

Occupational Communication Modes and Symbols: A Study of the Non-Verbal Perspective of Artisanal Marine Fishing Practices in Ghana.

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Abstract

In Ghana, virtually the entire coastline is strewn with marine fishing. Artisanal marine fishing however dominates the industry. The trade is essentially informal in nature. The communication pattern in this occupation is quite unique. Various modes and symbols, both tangible and intangible, serve as communication sources and media of information in the conduct of daily business. This study describes and records the nonverbal modes and symbols of communication in artisanal marine fishing in Ghana. It examines whether there are differences in the observed nonverbal communicative patterns among the sampled communities, and also assesses how time and modernity have affected the kind of communication pattern employed. It is qualitative, and employs a multiple case design that purposively samples three communities in the Central Region of Ghana. It is grounded on Morris's semiotics on signs, behaviour and interaction, and Wilson's taxonomy of non-verbal perspective of indigenous communication. Findings show that the stars, winds, waves, cultural events, among others communicate relevant messages to the fisherman. Differences in the nonverbal communicative pattern among the sampled communities are rather minimal, and attributed to variations in local culture. Technological advancement is also gradually catching up on the otherwise traditional occupation.

Keywords: Artisanal marine fishing, Non-verbal communication, Culture, Traditional media, Objects

Introduction

Fishing is an important economic activity. In Ghana, Akyempon, Bannerman, Amador and Nkrumah (2013) note that there are more than 139,000 fishermen engaged in the sector. In 2008 the sector contributed 11 per cent of agricultural Gross Domestic Product (GDP) and 3.9 per cent of the country's overall GDP (Mensah, 2011). Between 70-80 per cent of the total domestic fish supply is derived from marine fishing (FAO, 1998 as cited in Mensah, 2011). According to Mensah and Antwi (2002) marine fishing in Ghana is predominantly traditional and comprises both large scale motorised canoes and small scale non-motorised canoe fishermen. There is little information on both the practice and living conditions of the small scale marine fishermen in Ghana (ibid). Fishers' knowledge is largely unpublished (Johannes & Neis, in Haggan, Neis & Baird, 2007); the occupation appears to lack that rigorous formalness, and thus largely traditional. Communication pattern in the industry is quite unique as various modes and objects serve as media and communication sources of information. It is, therefore, a bit interesting how the various objects and resources practitioners interact with on a daily basis convey meaningful messages.

As suggested by Haggan et al (2007), there is a wealth of literature on marine fisheries especially with regards to management of marine ecosystem, breeding particular stocks, fisheries science management, marine fisheries and sustainable livelihoods, among others. Lately however, the works of Bob Johannes¹ and other scholars have inspired the inclusion of traditional and indigenous fishers' knowledge for the holistic understanding of marine fisheries. What this means is that perhaps until the efforts and advocacy by Johannes and his colleagues, literature on traditional and indigenous knowledge in marine fisheries in general and artisanal marine fisheries in particular was quite scanty (Haggan et al, 2007). In Ghana studies bearing on artisanal marine fishing have rarely touched on the traditional communicative dimension of the sector. For example, Odotei (2002) has done comprehensive studies on migrant Ghanaian fishermen and women in Ivory Coast and Benin. Her works however had historical focus on the general social, political and economic lives of the migrant fishers. The study by Mensah and Antwi (2002) also focused on the problems of artisanal marine fishermen in Ghana. Baffour (2010) assessed the nature of fisheries interaction with sea turtles in Ghana, with a focus on the artisanal sector. A study by Mensah (2012) also focused on artisanal fishing, but was basically a comparison of catch and effort between Adjoa and Woe, two communities in the Western and Volta regions of Ghana respectively. In Nigeria, Ben-Yami's study conducted for FAO in 2001 was a comprehensive ethnography on the food security and other sociological dynamics affecting artisanal marine fishing in the Delta States of South Eastern Nigeria. By far, the closest to this study is UNESCO's work conducted by Haggan, Neis, & Baird (2007) which focuses on indigenous fishers' knowledge to Marine Fisheries Science and Management. The study however precludes the communicative patterns of fishers.

This current study therefore is an attempt to describe and record peculiar modes, objects and symbols of communication in artisanal marine fishing in the Central Region of Ghana. It aims at examining whether a uniform pattern exists in the non-verbal communicative practices among the sampled communities, and also assesses how time and modernity have affected the communicative practices in artisanal marine fishing. The following questions guided the conduct of the study: 1. what are the nonverbal artisanal marine fishing? 2. How similar or dissimilar are the nonverbal communication modes and symbols among the different communities? 3. Why does artisanal marine fishing employ the kinds of nonverbal communication symbols they use? How has time and modernity affected the communicative practices of artisanal marine fishing?

Literature and Theoretical Issues

Occupational Communication/Language

Baker (2002) and other scholars are of the view that organisations come to be, as a result of some forms of communication that have taken place. Similarly, Littlejohn and Foss (2005) also note that organisations could not really exist without language or some form of communication. This is especially so in those occupations where many people work together, and are always in need to pass on information about how to carry out a task (Moore, 2003)². All forms of work, therefore, have their own jargons. These jargons develop because everyday language does not seem to contain appropriate words to describe the activities and processes inherent in the work (Heery & Noon, 2008). According to Moore (2003), the occupational jargon so developed is an important social function that helps build social cohesion among the group. The peculiar language of the group thus sets them apart from all others.

Features and Qualities of Artisanal Marine Fishermen

Ben-Yami's (2001) paper on Artisanal Marine Fishing in South Eastern Nigeria describes artisanal marine fishermen of South Eastern Nigeria as among the bravest, most skillful, and professional small-scale fishermen in the world. Ben-Yami cites McGoodwin as having indicated that the fishermen operate from open, surf-beaten beaches. Their canoes sometimes capsizes in surf. He adds:

The hard and dangerous environment of marine artisanal fishing requires a continuous application of wits and skills, numerous decisions made daily and hourly, competitiveness a need for a strong commercial sense on one hand, a team work brought to perfection on the other, and finally, a strong will and physical fitness. Most artisanal fishermen and fisherwomen manifest fiercely independent attitudes with respect to outside ideas, and as a rule, are communicative, surprisingly well-informed, and overall, a people who know their business (McGoodwin, 2001: 138)

There is always a profound pride among fishers and thus a high devotion to the fishing way of life. Ben-Yami (2001) indicates that fishing at sea requires a high sense of independence, self reliance, autonomy, risk taking, and outdoor work challenging nature.

These are not only important features of the fishing occupation, but are also important characteristics of individual fishers. In situations where fishermen work in particularly dangerous conditions, the fishing occupation may take on a heroic aura in their communities. The job therefore not only confers a sense of pride and self-identity but also a "satisfaction bonus" to practitioners, as well (ibid). In Ghana these attitude and character of bravery are not uncommon with fishermen, as any keen observer would perhaps not spend much time to note such characteristics in both speech and action of artisanal fishers. The job therefore is quite akin to that of the military, requiring some sense of gallantry.

Indigenous Communication

Ansu-Kyeremeh (2005) is of the view that the term indigenous communication system encapsulates folk media and traditional media. He cites Wang and Dissanayake (1984) as having described the indigenous communication systems as "ingrained in the culture" of its host community. Jussawalla and Hughes (1984, p.25) define the indigenous communication system as "... those systems of communication which have relied historically on informal channels to convey information, and which obtain their authority from the cultural mores, traditions, and customs of the people they serve." Ansu-Kyeremeh (2005, p.16) further cites Hachten (1971) as having referred to the indigenous types of communication as "informal channels of communication." Reviewing all these definitions and explanations of the term "indigenous communication system," Ansu-Kyeremeh (2005) conceptualises the term inclusively as:

Any form of endogenous communication system, which by virtue of its origin from, integration into a specific culture, serve as a channel for messages in a way and manner that requires the utilisation of the values, symbols and ethos of its host culture through its unique qualities and attributes (p.16- 17).

Perhaps this is quite reflective of, and synonymous with the communicative patterns of artisanal marine fishing, as the occupation is intricately interwoven in the cultures of practitioners. Even though the view that culture is environmentally determined is fiercely contested in some quarters (Milton, 2005), the communicative patterns of artisanal marine fishers appear to make use of various cultural elements, both tangible and non-tangible ones to convey messages and or decipher meanings of messages.

Morris's Semiotics of Communication

Morris 1955 (as cited in Littlejohn & Foss, 2005) notes that people and animals use signs in three major ways indicating that a sign has three values or factors. These are the designative, the appraisive, and the prescriptive values. Morris explains that the designative aspect of signs directs the interpreter to specific objects; the sign is therefore used to designate a phenomenon. The appraisive aspect of a sign orients the interpreter to particular qualities of the object in question, and therefore enables him or her to evaluate the object. Finally, the prescriptive aspect directs the person to respond to the object in certain ways. Signs, therefore, prescribe a range of ways in which the interpreter can behave toward the designated object or idea. Morris shows that all human actions involve signs and meanings in various ways. He argues that any human act consists of three stages, namely perception, manipulation and consummation. In perception the person becomes aware of the sign. In the manipulation stage, the person interprets the sign and decides how to respond to it. Then the act is consummated by an actual response. Signs and symbols abound in everyday life. A typical symbol of the human skull usually with two pieces of bones crossed underneath the skull symbolises danger. Electrical installations are quite common with this symbol. An encounter with such a symbol immediately communicates a looming danger. The interpreter then thinks about how to avoid or manipulate this danger, and eventually takes that line of action she or he has so decided on. The designative value of signs, the prescriptive value, and the appraisive value are therefore common features of signs. In artisanal marine fishing various objects and symbols in the occupation, are the signs that practitioners perceive, interpret and evaluate or make meaning to process their job.

Wilson's Taxonomy of Traditional Media in Africa

Wilson (in Ansu-Kyeremeh, 2005) referring to traditional media (in Africa) indicates that the prevalent mode of communication in a particular region is largely dependent on the fauna and flora of the area, as well as mineral and other resources available. He notes that these are essential to the manufacture and construction of communication devices, as are the relevant skills needed for their production. Wilson categorises the various modes of communication (in Africa) into six classes. In this categorisation, he concedes that as much as the classification may be contestable, it nonetheless provides some approximation that could be useful for understanding indigenous communication systems in Africa. The six classes, he notes, are: instrumental media, demonstrative media, iconographic media, visual media, extra-mundane media and institutional media. Of much interest and relevance to this study, however, are the discussions on iconographic media and visual media. He explains that iconographic communication involves the communication of ideas or information through the use of objective or concrete reality in inanimate or animate form. The two main modes used in this form of communication are objectified and floral communication. The objectified communication, according to Wilson, is a signification in which the object refers to a thing, event or concept; and this concrete representation may have a limited meaning or have a universal significance. Floral communication on the other hand, he says, involves the use of selected flora of the local vegetation for the purpose of communicating specific meanings or ideas; these (flora) therefore serve as traditional billboards. Visual communication on the other hand, is what happens to the receiver when a certain effect is produced by light on his or her eye, and therefore brings a realisation of different shades of colours to him or her. Wilson also notes that this form of communication also involves the changes which the differences in the form of clothing, appearance and general comportment on the part of the communicator produce on the receiver. According to him (Wilson) it is the realisation of the colour differences that enables the receiver to "interpret" the signals in his or her cultural context.

Methodology

The design was the multiple case study design. The case study design as an inductive approach is quite flexible and enables the researcher to study a particular phenomenon in-depth and also in its natural setting (Yin, 2012). Artisanal marine fishing is practiced virtually along the entire coastline of Ghana. This study however purposively sampled three of the well-known fishing communities in the Central Region, namely Winneba, Apam and Anomabu. Two respondents each were, for the purpose of convenience, further sampled from the communities and interviewed (Babbie, 2008). For the purpose of the study respondents are designated Wb1 and Wb2 for respondents of Winneba, Nb1 and Nb2 for respondents of Anomabu, and AP1 and AP2 for respondents of Apam. Criterion for the selection of respondents was based on age and experience. In all cases the Chief Fisherman was consulted. In Apam for example, respondents were selected with the help of the *apofomamfo*, a pseudo unionised and knowledgeable group of the trade (fishing). In each community, respondents were

carefully chosen such that one was fairly older while the other was quite younger. This was done to ensure that the perspective of both the old and young were covered. In Winneba for example, Wb1 was 71 years while Wb2 was 46, at Anomabu, Nb1 was 63 years while Nb2 was 38. At Apam, AP1 was 55 while AP2 was 50. Respondent Nb1 had formal education up to the secondary level, while Wb2 and Nb2 dropped out of basic education. The other respondents had not experienced any form of formal education. All interviews were conducted in Fante (the local dialect and medium of interaction of respondents). Data were recorded with respondents' permission and later transcribed. Data were analysed and categorised under themes. Ten themes were identified in all, and included the following: winds, stars, waves and currents, kinds of waters, times and seasons, whales, events (social and natural), determining fish presence, technology, outfit and posture.

Findings and Discussion

Winds

Respondents Wb1 mentioned *Boka mframa* which typically blows early December. These winds somehow subside in early January for the emergence of another kind of wind locally referred to as *Ope-Efum*. There are others like the *mfea-ba* and *Tse* which blow in latter part of May and substantial part of June. Respondents note that the *Boka mframa* can be destructive, and fishermen are quite wary about it. It is episodic in nature and quite difficult to predict. This is unlike the *Tse* and *mfea-ba* that blow continuously for a period. In any case, they all negatively affect fish movement.

Respondent Nb2 mentions *Aahow-Sor* as a kind of destructive wind that usually blows about the period of Easter (March/April). It however prevails until the emergence of the first major rainy season, locally referred to as *Esusow* (about the month of May). Respondent Nb2 does not mention other winds in particular but suggests in a comment that movement of the stars indirectly controls the movement of the winds. For example he notes, "the period when the *mpempina* star is prevailing, "bad" weather with storms is always the norm." He (Nb2) corroborates the assertion by Wb2 that the winds negatively affect fish movement. The exception however is that *Mpempina*, though considered a destructive wind/star, its prevalence is often associated with abundance of *Kookora*. – a kind of herring. Nb2 equally mentions *Kwame Tse* as another seasonal wind and period that does not encourage fishing, but insists that *Kwame Tse* is a constellation of stars rather than a kind of wind. Respondents AP1 and AP2 were unanimous in their responses. They state that *Mpempina* and *Tse* are both windy and particularly accompanied by storms, in the case of *Mpempina*. They note, "the *Mpempina*, the *Tse*, the *Aberwa* and *Anapa Woraba*, are all celestial objects whose movement or prevalence affect the weather, and ultimately our fishing business."

Stars

Respondents in Winneba concede that when they were young they realised that a few elderly crew members knew about the stars and their movements and how they affected fishing. "This knowledge was not recorded, and we also could remember only a few; it's sad," they concede. In spite of this backdrop Wb2 mentions and comments on three of the stars, namely *Aberwa*, *Oto Ndongson*, and *Adzekyee Woraba*. Wb2 notes that during the peak season of *Mmaawora*, *Aberwa* for example rises in the east at about 2 am. *Aberwa's* appearance is significant for two reasons: (i) it is not always visible, and so its appearance is a reassurance that the peak season was near. (ii) Because it usually rises around 2 am or thereabouts, it used to be an important timekeeping instrument. Wb2's comment on *Oto Ndongson* was not quite "scientific" but somehow instructive too. He notes that during the peak season (July/August) *Oto Ndongson*, which literally means "sets at 7," becomes an important instrument that fishermen observe for each expedition they embark on during the season. He indicates that every crew ensured that they were at the location of the fish or quite closer before the star (*otondongson*) sets. *The Adzekyee woraba*, they said, indicated the approach of daybreak and usually appears at dawn – usually from about 4 am or thereabouts. In addition to the three constellations (stars) mentioned by Wb1 and Wb2, respondent Nb2 adds the following: the *Anee woraba*. It is a kind of star which fishermen look to for direction to the west. There is also the *Boka-sor woraba* which indicates a direction to the East. Then there is also a very bright star which he referred to as 'Kokora.' This kind prevails during the period after Easter through August. It is usually seen in the evenings and prevails till dawn. He also mentions a constellation called *Obo nda esoun* literally meaning creator of the seven days. This star is usually seven in number, and perhaps the accolade seven. Nb2 notes that this star is usually prevalent in June or July through August. It is perhaps the variant referred to as *Oto ndongson* by respondents of Winneba. He (Nb2) indicates that the period when *obo nda esoun* prevails is ripe period for the usage of *ahyekon* – a kind of fishing gear which traps the gills of the fishes. Respondent finally mentions *Kwame Tse*. He notes that this particular one is predominant in June, and is associated with winds. The period is very windy. He remarks, "...though daring fishermen can go fishing during the period, it is often not so easy to work, as sea surfaces become rough, and very difficult to detect fish movement."

Respondents AP1 and AP2 were not detail in their comments on the stars as Wb1 and Wb2. Their (AP1&AP2) comments on the stars were somehow innuendoes that could be picked from discussions on winds and weather

effects. AP2 for example notes, “Knowledge about the stars is much irrelevant today, given the kinds of technologies that are available.” He however notes that the appearance of a dark cloud with a relatively thinly white lining underneath (the cloud), signifies a destructive stormy weather.

Waves and Currents

All respondents distinguish between waves and currents. Waves, they describe as the rolling movement of the sea, usually towards the shore and are observable, referred to as *eminiminim* in the trade. Currents (the *nsu pemee*) on the other are also sea movements alright, they are however very difficult to observe. Its direction of flow can best be determined when a floatable object is put in the water. The natural tendency for waves to gravitate towards the shore makes it an important phenomenon to artisanal fishermen during foggy weathers and other emergencies. Artisanal fishermen generally distinguish between two kinds of sea currents, namely *addoh* and *efutu*. The *addoh* generally has a westward orientation/flow, while the *efutu* has an easterly gravitation. In addition, AP2 notes that there is another kind of *addoh* that occasionally gravitates head wards (into sea) and which is not conducive for fishing. The major significance of the knowledge of prevailing current(s) is that direction of currents influence fish movements. For example Nb2 notes, “generally fishes will have a westerly movement when the prevailing current is *addoh*, and vice versa when it is *efutu*.” The phenomenon thus communicates the pattern and style of net-casting. Respondents add that extremes of current movements frustrate net casting and may cause nets to jam or break and ultimately provide leeway for the fishes to escape.

Kinds of Waters

Currents are important but the kinds of water prevailing at sea are also important too. Respondents indicate that there are many kinds of waters that dominate the sea from time to time. Two significant ones of these waters are: the ‘light’ and virtually transparent water (*nsu kan[kan]*) and the ‘brownish’ water referred to as *adom nsu*. The *nsu Kankan* usually predominates the period March through April, while the *adom nsu* prevails during the peak season of July through August. Fishing in the *nsu kan* requires extra tact and dexterity, as fishes become more alert and more tricky during this period. Respondent (Nb2) notes that the *adom nsu* appears to be the comfort zone of particular fishes (herrings especially). These fishes therefore move in great shoals and hardly play any tricks when in these waters. “The presence of *adom nsu* signifies the peak of the season,” Nb2 adds.

Times and Seasons

All respondents identify four major seasons, namely *Ahanamanta* (January through March), *Esusow* (April through June), *Mmaawora* (July through September), and *Botwi* (October through December). There are minor variations though. For example, the Winneba respondents identify a sub season they refer to as *Ope Efum* within the season of *Ahanamanta*. Perhaps a similar period is recognised by Apam and Anomabu; however in their case, the period is referred to as *Akofirntamu*. Both the *Ope efum* and the *Akofirntamu* are all periods within *Ahanamanta* that demonstrate typical *Mmaawora* features with some heavy catches. Experienced fishermen therefore watch out for some of these features during the *Ahanamanta* season. Each season has particular kinds of fishes that are characteristic of the season. They note that *Ahanamanta* is synonymous with *saasaa kwesi* and *apoku* (tuna); *Esusow*, with variety of *wiriwiriw* (red fish); *Mmaawora* with *nkaankramba* (a kind of herrings); while *Botwi* is dominant with *nsuadzenam* (assortment of ocean-floor fishes). The seasons thus inform artisanal fishermen of when to look for which type of fish.

Events (Natural and Social)

All respondents were unanimous on the fact that at a particular period in the year a natural phenomenon of weekly high tides characterised by high waves and rough seas occur. This phenomenon, according to AP1 and AP2, begins soon after the Aboakyer³ Festival; and each period/week of such high tides is referred to as *Egoo*. Respondents (AP1 & AP2) relate that this means of reckoning time has historical antecedent. “The Fante groups, in the olden days, used this mechanism (*Egoo*) to reckon time to celebrate important festivals such as the Ahobaa⁴ I and II as well as the Atta Abam⁵ festival.” With time fishermen discovered that the migration of *nkaankramba* (herrings) coincided with the 10th *Egoo* or thereabouts; and so it became the practice for fishermen to commence the search for the *Mmaawora* (peak season) herrings around the period of the 8th *Egoo*. Respondents however note that today most fishermen do not rely on the count of *Egoo* owing to the availability of modernised and reliable calendars; and also because most of the younger generation fishermen are not interested in following the tradition.

Whales

Respondent Nb2 intimates that the presence of a whale during fishing is marked by a spontaneous splash of water and sudden higher than normal waves. He indicates that artisanal fishermen consider the mammal as a deity or a special animal. “A fishing crew’s encounter with a whale is therefore interpreted as a bad omen,” Nb2

remarks. It is believed by some communities that the mammal's presence in particular waters engenders bumper catches. Necessary rituals are therefore performed for dead whales when they are awash ashore. This view is however not shared by AP1 and AP2. They think that the animal's presence rather scares away other fishes. The respondents note, "...the mammal's sheer size which is able to generate higher waves when in motion makes it dangerous for canoe fishermen."

Technology

Relating experiences about communicating distress signals, respondent Wb2 emphasises that in times past the paddle chiefly was used. In emergency situations, it (the paddle) was lifted higher to signal others. He (Wb2) notes that today, the use of mobile telephony and other similar devices such as the Global Positioning System (GPS) and navigational compass makes the usage of the paddle for such purposes rather obsolete. Commenting on other technological devices that have made work less strenuous, respondents (AP1 & AP2) mention "the light," which they say draws more fishes to the device for easy and heavy catches, as quite prominent and useful. They (AP1 and AP2) add that the device ("the light") was quite better and less harmful than the use of devices like carbide and dynamites in fishing. This opinion is also however not shared by Wb1 and Wb2. They (Wb1 and Wb2) are of the opinion that "the light," no less than the carbide and the dynamite have all contributed to the destruction of artisanal fishing. "They all end up destroying the smaller fishes and fingerlings," they note.

Presence of Nkyerewee

Respondents also note that the presence of certain phenomena and signs communicate powerfully to them (the fishermen). For example, most often, the presence of *nkyerewee* (certain sea birds, especially when in swarm) connotes the likely presence of a shoal; more specifically when the birds are diving deep into water. Respondents note that often the sheer massive quantity of a shoal gives an apparent purple colour to the surface of the water during the day, and thus provides a very useful signal to the fisherman. Other times too, it is the use of the hearing senses (of the fisherman) to hear the waddle of water surfaces by the tail fins of the fishes. In the nights, it is the application of the eye to observe the glittering surfaces of the water. Respondents assert that the gregarious nature of fishes makes them always move in shoals, and therefore their scales and fins collectively produce a shinny and reflective presence on the water surface. This phenomenon communicates the presence of fish to the fisherman in the darkness of night. Respondents note that not all kinds of prevailing waters or currents favour this kind of phenomenon called *Obuei*. When the kind of prevailing water or current suppresses fish movement, the shoal exhibits a kind of twist and turn or flash and turn movement which does not produce that reflective phenomenon (*obuei*). This is rather referred to as *ofuntum*.

Outfits and Posture

Respondents also indicate that a heavy catch is always an occasion for merry-making and also an opportunity to demonstrate how experienced one is in the fishing profession. Such feats are sometimes communicated to colleagues at sea and others at home through one of three major ways (i). the crew hoist a flag, (ii). Crew wears a uniform (mostly, a set of jerseys) and mount their forms till they berth, (iii). The third practice, which respondents indicate has become dated, is by hanging a *danka* (a floatable object) around the "neck" of the canoe. All these practices communicate the idea that the crew has had a heavy catch. Asked how they are able to determine when to take along the uniforms or flags, the response was that it was done mostly by intuition, and therefore for sometime the uniform could be in the canoe for a whole period without having been used. Respondents also note that today, however, the hoisting of flags and wearing of uniforms by crew members have come to assume other meanings. The first is that wearing of uniforms signifies the end of a fishing expedition (*apoye* – a period when a crew sojourns in another fishing community to do fishing). The second dimension is that the youth today wear the uniforms for fun.

Theoretical Implications of Findings

All these objects and phenomena are signs that fishermen interact with on a daily basis to facilitate their work. Just as transport facilitates commerce (Tawiah, 1986), so do the stars, waves, currents, winds, some cultural events, among others communicate meaning to the artisanal marine fisherman. These interactions among the various objects, phenomena and fisherman reinforce Morris's postulations discussed above. The signs/objects manifest the three values espoused by Morris, namely the designative, the appraisive, and prescriptive values. For example the sighting of sea birds diving deep into water at sea is a designative value that directs the attention of the fisherman to the presence of fish. Again, the fishermen's evaluation and determination of the certainty of a particular sea current (whether *addoh* or *efutu*) makes them decide which direction to cast the net. This is an appraisive aspect of a sign. The ultimate action of casting the net marks the prescriptive value of the sign. Similarly, Wilson's views on visual media become significant in regard to how the colours of prevailing water communicate different ideas to fishermen on different occasions. As findings showed, fishermen associated the

presence of 'light' waters with the likelihood of tricky behaviours of certain kinds of fish, while the brownish waters are synonymous with the likelihood of heavy catches. The same goes for the purple colour which shoals of fishes produce on the water surfaces. These colours inform the fisherman of the presence of enormous quantity of fish. Wilson's iconographic media concept is equally reinforced in the study, as wide range of objects and phenomena including the stars, waves, sea birds, uniforms, clouds, winds, among others are all media that communicate powerfully to the fisherman.

Conclusion

Findings above show that the various objects and phenomena in the environment of the fisherman communicate relevant messages to him with regards to his occupation. These objects and phenomena include the stars, ocean currents, waves, winds, cultural events, among others. Respondents are invariably unanimous in their views on roles the various objects and symbols play in their occupation. Objects and symbols are serving as media communicating direction, time and seasons, state of the weather and its ultimate effect on fish movement, and many more. Differences among respondents with regards to the meanings of the objects and symbols are rather minimal. Only few differences are identified, and this is perhaps as a result of the slight cultural variations in the sampled communities. For example, a sub season within the period of *Ahanamanta* has different names in the communities under study. While the season is referred to as *Akofirntam* among respondents of Apam and Anomabu communities, those of Winneba referred to same phenomenon as *Ope Efum*. Similarly, a particular star designated as *Obo ndaesuon* by Apam is, on the other hand, referred to as *Oto ndonsuon* by Winneba. Opinions are also divided on whether or not the presence of a whale engenders bumper harvests and therefore should be given any special attention. Study has shown that technological advancement is gradually catching up on the otherwise traditional occupation (Mensah & Antwi, 2002). For example it was found that the use of mobile telephony is a prominent feature for communicating distress and other emergencies. Perhaps another finding which shows that artisanal marine fishing is gradually opening up to modernity is the mention of the use of devices such as the *Global Positioning System* (GPS) and *Navigational Compass*.

It looks like the nature of artisanal marine fishing – traditional and informal – requiring the application of wits and skills, and decision-making virtually on a daily and hourly basis (McGoodwin, 2001) makes the nonverbal component of communication in the work quite prominent; perhaps the jargon of the profession. The reliance on the numerous objects and symbols in the environment for communication is simply an attestation and reinforcement of McLuhan's axiom that "the medium is the message," (McLuhan & Fiore, 1967).

End Notes:

1. Bob Johannes is cited in Haggan et al (2007) as having championed the cause of traditional fishers' knowledge during the 2001 conference dubbed *Putting Fishers' Knowledge to Work*
2. Andrew Moore (2003) is cited as the author of the information on this webpage <http://www.universalteachers.org.uk/lang/occupation>
3. A festival celebrated in the first week of May by the people of Effutu (Winneba) traditional area in Ghana
4. The Fantes celebrate *Ahobaa I* in May or June, and *Ahobaa II* in August
5. A festival for twins; is celebrated by most of the coastal communities in Ghana.

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