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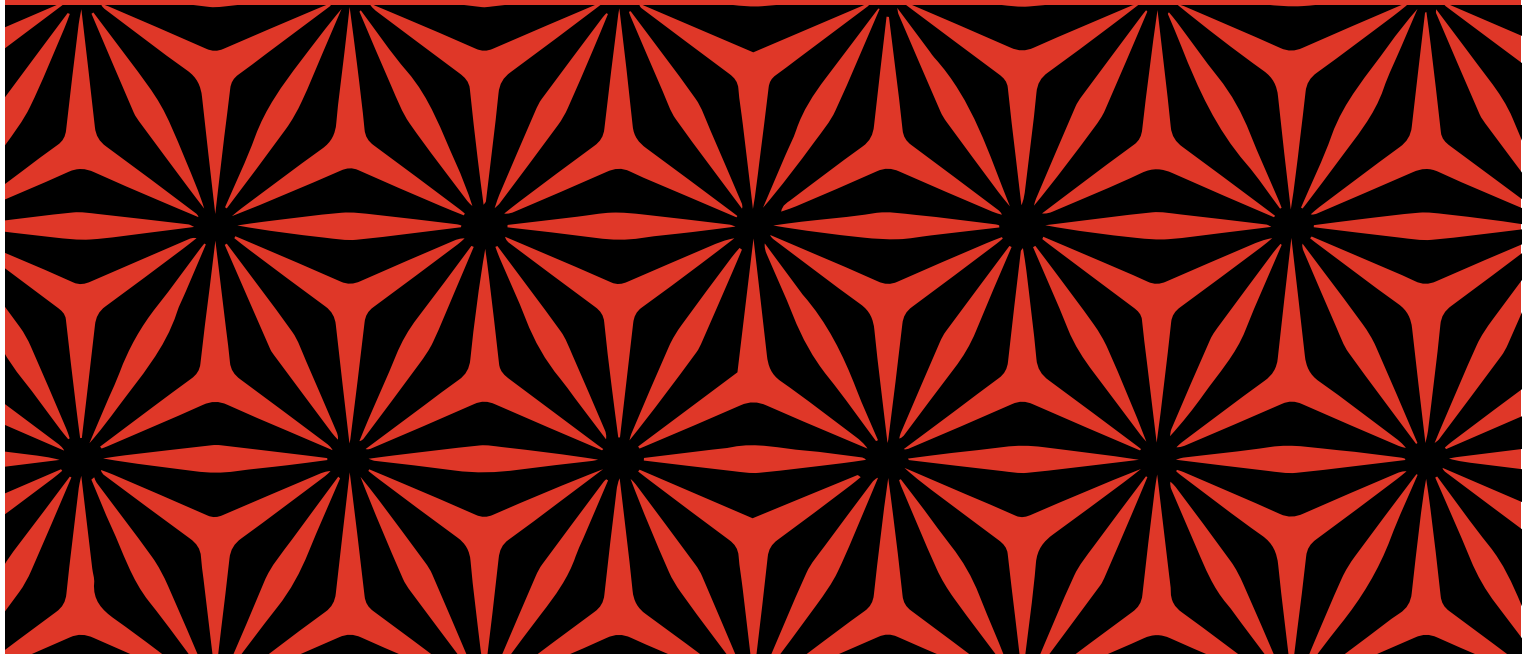
Rethinking Nature in Japan

From Tradition to Modernity

edited by
Bonaventura Ruperti,
Silvia Vesco and Carolina Negri



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Rethinking Nature in Japan

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Bonaventura Ruperti, Silvia Vesco and Carolina Negri (eds.)

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On the Road of the Winds

Folk Stories, Meteorological Knowledge and Nautical Enskilment in Japanese Seafaring Tradition

Giovanni Bulian

(Università Ca' Foscari Venezia, Italia)

Abstract Starting from a series of historical contexts concerning Japanese seafaring tradition, this paper proposes an anthropological analysis on the practices of sailing navigation, focusing on the recursive interaction of traditional meteorological knowledge, nautical material culture and navigational knowledge that are historically grounded in the contexts of practice.

Summary 1 Introduction. – 2 Sailing a Serious Ocean. – 3 Made for the Winds: the *Utase* Boats. – 4 Benevolent Gods and Nautical Virtuosity. – 5 Conclusions.

Keywords Japan. History of Sailing Navigation. Enskilment. Traditional Meteorological Knowledge. Winds. Anthropology of Knowledge.

1 Introduction¹

Throughout history of navigation, wind universally testifies to an enduring continuity with the qualities of atmospheric phenomenology and production of enskilled knowledge. This is particularly relevant when considering wind in the historical context of Japanese nautical culture, which exhibited a highly nuanced sophistication concerning nautical meteorology due to the characteristic monsoonal environment of the archipelago. The cultural importance of the nautical knowledge – namely its integration in what could be identified nowadays as ‘cultural heritage’ – has a long history that could be read in the diachronical evolution of the abilities of Japanese navigators. Fishermen, boatmen, merchants and sailors have developed over the centuries complex cultural practices to recognise all the possible meteorological signals in order to avoid passage of frontal systems, hur-

¹ I would like to thank the National Museum of Ethnology (Minpaku) for its support the research held in Japan, (15 October 2014-15 October 2015), which constitutes part of this paper. In particular, I would also like to thank the Director Dr. Sudo Ken'ichi, Professor Taku Iida, and Professor Kazunobu Ika.

ricanes, strong winds, rough sea, high waves and swell, among others, which belong to a long-established tradition related to the need for an 'easy' understanding of the local maritime environment.

This heterogeneous body of knowledge and practical experiences historically produced a 'traditional meteorological knowledge',² which could offer, still nowadays (Nomura 1995; Bulian 2015), a broad interpretative framework on the 'folk epistemology' of local weather. Theorised or experienced, traditional meteorological knowledge is an example of interplay between different factors such as, language, culture, environment and society (Ellen 2016) and appears to be generally related to taxonomic thinking, classifications, bodily practices, rituals, ceremonies and other "summations of what people know" (Ellen 2016, 291). As a result, traditional meteorological knowledge could be interpreted as a sophisticated model of cognitive engagement with the physical environment, which is "actually remarkably fluid, a consequence of a practical and experimental engagement with everyday life" (291). Again, traditional meteorological knowledge gives also meaning to the observation of the environment, becoming a sort of 'cultural support' (Atran, Medin 2008; also quoted in Ellen 2016, 306), which has "enjoined different communities to develop diverse sub-cultures of the atmosphere" (Jankovic, Barboza 2009, 14). In this context, traditional meteorological knowledge in seafaring tradition could ideally offer also some critical looks at the modalities of conceptualising the notion of nature (*shizen* 自然) in Japan (Bruun, Kalland 1995).

To provide a synthetic introductory perspective on these issues, the article focuses on a historical range of the different ways of producing 'meteorological knowledge' related to the practices of sailing navigation, maritime religion and nautical technology that were culturally integrated and practice-oriented. After a brief introduction of the historical role of the meteorological winds in Japanese seafaring tradition (section 2), using a diachronic perspective, this paper examines some examples taken from the 'folk history' of Japanese seafaring culture from Meiji (1852–1912) to Shōwa (1926–1945) periods and mainly located in Ise Bay. Section 3 focuses on nautical technology of the beam trawl boat (*utase bune* うたせ船), in order to give an example of the relationship between the local winds, nautical skills, and material culture of local seafaring tradition. In section 4, two secondary sources are briefly discussed in order to historically

2 This topic is generally related to traditional ecological knowledge or, more specifically, to the so-called 'ethno-meteorology'. According to the general definition of ethno-science, 'ethno-meteorology' is attributable to some recurring themes of ethno-science and anthropology, focusing on the so called "traditional knowledge", which provides a local, qualitative scale of analysis for questions about weather patterns, animal migrations and adaptation strategies (see Ellen, Harris, Bicker 2000). Traditional knowledge is explained as the knowledge of a group or a community from a particular area, based on their environmental understanding, interaction with nature and experiences within their area.

contextualise the navigational strategies and the role of meteorological knowledge in regionalized environments.³ The article firstly examines the nautical votive offerings (*funa ema* 船絵馬), documents of a disappeared religious tradition that described nautical folk stories of shipwrecks and critical experiences at sea, narrated and illustrated in the vernacular texts or petitions. Secondly, the article focuses on a logbook written by a skipper of an *utase bune*, which could be considered as a sort of 'nautical biography' that offers valuable information on events related to past experiences of wayfinding at sea. Finally, bearing a close relationship to what has been discussed in the previous sections, the paper briefly summarises a holistic perspective on the recursive interaction of traditional meteorological knowledge, nautical material culture and sailing navigational knowledge that are historically grounded in the contexts of practice.

2 Sailing a Serious Ocean

The Japanese archipelago is generally influenced by the western boundary currents in the wind-driven, subtropical and subarctic circulations of the North Pacific Ocean (Karan 2005, 27): the Kuroshio Current (Black Current) that carries warm tropical waters northward from the North Equatorial Current to the east coast of Japan, and the cold Oyashio Current (Parent Current or Okhotsk Current), which flows southward along the northern Pacific, cooling coastal areas. Another major climate factor is the wind regime influenced by monsoonal air masses that dominates the weather conditions through southeastern Asia. During winter, winds in Japan blow prevailingly from northwest, having originated in Siberia; in summer, winds blow from southwest, having originated over tropical seas. The winter and summer monsoons and their air masses are not continuous air streams, but there are several interruptions in the seaward flow of polar continental air during winter and the landward flow of tropical maritime air during summer.⁴

3 Both episodes are documented in a local magazine about the history of Hamaoka-chō, Shizuoka-ken (now Omaezaki-shi; Hamaoka-chō Educational Committee 2004, 75-166). Hamaoka-chō is located at the west side from Omaezaki, which is the east end of Sea of Enshu, and covers the area from the south end of Makinohara Plateau to the coastal plain. This is the coastal area of Sea of Enshu where severe winter wind blows from west and west-north (Hamaoka-chō Educational Committee 2004).

4 According to Yoshino and Kai (1977) the seasonal division is based on the occurrence frequency of pressure patterns over East Asia. The fourteen seasons are distinguished in the following way: early spring (March 1-March 17), spring (March 18-May 4), late spring (May 5-May 21), early summer (May 22-June 10), *Baiu* (June 11-July 16), summer (July 17-August 20), late summer (August 8-August 20), early autumn (August 21-September 11), *Aki same* (autumnal rain) (September 12-October 9), autumn (October 10-November 3), late

These climatic factors are very important, since the history of Japanese nautical culture had been shaped by frequent non-periodic weather changes during the winter and the summer monsoons (Yoshio 2010). Seasonal winds and ocean currents played a strategic role in the major interchanges in the history of East Asian seas: ships for Kentoshi (Japanese missions to Tang dynasty, 659–838) reached China using different sea routes when northern winds or weak southern winds prevailed (Ueda 1974; Yoshio 2010). Skilled skippers used these routes for Kenmishi (Japanese missions to China during the Ming dynasty 1368–1644), taking advantage of the strong spring winds to reach China and autumn winds to come back to Japan (Sekiguchi 2000). Trading ships between Japan and Sung dynasty (960–1279) sailed to Chinese coasts when prevailing winds blew from northwest or northeast (Kitami 1973), while Mongolian nautical expeditions against Japan were destroyed by adverse southwest winds in 1274, and by ‘divine winds’ (*kamikaze* 神風, to refer the autumn wind typhoons) in 1281.

From the thirteenth to the sixteenth century, Japanese ships were active in Asian seas, often in the role of *wakō* 倭寇 ‘pirates’ that plundered the coast of the Chinese Empire (Von Verschuer, Lee Hunter 2006). According to Ishihara (1964) the incursions of Japanese pirates in China were directly related to the seasonal winds: from March to May, when southeastern and eastern winds were weak, *wakō* raided Jiangsu and Zhejiang (China), and from November to February, when northeasterly winds blew in these regions, their incursions were directed into Fujian and Guangong (see also Yoshio 2010, 68). The nautical experiences of generations of *wakō* were described in many historical accounts, which offered reliable knowledge of the local wind conditions on the coasts. An example is *Senkō Yōjutsu* 船行要術 (Handbook of Navigation) written in 1456 by Masafusa Murakami, a member of the pirate family Murakami, who provided laws deduced from experiences concerning the wind conditions and described the monsoon as *banfū* or *ban no kaze* (‘turn wind’, ‘main wind’ or ‘prevailing wind’; Yoshino 1979, 167). From the fifteenth to the seventeenth century, several books – such as *Shinan kōgi* (A Wide Sense Interpreting of Teaching) written by Tei (1708) – describe the relationship between sailing methods and favourable or unfavourable wind conditions (Yoshino 1979, 167).

The relationship between the circulation of the wind regimes and the topographic settlements was also an essential aspect of the sailing culture during the Edo period (1603–1868). Many harbours, called *kazemachiko* 風待ち港 (literally ‘waiting wind harbour’) were strategically located on the Ise Shima coasts of the Kii Peninsula and on the southern coasts of Izu

autumn (November 4–November 25), early winter (November 26–December 25), winter (December 26–January 31), and late winter (February 1–February 28). See Yoshino, Kai 1977; Yoshino 1979, 161.

Peninsula, where ships waited for favourable winds (Aono 1938, 234-49; Yoshino 1979, 167). Seasonal winds were also strategically important for merchant ships, moreover, the development of navigation in the sixteenth century brought an increasing knowledge of trade winds (*bōekifū* 貿易風). During Edo period, merchant ships continued to be the main economical way to transport cargo from Edo to Ōsaka, and three main sea routes were established along the Japanese archipelago: the sea route from Ōsaka to Edo, the west route (along the coastal areas of the Inland Sea or the Sea of Japan) and the east route that connected Edo (the Pacific Ocean coast) to Dewa (now Akita and Yamagata prefectures).

The best known trade winds were *ayunokaze* アユノカゼ and *kudari* クダリ, two seasonal winds strategically important for maritime trades in Edo and Meiji periods. *Ayunokaze* あゆの風 was a favourable wind for merchant ships directed to Ōsaka and *kudari* was a favourable wind to navigate northward from Kyōto in the direction of Matsumae (Hokkaidō). For their strategic role in trade routes, these winds appeared often in popular folk songs: “Thirty days for *ai*, twenty days for *kudari*. How can I wait for all these fifty days? I do not know in which direction *ai* and *kudari* blow. All I can do is wait for my patron, when he has gone to Hokkaidō”, “*Kudari* in the Sea of Japan becomes *ai* after *yazaki*” or “*Ai* and *yamase* bring ships back to Ōsaka. All we can do is just wait to see sailors coming again to Hokkaidō” (Sekiguchi 2000, 25-9).⁵

However, according to the historical sources, these commercially important sea routes had a high number of maritime accidents in areas such as the Sea of Japan (*Nihonkai* 日本海) during Edo period. From a climatological perspective, this sea is characterised by warm waters and monsoons and this combination results in strong evaporation, which is especially noticeable between October and March when the strong northwestern monsoon wind brings cold continental air. In summer the wind weakens and reverses its direction, blowing warm air from the North Pacific onto the Asian mainland (Sekiguchi 2000). As a result, the Sea of Japan becomes very rough during winter, with strong seasonal northwest winds, becoming quieter in the Pacific Ocean during the spring and summer periods. The perception of the sailing risk in this maritime area was often related to folk terminology of local meteorology. *Nada* 灘, for example, was a term used often by fishermen and sailors to describe the dangerousness of the sea, which could be roughly translated as ‘the sea with high waves where it is difficult to sail’. *Nada* was used to refer to two main areas of the Sea of Japan: Genkainada and Hibikinada, and it was also used to refer to several areas of the Pacific Ocean side: Amakusanada, Hiuganada, Kumanonada, Unshunada, Sagaminada and Kashimanada. Or the Inland Sea: Suonada, Iyonada, Akinada, Itsukinada, Hiuchinada and Harimanada (Sekiguchi 2000).

5 Author’s translation from Sekiguchi 2000.

Seasonal winds were also the main protagonists during the period of trade and commerce with Southeast Asia, from roughly the fifteenth and the sixteenth century, which gave birth to a golden age in Ryūkyū, where Japanese and Chinese products were exchanged for Southeast Asian sapan wood and deer hides (Yoshino 1979). These winds used for sea communication were strategically important in Ryūkyū and Okinawa Islands also for local fishermen who created a meteorological calendar based on the frequency of occurrence of certain winds that blew on specific days: *nishi kaze* 西風 (northerly wind, around March 21st and April 5th), *heno kaze* ヘノカゼ (a southerly wind, May 6th, May 21st and June 6th), *kuchi kaze* 口風 (easterly wind, June 21st), *nishi kaze* 西風 (northerly wind, July 7th, around July 20th, August 8th, September 9th, September 23rd and the day with full moon in September), *kuchi kaze* (easterly wind, October 10th) and *nishi kaze* (northerly wind, November 7th and 23rd, December 7th, and December 22nd) (Kitami 1973; Yoshino 1979, 166; Sekiguchi 2000). This complex ‘meteorological mosaic’ influenced the practice of navigation in the Ryūkyū Islands: during monsoon season northerly winds were dominant, suddenly replaced by southerly winds, which start to blow on Yaeyama Islands at the end of the season. These “ghostly winds” – as they were called by local fishermen because of their dangerousness – still continue to blow from south in early April, announcing the arrival of the spring season (*baka natsu* バカナツ, young summer). However, it was only when a seasonal wind called *kachibai* カチバイ (summer solstice south wind) started to blow that people navigated actively (Kitami 1973).

A mastery of the nautical skill required experience in varying meteorological and sea conditions, and seasonal winds were critical elements for the strategies used for local navigations: *sarudachi bune* サルダチブネ was a boat used during the early summer monsoon when *bōsu* ボス and *kachi* カチ winds blew; *nakadachi bune* ナカダチブネ was another boat used during the summer monsoon when *kachi* wind blew; *sōsen* ソーセン was a boat that sailed during the summer monsoon when *suman* スマン and *bōsu* winds blew and, finally, *hisen* ヒセン allowed instead a temporary sailing (Kitami 1973). The spatial aspects of socio-cultural phenomena, in which a phenomenology of the wind is linked to classificatory models and their linguistic correlates, are an unavoidable guide to understand the historical background of Japanese ‘folk meteorology’ (see Table 1). In partly arranging the various seasonal and local winds mentioned above in a more or less consistent system, the practices of naming and classifying appear closely interconnected.

From this brief historical overview, one can deduce how cultural heritage is the result of a continuous process and the recursive interaction between maritime environment and “situated environmental practices” (Ingold 2003, 227) of generations of Japanese navigators. As seen, the physical experience of the maritime environment was sustained by the historical accounts and by a wide repertoire of folk traditions that undoubt-

edly shed light on the strategic role of meteorological winds in a broader geopolitical and socio-economic context. However, as maritime history has always taught, the complexity of this heterogeneous body of knowledge could mainly be revealed through the theoretical and practical knowledge of naval architecture, that is, the ship designs, the use of the tools and technical procedures that ensured the efficiency and safety of the ship, and the most iconic element of ‘embodying’ the winds: the sail. Starting from the general assumption that “making creates knowledge” (see Ingold 2013), the history of the evolution of Japanese sailing ships, so intimately related to meteorological knowledge, cannot be separated from the analysis of some characteristic types of sail boats, which are the real cornerstones of many historical passages in the Japanese maritime tradition. In the next section, in order to give an example of ‘knowledge coagulated in the practice’, this article focuses on the cultural story of one of the most efficient fishing boats to exploit the strength of the winds during Meiji and Shōwa periods: the *utase* (beam trawl) boats with their characteristic sails.

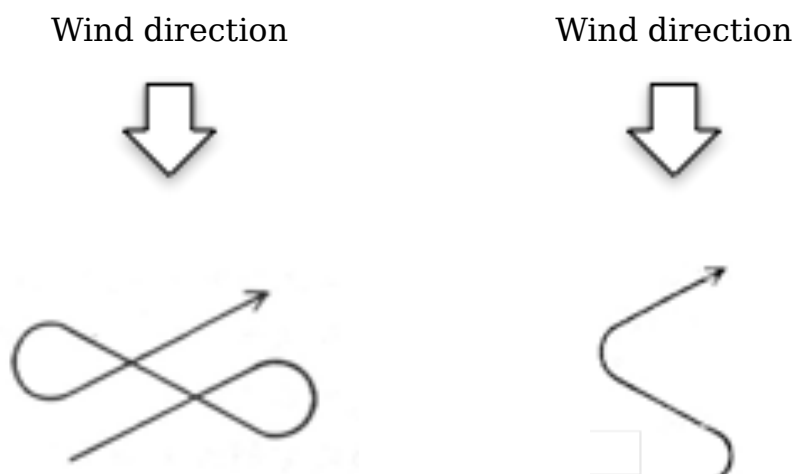
Table 1. Historical wind names (Sekiguchi 2000, 12-3; Handō, Arakawa 2001)

Geographical area	Wind names	Notes
West Japan Sea of Japan	<i>Kamikaze</i> and <i>shimokaze</i> <i>Takaikaze</i> and <i>hikuikaze</i> <i>Kudari</i> and <i>nobori</i>	Wind names used by traders and influenced by local dialects. <i>Ai</i> , <i>ae</i> , and <i>ayunokaze</i> were often used instead of <i>nobori</i> .
West Japan	<i>Anaji</i> (NW, winter season) <i>Maji</i> , <i>hae</i> (S, summer season) <i>Yamaji</i> (storm)	Wind names used by coastal fishermen
Sea of Japan	<i>Tamakaze</i> , <i>tabakaze</i> (NW, winter season) <i>Kudari</i> (S, summer season) <i>Hikata</i> , <i>isechi</i> (storm)	
Pacific Ocean East Japan	<i>Narai</i> , <i>saga</i> , <i>shimosa</i> , <i>betto</i> , <i>nishi</i> (winter season)	
West Japan	<i>Sagari</i> , <i>tosa</i> , <i>yōzu</i> , <i>waita</i>	Wind names used in limited geographical areas
Sea of Japan	<i>Wakasa</i> , <i>yamase</i>	
Pacific Ocean East Japan	<i>Akanbonarai</i> , <i>saga</i> , <i>shimosa</i> , <i>nakanishi</i>	
Japan	<i>Okikaze</i> , <i>urakaze</i>	Wind from the sea
	<i>Jikaze</i> , <i>kōyama</i> , <i>takanishi</i> , <i>aokita</i>	Wind from the land or mountain
Lake and river	<i>Hira</i> , <i>ibuki</i> , <i>tsukuba oroshi</i>	Wind names used at lake Biwa and lower areas of Tone river, such as Kasumigaura and Kitaura

3 Made for the Winds: the *Utase* Boats

Throughout the history of sailing ships, the theoretical location of the propulsive force, the direction, the intensity and distribution of the aerodynamic surface force on sails were important for the design and operation of the sails, which were oriented at a right angle to the wind. In the history of the Japanese coastal fishery, one of the most efficient boats exploiting seasonal winds was the beam trawl boat (*utase* 打瀬), which appeared approximately during the end of Edo period. The first *utase* boat was introduced in Aichi prefecture in 1887 and its typical boat design (the so called 'Aichi style *utase* boat') with its characteristic sails was similar to the Atlantic British traditional dragnet fishing boats, operating at that time in the North Sea. The sailing trawl net was similar to an otter trawl, with the only difference that the boat, which draws the net, was moved sideways by the tide or by large sails (Shimagawa 1995). This fishing technique became very popular in the coastal fishing communities of Ise and Mikawa bays. At the beginning of the twentieth century, this type of vessel began to trawl in southeast waters, operating in the shallow inshore waters of the Philippines, extending significantly the frontier of Japanese fisheries (Butcher 2004, 141). During the early Taishō period (1912–1926), *utase* boats began to spread around the coastal areas of Ise Bay, such as Kannonji (Aichi prefecture) where trawling boats were used on the seas of Bingo, Iyo, Suō, Bankara and Ōsaka Bay. Tajima and Yokoshima Islands (Hiroshima prefecture) were also famous for the use of *utase* boat fishing, which replaced in a short time the local traditional boats – the so called “Hiroshima style board bow ships” (*Setouchi no gyosen* 1988).

Utase fishing technique required that each vessel was pointed perpendicular to the wind and pushed along by particular sails set directly in line with the midline of the vessel. Before the introduction of the engine, the *utase* boats were initially dependent on the wind for propulsion. The strength of the wind and the area of the sail used to catch the wind obviously played a strategic role for fishery activities. Sails and nets were specially designed for specific local winds and sea conditions (*Setouchi no gyosen* 1988, 64-6; Shimagawa 1995). Moreover, small sailing trawlers tow the net over the sea bottom by means of wind or tidal force. For this reason, the shape of the craft was different depending on the locality even if no specific equipment was provided. The shape of the sail and the hull of the *utase* boats were the major factors that allowed these fishing vessels to approach the sailing upwind. This sailing technique required to zigzag across a headwind using a half wind (wind at 90° to the boat), which further increased the *utase* ship's manoeuvring ability. By using a triangular sail design, it was possible to travel against the wind using a technique known as *magiri bashiri* 間切り走り (tacking or sailing windward), which allowed the *utase* boat to ship forward with a wind at right angles to the boat. The boat moved for a



Scheme 1. Adverse wind sailing techniques (beating to windward) with *utase* boats (*Setouchi no gyosen*, 1988, 21)

while at an angle toward its desired course (to the right for instance), then the skipper swung the boom of the sail and tacked back across the desired course at an angle to the left in a zigzag fashion (Scheme 1). In this way, performing a skilful *magiri bashiri* allowed the fishing boat to use prevailing wind from many other angles than in other sailing methods.

This complex technique of navigation and exploitation of local winds was gradually transformed by the advanced developments of the instruments of propulsion.⁶ It should also be kept in mind that technological change of *utase* boats took place in different ways depending on geographic region, maritime environment and local weather (Shimagawa 1995). For example, since 1927, Tajima and Yokoshima Islands (Hiroshima prefecture) were both famous places for 'Aichi-style *utase*' fishing technique (*Setouchi no gyosen* 1988; Shimagawa 1995). Local fishermen could use four or six 'funnel nets' (*bizenmō* 備前網), according to the number of sails used and, since local winds were necessary for sideways fishing, the force of the wind determined the number of sails during fishing: when the wind was weak, few sails were hoisted on the boat. However, although these boats were created to exploit the wind as much as possible, they were also vul-

⁶ The technological change from the predominant 'Aichi style *utase* boats' to the 'Aichi style dragnet boat' occurred in three stages: a) since the net was towed by sailing, the number of sails increased as the size of the craft increased (generally from two to seven sails); b) sailing with engine and fishing with a sail as sideways; c) finally, sailing and fishing required electric ignition engine for the offshore fishing. This gradual shift occurred in the early twentieth century redefined the techniques of sailing, affecting not only the fish productivity, but also redefining the 'folk models' of fisheries (*Setouchi no gyosen* 1988).

nerable to sudden violent gusts of winds. According to the local historical accounts, at the beginning of Shōwa period (1926–1989) five *utase* boats, each of which was equipped with five sails, fell sideways off the coast of Yokoshima Island due to a gust of wind, causing the death of eleven fishermen (*Setouchi no gyosen* 1988; Shimagawa 1995).

If the danger of the gusts of wind could be the weak point of these boats, their widespread use in the late nineteenth and early twentieth century in the various coastal areas of Japan was motivated by their faster movements, allowing to reach, in a short time, distant fishing spots, ensuring a better conservation of the fish, thanks to the reduction in transportation time. At the end of Taishō period, for example, 'Aichi-style-*utase*' boats was introduced to Kikuma (Ehime prefecture), because this geographical area was very close to Kurushima Channel, a good fishing area where sea currents run from northeast to southwest. Local fishermen, being aware that the local seabed was covered with rocks that impede the use of *bizen* nets, used *utase* boats with one single net until about 1950 (*Setouchi no gyosen* 1988).

In conclusion, the *utase* boats are an historical example of "the crystallization of knowledge and practice in the physical structure of artifact" (Hutchins 1995, 96), representing a form of nautical

technology [that had] a multifaceted life history involving a specific environment with contexts of development and use, and relevant communities of practice and interaction whose member [had] their own systems of meaning and way of transferring knowledge. (Hollenback, Schiffer 2010, 321)

In the next section, how sailing navigation with *utase* boats is grounded in the context of practice will be analysed. In particular, some historical sources regarding pilgrimages by sea made by some groups of fishermen during Meiji period and how they faced challenging maritime routes in adverse sea conditions will be considered.

4 Benevolent Gods and Nautical Virtuosity

Japanese fishermen, merchants and navigators left religious objects and significant documents as part of a network of knowledge and practical experiences, which had obviously a normative claim: that is, they were made expecting to be clear, understandable and self-explanatory of what happened during the navigation. One of the most interesting examples reflecting a dynamic interplay between nautical experience and meteorological knowledge is found in *funa ema* 船絵馬, a particular category of votive wooden plates with image of ships offered to the gods in Shinto shrines,



Figure 1. *Utase* boat in the harbour of Toba, early thirties. The particular shape of the bow is in the 'Aichi style' (Okada 1998, 37).

which not only informed about the miraculous events happened at sea, but also offered interesting examples of lived experiences of generations of fishermen through a more or less elaborate narrative form (*Setouchi no gyosen* 1988). *Funa ema* were indeed collective votive offerings, created by the desire of the captain and his crew to thank a benevolent god for saving the crew from a stormy journey.

Particularly widespread during the Edo period (1603–1868), these votive tablets (generally called *ema* 絵馬) were one of the main ritual actions as a return on blessings (*hōon* 報恩) and were exposed into *emadō* 絵馬堂 (*ema* halls) within the religious complex (Bellah 1970), where *funa ema* were on view to all visitors, becoming a publicly accessible art form (Ishī 2004). What is particularly important in the *funa ema* is, therefore, the visual representation that had to be immediately comprehensible to the visitors, especially because it had as much value on the social level as in the whole of the offers to the shrine. As for the other types of votive tablets, the private relationship with the deity ended, at least publicly, with the deposition of *funa ema* at the shrine. Then it takes on a public meaning, which was strengthened by the fact of being visible and with the proximity of other similar votive objects. If, over the centuries, the religious practice of *funa ema* remained unchanged, its iconography too underwent a few changes. The technically meticulous representation of the boat helped indeed to cement the need for realism, which was essential and implicit in the concept of votive offerings (*Setouchi no gyosen* 1988).

An example of this religious object that could be also a historical docu-

ment of the nautical experience is a *funa ema* in Shingetsu 心月寺 temple, located at Ryōjin area (Aichi prefecture), which was officially offered to the temple by Yoshida Shingo on 10th February 1895. Yoshida Shingo was a skipper of Myōjinmaru 明神丸, a sailing fishing vessel (*utase bune*) that operated mainly in Ise Bay during the Meiji period. This votive tablet narrates the story of a group of fishermen who, in April 1894, crossed Ise Bay to reach Ise Jingū shrine in order to make a pilgrimage. According to the story described in the caption, a group of fishermen visited Ise Jingū crossing the bay with five or six fishing boats including Myōjinmaru, which was the leader boat. The navigation was quiet and fishermen successfully visited the shrine. Weather was clear even during the return and Myōjinmaru and the other fishing boats took advantage of favourable sea conditions. When the boats were very close to the coast, reaching their village, the weather suddenly changed: the wind took force, and the “sea was almost eating the boats”. There were some thousands of villagers on the beach waiting for the return of their relatives, watching the boats being tossed in a violent storm. The fishermen rowed as much as possible to arrive at Omaezaki, finding a safe place near the coast of Nakanoshima, where they could manage to get safely on the land.

As previously mentioned, another written account of nautical experience are the logbooks, written by Japanese fishermen and skippers, which represent another valuable and unexplored historical source that, by its nature, is midway between the public document and private memories. Generally, a logbook shows the essential information concerning navigation and its compilation should cover information related to weather conditions (records relating to observer’s weather forecasting), sea conditions, conditions of the boat, navigation plan (for example, the planned and plotted route), surveys navigation (records times and measurements made on the estimated points, with indication of variances, actual routes and any changes incurred by the estimated navigation plan) and, above all, extraordinary events (anything that may have occurred in an unexpected way and that may be relevant).

An example of this ‘empirical documentation’ is a logbook kept by a skipper of a fishing vessel, called Daishinmaru 大進丸, which operated mainly in the Showa period. According to excerpts of this diary, in 1949 the community of Hamamatsu Nishi located at Iwata-shi (Shizuoka prefecture) had a fishing boat called Daishinmaru. At that time, there were about fifty households in this community and, among them, thirty households shared this boat for fishing. In that year, Daishinmaru was newly built for the last time and a journey by sea to the Ise Shrine was organised to celebrate the new boat (the so called *Isewan meguri* 伊勢湾巡り). The departure date was scheduled for April 16th (Map 1). During this period, the weather was getting warmer; night wind was still strong and west wind also blew strongly during the day. The new Daishinmaru was a drag net fishing boat with five

oars, built in the shipyards of Daitochō. For this occasion, the crew was exceptionally composed by eleven fishermen: one fisherman for the pole at the bows, four men for rowing oars, one skipper at a stern to decide the direction to go. The rest of the crew was for oar rowing replacement. The crew sailed out at 5 p.m. It was early evening and still bright and the crew carefully moved the boat avoiding a shoal, sailing out to open sea alongside a tide flowing to the offing.

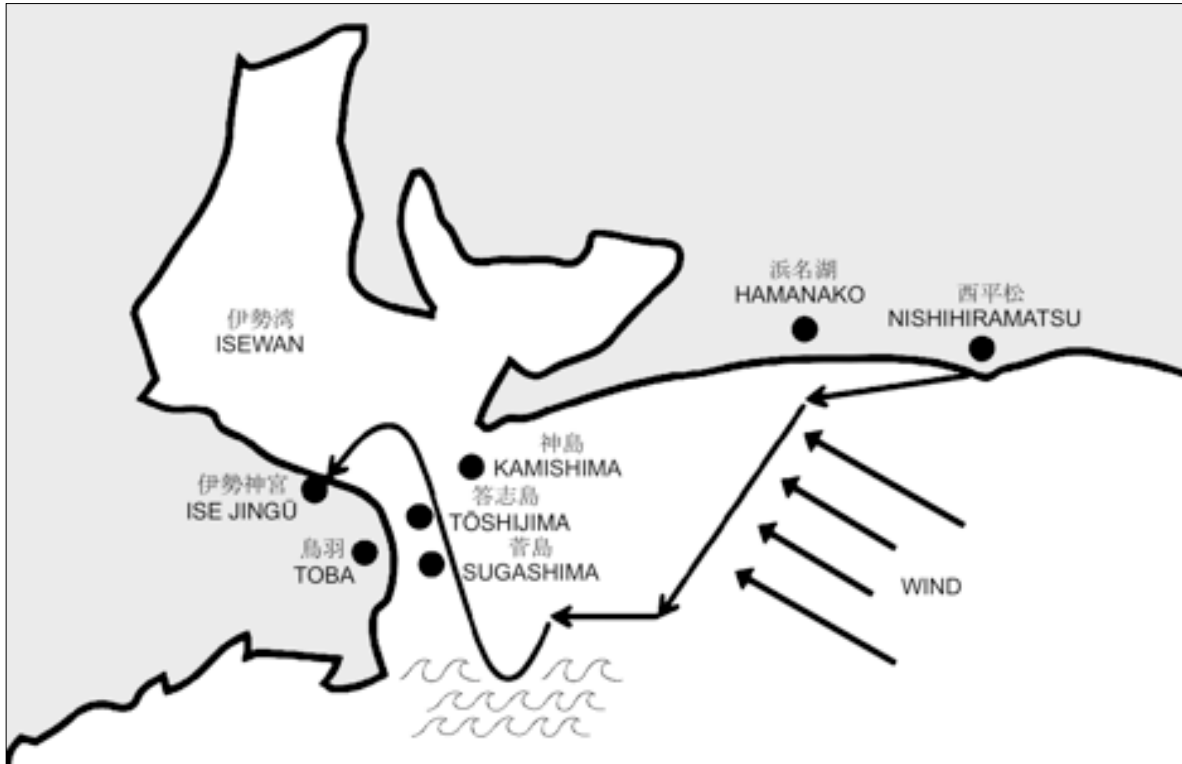
When they were far enough away from the coastline, they changed their direction to west. They rowed to west so that they still could see a pine tree forest from the land. After one hour of sailing, they reached Makiriguchi, which was the mouth of the Lake Hamanaka. By then, night came and they were surrounded by complete darkness and a wind from land started blowing to the sea. This boat had a small sail but it was useful to take advantage of that wind and sail off quickly to southwest.⁷ When Daishinmaru was around Shiomizaka area, the wind stopped blowing. Sailors hung off a sail and rowed oars again. Around midnight, they met a strong tide to south. This tide tried to bring the boat to south. They rowed desperately to west, the direction of Toba and Ise, even if the tide was too strong to resist. The bow of the boat was facing north-northwest. They rowed as much as possible for three hours. Finally, the boat reached the lighthouse of the island of Kamishima on their right hand side. Fortunately, the strong tide did not bother them anymore, so that they could row in the quiet sea of Ise Bay. Kamishima disappeared behind and the island of Toshijima appeared in front of Daishinmaru.

The sun was rising when Daishinmaru passed on the north side of the Toshijima Island. Ukishima was on their left hand side. The group of boats passed Futamiura and entered Ōnagisa from the mouth of the Seita River. They eventually arrived at Nikenchaya Port at 7 a.m. on April 17th. The sailors of Daishinmaru went to a *ryokan* and at 10 a.m. visited the Ise Shrine. They came back to the *ryokan* in the evening. The next morning, they sailed out to Toba to go home (Map 2). Afternoon wind from west was still strong in this season. It was a fine day and a west wind started blowing strongly in the afternoon. They left Toba, rowed to east, passed Sugashima on the right and Toshijima on the left, and, when they passed Toshijima, a strong west wind started to blow. They set a sail and tied oars to the boat. At 2 p.m., the boat was moving with the wind. The sail received strong west wind and moved rapidly to east. They arrived at the mouth of the Tenryū River only within two hours. When they saw the river, they approached the land, put off the sail and rowed oars again. At 5 p.m., they safely reached their coast where many villagers were waiting.

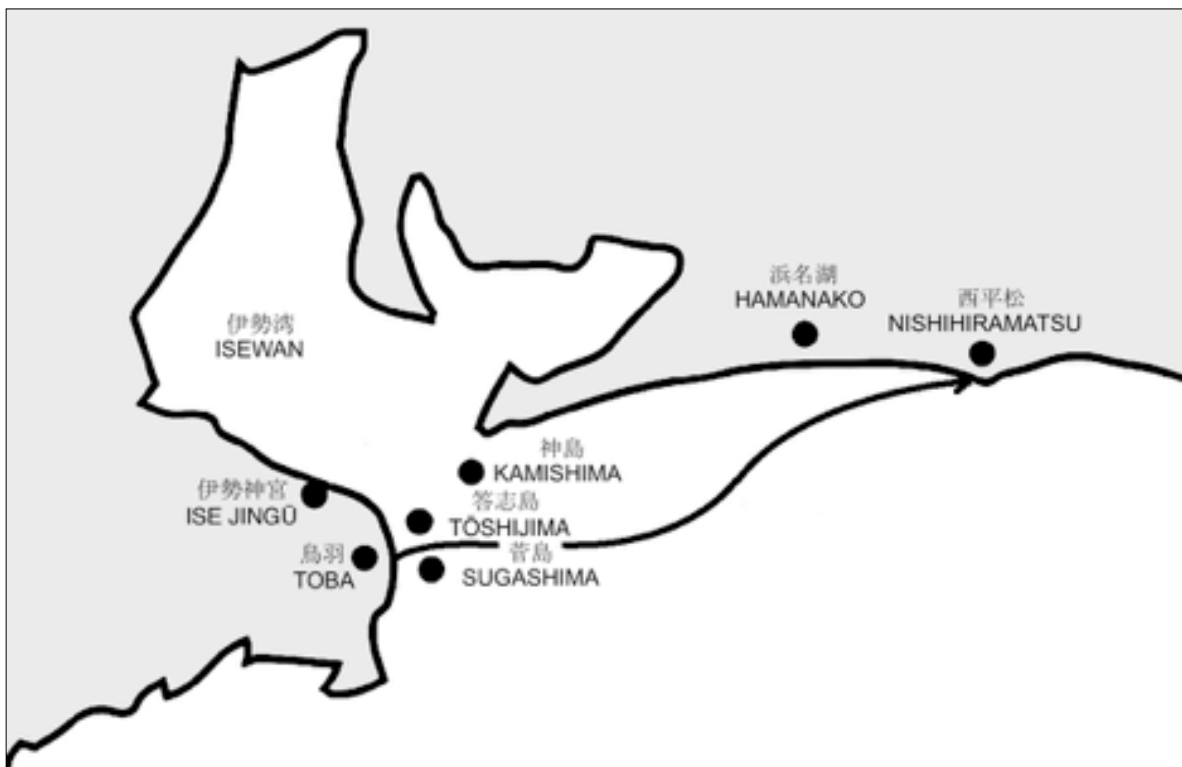
⁷ The southwest direction is called *Iseoki*, i.e. a word that fishermen of Nishihiramatsu used also to refer to this wind.

Despite the lack of information on the nautical vicissitudes of Myōjinmaru and Daishinmaru *utase* boats – namely, the living experience of the sea and navigation of the crew – these two examples offer two insights related to each other. Firstly, they could be interpreted as a classical example of ‘en-skilment’, that is, a “notion [...] that emphasizes immersion in the practical world, being caught up in the incessant flow of everyday life, and not simply, as many cognitive studies have assumed, the mechanistic internalization and application of a mental script, a stock of knowledge or a ‘cultural model’” (Pálsson 1994, 901). From this perspective, the pilgrimage by sea to the Ise Shrine was therefore an example of the detailed knowledge of wind speed and direction and the skilful practice of navigation organised by the crew of Daishinmaru exploiting strong night winds to arrive to Ise Shrine and afternoon winds to come back despite the long distance from Nishihiramatsu to Ise Shrine. Similarly, the blessed journey of Myōjinmaru highlights the ability of avoiding a critical situation at sea caused by the adverse weather conditions, thanks to the ability of nautical orientation and thorough geographical knowledge.

Secondly, these two written sources concisely describe the practice of the navigation focusing on the issue of the movement in “a perfect and absolute blank” (Anderson, Peters 2014b, 3) such as the sea, as two examples of the “on-board experience of motion as moving across the space” (Ingold 2000, 237). The little odyssey of Myōjinmaru and Daishinmaru could also be contextualised in what, ideally, Ingold would define as two cases of “the unfolding of a field of relations established through the immersion of the actor-perceiver within a given environmental context” (Ingold 2000, 220). Ingold’s reflection seems to be a fruitful starting point to rethink the practices on navigation in a historical context: as Edwin Hutchins has observed, “navigation is a collection of techniques for answering a small number of questions, perhaps the most central of which is ‘Where am I?’” (Hutchins 1995, 12; quoted in Ingold 2000, 236). In this regard, Ingold distinguishes the practice of navigation from the practice of wayfinding defining the latter as “a skilled performance in which the traveller, whose powers of perception and action have been fine-tuned through previous experience, ‘feels his way’ towards his goal, continually adjusting his movements in response to an ongoing perceptual monitoring of his surroundings” (2000, 220). Navigation, for Ingold, allows instead to move from a place to another place and in the “non-places in-between”, as designated in a map (as could suggest, for examples, Maps 1-2). It follows that such activity is “divorced from any historical narrative of place” as being “strictly synchronic, and divorced from any narrative context” (2000, 237). In a similar perspective, Anderson and Peters extend the discussion also from a geographical point of view: “it is impossible to ‘locate’ a point at sea as an actual material place. Baudrillard’s (2001) observation about the map preceding the territory is as true at sea as it is on land. But in



Map 1. The outward journey of the Daishinmaru (16th April)



Map 2. Return journey (17th April)

the ocean there is a further iteration because the territory subsequently washes away the map. Thus, we can never truly 'locate' ourselves within the ocean. Or, if we must locate ourselves, we require a different kind of 'map' (2014, 15; Baudrillard 2001; Steinberg 2011).

According to this perspective, I suggest that the folk stories of Myōjinmaru and Daishinmaru represent, therefore, two examples of the practice of wayfinding: by means of it, "every place holds within it memories of previous arrivals and departures, as well as expectations of how one may reach it, or reach other places from it" (Ingold 2000, 237). As Ingold explains,

ordinary movement in a familiar environment lacks the stop-go character of navigation, in which every physical or bodily manoeuvre (displacement in space) is preceded by a mental or calculative one (fixing the course). "Finding one's way" is not a computational operation carried out prior to departure from a place, but is tantamount to one's own movement through the world. (239)

In this context, the previous mentioned nautical skills of 'managing' the dangerous stormy winds, finding safe places, taking advantage of the strength of the local winds, or orienting the *utase* boats in the sea through the observation of the islands and the coastal area of the Ise Bay, so close to the dangerous ocean currents, represent a practice of wayfinding, which "depends upon the attunement of the traveller's movements in response to the movements, in his or her surroundings, of other people, animals, the wind, celestial bodies, and so on" (242).

5 Conclusions

The historical issues set out in the previous sections outline a theoretical framework that could virtually offer many anthropological insights. Starting from the general assumption that wind is culturally construed through practical engagement and cognition, the role of the seasonal, local or monsoon winds in Japanese seafaring tradition provides a common focal point in broader anthropological discourses on the nautical technology and its material culture, cognitive burden of ship navigation, and local nuances of understanding, such as processes of representation, organisation or linguistic classifications, including topographic, meteorological features and other significant human places such as fishing sites, coast mountains or ancient sea routes.

As in many other countries that had developed a sailing tradition, in Japan the wind was therefore associated with the logic of sensible qualities based on nautical experience and practice, and defined in terms of capac-

ity for action in a particular maritime territory. Yet, the ancient maritime routes that connected the Japanese archipelago with the Asian continent evolved with the manipulation of the monsoon winds, developing different forms of cultural practices. Ancient nautical treatises, folk classifications of the local and seasonal winds, the strategic use of different boats according to the seasonal winds and the role played by the *utase* boats in the economy and daily life of Japanese maritime communities represented important historical factors in defining the ways in which generations of Japanese fishermen and sailors produced a “physical experience of weather” (Strauss 2003, 3).

Within this vast field of research, the wind has characteristics not only related to meteorology and geography but also subjective characteristics, as seen in the previous sections, that are elaborated by the interpretative filter of practical experiences and directly connected to other cultural practices: religion, literature, history, economy, technology or the organisation of everyday life. An anthropological and historical discourse on the wind then serves to highlight the ‘climate potential’ within a culture, to penetrate into the complex system of relationships between society and atmospheric phenomena, and also to better clarify how many factors, of different nature, may contribute and interact in the formation of a ‘social-climate complex’. According to this perspective, the history and the social construction of the wind made by generations of Japanese fishermen, sailors or navigators who were deeply rooted in their maritime territory, shed light, in conclusion, on “how wind could serve as the unseable connective medium or the invisible force that drives the action” (Low, Hsu 2008, 10).

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