measuring 11x22x44 cm, following a ratio of 1:2:4 common in later Indus settlements. The 'House of the Courts' measures 11x12.40 m, with a north-south orientation and a possible entrance on its northern side, where an initial courtyard granting access to the whole complex is located (Figs. 44-46). Indeed, the building consists of two juxtaposed courtyards (L.185+L.186 and L.217): the first (L.185+L.186) leads to the second (L.217), which gave access to L.142, L.122, L.127, L.144 and L.149. Only room L.219 required a longer route, with access from L.142.

This type is also seen in 'Building 20' and 'Building 1', and is partially replicated in the 'House of the Pit', the eastern part of the 'House of the Stairs', the 'House of the Jars', the 'House of the Foundations' and the house excavated in square XH. *Building 1*, excavated between 1999 and 2009, has yielded six distinct construction phases (A-F), of which the first five (A-E) are attributable to Shahr-i Sokhta II and III, coeval with the 'House of the Courts', while 'Building 20' has been attributed to the later phases of Period III and the first few years of Period IV of the site (Sajjadi - Moradi 2014: fig. 4; 2017: 143). In the same way, the 'House of the Stairs' shows four distinct architectural phases within a chronological framework limited to Period II of the site, with very sporadic evidence linked to Period III; the first two phases are seen in the central body, also structured around two courts aligned with each other, while the third phase is related to the additional eastern complex which, as in the 'House of the Courts', consists of two courts aligned on a north-south axis and a small entrance hall (Tosi 1968: 293-310). Although not completely excavated, the 'House of the Jars' also has a structure with double courtyards with rooms around them, very similar to what was excavated in Area 33. The 'House of the Jars', excavated in the 'Central Quarters', is dated to Period II, although the whole area continued to be occupied until Phase 3 (Salvatori - Vidale 1997: 28-38, fig. 47). The 'House of the Pit' in the 'Eastern Residential Area' has the same chronological horizon, while the 'House of the Foundations' seems to have lasted until Period III (Tosi 1983: 102-122, figs. 8-19).

Although the presence of a courtyard with rooms around it, including a stairway, is also seen in the Indus tradition, especially in Mohenjo-daro (see the Green, Yellow and Red types in A. Sarcina 1978; 1979), the presence of two aligned courtyards, as described above, appears to be a characteristic of Shahr-i Sokhta architecture. This standard architectural model included a spacious initial courtyard, whose function was to lead towards a second, inner courtyard, mainly used for the internal circulation of the building. Indeed, all the peripheral rooms were reachable from here, with the exception of L.219 (accessed only from L.142), which was presumably used for storage. A fixed feature of these architectural

Fig. 47: mudbricks covering L.138 and L.149.

Fig. 48: north view of L.122.

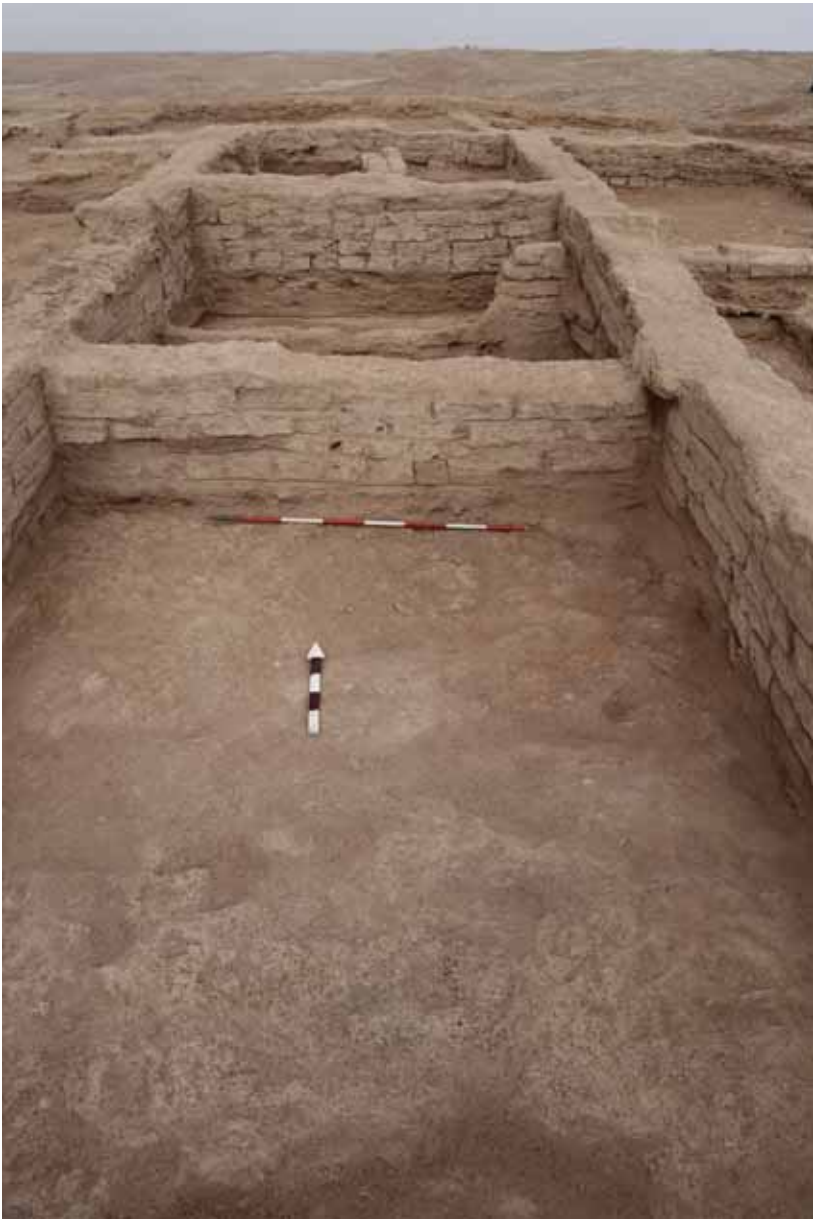

Fig. 49: south view of L.122, L.142 and L.219.

| Chronology (BC) | SiS Phase | Area 33 phase | US | Locus | Artefacts (SiS.19.33.) |
|---|---|---|---|---|---|
| 2850-2650 | 5A | 3a | 23 | L.217 | 1, 3, 6, 7, 9 |
| | | | 26 | L.142 | 99, 100, 118, 120, 123, 126, 128, 129, 130, 132, 133, 134, 136, 145, 146, 147, 148, 155, 156, 157, 158, 159, 160, 161, 167, 253, 391 |
| | | | 31 | L.156 | 154, 162, 163, 164, 212 |
| | | | 32 | L.16 | |
| | | | 35 | L.127 | 216, 224, 226, 228, 231, 232, 233, 243, |
| | | | 46 | L.142 | 244, 248, 251, 252,257, 258, 261, 313 |
| | | | 54 | P.161 | |
| | | | 60 | L.138 | 321, 340, 342, 343 |
| | | | 64 | L.156 | 322, 333, 335, 379 |
| | 5B | 3b | 2 | L.122 | 2, 4, 8, 16, 19, 20, 24, 25, 29, 34, 35, 42, 43, 44, 46, 49, 53, 54, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 90, 91, 106, 108, 115, 382, 383 |
| | | | 5 | L.125 | 17, 21, 26, 31, 36, 37, 39, 51 |
| | | | 7 | L.127 | 10, 12, 109, 208 |
| | | | 22 | L.138 | |
| | | | 27 | L.217 | |
| | | | 34 | L.122 | 182, 183, 184, 188, 189, 190, 191, 192, 193, 195, 196, 197, 198, 199, 201, 202, 262, 310, 312, 314, 315, 316, 317, 337, 344, 346, 352, 357 |
| | | | 36 | L.142 | 186, 213 |
| | | | 38 | L.142 | 187, 194, 200, 207 |
| | | | 39 | L.159 | |
| | | | 47 | L.125 | |
| | | | 62 | L.159 | 323 |

Tab. 4: stratigraphic associations in the ‘House of the Courts’.

complexes, dated to late Period II and early Period III, was the presence of two courtyards aligned along an axis (either east-west or south-north). This feature had a number of variants. The first court can be preceded by an introductory room, as in the eastern part of the 'House of the Stairs', 'House of the Pit', 'House of the Foundations', or it can have a sort of small entrance, as in 'Building 1' and 'Building 20'. In the 'House of the Courts' in Area 33, there is a direct entrance to the first court and a unique and obligatory passage to the second inner court.

The 'House of the Courts' had two construction phases, of which the second only partially modified the overall plan of the building. Evidence of the two phases is documented by two floor levels, finely crafted with a light layer of plaster applied to a bed of small to medium-sized pebbles, and by a substantial change in the circulation of the entire eastern sector (Fig. 47).

Indeed, towards the end of the building's life, L.149 and L.138 were completely covered by an expanse of mudbricks, larger than those usually used for the walls, which changed the original layout of the complex (Fig. 48).

Specifically, the long room that arose, which also included W.209, was used as a stairwell to provide access to a second floor or to the terrace of the building, changing the circulation in the eastern sector but preserving the circulation and functions of the western rooms (L.122, L.142 and L.219; Fig. 49).

Rooms L.122 (Fig. 50) and L.142 (Fig. 51) yielded numerous seals and seal impressions, which have helped to determine the functions and importance of the western wing of the building (Ascalone in press a). Indeed, in addition to providing an indication of the functions of L.122 and L.142, the distributive analysis of seals and seal impressions helps to recognise the relationship between the type of seal and the room where it was found (Ascalone in press c). It seems rather significant that the finds of L.142 have a different figurative system from those of L.122 (Tab. 5).

This type of evidence makes it possible to hypothesise the presence of two administrative cycles regarding the storage activities related to the family economy.

Specifically, the seals and impressions from L.142 (Figs. 52-61 and Tab. 5) belong to the most widespread geometric type known in Shahr-i Sokhta and

Fig. 50: south-east view of L.122.

Fig. 51: north view of L.142.

| CA | EXCAVATION NUMBER | US | OBJECT | MATERIAL | TYPE 1 (Shape) | TYPE 2 (Technology) | TYPE 3 (Design) | CONTEXT | PERIOD | LAYER | CONTEXT CHRONOLOGY | LOCUS | MEASURE (cm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | SiS.19.33.119 | SIS.19.33.31/15 | Seal impression | Clay | Square | Cutting | Geometric | Eastern Building | II: 6 | 4 | 3000-2850 BC | L.149 | 3.8x2.8x0.8 |
| 2 | SIS.19.33.316 | SIS.19.33.34/21 | Seal impression | Clay | Circles | Cutting | Geometric | House of the Courts | II: 5A | 3 | 2850-2650 BC | L.122 | 2.4x1.8x0.8 |
| 3 | SiS.19.33.25 | SiS.19.33.2/6 | Stamp seal fragment | Bone | Square | Cutting and drilling | Geometric | House of the Courts | II: 5A | 3 | 2850-2650 BC | L.122 | 1.4x1.1x0.4 |
| 4 | SIS.19.33.158 | SIS.19.33.26/20 | Seal impression | Clay | Square | Cutting | Geometric | House of the Courts | II: 5A | 3 | 2850-2650 BC | L.142 | 3.6x2.4x1.6 |
| 5 | SIS.19.33.156 | SIS.19.33.26/24 | Seal impression | Clay | Square | Cutting | Geometric | House of the Courts | II: 5A | 3 | 2850-2650 BC | L.142 | 3.4x2.7x1.3 |
| 6 | SIS.19.33.159 | SIS.19.33.26/22 | Seal impression | Clay | Square | Cutting | Geometric | House of the Courts | II: 5A | 3 | 2850-2650 BC | L.142 | 5.8x6.2x2.8 |
| 7 | SIS.19.33.160a | SIS.19.33.26/23.a | Seal impression | Clay | Square | Cutting | Geometric | House of the Courts | II: 5A | 3 | 2650-2850BC | L.142 | 6.9x6.8x3.6 |
| 8 | SIS.19.33.160b | SIS.19.33.26/23.b | Seal impression | Clay | Square | Cutting | Geometric | House of the Courts | II: 5A | 3 | 2850-2650 BC | L.142 | 6.9x6.8x3.6 |
| 9 | SiS.19.33.50 | SiS.19.33.1/5 | Stamp seal fragment | Chlorite | Square | Cutting and drilling | Geometric | OOH2-OOM1 | / | / | / | Surface | 2.9x1.8x0.4 |
| 10 | SiS.19.33.101 | SiS.19.33.1/29 | Stamp seal fragment | Chlorite | Rectangular | Cutting | Geometric | OOG4-OOL3 | / | / | / | Surface | 4.8x4.2x0.5 |

Tab. 5: seals and sealings from Area 33 at Shahr-i Sokhta.

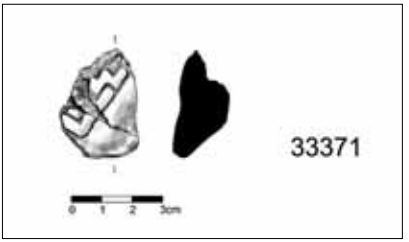


Fig. 53: SiS.19.33.158 (drawing by Nahid Zamani).


Fig. 52: SiS.19.33.158 (photo by Media Rahmani).


Fig. 54: SiS.19.33.156 (photo by Media Rahmani).

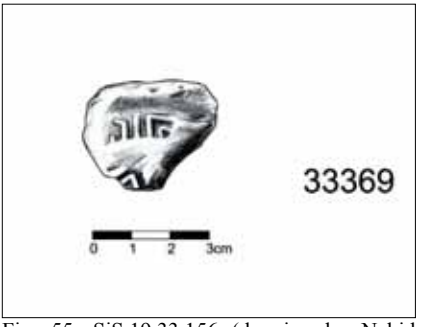


Fig. 55: SiS.19.33.156 (drawing by Nahid Zamani).

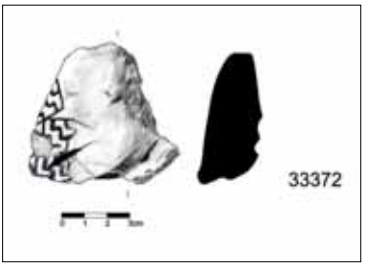


Fig. 57: SiS.19.33.159 (drawing by Nahid Zamani).

Fig. 56: SiS.19.33.159 (photo by Media Rahmani).

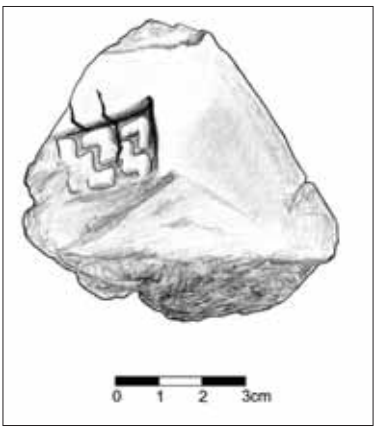


Fig. 59: SiS.19.33.160a (drawing by Nahid Zamani).

Fig. 58: SiS.19.33.160a (photo by Media Rahmani).

Fig. 60: SiS.19.33.160b (photo by Media Rahmani).

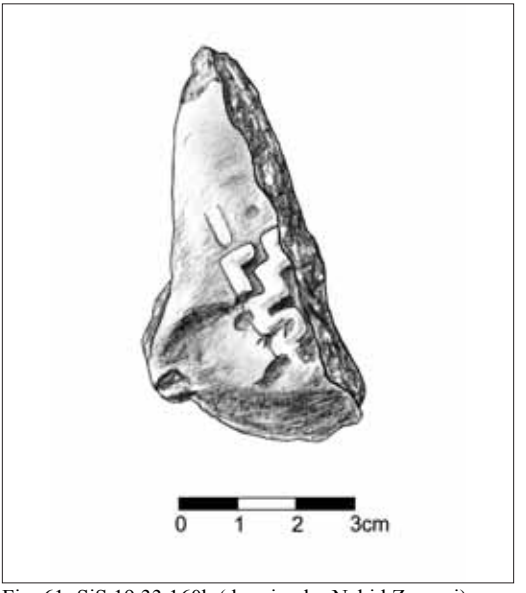


Fig. 61: SiS.19.33.160b (drawing by Nahid Zamani).

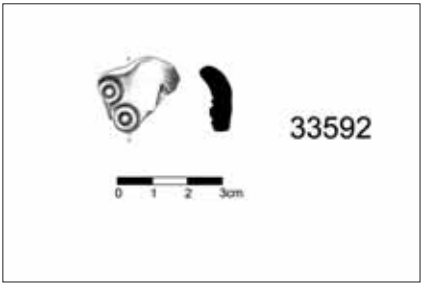


Fig. 63: SiS.19.33.316 (drawing by Nahid Zamani).

Fig. 62: SiS.19.33.316 (photo by Media Rahmani)


Fig. 65: SiS.19.33.25 (drawing by Nahid Zamani).


Fig. 64: SiS.19.33.25 (photo by Media Rahmani).

are considered to be of local origin, often in steatite/chlorite (on the presence of zigzag motifs at Shahr-i Sokhta, see Tosi 1968: fig. 264, 268; 1969, fig. 273; Heydari - Desset - Vidale 2018: fig. 13: 3, MAI 1436; Vidale - Lazzari 2019: SiS. 53A, 64A; Ameri 2020: MAI 0839, MAI 1597, MAI 1196, MAI 0758a and MAI 0758b; on the stepped motifs, see the specimens described in Tosi 1968: figs. 95a and 282; 1969: fig. 269; Ferioli - Fiandra - Tusa 1979: 25, fig. 9b.2 and Vidale - Lazzari 2019: SiS. 54A, 58A, 137A, 138A).

In contrast, the seals and impressions from L.122 (Figs. 62-65) belong to cultural spheres associated with Baluchistan (Damb Saadat in Franke - Cortesi 2015: fig. 10.37, Mehrgarh in Tromparent 2019: Ms 56-A, and Nausharo in Tromparent 2019: Ns 36-1), Khyber Pakhtunkhwa (Tarakai Qila and Rehman Dheri), Punjab (Harappa), Haryana (Kunal), Rajastan (Tharkanewala Dera) and Gujarat (Bagasra and Nagwada) (see in general Uesegi 2018: figs. 17-19) (Tab. 6). In this case, the question arises as to whether these differences in the seals and seal impressions from the two architectural units can be explained by the differentiation of storage processes between locally sourced and off-site goods (Ascalone in press c).

The strong similarities between the iconographic motifs on the stamp seals and their impressions, mostly geometrical, confirm the standardisation of the main administrative aspects (Ascalone - Sajjadi in press). In the same way, the presence of specimens with close parallels with Baluchistan, together with polychrome pottery from Nal (Vecchio in this volume), confirms a cultural orientation of Sistan, in the first half of the third millennium BC, towards Baluchistan and Sohr-Damb/Nal in particular (but also towards Makran at Miri Qalat), whose stratigraphic and occupation sequences appear very similar to those of Shahr-i Sokhta (Franke-Vogt 2005; Görsdorf 2005).

The distributional analyses of the materials do not allow specific considerations other than to recognise L.122 as an area of some importance due to the high number of precious materials found (beads, alabasters, finely crafted flint blades, clay and bronze figurines, arrowheads, seals).

The ‘House of the Courts’ is thus firmly rooted in the architectural tradition of Shahr-i Sokhta, which in late Phase 6 and the whole of Phase 5 provides ample

| Locus | Artefacts |
|---|---|
| L.138 | 1 core |
| | 1 stone axe |
| L.142 | 8 animal figurines |
| | 2 'triangular cakes' |
| | 1 cartwheel in clay |
| | 5 seal impressions |
| | 2 cretulae |
| | 10 sphendonoid counters |
| | 1 piece of bronze slag |
| | 3 figurines |
| | 1 grindstone |
| | 1 cretula with impression |
| | 1 counter with numerical signs |
| | 1 stone discard |
| | 1 spherical counter |
| | 1 polisher |
| | 1 bone spatula |
| | 1 weight |
| | 1 bone tool |
| | 1 alabaster vessel rim |
| | 1 pestle |
| | 1 token |
| L.156 | 3 sphendonoid counters |
| | 1 animal figurine |
| | 1 stone figurine |
| | 1 discoid spindle-whorl |
| | 2 arrowheads |
| | 1 smoother |
| L.217 | 1 sphendonoid counter |
| | 1 indeterminate bronze object |
| | 1 weight |
| | 1 flint discard |
| | 1 animal figurine |
| L.122 | 1 bead |
| | 5 spherical counters |
| | 3 alabaster vessel bodies |
| | 2 arrowheads |
| | 1 perforated alabaster disc |
| | 10 cretulae |
| | 6 sphendonoid counters |
| | 2 blades |
| | 5 cretulae with impressions |
| | 3 grindstones |
| | 3 tokens |
| | 2 pieces of bronze slag |

| | |
|---|---|
| | 1 seal |
| | 1 indeterminate bronze fragment |
| | 3 figurines |
| | 2 bone tools |
| | 2 sealings |
| | 1 rectangular clay bar |
| | 1 bone spatula |
| | 1 piece of glassy slag |
| | 1 bone awl |
| | 1 tripod |
| | 1 anthropomorphic figurine |
| | 1 bronze figurine |
| | 1 animal figurine |
| | 1 flint discard |
| | 1 alabaster vessel rim |
| L.125 | 5 ‘triangular cakes’ |
| | 1 pebble |
| | 1 rectangular clay bar |
| | 1 animal figurine |
| L.127 | 1 polisher |
| | 2 sphendonoid counters |
| | 1 alabaster vessel body |
| L.142 | 1 flint |
| | 1 arrowhead |
| | 2 cretulae |
| | 1 weight |
| | 1 figurine |
| L.159 | 1 alabaster vessel rim |

Tab. 7: archaeological associations in the ‘House of the Courts’.

evidence of a homogeneous and coherent architectural type. In the first and second quarters of the third millennium BC (ca. 2900-2650 BC), Shahr-i Sokhta appears to have been a mature settlement whose standardised architectural forms are associated with highly homogeneous pottery production, the production of stamp seals with repetitive and well-coded geometric decorations, the use of weights (Ascalone 2019a; 2019b; 2020) within an as-yet non-solidified system, and standardised measurements of length.

The 'House of the Courts' therefore seems to represent a complex embedded within a centrally organised plan involving the entire settlement, which must have reached its zenith at the end of Period II around 2650 BC. This coincides with the transition from Harappa 2 to Harappa 3A in the Indus, when in Mesopotamia the first dynasties of Ur and Lagash begin to orient their markets towards the Makkan coast and the Iranian hinterland. In this historical context, the crisis of Area 33 in the transition from Period II to Period III (Layer 3 to 2) seems to presage a period of strong internationalisation in the second half of the third millennium BC, which however does not seem to have involved Shahr-i Sokhta. Indeed, the Sistan settlement does not provide any strong evidence of the numerous interactions unfolding across the entire plateau (primarily Jiroft) in the second half of the third millennium BC. On the contrary, it seems that Shahr-i Sokhta was excluded from the new Indo-Mesopotamian trade axis, while the beginning of the endemic Akkadian military incursions into all regions of the Iranian plateau (reaching at least as far as south-eastern Iran) definitively brought the settlement to its knees. Shahr-i Sohkta's time as a trading power seems to be broadly limited to the first half of the third millennium BC.

### 3.4. Layer 4 - Shahr-i Sokhta IIA - Phase 6A-B (ca. 3000-2850 BC)

The excavated area returned two buildings, whose walls were only partially reused in the next phase. These buildings were separated by a road (L.148) (Fig. 66), consisting of a floor paved with medium-sized stones providing good drainage.

To the west of L.148, a large architectural complex (the 'Western Building') has been identified, built on a south-east/north-west axis parallel to the walls

Fig. 66: north view of the street L.149.

Fig. 67: north view of L.167.

Fig. 68: south view of L.169.

Fig. 69: south-west view of L.176.

Fig. 70: north-east view of L.176 with the door socket R.216.

of the second building to the east of L.148 (the 'Eastern Building', also called the 'Western Building'; Ascalone in press a). The eastern perimeter walls of the 'Western Building' (W.158, W.174 and W.163) along the aforementioned road L.148 make it possible to recognise at least three rooms arranged on a north-south axis: L.167 (Fig. 67), L.169 (Fig. 68) and L.176 (Fig. 69).

While little is known of L.167 due to the limited archaeological investigation, the size and fine workmanship of the walls of L.176 suggest that it is a large courtyard, whose western and southern limits remain unexcavated. It is probable that one of the entrances to the building was via an opening in W.158, near the door socket found *in situ* (R.216) (Fig. 70).

This was later closed, probably during the construction work of the next phase, which saw the creation of the so-called 'House of the Courts'. The entire complex seems to be outside the Shahr-i Sokhta architectural tradition (well attested in Layer 3), with an orientation slightly offset with respect to the other buildings excavated on the site. The presence of a large space with a non-central entrance in its perimeter wall is in fact an absolute novelty in the tradition of Bronze Age Sistan.

As previously mentioned, the presence of such a large courtyard and the cramped urban circulation represented by the street L.148 and the wall W.151 suggest a theoretical perception of architectural space that is completely different from what is seen with the 'House of Courts' of Layer 3. The architectural unit is inserted in a densely packed urban environment with little space between the outer walls of one building and the next: it does not face outwards as in Layer 3 where the space in front of the building is free, but inwards. The large room L.176 (9.35x2.80 m), although this is currently only a partial measurement, and the narrow external space around it express a perception of architectural unity that is very different from that of the later period. The building fits into a chaotic urban fabric that drove a search for spaces inside the residential complex, which in the case of the 'Western Building' take on monumental dimensions.

| Chronology (BC) | SiS Phase | Area 33 Layer | US | Locus | Artefacts (SiS.19.33.) |
|---|---|---|---|---|---|
| 3000-2850 | 6A | 4a | 43 | L.167 | 217, 219, 221, 222, 223, 225, 245, 246, 256 |
| | | | 44 | L.168 | 218 |
| | | | 48 | L.169 | 234, 236, 237, 238, 239, 240, 241, 249, 250, 254, 255, 260, 263, 324 |
| | | | 49 | L.169 | 235 |
| | | | 53 | L.176 | 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 308, 311, 326, 328, 330, 331, 347, 348, 354, 381 |
| | 6B | 4b | 51 | L.169 | 266, 268, 270, 271, 272, 273, 275, 277, 278, 279, 280, 285, 288, 289, 306 |
| | | | 52 | L.169 | 269, 274, 287, 291, 307 ,309, 318, 353 |
| | | | 63 | L.176 | 320, 327, 350, 358, 359, 371, 377, 378, 384, 385, 390 |

Tab. 8: stratigraphic associations in the 'Western Building'.

The limited nature of the excavation precludes considerations of a typological nature. However, from a functional point of view, the distribution of the artefacts appears particularly significant: the presence of numerous accounting objects of an administrative nature (such as tokens, *cretulae*, spherical objects, numerical clay bars) suggest that L.167 and L.176 played a role in administrative activities regarding accounting and storage.

Seen from this perspective, the distributional and associative analysis of the material is particularly significant because it allows us to recognise in L.169 an area for the storage of precious materials such as alabaster vases, beads, bone tools, bronze figurines, alabaster cosmetic vials and clay figurines. In contrast, the large courtyard L.176 seems to be related to accounting activities and the recording of incoming and/or outgoing resources. The discovery of 101 quadrangular clay blocks, 13 of which bear numerical annotations, should be considered as having an accounting and administrative function that sheds new light on the dynamics of complex societies in Bronze Age Iran.

The so-called 'Eastern Building' is located east of the road L.148 and should be considered architecturally separate from the 'Western Building'. Unlike the latter, it was possible to identify two hypothetical entrances, one on the north side and another, less plausible, on the east side. The complex consists of at least two

| Locus | Artefacts |
|---|---|
| L.167 | 5 sphendonoid counters |
| | 1 cretula |
| | 1 polisher |
| | 1 animal figurine |
| | 1 anthropomorphic figurine |
| L.168 | 1 sphendonoid counter |
| L.169 | 1 alabaster vessel |
| | 3 alabaster vessel rims |
| | 2 animal figurines |
| | 1 bead |
| | 2 bone awls |
| | 1 bone pin |
| | 1 bronze tool |
| | 1 cosmetic flask |
| | 9 sphendonoid counters |
| | 5 cretulae |
| | 7 clay figurines |
| | 1 grindstone |
| | 1 perforated alabaster disc |
| | 1 polisher |
| | 1 stone figurine |
| | 1 stone vessel |
| L.176 | 1 alabaster vessel rim |
| | 1 animal figurine |
| | 1 anthropomorphic figurine |
| | 2 bone tools |
| | 101 rectangular bars, 13 of which with numerical incisions |
| | 1 sphendonoid counter |
| | 4 cretulae |
| | 6 anthropomorphic figurines |
| | 1 smoother |
| | 1 measuring stick |
| | 1 spherical counter |
| | 1 ovoid weight with flat ends |
| | 1 wooden handle |

Tab. 9: archaeological associations in the ‘Western Building’.

Fig. 71: north-west view of L.149.

Fig. 72: north view of L.149.

Fig. 73: north-east view of L.149.

Fig. 74: south-east view of L.149.

Fig. 75: south view of L.149.

Fig. 76: T.213 in L.149.

large rooms (L.149 and L.150) delineated by walls made of bricks with the same dimensions and ratios as those of the 'Western Building': two horizontal rows of bricks were conserved, in good condition partly thanks to a thick layer of grey plaster of very fine workmanship. Also in this building, two archaeological phases have been identified from two superimposed floors, the later stage involving a change in the inner circulation of the building. Indeed, the two rooms (L.149 and L.150) were initially connected (Layer 4b) through a doorway in W.152, but were then closed off from each other by the addition of W.173 (Figs. 71-76 for L.149 and Fig. 77 for L.150).

This structural change must have drastically changed the use of the rooms. The internal circulation, which in the earlier phase is believed to have been on a north-south axis (an opening was identified in W.152), was altered for reasons not yet understood (Fig. 78).

On the basis of our current knowledge, L.149 maintained its communication with the northern sectors of the building via two openings in W.154, one of which has a door socket (R.215) and shows clear signs of the use of locking systems with wooden beams embedded in the brick walls. L.149 yielded a considerable amount of material, including seal impressions, tools for food processing (a bone awl), clay figurines and above all a very significant amount of *cretulae* and spherical objects used for administrative accounting (Rivoltella in this volume). All the accounting objects were found near the jar placed next to W.152, not too far from the quadrangular oven (T.213), perfectly preserved and positioned near the centre of the room. The craftsmanship of the walls and the floors, the sophisticated locking device (in the eastern part of W.154, in the same doorway as R.215) and the presence of administrative objects (counters, *cretulae*, jars, alabaster vessels, seal impressions) all suggest that this compartment was used for accounting activities and storage. In this context, the closure of the doorway between L.149 and L.150 in a later phase could be due to a change in the way the economic resources of the building were managed and accounted for (Ascalone in press c). While in phase 4a of Area 33, L.149 seems to be more central to the

Fig. 77: north-west view of L.150.

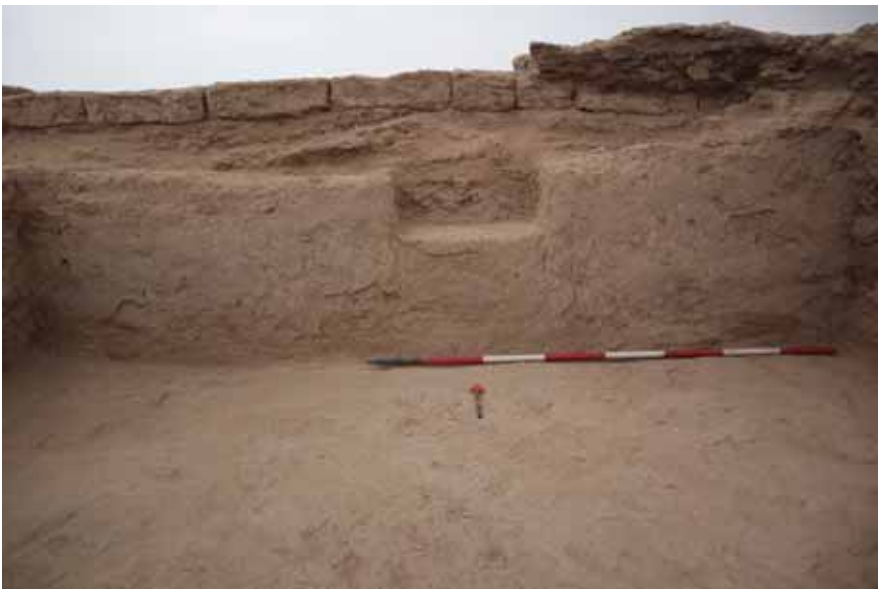

Fig. 78: the passage to north in L.149.

| Chronology (BC) | SiS Phase | Area 33 phase | US | Locus | Artefacts (SiS.19.33.) |
|---|---|---|---|---|---|
| 3000-2850 | 6A | 4a | 28 | L.149 | 94, 104 |
| | | | 29 | L.149 | 92, 93, 103, 111 |
| | | | 31 | L.149 | 95, 96, 97, 102, 105, 117, 119, 121, 122, 124, 125, 127, 135, 137, 138, 139, 140, 141, 142, 143, 144, 149, 150, 151, 152, 153, 165, 166, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 185, 203, 205, 211, 368, 372, 376 325, 332, 339, 341, 345, 349, 356 |
| | | | 61 | L.149 | 338, 351, 355, 360, 361, 362, 363, 364, 365, 366, 367, 373, 374, |
| | | | 30 | L.150 | 375, 387, 388, 389 |
| | | | 67 | L.149 | |
| | 6B | 4b | | | |
| | | | 68 | L.169 | |

Tab. 10: Stratigraphic associations in the 'Eastern Building'.

| Locus | Artefacts |
|---|---|
| L.149 | 1 alabaster fragment<br>1 alabaster vessel<br>1 alabaster vessel body<br>1 alabaster vessel rim<br>4 animal figurines<br>1 arrowhead<br>1 bone awl<br>1 bone tool<br>40 sphendonoid counters<br>9 cretulae<br>1 cretula with impression<br>3 anthropomorphic figurines<br>1 flint core<br>1 inlay fragment<br>1 smoother<br>1 perforated stone disc<br>1 pestle<br>1 seal impression<br>1 spherical clay object<br>2 spherical counters<br>2 stone vessel bodies |
| L.150 | 1 spherical counter |

Tab. 11: archaeological associations in the 'Eastern Building'.

life of the building, L.150 seems to lose its function. The closure of the doorway in W.152 seems to have led to an abandonment of L.150, as can be assumed from the excavated infill (completely different from that of L.149) and above all from the almost total absence of ceramics and objects (only one counter): the 'Eastern Building' appears to have undergone a significant downsizing in phase 4a, with the exclusion of an entire sector (L.150) from its internal circulation.

The presence of numerical accounting and administrative material from both buildings in Layer 4 enriches our perception of proto-urban societies in eastern Iran at the beginning of the third millennium BC. Alongside the *cretulae* and seal impressions, the tokens and clay blocks with numerical notations allow us to rewrite the history of accounting systems in Sistan at that time.

The material found and the reconstructed archaeological associations provide a rather innovative picture of urban formation processes in the settlements of eastern Iran. Specifically, evidence from the 'Eastern Residential Area' and the 'Central Quarters' shows that after SiS 7, Shahr-i Sokhta seems to follow growth processes that are completely different from those of the earlier period, which was characterised by a pottery horizon linked to Namazga III (Biscione 1984) and Proto-Elamite models of administrative control (Amiet - Tosi 1978). In contrast, the archaeological evidence of successive period, collected from the 'Western Building' and 'Eastern Building', points to development rooted in the local cultural complex, broadly indigenous albeit with strong links to Baluchistan. The new forms of administrative control using stamp seals with geometric decorations and the numerical clay 'proto-tablets', very approximate in shape and workmanship, are the clearest evidence of a shift that involved the entire social system of Shahr-i Sokhta. With respect to the settlement's first period (SiS 11-8), Period II seems to represent a clear historical break (confirmed by strata bearing evidence of destruction): this is the period of maximum growth of the site, which, in addition to its easternmost core, occupied the entire area around the lake. It is in this historical context that the 'Western Building' emerges in Area 33: the hundred or so numerical 'proto-tablets' discovered there document careful control of resources, including storage and accounting. Pending the westward

extension of the excavations, it remains hard to determine whether this extensive standardised administrative apparatus was a family or elite operation. The size of the building's courtyard (L.176), the craftsmanship seen in the building's construction (including the floors), the presence and the high quality of alabaster vessels (Festuccia in this volume) and above all the large number of *cretulae* and 'proto-tablets' found in the north-eastern corner of L.176, immediately next to the gate in W.158, all indicate the presence of an active elite or elites at Shahr-i Sokhta. This historical leap occurs at Shahr-i Sokhta at a time of strong regionalisation in the Indus Valley (as seen in Harappa 1 with the Ravi Culture), and coincides with an apparent break in the sequences in Turkmenistan (with no evidence of traumatic events) from the Chalcolithic cultures of Namazga III to Namazga IV.

**4. Conclusions**

The excavations of Area 33 have thus far made it possible to investigate periods II and III of the settlement, revealing a pattern of growth that fits well into the broader historical context: the traumatic transition from Period I to Period II, for example, is well documented in other regions. The historical transitions in Sistan in about 3000 BC, away from the pottery horizon of Namazga III and from the Proto-Elamite model of resource management, are reflected in Baluchistan in the transitions from Miri Qalat IIIA to IIIB (Besenval 1994), from Sohr Damb I to II (Görsdof 2005) and from Nausharo IA to IB (Jarrige - Quivron - Didier 2011). Similarly, in Central Asia, a stratigraphic break has been detected in the same period in the Upper Level sequences of Geoksyur 1 (Kohl 1984), in the transition from Namazga III to IV (Kohl 1984) and in the transition from Hissar IIB to Hissar IIIA (Dyson - Lawn 1987), as well as in the foundation of Shortugai (Kohl 1984). On the Iranian plateau, the beginning of Shahr-i Sokhta Period II (SiS 6, ca. 3000 BC) also saw the start of Takab IV.2 at Shahdad (Hakemi 1997) and the Banesh period at Tall-i Malyan (Ehrich 1992; Miller - Sumner 2003; 2004). Above all, there was a break in the Varamin sequences, marking the transition from Period IV to Period V (Eskanderi in press). To summarise, the Late Chalcolithic cultures on the Iranian Plateau and in the Kopet Dagh and

Baluchistan show substantial changes in their stratigraphic sequences and cultural horizons. Specifically, Period II seems to begin at Shahr-i Sokhta following a traumatic event extensively documented (SiS 7) in the stratigraphic sequences of the 'Eastern Residential Area' and the 'Central Quarters' (Salvatori - Vidale 1997).

The transition from Period II to Period III of the settlement around 2600 BC, documented in Area 33 in Layer 2 (SiS 4), also shows similarities with the fractures seen in the major settlements of Baluchistan, in the transition from Miri Qalat IIIB to IIIC, from Sohr Damb III to IV and from Nausharo I to II, as well as in Central Asia, from Namazga IV to V and from Shortugai I to II (the Hissar sequences corresponding to the transition from IIIA to IIIB are more problematic).

The third major historical shift at Shahr-i Sokhta is not fully documented in Area 33, which is believed to have been definitively abandoned during SiS 3, some time before the transition to Period IV (SiS 1). The definitive collapse and abandonment of the settlement as a whole have chronological and stratigraphic correspondences with neighbouring regions: Shortugai passes from Period II to III and Namazga passes from Period V to Period VI, while Hissar is abandoned for a couple of centuries, only to be reoccupied again with Hissar IIIC.

Similarly in south-eastern Iran, Konar Sandal South is abandoned in favour of Konar Sandal North and a new settlement appears with Mahtoutabad IV, while in Shahdad there is a transition from Takab III.1 to Takab III.2. In Elam, the Kaftari period begins, while the cultural horizons of Bampur V-VI completely replace those of Bampur I-IV.

The end of Shahr-i Sokhta must have been linked to concomitant factors involving the wider region: climate change, which brought about new environmental equilibria, the Akkadian expansionist policy with respect to the entire Iranian plateau and the emergence of a new maritime market, which now reached beyond Oman to the coasts of Greater Indus. From 2300/2200 BC onwards, these three macro-factors must have disturbed the political and economic equilibrium between the major settlements of the plateau, giving rise to new scenarios in which Shahr-i Sokhta and Sistan no longer played a key role (Ascalone in press b).

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