



‘They went to Tamukkan:’ Some Observations on Bushehr, Borazjan and Overland Travel Between the Persian Gulf and the Achaemenid Capitals

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Abstract

In recent years the Achaemenid sites in the Borazjan area have attracted a great deal of attention and their identification with Elamite Tamukkan/Greek Taocê has been widely accepted. Aside from the architectural interest of these sites, however, their location along what later became an important route linking the Persian Gulf and the Iranian plateau is significant. Whether travelling between the Persian Gulf coast and Shiraz, or the earlier Achaemenid capitals (Pasargadae and Persepolis), Borazjan represents the first stage for travellers moving along this route. This study examines some of the logistical aspects of travel between Borazjan and the highlands, as well as the climatic extremes experienced by travellers during much of the year. The difficulties of traversing the route are illustrated with selections from 19th and early 20th century travellers accounts. The advantages of commencing or ending the journey at Shif, as opposed to Bushehr, are discussed with reference to numerous examples. The importance of mules as pack animals along the route is emphasized. Finally, the implications of the evidence marshaled for the burgeoning field of sensory studies are underscored.

Keywords: Persian Gulf, Borazjan, Elamite, Achaemenid, Tamukkan, Travellers.

Introduction

R.T. Hallock’s identification of El. Tamukkan with Gr. Taocê¹ predated the excavation and initial publication of the monumental architectural complexes near Borazjan (Sang-e Siah, Bardak-e Siah and Charkhab).² Although Rawlinson suggested that, ‘The Achæmenian Palace of Taoce, mentioned by Strabo, was probably at the modern village of Dalaki, where there is a fine mound of great apparent antiquity,’³ most scholars would today agree that Taocê/Tamukkan should be identified with the Borazjan sites. Due to limited exploration and excavation, the function(s) and chronology of these important sites are still imperfectly understood,⁴ but iconographic, architectonic and epigraphic data⁵ suggest building activity and regular use from the reign of Cyrus to that of Darius or Xerxes, and possibly beyond.

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Borazjan lies on the principal route linking Bushehr and Shiraz (Fig. 1). As Maclean noted in 1904, ‘The only important route is viâ Borasjun and Kazeroon to Shiraz.’⁶ For most travellers, Borazjan was either the last stop on the way from the highlands to the Persian Gulf coast, or the first stop heading in the opposite direction. Hence the Borazjan complex would have received visitors during the Achaemenid period who, after sailing either down or up the Persian Gulf by ship and landing on the coast,⁷ had just completed the first overland stage of their journey to the north; or, moving in the opposite direction, the Borazjan complex would have been where visitors spent their last night before traversing the remaining distance to the coast and boarding a vessel bound for southern Babylonia or points south.

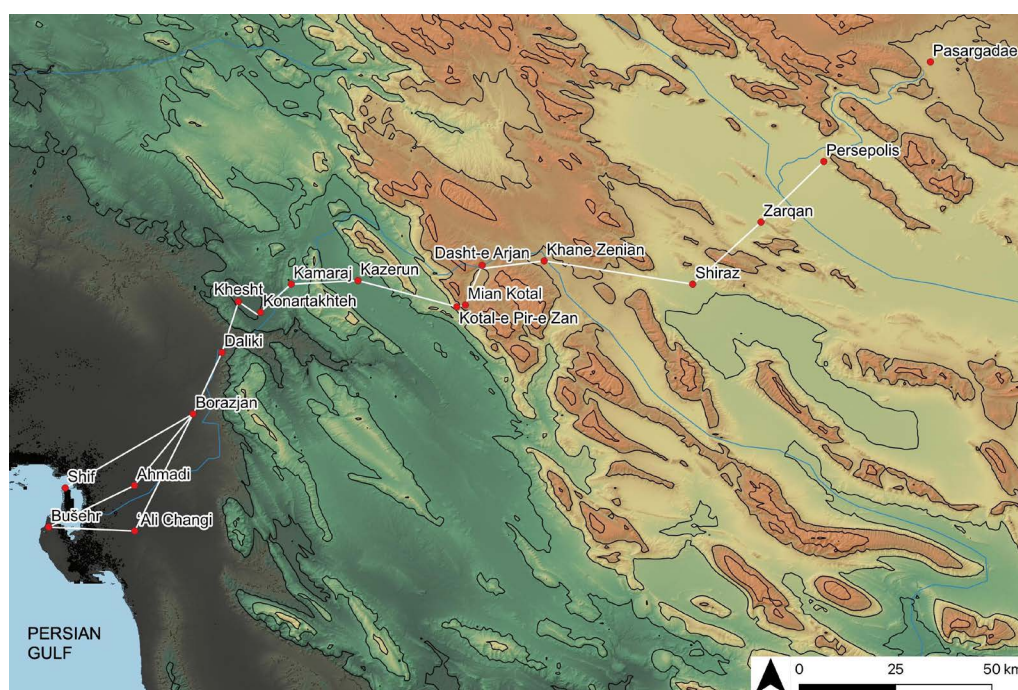


Fig. 1. Map of principal halts on the route between Bushehr and Shiraz, showing Persepolis and Pasargadae (courtesy Dr. Andrea Squitieri, Munich).

The fact that Bushehr’s Elamite predecessor, Liyan, probably acted as a maritime gateway to the highlands of Anšan⁸ makes it tempting to think that the Liyan-to-Anšan or Tamukkan-to-Parsa route was always the main thoroughfare from the Persian Gulf to the Iranian plateau. Yet, in some periods, this was demonstrably not the case. During the Safavid period, for example, Bandar ‘Abbas was the principal port of entry on the Persian Gulf for goods destined for the markets of the Iranian Plateau.⁹ Indeed, when Carsten Niebuhr visited Bushehr in 1765 he remarked that (Fig. 2), until 1735 when Nader Shah decided to make it the headquarters of his much vaunted but never realized navy,¹⁰ Bushehr had been an unimportant village.¹¹ Strictly speaking, however, this is not quite correct. Nader Shah’s naval yard was at Resahr, c. 6 kms. to the south of Bushehr.¹² Earlier, Shah ‘Abbas I had kept a squadron of 100 vessels at Resahr with which to attack vessels bound for Basra.¹³

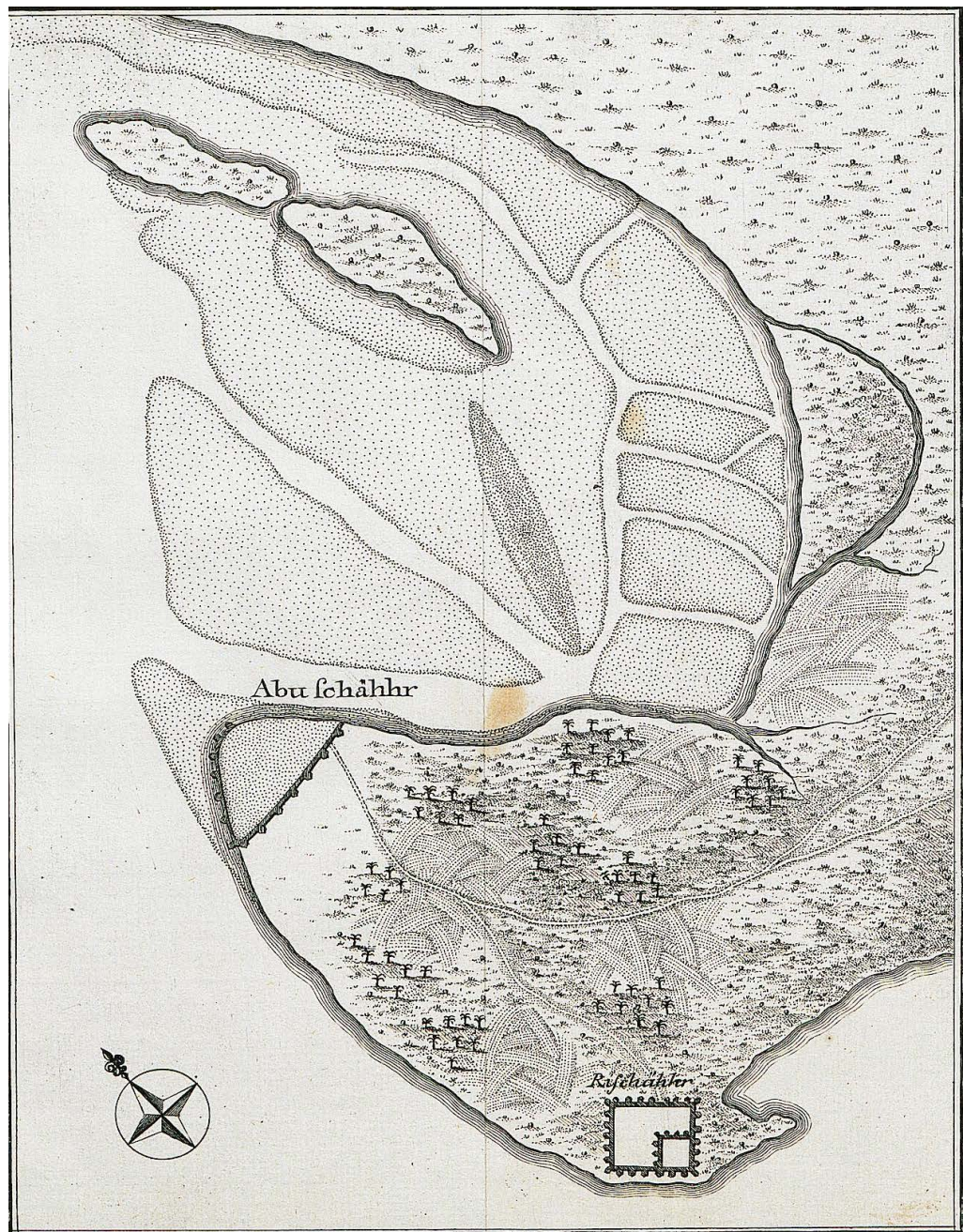


Fig. 2. Carsten Niebuhr's map, 'Grundris der Gegend um Abu schähhr,' clearly showing the distinction between the settlement at Bushehr, at the extreme northwest of the peninsula, and the fortress of Reshehr, in the south. After Niebuhr 1778: Tab. XVI.

Nevertheless, despite fluctuations in the importance of the Bushehr region and its immediate hinterland through time, scholars appear to be unanimous in recognizing the importance of the Borazjan complex. It is not my intention here to challenge this contention, yet it is interesting to consider what the hydrography, climate and environment of the Borazjan region, and the topographic exigencies of travel between the Iranian plateau and the coast, meant to the region's transient population, whether bureaucrats and royal visitors passing through, or corvée laborers brought to work on the building

projects attested in cuneiform sources, during the Achaemenid period. What follows is intended to initiate a conversation about some often overlooked, critical factors that would have impacted all who frequented Bushehr and its hinterland in antiquity, and followed the route linking this part of the coast with the Iranian plateau.

Getting to Borazjan

Most scholars agree that the earliest monumental remains in the Borazjan complex were constructed during the reign of Cyrus. It seems likely that Cyrus, Cambyses, Darius, Xerxes and perhaps other Achaemenid kings and officials, as well as corvée laborers, travelled to and/or through Borazjan, whether from Babylonia, as indicated by the Babylonian cuneiform sources,¹⁴ or the Iranian plateau, as attested in the Persepolis Fortification Archive.¹⁵ The same environmental and climatic conditions that 19th and early 20th century travellers experienced can also be assumed for the Achaemenid period. It is, therefore, instructive to see what travellers in recent centuries had to say about their journeys to and through the Borazjan area.

Bushehr, or one of its historical predecessors (Liyan, Rišahr), has traditionally been the maritime point — not port — of entry to Dashtestan and the Borazjan region.¹⁶ Although Bushehr eventually assumed the role formerly enjoyed by Bandar ‘Abbas, it had ‘no harbor, but only an open roadstead.’¹⁷ The difficulty of even approaching the coast near Bushehr was underscored in Horsburgh’s sailing directions when he noted, ‘A ship arriving off Busheer with a strong southerly wind, ought not to anchor in the outer road, where there is no shelter from such wind, and the extensive shoal between Rohilla point and the road forms a lee shore. The N. Westers blow directly into Busheer, and when the southerly wind is strong, the N. Wester may be expected with nearly double violence; it is therefore, a bad road, with either of these winds.’¹⁸ As Binning noted in 1857, ‘Ships of any large size are obliged to lie in the roadstead, three miles from the town, in consequence of the reefs and sandbanks which prevent any but small craft from entering the harbour.’¹⁹ Whether these constraints were relevant in the Achaemenid period, when sailing vessels in the Persian Gulf were probably all relatively small, is difficult to ascertain. Still, landing both men and materials may have been arduous in view of the offshore obstacles present in the waters around Bushehr.

Furthermore, it should not be assumed that, in the Achaemenid period, the Bushehr peninsula was necessarily the preferred landing place for goods, travellers or laborers headed for the mainland — whether nearby Borazjan or more distant sites like Pasargadae and Persepolis. The landing of men and supplies may have occurred further north, e.g. at Shif (see below).²⁰ The inconvenience of getting from Bushehr to the mainland has been described many times. James Justinian Morier, who visited Bushehr for the first time in 1808, noted that the town was ‘situated on the extremity of a peninsula, which is formed by the sea on one side, and on the other by an inlet terminating in extensive swamps. At the narrowest part of this neck of land, the seas, in the equinoctial spring tides, have sometimes met and rendered it an island.’²¹ Although, he continued, ‘this happened once only during the ten years which preceded our visit, and the effect then continued but two

or three days,' he ventured to predict that the landbridge linking the peninsula and the mainland would stabilize in the near future, for 'so visible is the present encroachment of the land upon the inlet, that the recurrence of such an overflow will soon be entirely impossible.'²² Morier's prediction that a stable landbridge would soon join Bushehr and the mainland was, however, premature, and numerous writers attest to the continued difficulty of crossing the mashilah or swampy tract between the promontory and the mainland.²³ Perhaps the clearest statement of the situation was written by the geologist G.E. Pilgrim who noted in 1908 that Bushehr 'forms a sort of island some 12 miles in length by 4 in width, which is separated from the mainland by a salt marsh, which at certain times of the year is absolutely impassable, and which is always liable to engulf one to the knees in mud if one leaves the caravan track....Bushehr island is in fact an elevated coral reef, which, possibly within historical times,²⁴ was completely severed from the mainland by sea in the area now occupied by a salt marsh.'²⁵

As 19th century accounts show, it was certainly possible to cross the mashilah although, at certain times of the year, treacherous. Scott Waring, who crossed it on 7 June 1802 wrote, 'we had to cross an arm of the sea, which was almost a quicksand. The slightest deviation from the accustomed track, at particular seasons, is inevitable destruction.'²⁶ In 1859 Mason wrote of 'the dreary sea of Mashila, extending between Bushire and Chagudduck.'²⁷ However, bad though it proved, for miles presenting the appearance of a lake, on whose surface the wind was raising billows in miniature, I at last passed over it in safety.'²⁸ Nothing suggests that Bushehr was the site of a significant settlement in the remote past. Rather, both Liyan and Reshahr were located at the opposite, southern end of the promontory; hence there is no logical reason why goods or travellers bound for the mainland would have been off-loaded at Bushehr. A much better place to land goods and people existed further north at Shif, only one march away from Borazjan, should be considered a potential landing area as well.

The landing point of Shif

Shif is located a 3-4 hours sail to the north of Bushehr.³⁰ By sailing there from Bushehr, instead of crossing the mashilah, or vice versa, 'two tedious and muddy marches along the coast-line of the peninsula'³¹ could be avoided. In 1890, for example, Constable and Stiffe confirmed that, 'Many of the supplies from the interior are brought down to this point [Shif], and shipped thence for that town [Bushehr], thereby saving the long circuit by the muddy mashila. It is only 32 miles to Borasjan against 48 by the land route.'³² Similarly, Wills described leaving Bushehr in a boat from 'an estuary of the gulf, thus avoiding the Macheelah plain, a dreadful march of mud and water, and shortening the journey to Shiraz by two stages. After four hours' pull and sail in the burning sun we reached Sheif.'³³ As Weeks noted, when travelling between Shiraz and Bushehr, because he was able to board a boat at Shif, he was 'spared a journey of twenty miles across a steaming salt marsh.'³⁴ In the early 20th century all 'goods destined for the immediate hinterland of Bushire are sent via Shief, a small port, or rather landing-place (for it only has two tumble-down houses), on the mainland about three hours sail from Bushire. The

Shif route is favoured by muleteers, Borasjun being reached in one stage, while, by the land or authorised route, Borasjun is the second stage from Bushire.³⁵ The identification of a large mound datable to the Sasanian period at Shif (BH5A) and Achaemenid-Arsacid sherds at Mokhi (BH2, BH3), between Shif and Borazjan, strongly suggests the use of this area and the approach to the Shiraz route via Shif in pre-Islamic times.³⁶

From Shif to Borazjan

Located about 40.2 kms (25 mi.) from Shif, Borazjan was usually reached in one march. As Stack, who travelled this route in mid-February, 1882, noted, leaving Shif, 'the road draws obliquely away from the coast, leaving the sea on the left hand, and approaching the mountains. In ordinary weather the ground is hard clay, mixed with sand; but the rain of the last few days had made the surface slippery and sticky, and had covered it with water. After seven hours of weary plodding...we reached Burazjun at half-past nine at night.'³⁷ How would the laborers of the 6th century BC who had to transport materials have fared on this route? Obviously some of what they brought would have been borne on pack animals, particularly mules (see below), but anything that might have been unwieldy would have been transported on their own backs. During his crossing from Shif to Borazjan in 1882 Stack noted that, 'In the middle of the swamp,' created presumably by the rain he described, 'we had passed an elegant carriage, which the Prince Governor of Ispahan had ordered out from Europe. It had got so far on its way, by the help of six-and-twenty men, who were painfully bearing it on their shoulders. The wheels and pole had been taken off, and packed in the body of the carriage.'³⁸ This recalls another description of a four-wheeled carriage, drawn by four horses, which Trotter encountered on the way to Kamaraj. In it was a Persian general, accompanied by thirty soldiers ready 'to pull, push, or lift as required,' should it become impossible to drive the carriage onward.³⁹ Stack, who subsequently travelled widely in Iran, maintained that, he had 'made a pretty extensive acquaintance with various sorts of Persian roads, in various kinds of weather, but without meeting anything worse than this first march over a clay swamp on the back of a refractory mule.'⁴⁰

The difficulty of crossing the clay flats between Borazjan and Shif was remarked upon by Le Messurier in 1889. He wrote, 'Left Borasjoon at 6, and arrived by 12.30 at Shif... The rain came down in torrents at Kushab, and lasted right into Shif, the mules slipping about like cats in nutshells on ice. The route is over a dead level plain, and most greasy.'⁴¹ Several years later Weeks gave an even more depressing description of the mire: 'by way of variety this desert of crusted mud soon became an equally infinite extent of wet mud. First crossing a few pools of mire, the horses were soon splashing along ankle-deep in black slime, and the road disappearedsoon a line of low sand-hills tufted with waving grass rose above the horizon; and then Schiff itself.'⁴²

Temperatures

The alternately sticky or slippery clay was not the only hindrance on the first stage of the journey from the coast to the highlands. The season of travel and daily temperatures

were all important. Stack, who travelled in February, found the climate of Bushehr ‘excellent during the winter months, and detestable in summer and autumn.’⁴³ However, Powell, who was there in the same season, observed, on 24 February, 1835, that, once he had gotten into the higher elevations, ‘The changes of temperature in the...mountains are the greatest and perhaps the most sudden in the known world; we frequently had to endure the climate of India and Iceland in the same hour.’⁴⁴ Half a century earlier, in 1787, William Francklin had had a similar experience, noting, on 19 March, that, ‘The heat of these three last days were excessive; but they told me it would soon be changed to a piercing cold,’ and on the 20th, ‘At Dowlakie, in the valley below, we were almost scorched to death with heat; whereas the air on the top of this mountain, and the plain of Khisht, is very sharp and piercing.’⁴⁵

One month later travel became almost unbearable. In 1808, when Morier first travelled this route, he and his party left Bushehr on 17 December and he had nothing negative to say about the weather.⁴⁶ In 1811, however, the identical journey was not begun until 27 March and this time Morier ‘found the heat intense.’⁴⁷ In such conditions overland travel was only possible at night. On 14 April, 1818, when Johnson travelled to Borazjan from Chah Kutah, he noted that, ‘We resumed our journey a little before midnight, and about eight in the morning of the 15th arrived at Boorauzgoon.’⁴⁸ A year later, in March, 1819, when Dupré travelled through the area, the heat was already so oppressive that his party, too, commenced its daily journey at midnight.⁴⁹ Following the same route in late May, 1881, Yate and his brother travelled between 3 p.m. and 9 a.m. because, earlier in the day, the ‘heat was great.’⁵⁰

One of the most vivid descriptions of the heat encountered in this area was written by the well-known missionary, Rev. Henry Martyn, in his diary entry for 31 May, 1811. At sunrise, after a nighttime crossing of the mashilah, Martyn arrived at Ahmadi, the first stage beyond Bushehr. He wrote, ‘At first, the heat was not greater than we had felt in India, but it soon became so intense as to be quite alarming. When the thermometer was above 112° [F. = 44.44° C.], fever heat, I began to lose my strength fast; at last it became quite intolerable. I wrapped myself up in a blanket and all the warm covering I could get, to defend myself from the external air; by which means the moisture was kept a little longer upon the body, and not so speedily evaporated as when the skin was exposed.... But the thermometer still rising, and the moisture of the body being quite exhausted, I grew restless, and thought I should have lost my senses. The thermometer at last stood at 126° [F. = 52.22° C.]: in this state I composed myself, and concluded that though I might hold out a day or two, death was inevitable. Capt. —, who sat it out, continued to tell the hour and height of the thermometer: and with what pleasure did we hear of its sinking to 120°, 118°, &c. At last the fierce sun retired, and I crept out, more dead than alive.’⁵¹ Pelly confirmed, in no uncertain terms, that the heat along this part of the coast was unbearable at certain times of the year when he wrote, ‘From Bushire to Daulekee...the entire distance by the road may be fifty full miles, and...this is the main line of trade into Persia,’ yet, he noted, ‘the heat of this plain is for some months of the year so intense that people are known to fall dead in traversing it.’⁵²

Preece also noted that, ‘Borazjoon is not an enchanting spot. It is intensely hot in summer, being swept by continuous hot winds and sand storms: the water is brackish and disagreeable, drinking-water having to be brought a distance of 10 miles from the hills on donkeys.’⁵³ Indeed, Weeks related that, ‘The official in charge of the telegraph house’ at Borazjan told him ‘that this is the hottest station on the line...for nine months the climate is most trying; the mercury often stands at 120° Fahr.; the walls of the room are so hot he [the telegraph operator] can scarcely bear to touch them; and while at work he has the floor flooded with water to the depth of several inches.’⁵⁴

In light of these extreme temperatures it is interesting to look at the dated cuneiform sources recording travel along this route in the Achaemenid period. Tolini discussed the seasonality of journeys made by Babylonians to Susa, noting a preference on the part of élite travellers, members of great families, temple officials etc. for visiting Susa in late winter (February-March) or early spring (March-April).⁵⁵ In view of the onset of hot weather by late March, discussed above, this is perfectly understandable. As for laborers, they were, of course, compelled to go into the inferno whenever required by their masters. Without presuming to offer a complete survey of texts recording such travel it is interesting to note instances recording the movement of workers from Babylonia to Taocê in November,⁵⁶ and published Persepolis Fortification texts recording rations for travellers (workmen, officials) travelling from various places (Miturna in Media, Bakabana near Susa, Rakkan and Matezziš near Persepolis, and Persepolis itself) to Tamukkan in months 1 (March-April), 3 (May-June), 4 (June-July), 6 (August-September) and 9 (November-December).⁵⁷ Unpublished texts include references to travel in these months, as well as in months 5 (?) (July-August), 7 (September-October) and 8 (October-November).⁵⁸ Clearly, heat was not considered an issue, anymore than it is nowadays in the same region when construction projects or other important work must be accomplished. Common laborers are, after all, expendable.

Seasonal winds

Heat was only one of the factors affecting travellers along this part of the Persian Gulf coast. In late March, 1811, while encamped at Bushehr, Morier described, ‘a gale of wind that blew from southward and eastward, with such violence’ and ‘brought with it such hot currents of air, that we thought it might be the precursor of the samoun, described by Chardin; but, upon enquiry, we found that the autumn was generally the season for that wind, and that its consequences, in the memory of the present inhabitants, had never been so fatal as those mentioned by that traveller. The sam wind, as described to me by an old inhabitant of the Dashtistan, commits great ravages in this district, particularly at Dashtiarjan [Dasht-e Arjan], and is hurtful to vegetation. It blows at night, from about midnight to sunrise, comes in a hot blast, and is afterwards succeeded by a cold one. About six years ago there was a sam during the summer months, which so totally burnt up all the corn, then near its maturity, that no animal would eat a blade of it, or touch any of its grain...Again, from the 23^d to the 26th [March], the wind blew violently from the south-east, accompanied by a most suffocating heat, and continued to blow with the

same degree of strength until the next day at noon, when it suddenly veered round to the N.W. with a degree of violence equal to what it had blown from the opposite point. During all this time, the clouds of dust which arose, and which entered into every part of our tents, totally destroyed either comfort or rest.⁵⁹ Similarly, Ainsworth described how, on 1 February, 1857, when the British troops that fought in the Anglo-Persian War reached Bushehr, ‘The nights were cold at that season of the year, and much discomfort was experienced from high winds which enveloped the country in dust, and which were succeeded by storms of rain.’⁶⁰

Daliki

Any travellers continuing onward towards Shiraz, Pasargadae and Perepolis from Borazjan had to contend with Daliki,⁶¹ considered one of the hottest places in Iran.⁶² As Martyn described it in 1811, ‘we arrived at the foot of the mountains, at a place where we seemed to have discovered one of nature’s ulcers. A strong suffocating smell of naphtha announced something more than ordinary foul in the neighborhood. We saw a river; — what flowed in it, it seemed difficult to say, whether it were water or green oil; it scarcely moved, and the stones which it laved, it left of a greyish color, as if its foul touch had given them the leprosy. Our place of encampment this day was a grove of date-trees, where the atmosphere, at sunrise, was ten times hotter than the ambient air.... At nine in the evening we decamped. The ground and air were so insufferably hot, that I could not travel without a wet towel round my face and neck.’⁶³ For William Ouseley, it was not so much the heat that caused him to remark, as the noxious atmosphere. ‘This place of encampment,’ he wrote, ‘was distant from Burazjún thirteen miles and three quarters; during the last five or six miles, we found the air offensive from the smell of sulphur, and Naphta, which oozed from the ground.’⁶⁴

Travelling in the opposite direction, from Daliki to Borazjan, at the end of the century, Weeks noted, ‘The road is crossed by rivulets which spread out into miry pools bordered with black and iridescent mud, from which a strange, fetid odor exhales.... There are channels of warm water crossing our route from hot sulphur springs and other mineral sources.’⁶⁵ Similarly, in 1910 Bradley-Birt noted, ‘A stream that crosses the way offers nothing of refreshment. Slow flowing, it is green with sulphur scum, and, far from cooling the air, fills it with evil-smelling fumes that in the heat of the sun are well-nigh suffocating.’⁶⁶ En route to Bushehr in early May, Moore noted that his party set off at 4 a.m. ‘Now as we crawl along the road to Borasjān, the overpowering stench of sulphur nauseates me. From time to time we are forced to ford pools of oily black water streaked with green. As the sun rises, the heat becomes unpleasant....At last Borasjān comes into sight among its date-palms. We are to rest here and then push forward to Bushīr by night, avoiding the heat....It is past eight o’clock and very bright...when we leave for Shif, where we are to take a boat across the bay to Bushīr.’⁶⁷

Crossing the mountains

Shortly after crossing the low-lying terrain between the coast and Daliki, the ascent onto

the Iranian plateau, threading a series of treacherous mountain passes, began. Markham’s succinct characterization of the route is informative and worth quoting in full:

For the first 56 miles [90. 12 kms] the road traverses the level ground that lies between the foot of the hills and the sea. From the village of Dulukki [Daliki] the ascent from lowland to highland commences, and is made up of four distinct ‘steps,’ with level plains lying between them. The ‘steps’ consist of four distinct kotal or passes:

- (i.) Kotal-i Malu.....1,800 feet [548.64 m]
- (ii.) Kotal-i-Kamaraj.....2,800 feet [853.44 m]
- (iii.) Kotal-i-Dukhtar.....4,500 feet [1371.60 m]
- (iv.) Mian Kotal and Kotal-i-Pir-i-Zan.....7,650 feet [2331.72 m]

The last is the highest point between Bushire and Shiraz. In this mountainous country the so-called road is merely a narrow mule track, winding through rocky defiles, up and down torrent beds strewn with boulders, and along precipices. The passes are excessively steep and dangerous, and the path always goes the shortest and steepest way. It goes without saying that this route is impassable for field guns, though a mule battery would have no difficulty. Light cavalry mounted on the clever horses of the country could pass in single file if necessary, though it cannot be said in general terms that the road is practicable for cavalry.⁶⁸

Describing his journey in 1859, Mason noted that, ‘All caravans for Shiraz start from Daliki, and as the entrance to the dreaded passes begin here, animals are well looked to, their equipment adjusted, loads balanced and arranged.’⁶⁹ The animals in question were mainly mules, the preferred pack animal employed on this route, with ponies or hacks (yabus) used for individual travellers.⁷⁰

The heartiness of these mules, and the perilousness of traversing the passes between Daliki and Dasht-e Arjan, have often been described. Bradley-Birt, in particular, left several vivid descriptions of the mules that plied. Describing the journey from Shiraz to Bushehr, he noted ‘One of the most essential things to remember in equipping oneself for the road, is that all the luggage has to be carried on pack-mules for at least the first portion of the journey over the kotal.’⁷¹ Discussing their speed, he wrote, ‘The pace of the mules is a slow walk, urged only very occasionally and with much difficulty into a gentle amble. They are soon, however, to prove themselves surefooted beyond reproach, and that in a march over the kotal is the first thing needed.’⁷² In fact, as Bradley-Birt observed, ‘Finding their footholds with unerring instinct, they clamber up the steep ascent struggling and determined, all that is best in them put forth to grapple with the difficulties of the way. Whatever of impatience or annoyance their leisurely plodding may have roused before is speedily forgotten in admiration of their pluck and perseverance and surefootedness. Over the bare slippery surface of the rock they clamber, never failing, pausing only here and there to gather themselves together for the next step upwards.’⁷³

In describing his ascent of the first pass, Kotal-e Mallu, Bradley-Birt wrote, ‘Truly one needs the lightness and surefootedness of the hare to scale its slippery places. For

the most part it is far too steep to ride, even if one had no regard for the plucky little mules who struggle on so gamely, and hour after hour on foot one slowly clammers up that seemingly endless track.⁷⁴ Further on, he wrote, ‘one of the steepest ascents there runs a zigzag causeway of straight, even steps, contrasting sharply with the disorder and confusion on either side; but so slippery have the steps become through long use, that the muleteers avoid them, beating out another track beside them, rougher and more tortuous, but giving firmer foothold for the mules.’⁷⁵ Finally, describing ‘the steepest ascent that lies between Bushire and Shiraz... the track rises no less than 1200 feet in a single mile. Winding zigzag up the steep rock face, in one ascent beyond another, it is literally a stairway cut in the inhospitable side of the cliff. Everywhere huge walls of rock rise upward sheer hundreds of feet straight skywards....a sheer rock ladder where the countless mules which have passed this way have worn deep foothold, smooth and regular, as if hewn by the hand of man....So winding is the track that only a few yards of it ahead are visible. One climbs on endlessly....Even the plucky little mules at last show signs of distress, stopping from time to time to gather breath against a fresh attempt.’⁷⁶

Bradley-Birt’s description of the ability of the mules and the challenges they faced is corroborated by many other travellers. Witherby, for example, noted that, ‘They performed wonderful feats in the way of climbing, and although they were continually falling, did not seem to damage themselves very much. It was otherwise with the baggage. When the mule fell so did the baggage....Donkeys would have been more serviceable than mules, perhaps, in some of the wooded country. The packs on the mules were continually torn off by overhanging trees, under which donkeys would generally have passed untouched.’⁷⁷ Emphasizing the narrowness of the track heading north through the Kotal-e Kamaraj, Stack wrote, ‘Half-way up, the road becomes so narrow that a laden mule strikes his load against the rocks on either hand. It is literally a staircase, but entirely of Nature’s making. It is shut up between overhanging peaks on the left, and a torrent-bed far below on the right. The opposite side of the torrent bed is flanked by a wall of black rock, 300 feet high, furrowed by deep channels worn by the rain of centuries. With one exception, I have seen no mountain pass in Persia so wild and steep as the Kamârij kotal.’⁷⁸ Similarly, Trotter observed that ‘the rocks traversed being a friable limestone, the mules have worn the track deep, making it impassable for wheels.’⁷⁹ As for following the track from Kamaraj south to Konartakhteh, Clerk noted, ‘Road difficult, narrow, and with short zigzags, between huge masses of rock and stone; a horse only with the greatest difficulty keeps his legs under him. For rather more than half an hour road is as bad as it can be, descending all the time.’⁸⁰ Remarkably, even in summer swollen rivers could also pose a danger along this route. Between Konartakhteh and Daliki, where the Khesht river had to be crossed, Clerk noted that, ‘Water at this season (June) up to horses’ bellies; owing to strong current, this in winter is a dangerous ford: both men and cattle have been lost in crossing at that season.’⁸¹

Advantages of travelling via Tamukkan?

Recently, Francis Joannès proposed that the riverine and maritime route from Babylon,

via the Euphrates and the Persian Gulf, to Tamukkan/Taocê, was a faster alternative to the entirely overland journey from Babylon to Pasargadae or Persepolis (Table 1).⁸² Even leaving aside the difficulties of the cross-country route from the coast to the highlands just described, the experiences of 19th century travellers clearly show that travel times from Bushehr to Shiraz varied greatly according to the circumstances.

Table 1. W.F. Ainsworth’s itinerary from Bushehr to Persepolis.

<i>Stage</i>	<i>Halt</i>	<i>Miles</i>	<i>Kms</i>
1	‘Ali Changi	12	19.31
2	Borazjan	24	38.62
3	Daliki	12	19.31
4	Khesht	15	24.14
5	Kamaraj	11	17.70
6	Kazerun	21	33.80
7	Dasht-e Arjan	18	28.97
8	Khane Zenian	12	19.31
9	Bagh-e Shirgah	24	38.62
10	Shiraz	3	4.83
11	Zarghan	14	22.53
12	Persepolis	15	24.14
12		181	291.28

In April, 1817, for example, Johnson contracted with a muleteer to travel from Bushehr to Shiraz in eleven days, including a two-day stop at Kazerun.⁸³ Johnson’s party was small, however, consisting only of another British officer, two servants and a muleteer, as well as six mules. In 1834 Powell made the journey in two weeks (16-29 February), with several halts along the way. He provided a detailed account of each stage, noting how many miles were covered in how many hours (Table 2). Nevertheless, as Powell was quick to point out, ‘I have mentioned the number of hours it took our party to travel over the above distances, but it is no criterion for the traveller, as the length of time entirely depends on the number of mules with the caravan.’⁸⁴ With a small party, like that in which Powell travelled, the rate of march was c. 3 mi./4.8 kms. per hour, and the average march per day was c. 20 mi./32.2 kms.⁸⁵ In fact, in 1881, Yate and his brother, along with two muleteers and one servant, using only two ponies and two mules, but travelling with little baggage and covering two normal stages per

Table 2. T.S. Powell’s route from Bushehr to Shiraz.

<i>Feb. 1834</i>	<i>Stage</i>	<i>Halt</i>	<i>Miles</i>	<i>Kms</i>	<i>Hrs</i>	<i>Av. speed kms/hr</i>
16	1	Ahmadi	18	28.97	6	4.83
17	2	Daliki	12	19.31	5	3.86
18	3	Konartakhteh	12	19.31	9	2.15
19	4	Kamaraj	14	22.53	7	3.22
20	5	Kazerun	24	38.62	11	3.51
22	6	Kotal-e Pir-e zan	—	—	9	—
23	7	Dasht-e Arjan	11	17.70	5	3.54
24	8	Khane Zenian	10	16.10	5	3.22
29	9	Shiraz	24	38.62	10	3.86
			143	200.56	67	3.52

day, travelled rapidly from Bushehr to Shiraz in only five days,⁸⁶ a pace that perhaps resembles that of express couriers rather than ordinary travellers.

Caravans, on the other hand, were an entirely different matter. As Maclean noted in 1904, 'In the spring months there is good grazing for transport animals between Bushire and Shiraz, and the caravans then move by short stages to allow the animals time to feed. The road is so rough and steep that camel caravans do not frequent it. The distance between Bushire and Shiraz by road is not over 170 miles; Shief to Shiraz may be 150 or 155 miles or 12 stages for merchandise, but the normal term for transport is 25 to 30 days, and in the grazing season 40 to 50 days.'⁸⁷ Nineteenth century travel records, therefore suggest that the speed of travel between Bushehr/Tamukkan-Taocê and Shiraz/Persepolis-Pasargadae could vary from five or eleven days to over seven weeks.

To this must be added the time needed for the downstream journey from Babylon to Bushehr. Although Niebuhr observed that the Tigris was almost never used to make the journey due to the great number of bends in the river, in contrast to the Euphrates,⁸⁸ plenty of evidence proves that this was not always the case. On 10 January 1821, for example, the French officer Claude-Auguste Court and four companions⁸⁹ travelled in a small, single-masted vessel with lateen sail from Baghdad for Basra which they reached fourteen days later.⁹⁰ Similarly, in 1855, when A. Clément was entrusted by Victor Place with escorting the finds made at Khorsabad from Baghdad to Basra, where they were to be loaded onto a French steamer bound for France, he travelled on the Tigris in a small convoy consisting of four large keleks — timber rafts supported by inflated goatskins — and a larger vessel. After departing from Baghdad on 13 May, six or seven days of travel brought him to a point south of Kut al-Amara,⁹¹ not even halfway to Basra. By way of comparison, the entire journey by kelek from Diyarbakir to Baghdad took anywhere from 10 to 25-30 days, depending on how high the Tigris was, and consequently how swift the current, at the time of travel.⁹² The rates of later travel by steamer were also highly variable.⁹³ As for travel on the Euphrates, in 1774 Abraham Parsons recorded a journey from Baghdad to Basra. Two days (19 hours) were spent travelling overland from Baghdad to Hillah, c. 15 kms from Babylon. From there he journeyed in a 60 ton vessel, mainly powered by rowing, from his departure on 3 November to his arrival at Basra on 11 November.⁹⁴ In 1817, according to Heude, sailing vessels reached Bushehr from Basra in only two days, whereas the return journey might take six.⁹⁵ Hence it is extremely difficult to estimate the length of time required by a journey from central Babylonia, along the Tigris or Euphrates and via the Persian Gulf, or vice versa. However, it seems clear that, in some circumstances, the riverine-maritime route from Babylon to Persepolis was almost certainly slower than the overland one.

Moreover, another factor adding to the duration and slow progress of such a journey was the size of the entourage, whether the king and his escort or a gang of *corvée* laborers. If the habits of later rulers are anything to go by, it is inconceivable that Cyrus, Darius or indeed any other reigning Achaemenid monarch travelled in a small party. Whether out of a sense of the dignity of the office; the prudence of being accompanied by a credible bodyguard, numbering in the hundreds if not thousands; or a wish to

reflect the power of the Great King, Achaemenid rulers are likely to have travelled with a large entourage consisting of hundreds if not thousands of individuals and an even greater number of animals. By way of comparison it is interesting to consider three examples illustrating the size of important diplomatic missions in the 17th, 18th and 19th centuries. In 1663, the Mughal ambassador sent to the court of Shah ‘Abbas II had an entourage of 8000 people, accompanied by 8000 pack animals and 4000 horses.⁹⁶ A much more modest contingent of 922 people as well as 135 camels, 170 mules and 900 horses travelled with the Ottoman ambassador sent to Vienna in 1740.⁹⁷ Finally, in 1799, when Capt. John Malcolm led an embassy to the court of Fath ‘Ali Shah, his entourage numbered 508, along with a further 517 horses, mules and camels.⁹⁸ In addition, when considering the size of the baggage train required by a monarch, it is worth remembering that, according to Chardin, 280 camels were needed just to transport the tent of Shah Solayman II (r. 1666-1694) when he travelled.⁹⁹

Given the narrowness and steepness of some of the passes on the Tahmukkan-to-Pasargadae/Persepolis route, it is hard to imagine a less desirable trajectory to follow in order to get to the highland Persian capitals. There is, of course, a longer (c. 200 mi./322 kms.), less arduous alternative route, via Firuzabad and the Haft Molla pass.¹⁰⁰ In fact, when the Persian army sent to confront British forces in 1857 retreated after the Battle of Khushab ‘they fled...to the passes on the Ferozeabad road,’¹⁰¹ presumably because they had come that way from Shiraz as they were in travelling with artillery¹⁰² which they almost certainly could never have transported via the more northerly route. However, in the case of the Achaemenids, the location of the Borazjan sites argues against the use of the alternate route via Firuzabad, for Borazjan is located well to the northwest of the approach to the coast from that direction. Thus, unless travellers made a great detour to the south before heading north and east to Firuzabad, the location of the Borazjan complex would strongly suggest that the more northerly route to the highlands was used.

Conclusion

This study has sketched out some of the difficulties of travel between Bushehr, Borazjan and the Achaemenid capitals; some of the logistical requirements of travel along that route; and some of the climatic considerations that made travel during much of the year an unpleasant experience, to say the least. These considerations naturally make one consider the Borazjan complex in a new light, not merely as impressive examples of Achaemenid monumental architecture, but as sites that could be difficult of access, uncomfortable and potential graveyards for those not in the upper echelons of society.

In that sense, some of the data presented here may contribute to the growing field of sensory studies in both the recent historical past and more remote antiquity that have become increasingly common in recent years as a means to gaining a deeper understanding of our subjects’ life experiences. Many sensory studies focus on sight — viewsheds, natural illumination and darkness within buildings — and sound — from the noise of battle to the sound of silence on the steppe.¹⁰³ Others focus on smells,

whether pleasant ones produced by frankincense and other aromatics in palaces and sanctuaries,¹⁰⁴ or the stench of war, death and the battlefield.¹⁰⁵ Sensory discomfort due to extremes of weather and environmental conditions, as well as the influence of these factors on the utilization of a specific ancient site and on its inhabitants, are less commonly treated. Govert van Driel's study of references to weather in Neo-Assyrian and Neo-Babylonian sources, for example, made much of the cold and the importance of seasonality as a consideration in the timing of Assyrian military campaigns, but was curiously silent on the topic of heat.¹⁰⁶ In fact, comments on extreme heat tend to be regarded as a literary trope, and the ability to withstand it a form of boasting by those who, despite scorching temperatures, managed to prevail over adverse conditions and defeat an adversary. A vivid illustration of this is provided by the literary account of Nebuchadnezzar I's (1125-1104 BC) Elamite campaign, launched in July from the eastern Babylonian outpost of Der. 'With the heat glare scorching like fire, the very roadways were burning like open flame....The finest of the great horses gave out, the legs of the strong man faltered.'¹⁰⁷ Yet the unseasonable nature of the campaign also conferred a tactical advantage on Nebuchadnezzar who felt his campaign had been 'divinely ordained, in the unexpected summer month of Tammuz (June-July). His timing made for a miserable forced march for his army because of the unbearable heat and the dried-up water sources. But this unorthodox timing also afforded Nebuchadnezzar the element of surprise when confronting the Elamite forces.'¹⁰⁸

Another, much later example of almost unbearable heat from the same general area appears in Strabo's description of Susiana which, he noted, had 'a hot and scorching atmosphere.' So intense was the heat at Susa that, 'when the sun is hottest, at noon, the lizards and the snakes could not cross the streets in the city quickly enough to prevent their being burnt to death in the middle of the streets.'¹⁰⁹ Such language may sound hyperbolic, but only to someone who has never visited Khuzestan in the summer. Indeed, with a modern average maximum of 46.4° C (115.52° F) and average minimum of 32° C (89.6° F) in July,¹¹⁰ the descriptions of Khuzestan's summer heat in the accounts of Nebuchadnezzar I and Strabo are no exaggeration.

In the introduction to her classic study of Athens and Persia in the fifth century B.C., Margaret Miller wrote that 'experience shows that even the wildest imagination cannot step beyond the familiar world of sensory experience.'¹¹¹ Implying as it does that nothing we have not ourselves experienced in the flesh can be imagined, this assertion, I suggest, needs to be modified. On the contrary, we can and must step outside of our own compendium of sensory experiences if we are ever to have an inkling of what life was like in the past. And while we may not be able to travel on a mule from Shif to Shiraz, or sail in a small craft up and down the Persian Gulf, we can get closer to the experience of those who did these things by scrutinizing the literature of pre-modern, pre-motorized travel for experiential descriptions of places that interest us in antiquity. The many descriptions that survive from the 19th and early 20th century of travel between the Persian Gulf coast and Shiraz, via Borazjan, offer a rich body of data that helps us to better understand the exigencies of life there in the Achaemenid period, whether

for *corvée* laborers or elite Achaemenid travellers. They afford us a fresh perspective, one that looks at the Borazjan complex not as decontextualized monuments or free-floating units of Achaemenid architecture and iconography but as buildings tethered to an environment that could be brutally harsh for most of the year, one in which travellers, whether arriving from Babylon by sea or from Pasargadae and Persepolis by land, sought refuge from an unforgiving climate of scorching sun, suffocating winds or freezing cold.

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End Note

1. Hallock 1969: 44, 64, 72. Cf. Metzler 1977: 1058-1059; Henkelman 2012. Sir William Ouseley, who visited Bushehr in 1811 as private secretary to his brother, Sir Gore Ouseley, on his mission to the court of Fath 'Ali Shah, suggested that, 'This Greek name would well express the Arabic...Tāk (the *á* being pronounced as in our word talk, walk &c.) and this, which signifies a vault or arch is sometimes applied to a whole edifice vaulted or arched.' See Ouseley 1819: 193, n. 2. Tavernier 2006: 386 and n. 171 and Tavernier 2007: 322, following Gershevitch 1969: 235, suggested instead that the Elamite name, which also appears as Tah-ú-ka, represents Old Iranian *Tauka-, 'offspring.' Cf. Mayrhofer 1973: 237, s.v. 8.1602; Hinz 1975: 235.

2. See the recent treatments with earlier lit. in Zehbari 2020 and Maresca 2020: 78-91. For convenience, this cluster of three discrete sites is simply referred to as the 'Borazjan complex.'

3. Rawlinson 1880: 206, n. 1. He had already made this suggestion in 1857. See Rawlinson 1857: 282;. He was followed in this identification by Tomaschek 1890: 64. Berghaus had earlier suggested that Taocê should be sought closer to 'Rohilla,' mod. Heleh Protected Area, immediately to the north of Bushehr. He wrote, 'Die Landspitze, welche von den englischen Seefahrern Rohillah, Rowlah, genannt wird, nach einem angränzenden kleinen Bezirk, der aus zehn bis zwölf ärmlichen Dörfern besteht, ist ohne Zweifel dieselbe, welche bei Niebuhr unter dem Namen Ras Schatt vorkommt; sie ist sehr niedrig von der See aus, selbst bei Tage kaum zu erkennen. In dieser Gegend scheint Taocê der nearchischen Schifffahrt gesucht werden zu müssen.' See Berghaus 1832: 38-39.

4. See e.g. Henkelman 2017: 139, and especially his comments on the architectural remains, noting that 'the two columned halls of Bardak-e Sīāh' were too extensive to be 'a mere royal residence' or "'pavilion" site. Such is particularly clear in the parallel case of Sang-e Sīāh, where the excavated columned structure is certainly part of a more extensive complex, largely unexcavated but clearly in evidence on the surface. Also, the rather impressive central columned hall can hardly be described as a private, residential space...That interpretation would anyhow be at odds with the clustering of three such sites in the same district, but also with the apparent overall density of Achaemenid occupation in the area. The stone-built complexes in Daštēšān/Borāzjān willfully cite the architecture and sculpture of Pāsārgād and Takht-e Ġamšīd and, as such, were foremost an expression of royal power and state control.'

5. The sources are discussed in full in Tolini 2011 and, especially, Henkelman 2008. Cf. also Hallock 1969: 760 s.v. Tamukkan with refs.

6. Maclean 1904: 56.

7. In addition to travellers from Babylonia who sailed south to begin their overland march to Pasargadae and Persepolis at or near Borazjan/Tahmukkan, there were those, like Irdumasda, satrap of Makkaš (Magan/Makkan), attested at Tamukkan in PF 679, who would have sailed north from the Oman peninsula to make the same journey.

8. Potts 2003.

9. Floor 2011a-b. By the early 19th century Bushehr was 'the chief port of the south, as all the freight from India and much of that from England is carried up into the interior by the road which we had descended.' Cf. Dupré 1819/1: 395-396; Weeks 1896: 129.

10. Niebuhr 1778: 94 wrote, 'Abuschähhr, oder wie die Engländer diese Stadt nennen, Buscheer, war bey den Auswärtigen nur wenig bekannt, bis Nadir Scháh es sich in den Kopf setzte auch zur See Eroberungen zu machen. Dieser ließ hier einige Schiffe bauen, und kaufte darzu noch so viele von fremden Nationen, daß er eine Flotte von 22 bis 25 Schiffen zusammen brachte, die sich zu Abuschähhr versammelten. Dadurch kam die Stadt sehr in Aufnahme.' In describing his visit to Bushehr in 1811 Morier 1818: 38-39 noted, 'The Persians have no navy, either for war or commerce. The only man-of-war ever constructed in Persia was built by Nadir Shah, with the timber of Mazanderan; and the despotism exercised in bringing the materials, by main force, on the backs of men, over a country in some places of very difficult access, is still remembered with horror by its inhabitants. The wreck of that ship is still to be seen in the harbour of Bushire.' Similarly, Bradley-Birt 1910: 43 wrote, 'Not until a century and a half ago can the history of modern Bushire be said to have begun. So far, at its best, it had been nothing but a small fishing village, and it remained for the genius of Nadir Shah to recognise its immense importance as a naval base on the southern coast.' Cf. Ritter 1838: 779-780, 'Erläuterung 1. Abuschähr der Hafen von Persis (Mesembria, Taocê). Die Halbinsel mit Rischähr und ihren Monumenten. Die Hafenstadt.' For discussions of Nader Shah's failed attempt at creating a navy see e.g. Floor 1987; Axworthy 2011. It should be stressed, however, as noted by Niebuhr, that the attempted creation of a naval force by

Nader Shah relied first and foremost on the acquisition of ships from the Dutch and English East India Companies, rather than the construction of new vessels.

11. Bushehr is not mentioned in a written source before 1581. See Floor 2011b: 4. Berghaus 1832: 39 remarked that the English attributed the rise of Bushehr to their own decision to make it the Persian hub for all of their shipping from India, noting, 'Buschir ist seit dem Verfall Bender Abbassi's der Haupthafen des persischen Golfs, die Eingangspforte von Schiras; aus einem ärmlichen Fischerdorfe ist es eine wohlhabende, blühende Stadt geworden, was die Engländer, wohl nicht mit Unrecht, ihren Bestrebungen zuschreiben; denn sie sind es, welche heüt' zu Tage den Handel Persiens mit Indien in ihren Händen haben.' For the later history of Bushehr see Floor 2016a.

12. Lockhart 1935: 154 noted, somewhat confusingly, 'Bushire was made the base of this inchoate navy, and an old Portuguese fort there was put into a state of repair.' This reference repeats an often repeated but incorrect attribution of the fort of Reshahr to the Portuguese. Cf. Stiffe 1897: 313 who wrote, 'I could find no grounds for the assertion that the Portuguese had anything to do with its construction; it in no way resembles any of their work.' Rather, it is clear that, between 1534 and 1540, the Portuguese blockaded the local governors, Shah 'Ali and Hasan Sultan, who were in the Reshahr fortress at the behest of, first, Mohammad Shah II of Hormuz, and second, Shah Tahmasp I. See Floor 2016a: 120. After the rebellion was crushed, in 1540, the fortress was razed. See Floor 2011b: 4.

13. Floor 1987: 49; Floor 2008: 97.

14. These are all conveniently presented and discussed in Tolini 2008 and 2011.

15. See Hallock 1969: 760 for refs.; Henkelman 2008, 2012.

16. In the words of Floor 2001b: 12, Bushehr went from a port-of-call to a port-of-transit.

17. Weeks 1896: 129.

18. Horsburgh 1817: 265.

19. Binning 1857: 139.

20. Discussing Taocê, Rawlinson 1857: 282 noted, 'the port of this city was at the mouth of the Granis [river], either at Bunder-Rig, or at what is now called Rohilla Point [Ras Rohila; see MacGregor 1871: 522; mod. Heleh], extensive ruins being found at both of these spots at the present day.'

21. Cf. Scott Waring 1807: 2, who was there in 1802 and wrote, 'This town is situate on a narrow neck of land, a very little above the level of the sea, and is frequently, from the rise of the tides, an island.'

22. Morier 1812: 56.

23. E.g. Binning 1857: 140, 'The extremity upon which the town is built, consists of a crumbling stony formation: and the further portion, joining with the mainland, is low and swampy, being often overflowed by the sea;' Mason 1878: 139, who was there in 1859, noted that, 'The Mashila extends a distance of nearly fifteen miles, and connects the promontory on which Bushire is situated with the mainland. At times it is dry, but generally this extensive tract of salt marsh is a shallow lake;' Yate 1917: 164 described the situation in 1881: 'Bushire is situated on the northern point of a promontory formed by the flow of the sea over a wide expanse of low ground, measuring some fifteen by five miles, called "Mashila," which at low tide is simply wet mud. At high tide water of some depth covers it;' Curzon 1892: 231 wrote, 'This peninsula has at some period been recovered from the sea, which only a century ago used sometimes to flow across the narrow neck immediately south of the town, converting the latter into an island. Since then the land has steadily risen, and this phenomenon no longer occurs; but the water from the interior or eastern bay occasionally overflows the low-lying flats near the walls, and turns them into a swamp;' Napier 1900: 14-15 observed, 'The peninsula is separated from the mainland by the mashila, a salt-water swamp, 12 1/4 miles long by 3 to 6 broad, inundated by the sea at high tides....Outside the walls of Bushire, the ground is swampy, and is overflowed at extraordinary high tides, for upwards of a mile to the south, except a narrow strip along the west coast....The east coast of the peninsula runs from the town in a curve for 1 1/2 miles to Ras Fudar...From here the edge of the swamp (or mashila) runs south-south-east for nearly 5 miles to a low point...The caravans cross the swamp to the mainland about a mile north of the point;' and Sykes 1902: 312 noted a few years later, Bushehr is 'situated on a peninsula, which sometimes becomes an island, as the mashila or swamp which connects it with the mainland is frequently under water.'

24. In fact, in 1665 the French traveller Jean de Thévenot described 'Rissher,' the settlement that predated Bushehr to the south of it, as an island. Thévenot 1665: 339 wrote, 'Le jour suivant, sur les deux ou trois heures après minuit, nous passâmes devant l'Isle Rissher, qui estoit à nostre gauche. Cette Isle est fort proche de terre-firme, & fait un petit Port, qu'on appelle Bender-Rissher, qui est à une journée de Bender-Reghe; & il y a là une forteresse qui estoit autrefois aux Portugais.'

25. Pilgrim 1908: 61.

26. Scott Waring 1807: 16.

27. MacGregor 1887: 450 'Châhgadak'; Floor 2004: 180, Châh Kutâh.

28. Mason 1878: 139. Cf. Clerk 1861: 65, 'Road across a salt swampy marsh. The road-track is firm in fine weather, and makes a long sweep to the s. On the right is an arm of the sea;' or Sykes 1902: 31 noted that, 'In 1893 I had marched by land to Borâzjun, but this route was now unsafe, owing to the Tangistânis.... I therefore adopted the alternative way to Shif, a landing-place on the mainland a few miles to the north of Bushire, to which we were conveyed in the Residency launch.'

29. Whether the Elamite site of Liyan continued to be occupied during the Achaemenid period is unclear.

30. MacGregor 1878: 495.

31. Stack 1882: 30.

32. Constable and Stiffe 1890: 278. Cf. Anonymous 1931: 275, 'Shif...is a rocky point, about 25 feet [7.6 m.] high, on which is a small house; it is the only landing place on the mainland near Abu Shahr [Bushehr], and much of the supplies from the interior for that town are shipped here. Eastward of Shif the country is low, barren, and partly swampy for some miles, and there are extensive swamps northward of it to Ruhilla.'

33. Wills 1891: 347-348.

34. Weeks 1896: 127. Cf. Bradley-Birt 1910: 54, 'A fifteen-mile journey across the sea to Shif, which is speedily accomplished by launch, avoids a long and tedious day's march round on shore.'

35. Anonymous 1915: 18.

36. Carter et al. 2006: 96-97.
 37. Stack 1882: 30-31.
 38. Stack 1882: 31.
 39. MacGregor 1878: 493.
 40. Stack 1882: 30.
 41. Le Messurier 1889: 285.
 42. Weeks 1896: 127-128.
 43. Stack 1882: 128.
 44. Powell 1835: 23.
 45. Francklin 1788: 17-18.
 46. Morier 1812: 69.
 47. Morier 1818: 46.
 48. E.g. Johnson 1818: 28.
 49. Dupré 1819/2: 29.
 50. Yate 1917: 169.
 51. Sargent 1836: 318.
 52. Pelly 1864: 142.
 53. Preece 1879: 407.
 54. Weeks 1896: 127.
 55. Tolini 2011: 269.
 56. Cyr 131, a text from the Ebabbar of Sippar, dated to the 28th day, eighth month [24 Oct – 22 Nov], year 3 [536 BC] of Cyrus, or c. 20 November. See Tolini 2008: 3.
 57. Henkelman 2008: 308-309. For a text from month 1 see e.g. Hallock 1969: 408, s.v. PF 1452.
 58. Personal communication from Rhyne King whose help is gratefully acknowledged here.
 59. Morier 1818: 42-43.
 60. Ainsworth 1888: 121.
 61. On Daliki see in general Potts 2019.
 62. MacGregor 1871: 114. For more references to the great heat of Daliki see Potts 2019: 107-112.
 63. Sargent 1836: 319.
 64. Ouseley 1819: 258.
 65. Weeks 1896: 126-127.
 66. Bradley-Birt 1910: 64-65.
 67. Moore 1915: 435-436.
 68. Markham 1889: 213.
 69. Mason 1878: 143-144.
 70. Describing Darius III on the march, Quintus Curtius, *Hišt. Alex.* 3.3.24 wrote that ‘600 mules and 300 camels carried the king’s money, preceded by a guard of bowmen.’ Cf. Henkelman 2011: 138.
 71. Bradley-Birt 1910: 49. For the journey between Shif and Bushehr, or vice versa, these mules were loaded onto baghlas. As Bradley-Birt 1910: 54 noted, ‘it is something of a leap from the quay into the boat, and finally a rope has to be procured which, drawn close round the hind legs of the mules, fairly forces them to jump at the last moment to save themselves from falling headlong.’ The baghla was the largest type of vessel in the Persian Gulf, averaging 100-140 ft. (30.48-42.67 m.) in length, beam 20-28 ft. (6.1-8.5 m.), drawing 11.5-18 ft. (3.5-5.5 m.) and rating 150-500 tons (424.5-1415 cu.m. capacity). See Le Baron Bowen 1949: 101.
 72. Bradley-Birt 1910: 58.
 73. Bradley-Birt 1910: 66.
 74. Bradley-Birt 1910: 67.
 75. Bradley-Birt 1910: 68.
 76. Bradley-Birt 1910: 72-73.
 77. Witherby 1903: 503-504.
 78. Stack 1882: 35.
 79. MacGregor 1878: 493.
 80. Clerk 1861: 63-64.
 81. Clerk 1861: 64.
 82. Joannès 2020: 80, ‘on n’a jamais pris en compte la possibilité de l’emprunt par Itti-Marduk-balaṭu d’une route fluviale par l’Euphrate puis maritime par le Golfe Persique, qui l’aurait amené jusqu’à la ville de Taokê, près du Golfe Persique, d’où il aurait gagné le Fars.’ Joannès cited Tolini 2011: 209, n. 524, who estimated that overland travel from Babylon to Persepolis would require roughly 50 days. Colburn 2013: 40-41, however, contested the notion that ‘a journey along the roads was necessarily slow and cumbersome.’
 83. Johnson 1818: 28.
 84. Powell 1835: 27.
 85. Powell 1835: 26.
 86. Yate 1917: 168.
 87. Maclean 1904: 57.
 88. Niebuhr 1778: 241. By contrast, when Abraham Parsons visited Baghdad in 1774 he noted, ‘From November to the latter end of March, boats and vessels of all sizes can come from Bussora up the Tigris to the bridge of Bagdad; in the other months they do not attempt it, as the current runs so very strongly against them, and the wind being for the most part in the western quarter, increases the difficulty; in the interval,, goods from Bussora, intended for Bagdad, are brought up the Euphrates to Helah, (mostly by tracking,) and from thence across Mesopotamia, by camels, to Bagdad.’ See Parsons 1808: 120.
 89. The vessel included several boatmen, the French officers’ servants, and an unspecified number of other passengers.

90. Court n.d.: 99-106, 'Voyage de Bagdad à Bassora par la voie du Tigre.' The confluence of the Tigris and Euphrates was reached in ten days.
91. Clément 1866:173; Potts 2020: 239. Court n.d.: 102, on the other hand, reached Kut al-Amara on the fourth day out of Bagdad.
92. Hazen 1913: 17, 'The speed with which one travels all depends upon the amount water in the river, although the sweeps are manned by two kelekgies who are supposed to row in slack water...An allowance of from ten to twenty-five or thirty days is necessary for the journey.'
93. To cite just one example, when Walter Andrae travelled upstream by steamer from Bagdad to Assur in 1909 he left on the evening of 16 July and did not arrive until the evening of 26 July. The average speed was c. 4 kms/hour which is hardly much different than the speed of overland travel by mule and foot on the very difficult Bushehr to Shiraz route. Even though the steamer achieved c. 10 kms/hour in calm waters, no fewer than 110 rapids had to be negotiated on the journey, impeding progress considerably. See Andrae 1909: 64-67.
94. Parsons 1808: 140-152. Parsons reported meeting a vessel travelling upstream, i.e. against the current, which was probably going to take 30 days to reach Bagdad from Basra. See Parsons 1808: 145.
95. Heude 1819: 46-47.
96. Chardin 1711: 207. Cf. the discussion in Potts 2021: 344.
97. Hammer 1832: 12-13.
98. Kaye 1856: 116.
99. Chardin 1686: 404.
100. MacGregor 1871: 735-739. This was the route followed by Scott Waring in 1802. See Scott Waring 1807: 15-28. According to Pelly 1864: 155, who was unable to travel this route himself, 'The Southern route may however be generally described as sufficiently level and inhabited to Ferozeabad, which is the chief town of the Ilkhanee of the Eliauts; as being sandy barren, in part hilly from Ferozeabad onwards to Ferashband, and thence through the Dashtee country to the Bushire plain. Low brush covers many of the tracts passed over in this latter position of the route.'
101. Mason 1878: 285, n. *.
102. Outram 1860: 30, 216.
103. E.g. Smith 2007; Hamilakis 2013; McMahon 2013; Toner 2016; Rendu Loisel 2016; Zorzi 2019; Nadali and Pinnock 2020; Whately 2021.
104. Hawthorn and Rendu Loisel 2019.
105. Smith 2015.
106. van Driel 1992; cf. Van Buylaere 2009.
107. Foster 1993: 297.
108. Cooley 2006: 163.
109. Geog. 15.3.10.
110. Irvine 1983: 374.
111. Miller 2004: 1-2.

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