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## **The Borazjan Monuments: A Synthesis of Past and Recent Works**

### **Abstract**

*Since the 1970s, three Achaemenid monuments have been excavated at the sites of Charkhab, Bardak-e Siah and Sang-e Siah in the area of Borazjan, the capital city of Dashtestan, the largest county of Bushehr province in southern Iran. In this paper, the architecture of these monumental structures and other finds at the three sites are examined, with particular attention to chronology.*

### **Keywords**

*Achaemenid period, Borazjan monuments, Charkhab, Bardak-e Siah, Sang-e Siah, Chronology*

## **Introduction**

Borazjan is located approximately 65 km northeast of Bushehr (Fig. 1) in the Dashtestan county of Bushehr province, and is built up along the waters flowing down from Gisakan Mountain (Zagros) into the Dalaki river. Prior to the Islamic Revolution of 1979, the Dashtestan area was incorporated into the Fars region and, alongside Bushehr, Borazjan belonged to the much larger Fars province. The climate of Dashtestan is typically warm and the precipitation is very low. Late spring and summer are particularly hot, humid and sultry, while winter temperatures are moderate. The main agricultural products are sesame, cereals, vegetables, and especially tobacco and dates. It has been reported that of the 3 million date palms grown in Bushehr province, 2.5 million are in Dashtestan.<sup>2</sup>

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<sup>2</sup> Also Şadāqat-Kiś 1996, p. 104.



The region's water supplies are obtained from two sets of *qanāts* and deep wells, and from the Dalaki and Shapur rivers, which both flow through the region past the Borazjan monuments.<sup>3</sup> The confluence of these two rivers forms the Helleh river, which enters the Persian Gulf at the north end of Bushehr Bay where it forms a delta.

The palatial structures in the Borazjan area are known as Charkhab, Bardak-e Siah and Sang-e Siah.<sup>4</sup> Pierre Briant,<sup>5</sup> Gauthier Tolini,<sup>6</sup> Wouter Henkelman<sup>7</sup> and Ehsan (Ismaeel) Yaghmaee<sup>8</sup> agree that Borazjan monuments were part of *Tamukkan*, which is mentioned in the Persepolis Fortification tablets; a view to which I also subscribe.<sup>9</sup> Charkhab lies to the west of Borazjan, only just beyond the city. Bardak-e Siah is 13 km northwest of Charkhab and Borazjan city, and 1 km north of Doroudgah village. Sang-e Siah is around 5 km southeast of Bardak-e Siah and 10 km from Charkhab and Borazjan city, between the modern villages of Jetut and Nazar Agha (Fig. 2). “Siah” means “black” in Persian and the term “sang” in modern Persian and “bard” in regional dialect both mean stone (“bardak” being “small stone”). Hence, two of the three palatial structures were named according to their black (and white) bichrome column bases.

The remainder of this paper is organized into six sections, which describe in turn: - the research background; - individually outline the excavations, architecture and finds at Charkhab, - Bardak-e Siah, - and Sang-e Siah; discuss various dating criteria; - and, finally, offer some concluding comments.

<sup>3</sup> Sa'īdi Sīrjāni 1989.

<sup>4</sup> Robert Carter accounted for the Borazjan monuments in his survey in Bushehr (cf. Carter *et al* 2006). In his paper, Charkhab is named as BH27, Sang-e Siah is BH48 and Bardak-e Siah is BH47. The latter site is referred to as Khegham Khoneh Jatut, but it is not clear why the authors used this name. Jatut (in the local pronunciation 'Jetut') is the name of a different village close to the Sang-e Siah (and not the Bardak-e Siah structure) (also see Basello 2018, p. 243, fn. 152). It is worth mentioning that Charkhab is entitled by some scholars as 'Borazjan' structure too (cf. Hinz 1976; Boardman 2000, p. 65 and Boucharlat 2005, p. 236).

<sup>5</sup> Briant 1996, p. 780.

<sup>6</sup> Tolini 2008, p. 8.

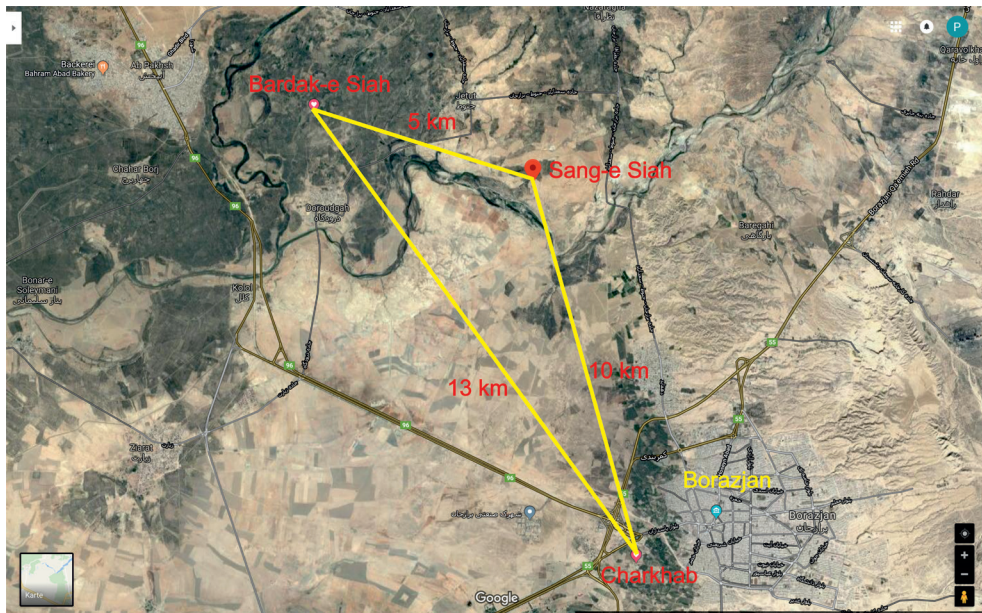
<sup>7</sup> Henkelman 2008, 2012a, pp. 440-441, 2012b, pp. 939-940.

<sup>8</sup> He believes that Bardak-e Siah was part of *Tamukkan* (Yaghmaee 2010 also 2017, p. 92).

<sup>9</sup> More information is available in Zehbari and Razmjou, *in preparation*.



**Fig. 1.** The location of Bushehr Province, Dashtestan county and Borazjan city.



**Fig. 2.** The location of the Borazjan palatial structures, the Gisakan Mountain and rivers (Google Map).



## Research background

Field activities centered on the Borazjan palatial structures were initiated by Ali Akbar Sarfaraz, who published the first detailed account (in Persian) of the structures with a wide selection of images in the *Bastanshenasi va honar-e Iran* journal (Vol. 7, 8) in 1971. A less detailed French translation of the article with a different set of images appeared in the same volume. Sarfaraz also issued a one-page article on Charkhab under “Borazjan” in the British journal *Iran*,<sup>10</sup> and two further articles co-written with two other authors.<sup>11</sup> Allah Gholi Eslami, a member of the first excavation campaign at Charkhab, discussed this site in a paper in “*Honar va Mardom*”.<sup>12</sup>

Ehsan (Ismaeel) Yaghmaee later excavated the structures at Bardak-e Siah and Sang-e Siah. His relevant publications include an abstract on the Borazjan excavations in “The world of Achaemenid Persia”,<sup>13</sup> a short article on Bardak-e Siah,<sup>14</sup> followed by a book on the excavations at this site with additional information on the fieldwork at Sang-e Siah, two notes (in Persian) on Sang-e Siah concerned mostly with the story of its destruction,<sup>15</sup> and a paper on the excavations at this site with much helpful information about the structure.<sup>16</sup>

Nasrollah Ebrahimi, who was a member of the excavation expedition at Charkhab for five seasons and led the excavations at Charkhab and Sang-e Siah in March-April 2018, studied the architectural structures for his M.A. thesis<sup>17</sup> and his PhD (in progress) at the University of Tehran. Finally, Nabil Ibnoerrida discussed the Borazjan structures in his PhD dissertation at Napoli’s “L’Orientale” University.<sup>18</sup>

Although the Borazjan palatial structures have been excavated and published since 1970s, they have been, by the above-mentioned authors’ admission, scarcely investigated from chronological and iconographical perspectives. Therefore, the current paper aims to offer a more comprehensive treatment of the structures based on

- 10** Sarfaraz 1973.
- 11** Karimian *et al* 2010, 2011.
- 12** Eslami 1975.
- 13** Yaghmaee 2010.
- 14** Yaghmaee 2017.
- 15** Yaghmaee 2007, 2014.
- 16** Yaghmaee 2018b.
- 17** Ebrahimi 2008.
- 18** Ibnoerrida 2018, pp. 188-215





a combination of the published references and personal observations made during several visits to the sites.

## Charkhab

### Excavation

The site is located 1 km west of Borazjan city on the flood plain and was found by workers digging a water canal in 1971. This same year, Sarfaraz carried out the first season of excavation revealing the main hall of the palatial structure with black and white column bases (Figs. 3, 4). The local name of this site is Charkhab, but Sarfaraz often applied alternative names to it such as “The winter palace of Cyrus” and the “coastal palace”.<sup>19</sup> A hiatus in excavations followed the Islamic revolution, and by the time the second season of excavation started in 2001, again under the lead of Sarfaraz, the site had been covered by silt. Sarfaraz continued excavation of the monument for four more seasons between 2004 and 2007,<sup>20</sup> and Nasrollah Ebrahimi carried out further excavations in 2018.<sup>21</sup>

### Architecture

The uncovered portion of the site consists of a main hall and an eastern portico on a north-south orientation (table 1). According to the excavation report, the whole building is a 45 m × 35 m (1575 m<sup>2</sup>) rectangular space.<sup>22</sup> The oblong main hall was supported by two rows of six bichrome column bases (Fig. 5) set 160 cm apart.<sup>23</sup> The eastern portico measured 30.63 m in length and 8 m in width and was supported by two rows of 12 bichrome column bases set 2.13 m apart on the north-south orientation and 3.40 m on the east-west orientation (Figs. 7, 8).<sup>24</sup> The bases are composed of 3 parts plus a white grooved torus and measure only around half the size of the main

<sup>19</sup> Sarfaraz 1971, p. 28. This monument is also recorded as “Kakh-e Charkhab” meaning “palace of Charkhab” (Henkelman 2008, p. 306) or sometimes incorrectly as “Char Khab” (Carter *et al* 2006). The word is probably not a composite of “Char” plus “Khab” and therefore should not be separated as “Char Khab”.

<sup>20</sup> In total there were 6 seasons: 1971, 2001, 2004, 2005, 2006 and 2007.

<sup>21</sup> Personal communication.

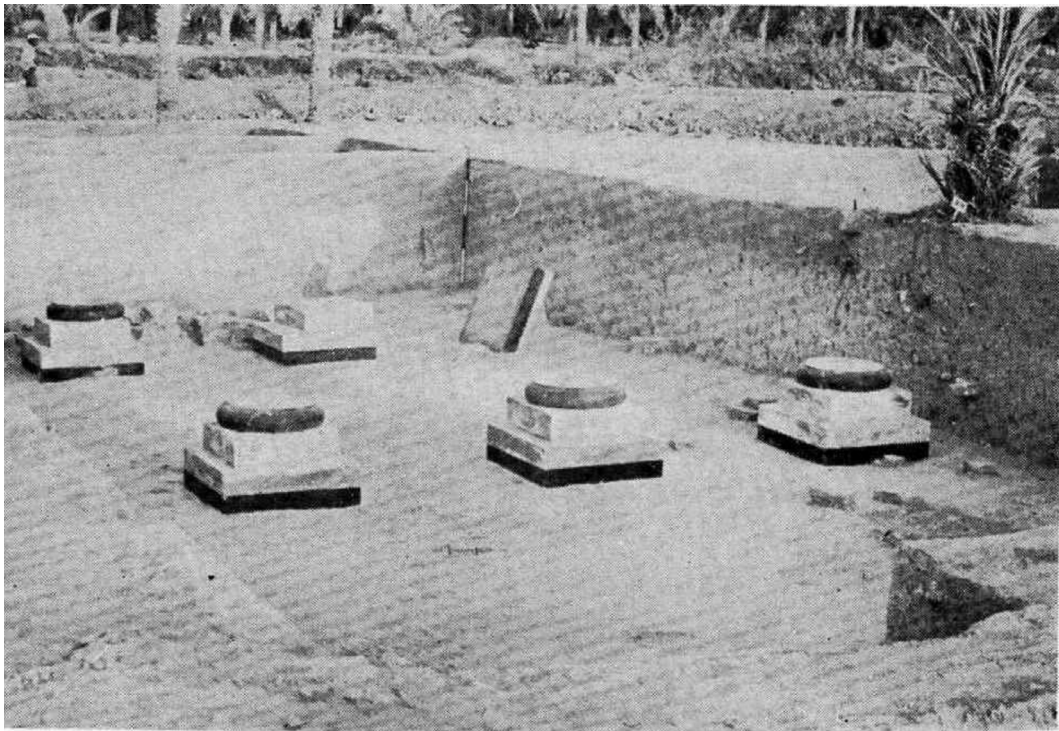
<sup>22</sup> Karimian *et al* 2010, p. 47.

<sup>23</sup> *Ibid.*

<sup>24</sup> Karimian *et al* 2010, p. 48.



**Fig. 3.** Charkhab: the workers during the first season (Eslami 1975, p. 33).



**Fig. 4.** Charkhab: the bichrome bases belonging to the main hall (Sarfaraz 1971, p. 30).



**Fig. 5.** Charkhab: column bases of the main hall (photo by the author, 2019).

hall column bases, which are composed of 3 parts plus a black torus (Figs. 6, 42 and table 1). A red mortar and red color has been detected between the parts of bases.<sup>25</sup>

The excavator points out that there were no traces of column drums in either hall<sup>26</sup> and believes that all of the monuments had wooden columns. To assess whether the columns of these architectural structures had been made of wood or stone, I have inspected the tori surfaces for traces of *anathyrosis* (i.e. the partial removal of material from contact surfaces between two stone column sections). At Charkhab just one of the tori exhibited *anathyrosis* (Fig. 6). From this and additional evidence discussed below (see 6. Dating criteria) it could be inferred that this monument was probably left unfinished. But this single *anathyrosis* example could alternatively support the argument that the architects had started preparing the main hall for stone column drums, and then might switch to the wooden columns that Sarfaraz proposed.

Just two doorways were preserved *in situ* at Charkhab (Figs 9, 10). The reconstructed plan by the excavator suggests that there had originally been four doorways (Fig. 11), one of which is unfinished and not in its original position. The eastern doorway, which gave access to the eastern portico (Fig. 15), measures 340 × 50 × 110 cm. It was made of a single piece of black stone with a door socket, unique for the Achaemenid period, ornamented by an Ionic scrolling volute in relief enclosing two rosettes and sprouting two palmettes (Fig. 12). This entrance had an inner door in the main hall that opened from right to left.

<sup>25</sup> Eslami 1975, p. 31.

<sup>26</sup> *Ibid.*





**Fig. 6.** Charkhab: main hall base with anathyrosis on torus (photo by the author 2018).

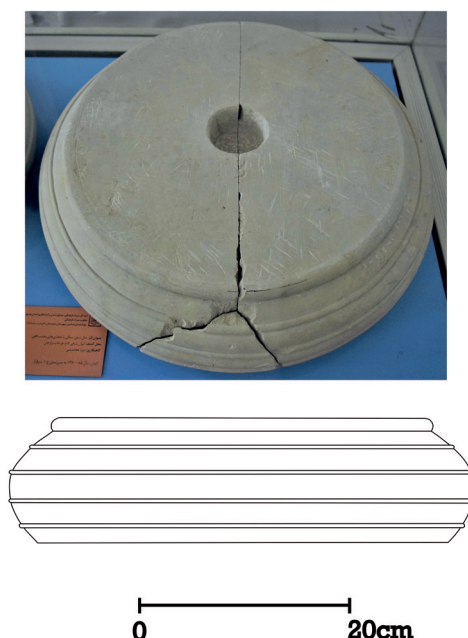


**Fig. 7.** Charkhab: column bases of the eastern portico (photo by the author, 2010).



The northern doorway measures  $260 \times 120$  cm and is undecorated (Figs 9, 14), but it does carry some small cube-shaped holes<sup>27</sup> that would have been used for the door frame.<sup>28</sup> Sarfaraz also reported a pierced square stone (still visible in the photograph in Fig. 14) and suggested that it could be a door socket.<sup>29</sup> The southern doorway measures 200 cm in length and 30 cm in thickness and is not in its original position.<sup>30</sup>

The monument had 130 cm thick mud-brick walls (Fig. 14) which have been destroyed by flooding.<sup>31</sup> A structure of bricks ( $32 \times 32 \times 6$  cm) with bitumen and plaster (Fig. 15) was discovered in the eastern portico area. It may have been the ceiling of portico, but this is difficult to confirm. Remarkably, no structure pertinent to the ceiling of main hall has been discovered.



**Fig. 8.** Charkhab: torus of the eastern portico (above: © the treasure of Bushehr organization (ICHTO)<sup>32</sup>, below: the drawing of torus, digitized by the author after Karimian et al 2010, p. 48; 2011, p. 46).

<sup>27</sup> From  $7 \times 3 \times 3.5$  to  $10 \times 7 \times 3.5$  cm.

<sup>28</sup> See below “Dating criteria”.

<sup>29</sup> Sarfaraz 1971, p. 31.

<sup>30</sup> *Ibid*, p. 30.

<sup>31</sup> *Ibid*, p. 28.

<sup>32</sup> Iran Cultural Heritage, Handicraft and Tourism Organization (ICHTO).





Site	Excavator	Excavation	Structures	Column number	Base total height (cm)	Base components	Color of base	Base component dimension (cm)	Torus shape	Torus height (cm)
Charkhab	Sarfraz-Ebrahimi	1971-2001-2004-2005-2006-2007-2018	The main hall	12	80	4	Black	85	Circle	19
							White	85×85×25		
							White	110×110×18		
							Black	110×110×18		
			The eastern portico	24	56	4	White	44	Grooved circle	12
							White	44×44×18		
							White	60.5×60.5×13		
							Black	60.5×60.5×13		

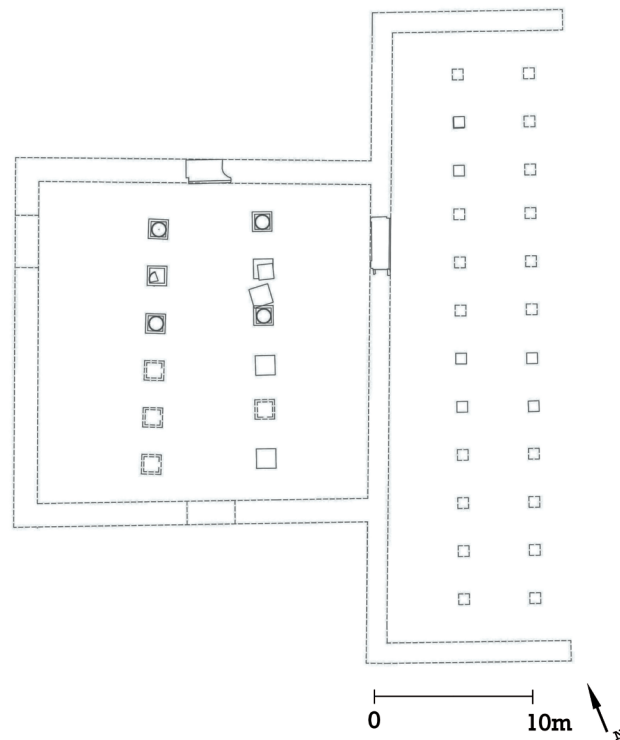
**Table 1.** Charkhab, main observations.



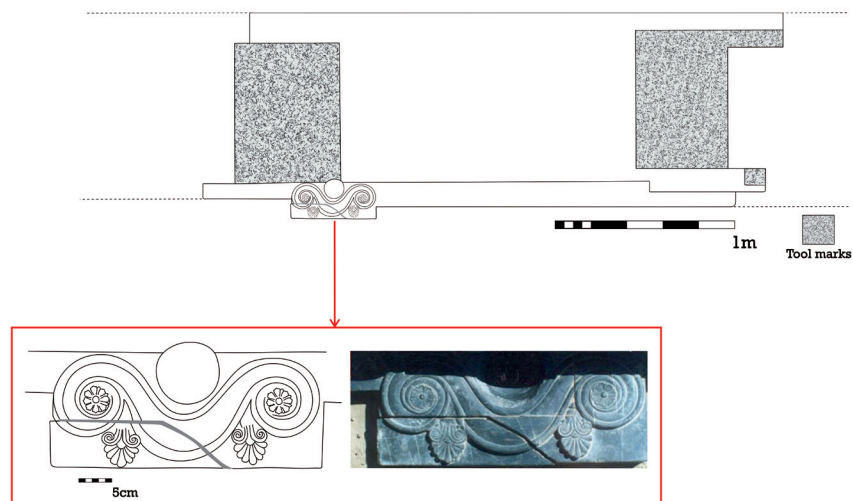
**Fig. 9.** Charkhab: the northern doorway in situ (photo by the author, 2010).



**Fig. 10.** Charkhab: the eastern doorway in situ. The northern doorway is also seen in the far right of the picture (photo by the author, 2018).

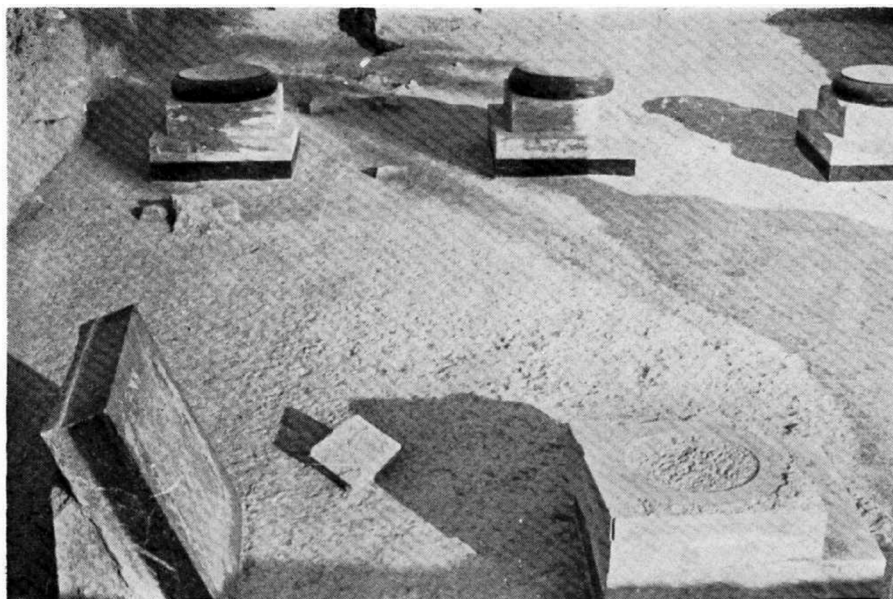


**Fig. 11.** Plan of Charkhab prepared by the excavator (after Karimian et al 2010, p. 47).



**Fig. 12.** Charkhab: plan of the eastern doorway with a decorated door socket (drawn by the author based on images by Karimian et al 2010, p. 49 and 2011, p. 46).

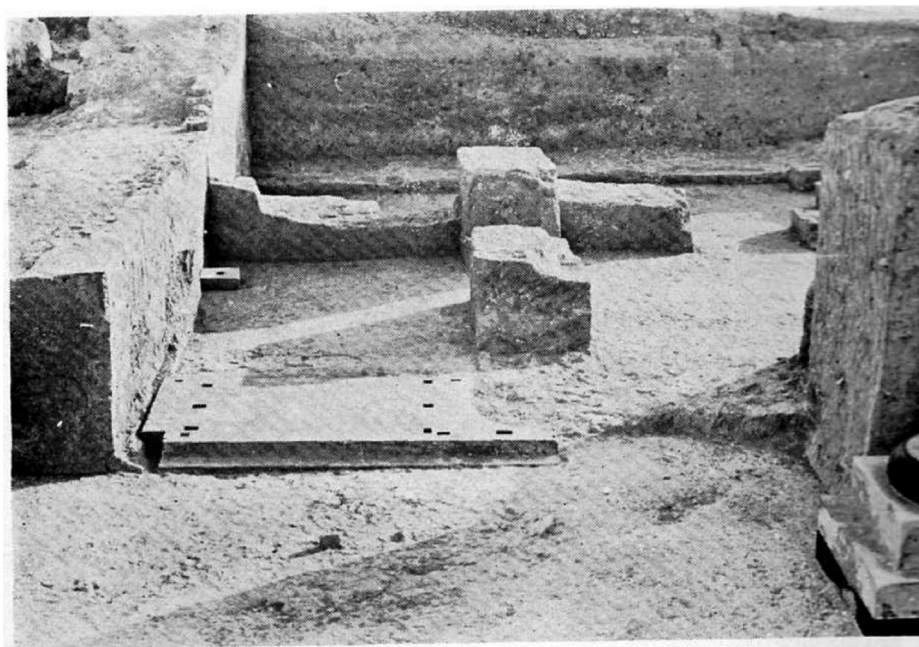




بطوریکه در این تصویر مشاهده میشود ردیف ستون هشتم فاقد شال است، در حالیکه مکان شال جاسازی شده و پایه ستون ردیف نهم هنوز بحالت عمودی باقی و نصب نشده است. اندازه زبره تراش و صیقل این زیر ستون کاملاً نمایان است

Bases de colonne dans le pavillon achéménide de Borazdjan.

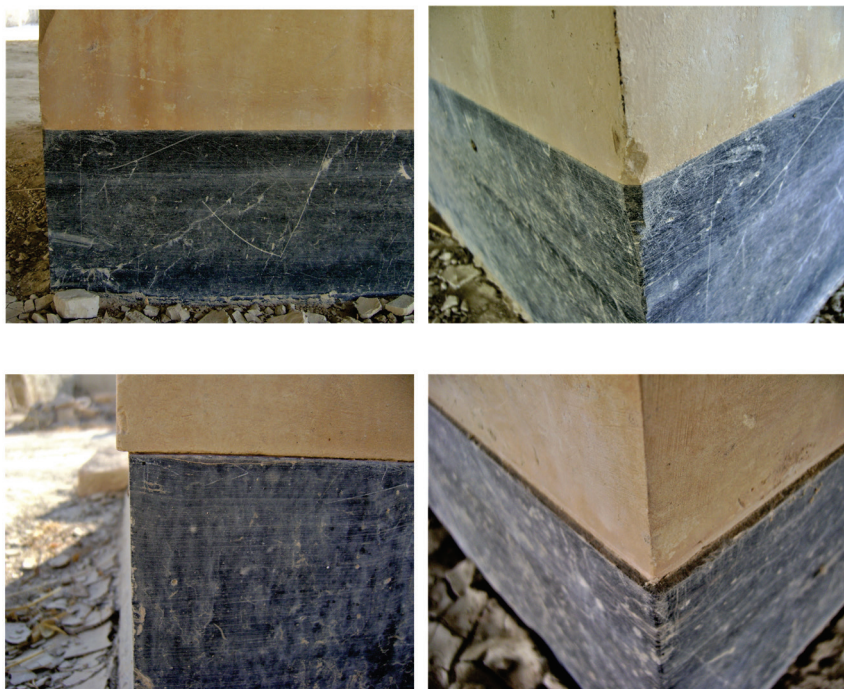
**Fig. 13.** Charkhab: bases of the main hall (Sarfaraz 1971, p. 29).



**Fig. 14.** Charkhab: the northern doorway surrounded by mud brick walls. At present there is no wall in this part of the site (direction north) (Sarfaraz 1971, p. 24).



**Fig. 15.** Charkhab: a general view of the eastern portico area. The fallen structure including bricks with bitumen and plaster is seen in the foreground (photo by the author, 2010).



**Fig. 16.** Charkhab column bases: the top images show a base manufactured with different stones (white and black), still perfectly joined; the bottom images show the parts of the bases damaged by the flood (photo by the author).





**Fig. 17.** Decorative teeth from Charkhab (© the treasure of Bushehr organization (ICHTO), some of which are published in Karimian et al 2010, p. 50 and 2011:, p. 47).

## Finds

In total, 188 finds made of plaster, limestone and smoothed stone, all belonging to the Achaemenid period, were reported at around 2 m depth at Charkhab.<sup>33</sup> Amongst the finds are parts of animal representations such as teeth (Fig. 17), eye stones, eye-brows, claws and nails (Fig. 18).<sup>34</sup> The teeth can be compared to teeth found in the throne hall at Persepolis,<sup>35</sup> and the eye stones resemble eyes found in the Persepolis treasury<sup>36</sup> and at the site of Tang-i Bulaghi.<sup>37</sup> Other reported objects were several wings of birds, metal vases, and granite finds.<sup>38</sup>

<sup>33</sup> Unfortunately, no more information about the distance of the findings and the floor by the excavator is accessible.

<sup>34</sup> Karimian et al 2010, p. 49.

<sup>35</sup> Cf. Schmidt 1957, pl. 41, 18.

<sup>36</sup> Cf. *Ibid*, pl. 44, 31, 39, 35.

<sup>37</sup> Cf. Atai and Boucharlat 2009, p. 19, fig. 13.

<sup>38</sup> Karimian et al 2010.



**Fig. 18.** Decorative stone eyes and eyebrows from Charkhab (© the treasure of Bushehr organization (ICHTO), some of which are published in Karimian et al 2010, p. 50 and 2011, p. 47).

## Bardak-e Siah

### Excavation

This site was discovered by Yaghmaee after locals informed him about several columns in the palm groves in Doroudgah village. He carried out one excavation season in 1978 and another one much later in 2004-2005<sup>39</sup> (Fig. 19). Here the problematic environment – the palm trees surrounding the palatial structure (Fig. 20) and the poor drainage of the ground due to its use for palm tree cultivation – introduced difficulties for the field work. Unfortunately, the site is in real danger and the column bases are degrading very quickly.

### Architecture

Because the excavation was halted at an early stage, it is difficult to obtain an idea of the complete plan of the monument (Fig. 21). The uncovered part consists of a component of the main hall and part of the southern hall. So far 6 × 4 bichrome column bases of the main hall have been excavated. This hall accounts for 403 m<sup>2</sup> of the

<sup>39</sup>

The second season lasted 4 months. In addition, the site was cleared of vegetation in 1994.





**Fig. 19.** Bardak-e Siah, the second season: Ismaeel (Ehsan) Yaghmaee, the excavator is seen in the photograph (after Karimian et al 2011, p. 48).



**Fig. 20.** Bardak-e Siah located amongst palm trees (after Yaghmaee 2017, p. 88).



total 540 m<sup>2</sup> area uncovered to-date (Fig. 22). The distance between its columns on the East-West orientation is 211 cm and on the South-North orientation is 275 cm.<sup>40</sup> The column bases are composed of 3 parts plus 1 white grooved torus (Fig. 22) resembling column bases at Pasargadae (Palace P). The lower part of the base is a black square measuring 111 × 111 × 19 cm overlaid by a white square of the same dimensions. The second white piece, measuring only 85 × 85 × 19 cm, lies above. The white grooved torus is 84 cm in diameter and 18 cm in height<sup>41</sup> (see table 2 and Fig. 42). The southern hall preserves only four column bases in two rows, and it is not easy to estimate the original number of bases. Furthermore, the damaged tori prevent an assessment of *anathyrosis* and, in turn, discussion of the column drum.

A white stone structure was found adjacent to the southern doorway and the excavator noted that the main hall has doorways in its south (Fig. 23), east (Fig. 24) and west walls.<sup>42</sup> The north side has not yet been excavated.

No evidence has been reported in relation to the columns, floor and ceiling, but the presence of a fine coat of pale green plaster was noted. Fired stones and base fragments, and burnt layers in the southern hall were also observed.<sup>43</sup>

## Finds

Some important finds were made at this site, including massive stone pieces (Fig. 25), a broken relief (Fig. 26) and some folded gold fragments including four sheets and part of a vessel (Fig. 27).<sup>44</sup> Several finds similar to those from Charkhab were also detected, such as eye stones, eyebrows, teeth and birds' wings. Other small finds from this palatial structure are bronze arrowheads and a bronze finger ring.<sup>45</sup>

<sup>40</sup> Yaghmaee 2018a, p. 69.

<sup>41</sup> *Ibid.*

<sup>42</sup> Yaghmaee 2010, p. 317.

<sup>43</sup> Yaghmaee 2018a, p. 334, the figures.

<sup>44</sup> Yaghmaee 2010, p. 317 and 2018a.

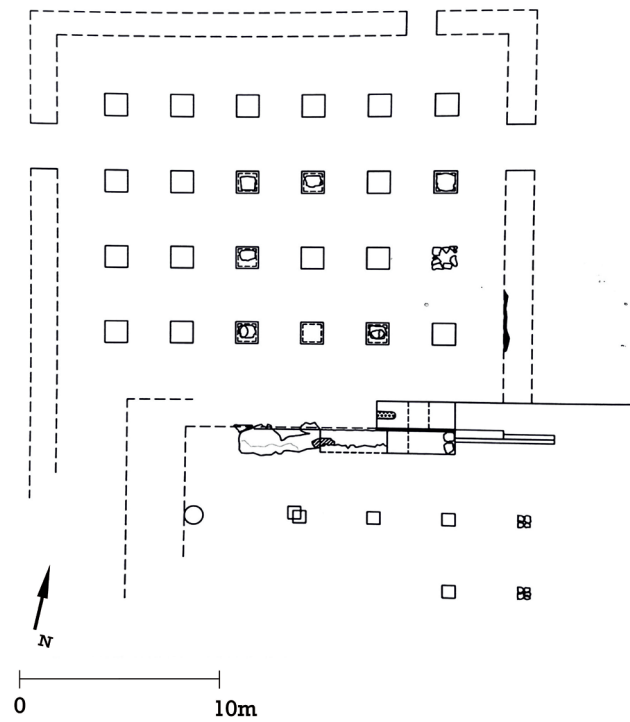
<sup>45</sup> Yaghmaee 2018a.



Site	Excavator	Excavation	Structures	Column number	Base total height (cm)	Column base components	Color of column base	Column base component dimension (cm)	Torus shape	Torus height (cm)
Bar-dak-e Siah	Yaghmaee	1978 and 2004-2005	The main hall	24	76	4	White	84	Grooved Circle	19
							White	85×85×19		
							White	111×111×19		
							Black	111×111×19		
			The southern portico	?	?		White	44	Circle	?
							White	43×43×10		
							Black	63×63×20		

**Table 2.** Bardak-e Siah, main observations.





**Fig. 21.** Plan of Bardak-e Siah (Yaghmaee 2018a, p. 73).

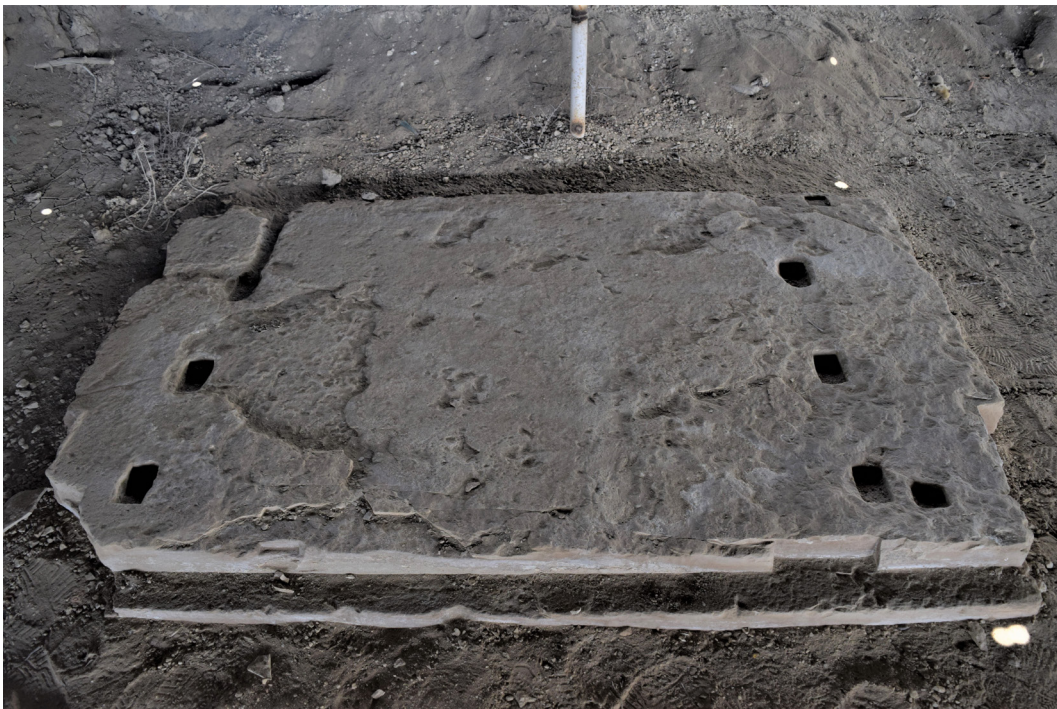


**Fig. 22.** The main hall of Bardak-e Siah. The bases are damaged by the poor drainage of the ground (photo by the author, 2019).





**Fig. 23.** Bardak-e Siah: the southern doorway (photo by the author, 2018).



**Fig. 24.** Bardak-e Siah: the eastern doorway (photo by the author, 2018).

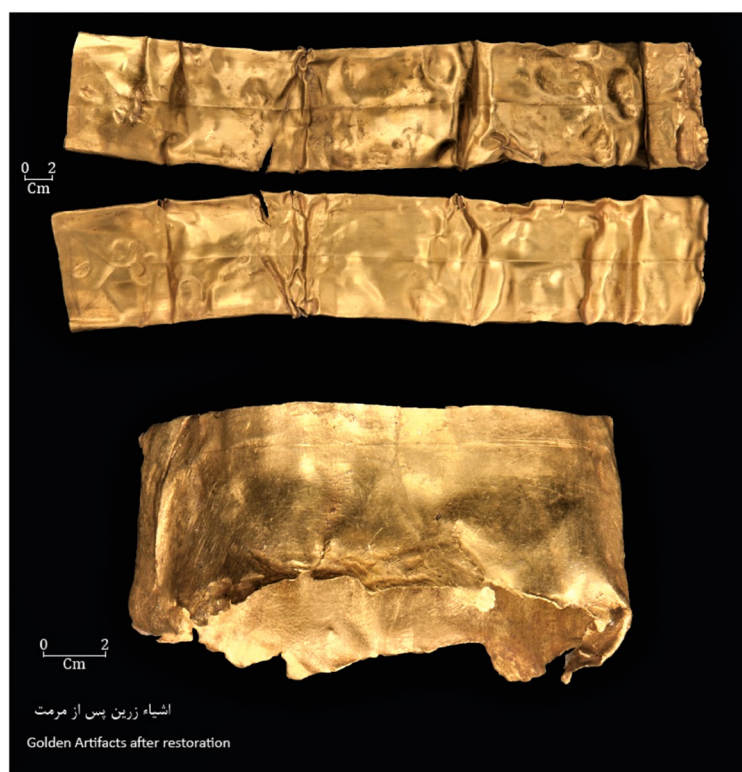




**Fig. 25.** Bardak-e Siah: massive pieces of black stone (photo by the author, 2018).



**Fig. 26.** Bardak-e Siah: the relief (photo by the author, 2019).



**Fig. 27.** Bardak-e Siah: gold sheets and vessel after restoration (after Yaghmaee 2017, p. 93).

### *The inscriptions from Bardak-e Siah*

Other important finds are three inscribed pieces of black stone (Figs. 28, 29 and 30), the largest of which was found near the southern doorway and bears a fragmentary Neo-Babylonian inscription (Figs. 28, 29).<sup>46</sup> Shahrokh Razmjou was first to read this inscription<sup>47</sup> (Fig. 29). Abdolmajid Arfaee who later read the inscription, noted: “Recently, an archaeological team at Bardak-e siyah of Tawwaj found a relief, thought to be from the time of Xerxes, and three fragments of inscribed stone, one with a fragmentary Babylonian text (*ana muḥḥi KÁ [ ... ]*)”.<sup>48</sup>

More recent analysis by Gian Pietro Basello shows that the inscription can be read *-d]a-ar ina muh-hi KÁ a[-*, “... on the gate/door ...” (*... ina muḥḥi bābi ...*).<sup>49</sup>

<sup>46</sup> Yaghmaee 2010, p. 317.

<sup>47</sup> Yaghmaee 2018 a, p. 118 and personal communication S. Razmjou.

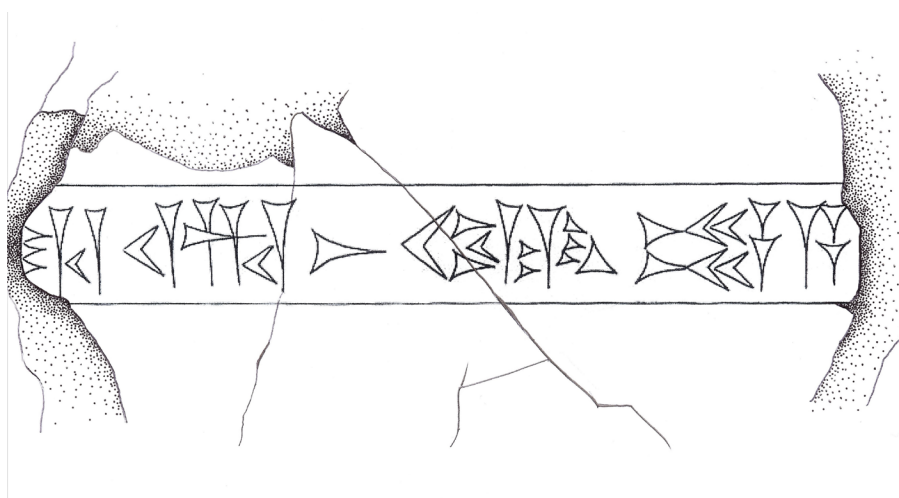
<sup>48</sup> Arfaee 2008, p. 74, footnote 100.

<sup>49</sup> Basello 2012.





**Fig. 28.** Bardak-e Siah: the Babylonian inscription (Karimian et al 2011, p. 48; Yaghmaee 2018a, p. 116).



**Fig. 29.** Drawing of the Babylonian inscription (Fig. 28) (Drawn by S. Razmjou).





Basello further commented on this inscription that “To my knowledge, the fragment has no perfect matches in the corpus of Achaemenid royal inscriptions (...) -da-ar could be part of a form of the verb *sadāru* “to do regularly, to array, to set in a row”; KÁ “gate” is attested (with a different sign form) in DB/AB:60 and 63, §§32-33, and XSd/AB:2. The general appearance of the fragment is compatible with an inscription on the jamb (side post) of a monumental doorway (like the exemplars 11-13 of XPe in the so-called Palace of Xerxes at Persepolis).”<sup>50</sup>

Yaghmaee mentions two further inscription fragments that were found in the main hall near base L. 1003/J.<sup>51</sup> Judging by the excavator’s report,<sup>52</sup> it seems that the third base (from the left) in the third row (from the north) (Fig. 21) should be the find-spot of these two fragments. If this assumption is correct, then they were not discovered in their primary contexts. One of the two fragments in question is an Elamite inscription, while the signs of the other are unclear (Fig. 30). Basello reads the preserved signs as [...-]ia ak[-...]<sup>53</sup> and he offers a possible restoration for the fragment:

ROYAL NAME + TITULARY <sup>Dis</sup>ha-ak-ka<sub>4</sub>-man-nu-ši-ia ak-ka<sub>4</sub> hi BUILDING NAME  
hu-ut-taš-da

“King PN + TITULARY, the Achaemenid, who made this BUILDING NAME”.

Basello adds: “Compare the similar passage in DPa/AE (line 5) which is, however, typologically different, being in fields above the doorway reliefs and in six lines.”<sup>54</sup>

Together, the two inscriptions, if interpreted correctly, suggest a royal construction with a (monumental) gate. The vertical orientation of the Babylonian inscription could indicate its position on a door jamb. Therefore, it is likely that a “gate” with inscription(s?) was located between the southern portico and main hall at Bardak-e Siah.

The third inscribed fragment (Fig. 30) is similar to the Old Persian signs m<sup>a</sup> and t<sup>a</sup>, but more examination is needed to confirm that the signs are not Elamite or Babylonian.

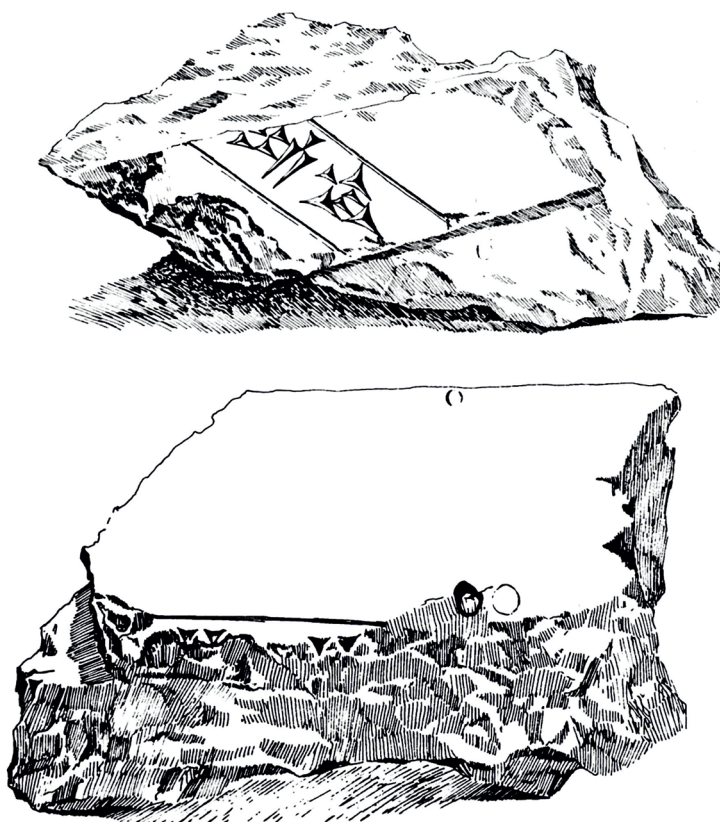
**50** Basello 2018, footnote 153.

**51** Yaghmaee 2018a, p. 118.

**52** *Ibid.*, p. 72.

**53** Basello 2012.

**54** *Ibid.*



**Fig. 30.** Two other inscriptions from Bardak-e Siah. Above: The Elamite inscription. Below: Old Persian? (after Yaghmaee 2018a, p. 119).

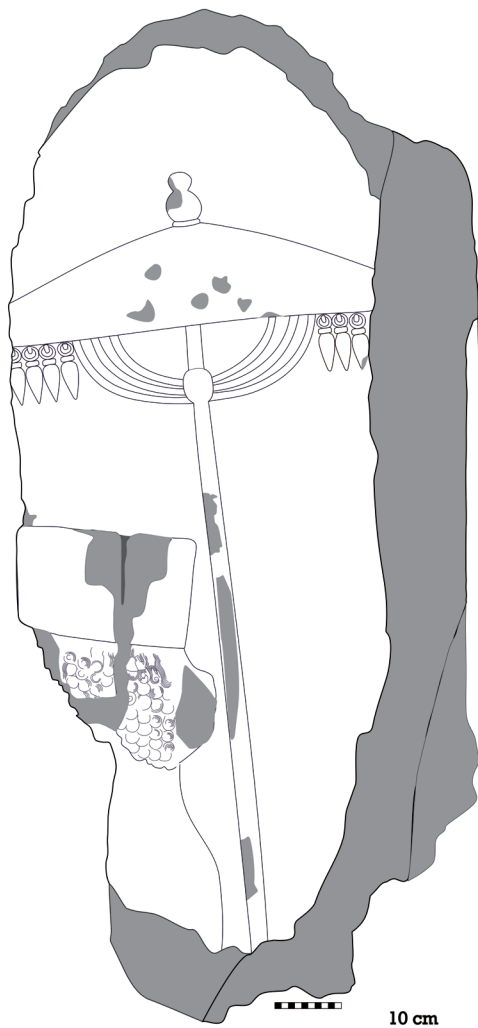
### *Bardak-e Siah relief*

This relief is carved on a 125 × 55 cm black stone block (Figs 31, 32) that was discovered on one side of the southern doorway.<sup>55</sup> It shows part of a person beneath an almost fully preserved parasol with tassels. Yaghmaee<sup>56</sup> assumed the figure was Darius the Great but adduced no arguments for this. He reported some red color on scattered pieces of broken reliefs.<sup>57</sup>

<sup>55</sup> Yaghmaee 2018a, p. 89.

<sup>56</sup> Yaghmaee 2010, p. 317 and 2018a, pp. 89-94.

<sup>57</sup> Yaghmaee 2018a, p. 94.



**Fig. 31.** Drawing of the Bardak-e Siah relief (drawn by the author).



**Fig. 32.** Reconstruction of the Bardak-e Siah relief (reconstructed and drawn by the author).



**Fig. 33.** Hadish: the king under a parasol with two servants (photo by the author, 2016).

This image closely resembles a relief scene repeated in different palatial structures at Persepolis: in the *Tachara*, the *Hadish* (Fig. 33), the central palace and the so-called Harem<sup>58</sup>. At Persepolis the scene shows the king with two servants, one carrying a royal parasol, the second holding a fly-whisk over the king's head and a

**58**

The scene is pictured as follows:

- *Tachara*: the eastern and western jambs of southern doorway of the central hall,
- *Hadish*: the south jamb (the northern jambs damaged) of the eastern and western doorways of the central hall, the east and west jambs of the western doorway of north wall of the central hall and the east jamb (the western jambs damaged) of eastern doorway of the same wall,
- The so-called Harem: the northern doorway of the central hall,
- Central palace: the east and west jambs of the northern doorways of central hall and the west jamb (the eastern jambs are damaged) of the southern doorway of the central hall.





cloth in his other hand.<sup>59</sup> The top portion was variously completed with a winged ring/disk (the central palace), a trilingual inscription (the *Hadish*), or a plain surface (the so-called Harem). The inscriptions related to these reliefs bear the names of Darius and Xerxes.<sup>60</sup>

At Persepolis, where the motif is better documented, the following elements can be observed:

- the walking king holds a long staff or scepter in his right hand and a lotus in his left;
- the king is shown at an exaggerated scale with a long, square-tipped beard and wearing the formal candys; some of the reliefs have small holes in the king's candys, head, hand and neck for adornments of metal or precious stone;
- two attendants always accompany the king;<sup>61</sup> the front one holds the parasol and the rear one carries a cloth and a fly-whisk;
- the same relief scene is repeated on the opposite jambs of doorways;
- the fly-whisk is always positioned between the king's head and the parasol;
- the parasol is plain (without tassels or holes for adorning).

The scene is pictured sixteen times in the doorways at Persepolis, with the most duplication found in the *Hadish*. The motif is located in the doorway between the main hall and the portico, and the orientation of the king's gesture (and the servants) is from the main hall to the portico. The only exception is the opposite orientation, from the columned rooms to the main hall, in the *Hadish* (Fig. 34).

It seems that probably the Bardak-e Siah relief was part of the southern door jambs because it was found around the southern doorway of the structure. Unfortunately, no further explanation or plan showing the find-spot is published by the excavator. The orientation of the fallen relief in one published picture<sup>62</sup> seems to be from north

**59** At Persepolis, there is a slightly different scene in which the king holds a long staff lotus and has two attendants; one attendant carries a fly-whisk but there is no parasol. This relief is pictured in the *Tachara* (the eastern and western doorway in the north wall of the central hall) and the so-called Harem (the southern doorway of the main hall).

**60** Schmidt 1953, pp. 223, 224, 238.

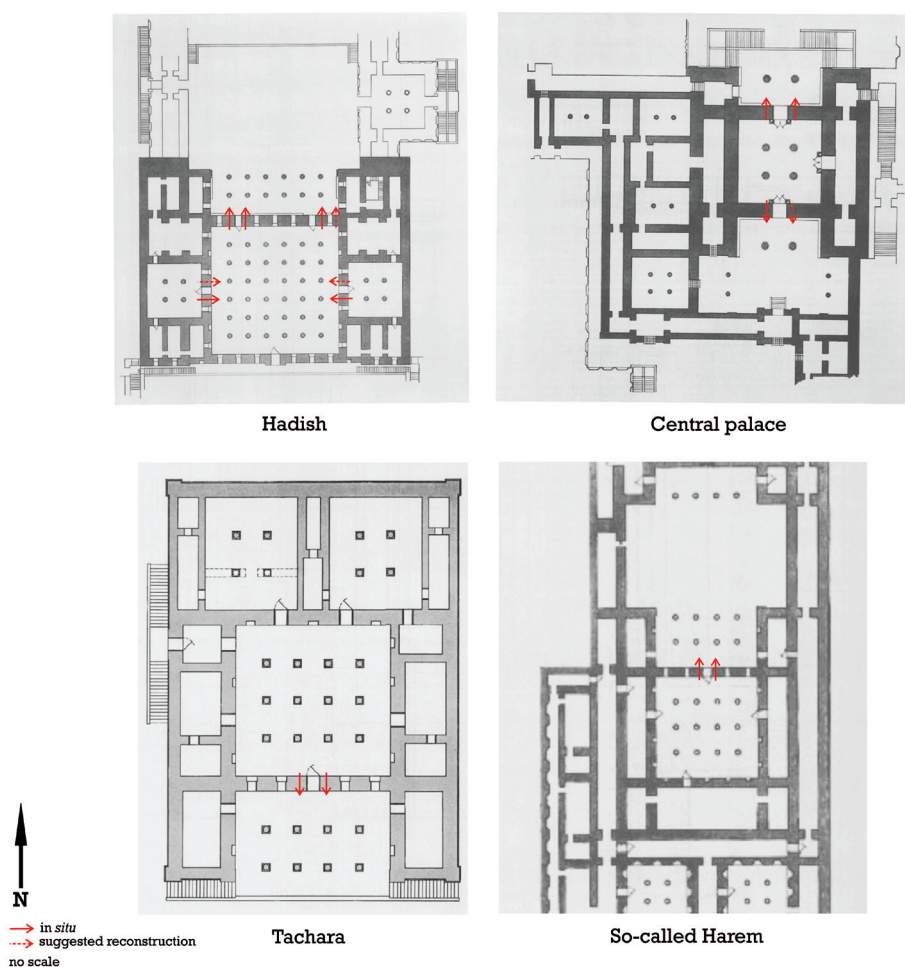
**61** Mostly both are bearded but there is some example which the fly-whisk holder is not bearded such as *Hadish* (eastern doorway).

**62** Yaghmaee 2018a, p. 91.



to south. If I assume the orientation correctly, then the relief was located on the right side (if the view is from the main hall to southern portico) and it can be concluded that the king is departing from the main hall to the portico, an orientation repeated many times at Persepolis (Fig. 34).

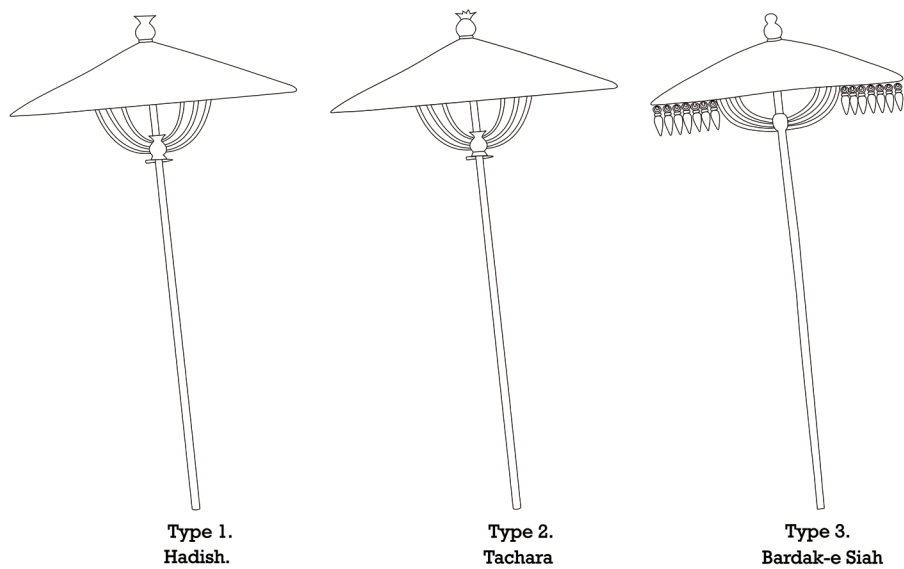
The tassels of the Bardak-e Siah parasol make it unique in this period (Fig. 35), and its deviation from the Persepolis parasols in other details is apparent in figures 36 and 37. The Bardak-e Siah parasol is smaller and its rounded finial atop the canopy differs from the flat-topped and pomegranate-shaped styles seen at Persepolis. Its middle portion and rod are also wider than those of the Persepolitan examples. At first glance, the Bardak-e Siah parasol is reminiscent of Neo-Assyrian parasols due to



**Fig. 34.** The orientations (red lines) of the scene of the king with royal parasol on the plan of Tachara, Hadish, central palace and so-called Harem (plans after Schmidt 1953).



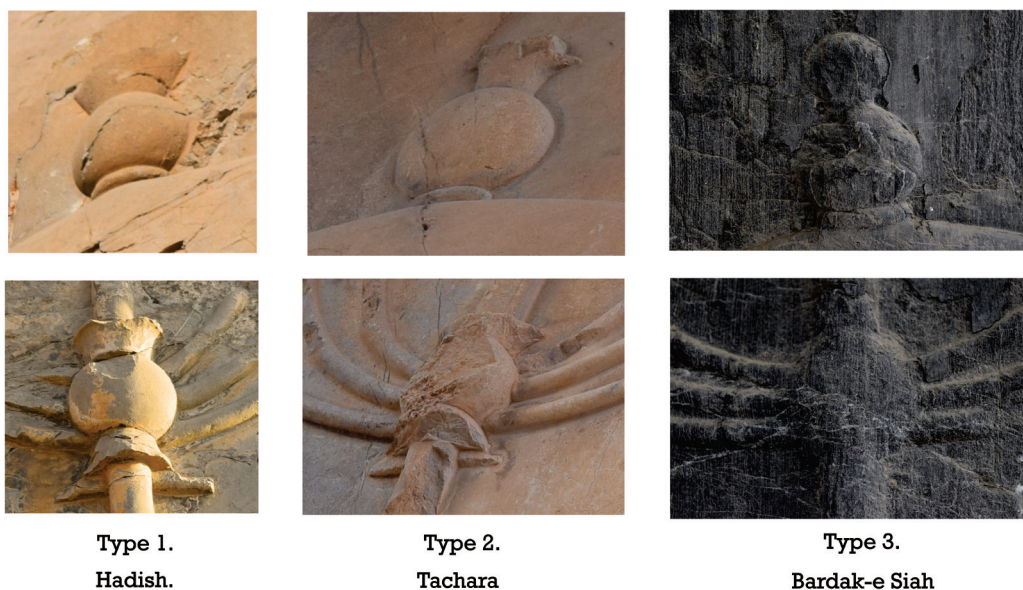
**Fig. 35.** The Bardak-e Siah parasol. An older picture taken when the relief lay where it had fallen at the site (photo by the author, 2010).



not to scale

**Fig. 36.** The parasols of Persepolis and Bardak-e Siah (drawn by the author).





**Fig. 37.** Details of the parasols depicted at Persepolis and Bardak-e Siah (not to scale, photos by the author).



**Fig. 38.** The Assyrian parasols (not to scale) (top figures: the two top figures from the left after Curtis and Reade 1995, p. 54, fig. 7 and p. 45, fig. 2, the third figure after Bahrani 2017, p. 240, 10.14, bottom figures: the first figure from the left after Curtis and Reade 1995, p. 63, fig.13, the second figure ©Louvre Museum, the third figure after Barnett and Falkner 1962, p. 55, pl. VIII).



the inclusion of tassels, but there is no one-to-one resemblance (Fig. 38).<sup>63</sup> The tassels are only partly shown on the Neo-Assyrian parasols, whereas the Bardak-e Siah tassels are depicted very precisely with three sections and a fourth section connecting them to the parasol.

It is important to bear in mind, however, that details in Achaemenid stonework were not always carved in relief. Besides the use of metals or precious stone appliques for adornments, painting was an important additional step in this period after the completion of the carving. So while the Persepolis parasols may lack tassels in relief or holes indicative of appliques, painted tassels cannot be ruled out. Notably, Charles Texier shows a painted parasol in a reconstruction of a doorjamb relief from Persepolis published in 1852 (Fig. 39).<sup>64</sup> As the first investigator to pay significant and systematic attention to the surface embellishments of the monuments, Texier has been dubbed “the father of polychromy studies in Achaemenid archaeology”.<sup>65</sup> According to the evidence he found, Texier reconstructed the parasol scene with details on the handle and various other parts, but did not add tassels. He explained the scene as follows:

... “When I had to draw the figure of the king, followed by his two servants, I had to admit the certain, irrefutable presence of the paint of the bas-reliefs. Indeed, I saw under the surface coating, which is nowadays as polished as a mirror, rosettes lightly drawn with a stylus, and that could only be the outline of a painted ornament on the coating; I saw the same ornament on the servants’ hats. The king’s tiara, as we know it today, is only a massive cylinder-shaped item; but we notice two holes on it that were used to seal a more decorated headgear made of bronze or a more precious metal. This one element would prove by itself that the sculpture was polychrome. Had the coating been designed to bear only one color, the ornaments that cover it would have been raised patterns, like the rosettes around the bas-reliefs; drawing simple ornaments on the sculptures with a chisel was never one of the ancient craftsmen’s habits”.<sup>66</sup>

Texier offered an accurate rendering of the reliefs with parasols as they can still be seen today. The top portion and other parts of the parasols are very close to the original, though the proportions of some parts were not replicated perfectly. Given

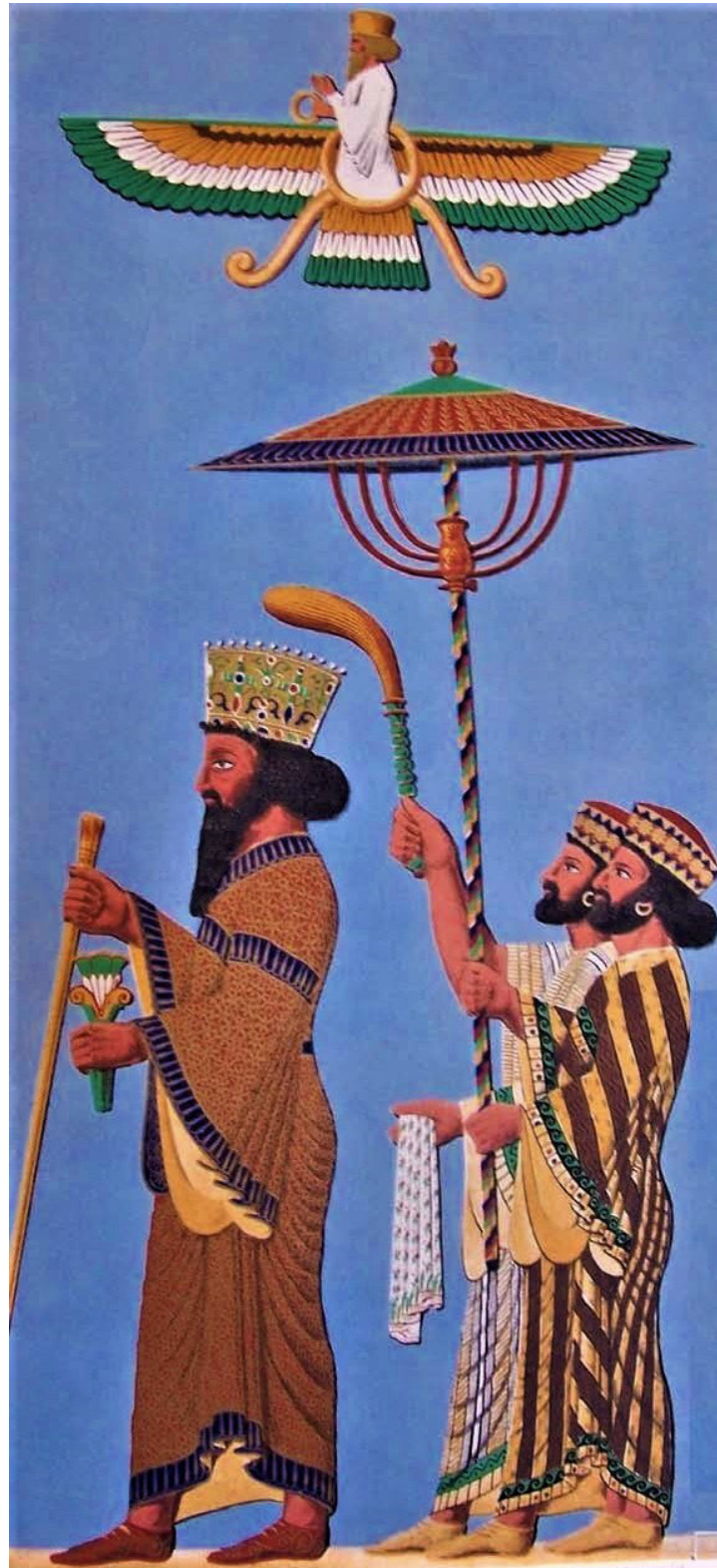
<sup>63</sup> Indeed, the point of comparison is the representation of tassels, not having tassels, otherwise the Urartian parasols have tassels too (Muscarella 2013, p. 821).

<sup>64</sup> Texier 1852, pl. CXI.

<sup>65</sup> Nagel 2010, p. 71.

<sup>66</sup> English translation after Nagel 2010, p. 72.





*Fig. 39. Texier's reconstruction of a relief with parasol at Persepolis (after Texier 1852, pl. CXI).*





his general precision and acute observation, the absence of tassels in his drawing must be taken seriously and we can probably conclude that the Persepolis parasols lacked even painted tassels.

Another detail worth contemplating is the fly-whisk, which is always positioned between the king's head and the parasol at Persepolis. At Bardak-e Siah, however, no fly-whisk can be seen in this location and the scene must have been displayed without a fly-whisk. There is a straight line along the right edge of the relief demarcating the limit of the iconography, and it indicates that there was probably only enough space for one attendant, not for two. It appears that while one attendant to hold the parasol<sup>67</sup> was considered an essential component of the scene, the second attendant with a fly-whisk could be dispensed with.

At Pasargadae, the reliefs of Palace P similarly show just one attendant with the King (Fig. 40). The north-western and north-eastern doorways of the main hall at Palace P preserve both pairs of black limestone doorjambs and both are decorated with the same motif consisting of two people wearing candys and shoes passing from the main hall to the porticos. Unfortunately, all four of these reliefs were broken away at the top and now only the bottom portions stand at the site. The king, who walks in front, is larger in scale, carries an inscription (in Babylonian and Elamite) on his candys pleats reading (CMc) "Cyrus the great king, an Achaemenid", and has holes for metal adornments. He also holds a scepter. Herzfeld has suggested that this image could represent the king with a parasol-bearing attendant:<sup>68</sup> "the servant is holding something what rather is a parasol than a hand held fly-whisk".<sup>69</sup> As Root<sup>70</sup> rightly noted, however, Herzfeld has drawn this relief in two different ways: in an unpublished drawing he includes no trace of the tip of the parasol handle but has lightly penciled in a reconstruction of a parasol at the top (Fig. 41), whereas his published drawing does indicate the tip of the parasol handle (Fig. 40).

Stronach disagrees with Herzfeld's reconstruction with regards to the upper part of each door jamb: "Certainly the lack of vertical space discredits Herzfeld's suggestion that the servant held a parasol over the king's head."<sup>71</sup> Stronach instead proposed a drawing without the parasol. Indeed, Herzfeld's idea is unconvincing

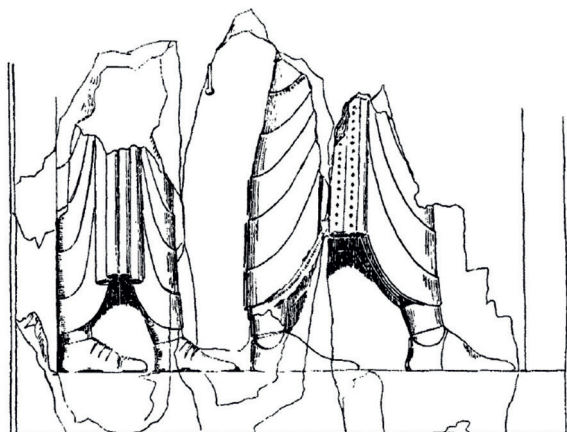
**67** One attendant always holds the parasol with two hands in Achaemenid reliefs.

**68** Herzfeld 1929, p. 14 and 1941, p. 256.

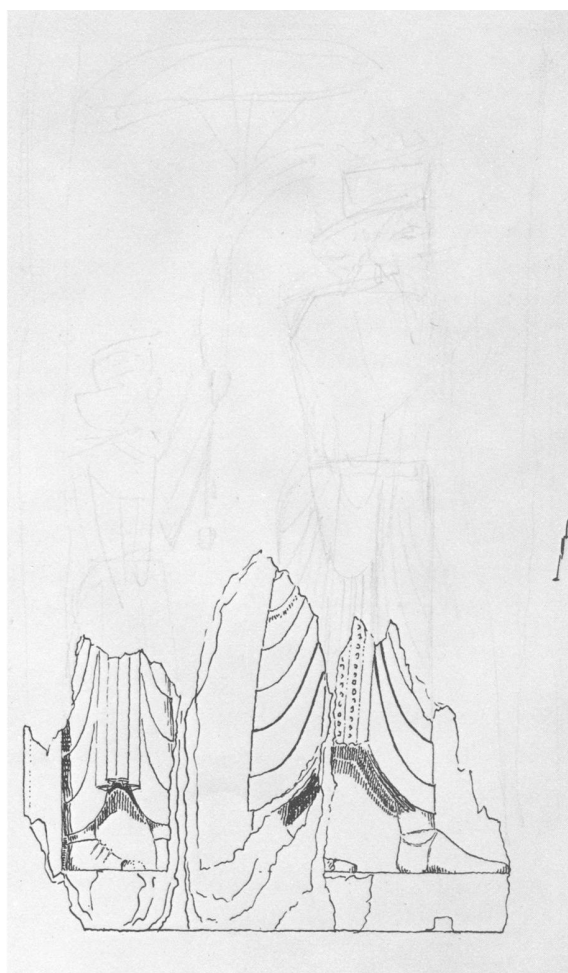
**69** Herzfeld 1929, p. 14.

**70** Root 1979, p. 51, footnote 18.

**71** Stronach 1978, p. 98, footnote 92.



**Fig. 40.** Palace P: drawing of Herzfeld showing a handle of a parasol (Herzfeld 1941, fig. 363).



**Fig. 41.** Palace P: unpublished drawing by Herzfeld indicating the reconstructed parasol in pencil above the king's head, but no parasol handle (Root 1976, fig. 4).



because he was uncertain about the presence of the parasol, and it is best to follow Stronach's assessment that there is no evidence for a parasol in the Pasargadae relief.

In short, we have seen that the Bardak-e Siah relief shows a king and one attendant carrying a parasol with tassels, and there are no hints of the presence of a second attendant. It is safe to say that this single-attendant style is comparable with Pasargadae, but that the parasol-bearer is Persepolitan in style. In addition to this relief, two hands and portions of beards, a piece of a human eye, parts of candies, and other relief fragments in black stone were found at Bardak-e Siah.<sup>72</sup> Both of the hand fragments represent right hands, one smaller than the other, and they may belong to the king and his attendant from the reflex relief. The same is true for a preserved portion of a face, which due to its opposing orientation could be the king or his attendant from the reflex relief. As usual, the same relief scene is repeated on the two jambs.

## Sang-e Siah

### Excavation

This structure was discovered and first documented by Sarfaraz,<sup>73</sup> who called it "Sang-e Siah"<sup>74</sup>, meaning "the black stone", according to the use of black-colored stone in its construction (Fig. 43). Ismaeel (Ehsan) Yaghmaee excavated the palatial structure in 1977 (Fig. 44), but unfortunately it has since been entirely bulldozed<sup>75</sup> and its broken bases are scattered (Fig. 45). In 2018, the area around the site was excavated by Nasrollah Ebrahimi.<sup>76</sup> The site has been protected by a fence since 2017.

### Architecture

At a depth of 50 cm below the surface, excavations unveiled a 1558 m<sup>2</sup> (41 × 38 m) palatial structure with four porticos and a central hall (Fig. 46). The excavator reported a mud brick wall surrounding the 24.40 × 20.50 m central hall and fragments of a green

<sup>72</sup> Yaghmaee 2017, 2018.

<sup>73</sup> Sarfaraz 1971.

<sup>74</sup> Local archaeologists sometimes call the site "Nazar Agha" palace after the name of nearby village.

<sup>75</sup> Yaghmaee 2007, p. 12, 2014, p. 6 and 2018a, p. 194. The story of the destruction is not the topic of the present paper. I already have considered it in a note published on 2nd June 2012 for the "Society for Iranian Archaeology" website (<https://sites.google.com/site/societyforiranianarchaeology/>).

<sup>76</sup> Personal communication.





plaster coating, especially in the northern room (7.20 × 7.50 m).<sup>77</sup> Sang-e Siah is the largest palatial structure in the Borazjan area so far (see Fig. 49). The hall had two rows of eight columns but only 11 of the column bases were still present. Each base includes 4 parts (see table. 3). The first one (from the bottom) is a 117 × 117 cm black stone. Its height is 32 cm, of which 10 cm is coarse and 22 cm is polished, the latter being the exposed section. The second part is a 97 × 97 × 27 cm white stone and the third part was not found during excavations but according to the *anathyrosis* could be 77 × 77 cm. A height of 27cm for the third portion was estimated by the excavator<sup>78</sup> (Fig. 42). Again, it is difficult to comment on stone column drums here due to a lack of tori.

The central hall is surrounded by four porticos that are not all the same size. The northern and southern porticos both measure 20.60 × 8.25 m and consist of two rows of eight columns.<sup>79</sup> The western portico measures 8.40 × 24.30 m and has the same two rows of eight columns, whereas the larger eastern portico measures 41.10 × 8.90 m and contains two rows of 14 column bases.<sup>80</sup> It was also noted that there are two 7.50 × 7.20 m rooms with 85-89 cm wide mud brick walls in the north and the south of the western portico. Some bricks were excavated at the site but due to the imprecise report, it is not clear whether the floor of the structure was made of brick, or the bricks had served other purposes.

The central hall of Sang-e Siah was accessed via four entrances. The northern doorway measures 335 × 122 × 37 cm, the southern one 450 × 122 × 37 cm (Fig. 47), the eastern one 300 × 118 × 37 cm and the western one 340 × 118 × 37 cm.<sup>81</sup> Three dovetail clamps which had been utilized to repair a base were found at this site (Fig. 48).

## Finds

At Sang -e Siah, Yaghmaee mentioned some finds such as eye stones, lion and also bird's wings and teeth similar to the finds of the other two palatial structures.<sup>82</sup>

<sup>77</sup> Yaghmaee, 2018b, p. 91.

<sup>78</sup> Yaghmaee 2007, p. 12.

<sup>79</sup> Yaghmaee 2007, p. 12 and 2018b, pp. 99 and 102.

<sup>80</sup> *Ibid.*

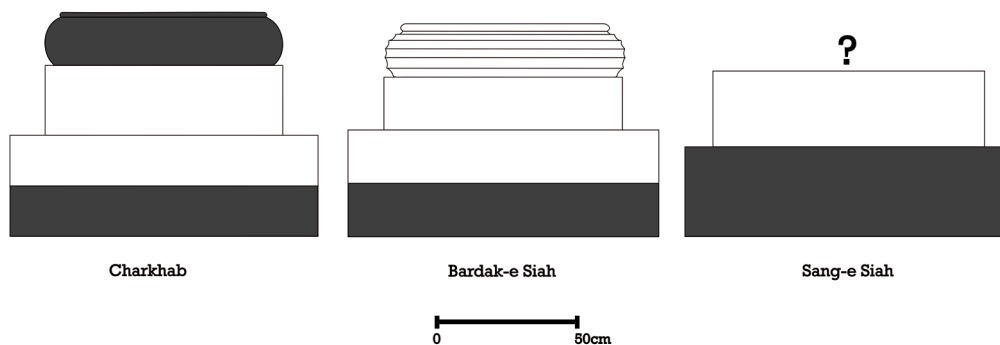
<sup>81</sup> Yaghmaee 2018b, p. 100.

<sup>82</sup> *Ibid.*, p. 93.

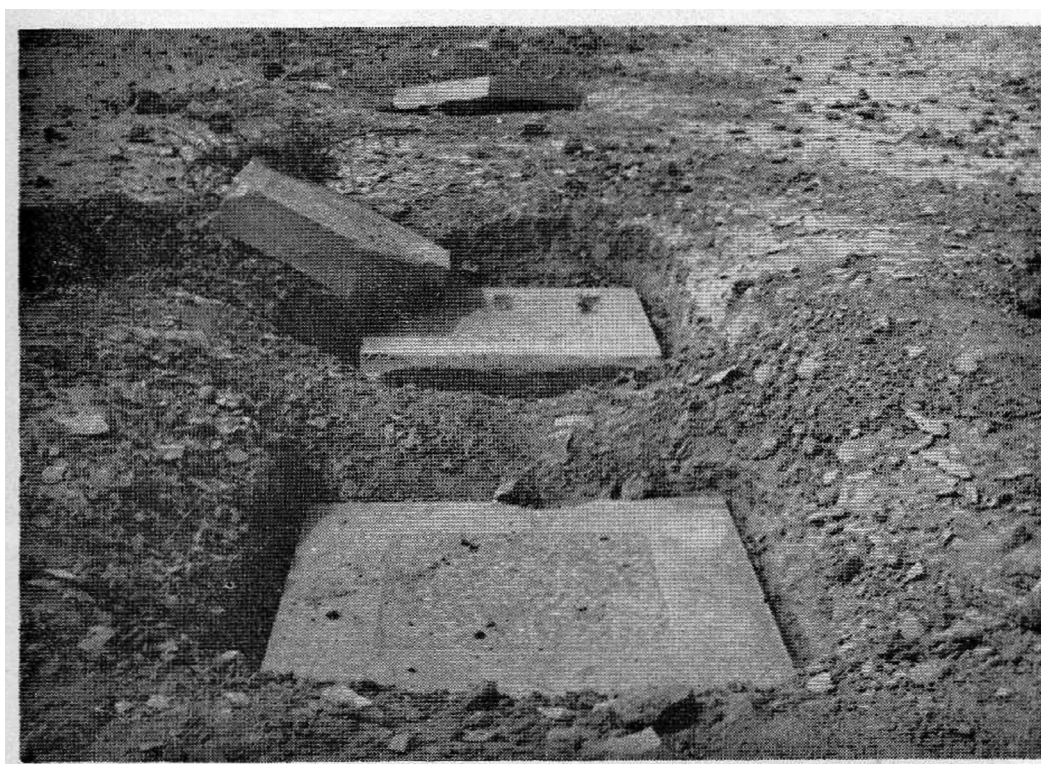


Site	Excavator	Excavation	Structures	Column number	Base total height (cm)	Base components	Color of base	Base component dimension (cm)	Torus shape	Torus height (cm)
Sang-e Siah	Yaghmaee-Ebrahimi	1977- 2018	The central hall	16 (2×8)	?	3?	White?	77?×77?×27?	?	?
							White	97×97×27		
							Black	117×117×22		
			The eastern portico	28 (2×14)	?	3?	White?	40?	Circle?	10?
							White	44×44× ?		
							Black	63×63×22		
			The western portico	16 (2×8)	?	3?	White?	40?	Circle?	10?
							White	44×44× ?		
							Black	63×63×22		
			The southern portico	16 (2×8)	?	3?	White?	40?	Circle?	10?
							White	44×44× ?		
							Black	63?×63?×22?		
			The northern portico	16 (2×8)	?	3?	White	40	Circle	10
							White	44?×44?× ?		
							Black	63?×63?×22?		

**Table 3.** Sang-e Siah, main observations.



**Fig. 42.** Bases of the central halls of the Borazjan palatial structures digitized by the author: left (Karimian et al 2011, p. 45); middle (Yaghmaee 2018a, p. 36).



**Fig. 43.** Sang-e Siah: the first published picture (Sarfaraz 1971, p. 23).

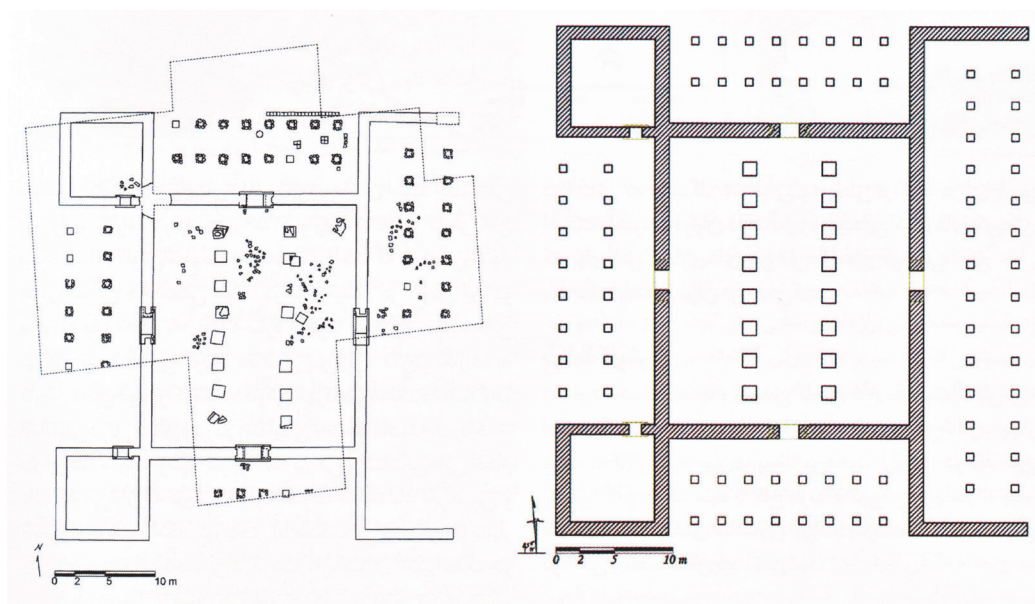




**Fig. 44.** *Sang-e Siah before its destruction (Yaghmaee 2007, p. 12).*



**Fig. 45.** *Sang-e Siah after its destruction by a bulldozer (photo by the author, 2019).*



**Fig. 46.** The plan of Sang-e Siah. Left: excavated sections. Right: reconstructed plan (Yaghmaee 2018b, figs. 3, 4).

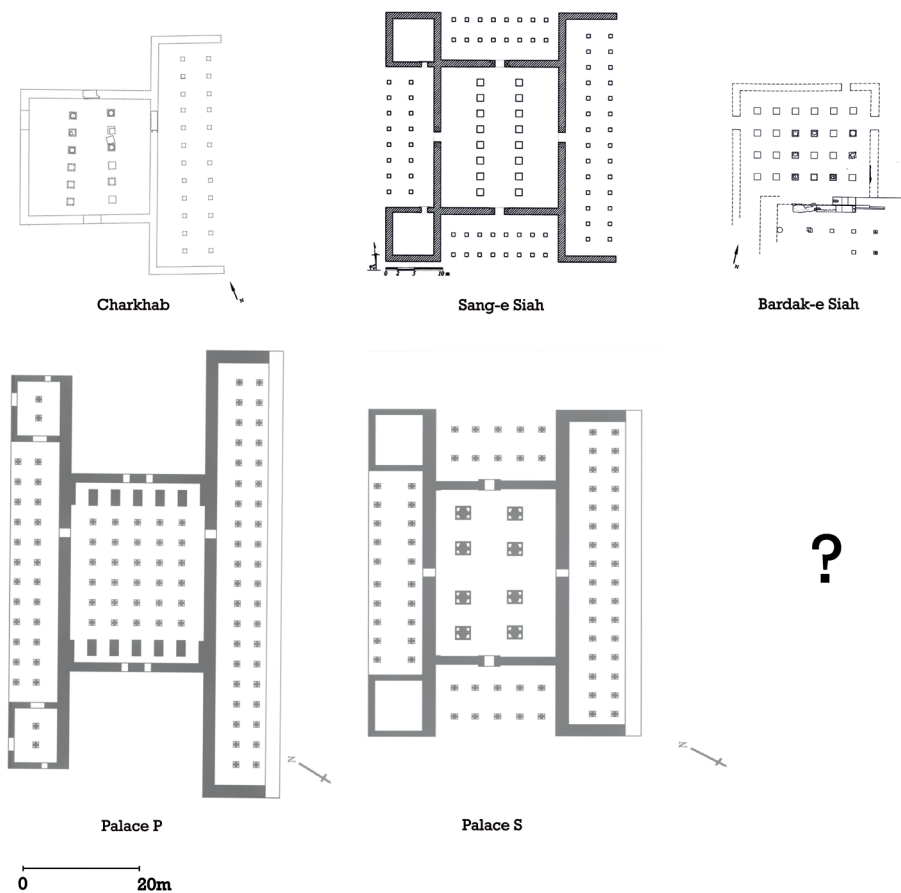


**Fig. 47.** Sang-e Siah: the southern doorway (photo by the author, 2018).





**Fig. 48.** Sang-e Siah: cavities indicating dove-tail clamps were used in the column base (photo by the author, 2018).



**Fig. 49.** Plans showing resemblances between Borazjan and Pasargadae palaces.





## Dating criteria

### Charkhab

Sarfaraz believed that one of the doorways at Charkhab was left unfinished, and took this in combination with the scattered portion of bases (see Fig. 13), the finds, and the unfinished tori surfaces as evidence that the monument was never completed.<sup>83</sup> However, except for the tori surfaces and unfinished doorway, his arguments do not strike one as decisive. As mentioned above, the site suffered from repeated flooding and Fig. 16 indicates that inundations have badly damaged the bases, leading to the destruction of the component architecture. Destruction by looters, who sometimes move the bases in search of treasure, should also be considered a possibility. Regarding Fig. 13, Sarfaraz wrote (in Persian) “as you can see, the torus of the column in the eighth row does not lie on the base while the position of torus is prepared. The column base of the ninth row still lies in vertical position and is NOT installed.”<sup>84</sup> He perceived this as evidence that the monument is unfinished, while the base is clearly in a vertical position due to flooding or vandalism.

Sarfaraz subscribed to the idea that the building program of this monument probably commenced in the latter part of the reign of Cyrus but was never finished.<sup>85</sup> He mistakenly interpreted the small cube-shaped holes in the northern doorway as holes for clamps and from this he concluded that the structure must date back to the period of Cyrus the Great, because if it were later, the use of dove-tail clamps would be expected.<sup>86</sup> Needless to say, clamps cannot help as a dating criteria for Charkhab because none have yet been reported at this site.

Boardman<sup>87</sup> suggested that Charkhab was perhaps constructed late in the reign of Cyrus according to the torus proportions between the Palace S at Pasargadae and Charkhab. Its plan with a long portico (Fig. 49) and bichrome bases are also similar to Pasargadae, and the door socket rosette resembles the decorated stone door fragment with three rosettes of the Zendan at Pasargadae.<sup>88</sup> A thin sepal between each petal is a resemblance between the Zendan and Charkhab, although the door sockets

<sup>83</sup> Sarfaraz 1971, p. 29.

<sup>84</sup> Sarfaraz 1971, p. 29.

<sup>85</sup> Sarfaraz 1973, p. 188.

<sup>86</sup> Sarfaraz 1971, p. 28.

<sup>87</sup> Boardman 2000, p. 66.

<sup>88</sup> Stronach 1978, pl. 101, a.



of the Apadana<sup>89</sup> and other palatial structures at Persepolis<sup>90</sup> also have a thin sepal between each petal.

## **Bardak-e Siah**

Yaghmaee believes that the Bardak-e Siah monument dates to Cyrus I<sup>91</sup> but that the relief belongs to Darius' reign.<sup>92</sup> He assumes it depicts Darius even though the same scene occurs in Xerxes' reign at Persepolis (and though such scenes cannot be taken as royal portraits anyhow). The bichrome bases and tori of the Bardak-e Siah main hall are close to those at Pasargadae. The relief motif is Persepolitan, although the appearance of one attendant (instead of two) with the king is also in the style of Pasargadae. The plan of Bardak-e Siah is unclear due to its incomplete excavation. The bichrome bases may speak for a construction date in Cyrus' reign, but how is this to be reconciled with the occurrence of the person-under-a-parasol motif, which is displayed in four palaces at Persepolis?

In fact, the chronology of Pasargadae is still problematic. Some scholars, such as Herzfeld, believe that the palatial structures at Pasargadae all date to between 559 and 550 B.C.<sup>93</sup> Another theory based on the Babylonian inscriptions at Pasargadae suggests a date after the Babylon conquest in 539. Nylander believes that the Pasargadae buildings were constructed between 546-530, although some structures such as Tall-i Takht and perhaps Cyrus' tomb were partly unfinished when Cyrus suddenly died in 530 or 529.<sup>94</sup> David Stronach assumes that Pasargadae was built under Cyrus' rule with a subsequent small scale building program.<sup>95</sup> John Boardman places the construction of Palace S under Cyrus,<sup>96</sup> while Palace P was apparently finished by Darius in the later sixth century.<sup>97</sup>

**89** See Schmidt 1953, fig. 37, A.

**90** See *Ibid*, fig. 56, B.

**91** Yaghmaee 2018a, p. 180.

**92** Yaghmaee 2017, p. 92, 2018a, p. 89.

**93** Herzfeld 1941, p. 221.

**94** Nylander 1970, p. 128.

**95** Stronach 1978, p. 295.

**96** Boardman 2000, p. 63.

**97** *Ibid*, p. 65.



The origin of the bichromatism is unclear, as is the period in which it was used. Initially, scholars believed that it was developed in Urartu.<sup>98</sup> Boardman<sup>99</sup> and Francovich<sup>100</sup> both regarded it as a Greek contribution, but Nylander highlighted that this is difficult to prove.<sup>101</sup> Maurits Van Loon remarked that bichromatism was not a direct adaptation from either Urartu or Ionia; rather, “This device certainly reflects the taste for florid effects in architecture which had developed in the Near East during the seventh and sixth centuries B.C.”<sup>102</sup> In this matter, I share the opinion of Nylander. The fact is, according to our present knowledge bichrome bases occur only in the Pasargadae (Palace P, S, and R) and Borazjan palatial structures (Charkhab, Bardak-e Siah and Sang-e Siah) in the Achaemenid period.<sup>103</sup> The Charkhab bases resemble those of Palace S and the Bardak-e Siah bases resemble those of Palace P, according to bichrome bases and tori, though the proportions are different.

## Sang-e Siah

Sang-e Siah was believed by its excavator, Yaghmaee, to predate Pasargadae,<sup>104</sup> whereas, based the presence of dovetail clamps, Sarfaraz suggested that the monument post-dated Cyrus (Fig. 48).<sup>105</sup> Yet, as Nylander has mentioned,<sup>106</sup> dovetail clamps were not only employed as a joining technique through the late Achaemenian period. They can also be seen at Pasargadae (palaces P, S, R and Tall-i Takht) and in the earlier buildings at Persepolis, and consequently do not contradict the hypothesis of Sang-e Siah’s construction under Cyrus. Furthermore, the plan of Sang-e Siah is close to palace S, which was built under Cyrus (Fig. 49). Unfortunately, little is known about the objects found at this site and therefore its dating criteria are restricted to the plan, the dovetail clamps and the bichrome bases.

<sup>98</sup> Stronach 1978, p. 73.

<sup>99</sup> Boardman 2000, p. 66.

<sup>100</sup> Francovich 1966, pp. 233-34.

<sup>101</sup> Nylander 1970, p. 128.

<sup>102</sup> Van Loon 1966, p. 52.

<sup>103</sup> It should be clarified that the bichromatism is reported in the tower at Naqsh-e Rostam, too (Schmidt 1970, p. 34).

<sup>104</sup> Yaghmaee 2018b, p. 104.

<sup>105</sup> Sarfaraz 1971, p. 28, footnote 13.

<sup>106</sup> Nylander 1966b, p. 139.





A final matter to address is the nature of the tool marks preserved in the palatial structures. Evidence for the use of the claw (toothed) chisel is proposed as a dating criterion by Nylander, who argues that it was first used after 520.<sup>107</sup> I have recently investigated the tool marks preserved on the Borazjan monuments<sup>108</sup> and detected just a few claw chisel marks at Charkhab. It is worth noting that there are also claw marks at Pasargadae and thousands more at Persepolis. From my point of view, in the absence of a thorough investigation of the tool marks in the Achaemenid monuments it is difficult to consider them as concrete chronological criteria.

## Conclusion

Since the Borazjan palatial structures exhibit both similarities and differences in their various features, it is necessary, in my opinion, for scholars to investigate them separately: monument by monument. The amount of information available for each one, however, differs significantly. More published information is available on Charkhab, which has been excavated to a greater extent than Bardak-e Siah, while Sang-e Siah has been largely destroyed.

Textual evidence from the reign of Cyrus (the Babylonian texts)<sup>109</sup> reports the sending of workers to the Borazjan area, but the professions of these workers are not clear. Under Darius' reign, more written clues (Persepolis Fortification Archive = PFA) attest to building programs in the Borazjan area.<sup>110</sup> The PFA indicates that this program involved artists and artisans of other royal residences in the Persian Empire.<sup>111</sup> On the one hand, if we assume that all three Borazjan structures belong to Cyrus, why were these skilled workers sent there in Darius' period? On the other hand, if the royal artisans from Darius' period worked during the construction phase at Borazjan, why did they make such minimal use of the claw tool that was so popular at Persepolis? It should be noted that also PFA could refer to yet other, hitherto unknown structures in the Borazjan area.

**107** Nylander 1965, p. 52.

**108** The tool marks at Borazjan palatial structures will be described in Zehbari and Razmjou, *in preparation*.

**109** Wunsch 2003, pp. 112-114, Tolini 2008, Henkelman 2008.

**110** Henkelman 2008.

**111** More information about the artists and artisans who worked at Borazjan palatial structures will be discussed in Zehbari and Razmjou, *in preparation*.



Significant correspondences between the three palatial structures at Borazjan and Pasargadae have emerged throughout this paper: the bichromatic column bases, the architectural plans, the door socket at Charkhab, the single attendant in the Bardak-e Siah relief, the dovetail clamps at Sang-e Siah, and the Babylonian texts written during the reign of Cyrus. However, three significant links with Persepolis have also been highlighted: the PFA evidence, the king under the parasol at Bardak-e Siah, and the framing of the inscriptions in a style characteristic of Darius' reign.<sup>112</sup>

According to the evidence at our disposal, Charkhab and Sang-e Siah probably dates to Cyrus' reign. While the chronology of Bardak-e Siah is far more complicated to assess, I have argued that all of the Borazjan palatial structures find comparisons with Pasargadae. Without more evidence, it is not reasonable to assign the construction of these monuments to the reign of Darius; but it is plausible that he had commissioned at least the continuation of a building program in this region, with perhaps the extension of existing sites or the development of other as yet undiscovered sites.

In 2018, Nasrollah Ebrahimi carried out further excavations around Charkhab and Sang-e Siah, as already mentioned above. Additionally in 2015,<sup>113</sup> Kourosh Mohammadkhani conducted a geophysical survey as well as a foot survey in 2019,<sup>114</sup> looking for ceramics, both around the Achaemenid complex at Borazjan. The results of the fieldwork activities are not published yet but will surely provide a lot of interesting information.

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<sup>112</sup> Basello 2012.

<sup>113</sup> Personal communication.

<sup>114</sup> Mohammadkhani *et al* 2020.



## Bibliography

- ARFAEE, A. 2008, *The Geographical Background of the Persepolis Tablets*, PhD dissertation UMI 3300414, Department of Near Eastern Languages and Civilizations, The University of Chicago, Chicago.
- ATAI, M. T. and R. BOUCHARLAT 2009, 'An Achaemenid Pavilion and other Remains in Tang-i Bulaghi', ARTA 2009.005.
- BAHRANI, Z. 2017, *Mesopotamia: Ancient Art and Architecture*, London, Thames & Hudson Ltd.
- BARNETT, R. D. and M. FALKNER 1962, *The Sculptures of Aššur-našir-apli II (883-859 B.C.), Tiglath-Pileser III (745-727 B.C.) and Esarhaddon (681-669 B.C.) from the Central and South-West Palaces at Nimrud*, London: British Museum.
- BASELLO, G. P. 2012, *Achaemenid royal inscription fragments from Borazjan*, unpublished memo.
- BASELLO, G. P. 2018, 'Administrative Topography in Comparison: Overlapping Jurisdiction between the Susa Acropole Tablets and the Persepolis Fortification Tablets', in: J. Tavernier, E. Gorris, K. Abraham and V. Boschloos (eds.), *Topography and Toponymy in the Ancient Near East. Greater Mesopotamia Studies 1*, Université Catholique de Louvain Louvain-la Neuve, Pp. 217-265.
- BOARDMAN, J. 2000, *Persia and the West. An Archaeological Investigation of the Genesis of Achaemenid Art*, London.
- BOUCHARLAT, R. 2005, 'Iran', In: P. Briant & R. Boucharlat (eds.), *L'archéologie de l'empire achéménide: nouvelles recherches* (Persika 6), Paris, Pp. 221-292.
- BRIANT, P. 1996, *Histoire de l'empire perse: de Cyrus à Alexandre*, Fayard, Paris, co-published by the NINO (Leiden) as Achaemenid History 10.
- CARTER, R. A., K. CHALLIS, S. M. N. PRIESTMAN, and H. TOFIGHIAN 2006, 'The Bushehr Hinterland Results of the First Season of the Iranian-British Archaeological Survey of Bushehr Province, November-December 2004', *Iran* 4, Pp. 63-103.
- CURTIS, J. E. and J. E. READ 1995, *Art and Empire: Treasures from Assyria in the British Museum*, British Museum Press.
- EBRAHIMI, N. 2008, *Tah'il-e faza'ee sazehay-e hakhamaneshy-e Borazjan (= spatial Analysis of Achaemenid Palaces of Borazjan, Bushehr Province)*, M.A. thesis, The University of Tehran. Unpublished (in Persian).
- ESLAMI, A. G. 1975, 'Asar-e bastani Borazjan (= the Ancient Remains at Borazjan)', *Honar va Mardom*, No. 156, Pp. 29-33 (in Persian).
- FRANCOVICH, G. 1966, 'Problems of Achaemenid Architecture', *East and West* 16, No. 3/4 (September-December 1966), Pp. 201-260.
- HENKELMAN, W. F. M. 2012a, 'Tamukkan', *Reallexikon Der Assyriologie* 13.5/6.





- HENKELMAN, W.F.M. 2012b, 'The Achaemenid Heartland: An Archaeological- Historical Perspective', in: D. T. Potts (ed.), *A Companion to the Archaeology of the Ancient Near East* (Blackwell Companions to the Ancient World), Malden – Oxford – Chichester, Pp. 932-962.
- HENKELMAN, W.F.M. 2008, 'From Gabae to Taoce: The Geography of the Central Administrative Province', in: P. Briant, W. Henkelman and M. W Stolper (eds.), *Actes Du Colloque Organisé Au Collège de France Par La « Chaire d'histoire et Civilisation Du monde achéménide et de l'empire d'Alexandre » et Le « Réseau International d'études et de Recherches Achéménides »* (GDR 2538 CNRS), *Persika* 12, Pp. 303-316.
- HERZFELD, E. 1929, 'Bericht über die Ausgrabungen von Pasargadae, 1928', *AMI* 1, Pp. 4-16.
- HERZFELD, E. 1941, *Iran in the Ancient East*, New York: Oxford University Press.
- HINZ, W., 1976, *Darius und die Perser - Eine Kulturgeschichte der Achämeniden*, Holle-Verlag, Leinen.
- IBNOERRIDA, N. 2018, *I padiglioni achemenidi: studio tra archeologia e ambiente*, PhD thesis, "L'Orientale" University, Naples.
- KARIMIAN, H., A. A. SARFARAZ and N. EBRAHIMI 2010, 'Baz'yabiye kakhhay-e Hakhamaneshi dar Borazjan ba eteka be dadehay-e bastanshenasi (=a review of the Achaemenid palaces in Borazjan based on Archeological Findings)', *Bagh-e Nazar* 14, Pp 45-58 (in Persian).
- KARIMIAN, H., A. A. SARFARAZ and N. EBRAHIMI 2011, 'Persian Splendour: Ancient palaces in Iran', *Current World Archaeology* 49, Pp. 42-49.
- MOHAMMADKHANI, K., M. PARSAAE and N. EBRAHIMI 2020, 'Barresiy-e hadafmand-e mahdodey-e kakh'hay-e hakhamaneshi Borazjan (=systematic survey around Achaemenid palaces at Borazjan)', in: R. Shirazi and S. Hourshid (eds.), *Proceedings of the 17th Annual Symposium on the Iranian Archaeology 2020*, Tehran: Research Institute of Cultural Heritage and Tourism publication, Pp. 1126- 1132 (in Persian).
- MUSCARELLA, O. W. 2013, 'Parasols in the Ancient Near East', in: *Archaeology, Artifacts and Antiquities of the Ancient Near East*, Brill, Pp. 817-824.
- NAGEL, A. 2010, *Colors, Gilding and Painted Motifs in Persepolis: Approaching the Polychromy of Achaemenid Persian Architectural Sculpture, C. 520-330 BCE*, A Dissertation submitted in partial fulfillment of the Requirements for the degree of Doctor of Philosophy (Classical Art and Archaeology) in the University of Michigan.
- NYLANDER, C. 1965, 'Old Persian and Greek Stonecutting and the Chronology of Achaemenian Palaces: Achaemenian Problems I', *American Journal of Archaeology* 69, No. 1 (Jan., 1965), Pp. 49-55.
- NYLANDER, C. 1966a, 'The Toothed Chisel in Pasargadae: Further Notes on Old Persian Stonecutting', *American Journal of Archaeology* 70, No. 4 (Oct., 1966), Pp. 373-376.
- NYLANDER, C. 1966b, 'Clamps and chronology', *Iranica Antiqua* 6, Pp. 130-146.
- NYLANDER, C. 1970, *Ionians in Pasargadae*, *Studies in Old Persian Architecture*, Boreas I, Uppsala.



- ROOT, M. C. 1976, 'The Herzfeld Archive of the Metropolitan Museum of Art', *Metropolitan Museum Journal* 11, Pp. 119-124.
- ROOT, M. C. 1979, 'The King and Kingship in Achaemenid Art', *Acta Iranica* 19, Leiden.
- ŞADAQAT-KİŞ, J. 1996, 'Dašttestan', *Encyclopaedia Iranica* 7, Fasc. 1, Pp. 103-104 (available online at <http://www.iranicaonline.org/articles/dastestan>).
- SARFARAZ, A. A. 1971, 'Kashf-e kakhi az ahdeh Kourosh Kabir dar sahel-e Khaliy-e Fars (=The discovery of a palace from Cyrus the great in Persian Gulf coast)', *Bastanshenasi va honar-e Iran* 7, 8, Summer and autumn 1971, pp. 19-32 (in Persian) also with a French summary: Sarfaraz, A. A. 1971, 'Un pavillon de l'époque de Cyrus le Grand à Borazdjan', *Bastanshenasi va honar-e Iran* 7-8, Pp. 22-25.
- SARFARAZ, A. A. 1973, 'Borazjan', *Iran* 11, Pp. 188-189.
- SA'IDI SIRJANI, A. A. 1989, 'Borāzjān', *Encyclopædia Iranica* 4, Fasc. 4, December 15, 1989, Pp. 367-368, available online at <http://www.iranicaonline.org/articles/borazjan-town-sahrestan-fars>
- SCHMIDT, E. F. 1953, *Persepolis I: Structures, Reliefs, Inscriptions*, University of Chicago, Oriental Institute Publications 68.
- SCHMIDT, E. F. 1957 *Persepolis II: Contents of the treasury and other discoveries*, University of Chicago, Oriental Institute Publications 69.
- SCHMIDT, E. F. 1970, *Persepolis III: The Royal Tombs and Other Monuments*, Oriental Institute Publications 70.
- STRONACH, D. 1978, *Pasargadae. A report on the excavations conducted by the British Institute of Persian Studies from 1961 to 1963*, Oxford.
- TEXIER, C. 1852, *Description de l'Arménie, de la Perse et de la Mésopotamie* 2, Paris: Didot.
- TOLINI, G. 2008, 'Les travailleurs babyloniens et le palais de Taokè', *ARTA* 2008.002.
- VAN LOON, M. N. 1966, 'Urtian Art: Its Distinctive Traits in the Light of New Excavations', Istanbul, Nederlands Historisch-Archaeologisch Instituut.
- WUNSCH, C. 2003, *Urkunden zum Ehe, Vermögens und Erbrecht, aus verschiedenen neubabylonischen Archiven*, Dresden.
- YAGHMAEE, E. (I.) 2014, 'Dar soog-e Sang-e Siah (=mourning for Sang-e Siah)', *Bastan Pazhuhi* 16, Pp. 4-6 (in Persian).
- YAGHMAEE, E. [I.] 2007, 'Sang-e Siah, kakhi ke digarbar bayad sakht (=Sang-e Siah: a palace which must be built). *Nimrooz* (newspaper)', No. 941, 19<sup>th</sup> year, 27<sup>th</sup> July 2007, p. 12 (in Persian).
- YAGHMAEE, E. [I.] 2010, 'Excavations in Dashtestan (Borazjan, Iran) (Abstract)', In: J. Curtis and St John Simpson (eds.), *The World of Achaemenid Persia History: Art and Society in Iran and the Ancient Near East*, Proceedings of a conference at the British Museum 29th September–1st October 2005, p. 317.



- YAGHMAEE, I. [E.] 2017, 'Yafte'have hasel az kavosh'have mohavateh Doroudgah kakh-e Bardak-e Siah, Bushehr (=Excavation findings in Doroudgah, Bardak Siah palace, Bushehr)', *Gozide'ee az yaftehave pazhuheshaye bastanshenasi Iran dar sale 1394 (a selection of archaeological research findings of Iran in 2016, 15<sup>th</sup> annual symposium of Iran archaeology, 2017)*, Pp. 87-94 (in Persian with an English abstract).
- YAGHMAEE, I. [E.] 2018a, *farzi'ye khastgah rastin Hakhamaneshian bar payeh kavosh'have bastanshenasi kakh-e Bardak-e Siah, Dashtestan, Borazjan, Durodghah Village* (=A hypothesis on the true origin of the Achaemenids based on Archaeological Excavations, Bardak Siah Palace, Dashtestan, Borazjan, Durodghah Village), Tehran: Research Institute of Cultural Heritage and Tourism publication (In Persian with English abstract).
- YAGHMAEE, I. [E.] 2018b, 'Sang-e Siah, Kakhi ke digar nist (= Sang-e Siah, a Palace that no Longer Exists)', *Archaeology (Quarterly Journal of the Iranian Center for Archaeological Research)*, Vol. 1, No. 1, Tehran: Pp. 89-104 (In Persian with English abstract).
- ZEHBARI, Z. and RAZMJOU, S. *in preparation*, 'The Artisans Who Went to Tamukkan: An Investigation on Masonry at Borazjan'.



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