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UNIVERSITÀ DEGLI STUDI DI NAPOLI "L'ORIENTALE"  
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Series Minor  
LXXXVI

## CERAMICS AND THE ARCHAEOLOGICAL ACHAEMENID HORIZON NEAR EAST, IRAN AND CENTRAL ASIA

edited by  
BRUNO GENITO and GIULIO MARESCA



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CERAMICS AND THE ARCHAEOLOGICAL  
ACHAEMENID HORIZON



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# THE ACHAEMENID CERAMIC HORIZON AS SEEN FROM ANCIENT *ZRANKA*: AN OVERVIEW

GIULIO MARESCA

(Università degli Studi di Napoli “L’Orientale”)

## **Abstract**

*In the Old Persian inscriptions enumerating the “countries/peoples” subjected to the authority of the Achaemenid Kings, the name of the territory around the Hamun Lake and the lower course of the Helmand River – on the modern political border between Iran and Afghanistan – is attested in a form to be read as Zranka. Notwithstanding several archaeological researches carried out both in the Iranian and the Afghan part of the area, evidence concerning settlements and material culture during the Achaemenid period in this wide region remains rather meagre and elusive. This paper analyses the archaeological evidence from the area corresponding to ancient Zranka in order to outline a picture of its pottery production and point out related research problems.*

## **The land of *Zranka*: extent and history during the Achaemenid period**

There is scholarly consensus (Schmitt 1996, 535) that the first epigraphic reference to the territory around the Hamun Lake and the lower course of the Helmand River<sup>1</sup> (Fig. 1) is found in the Bisotun inscription of king Darius I. In the Old Persian version of this inscription, the name of this country and its inhabitants is attested (DB/OP I, 16) in the form *z-r-k* (Kent 1953, 211;

<sup>1</sup> The lacustrine system forming the Hamun Lake (Fig. 1) is located on the border between Iran (Sistan and Baluchestan Province) and Afghanistan (Nimruz Province). That lacustrine basin represents the terminal portion of a wider endorheic hydrographic system, located between eastern Iran and south-western Afghanistan, named Sistan Basin (or Hilmand Basin, after its main tributary river). Among the most important scholarly contributions concerning geography, geomorphology and political hydrology in this area see Fairervis 1961, 12-22; Freund 1970; Jux and Kempf 1983; Tirrul *et alii* 1983; Ehlers 2003; Hanifi 2004; Khazeni 2004; UNDP 2005; UNEP 2006; van Beek and Meijer 2006; Whitney 2006; Dehgan *et alii* 2014; UNDP 2014.

Schmitt 1991, 27; 2009, 39), to be read as *Zranka* (Schmitt 1991, 49; 2009, 39; 2014, 73),<sup>2</sup> possibly its endonym (Schmitt 1996, 535).<sup>3</sup>

On the basis of the words attested in Classical sources to indicate the region named as *Zranka* in the Old Persian inscriptions (Gnoli 1962, 41-47; Schmitt 1996, 535; Genito 2014a, 171), that territory during the Achaemenid (as well as the Macedonian and Seleucid) period is commonly termed in literature as Drangiana (Drangians or Drangianians being the words designating its inhabitants).

*Zranka* is always mentioned in the Old Persian inscriptions containing the so-called “lists of *dahyāva*” enumerating the “countries/peoples”<sup>4</sup> subjected to the authority of the Achaemenid Kings.

In the Bisotun inscription of Darius I (DB/OP), *Zranka* is numbered as the fourteenth (DB/OP I, 16) out of twenty-three *dahyāva* (DB/OP I, 13-26; Kent 1953, 117, 119; Schmitt 1991, 49-50; 2009, 38-39), after *Parthava* (Parthia) and before *Haraiva* (Aria).

In the Old Persian version of the trilingual inscription of Darius I engraved in the upper register of the façade of his tomb at Naqsh-e Rostam (DNa/OP), instead, *Zranka* is listed (DNa/OP 24) between *Uvārazmiš* (Chorasmia) and *Harauvatiš* (Arachosia) as the ninth out of thirty-one *dahyāva* (DNa/OP 15-30; Kent 1953, 137-138; Schmitt 2000, 25, 27, 29-31; 2009, 101-102).

<sup>2</sup> With insertion of preconsonantal *n* (Schmitt 2008, 79). Following Kent’s transcription of *z-r-k* as *Zraka* (Kent 1953, 117), with omission of preconsonantal *n*, scholars sometimes prefer to adopt this latter form (see e.g. Herrenschmidt 1976, 55 tab. 2; 2014, 29 tab. 2).

<sup>3</sup> The Old Persian word *Zranka*, of masculine gender and seemingly always attested in the nominative singular case in the corpus of the Achaemenid royal inscriptions in Old Persian, is to be interpreted mainly as a toponym (five occurrences: see *infra*) from which also an ethnic adjective (two occurrences: see *infra*) was derived (Kent 1953, 211; Schmitt 2014, 294-295), apparently without any formal alteration (Schmitt 2014, 295), if one excludes the unique occurrence of a form *z-r-k{-a}* (see n. 7). The etymology of the word *Zranka* remains debated (see Gnoli 1967, 42; Schmitt 1996, 536; 2014, 295). Taking into account the lacustrine environment of the region, a possible interpretation of *Zranka* as “sea land, sea-land landscape” was put forward by some scholars connecting the word to Old Persian *drayah-*: “sea, lake”. An alternative view, instead, follows a suggestion by Morgenstierne (1932, 43) who wondered if the word *Zranka* could have represented the original name of the Kuh-e Khwaje, the mountain which dominates the region.

<sup>4</sup> The exact meaning of the Old Persian word *dahyu-* and of its plural form *dahyāva* is highly debated (see Kent 1953, 190; Lecoq 1990; 1997, 136-137; Gnoli 1993b; Schmitt 1999; Soudavar 2012, 71 n. 124; Schmitt 2014, 162-163).

In the monolingual Old Persian inscription of Darius I on the southern wall of the Persepolis terrace (DPe), moreover, *Zranka*, listed (DPe 15-16) between *Parthava* (Parthia) and *Haraiva* (Aria), recurs as the sixteenth out of twenty-six *dahyāva* (DPe 5-18; Kent 1953, 136; Schmitt 2000, 60-62; 2009, 117-118).

The so-called inscription “On Restoration of Order in the Empire” (Kent 1953, 110) of Darius I at Susa (DSe), instead, is attested by several badly damaged fragments containing portions of the Old Persian, of the Achaemenid Elamite as well as of the Achaemenid Babylonian versions. In the Old Persian text, *Zranka* (DSe/OP 23) is listed between *Uvārazmiš* (Chorasmia) and *Harauvatiš* (Arachosia), as the ninth out of twenty-eight *dahyāva* (DSe/OP 14-30; Kent 1953, 141-142; Schmitt 2009, 124-125).

The three copies of the Old Persian version of the so-called “Daiva Inscription” (Kent 1953, 112) of Xerxes I at Persepolis (XPh/OP), lastly, attest *Zranka* (XPh/OP 20), after *Armina* (Armenia) and before *Parthava* (Parthia), at the sixth place in a list of thirty-two *dahyāva* (XPh/OP 13-28; Kent 1953, 151; Schmitt 2000, 89-91, 94; 2009, 165-166).

In addition to the five attestations within the aforementioned “lists of *dahyāva*”, the word *Zranka* is documented as an ethnic adjective (“Drangian” or “Drangianian”) in other two Old Persian inscriptions. The first one, today known as DNe (previously DN; Kent 1953, 140-141), comprises all the minor inscriptions specifying the geographical provenance of the thirty throne-bearing figures portrayed on the bas-relief carved on the rock-cut tomb of Darius I in Naqsh-e Rostam (DNe/OP; Schmitt 2000, 47-49; Schmitt 2009, 112-114). It indicates as coming from *Zranka* (DNe/OP 9) the ninth throne-bearer, portrayed between a Chorasmian and an Arachosian.

Also the minor inscriptions accompanying the reliefs on the rock-cut tomb (so-called “Tomb V”) attributed to Artaxerxes III on the Kuh-e Rahmat at Persepolis (A<sup>3</sup>Pb; Schmitt 2000, 119-122; 2009a, 198-199; 2009b), sometimes attributed to Artaxerxes II,<sup>5</sup> indicate as a Drangian<sup>6</sup> (A<sup>3</sup>Pb/OP 9) the ninth

<sup>5</sup> The inscription appears as A?P in Kent (1953, 155-156) and as A<sup>2</sup>Pa in Lecoq (1997, 271-272). On the basis of epigraphic, palaeographic and philological argumentations, Schmitt (2000, 119) started attributing the inscription (and, consequently, the monument itself) to Artaxerxes III. On the contrary, by virtue of stylistic and iconographic considerations, Calmeyer (2009, 33) still considers it as pertaining to Artaxerxes II.

<sup>6</sup> By means of a *hapax* form *z-r-k{-a}* *Zrankā* (Kent 1953, 155, 211; Schmitt 2000, 119-121; 2009a, 198; 2009b, 36). Interpreted as the masculine plural of the adjective form, this

(always between a Chorasmian and an Arachosian) of the thirty portrayed throne-bearers.<sup>7</sup>

Unfortunately, however, the Old Persian royal inscriptions are almost useless when trying to outline the historical events related to *Zranka* as well as its territorial extent during the Achaemenid period. Substantial information in this respect cannot either be deduced from the administrative documents excavated at Persepolis (Persepolis Fortification archive: PFA and Persepolis Treasury archive: PTA; see recently Azzoni *et alii* 2017), since they are primarily concerned with economic issues connected with the Empire's "heartland" (Henkelmann 2013) and Drangians are mentioned only in a very few cases (Henkelmann and Stolper 2009, 303).

For this reason, the main possibility to retrieve some historical details regarding *Zranka*/Drangiana during the Achaemenid period (as well as details concerning the Macedonian conquest of the region and the following period of Seleucid control) lies in Classical sources in Greek and Latin, notwithstanding their numerous geographical and chronological inconsistencies (Daffinà 1967, 23-39; Gnoli 1967, 42-51, 103-107; Schmitt 1996; Genito 2014a, 172-173).

Particularly interesting, in order to ascertain the territorial extent of *Zranka* (at least during the last phase of the Achaemenid period and as far as its

unique occurrence of *Zrankā* was considered by Gnoli (1967, 42-47) as a syntax mistake (lit. "This [is] the Drangians") due to the late chronology of the inscription where this form is attested.

<sup>7</sup> Due to the absence of any related epigraphic evidence, the identification of people coming from *Zranka* among the throne-bearing figures portrayed on other Achaemenid reliefs characterised by the same motif remains only hypothetical. For the same reason, also the identification of people from *Zranka* among the delegates portrayed on the reliefs on the eastern and northern staircases of the Apadana in Persepolis is an issue far from being definitively solved. Several hypotheses have been put forward as far as the reliefs on the eastern staircase of the Apadana are concerned: delegates from *Zranka*, in fact, have been variously identified and considered to be portrayed both as a specific delegation (the seventh, the fifteenth or the twenty-first; see Tourovets 2001) or as members of the fifteenth delegation, alongside with Arachosians (Koch 1992, 112, figs. 71,72). A completely different case, instead, is represented by the Egyptian statue of Darius I found at Susa. Several representatives of the subject countries/peoples of the Empire are portrayed on the scenes incised at its basis, dressed in a definitely Egyptian style and each kneeling above a crenelated cartouche containing the name of his country written in hieroglyphs. In this case, a Drangian appears as the ninth out of twenty-four figures, between an Arachosian and a Sattagyidian (Yoyotte 2010, 292, figs. 309, 311, 316).

northern limit is concerned), is the question of the identification of a city mentioned as Prophthasia (*Προφθασία*)<sup>8</sup> and located in Drangiana by Strabo (*Geographika* 11.8.9; 15.2.8), Ptolemy (*Geography* 6.19.4; 8.25.8) and Pliny the Elder (*Naturalis Historia* 6.61). Stephanus of Byzantium, in his geographical dictionary (*Ethnica* s.v. *Φράδα*), reports an information from Charax of Pergamon, clearly stating that Alexander the Great renamed the Drangian city of Phrada as Prophthasia. The problem concerning the toponyms Phrada and Prophthasia, moreover, involves also the identification of Phra (*Φρά*), a city mentioned only by Isidorus of Charax (*Stathmoí Parthikoí* 16) and otherwise unknown.

On the basis of a detailed evaluation of the distances between the cities listed in Drangiana and surrounding territories by Classical authors, Daffinà (1967, 28, 88-93, 96) had provided the definitive identification of Phra/Phrada/Prophthasia with the old city of Farah in Afghanistan,<sup>9</sup> refusing a previous opinion held by Tarn.<sup>10</sup> Daffinà was sceptical (*Ibid.*, 28), instead, towards the identification of Phrada with the unfortunately unnamed capital city of Drangiana where Alexander the Great arrived in 330 BCE, as reported by Arrian (*Anabasis* 3.25.8) and Diodorus Siculus (*Bibliothēke* 18.78.4), thus rejecting an opinion held by Olmstead (1948, 46 n. 56).

Whether it was the Achaemenid capital city of *Zranka* at the time of Alexander the Great's arrival in the region or not, Phrada (renamed Prophthasia by the Macedonian king), to be located near present-day Farah, in Afghanistan (Figs. 2, 5), was an important Achaemenid (or, at least, Late Achaemenid) city at the northern limit of *Zranka*/Drangiana and apparently continued to play the same role also at the beginning of the Seleucid period.

Of outstanding importance is also the mention of another specific city in a passage from Ctesias' *Persiká* transmitted by Photius of Constantinople

<sup>8</sup> Literally "Anticipation", in the sense of "forestalling" something. It was probably the place where Alexander was informed about the alleged conspiracy of Philotas (Olshausen and Brentjes 2006).

<sup>9</sup> Daffinà's view on the issue still represents the opinion commonly shared by the majority of scholars (see e.g. Fraser 1996, 123-131; Balland 1999, 229; Olshausen and Brentjes 2006; Cohen 2013, 283-286).

<sup>10</sup> On the basis of different estimates of the distances between the cities reported in Classical sources, Tarn (1938, 14, n. 4) had stated that it was impossible to locate Prophthasia at Farah, adding that "*Farah [...] was never in Zarangiane-Seistan at all*" (see also n. 12).

(*Persiká* 56), concerning historical events occurred during the reign of Darius II. The name of that city appears as Ζάριν (Zarin) in the original Greek text, almost always, even recently (Lenfant 2004, 140; Llewellyn-Jones and Robson 2010, 195; Stronk 2010, 353), considered as the alleged accusative form of a name which was Ζάρις (Zaris) in its nominative. Daffinà (1967, 90), on the contrary, maintained that Ζάριν (Zarin) was also the nominative form of the city's name (probably a Greek transcription attempt for an alleged original toponym \*Zaring), directly connected with the Old Persian name for the entire region (i.e. *Zranka*). Following Daffinà, also Gnoli (1967, 45-46) considered Zarin (and not Zaris) as the original name of that city mentioned in Ctesias' *Persiká*, maintaining that it was to be viewed as the capital city of *Zranka*, at least during a certain phase of the Achaemenid period.<sup>11</sup>

### **Archaeological evidence for *Zranka* in Afghanistan: settlements and pottery**

The most important archaeological evidence pertaining to Achaemenid *Zranka* in the area of present-day Afghanistan probably comes from the Sorkh Dagh at Nad-i Ali (Figs. 2, 3). The site (Ball 1982, 189-190 no. 752, 476 map 60, 555 map 138) is located approximately 5 kilometres north of modern Zaranj, in the Afghan Province of Nimruz (Afghan Sistan).

In the autumn of 1936, on behalf of the Délégation Archéologique Française en Afghanistan (DAFA) headed by J. Hackin, Roman Ghirshman carried out some archaeological activities at the site (Ghirshman 1942; 1959). Beside a fortified citadel (where a modern military garrison still existed at the time of the DAFA activities) and a small Baluch village known as Nazar Ali Khan, several archaeological remains were identified (Ghirshman 1959, fig. G 1). While some of them were dated by Ghirshman to the Islamic period (by virtue of the presence of a huge number of glazed potsherds on their surface), others were retained as pre-Islamic by the French archaeologist (*Ibid.*, 40).

<sup>11</sup> After the first IsMEO excavation campaigns at Dahane-ye Gholaman (see *infra*), the hypothesis of the identification of the settlement with that city mentioned by Ctesias was put forward (Scerrato 1966b, 11; Gnoli 1967, 103-107; Daffinà 1967, 90). Already Tarn (1938, 14, n. 4), refusing (erroneously, as we have seen) the identification of Prophthasia with Farah, had stressed that: “*The old Persian capital of Seistan [...] was on or near the Hamun Lake; [...] the place is Zarin of Isidore, [...]. Prophthasia, «Anticipation», was only a nickname*”, suggesting the identification of Prophthasia with Zarin.

Two mounds (Fig. 3) attracted his attention in particular. The first one was locally known as “Sorkh Dagh” (Red Mound), measuring “200 mètres de longueur sur 50 à 60 de largeur, et 31 mètres de hauteur” (*Ibid.*, 40)<sup>12</sup> and characterised by a flat top on which an Islamic shrine was located. The second one, located at about 400 metres south of the Sorkh Dagh, was known as “Sefid Dagh” (White Mound), smaller than the previous one but having approximately the same height and characterized by the presence of mud-brick structures as well. Ghirshman considered these two mounds as pertaining to the same pre-Islamic settlement, arbitrarily interpreting them respectively as the “*acropole*” and the “*forteresse*” (*Ibid.*, 40).

Ghirshman’s excavations concentrated on the western side of the Sorkh Dagh and were represented by a trench dug through arbitrary cuts of 2 or 2.5 metres (according to a methodology commonly adopted during those years), for a total depth of 12.5 metres (*Ibid.*, 41-42). Different structures were brought to light, attributed to two different periods: Period I, the most recent one, and Period II, apparently more ancient.

Structures of Period I (“*Construction I*”) were located on the top of the mound, seemingly representing its last phase of occupation. They stood on a massive foundation (in mud-bricks, baked and semi-baked bricks), having an irregular thickness of 3-4 metres (*Ibid.*, 42 Fig. G 2 “*coupe nord-ouest*”). Only a small portions of the aforementioned structures were retrieved by Ghirshman (*Ibid.*: fig. G 2, “*coupe nord-est*”). They were built in mud-bricks, but, according to Ghirshman, their inner surface was probably covered with backed bricks with a painted decoration in white and blue, as revealed by materials recovered within the layer pertaining to their collapse (*Ibid.*, 44, fig. G 4 N.A. 2a, 2b).

In the deepest portion of its sounding, instead, Ghirshman reached a “*massif*” (*Ibid.*, 42), i.e. a massive mud-brick platform on which the structures pertaining to a building reported as “*Construction II*” were located (Period II). The external walls of this “*Construction*” were exclusively built in mud-bricks measuring 35×35×9 centimetres, while the internal ones were made of alternate layers of the same mud-bricks and baked bricks measuring 57×28×9 centimetres (*Ibid.*, 42, Fig. G 2 “*coupe nord-ouest*”). The entrance of the building, on the south-western side, gave access into a large room paved with

<sup>12</sup> G.F. Dales more precisely reported these dimensions as “200 x 50 metres and a maximum height of 39.5 metres” (Dales 1977, 9).

backed bricks characterised by different dimensions. At the right side of the entrance, a large reddish jar in common ware (*Ibid.*, 45, fig. G 5 N.A. 75) was embedded into the floor.

On the basis of the architectural remains and of the materials recovered, Ghirshman dated both his Period I and Period II to the 1st millennium BCE, although he considered them as being divided by a short-lasting hiatus (*Ibid.*, 47). As far as Period II is concerned, such a chronological attribution was based, in particular, on observations related to a ceramic fragment pertaining to a spouted vessel in “*c eramique gris-noir*” (*Ibid.*, 45, fig. G 5, N.A. 85) and to a group of hollow-socketed three-flanged bronze arrowheads (*Ibid.*, 46, fig. G6, N.A. 41, 42). The spouted vessel was of a type well known by Ghirshman, who had previously found several similar specimens at the Siyalk B Necropolis, dated by him to the 10th-9th century BCE. Since hollow socketed three-flanged bronze arrowheads were not attested at Siyalk B, Ghirshman inferred that materials from Period II were to be dated to a period later than Siyalk B, at least from the 8th century BCE (*Ibid.*, 47). Period I, instead, was dated by Ghirshman to the Achaemenid period, on the basis of the similarities between the bricks with painted decoration from the “*Construction P*” and the Achaemenid tradition of glazed bricks (*Ibid.*, 47).

Between 1950 and 1951, two expeditions promoted by the Anthropology Department of the American Museum in New York and headed by the American anthropologist W.A. Fairservis Jr., undertook a wide archaeological survey in the Afghan portion of Sistan (Fairservis 1961), with the aim to correlate field data with information retrieved from the works of previous scholars in the Iranian portion of the same region (*Ibid.*, 37).

Although his main concern was initially the prehistoric period, Fairservis decided to collect materials also from sites seemingly belonging to more recent periods, in order to delineate a more detailed picture of the cultural evolution in the area (*Ibid.*, 37). Following this criterion, he compiled a list of 114 archaeological sites (*Ibid.*, 37-76, fig. 8) – located both in Iranian and Afghan Sistan – providing a brief description for each of them, several sketch maps and a synthetic presentation of the most significant findings (mainly ceramic materials).

On the basis of the data collected – especially by virtue of a preliminary study of the ceramic evidence (*Ibid.*, 78-91) and of observations concerning the bricks sampled from several sites (*Ibid.*, 91-93) – Fairservis tried to develop a chronological sequence of the aforementioned sites (*Ibid.*, 94-102,



tab. 5) and provided different chronological maps showing the distribution of settlements during the Proto-historic (*Ibid.*, 99 fig. 49a), “Achaemenid-Hellenistic and Parthian” (*Ibid.*, 99 fig. 49b), Sasanian (*Ibid.*, 99 fig. 49c) and Islamic periods (*Ibid.*, 99 fig. 49d).

Only two sites were listed by Fairservis as pertaining to the period loosely defined by him as “Achaemenid-Hellenistic” (*Ibid.*, 98 tab. 7).<sup>13</sup> While the Ghagha-Shahr at Kuh-e Khwaje (*Ibid.*, 37 site no. 1), in Iranian Sistan, was dated to the aforementioned time span only on the basis of “tradition” (*Ibid.*, 94 tab. 5), more grounded was considered, instead, the Achaemenid date which Ghirshman had previously established for the Sorkh Dagh at Nad-i Ali (*Ibid.*, 45-46, site no. 28b, Na-2). At the latter site, Fairservis collected a large quantity of potsherds, providing a classification which revealed “*a large number of pottery types, most of which were not described by Ghirshman, as he did not encounter these types in his limited excavations*” (*Ibid.*, 46). Unfortunately, however, in his report about the pottery collected at the site (*Ibid.*, 48-52) and in the related illustrations (*Ibid.*, figs. 15-19), ceramic fragments were simply divided into “classes”, while references to chronological issues remained extremely loose.

Excavations at the Sorkh Dagh were resumed between January and February 1968, by a team from the University of Pennsylvania headed by George F. Dales (1977). Several trenches, “Operations A-D” (*Ibid.*, 21-34, pl. 4), were excavated at different strategic spots of the mound (Fig. 4) in order to collect data to be compared with the chronology previously established by Ghirshman and to recover possible evidence of the earliest occupation at the site. Operations B and D gave the most important results. The first one was a sounding in the mud-brick platform carried down 15 metres below the limit of Ghirshman’s excavations and showing that the platform continued further down (*Ibid.*, 27, pls. 11, 12). Operation D, instead, consisted in a “tunnel” dug in order to retrieve a consistent assemblage of well-stratified ceramic fragments, possibly associated with the time of the first building on top of the platform (*Ibid.*, 27-28, pls. 4, 11).

<sup>13</sup> The “Achaemenid-Hellenistic” period in Sistan was considered “*unimportant*” by Fairservis: “*Sistan played a minor role during the Achaemenid period [...]. As an eastern outpost of the empire during its later years, it probably had some military importance as a bulwark against desert and mountain raiders*” (Fairservis 1961, 100-101).

The ceramic evidence from those excavations was added by Dales to the one obtained thanks to his reappraisal of the pottery from Ghirshman's activities at the site, stored in the Kabul Museum. Thirteen typological groups (A-M) and a total of 55 subtypes (A1-M8) were identified, described and illustrated (*Ibid.*, 36-83, pls. 13-34). Their distribution at the site was assessed and the major reliability of the ceramic evidence from Operation D was underlined (*Ibid.*, 84-93). At the end, a series of possible comparisons for each subtype was proposed, in order to establish a preliminary chronology.

On the basis of the excavation data and, especially, of the ceramic evidence, Dales proposed a different chronology for the site, ranging from the 8th-7th century BCE until the Hellenistic, Parthian/Kushan and possibly even Sasanian periods (*Ibid.*, 101, 104, 111, tab. 1).

In the mid-1990s, however, both Ghirshman's and Dales's chronological attribution for the Sorkh Dagh were strongly put in discussion by R. Besenval and H.-P. Francfort (1994). In the view of the two French scholar, indeed, the large jar found by Ghirshman set into the masonry of the pavement of the massive platform of the Period II (Ghirshman 1959, fig. G 5 N.A. 75) and dated by him, as we have seen before, to the 8th century BCE (together with the other materials pertaining to the same Period), was to be dated, instead, between 2300 and 1700 BCE (Besenval and Francfort 1994, 5). On the basis of comparisons with similar vessels attested at Dashly Tepe, Sapalli Tepe and Dzarkutan (*Ibid.*, 6 fig. 1.3b), that type of jar "*can only belong to the pottery assemblage of the Bactrian Bronze Age of Central Asia [...]. Therefore, unless this vessel represents the reuse of a single Bronze Age jar during the Iron Age, we must conclude that the jar is sealing the chronology of the top of the platform. Therefore the platform would have been constructed before or during the period from 2300-1700, in connection with the Bactro-Margiana Bronze Age or Oxus Civilization*" (*Ibid.*, 5). The date based on this ceramic evidence was also strengthened by architectural observations concerning brick sizes and the general dimensions of the platform (*Ibid.*, 5-10).

Notwithstanding this radical chronological reassessment for the Sorkh Dagh platform, the presence of architectural and ceramic evidence to be possibly connected with the Achaemenid period at the site should not be completely excluded. It is particularly important to stress, in this respect, that the lid and one of the jars published by Ghirshman among the materials pertaining to his Period II (Ghirshman 1959, fig. G 5 N.A. 55, 70) still represent today the unique source of comparison for a peculiar incised motif

frequently attested on vessels from the site of Dahane-ye Gholaman in Iranian Sistan (see *infra*), whose Achaemenid date seems well-established.<sup>14</sup>

The evidence from the Sorkh Dagh at Nad-i Ali (with its remarkable chronological issues), however, is not the only possible archaeological attestation for the Achaemenid period in the present-day Nimruz Province of Afghanistan, an area historically pertaining to ancient *Zranka*.

In the summer of 1966, on behalf of Cambridge University, Norman Hammond carried out a surface survey of archaeological sites in the middle and lower Helmand Valley (Hammond 1970, 438, fig. 1). From the forty-five surveyed sites, 1473 potsherds were collected (*Ibid.*, 442) and subsequently divided into twenty-one “groups” or “characters”<sup>15</sup> according to several criteria involving their fabric, form, surface treatment, decoration and chronology (*Ibid.*, 442-443, tab. 2). The chronological subdivision into three periods (Achaemenid, Hellenistic and Parthian) was made by David Stronach on the basis of each potsherd’s fabric and form (*Ibid.*, 443, n. 27).

Pottery attributed to the Achaemenid period included “22 *sherds*, all oxidized in firing to a hard red. The fabric contains small white mineral inclusions and averages 4.5 mm. in thickness. Some sherds have a red slip slightly deeper in colour than the fabric, and some have dark parallel burnished lines. The only vessel types present are small bowls and perhaps a small flask.” (*Ibid.*, 451).<sup>16</sup>

Of the forty-five surveyed sites, only eight revealed Achaemenid pottery (*Ibid.*, figs. 2, 4) and among them only two – numbered as site nos. 25 and 29 – were located on the lower course of the Helmand river (*Ibid.*, fig. 1), in the present-day Nimruz province, i.e. in an area historically pertaining to ancient *Zranka*. The other six sites (*Ibid.*, nos. 6, 9, 14, 18, 37, 38), instead, were detected more upstream, further north-east (*Ibid.*, fig. 1), in an area closer to

<sup>14</sup> It consists of an upside-down “trident” surmounted by a small circle (Scerrato 1966b, fig. 58; Sajjadi and Moghaddam 2004, fig. 5; Sajjadi 1380/2001b, 53 nos. 1-5; Sajjadi 2007, fig. 12; Maresca 2010, fig. 3 no. 54, fig. 6 nos. 33, 74, 100; Zehbari *et alii* 1393/2015a, fig. 17 nos. 13, 14, fig. 19 nos. 27-29, fig. 22 nos. 47-53, 60, fig. 25 no. 74, fig. 26 nos. 80-84, fig. 30 nos. 114, 119, fig. 32 nos. 141, 142, 144; Zehbari *et alii* 1393/2015b, fig. 1, fig. 6 nos. 1-4, 12, fig. 7 nos. 13-17).

<sup>15</sup> Each group was “defined by a «character» on the basis of which that group is homogeneous” (Hammond 1970, 443).

<sup>16</sup> Unfortunately, the report written by Hammond lacks pictures and drawings of the potsherds assigned to the Achaemenid period.

present-day Kandahar and thus to be more properly considered as pertaining to ancient Arachosia.

Site no. 25 was registered by Hammond as “Zango” or “Sangar” (Fig. 2) and described as “*two parallel banks with high mound at one end*” (*Ibid.*, 450). The site is also reported in Ball’s *Gazetteer* as “Zangu” and described as a site “*on the left bank of the Helmand, opposite and a little upstream from Deh Khaju*” consisting of “*two parallel banks of earth with a high mound at one end. In the eroded surface of the mound some dry stone walls are visible*” (Ball 1982, 289 no. 1252, 476 map 60, 557 map 140.2).

Site no. 29, instead, was merely described by Hammond (1970, 450 and fig. 7) as an un-named “*«mound» or small tepe on the first river terrace near Rūdbar*”. This site, however, was identified by Ball with “Bāghak” (Fig. 2) or “Pusht-i Gau”, on the left bank of the Helmand, 5.5 kilometres from Rudbar and described as “*a ruined fort surrounded by several mounds and the remains of an ancient canal*” (Ball 1982, 44 no. 77, 476 map 60, 557 map 140.3). An older description of the site had been given by H.W. Bellew, an Indian-born British medical officer who visited the site in 1872, reporting that on the banks of the Helmand course, around Rudbar “*a quick succession of ruins, the remains of ancient forts, cities and canals*” were visible, adding that “*the first ruins are those of Pushtí Gáo, close to Rúdbár. Amongst them is traced the course of a great canal called Júe Garshasp. It is said in ancient times to have irrigated the southern half of the Sistan plain [...]. The main channel is said to have run from Rúdbár to Fákú under the name of Balbákhan, and to have given off numerous branches on either side*” (Bellew 1874: 206). The same site (Bāghak), moreover, was also listed as “*a ruined fort on the left bank of the Helmand, 3½ miles below Rudbar. Around are numerous mounds [...] they are ancient remains and not formed by the accumulation of sand*” in Adamec’s *Gazetteer* (Adamec 1973, 27).<sup>17</sup>

At the end of this overview on the possible archaeological evidence from Achaemenid *Zranka* in Afghanistan, it is necessary to discuss the evidence from around modern Farah. As discussed in the previous paragraph, indeed, Classical sources seem to testify that the area around Farah was part (at least by the end of the Achaemenid period) of *Zranka*/Drangiana. According to Ball’s *Gazetteer*, however, only three

<sup>17</sup> The coordinates reported by Adamec (1973, 27) – 30°09’ N, 69°38’ E – are obviously erroneous, since they refer to a completely different geographical area (in Pakistan).

sites – located on the middle-lower course of the Farah Rud – have revealed evidence to be dated to the Achaemenid period in this territory (Ball 1982, 476 map 60). In addition to the Bala Hisar at Farah itself (*Ibid.*, 97 no. 318, 436 map 20.1, 534 map 117), only Chahardeh (*Ibid.*, 65 no. 157, 534 map 117) and Gaskin (*Ibid.*, 102 no. 340, 534 map 117) are reported (Figs. 2, 5, 6).

The latter two sites, however, were merely the object of a brief archaeological survey carried out by the *Délégation Archéologique Française en Afghanistan* in 1952 under the direction of M. Le Berre and J.-C. Gardin. In the unpublished report submitted by Le Berre to the DAFA, pottery fragments possibly dated to the Achaemenid period were registered among the potsherds collected on the surface of both sites, ranging from the 6th century BCE to the 10th-13th centuries CE (*Ibid.*, 65, 102).

In addition to the brief DAFA survey in 1952, the old citadel (Bala Hisar) at Farah<sup>18</sup> was investigated also by a German team from the University of Bonn (headed by K. Fischer), although, in the latter case, the main concern of the archaeological activities was the Islamic period (Fischer 1967; Fischer *et alii* 1974; 1976).<sup>19</sup> On the basis of the ceramic evidence, the earliest phase of the site seems to date to the Achaemenid period (6th-4th centuries BCE), as shown by an unpublished chronological study of the pottery carried out by J.-C. Gardin and B. Lyonnet mentioned by Ball (1982, 97).<sup>20</sup>

### **Archaeological evidence for *Zranka* in Iranian Sistan: settlements and pottery**

At the present stage of our archaeological knowledge about the pottery from the area historically known as *Zranka*/Drangiana, the site of Dahane-ye Gholaman (Figs. 2, 7, 8), located at about 30 kilometres south-east of Zabul, in

<sup>18</sup> For some descriptions of the “Old Town” (Shahr-i Kuhna) or “Citadel” (Bala Hisar) at Farah, located on the right bank of the Farah Rud (the modern town, instead, is on the opposite bank) see also Adamec (1973, 76-80) and Balland (1999).

<sup>19</sup> Also the archaeological activities by Manfred Klinkott in Afghan Sistan were exclusively devoted to the Islamic period (Klinkott 1982).

<sup>20</sup> It has not been possible to find out further information about this pottery assemblage collected by the DAFA around Farah in 1952 and dated to the Achaemenid period. Not even a reference is given, for instance, in a well-known and rather comprehensive comparative essay on the diffusion of characteristic vessel forms of the Achaemenid period on the Iranian Plateau and in Central Asia (Cattenat and Gardin 1977).

the area of Iranian Sistan (Sistan and Baluchestan Province), surely represent the most important source of information.<sup>21</sup>

The site was discovered in November 1960 by Umberto Scerrato, during the Italian archaeological activities carried out by the IsMEO (Istituto per il Medio ed Estremo Oriente). Already after the first surveys in the area, the hypothesis that the site had to be interpreted as a complex of buildings pertaining to the Achaemenid period was put forward (Scerrato 1962, 186).

IsMEO excavations at Dahane-ye Gholaman were carried out in 1962-1965 (Scerrato 1966a; 1966b; 1966c; 1966d; 1970; 1972; 1974; 1979; Gnoli 1966; 1967) and in 1975 (*Anonymous* 1975), focusing on some of the buildings detected at the site (Fig. 8),<sup>22</sup> interpreted as the possible capital city of Achaemenid *Zranka/Drangiana* (see n. 12).

On the basis of the archaeological evidence,<sup>23</sup> the site was dated to a rather short chronological time span,<sup>24</sup> encompassed between the 6th century BCE and the first decades of the 5th century BCE (Scerrato 1966a, 467). In later years, however, Scerrato (1979, 709) included also the 4th century BCE in that time span.

Ceramic materials from the site were preliminary discussed by Scerrato in the report of the 1962 and 1963 fieldwork seasons (Scerrato 1966b, 26-27, 29-30, figs. 52-61),<sup>25</sup> assessing general similarities with materials from the Sorkh

<sup>21</sup> A paper on pottery studies concerning the site of Dahane-ye Gholaman (written in 2016) is going to be published in the next future within the Proceedings of the Eighth Conference of Iranian Studies held in St. Petersburg on September 2015 (Maresca, *forthcoming*). A more detailed discussion on the ceramic evidence from the site is to be found in that contribution.

<sup>22</sup> Seven buildings (QN2, QN3, QN4, QN5, QN6, QN7 and QN16) were completely or partially brought to light by the Italian excavations among the twenty-eight ones detected at the site (see Fig. 8).

<sup>23</sup> The proposed chronology was based on observations concerning the architectural layout of the excavated buildings, on the preliminary analysis of the ceramic evidence and of the arrowheads' typology, as well as, more specifically, on the sigillographic evidence retrieved at the site (Scerrato 1966a, 464-465, n. 18; 1974, 111).

<sup>24</sup> Probably because of substantial changes in its hydrological setting (Scerrato 1966a, 460; 1966b, 10, n. 3; 1979, 711-712). A peculiar development pattern was proposed: "*its foundation, then a period of prosperity, which was followed by one of decline. After this the city thrived once again, and was then definitely abandoned over a period of deterioration of the inhabited area, which was in part occupied, in season, by sheep- and cattle-herding peoples*" (Scerrato 1979, 712).

<sup>25</sup> Hints to the pottery from building QN3 had already been given by Scerrato (1966a, 463-465).

Dagh published by Ghirshman. Carinated bowls (*Ibid.*, figs. 52, 53, 58, 61) and large basins (*Ibid.*, fig. 59), however, were considered closer to vessels collected by Fairservis from the surface at the same site. Analogies between bowls with horizontal rim attested at Dahane-ye Gholaman and similar vessels from Persepolis were also stressed (*Ibid.*, figs. 52, 58), while some peculiar large “basins on a trumpet base” (*Ibid.*, fig. 60) were compared with materials from Afrasiyab in ancient Sogdiana and also from Kobadian I and Balkh, in ancient Bactria. “Cylindrical-conical beakers” (*Ibid.*, figs. 54, 58) were instead interpreted as a peculiar ceramic form attested at the site.

Further information concerning the pottery from the Italian excavations at buildings QN2 and QN4 was given by Bruno Genito (1990).<sup>26</sup> Several types of vessels were discussed and compared with ceramic assemblages known from Iran and surrounding areas (*Ibid.*, 590-598, figs. 1-7). So-called “carinated cups” were considered of particular interest and their irregular diffusion on the Plateau was stressed by the author (*Ibid.*, 592-593, fig. 1e).<sup>27</sup> Among the most widespread unrestricted vessels, instead, “large basins with moulded rim, trumpet base and oblique sides” were reported (*Ibid.*, 594, fig. 1c) and compared with similar vessels from Achaemenid levels at Kalai Myr and Bactra, both in ancient Bactria (*Ibid.*, fig. 4). In addition, “large jars with a bulging body on a trumpet base” (*Ibid.*, 595, fig. 5a) and “large jars with cylindrical body on a trumpet base” (*Ibid.*, 597, fig. 5b) were considered the most prominent examples of the restricted vessels attested at the site.

On behalf of the Iranian Cultural Heritage Organization (ICHO – later Iranian Cultural Heritage and Tourism Organization: ICHTO and nowadays Iranian Cultural Heritage, Handicrafts and Tourism Organization: ICHHTO), excavations were resumed at Dahane-ye Gholaman between October 2000 and January 2006, under the direction of Seyyed Mansur Seyyed Sajjadi. Excavation activities (Fig. 8) concentrated on building QN15 (Sajjadi 1380/2001a; 1380/2001b; 2004; 2007; Sajjadi and Saber Moghaddam 1382/2003; 2004; Sajjadi and Casanova 2006), in

<sup>26</sup> The same scholar had already described some vessels from the site in a previous contribution concerning the importance of Dahane-ye Gholaman in the frame of urban attestations in Iran during the Achaemenid period (Genito 1986a).

<sup>27</sup> This kind of bowls had already been included by Cattenat and Gardin (1977, 236, fig. 6c-f) among the most peculiar vessel types (addressed as “*assiettes carénées à levre horizontale*”) attested on the Iranian Plateau during the Achaemenid period.

the central-western sector of the main urban area. During the fifth (last) excavation campaign (October 2005-January 2006) also buildings QN1, QN17, QN21, QN22 and QN23 were tested (Sajjadi and Casanova 2006, 357; Mohammadkhani 2012, 4).

Several ceramic fragments were published in the preliminary reports of those archaeological activities. Beside some fragments of walls with applied decoration probably pertaining to large storage vessels (Sajjadi 1380/2001b, 72-73), also a consistent number of rims, walls and bases were published, pertaining to rounded hemispherical bowls (*Ibid.*, 59-61), bowls with carinated profile (*Ibid.*, 62-63) and to small or medium-sized jars (*Ibid.*, 67-70). Several specimen of “cylindrical-conical beakers” were also published (*Ibid.*, 52-58, group A1-A5; Sajjadi 2004, 248; 2007, 143, figs. 11, 12; Sajjadi and Saber Moghaddam 2004, 294, fig. 5).

A new programme of geophysical prospections and field walking surveys sponsored by the ICHHTO was carried out at the site between 2008 and 2012, under the direction by Kourosch Mohammadkhani. Although the study of the pottery did not represent the main focus of that research programme, pottery fragments were collected and counted within each square (Mohammadkhani 2014, tab. 5-1) surveyed during the field walking carried out at the main “urban” area of the site – i.e. “Zone 1” (*Ibid.*, 159-183), in order to obtain a map of their concentration and spatial distribution to be compared with the data obtained by means of the geophysical prospections (Mohammadkhani 2012, 5; 2014, pls. 42, 43, 47). The highest concentration of pottery fragments was registered at the northern sector of that area (Mohammadkhani 2014, 165-181), while the density of fragments revealed to be much more limited at its southern part (*Ibid.*, 161-163). Pottery resulted to be completely absent on the surface, instead, at the area encompassed between the two aforementioned sectors (*Ibid.*, 163-164).

During the years of the IsMEO excavations at Dahane-ye Gholaman, several pottery fragments from the excavations at the site were transferred to Italy thanks to an agreement between the IsMEO and the former Service for the Antiquities of Iran (Maresca 2014, 64-65, n. 7-8; 2016a, 200; 2016b, 153, n. 22-24). While the majority was stored at the Centro Scavi e Ricerche Archeologiche of the IsMEO (later IsIAO: Istituto Italiano per l’Africa e l’Oriente, the Institution into which the IsMEO merged in 1995) in Rome, some complete and unbroken vessels were conferred upon the Museo Nazionale d’Arte Orientale (MNAOr) in Rome – later Museo Nazionale



d'Arte Orientale "Giuseppe Tucci" (MNAO), nowadays merged into Museo delle Civiltà – to be put on display (D'Amore 1999).

The results of a preliminary study of the assemblage of 3216 pottery fragments from Dahane-ye Gholaman stored at the IsIAO Centro Scavi e Ricerche Archeologiche in Rome – carried out in the frame of my PhD researches (2005-2008) at the Università di Napoli "L'Orientale" (UNO) under the supervision of Prof. Bruno Genito (Chair of Iranian Archaeology and Art History) – have been already published (Maresca 2008, 110-122, 131-135; 2010). On the basis of macroscopic features of the ceramic body of the fragments, eleven different pottery fabrics were distinguished in the assemblage and a preliminary presentation of the main vessel types associated with each of them was given (Maresca 2010; *forthcoming*). The degree of morphological and functional specialization of the eleven fabrics distinguished revealed to be quite low and, generally, the rather substantial differences in the macroscopic features of the detected fabrics was not reflected in the morphology of the attested vessels, pointing to a high level of standardization in manufacturing processes.

After the end of the ICHO/ICHTO excavations at Dahane-ye Gholaman in 2006, a team of Iranian archaeologists and ceramics specialists devoted their attention towards the pottery assemblage from the Iranian excavations at the site, taking also into account the pottery from the old IsMEO excavations stored in Iran and publishing a series of articles about that topic (Mehrafarin *et alii* 1392/2013; Zehbari and Mehrafarin 1393/2014; Zehbari *et alii* 1393/2014; Zehbari *et alii* 2015a; 1393/2015b).

The most significant contribution is probably represented by an article on the structural characteristics of the pottery from Dahane-ye Gholaman (Zehbari *et alii* 2015a), based on an assemblage of 2370 potsherds selected among the ceramic fragments coming from the IsMEO and ICHO/ICHTO excavations (*Ibid.*, 220, tab. I).

Macroscopic observations concerning the manufacturing processes of the pottery attested at the site were one of the main concerns of the study (*Ibid.*, 220-225, figs. 4-11). Moreover, the presence of different types of decoration and/or peculiar kind of surface treatments on the analysed potsherds were discussed and put in correlation with the *repertoire* of the attested shapes (*Ibid.*, 225-228, figs. 12-13, tab. 2).

A total of 152 significant pottery fragments, classified into eight groups according to the colour of their external surfaces and, subsequently, to

morphological criteria (*Ibid.*, 228, fig. 15), were selected for publication (*Ibid.*, figs. 16-33) and a catalogue synthesising their main characteristics was provided (*Ibid.*, 246-254), with an extremely rich series of proposed ceramic parallels (*Ibid.*, 228-245). The majority of the fragments were compared with materials from Nad-i Ali, in Afghan Sistan (*Ibid.*, nos. 6, 13, 14, 21, 27-29, 33, 41, 44, 47-53, 55, 60, 65-68, 74, 78, 80-84, 89, 90, 95, 114, 119, 141-144). Other published vessels, instead, were put in comparison mainly with pottery from excavated or surveyed Iranian sites and archaeological areas in Khuzestan,<sup>28</sup> Fars,<sup>29</sup> Bushehr,<sup>30</sup> West Azerbaijan,<sup>31</sup> East Azerbaijan,<sup>32</sup> Ardabil,<sup>33</sup> Gorgan<sup>34</sup> and Kerman.<sup>35</sup> By far more limited, instead, were the comparisons provided by materials from Erk Kala, in Turkmenistan (*Ibid.*, no. 14); Akra (*Ibid.*, nos. 55, 66) and Charsada (*Ibid.*, nos. 55, 57, 66), in Pakistan; Cimin Tepe, in Turkey (*Ibid.*, no. 64) and Ur, in Iraq (*Ibid.*, no. 67).

The reported presence within the assemblage of “fishplates” of Hellenistic tradition, lead the authors to consider also a later date (at least from the last three decades of the 4th century BCE) for some of the vessels taken into account (*Ibid.*, 255).

Morpho-typological and chronological issues, however, are no longer the unique concern of scholarly publications on the pottery from Dahane-ye Gholaman. Since a few years, pottery studies about the site have been enriched by the first publications on archaeometric issues. In the frame of preliminary analyses on some pottery fragments dated to the historical period in Iranian Sistan, also one fragment from Dahane-ye Gholaman was recently taken into account (Sarhaddi-Dadian *et alii* 2015, 47, fig. 1). X-Ray

<sup>28</sup> Susa (Zehbari *et alii* 2015a, nos. 1, 39, 42, 108), Chogha Mish (*Ibid.*, nos. 10, 95, 105), Tepe Darooqeh (*Ibid.*, nos. 16, 32, 121) and sites surveyed in the Miyanab plain (*Ibid.*, nos. 37, 97, 111, 122, 123).

<sup>29</sup> Persepolis (Zehbari *et alii* 2015a, nos. 4, 12, 16, 22, 33, 37, 38, 58, 88, 95, 97, 106, 110, 111, 136, 138), Naqsh-e Rostam (*Ibid.*, no. 2), Qaleh Kali (*Ibid.*, nos. 2, 16, 24, 31, 36, 85), Tol-e Spid (*Ibid.*, nos. 13, 37, 46, 56, 97, 111, 113) and also Toll-e Nurabad (*Ibid.*, nos. 15, 101, 103).

<sup>30</sup> Zehbari *et alii* 2015a, no. 4.

<sup>31</sup> Hasanlu (Zehbari *et alii* 2015a, no. 10) and Qalaychi (*Ibid.*, nos. 35, 54).

<sup>32</sup> Baba Jan (Zehbari *et alii* 2015a, nos. 5, 10) and Qaleh Khezerlu (*Ibid.*, no. 26).

<sup>33</sup> Agh Tappeh (Zehbari *et alii* 2015a, no. 34).

<sup>34</sup> Narges Tepe (Zehbari *et alii* 2015a, nos. 11, 37, 76, 97, 111).

<sup>35</sup> Tepe Yahya (Zehbari *et alii* 2015a, nos. 10, 23, 37, 43, 97, 109, 111, 112) and the area of Bardsir (*Ibid.*, no. 3).

Diffraction (XRD) and X-Ray Fluorescence (XRF) analyses revealed a high concentration of silica (50.51%) and aluminium (16.67%), followed by iron (7.82%), calcium (6.11%) and other minor elements such as manganese, potassium and sodium (*Ibid.*, tabs. 1-2). Since a similar composition was evaluated also for the rest of the analysed pottery fragments dated to the historical period, the almost exclusive utilisation of the same local raw materials in the ceramic production processes during historical phases in Sistan was pointed out (*Ibid.*, 49-50).

A rather evident continuity in the utilisation of similar and locally available raw materials for the ceramic production between the Achaemenid and the Parthian period in Sistan was also highlighted by preliminary mineralogical and petrographic analyses carried out in Italy on samples of some pottery fabrics largely attested among the assemblage from Dahane-ye Gholaman and samples of the most frequently attested pottery fabrics among the assemblage from the site of Qal'a-ye Sam<sup>36</sup> (Maresca 2016a: 204-205; Maresca, *forthcoming*).

In a very recent paper, moreover, results of new XRF analyses carried out on a wider corpus of potsherds from Dahane-ye Gholaman were presented (Sarhaddi-Dadian *et alii* 2017). Fifteen potsherds<sup>37</sup> were taken into account (*Ibid.*, fig. 2) in order to determine their chemical composition (*Ibid.*, tab. 1), providing scatter plots and cluster analyses (*Ibid.*, figs. 3-6). The results demonstrated that the major elements in each sample (*Ibid.*, tab. 1) were silica (54.9-66.6%), aluminium (10.8-17.6%), iron (5.4-9.8%) and calcium (4.5-7.7%). Although the majority of the potsherds revealed to be locally produced, five samples (QH6, QH8, QH26, QH29 and QH38) could represent imports or could be simply retained as anomalies on the basis of the results obtained (*Ibid.*, tab. 1). In addition, the circumstance that the percentage of P<sub>2</sub>O<sub>5</sub> (Diphosphorus Pentoxide) was rather high in many samples (*Ibid.*, tab. 1) led

<sup>36</sup> Located at about twenty kilometres west of Dahane-ye Gholaman, the site of Qal'a-ye Sam was briefly investigated by the IsMEO in 1964, showing three occupation phases possibly encompassed between the late-Seleucid and the Sasanian period (Scerrato 1966a, 466-467; 1970, 136-137; 1972, 202-203; Genito 2010, 104; Maresca 2014, 62-63; 2016a, 198-199; 2016b, 150, 153).

<sup>37</sup> Unfortunately, the criteria according to which those potsherds were selected for analysis are not specified. Morpho-typological as well as archaeological information concerning their provenance and excavation contexts are also unmentioned (although the first pages of the paper are devoted to a presentation of the main vessel types attested at the site).

the authors to infer that those fragments belonged to vessels used as containers for some organic materials, possibly food (*Ibid.*, 5, 7).\*

Notwithstanding the site of Dahane-ye Gholaman still represents, at the present stage of our archaeological knowledge, the most significant evidence concerning the Achaemenid period in Iranian Sistan, current researches are gradually enriching our information about that period in the area, confirming its outstanding archaeological potential.

Between 2007 and 2010, a two-phase programme of extensive archaeological surveys was carried out in Iranian Sistan on behalf of the ICHHTO, under the direction of R. Mehrafarin and S.R. Musavi Hajji, in those years at the University of Sistan and Baluchestan in Zahedan (Musavi Hajji and Mehrafarin 1387/2008; Mehrafarin and Musavi Hajji 1389/2010).

Each of the twenty-two “sectors” (*howza*) into which the entire area of Iranian Sistan had been subdivided (Hasanalipour *et alii* 1392/2013, figs. 1, 10, tabs. 1, 3; Mehrafarin and Musavi Hajji 1394/2016, fig. 1) was surveyed and a total of about 1660 archaeological sites were detected (Hasanalipour *et alii* 1392/2013, figs. 1, 10, tabs. 1, 3; Mehrafarin and Musavi Hajji 1394/2016, 38).

As far as the Achaemenid period is concerned, the northern portion of Iranian Sistan (surveyed during the first phase of that project) proved to be completely lacking of archaeological traces pertaining to that period (Mehrafarin 2016, 5), with the exception of Dahane-ye Gholaman<sup>38</sup>.

During the second phase of the activities, focused on southern Sistan, instead, about 110 sites were identified as possibly dated to the Achaemenid Period (Fig. 9),<sup>39</sup> all located in the area of the Rud-e Biyaban/Ram Rud delta<sup>40</sup>

\* At a stage when this paper was about to be submitted for reviewing (in autumn 2017), another interesting contribution concerning the results of XRD and XRF analyses on potsherds coming also from Dahane-ye Gholaman was published (Pourzarghan *et alii* 2017). For matters of time, results presented in that article are not discussed here. Obviously, those important data will be taken into account on another occasion.

<sup>38</sup> The total lack of archaeological evidence pertaining to the Achaemenid period in northern Sistan and around Dahane-ye Gholaman is an extremely surprising circumstance, which needs of course further in-depth analyses.

<sup>39</sup> On the basis of the analysis of the ceramic evidence, only 103 sites of this group were dated with a major degree of certainty to the Achaemenid period (Alaeyi Moqaddam *et alii* 2016, 125 n. 1).

<sup>40</sup> It is important to stress that these sites were detected in an area significantly distant (55 to 85 kilometres) from Dahane-ye Gholaman (Alaeyi Moqaddam *et alii* 2016, 118).

(Mehrafarin 2016, 4, 8, fig. 2; Alaeyi Moqaddam *et alii* 2016, 118, figs. 1, 5).<sup>41</sup> The highest concentration of these possibly Achaemenid sites was observed at three sectors of southern Sistan: *Howza-ye Gerdi* (Mehrafarin and Musavi Hajji 1394/2016), *Howza-ye Jonub-e Qal'a-ye Rostam* and *Howza-ye Šila* (Mehrafarin 2016, 6). Together with the *Howza-ye Jonub-e Daryāča-ye Hāmun* (Sarhaddi-Dadian *et alii* 2015, 47), they should have represented the most extensively settled area in Iranian Sistan during the Achaemenid period.<sup>42</sup>

The chronological attribution to the Achaemenid period of such sites was based on the comparison between the ceramic fragments collected from their surfaces and the pottery assemblages from Dahane-ye Gholaman and other coeval sites (Mehrafarin 2016, 5, fig. 4; Alaeyi Moqaddam *et alii* 1395/2016, 118, 126-127 tab. 1, 130 fig. 10). In particular, the study of the 913 rims among the 1720 potsherds collected during the survey, enabled the authors to set a preliminary typology consisting of 61 vessel types (Fig. 10), including several specimens of bowls, basins, jars and beakers (Alaeyi Moqaddam *et alii* 1395/2016, 130 fig. 10). Among the latter there are several examples of beakers (*Ibid.*: 130 fig. 10 nos. 55-61; cfr. Fig. 10), some of which represent the only comparisons so far known for the “cylindrical-conical beakers” attested at Dahane-ye Gholaman and often considered (even very recently: Zehbari *et alii* 1393/2015, 58, 64) as an original and peculiar vessel shape of Dahane-ye Gholaman, unparalleled in the ceramic assemblages known from other sites of Achaemenid period.

In addition to preliminary observations on the pottery collected from their surface, information about the sites included hints at their dimensions<sup>43</sup> as well

<sup>41</sup> According to the Iranian archaeologists who carried out the survey, water returned to flow in the Rud-e Biyaban (representing the main southern branch of the Helmand River) shortly before the mid-6th century BCE, after a period of hydric collapse at the end of the Bronze Age. Settlements flourished again in the area shortly after and many of them were established in connection with previous Bronze Age sites, probably to exploit the same sources of water supply (Mehrafarin and Musavi Hajji 2016, 43; Mehrafarin 2016, 5-7; Alaeyi Moqaddam *et alii* 2016, 114).

<sup>42</sup> This area might have corresponded to the western part of the territory of the population mentioned as *Ariaspi/Euergetes* in Classical sources (Mehrafarin 2016; Alaeyi Moqaddam *et alii* 2016).

<sup>43</sup> According to preliminary publications, the majority of these possibly Achaemenid sites shows an area encompassed between 0.1-0.5 or 0.5-1.0 hectares (slightly smaller or bigger in

as some descriptions about the scanty architectural remains attested in a very few case.<sup>44</sup>

Although the publication of the results of those surveys is still at a preliminary stage, it is undoubtful that further researches (especially stratigraphic excavations) in that area would potentially reveal a more detailed picture of the Achaemenid period in Iranian Sistan, obtaining results not even conceivable just one decade ago.

### Conclusions

Notwithstanding the archaeological researches carried out in Iranian and Afghan Sistan, as well as in the area around Farah, in Afghanistan, evidence for a clearly identifiable “Achaemenid ceramic horizon” in this wide region, once known as *Zranka*, still remains somewhat elusive. Our knowledge of its material culture during the Achaemenid period is still preliminary and related archaeological questions can be only partially answered. It is therefore extremely difficult to evaluate to what extent the establishment of the Achaemenid political control over that territory had a cultural, social and economic impact directly – and clearly – discernible through peculiar expressions of the material culture, pottery production above all.

The rather limited extent of the archaeological activities concerning the Achaemenid period in the area (especially excavations at sites with levels possibly pertaining to the 6th-4th centuries BCE) and the incomplete and

a few cases). An exceptional area of over 22 hectares is registered only in the case of site no. 242, in the *Howza-ye Gerdi* (Mehrafarin 2016, 6; Alaei Moqaddam *et alii* 2016, 119 tab. 2).

<sup>44</sup> Visible architectural remains were reported only from seven sites (Alaei Moqaddam *et alii* 2016, 120). Since they were considered “mono-period” Achaemenid sites by virtue of the analysis of the potsherds collected on their surface (*Ibid.*: 125 n. 2), also their architectural remains were attributed to the same period. Sites R211 and R214 were reported as the most significant among them. The first one (*Ibid.*: 120, fig. 8) showed traces of a possible “vestibule” with remains of a vaulted ceiling made of curved mud-bricks (measuring 110×30×10 centimetres); remains of other mural structures are attested further north, 70 centimetres thick and made of mud-bricks measuring 12×34×34 centimetres. At Site R214 (*Ibid.*: 120, fig. 9), instead, remains of two longitudinal “rooms” were visible (7 metres wide and maximum 13 metres long), characterized by walls 70 centimetres thick, made of mud-bricks measuring 34×12×? (*sic*) centimetres.

fragmentary publication of the related data can be surely retained as one of the reasons for this scholarly backwardness.<sup>45</sup>

As we have seen, some documented evidence for the those centuries in the present-day Afghan portion of ancient *Zranka* is basically limited to a single archaeological site, the Sorkh Dagh at Nad-i Ali, notwithstanding the related relevant chronological issues raised in the mid-1990s.

The picture seems more encouraging as far as the Iranian Sistan is concerned. Even in this area, however, stratigraphic excavations interested only one archaeological site dated to the Achaemenid period, i.e. Dahane-ye Gholaman. Similarly to the Sorkh Dagh at Nad-i Ali, also Dahane-ye Gholaman was excavated by two different teams in two different phases, but the excavations covered a considerably wider area than at Nad-i Ali and were carried out rather recently (2000-2006) after being resumed.

Although a comprehensive study on the pottery from the excavations at the site has not been published yet, the on-going researches carried out independently both by Iranian and Italian scholars seem extremely promising in this respect.

What is particularly needed in the case of Dahane-ye Gholaman, however, is a more detailed periodization of its ceramic assemblage, to be necessarily connected with a definitive reassessment and refinement of the chrono-stratigraphy at the site.<sup>46</sup>

A reliable and detailed chronological dating for that assemblage, possibly shedding light on the evolution of pottery types through (some) different phases of the Achaemenid period in Iranian Sistan, could hopefully create also the premises for a more specific and well-grounded chronological attribution of ceramic materials from recently surveyed sites in that region, maybe pointing to the need for some revisions of their chronology.

<sup>45</sup> Geo-political factors must be taken into account in this respect, as already pointed out decades ago by Hammond (1970, 438): “*Archaeological work in Seistan has been retarded by the modern frontier which divides it and perpetuates its traditional status as borderland*”.

<sup>46</sup> It is important to recall in this respect that according to Scerrato the settlement had a rather short chronology, encompassed between the 6th and the 5th century BCE (Scerrato 1966a, 467; 1966b, 11), stretching into the 4th century BCE (Scerrato 1979, 709). As we have said before, instead, in a recent contribution by Iranian scholars, the presence of “fishplates” of Hellenistic tradition among its pottery assemblage, lead the authors to consider also a later chronology for the site (Zehbari *et alii* 2015a, 255).

Another fundamental reason preventing us from identifying a possible “Achaemenid ceramic horizon” in the area historically known as *Zranka*/Drangiana is, undoubtedly, the nearly total absence of archaeological evidence dated to the centuries immediately preceding the establishment of the Achaemenid political control over that territories (i.e. the so-called “Iron Age” or, more properly – according to a more recent and less historically-oriented terminology, the “Early Iron Age”). If we exclude the problematic case of the Sorkh Dagh at Nad-i Ali in Afghan Sistan, indeed, literally nothing is known in the rest of the area for the period encompassed between the collapse of the famous Bronze Age urban settlement of Shahr-e Sukhte<sup>47</sup> and the emergence of Dahane-ye Gholaman during the Achaemenid period. Even the results of the surveys recently carried out in Iranian Sistan seem to indicate a total *vacuum* of archaeological evidence for the Early Iron Age in the area (Mehrafarin and Musavi Hajji 1394/2016, 43; Sarhaddi-Dadian *et alii* 2015, 46-47; Mehrafarin 2016, 5, 7).<sup>48</sup> At the present stage of our archaeological knowledge concerning ancient *Zranka* and in the absence of ceramic data from the period prior to the beginning of the Achaemenid political control of the area, the possibility to evaluate the intensity of an alleged “Achaemenid impact” on the local culture – and on the local processes of pottery production, utilisation and circulation – seems rather unattainable.

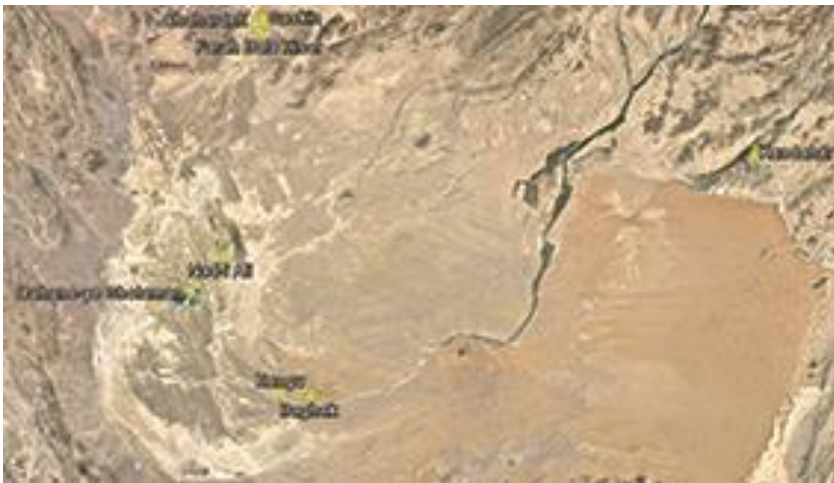
<sup>47</sup> Period IV-Phase 1: ca. 2200–2000 BCE and Period IV-Phase 0: ca. 1950–1650 BCE (Salvatori and Tosi 2005, 288-290).

<sup>48</sup> Several interesting hypotheses have been put forward to explain this “gap” (Mortazavi 2007; Mortazavi *et alii* 2015), e.g. particular scholarly trends orienting the history of the archaeological researches in the area towards periods different from the “Iron Age”, as well as radical climatic, geo-morphological and socio-economic changes affecting the cultural development and the population dynamics at the end of the Bronze Age and making almost archaeologically “intangible” supposedly Early Iron Age remains (see also n. 42).





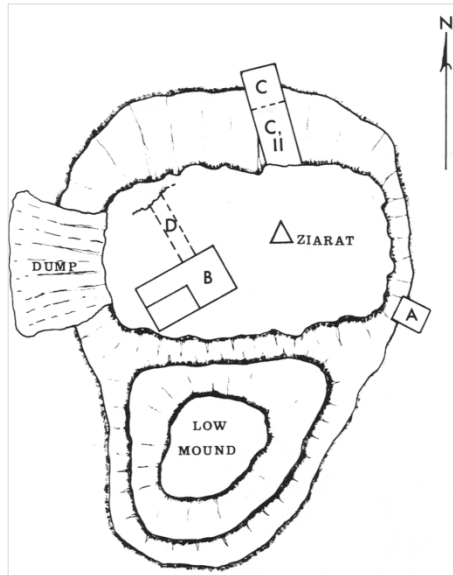
**Fig. 1** - Geography of the lower Helmand Basin showing the location of physical features and streams (after Whitney 2006, fig. 2)



**Fig. 2** - Map showing the location of archaeological sites discussed in the text (satellite view after Google Earth™)



**Fig. 3** - Satellite view (after Google Earth™) of the Sorkh Dagh (“Red Mound”) and the Sefid Dagh (“White Mound”) at Nad-i Ali



**Fig. 4** - Map of areas excavated by G.F. Dales at the Sorkh Dagh. Not to scale (after Dales 1977, pl. 4)



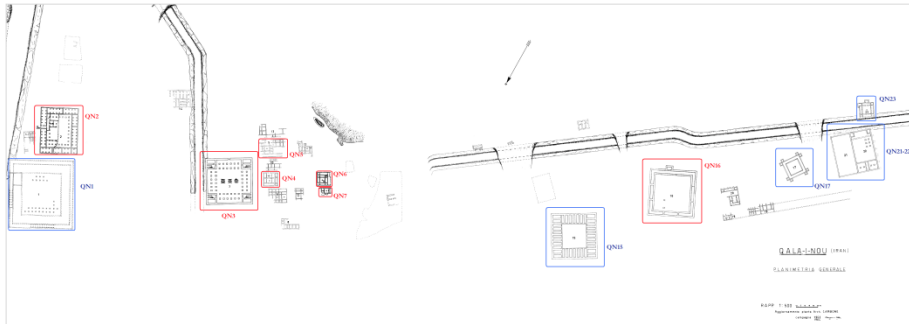
**Fig. 5** - Map showing the location of archaeological sites in Farah Province (Afghanistan) dated to the Achaemenid period and mentioned in the text (satellite view after Google Earth™)



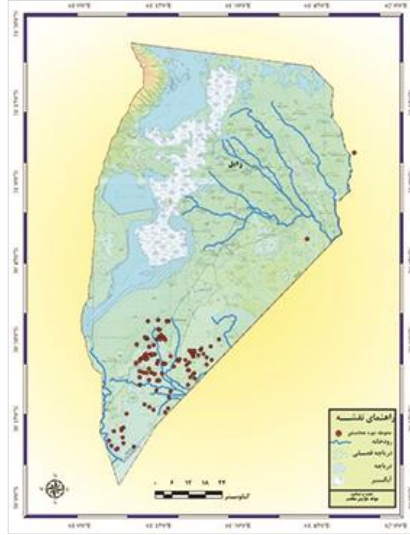
**Fig. 6** - Satellite view of the Bala Hisar at Farah (after Google Earth™)



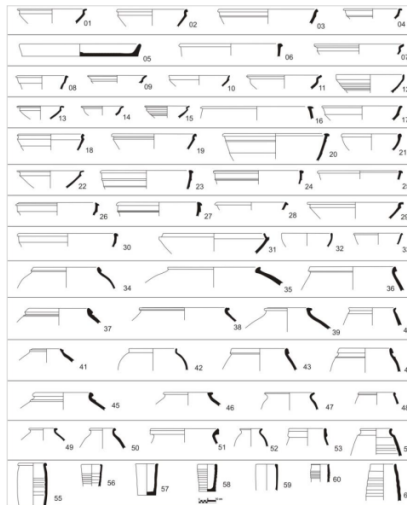
**Fig. 7** - Satellite view of buildings in the northern sector of Dahane-ye Gholaman (after Google Earth™)



**Fig. 8** - Plan of the main urban area at Dahane-ye Gholaman with indication of the buildings investigated during the activities by the IsMEO (in red) and the ICHO/ICHTO (in blue). Adapted from the original general plan of the site drawn in 1964, oriented south-east (IsMEO/IsIAO drawings archive inv. no. 1082). Not to scale



**Fig. 9** - Map showing sites in southern Sistan possibly dated to the Achaemenid period (after Mehrafarin 2016, fig. 2)



**Fig. 10** - Schemathic representation of the main vessel types collected from the surface of possibly Achaemenid-period sites in southern Sistan (after Alaei Moqaddam *et alii* 2016, fig. 10)



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