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The dhow's last redoubt? Vestiges of wooden boatbuilding traditions in Yemen

Summary

Researchers from the MARES Project visited Yemen in February 2009 in order to investigate the building and use of traditional wooden boats ('dhows', in English parlance) in the country. The survey covered the coastline from Aden to Salif in the Red Sea, and visited centres of traditional dhow building and use, including Ghureira, Mocha and Khokha. The project aimed to assess the state of the industry, establish a vessel typology, understand construction processes, learn about the use of these vessels, and compile a lexicon of boatbuilding and nautical terms. This article offers the preliminary findings of the survey, pending more comprehensive publication in the future. The survey found that, in all locations visited, the building of new vessels had rapidly diminished in the preceding decade, and had now all but ceased. The only ongoing activity witnessed during the survey was repairs to existing wooden craft. In formerly large boat-building centres, wooden boat-builders, mostly elderly, have ceased work, while younger men were building fishing craft using fibreglass – the material used in the great majority of vessels in Yemen today. A preliminary typology of surviving vessel was established. The double-ended cargo-carrying *zā<īmahs* and *zārūqs* were recorded only as

abandoned hulks. Double-ended *<obrīs* and transom-sterned 'large *hūrīs*', with their stern-quarter 'fins', continued to be used in small numbers for sein fishing and transporting livestock. Again, most examples were abandoned. Various forms of small log and plank *hūrī*'canoes' were observed, few still in use, while the log-raft *ramas* survives on the Red Sea coast. The terms used for these vessel types form part of a linguistic survey of dhow activity in Yemen.

Keywords

Yemen, dhow-typology, boat-building, maritime, ethnography

Introduction

The wooden dhow-building traditions of Arabia have suffered a series of blows since the mid-twentieth century, not least the end of pearling in the Arabian-Persian Gulf, and the onset of oil-driven economic development. In the oil states in particular, traditional ways of life have been set aside, and on the maritime front, boatyards and harbours have been subsumed under rapid urban and industrial development. Between 1990 and 2000, Agius (2002, 2005, 2008) investigated, boat typologies, boatbuilding practices and maritime traditions of the Gulf states and Oman, most of which has since been swept aside. Where dhow building has survived longest is where the oil boom has failed to reach, namely coastal Yemen. Even here, however, the practice of building a variety of wooden boats for fishing and transportation is coming to a rapid end. Towns where even a decade ago wooden boatbuilding was thriving have abandoned the practice entirely, as fibreglass boatbuilding takes over. The MARES Project is investigating surviving wooden boatbuilding traditions in the Gulf of Aden and southern Red Sea. The work is in some respects a continuation of Agius's previous ethnographic work in the Arabian-Persian Gulf and Oman, while an expanded team enables a more diverse

methodological approach – including the systematic survey of boat distribution, architecture and construction methods.

The fieldwork

The Yemen field research was carried out along the Gulf of Aden and Red Sea coasts of the Republic of Yemen over a three-week period in February 2009. Yemen was chosen in part because the country was a region not yet touched by Agius's research, and also in the knowledge, based on previous fieldwork along parts of the Yemeni coast in 2007¹, that there were still extant in the country large wooden vessels and residual boatbuilding activities.

Yemen's rich natural fisheries support a large and growing fishing population. Indeed, the Yemeni government regards the industry as an important component in Yemen's future economic development. However, growth in population and fishing is putting pressure on marine reserves, a situation that has contributed to Yemen's shift away from wooden boatbuilding and towards fibreglass manufacture. Meanwhile, the use of traditional cargo 'dhows' has diminished sharply amid competition from modern freighters and land and air transportation, as well as changing trade patterns. The few remaining cargo vessels in use in Yemen are largely to transport livestock and foodstuffs, as well as contraband and refugees, from the African coast. In the mid-nineties, Prados (1998a: 195) was able to say that "... wooden boatbuilding ... remains an integral and essential part of everyday commerce." This is no longer the case. Such a situation of decline argues for the detailed documentation of traditional boats and ethnographic interview of the people who built and operated them before both disappear. Yemen's scarce fiscal

¹ This work, a survey of huri fishing canoes, was conducted as part of the University of Southampton Huri Project, directed by Dr. Lucy Blue, in which Cooper

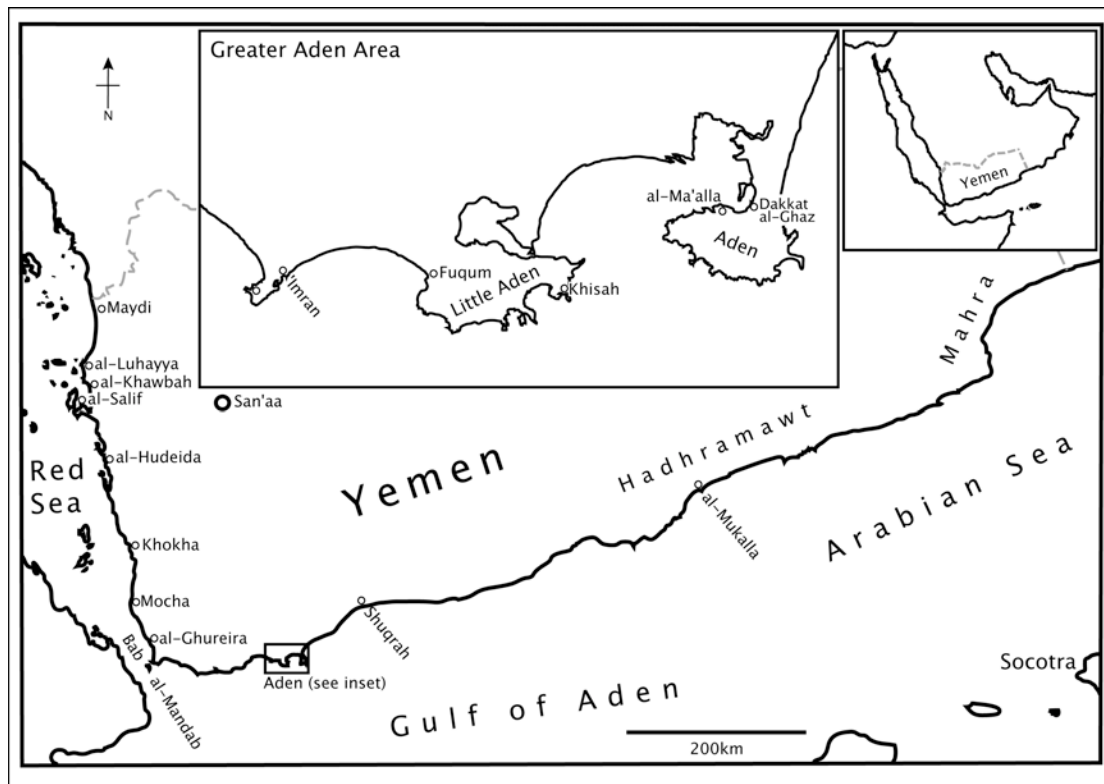


Figure 1: Map of Yemen, showing sites discussed in the text (MARES/J.P. Cooper).

resources, particularly for cultural programmes, mean that the chances of these boats being preserved in any other way are slim indeed.

Given the relatively limited time available, the MARES survey could cover only part of Yemen's 1,900-km coastline. For reasons of insurance limitations and ease of access the survey concentrated on the section of Gulf of Aden and Red Sea coast between Aden and *al-Ṣalīf* – a section of coastline that was known to include sites contain vestiges of wooden boats and boatbuilding (Figure 1). While the main survey continued on the Yemeni mainland, Julian Jansen van Rensberg pursued research into traditional vessels on the island of Socotra.

The Survey began in Aden, and in particular in the part of Ma'allā, today called Dakkat al-Ghāz, that was formerly Aden's dhow harbour. It also took in Little Aden and especially the fishing villages of *Khīṣah* and *Fuqum*. The survey then headed west, passing through 'Imran, and along a largely empty

and exposed coast to the Bāb al-Mandab. From there it proceeded north up the Red Sea coast, taking in the village of al-Ghureira (*al-Ghurayra*) and its eponymous creek, the former coffee port of Mocha (*al-Mukhā*), the fishing and former boatbuilding town of Khokha (*al-Khawkhah*), the city of Hudeida (*al-Hudaydah*), and finally the fishing town of al-Ṣalīf.

Methodology

The fieldwork aimed to survey the distribution of traditional vessels; to observe and record the vessel types found; to investigate construction techniques; and to assess the state of traditional boat building and usage by location. Equally, a linguistic survey aimed to gather terms for the various boat types and parts, as well as the broader material culture and activities associated with them. This was achieved through both direct observation and survey techniques – note-taking, photography, sketching and scale drawing – as well as through ethnographic interview.

At each site, the team surveyed the vessels present. At minimum, this involved photography and the noting of basic features. In some cases, the team took the principal measurements – such as the maximum length, height and width at midships. For selected vessels, the team endeavoured to take lines-drawings of the hull, and in one case – an incomplete and abandoned ‘large *hūrī*’ (see below) – the team recorded the fine detail of the hull construction. The team also collected wood samples from different elements of various vessels in order to establish the type and provenance of the timbers used in boat construction, and to corroborate the contributions obtained from ethnographic interviewees.

Also at each site, the team sought out local boat-builders and mariners. Interviews were conducted in Arabic, and were open, rather than being based on a questionnaire, since it was believed that a more formalized approach might deter informants or impose an agenda. In fact, interviewees were found

to be almost always amenable to interview. Team members took field notes of interviews, made rough sketches, and voice-recorded interviewees where appropriate. In addition, digital video recording was used to document boat repair and maintenance activity where this continued.

One approach to handling this diverse data has been to create a computer database comprising photographs, measurements, terminology and field observations of the individual vessels recorded in Yemen. This will allow the team to manage and interpret the data, while creating a legacy for future researchers. In addition to the data collected through fieldwork in Yemen, the MARES team has also initiated a survey of archival resources, investigating in particular photographic archives and models held by museums and private individuals in the hope of better understanding the recent history of vessel typologies in Yemen. These results will be published in the final field report.

Preliminary outcomes

The fieldwork yielded preliminary insights into the state of wooden boat-building and use at various locations in Yemen, a typology of the main dhow-types to be found at those sites, and a lexical dataset related to those types. An overview of these findings is presented here.

1. Boatbuilding activity and boat use.

The MARES survey indicated a wide variation in activity between the major boat-building sites visited:

Aden and environs

A thriving hub of the British imperial maritime network, the port of Aden went into decline following independence in 1967. The remains of the traditional dhow harbour and boatyard can be found at Dakkat al-Ghāz (Figure 2).

However, much of the inter-tidal area that constituted the harbour has been



Figure 2: Relics of dhowbuilding at Dakkat al-Ghāz, Aden (MARES/J.P. Cooper).

reclaimed, and is now a lorry park. This appears to have happened since 1990, when Cooper visited Ma‘alla and photographed the site. Wooden boat activity is today limited. The team recorded two wooden dhows – an ‘*obri* and a *bōt* (see below for a discussion of boat typologies) – that had been hauled out and abandoned. A pile of wooden masts was also recorded. Local informants said that a large quantity of un-dressed timber at the site comprised locally grown woods known as *damas* (*Conocarpus lancifolius Engl* (Bilaidi 1978, on-line: 3)) and *muraymira* (*Melia azaderach L.*(Awadh Ali *et al* 2001: 175). These timbers formed natural crooks used to make futtock and floor timbers, and are indicative of an extensive former boatbuilding industry at the site.

The small modern dock at Dakkat al-Ghāz is still used by occasional traditional vessels: a moored ‘*obri* at the time of our visit was from Khokha, and vessels sometimes bring livestock to Dakkat al-Ghāz from Somalia². The

² Blue and Cooper observed such a vessel in 2007.



Figure 3: The creek at al-Ghureira, with abandoned vessels (MARES/J.P. Cooper).

few other vessels in Ma‘alla were fibreglass. Across the harbour, dhows could also be seen abandoned on the inaccessible island of Qulfatayn. Other abandoned examples of ‘*obrīs* and large *hūrīs* were recorded at the Little Aden villages of Fuqum and Khīsah. In addition, small wooden dugout and plank ‘canoes’ (also called *hūrīs*) were observed abandoned, and occasionally still in use, at various fishing settlements in greater Aden.

Al-Ghureira

The lagoon at al-Ghureira, some 5km north of the Bab al-Mandab on the Red Sea coast, contained a remarkable assemblage of dhow types. To its north lies the associated fishing and former ship-building village, where a vessel had been seen under construction as recently as 2007³. The lagoon’s southern shore contained an assemblage of 13 large cargo vessels including double-ended *zārūqs*, *zāīmāhs*, and ‘*obrīs*, and a large transom vessel of unknown type, almost all of which were clearly abandoned and in a highly dilapidated state (Figure 3). These were interspersed with a number of large *hūrīs*, some still in use. On the north bank of the lagoon, fringing the village, a number of other vessel, mostly large *hūrīs*, were also hauled up. The village’s boatbuilding yard stood idle, in it an incomplete ‘*obrī* that had been abandoned early in the construction process.

³ Observed by Cooper and Blue in 2007.



Figure 4: Abandoned boatyard in Khokha (MARES/J.P. Cooper).

Mocha

Evidence of wooden boats at Mocha was limited to four large *hūrī* vessels abandoned on the beach of town's southern bay; a number of dugout *hūrīs*, none of which appeared to be still in use; and various ships' timbers incorporated into beach huts. There was no wooden boatbuilding yard remaining in the town. Fibreglass boats dominated the fishing fleet.

Khokha

Further north, the town of Khokha contained the largest number of wooden vessels found anywhere on our itinerary – over 100 in total. The overwhelming majority of completed vessels were large *hūrīs*. However, all but one, which was anchored offshore, had been hauled up and abandoned, or at least 'mothballed', on the shores of the town's lagoon. Small fishing vessels at Khokha included a number of abandoned dugout *hūrīs* and the lashed log-rafts

known as *ramas* (sing.), the latter being used for inshore reef fishing. Most working boats were open fibreglass fishing ‘canoes’.

Wooden boat-building had ceased at Khokha within the last decade, and the presence of several vessels abandoned mid-construction suggest that the process happened rapidly (Figure 4). Prados in the mid-‘nineties had observed over sixty boats under construction in the town during his fieldwork: he described it as Yemen’s largest boatbuilding centre (Prados, 1996: 51). There were two centres of former wooden boatbuilding activity. The smaller of the two, south of the fish market, comprised at least three boatyards containing four large *hūrīs* and an *‘obrī* that had been abandoned during construction. One former boat-builder said he had not built a wooden vessel there in eight years. Instead, younger men were building fibreglass fishing boats in the same location.

Some 1.5km up the coast from the fish market was a second, and larger, boatyard site. Here were at least eight individual yards, each comprising a small concrete hut and open shelter, alongside the boatbuilding area. Once again, the team observed a large number of unfinished boats – *hūrīs* and an *‘obrīs* – that had been abandoned at different stages of construction. There was no evidence of ongoing construction or repair anywhere in the town.

Hudeida

Hudeida is Yemen’s largest Red Sea port. Wooden boat construction and use appears in recent years to have been concentrated around the modern fishing harbour and market. The marina in the northern part of the market site contained dozens of fibreglass fishing vessels, and a small number – less than ten – of double-ended *‘obrīs* still in use as fishing vessels. The area south of the main market buildings comprised a ‘grave-yard’ of some 70 abandoned wooden vessels, chiefly large *hūrīs* and *‘obrīs*, and one *bōt*. A

group of men was breaking up one of these vessels for wood to produce charcoal.

Within the central cluster of buildings at the site was a surviving and active boatyard and ships' chandlers, the latter selling boat-building supplies including planking and hull preservatives. The former was the only boatyard in the survey where structural work on traditional boats was under way during the survey. The team observed a rudder being repaired, hull planking being replaced and caulked, and hull preservative being applied – all to an *'obrī*. Another *'obrī*, newly refurbished, was being prepared for launch. However the master builder overseeing the work said that no new vessels had been built at the site for some years.

al-Ṣalīf

The most northerly site visited during the survey, al-Ṣalīf is a relatively large fishing village, located alongside an oil-exporting terminal. The bays around the village contained numerous wooden fishing *'obrīs* and large *hūrīs* that were still in use – indeed this was by far the largest number of wooden vessels still in use anywhere in the survey area. However, as elsewhere on the survey route, the local boat-building yard had been abandoned, with three vessels – a *zārūq* and two large *hūrīs* – abandoned and unfinished. The family associated with the yard said that they continued to carry out repairs, but that new boats were not being built. An old boat was being broken up for its timber.

As elsewhere, fibreglass boat construction had started in al-Ṣalīf, but here fibreglass construction followed a practice not observed elsewhere. In Khokha and the Hadhramaut, for example, fibreglass boatyards specialize in the production of the familiar 'canoe'-type fishing boats with an outboard motor seen throughout the Yemen coast. However, fibreglass boats seen under

construction at the al-Ṣalif fishing association building were clearly modelled on the double-ended wooden *‘obrī*, and used an inboard motor.

Socotra

Due its isolated position, Socotra has until recently retained many dugout *hūrīs*. Other traditional vessels found on the island include a sewn planked vessel known as a *shirkah*, all surviving examples of which are abandoned, as well as a number of planked vessels from Oman and elsewhere that have been brought to the island and abandoned. However, it is the logboat *hūrī* that has been the primary means of accessing the rich fishing grounds around the island. The logboat *hūrīs* of Socotra, like those on the mainland, originate in India (Jansen van Rensburg 2005a, 2005b, 2006, 2009). However modifications and repairs are undertaken locally by fishermen using an array of techniques, including sewing to prevent further splitting of the hull. This technique was also used previously to maintain the *shirkah*. With the gradual increase in the import of fibreglass vessels the *hūrīs* and other vessels are being abandoned, and few remain in use. With increasing economic development on Socotra, abandoned wooden vessels are being used to fuel lime kilns. Thankfully, with the opening of a craft museum on Socotra and the actions of several individuals, a few *hūrīs* have been saved.

The vessels

The survey encountered a range of double-ended and transom-sterned vessels. The larger “dhows” varied in length from 16-24 m and in width from 3-7 m. All had motors, either inboard or outboard. Planks were fastened with cleated nails to crook timbers, and floor timbers were bolted to the keel. Three main dhow-types were recognised during our survey. These included double-ended boats of different shape, powered by inboard motors, and



Figure 5: Three types of double-ended sanbūq found in Yemen – the ‘obrī (top) in Aden, and zārūq (centre), and zaīmah (below), in al-Ghureira (MARES/J.P. Cooper, C. Zazzaro).

sometimes with an extant mast or mast step. These were generically referred to as *sanbūqs*, although specific hull shapes attracted more precise names, such as *‘obrī*, *zārūq* and *zaīmah*. The general shape and structure of these

hulls was quite similar from type to type, the main difference being in the bow and stern profiles, and overall hull size.

‘Obrī

The *‘obri* is a double-ended vessel with an inboard motor, characterized by a straight, raking prow and a stem-post that terminates at or slightly above the sheer line. The largest recorded was at Dakkat al-Ghaz: it was 22.8 m long, 5.8 m wide, and 2.6m high amidships (Figure 5).

Zārūq

Another double-ended vessel, the *zārūq* is characterized by straight but foreshortened stern- and stem-posts, which end approximately two-thirds of the way up the bow (Figure 5). A *zārūq* observed at al-Ghureira was the largest vessel of any the team surveyed. It was 24 m long, and 6.2 m wide. One informant said the *zārūq* had a typical capacity of 300t⁴.

Za‘īmah

Za‘īmah refers to a double-ended vessel with inboard motor, characterized by a curving bow profile. Informants who used this term or sketched this type were interviewed in locations where the *za‘īmah* no longer existed. However, vessels matching their description were recorded at al-Ghureira (Figure 5). A former builder of *za‘īmahs* living at Fuqum said the *za‘īmah* had a capacity of up to 500t, and a keel length of 15-24m⁵.

Bōt

Two examples of the *bōt* were observed, in Aden and Hudeida. These were transom-sterned vessels with a box-like cross section and blunt bow profile,

⁴ Abdo Umar Bulghaith, interviewed 10th February 2009.

⁵ Muhammad ‘Alī Najjār, a boatbuilder, interviewed 10th February 2009.



Figure 6: A bōt at Hudeidah (MARES/J.P. Cooper).

having an inboard motor (Figure 6). Informants unanimously identified this vessel as “not Yemeni”, and variously attributed its origins to Oman or India. The MARES team subsequently observed similar craft in use in Djibouti.

The ‘large hūrī’

The most common of the larger vessels of the Yemeni Red Sea coast, the ‘large *hūrī*’ is transom-sterned and powered by two outboard motors, or occasionally one (Figure 7). While its bow is almost identical to that of an ‘*obrī*’, it is distinguished by having two sweeping ‘fins’ at its stern quarters, these being a continuation of the hull planking. The opening above the low transom and between the fins was used to pay sein nets in and out of the vessel. The type varies in length from 14-20m, and in width from 2.5-4.5m. The term ‘large *hūrī*’ was used by the team to distinguish it from the various



Figure 7: A 'large hūrī' at Khokha (MARES/J.P. Cooper).



Figure 8: A galbah/jalbah at Fuqum, Little Aden (MARES/J.P. Cooper).

forms of smaller fishing canoes that were also called *hūrī*⁶. Interviewees referred to it simply as a *hūrī*, unless likewise distinguishing it.

Transom sanbūq

A large dhow was recorded at al-Ghureira that was similar in its hull shape to the *ʿobrī*, except that it had a transom stern. The vessel measured 23.5 m in

⁶ The 2007 Southampton University survey had focused on recording these smaller *hūrīs* – either dug-out or plank-built vessels. The MARES survey retained a complimentary focus on other types of boat, most of which were larger.



Figure 9: A fibreglass galbah under construction at al-Ṣalīf. The hull form retains that of the wooden ʿobrī (MARES/J.P. Cooper).

length and was 7.1 m wide. We tentatively associate this type of boat with the description of a *sāʿiyya* that informants outlined elsewhere, but the identification is by no means certain.

Galbah

In the Aden area, the *Galbah* was a plank fishing vessels around 11m in length, characterised by small transom stern and an outboard motor (Figure 8). In the Red Sea, however, the term applied exclusively to fibreglass vessels of various forms (Figure 9).



Figure 10: A *ramas* at Khokha (MARES/C. Zazzaro).

Ramas

The *ramas* is a small punted log raft made with logs lashed together and onto two cross timbers with rope, today synthetic. Though most were abandoned, some were still being used for inshore fishing (Figure 10).

Boatbuilding

Although the survey did not record boat-building in progress, ethnographic interview and the presence of numerous abandoned boatyards and a large number of unfinished *hūrīs* and *‘obrīs* enabled the construction sequence of these craft to be established. Indeed, the survey encountered remarkable variations in the approach to building wooden vessels, even within the same boatyard.

In one boatyard at Khokha, the team found the construction of *‘obrīs* following a sequence familiar to vessels in other areas of the Red Sea. The first piece to be laid is the keel, followed by stem- stern-post timbers, and the *samakah* timber through which the propeller shaft is fitted. The hull shape is then

established by building up futtocks and planks in parallel – that is, the approach is neither shell- first nor frame-first, but a mixed method⁷. In contrast, yet in the same boatyard, the ‘large *hūrī*’ was built in a quite different sequence, in that the keel and stem- and stern-posts are added at the very end of the hull construction sequence. Having built the hull up from its garboard strakes, including all planks and framing timbers, the builders roll the hull to one side, and affix the prepared keel by bolting it up to the floor timbers.

Within the same vessel type, the team noted variations in construction sequence between locations. In Khokha, the planking of the large *hūrīs* was applied in an upwards direction, starting with the garboard strake⁸. However, in al-Ṣalīf, builders of the *hūrī* preferred to attach the sheer strakes immediately after the garboard strakes and initial shape-giving futtocks⁹. The intermediate strakes, and framing timbers, were added thereafter. Even though the outcomes are entirely similar, the variation in approach at different yards on the same coast perhaps reflects concomitant variations in the paths of transmission of the underlying boatbuilding skills.

Linguistic enquiry

The survey identified a range of names applied to different Yemeni vessel types. Of these, *sanbūq* is today applied quite generically, covering the vessels also known as *zārūqs*, *zāīmahs*, and *‘obrīs*: none of these vessels resemble the large transom-ended, curved-prow *sanbūqs* that plied Yemeni waters during British rule in the south (Howarth 1977: 36), which are no longer found, nor do they resemble the *sanbūqs* of the Gulf or Oman (Howarth,

⁷ For a definition of the mixed construction technique see McGrail (2004: 7-9) and Pomey (2005: 33-34). In maritime archaeology the discussion of the sequences of boat construction and preconception methods was firstly introduced by Olof Hasslöf (1963) and Lucien Bash (1972), both using ethnographical and archaeological data.

⁸ See also Prados 1998a: 199-201.

⁹ See also boatbuilding methods recorded by Prados at Luḥayyah (1998a: 201-205)

1977; 36; Agius 2005: 18). Even more generically applied was the term *hūrī*, historically referring to dugout fishing canoes, but today referring to fibreglass vessels, and also to the 'large *hūrīs*' discussed above. Linguistic informants also provided other names for vessel types that no longer exist in Yemen. These names, and their historical usage, are discussed below. Of course vessels referred to historically are unlikely to correlate in precise form to modern vessels given the same name.

Sanbūq (pl. sanābīq)

The word *sanbūq* has been applied to a diverse set of vessels in a wide variety of Western Indian Ocean locations for almost a millennium. It has been commonly known over the centuries, with cognates in Mehri, Hadhrami and Amharic (De Landberg 1920-1942, III: 1985-6, fn. 1; Glidden 1942: 71). It is also found in Greek *sambúke*, which seemingly came about because of the Greek presence in Egypt and the Red Sea before the Christian era. An attempt has also been made to derive the word from Persian, through Middle Persian **sambūk* (Al-Jawālīqī 1969: 177-9; al-Tabrīzī 1982, II: 1170; Glidden 1942: 71; Agius 2002: 85-86). That is possible, but there is a greater possibility that the nomenclature derives from Sanskrit *çambuka*, and there may also be links with Malay *sampan* (Kindermann 1934: 43) or Chinese *sanpan* (Yajima 1976: 24).

The earliest mention of *sanbūq* in Arabic sources comes from the mariners' tales recounted by the captain Buzurg b. Shahriyār (d. 399/1009), who reports a cargo *sanbūq* sailing to China (al-Rāmhurmuzī 1883-1886: 190). The Moroccan traveller, Ibn Baṭṭūṭa (d. 770/1368-9 or 779/1377) speaks of a *sanbūq* functioning as a coastal ferry (Ibn Baṭṭūṭa 1968, II: 17, 181, 183, 198, 251). The Egyptian historian al-Maqrīzī (d. 845 /1441-2) mentions the name in the context of a war fleet in the Red Sea during the Ṭulūnid period (254-

270/868-884)(al-Maqrīzī 1270/1853, II: 180). We also find the name in sixteenth century Portuguese sources: De Albuquerque (d. 1515), Duarte Barbosa (d. 1521)(1918-1921, I: 7, 9) and Vasco da Gama (d. 1524)(*Three Voyages of Vasco da Gama* 1869: 75-6, 79, 80, 109) often mention *sanbūqs* (sambucho or zambuco).¹⁰ De Albuquerque notes that Portuguese *caravels* “were guided by small or large vessels called (*sanbūqs*)”. He also remarks that they were undecked, and describes them moreover as “having no nails” (*Commentaries* 1875-1884, IV: 206), a probable reference to the former Indian Ocean practice of stitching hull planks (Agius 2008: 161-167). In the same period, the Italian Ludovico di Varthema, who lived in Yemen for some time, reports a type of “flat-bottomed” *sanbūq* (Ludovico di Varthema 1863: 154).

In the nineteenth century, Karl Klunzinger (d. 1861), classifies the *sanbūq* as the most common Red Sea type (Klunzinger 2000: 295), while Richard Burton (d. 1890) sailed on a two-masted, 50-ton pilgrim *sanbūq* from Suez to Jeddah, which carried 97 pilgrims (Burton 1964, I: 188).

‘obrī (pl. ‘obriyyāt)

The name ‘obrī comes from Arabic ‘abara “to cross over (the sea)”, by extension a boat which journeys from one point to another (Lane 1984, II: 1936). Given the meaning, one would expect to find a boat-term in Classical Arabic sources related to this verb-root but none has been found (Agius 2002: 46-7). Hunter, circa 1877, mentions an ‘abra, which he says is a small boat of 5 to 15 tons from al-Mukalla (Hunter 1877: 83). More recently, Hawkins uses ‘abra generically to refer to “all manner of small craft which can be anything from decrepit all-purpose boat in Aden to the sleek ferries of Dubai Creek”

¹⁰ For reports on the *sanbūq* from the Hadrami chronicles, see Serjeant 1974: 58, 69; see also Agius 2008, Chapter 5.

(Hawkins 1977: 81). Moore (1925: 123) is a little more specific: he says an *‘abra* had a lowered bow and elevated stern, while Serjeant (1974: 134) speaks of a Mahri *‘abriyya sambūk*, which might be similar to the *<obrī* encountered during the MARES fieldwork.

***Zārūq/Zārūk* (pl. *zarārīq/zarārīk* or *zārūqāt*)**

In Classical Arabic, the verb-root *zariqa* carries the meaning of “piercing with a spear” and *zarrūqah* is the word for “spear”; by extension this root gave the word *zawraq* “a skiff; a small boat” (Lane 1984, I: 1227-8) with the meaning of light and fast; mentioned by Ibn Jubayr (d. 614/1217) (1952: 64) The Yemeni term *zārūk* or *zārūq*¹¹ seems to be related to this. At the turn of the twentieth century De Monfreid (d. 1976) often speaks of *zārūqs* in the southern Red Sea (1934: 14, 106, 220); he gives the impression that it was the most common vessel of his times, but this could be a generic term for various boat types.

***Za‘īmah* (*za‘āyim*)**

The name seems to be associated with one of the meanings of the verb-root *za‘ama* “(the camel that) conveys (someone to a desired place)”; hence *za‘īmah* is the “conveyor” with reference to the laden camel (Lane 1984, I: 1232). That would perhaps explain the Yemeni application of the name to a type of cargo boat.

Our informants sketched a double-ended vessel with a curved bow profile, and spoke of its large size – descriptions which correspond to a drawing by Hawkins (Hawkins 1977: 79). The MARES team identified an abandoned vessel at al-Ghureira as such.

¹¹ Final k or q are often interchangeable; from a voiced velar to an uvular occlusive sound.

***Sā'iyah* (pl. *sā'iyāt*)**

Informants in Yemen referred to a type of large transom-sterned vessel of this name, but the MARES team identified no such actual vessel with certainty¹². The name may have come from the verb-root *sa'ā*, meaning “to go along with vigorousness” and the word *sā'ī* signifies “a messenger that journeys with haste”, which would fit well with the nomenclature *sā'iyah* (Lane 1984, I: 1367). Yemenis have adopted the feminine usage, as several names of vessels in Arabic do. Johann Ludwig Burckhardt (d. 1829) describes a *sā'iyah* as the smallest type of dhow “only nine feet across the beam” (Burckhardt 1822: 8-9).

***Jalbah* (pl. *jilab* or *jalbāt*)**

The name *jalbah* does not occur in classical and medieval lexica. From the verb-root *jalaba* we have “to transport things, such as camels, sheep ... slaves or any merchandise” (Lane 1984, I: 438; see also 440); hence, it might be said that the ship that carried them was called *jalbah*. The *jalbah* was a well-known Red Sea vessel; it is first mentioned by Buzurg ibn Shahriyār (d. 399/1009) with reference to a journey from Oman to Jeddah (Al-Rāmḥurmuzī 1883-1886: 93-4). Cargo *jalbahs* were used to trade goods from Egypt to Aden and return, according to the Genizah letters (4th-7th / 10th-13th) (Agius 2008: 116-7). Ibn Jubayr (d. 614/1217) says that a *jalbah* was a pilgrim-cargo boat with sewn planks (Ibn Jubayr 1952: 63). Some were large enough to carry camels from Jeddah to Yemen, says Ibn Baṭṭūṭa (d. c. 770/1368-9 or 779/ 1377) (1968, I: 158). Portuguese diaries report a type that was a small sailing or rowing vessel used on the southern Red Sea coast. In the greater

¹² Prados (1998b: fig. 3) identified such a vessel preserved as a monument in al-Ḥamī.

Aden area, *galbah*¹³ is a term applied to a relatively small transom-ended wooden fishing boat (circa 11m). However, on the Red Sea coast the term was invariably used to refer to fibreglass vessels, whatever their form.

***Hūrī* (pl. *hawārī*)**

The origin of the name *hūrī* stems from Hindi *hōrī* and ultimately from Sanskrit *hoḍa* (Agius 2002: 119-121; 2008: 123, fn. 73). Other than the dug-out ‘canoe’ that is perhaps the most familiar vessel of that name, the term also applies to a wide range of small plank-built fishing vessels found in every place we surveyed. In many locations it is also applied to the type of fibreglass fishing vessels mainly manufactured in the Hadhramaut area, and found throughout Yemen. The name is also applied to the much bigger ‘large *hūrī*’ described above.

***Ramas* (pl. *ramasāt*)**

Ramas is a name of Demotic origin (r.m.s.). It appears in Hieratic, and is also a cognate term with Somali *ramsi* and its variants, Ethiopic. It has survived in the Red Sea, the Horn of Africa and Hadhramaut area. The Classical Arabic term is *ramath*.

The earliest mention of the term in Classical Arabic sources is a verse from a pre-Islamic ode of Abū Ṣakhr al-Hudhālī (second half of the 1st/7th century)(Montgomery 1997: 195); also found in a Ḥadīth, sometime after 1st/7th century; the Andalusian lexicographer Ibn Sīda (d. 458/1066) sets a definition of *ramath*, describing at some length. We have then no sources mentioning this name until the 19th century: Johann Ludwig Burckhardt (d. 1817) sailed in Nubia on a *rāmūs* “a small raft of reeds”, though elsewhere he

¹³ A *g* voiced velar occlusive for the Classical Arabic *j* voiced palatal affricate is common here.

described it as constructed of four trunks of date-trees, worked by a paddle 4 feet long (Agius 2002: 128-130; 2008: 120-1). Barrett Miles (1994: 414) reports that in the early 20th century he saw Socotrans sailing from the island to Muscat on a *ramas* made of “three logs about six feet (1.82m) long, the central one being the longest ...”. Moore (1925: 138) came across a three to four log *ramas* in Massawa, Eritrea.

Conclusion

As recently as 1996, Prados was able to write that “...wooden boatbuilding continues to thrive in Yemen.” (Prados 1996: 50). The situation has changed radically in the meantime. The MARES fieldwork suggests that the building of new wooden dhows in Yemen may now have ceased, and that the only work currently conducted in traditional boatyards is repair work on existing vessels. Reports from the Hadhramaut and Mahra, where this survey did not reach, suggest that this was the first area of Yemen to start the transition to fibreglass boatbuilding, and hence has few vestiges of the wooden tradition. The area north of al-Ṣalīf remains an unknown quantity. Prados noted boatbuilding activity at LuḤayyah and Khawbah in the mid-‘nineties (1996: 51; 1998a: 199-206), and local informants told us that wooden vessels continue to be used at Maydī. Future research along this coast north of al-Ṣalīf is therefore warranted.

Oral accounts obtained from Yemenis in Aden and on the Red Sea relate that fibreglass boatbuilding in Yemen took off in the aftermath of the 1990 Iraqi invasion of Kuwait, when over a million resident Yemenis were expelled from member states of the Gulf Co-operation Council. Many of these Yemenis were Hadhramis, some of whom returned to their home province and invested their savings in establishing fibreglass boatyards. Fibreglass fishing ‘canoes’ throughout Yemen, and also Djibouti, carry makers’ marks from Hadhrami

yards. Fibreglass boatyards are now to be found in the major Red Sea fishing centres of Khokha and al-Ṣalīf, and fibreglass boats have been observed carrying the name of a builder in Mocha.

The uptake of fibreglass boats in Yemen appears to be the product of raw economics. Fibreglass boats are robust, require less maintenance (and associated downtime), and can be repaired by unskilled hands using low-cost materials at a time when skilled workers are disappearing. Fishermen say that fibreglass boats are uncomfortable compared to wooden fishing vessels, but they travel faster and therefore further, allowing more distant fishing grounds to be reached at a time of falling fish stocks and rapid population growth.

It appears that Yemenis are witnessing the end of the practices of wooden boatbuilding, and the maritime traditions associated with it. In the Arabian-Persian Gulf and Oman, the wealth of the state and of individuals has enabled the preservation of some traditional vessels, either in museums or as hobby craft, and the archiving of documentary information on maritime activity in research centres. However, Yemen's relative poverty means that none of the surviving wooden dhows are likely to be preserved in a cultural-heritage context, a fact that argues for assiduous recording of these vessel types and their associated oral and craft traditions before they are lost entirely.

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