

Iran's last sewn boat? In search of the beach-seining *āmele* along the Persian Gulf coast of Hormozgan Province, Iran

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Abstract : Recent ethnographic fieldwork along the Persian Gulf coast of southern Iran by the lead author has located probably the last-known sewn vessel in the country – a disused, beach-seining boat known in Bandari as *āmele* (عامله) and Arabic as *‘āmila* (عاملة) in the village of Bostane, in Hormozgan Province. The research has also yielded new information about this type: its former distribution within Hormozgan is established, its function is elucidated, and aspects of its materials and terminology are documented for the first time. The work builds on previous work by the three co-authors documenting sewn vessels of the same type acquired from Iran by Qatar Museums, Doha, in 2012, and reported at that time as *baggāra* (Persian بگزاره; Arabic بَغَارَة) on the basis of museum records.

Keywords: Persian Gulf, Iran, *baggāra*, *āmele*, sewn boat

1. Introduction

In this paper, we report the discovery of what is probably Iran's last-known sewn boat known in the local Bandari dialect of Persian as *āmele* (عامله) and in Arabic as *‘āmila* (عاملة)— and demonstrate the benefit of ethnographic collaborations with coastal communities to inform our understanding of nautical technologies. Sewn construction is a long-standing practice found until recently along Iran's Persian Gulf coast and around the neighbouring Arabian Peninsula, but which came to a rapid halt in these regions amid the emergence of the oil economy in the mid-twentieth century C.E. and the appearance of new boatbuilding technologies such as fibreglass. Indeed, this tradition was once widespread around the western Indian Ocean (Moreland 1939a; 1939b: 63–67; Hornell 1941: 60–61; 1942: 28–33; Hourani 1951: 92–93; Le Baron Bowen 1952: 202–210; Prins 1982; 1986: 64–94, 100–111; Adam 1985; Kentley 1985; 1996; Kapitän 1987: 135–148; 2009: 66; Kentley, Gunaratne 1987: 35–48; Shihab 1987: 41–58; Varadarajan 1995; 1998; Vosmer 1993; 2007: 236; 2019: 305; Prados 1996: 99; Flecker 2000: 199–200; 2001: 336–337; 2011: 101; McGrail 2001: 71–72; Agius 2002: 78–81; 2008: 138–140, 148–150; Camelin 2006: 103–108; Ransley 2009, vol. 1: 88–125, vol. 2: 10–127; 2012; Shaikh *et al.* 2011; Jansen van Rensburg 2016: 114–115; Burningham 2019; Dixon 2019; Fenwick 2015; 2019; Ghidoni 2019: 375; Shaikh 2019: 377; Staples, Blue 2019; Weismann *et al.* 2019). Today, however, it persists only in parts of India (Kentley 1985; 1996; Kapitän 1987: 135–148; 2009: 66; Kentley, Gunaratne 1987; Varadarajan 1995; Ransley 2009, vol. 1: 88–125, vol. 2: 10–127; 2012; Shaikh *et al.* 2011; Fenwick 2015; 2019; Shaikh 2019). Some survivals have, by now, been documented in detail (Vosmer 1997: 227–234; Shaikh *et al.* 2011; Fenwick 2015; 2019; Weismann *et al.* 2019). So too have a small number of archaeological finds (Blue *et al.* 2011; Belfioretti, Vosmer 2010; Ghidoni 2023). Yet, much of the associated intangible knowledge held by maritime practitioners – builders and fishers – has been lost with time.

In 2012, Qatar Museums (QM) acquired five small sewn vessels from the port of Bandar Lenge in Hormozgan, the most southerly of Iran's Persian Gulf coastal provinces; these were subsequently documented in Doha in 2019 by the secondary authors of this paper (Cooper *et al.* 2020). Their work on the structure of the boats – isolated in their museum context – left many questions unanswered, including geographical distribution, function, construction sequence, materials and linguistic terminology.¹ It is these lacunae that this paper, drawing on ethnographic methods, seeks to address.²

¹ The terminology presented in this paper is, unless otherwise indicated, from the Bandari dialect of Persian, which is centred on Hormozgan Province; much of it is shared with Arabic. Bandari is indicated by 'Bd.' in the text, Arabic as 'Ar.' and Persian as 'Pr.'

² Interviews were conducted by Shadi Kalantar in 2021–2022 while she was doing her survey on traditional vessels of Iran for her PhD thesis. John P. Cooper, Chiara Zazzaro and Alessandro Ghidoni contributed by designing the questions for interviews, methodology, further studies and writing. Additionally, even though interviews were translated from Arabic to Persian by Mr. Ebrahim Ahmadi, who was present during the interviews, further interpretations were done by John Cooper using the recorded interviews on video.

The results presented here were gathered through observation and interviews conducted in 2021-2022 by the lead author during fieldwork along a section of Iran's Persian Gulf coast within which the QM vessels had been acquired (Fig. 1). The survey formed part of her PhD research, which focused on Iranian watercraft traditions. It was also prompted in part by reports of a similar vessel to the QM boats having been seen in the village of Bostane, in western Hormozgan.³ This 'vessel' turned out to be a concrete sculpture, but during the lead author's resulting visit, she nevertheless identified the remnants of a sewn vessel in the village and interviewed Esmail and Abdollah Esmaili, two of the adult children of its late builder and owner, Mr. Mohammad Salem Esmaili (Fig. 2). Both in their eighties, the brothers provided much of the new information in this paper. The interview was conducted in Arabic and Persian (mostly in Bandari dialect) and video-recorded, and later translated into Persian by Ebrahim Ahmadi. Other interviews during fieldwork were conducted in Persian and are duly cited in the footnotes. While all four authors identified the broad topics of enquiry before the fieldwork began, the interviews were open-ended, allowing interviewees to offer insights into unanticipated areas.



Fig. 1 The survey area, from Asaluye in Bushehr Province to Biahi in Eastern Hormozgan. The green circle indicates where the sewn *amele* was found; the blue circles where (nailed) *baggāras* were observed (image: S. Kalantar).

2. A tale of two coasts

Realisation within academic circles of the survival of any working sewn boats in the Persian Gulf region emerged only following the QM acquisitions in 2012. Identified by QM staff as *baggāras* (Arabic بَغَارَة) at the time of acquisition, these were reported as such in 2020 by Cooper *et al.* Focusing on the three best-preserved examples, Cooper *et al.* conducted a close investigation of the vessels' construction method and sewing and lashing systems, carried out 3D photogrammetry, and reverse-engineered construction and naval-lines drawings (Fig. 3). The survey revealed craft that were almost entirely sewn, following a stitching method that has been attested widely across the western Indian Ocean region over centuries – inboard stitches over wadding following a IXIXIXI pattern, and outboard stitches recessed into vertical rebates (Hornell 1941: 62; Bowen 1952: 205; Chittick 1980: 301–303, Figs. 7, 8; Prins 1986: 100–111; Prados 1996: 102–103; Vosmer 1997: 231–234, Fig. 25; Camelin 2006: 105; Belfioretti, Vosmer 2010: 113, Fig. 6; Vosmer 2019: 308; Weismann *et al.* 2019). However, the QM vessels' garboard-to-keel stitching secured both the port *and* starboard garboard planks within the same stitching run, something that had previously been undocumented, adding to their significance (Cooper *et al.* 2020: 16–18). Also striking was their use of a thick, black coating outboard, provisionally identified as bitumen, and of an unidentified grassy material used inboard as overstitched wadding along the planking seams (Cooper *et al.* 2020: Fig. 12).

The scope of the QM work did not allow for materials analysis, for example to establish timber and plant-fibre species or the provenience of the bitumen used. Moreover, the situation of the study – in a museum collection on the Arabian coast, removed from the vessels' place of origin – precluded access to the communities that had created them, and hence to their geographical, social, and technological contexts. Equally, Cooper *et al.* had no access to information regarding their provenience beyond their year and location of acquisition. Nor could the project, perforce, offer any indication of the state of survival of any such craft in Iran itself.

³ This information was kindly provided by Dr. James Onley, Ms. Fatemeh Teimoorzadeh, and later by Mr. Masoud Shorouj and Mr. Ebrahim Ahmadi.



Fig. 2 The *āmele* of Bostane: (A) stitching of the keel; (B) the sewn and bitumen-coated hull planking; (C) planking and a frame from inboard, showing much damage to the stitching; (D) profile view – the length over all is 9 m and the beam 2.4 m; (E) Abdollah and Esmail Esmaili (first and second from left), sons and former assistants of the builder, together with Ebrahim Ahmadi (third from left), who introduced us to them, along with the lead author (right), in Bostane, 2021 (photo: M. Shorouj)

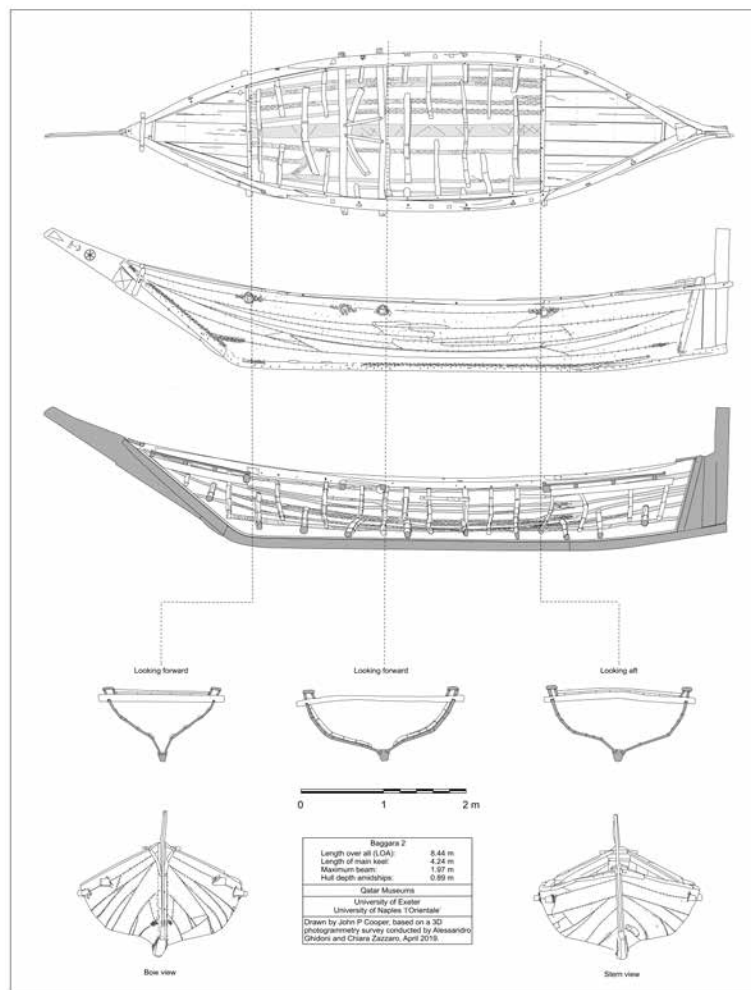


Fig. 3 Construction drawing of “*baggāra*” number 2 held by Qatar Museums, now re-identified as an *āmele* (drawing: John P. Cooper; from Cooper *et al.* 2020: 374)



Fig. 4 A concrete sculpture of an *āmele* in Bostane (photo: S. Kalantar)

3. Distribution – and a survivor

These lacunae were addressed by the lead author's 2020–2021 fieldwork. This focused on Hormozgan Province, where it covered 24 sites along the mainland coast, from Ziarat in the west to Biahī in the east, as well as the islands of Qeshm, Hendorabi, Larak and Lavan. It also visited the port of Asaluye in neighbouring Bushehr province (Fig. 1). Enquiries among local people in these locations established that boats of the type acquired by QM had once been common in an area of western Hormozgan bounded by Gorze in the west and Gashe in the east; the vessels in the QM collection had been acquired within this zone, at Bandar Lenge.

The potential of the village of Bostane, just west of Gashe, had first been brought to our attention by Dr. James Onley and Ms. Fatemeh Teimoorzadeh, who had sent to us a recent photograph of what turned out to be a concrete sculpture of one of these vessels in the main square (Fig. 4). It was a resulting visit there that revealed the only surviving vessel of this type encountered during the survey. This abandoned example was not as well-preserved as the three reported QM vessels. The hull was distorted; some frames and planks were broken or missing, and its cordage was highly eroded (Fig. 4). But it stands as the only known sewn vessel of any kind surviving in Iran: it was subsequently removed by the Institute of the Studies of Traditional Navigation and Lanj-Building to a boatyard in Kong for safekeeping. Plans for the conservation of the vessel are yet to be finalised.

Interviewees outside of the distribution range indicated above were often not familiar with this sewn-vessel type. For example, informants at Kong, further east, advised: “you should go [west] to Hasine... and Gorze to find them: we never had them in Kong.”⁴ It was also unfamiliar to people west of the distribution area, such as in the village of Chiruye. One informant there, on seeing a picture, said he remembered vessels of that shape in the village around fifty years ago, but could not remember whether they were nailed or sewn – they might therefore have been similar nailed vessels we discuss below.⁵ People on the islands were equally unfamiliar with the type, and with sewn fishing boats more generally. Informants on Larak told us that the nailed *jalkash* (*Bd.* جلکش), a boat with a structure that is largely similar to *āmele* (Fig. 6), had once been common on their island, and was still to be found on Qeshm, but not these sewn craft.⁶ Meanwhile, people on Hendorabi and Lavan islands did not have a memory of any vessel called *āmele* nor *jalkash*.

⁴ Interviews with Mr. Ali Bahri (Nakhoda Hamood), spring 2021, and Mr. Ali Mahmood Najarbashi, spring 2022, Kong.

⁵ Interview with Mr. Hasan Mozafarnia, winter 2021, Chiruyeh.

⁶ Interviews with Mr. Ali Vali (Ali Sheikh) and Mr. Ali Laraki, spring 2022, Larak.

4. When a *baggāra* is not a *baggāra*: definitions, differences, and complications

What quickly became apparent during the Hormuzgan survey was that local people refer to the sewn boats of the type found in the QM collection as *āmila* in Arabic or *āmila* in Bandari (*Bd.*) dialect, rather than the term *baggāra* that Cooper *et al.* reported in 2020 on the basis of QM information.^{7,8} Esmail and Abdollah Esmaili explained that the term *āmele*/*āmila* refers to a small fishing boat with a long and upright stern fin (*Bd. dom*; *Ar. fashīn*) and raking stempost: crucially, it is sewn and bitumen coated – just like the QM vessels. Moreover, the vessel was only used in beach seining for sardines (*hashīne*), since it was not structurally strong enough for other activities.⁹ Four rowers, from a crew of eight, would row the vessel from the beach for a short distance, deploying a small-gauged seine net as they go, before arcing back to shore to close the loop. The net would then be hauled onshore, rather than onto the boat.¹⁰

“In Bandari, the term *āmele* is given not only to the boat, but also to the seine net, and indeed even to the seining method itself. When in standard Persian (Farsi) the lead author asked children in Bostane village “Where are your fathers?”, they answered: “they went *āmele*”,¹¹ meaning “beach-seining”.



Fig. 5 The nailed *baggāra*: (A) an example at Ramchah in 2017; (B) the same vessel in 2022, having suffered significant damage; (C) one of two *baggāras* observed at Jask (preserved length 6.7 m; beam 1.2 m) (photos: S. Kalantar); (D) men at the stern of a *baggāra* in Jask in the 1970s (photo: courtesy of H. Heidari)

What, then, of *baggāra*, the term used by QM staff? Our informants said that this in fact applies to a different vessel, very similar in overall form to the *āmele*, but nailed rather than sewn, and not coated with bitumen. They said it is often also larger than the *āmele*, the hull of which is typically no more than 8 m in length, excluding the prow timber (*Bd.* and *Ar. saṭūr* (ساطور)), although this was *not* the case for the surviving *baggāras* we observed. The *baggāra*'s hull is relatively rounded, but still with an angled, ‘rocker’ keel like that of the *āmele*¹² (Fig. 5A-D). The lead author observed three of these nailed craft in Hormozgan. One, abandoned at Ramchah on the south-eastern shore of Qeshm island, was well preserved when first observed in 2017 (Fig. 5A), but subsequently badly damaged during construction of a harbour (Fig. 5B). A further two, highly damaged, were noted in 2021 in the port of Jask in the eastern part of the province (Fig. 5C).

⁷ Interviews with Esmaili brothers, sons of the late builder of the surviving *āmele* in Bostane, and Majid Arang, grandson of the late owner, Spring 2021, Bostane.

⁸ Interviews with the Esmaili brothers and members of the Bostani family who owned the surviving *āmele* in Bostane, Spring 2021, Bostane.

⁹ Interviews with the Esmaili brothers and Bostani family, spring 2021, Bostane.

¹⁰ Interviews with the Esmaili brothers and Bostani family, spring 2021, Bostane.

¹¹ Pr. « رفتند عامله »

¹² Interview with the Esmaili brothers, spring 2021, Bostane.

The *āmele* and *baggāra* are not the only fishing craft of southern Iran with an angled ‘rocker’ keel. Another variant of the *baggāra* is the *jalkash* (Bd. جلكش), which occurs mainly on Qeshm island. Like the *baggāra*, it is nailed and has no bitumen coating; its prow and stern ‘fin’ are similar in over-all shape to both the *āmele* and *baggāra*, and its length is similar to the former. Its main difference to the *baggāra* is that it has no stem-head (Fig. 6). Meanwhile, on Qeshm, the terms *zārūqa* (Bd. زاروقه) seems to have been an alternative name for the *jalkash*: retired fishers said either that the two were identical or that the *zārūqa* was somewhat bigger.¹³

It should be noted that the terms we use are those used by Bandari-speaking informants, and our usage of them accords with our observations and interviews conducted along the wider Iranian coast of the Persian Gulf. Type names may well be applied differently on the Arabian coast, and to different vessel types, and may well be pronounced differently. The naming of mutually similar inshore fishing vessels in Iran and on the nearby Arabian coast has certainly exercised ethnographers such as Prins (1972–1974: 164), Vosmer (1997: 220), Agius (2002: 183–184) and Weismann *et al.* (2014: 418–420).



Fig. 6 The *jalkash* of Gambrun, island of Qeshm (length overall: 7.8 m; beam 2 m) (photo: S. Kalantar)

5. The builders and the building process

It became clear from our fieldwork that the well-known *āmele* builders of the region had by now passed away. We learned of builders formerly in Gashe and Bostane, the latter being Mohammad Salem Esmaili, whose sons Esmail and Abdollah we interviewed. They recalled that as teenagers they had helped their father build *āmeles* on ground directly in front of their house (Fig. 6E).

The broad construction of the *āmele* has already been discussed by Cooper *et al.* (2020) based on analysis of the QM vessels. The brothers’ description of a hull comprising five strakes resonates well with the QM vessels, albeit without the latter’s complex use of stealers, drop-strakes and graving pieces. So too does the brothers’ description of the framing configuration, which comprises pairs of half-frames (Bd. and Ar. *shalmūn*/شلمون) alternating with floor timbers (Bd. *atfe* (عطفه); Ar. *ʿatfa* (عطفة)). The brothers also remarked that the design on the stem-head (*saṭūr*) of an *āmele* was unique to each builder: having inspected images of the three published QM boats, they concluded that none had been built by their father.

¹³ Interviews with Saleh Talenda and Hasan Tanide Nezhad, spring 2022, Iran, Qeshm.

The brothers were particularly helpful in providing names of the parts of the boats, as well as identifying the materials used in the construction process – neither of which topics Cooper *et al.* (2020) had been able to pursue. They identified the timber used for the keel (Bd. and Ar. *bīs* (بيس) and framing elements as *karat* (Bd. and Ar.; قرط), probably *Acacia nilotica*, and that of the planking as mango (Bd. *anba* (انبه) (*Mangifera indica*). Abdollah said the latter: “is porous and absorbs water, so the planks enlarge once the vessel is in the water and the gaps between the planks are filled.” The brothers said that the garboards are stitched to the keel using cordage made of *kambār* (كمبار), or coconut coir, a material widely used in western Indian Ocean sewn-boat construction (Hornell 1941: 60; Hourani 1951: 91–92; Bowen 1952: 203; Varadarajan 1993: 556; McGrail 2001: 72, 354; Agius 2002: 80; 2008: 148–149; Fenwick 2015: 390; 2019: 390–392; Vosmer 1997: 231; 2019). They said that the dowels used in, for example, edge-joining the hull planks and fastening the hood ends (Cooper *et al.* 2020: 11–20), were made of *bāskil* (باسكيل), which they described as a dense, bamboo-like material imported from India. The wadding – that is, the cushion of vegetal material laid beneath the stitching and along the seams inboard (Cooper *et al.* 2020: 16–20) – is made from a grass that Abdollah Esmaili called *nabakh* (نابخ), which we tentatively identify through linguistic translation as a grass of the genus *Bromus*. On coatings, the brothers confirmed that bitumen (Cooper *et al.* 2020: 21–23) – bought in the local market – was applied outboard, with shark-liver¹⁴ oil (Bd. *sīfe* (سيفه); Ar. *sīfa* (سيفة)) applied inboard.

6. Conclusion

This article has underlined the value of ethnographic research in enhancing our knowledge of artisanal watercraft and their contexts. The fieldwork conducted by the first-named author along the southern Iranian coast has enriched our understanding of the last surviving sewn-boat type of the Persian Gulf – correcting our understanding of its name, establishing its former distribution, and adding important detail regarding its materials and construction. The construction, technical features and building sequences of the vessels had previously been detailed by Cooper *et al.* on the basis of examples in the QM collection, where it was identified as a *baggāra*. However, the geographic and social context, as well as the intangible knowledge of these crafts, remained little understood.

The lead author’s ethnographic enquiry revealed that these vessels are in fact called *āmele* among the communities that made and used them, and that they were used only inshore, for beach seining. It has established their former distribution between the villages of Gorze and Gashe in the western part of Hormozgan province. Meanwhile, the insights of the sons of a former builder have enabled us to understand more about materials and construction of a vessel type that has become all-the-more important by virtue of being the last sewn boat type of the region.

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¹⁴ The brothers did not specify the species of shark, but the first author’s enquiries elsewhere on the northern coasts of the Persian Gulf and Gulf of Oman have previously identified whale shark (Bd. *kūli kar* (كولى كار)).

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