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Inside this issue

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Editor's note

This edition consists of three contributed articles, plus notes on a few selected recent books. In the first article, "Community collection of ocean current data: An example from Northern Aceh Province, Indonesia", Syamsul Rizal and his co-authors describe the involvement of local fishermen in a data gathering project conducted to augment and complement their own local knowledge. In contrast to long-term projects using experts, the approach described in this article illustrates an inexpensive way of data collection involving fishermen. Because it involves fishermen in all stages of the research process, later application of the results to develop the skills and therefore the incomes of fishermen is facilitated. The research system was designed so that participating fishermen could collect oceanographic data while engaged in regular fishing activities using fishing boats, gear and equipment that included GPS sounders with data logging formed provided as part of the post-tsunami recovery assistance to Aceh fishermen by the Body of Rehabilitation and Reconstruction. This GPS and its accessories are used by fishermen to collect and record oceanographic properties of the water when they go fishing. Fishermen are trained in using a GPS and reading the maps produced by the data they gathered, with trainers chosen both from among fishermen and university students. They were trained how to train for approximately one week. These people then trained the fishermen how to use a GPS. The data obtained by the fishermen were collected by the trainer, who used the information to produce a map. The fishermen also provided information on underwater hazards they had experienced, so it could be added to the maps.

Economic and leisure activity diversification is a constant challenge to small states, be they islands, cities, or something else. So the second article in this issue, in which Sidney Cheung and Jiting Luo describe an innovative project conducted in the Sheung Wan neighbourhood of Hong Kong Island, by the Department of Anthropology at the Chinese University of Hong Kong, to assist the diversification and improved management of local cultural resources for Hong Kong's in-bound tourists, should be of particular interest in the Pacific Islands region. Hitherto, visitors to Hong Kong have been directed toward shopping, and led to sample a variety of cuisines in just the main tourist destination districts. Although in that way visitors can enjoy the unique atmosphere in Hong Kong as an Asian metropolis, the marketing of the city as a "consumer destination" fails to convey a sense of local Hong Kong cultures, traditions or heritages. The project's immediate objectives were to examine the cultural and heritage roles of a local community and tap into its collective knowledge, ascertain the needs of the tourists regarding cultural tourism, and develop a local

community cultural tour prototype that, by using an Internet information base, enables tourists to learn about local and national history, traditional trade relations, impacts of globalization, Chinese culinary culture, local development, and heritage preservation strategies. This project employed cross-cultural, interdisciplinary and critical approaches in order to understand the historical background and culinary heritages of Hong Kong society, as a social and cultural basis for the development of sustainable tourism. In the long term, the prototype developed in Sheung Wan can serve as model so that more local Hong Kong neighbourhoods would be included in an overall cultural tourism project. To better understand the history and trade system of Shueng Wan as a coastal hub, the authors and their team conducted interviews with traders (importers, wholesalers and retailers) as well as shoppers in the local community. They did this to tap into their knowledge and stories about their trades and heritage preservation strategies. Information gathered from these interviews, surveys and archival materials forms the basis for an interactive website that contains walking maps and academic articles and books for reference. It enables visitors to explore the history and culture of Nam Pak Hong (a south–north trading company), the Chinese herbal medicine street, and the salted fish alleys in Sheung Wan. This way, communities' awareness of being promoters for Hong Kong tourism can be enhanced, and both in-bound and domestic tourists can enjoy and benefit from learning — from the perspective of everyday life — how Hong Kong developed into a world-renowned city. Particularly important also is that the collective knowledge of a community can be preserved and passed on to future generations.

The project is ongoing. Professor Sidney C.H. Cheung is Chairperson of the Department of Anthropology and concurrently Associate Director of the Centre for Cultural Heritage Studies, The Chinese University of Hong Kong. His research interests include visual anthropology, tourism, heritage studies, and food and identity, which are reflected in his co-edited books "Tourism, Anthropology, and China" (White Lotus 2001), "The Globalization of Chinese Food" (Routledge Curzon 2002), and "Food and Foodways in Asia: Resource, Tradition and Cooking" (Routledge 2007). Luo Jiting received her M.Phil degree in Anthropology at the Chinese University of Hong Kong and is now a research assistant in the Department of Anthropology, The Chinese University of Hong Kong. She is interested in traditional ethnic architecture, food studies and heritage studies, as reflected in her articles published in *Hong Kong Discovery* and *Sheung Wan*.

In the third article, "Fish and People: An innovative fisheries science learning tool for the Pacific", Dr Simon Foale of the Department of Anthropology, Archaeology and Sociology at James Cook University, in Townsville, Australia describes a new fisheries science education DVD targeted mainly at high school students in Solomon Islands and Papua New Guinea. However, it is already proving popular with a much broader range of audiences in Solomon Islands and Papua New Guinea, and in far-off Kenya. The tool is constructed around a series of interviews with Solomon Islanders (fishers, scientists, non-governmental organization workers, government officials and teachers), each of whom delivers a key part of the message, in language and context of immediate relevance for the target audience.

Kenneth Ruddle

PIMRIS is a joint project of five international organisations concerned with fisheries and marine resource development in the Pacific Islands region. The project is executed by the Secretariat of the Pacific Community (SPC), the Pacific Islands Forum Fisheries Agency (FFA), the University of the South Pacific (USP) and the Pacific Regional Environment Programme (SPREP). This bulletin is produced by SPC as part of its commitment to PIMRIS. The aim of PIMRIS is to improve the availability of information on marine resources to users in the region, so as to support their rational development and management. PIMRIS activities include: the active collection, cataloguing and archiving of technical documents, especially ephemera ('grey literature'); evaluation, repackaging and dissemination of information; provision of literature searches, question-and-answer services and bibliographic support; and assistance with the development of in-country reference collections and databases on marine resources.

PIMRIS

Pacific Islands Marine Resources Information System

Community collection of ocean current data: An example from Northern Aceh Province, Indonesia

Syamsul Rizal,[1] Haekal A. Haridhi,[1] Crispen R. Wilson,[2] Akhyar Hasan[3] and Ichsan Setiawan[1]

Abstract

As part of a recovery assistance package following the Indian Ocean earthquake and tsunami that occurred in December 2004, some fishing boats were equipped with global positioning system sounders with a data-logging device. Using this equipment, we conducted research that tried to promote a mutually beneficial framework between researcher and fishermen, based on ocean current data collection carried out by fishermen. One of the beneficiaries was the purse-seine fisher. Data from the purse-seine fisher's activities — date, time, position, speed, and water depth — are recorded by this equipment. These records enable us to distinguish where they drop their nets. This research and data collection was done between 25 November 2007 and 31 December 2008. The current was measured according to the sea level rise, and these levels are divided into four categories: rising, high, falling and low tide. Observation and model results were compared, and found to agree well.

Introduction

The devastating Indian Ocean earthquake and tsunami that occurred in December 2004 ranks among the worst natural disasters ever recorded. In Indonesia's Aceh Province alone more than 186,000 people died, including an estimated 15–20% of fishers (~ 10,000 individuals). In addition, the tsunami damaged or destroyed over 10,000 small-scale fishing boats, countless items of fishing gear, and associated fisheries-related infrastructure (Garces et al. 2010; Stobutzki and Hall 2005).

Besides the fishermen's lives that were lost, another incalculable loss that resulted from the tsunami was the practical professional information possessed by the dead or missing fishermen. Prior to the tsunami, no scientific observations had been made in the surrounding waters where the fishermen operated, hence there was no documentation regarding local fishing grounds. Likewise, the local knowledge of the fishermen had not been recorded.

In order to augment and complement the knowledge of fishermen, scientific research and survey is required in this region. However, most conventional research methodologies are expensive, take a long time to accomplish, and require the services of experts (Garces et al. 2010), whereas what is required is that: 1) research be inexpensive, 2) information be easily gathered, 3) data collection involve fishermen, and 4) all stages of the research process and its outcomes be applied to develop the skills and incomes of fishermen.

To accomplish that we used a community-based survey as a research activity, in which fishermen were involved in collecting the data. The research system was set up so that the fishermen could collect oceanographic data at the same time as they were engaged in their regular fishing activities. As part of the post-tsunami rehabilitation and reconstruction process in Aceh, fishing boats, gear and equipment formed part of the assistance provided to fishermen by the Body of Rehabilitation and Reconstruction (BRR) in Indonesia. Some fishermen were given global positioning system (GPS) sounders with data-logging devices as part of fishing equipment installed on their boat. They used the equipment to collect and record oceanographic data while fishing. Fishermen were trained in using a GPS (Fig. 1) and reading the maps produced by the data they gathered (Fig. 2). Potential trainers were chosen both from among the fishermen and university students, and were shown how to train for approximately one week. These people then trained the fishermen to use GPS. The data obtained by the fishermen were collected by the trainer who used the information to produce a map. On the boat, the

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Figure 1. Fishermen being trained to: a) use a GPS and data-logging instrument, and b) read a map produced from the raw data they gather.

fishermen and trainer discussed daily sea-related activities. In the *Panglima Laot*[4] office, the fishermen also provided information on the underwater hazards (e.g. coral reefs) they had encountered, so that these could be added to the maps.

The methodology we applied is not new. A few surface currents were recorded in these waters using a ship drift method (Cutler and Swallow 1984), which is still used as a main reference source (Shankar et al. 1996), as well as for model and observation comparison (Schott and McCreary 2001; Shankar et al. 2002), and model validation (Durand et al. 2009; Song et al. 2003). However, none of those observation surveys used fishermen as data collectors; rather, a scientific research vessel was used.

The waters around Aceh are bounded by the Indian Ocean and the Strait of Malacca, with myriads of small islands along the coast of Sumatra (Fig. 2). Few oceanographic data have been collected from the Malacca Strait and the waters near Aceh. Thus, the recording and collection of oceanographic data by fishermen is a very useful activity not only for fishermen, but also for universities, research institutions and governmental agencies.

For fishermen the collection of oceanographic data is of direct importance to their livelihood because the purse seine they use can easily be damaged by coral reefs. This research provides fishermen with detailed information about currents, which enables them to avoid coral heads. Mapping ocean currents can be done by fishermen themselves at very low cost, and because they can use the maps produced by the data, the benefits of the research are immediately obvious. This immediate and obvious feedback reinforces the value of participation in the research.

To validate the data, we compared the collected data with the results of numerical modelling (Rizal et al. 2012). The goals of this research were to 1) establish interaction between the university and the fishermen, and 2) increase the fishing community's knowledge of its environment.

Materials and methodology

Participation of fishermen. Data were collected daily for 36 days, using 45 purse-seine boats. Theoretically, data should have amounted to 1,620 units; but because some boats did not operate on all 36 days, the actual amount of data collected is 856 units. Most fishermen who participated in this research have their fishing ground in the northern waters of Banda Aceh. As a result, the ocean current data described here are for the northern waters only.

The data collection requires no special or extra effort by the fishermen. They deploy their net when they spot a school of fish, and later haul the net back into the boat (as they normally do). It is during this regular fishing activity that we identify and measure the ocean current by analyzing the boat track.

Boat and fishing gear. The size of the purse-seine boats involved in this data collection is

[4] In Aceh Province the *Panglima Laot* institution dates back to the 17th century (Nurasa et al. 1987). The term refers to both the institution and those elder men elected from among the senior boat captains to lead the fishermen in the immediate area. The duties of the *Panglima Laot* include enforcement of traditional fishing regulations, control of access to key areas, resolving disputes between fishermen, and organizing sea rescues for vessels in distress (Wilson and Linkie 2012).

about 27–30 gross tons. The boats are wooden, with a round bottom, and powered by a 150–230 horsepower diesel engine. Twenty-two fishermen (including a skipper) were onboard for each fishing trip. Figure 3 shows the activity when the bottom of the net is closed.

Most purse seines used by these local fishermen are about 1,200 m long and 80 m deep. This gear acts as a giant drifter that starts with the closing of the bottom of the net and ends when the net is hauled as shown in Figure 3. The net is hauled manually, which takes approximately 30–40 minutes.

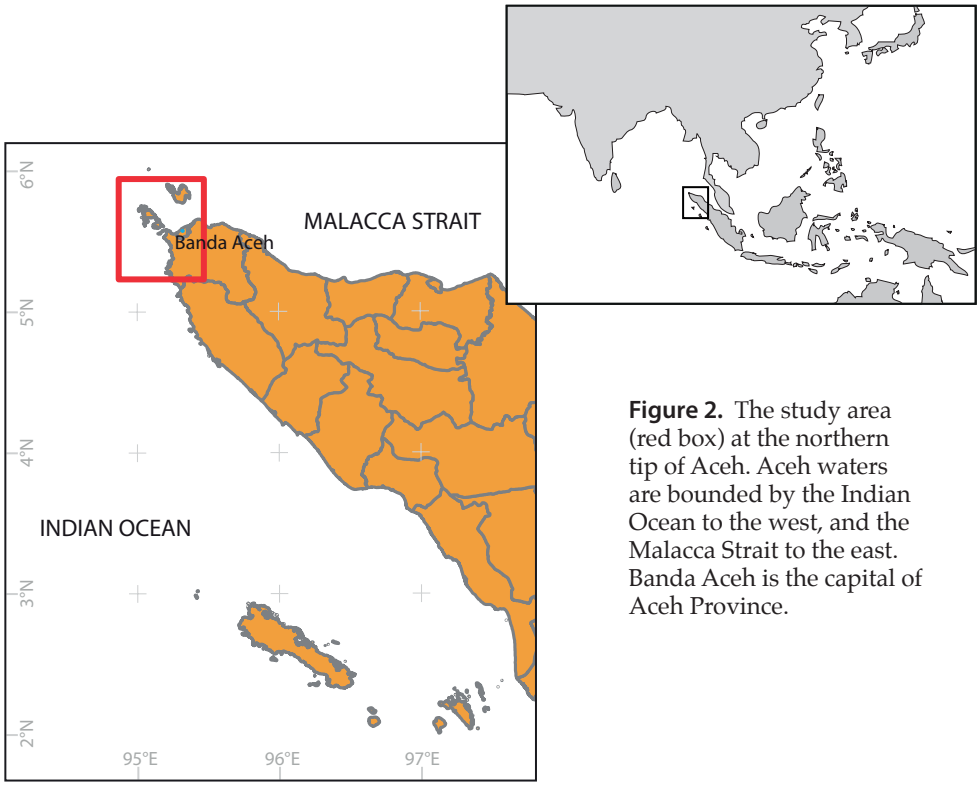

Figure 2. The study area (red box) at the northern tip of Aceh. Aceh waters are bounded by the Indian Ocean to the west, and the Malacca Strait to the east. Banda Aceh is the capital of Aceh Province.

Figure 3. A purse-seine boat closing the bottom of the net.

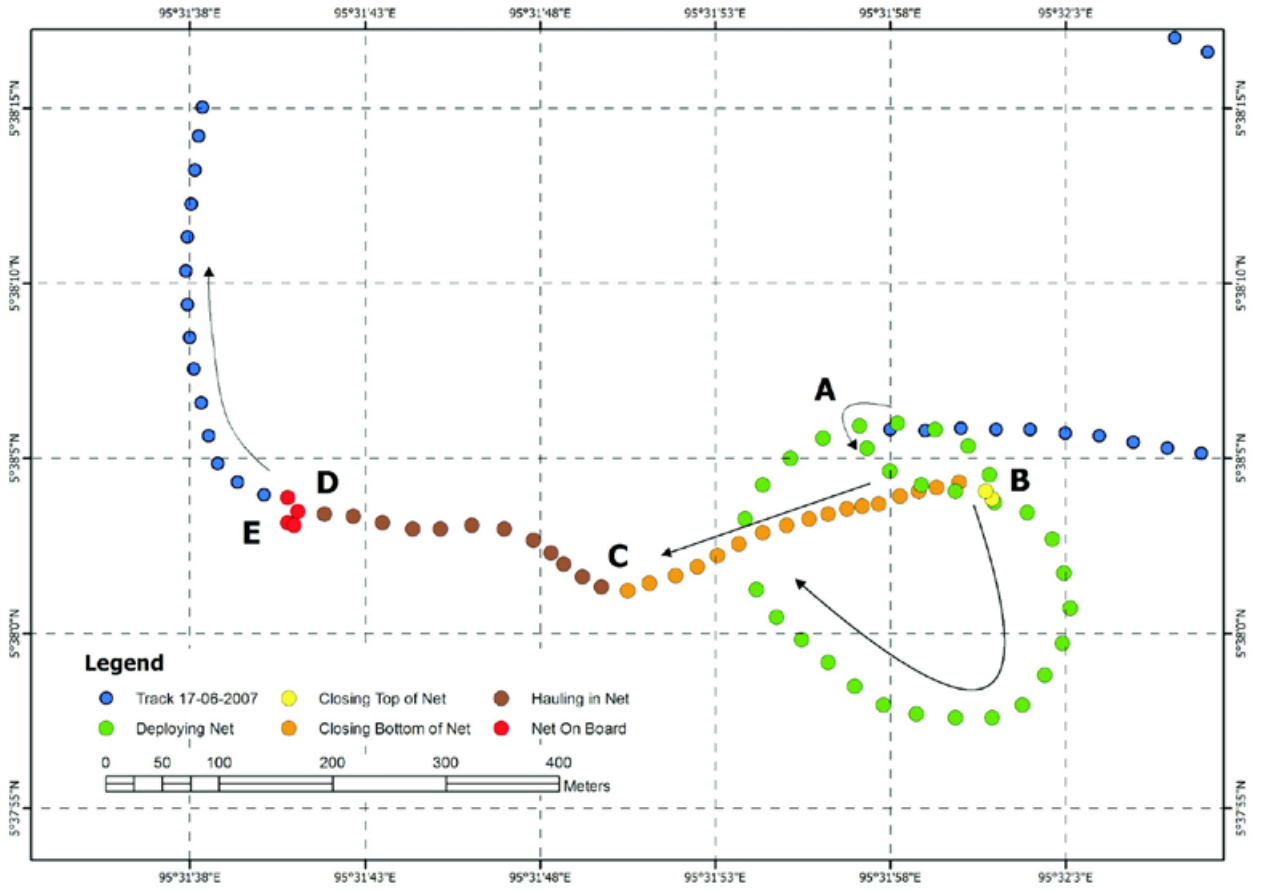

Figure 4. Tracking of a purse-seine fishing operation. In this example the data used to estimate the current velocity and direction were collected from point B to C and to D, as the boat drifted.

Track analysis. To collect raw data, the standard operational procedure is as follows:

a. The boat goes to point A, and to point B.
b. From point B, the boat follows a circular course (only once) that ends at point B again. At point B, the propeller must be stopped
c. From point B to point C, and until reaching point D, the boat starts drifting, and is moved by the ocean current only.
d. At point E, the work is finished and the net is hauled into the boat.

Figure 4 shows the steps of the standard operating procedure. From Figure 4, we measured the distance B–C–D ($z_{B\text{-}C\text{-}D}$). From this information, using the following formulas, we determined the current velocity ($|v|$) and its direction (α), with time being the time needed by the boat to go from B to C to D; y the distance of B–D projected on the longitudinal axis, and x the distance of B–D projected on the latitudinal axis.

$$|v| = z_{B\text{-}C\text{-}D}/\text{time} \qquad (1)$$

$$\alpha = \tan^{-1}(y/x) \qquad (2)$$

Analyzing tides. Figure 5 shows the location of two tide stations — Ulee Lheue, by the Malacca Strait and Pulau Rusa, by the Indian Ocean — used to categorize the data. For each station the exact timing of the four tide categories was determined as shown in Figure 6: (a) rising, (b) high (local maximum sea level is reached), (c) falling, and (d) low (local minimum sea level is reached).

In the example shown in Figure 5, data from Ulee Lheue station was used, as it was the closest station to the recorded boat's track (in green).

Results and discussion

Figure 7 summarizes the ocean current direction and velocity calculated from data provided by fishermen. Figures 8, 9, 10 and 11 show the ocean currents observed during the period 25 November 2007–31 December 2008 for locations 1, 2, 3 and 4.

In order to validate the data, all observed and analyzed current velocities (in the u component, the east–west vector component) were plotted on model figures obtained and derived from numerical model results (see Rizal 2000, 2002; Rizal et al. 2012).

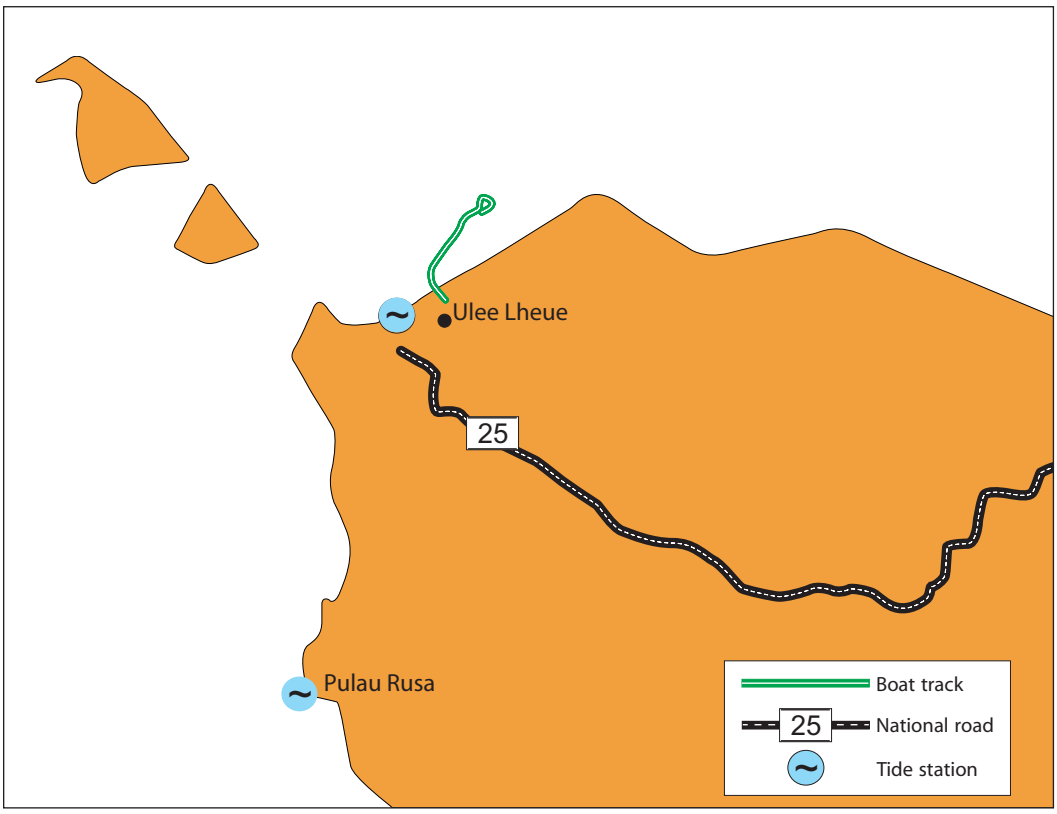

Figure 5. Tide station selection. In this example, Ulee Lheue station was chosen as it was the nearest one to the boat's track.

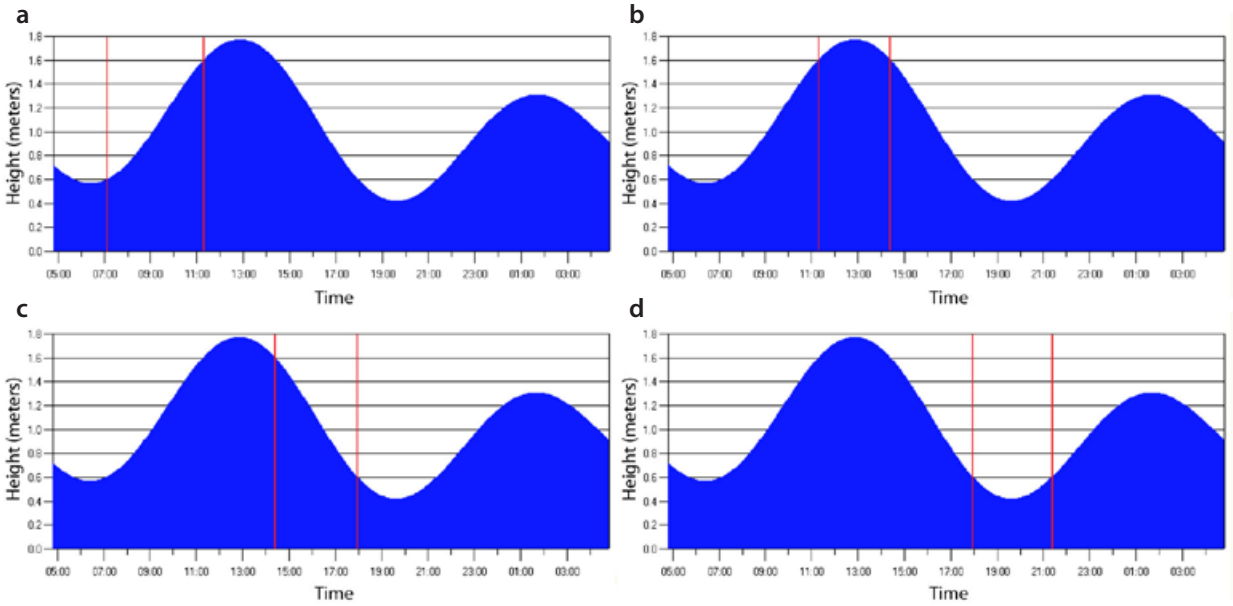

Figure 6. Tide type categorized using a day's worth of data. The red lines in each figure correspond to the start and the end of each tide type: (a) rising, (b) high (local maximum sea level reached), (c) falling, and (d) low (local minimum sea level reached).

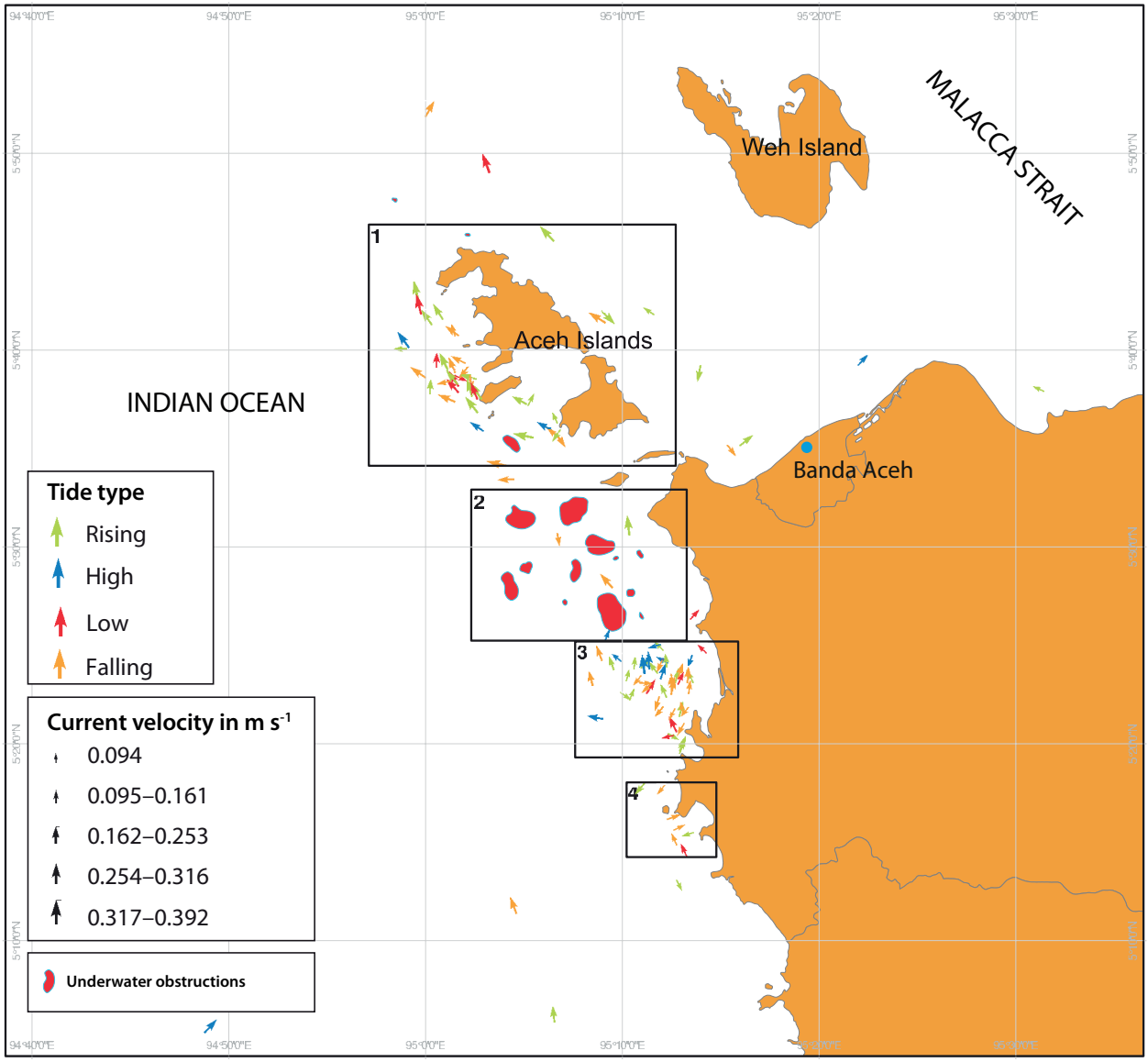

Figure 7. Ocean current direction and velocity calculated from data provided by fishermen. Location 1 is the Aceh Islands and surrounding waters; location 2 is offshore of Lhok Nga; location 3 is offshore of Leupung; and location 4 is offshore of Glee Bruek. Most observations were recorded within the waters of the Aceh Islands and offshore of Leupung; few observations were made offshore from Lhok Nga and Glee Bruek.

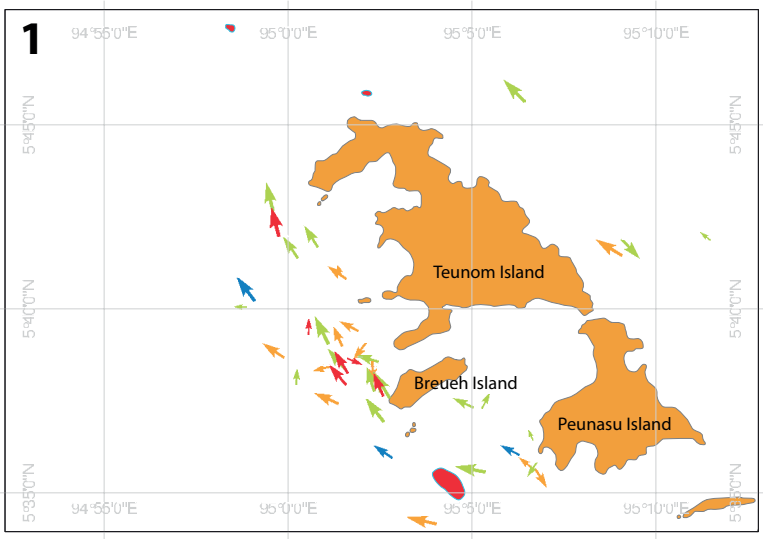

Figure 8. Ocean currents observed around the Aceh Islands by fishermen (see corresponding location and legends in Fig. 7).

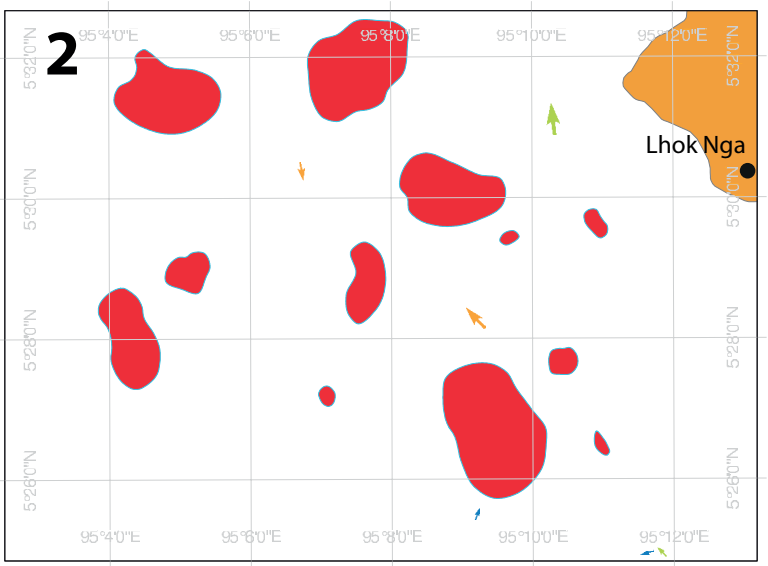

Figure 9. Ocean currents observed offshore of Lhok Nga by fishermen (see corresponding location and legends in Fig. 7).

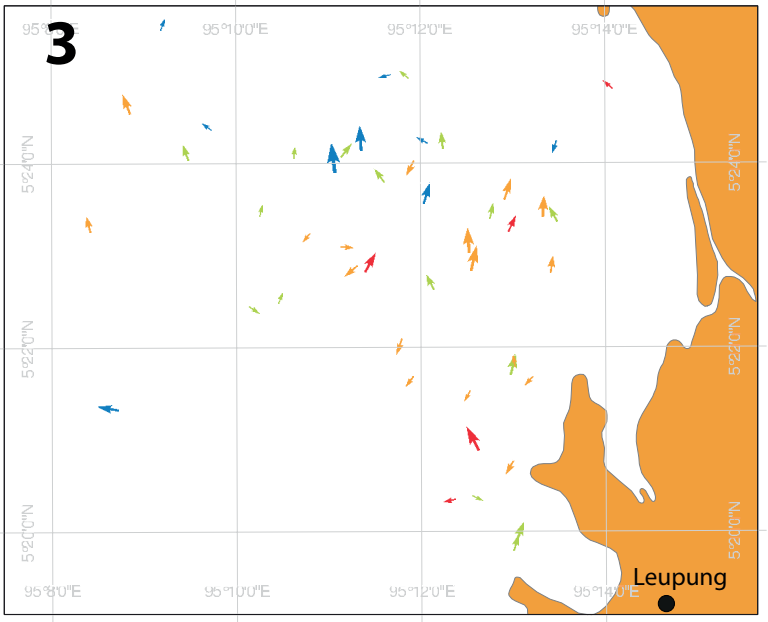

Figure 10. Ocean currents observed offshore of Leupung by fishermen (see corresponding location and legends in Fig. 7).

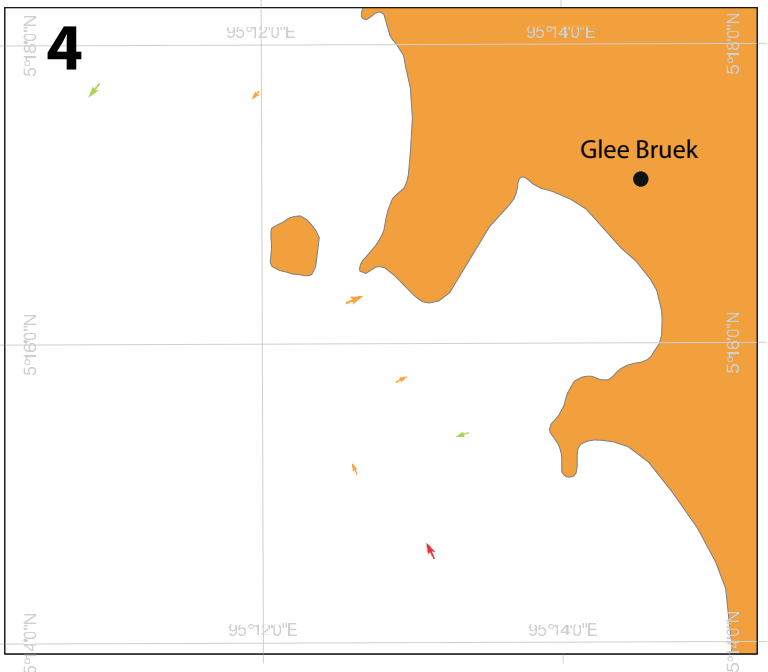

Figure 11. Ocean currents observed offshore of Glee Bruek by fishermen (see corresponding location and legends in Fig. 7).

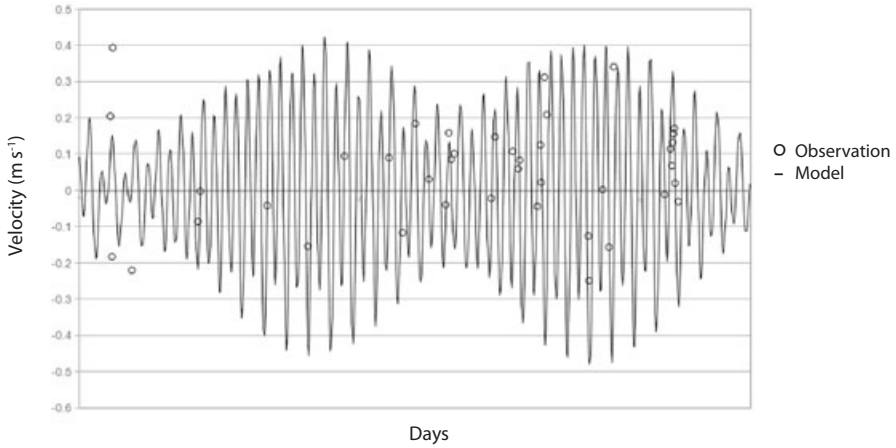

Figure 12.
Comparison between fishermen's observations of currents around the Aceh Islands (Fig. 8) and model results during December 2007. Solid black line indicates values extracted from the model; circles correspond to values extracted from observations.

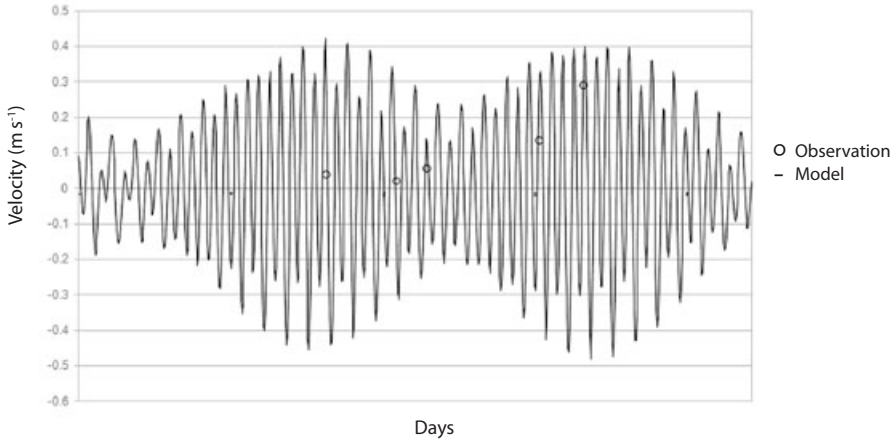

Figure 13.
Comparison between fishermen's observations of currents offshore of Lhok Nga (Fig. 9) and model results during December 2007. Solid black line indicates values extracted from the model; circles correspond to values extracted from observations.

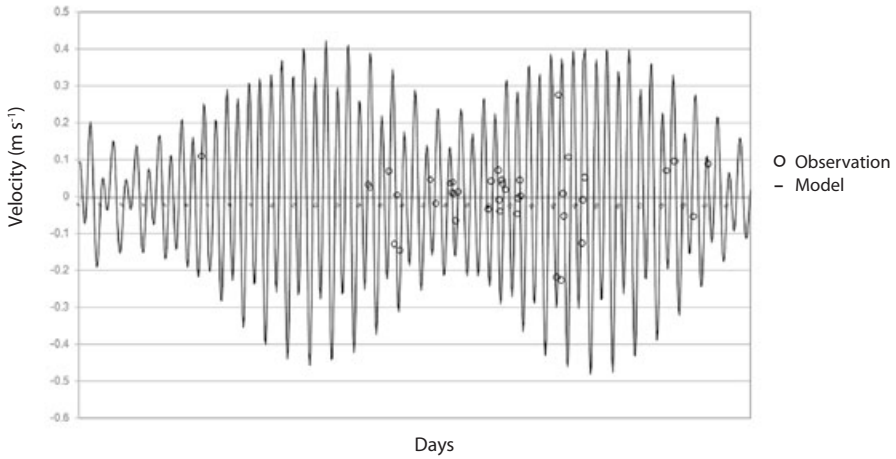

Figure 14.
Comparison between fishermen's observations of currents offshore of Leupung (Fig. 10) and model results during December 2007. Solid black line indicates values extracted from the model; circles correspond to values extracted from observations.

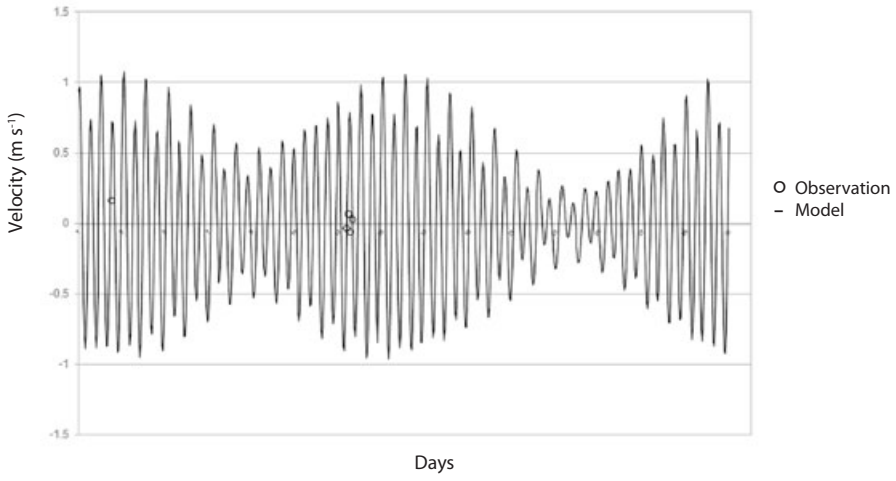

Figure 15.
Comparison between fishermen's observations of currents offshore of Glee Brueh (Fig. 11) and model results during December 2007. Solid black line indicates values extracted from the model; circles correspond to values extracted from observations.

As can be seen in Figures 12, 13, 14 and 15, most velocity values extracted from data collected by the fishermen agree well with the model results.

Conclusions

The involvement of fishermen was highly successful, and they willingly shared their data, which they regard as being of importance to both them and the researchers. Because daily data collection was done by the researcher on each boat returning from a fishing trip, fishermen and the researcher were able to interact and transfer their knowledge about using the GPS sounders with data-logging device, and share data results and other experiences. The fishermen were interested to know the results of the data that they collected.

From the results described above, it can be concluded that the observation and collection of data by fishermen is an effective and low-cost way to gather abundant observations, and can be used to facilitate knowledge transfer between researcher and fishermen.

The observations and model results of current velocity agree well for this region. This collaboration demonstrates the importance of observation by fishermen, in collaboration with a researcher can yield fruitful results, both for observation and for validation with the model. These experiments achieved successful results despite the limited budget.

Acknowledgements

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"Modernology", cultural heritage and neighbourhood tourism: The example of Sheung Wan, Hong Kong

Sidney C.H. Cheung[1] and Jiting Luo[1]

Introduction

The Japanese humanities discipline of "modernology", known as *kogengaku*, is somewhat alien to Western academia. It originated in Japan in the 1920s, but to date, little has been recorded about its emergence and development there during the ensuring century. Although not a specialist on the subject, Dr Cheung became acquainted with modernology during his decade of study of ethnology and cultural anthropology in Japan. From that, he believed modernology would provide a suitable way to explore the historical development of local culture in Hong Kong.

Put simply, modernology studies modern society by interpreting the practices of customs from different perspectives, based on collecting and analysing detailed data. Space and time are the indicators for data collection. In other words, modernology focuses on the study of details about built monuments and their social and cultural contexts at a specific historical moment. That might sound similar to the sociology or "phenomenology" of Western academics, but modernology differs by its pinpointing of accurate observations in real settings as well as by its mode of data organization, rather than pursuing and analysing high-level theories. In this it follows Japanese humanities research practice, which values the meticulous collection of data over delving into theory in order to construct yet more theory. As a result, in a setting of urban modernization, modernology is a way for both academics and the general public to understand and reflect on changes in their neighbourhoods.

Konwa Jiro, one important founder of modernology, was a student of Yanagita Kunio, renowned as the "father of Japanese folklore". Konwa specialized in the study of village homes. The relationship between Konwa and Yanagita broke up in 1927 because Konwa advocated modernology, and his research had thus shifted significantly from villages to the city. From 1927, Konwa was interested in investigating how the 1923 Tokyo earthquake had changed the living environment in the *shitamachi* (downtown) of Tokyo. His studies became the foundation of modernology.

There are intricate relationships between modernology and archaeology, but also subtle differences, as can be detected from their names. They are alike in that both observe, deduce, hypothesize, or even reconstruct a past living style from scattered and incomplete old bits of evidence. For instance, the study of "street observation", derived later, attracted many architectural historians. However, the two fields are different because archaeology is the study of the past, whereas modernology focuses on modern urban development, including the changing lives of ordinary citizens and the rise and fall of recent customs.

In this article, we borrow the ideas of modernology with its strength based on the comprehensive and detailed use of various sources, including observation, oral history, historical archives, local records, and comparative analysis to understand a complex urban history in a fast changing region in Hong Kong. We focus this "modernological eye" to understand Sheung Wan, a local Chinese business neighbourhood. This is done for two reasons. The first is to rediscover the local Hong Kong culture that depends intimately on knowledge of a wide range of imported commodities as well as the dried marine products created in this trading hub. The second is to propose a methodological approach that would enable tourists or other visitors on their own to discover and experience some local tastes and flavours.

Background to the project

To better understand the history and trade system of Shueng Wan as a coastal hub, we conducted interviews with traders (importers, wholesalers and retailers) as well as shoppers in the local community. We did this to tap into their knowledge and stories about their trades and heritage preservation strategies. Information gathered from these

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interviews, surveys and archival materials forms the basis of an interactive website that contains walking maps and academic articles and books for reference. It enables visitors to explore the history and culture of Nam Pak Hong (a south–north trading company), the Chinese herbal medicine street, and the salted fish alleys in Sheung Wan.

The overall purpose of this project is to assist in the diversification and enhancement of the management of local cultural resources for Hong Kong's in-bound tourists. Most visitors to Hong Kong are encouraged to shop and sample a variety of cuisines in the Central, Tsimshatsui, Causeway Bay, Mongkok districts and elsewhere. In this way they enjoy the unique atmosphere in Hong Kong as an Asian metropolis. However, this dominant image of Hong Kong as a destination based on consumerism fails to give tourists a comprehensive sense of local culture and the associated deeply interesting and rewarding experience of tradition and heritage. Hong Kong is unique, so it does not do it justice if we feature only its business-oriented and materialistic aspects. Thus, we undertook this knowledge transfer project in the Sheung Wan neighbourhood.

The immediate objectives of the project were to:

1) examine the roles of a local community such as Sheung Wan in terms of its cultural and heritage aspects, and tap into its collective knowledge;

2) ascertain the needs of the tourists regarding cultural tourism; and

3) develop a cultural tour prototype of the local community in the Sheung Wan neighbourhood that would systematically feature the culinary heritages of Hong Kong as exemplified by its ethnic and cultural diversity, economic and political interests in food trades, as well as urban development and heritage conservation.

Also, by using an Internet information base, tourists will be able to learn about local and national history, traditional trade relations, impacts of globalization, Chinese culinary culture, local development, and heritage preservation strategies.

This project employs cross-cultural, interdisciplinary and critical approaches to understand the historical background and culinary heritages of Hong Kong society, as a social and cultural basis for the development of sustainable tourism. In the long term, the prototype developed in Sheung Wan can serve as model so that more local neighbourhoods would be included in the overall cultural tourism project. This way, communities' awareness of being promoters for Hong Kong tourism can be enhanced, and both in-bound and domestic tourists can enjoy and benefit from learning — from the perspective of everyday life — how Hong Kong developed into a city renowned worldwide. Most importantly, the collective knowledge of a community can be preserved and passed on to future generations. A variety of unique areas have a similar potential to be developed for cultural tourism and walking tours. These include the seafood market in Lau Fau Shan, the organic food market in Tai Po, the freshwater fish wholesale market in Yuen Long, the fruit wholesale market in Yaumatei, the garment wholesale market in Shamshuipo, and the migrant neighbourhood in North Point, to name but a few possibilities.

The Sheung Wan neighbourhood

Many neighbourhoods in Hong Kong are rich in historical and cultural features that are worthwhile for citizens and tourists to explore. Over the last century, the neighbourhood of Sheung Wan has helped make Hong Kong a successful and important trading hub, and traditional trade characteristics remain visible there today.

Figure 1. Bonham Strand, a typically crowded business street in Sheung Wan.

Since the mid-19th century, through the network of overseas Chinese in Thailand, the Nam Pak Hong was established to facilitate the import of various dried products into Hong Kong, for the purposes of trading with Chinese societies throughout Asia. Dating back to when Hong Kong was just a fishing

village, the geographical location of Sheung Wan made it a very active trading centre, and its traditional business practices have somehow been preserved and remained this way ever since.

Nowadays, Sheung Wan is still seen as the place with clusters of streets full of dried marine products importers, wholesalers, retailers, and modern mini-supermarkets selling dried seafood (Figs. 1 and 2). This creates an exotic and unique image, and leaves a lasting impression for anyone visiting there for the first time. Sheung Wan's traders handle dried food commodities from all over the world, including abalones from Japan, sea cucumbers from Indonesia, salted fish from Bangladesh, herbal medicines from mainland China, paste made from locally harvested and fermented planktonic shrimp, aged tangerine peels, fish maws, ginseng, and birds' nests, among many others. They also bear witness to the evolution of this locality and so have stories to share as part of the oral history of the community.

Because these food items are part of the Chinese culture, we consider this a unique experience for inbound tourists and excursionists looking for the culture and history of Hong Kong. Besides having been a trading hub as well as a commercial centre of Hong Kong for over a century, this kind of Sheung Wan neighbourhood visit contributes to local awareness through the interactions between tourists and local communities.

In 2012, we undertook a knowledge transfer project entitled "Learning from neighbourhood tourism in Sheung Wan, Hong Kong" (Cheung 2012), which prioritised data collection over theoretical analyses. By delving into Nam Pak Hong, we flashed back to the trade-development relationships of dried seafood, traditional Chinese medicines and groceries such as salted fish over the past century. By doing so, we hoped to transform the knowledge gained from our community into a tourism resource, and hence an opportunity for local people and overseas visitors

Figure 2. Sheung Wan becomes especially busy around the Lunar or Chinese New Year, with people shopping for celebratory foods.

Figure 3. Space is at a premium in Hong Kong, so salted fish are sometimes put in the street for sun drying.

to learn and explore. We believe the curiosity required in street observation in modernology can be a cornerstone that fosters a mutual interaction between communities and tourism.

Salted fish — Yuen Shing Hong

Yuen Shing Hong is one of the largest salted fish distributors in Hong Kong. "Fifty per cent of salted fish in Hong Kong is transacted here," estimated the owner, Mr Wong. An auction is held every few days because the supply is plentiful. Prior to each auction, Mr Wong sends an invitation letter to all retailers. They gather at Yuen Shing Hong on the auction day for fierce

Figure 4. Medium size salted croakers packed in plastic bags with their heads wrapped in paper.

Figure 5. A salted fish retail shop in Sheung Wan.

bargaining, which lasts one to one-and–a-half hours, depending on the amount of goods. The process is extremely quick and effective. Boxes of salted fish are taken out of the shop just after being dragged out from the back room.

Salted fish, which come in all sizes and species, and are now seen in shops around Hong Kong, are usually packed in plastic bags with their heads wrapped in paper (Figs. 4 and 5).

"How do we pick the right fish? Normally, salted fish are categorized as being either 'firm' or 'tangy', regardless of species. Fermentation makes the difference. When fish are caught in the fair weather months of autumn and winter, they are put into ice right away to keep them fresh and prevent any fermentation. Then they are buried in salt for two to three days, before drying in the sun. The flesh of these salted fish is 'firm' and has a strong salty flavour," Mr Wong explained.

He also said that "the fish could not be fermented if any part of it touched the ice."

In contrast, "tangy" salted fish is not chilled, but pickled directly by salting so the fish can be fully fermented and is nicely piquant. Some fish may have touched the ice accidentally during catching. If such fish are treated in the "tangy" way, they could have both flavours of salted fish — the iced part being "firm" and the rest being "tangy". A staff member in the salted fish shop pointed at two rows of identical threadfins: "Can you tell which is which?," he asked. I shook my head. "Actually," he continued, "the secret lies in your fingertip. Pinch the fish softly — 'firm' is firm while 'tangy' feels squishy".

Steaming is the best way to perfect the aroma and tenderness of salted fish to its fullest. According to Mr Wong, salted fish and minced pork patty always make the best match — you may steam them together with some shredded ginger and scallion, so that the flavours of salted fish and meat mingle. Done in this way, the patty is sweet but not greasy. The ratio of fat and thin minced pork should be about 1:5, and it is better to hand-chop it to preserve a bit of the meat fibre and a chewy texture. Adding egg white would make the patty even smoother and taste better. "Last but not the least," he added, "don't forget the meaty juice that is left behind after steaming — it is the essence of the dish." Boiling and pan-frying salted fish are also common household cooking methods. Red snapper head is a common ingredient for simmered soup. Pan-fried salted fish gives a pungent aroma. Mr Wong has a tip for pan-frying salted fish: "steam it first, and get rid of the excessive juice so that the fish will be tender and less salty." Pan-fried white

herring is a noble dish in a hotel banquet. The priciest white herrings are sold at USD 220 per kg, while a normal-grade threadfin or croakers cost only USD 25–40. Croakers are good for pan-frying because they have more fat. "Another tip," Mr Wong continued, "is that minced garlic can bring out its taste better than shredded ginger."

The two remaining salted fish shops on Des Voeux Road West also sell locally produced shrimp paste, either in jars (Fig. 6) or as solid blocks. Sautéed Chinese broccoli with shrimp paste has a deliciousness that can fill your nostrils. Also, it is a good source of calcium.

In terms of salted fish production, the fishermen's "unblemished fish" is the most exquisite. An iron hook is inserted into the fish belly, via the gill, to pull out the guts and intestines without cutting open the belly. The belly is then filled with salt, and salt is also spread all over the fish skin. After the fish has been salt-treated for a full day, it is scaled and washed thoroughly, and its head is wrapped in paper before the fish is placed under direct sunlight. Boat people sun-dry their salted fish on the boat to keep flies away as well as to make full use of the more constant temperature on the sea, as well as the sea breeze. Such fish have an amazing "oceanic" flavour and better meat texture. It is a pity that boatmen have opted increasingly for more promising jobs ashore and are leaving the old industry. The sea breeze remains unchanged, but the salty smell of "unblemished fish" has weakened!

Figure 6. Locally produced planktonic and fermented shrimp paste.

Economic changes have altered the entire salted fish industry, especially the source of supply and production, and local production is minimal nowadays. Today, most salted fish found in Hong Kong are from Bangladesh, Vietnam and Thailand. Therefore, the species used are not the same. According to Mr Wong:

> Croakers were rare a few decades ago. The economic reform in China in the early 1980s gradually boosted domestic demand so less salted fish were supplied to Hong Kong. That forced Hong Kong to look for new production bases in South Asia. Salted fish makers found that Bangladesh was teeming with quality croakers, so they began to import them massively from there. At the same time, the supply of threadfins remained stable. However, the range of salted fish species has decreased. Now we have mainly threadfins, croakers, white pomfrets, silver moonies and Malabar red snappers. You could buy many more types of salted fish a long time ago — any fish could be salted — but not now. Salted red snappers and pomfrets are not found anymore.

The heyday of the salted fish industry was from 1950 to the 1970s. From Mui Fong Street, Eastern Street to Des Voeux Road West, there were salted fish shops on both sides of the streets. As Mr Wong remembers, "salted fish was the only smell on the street." This area became known locally as "Salted Fish Hood". Veteran staff members at the Hop Lee salted fish shop are immensely proud to recall that best of times. "The sea was right in front of the shop," one of them pointed outside. "Fishermen brought the fish right there, once they were pulled out of the water." Of course, the old buildings in Sai Ying Pun have a special layout for salted fish shops, with a processing workshop and a rooftop for curing and drying fish. Town planning today obviously does not cater for such uses.

Combined with a declining local catch and lack of "new blood", the salted fish industry is dwindling fast. Today on Des Voeux Road West, there are only a couple of wholesalers and a few scattered retailers (Photo 7). "The rent is too high. When one shop opens, another shuts down," a retailer grieved. Nowadays, the thriving dried seafood trade plays a leading role on Des Voeux

Road West. Initiated by the Hong Kong Chinese Medicine Merchants Association and supported by the Hong Kong Tourism Board, in 2000 Des Voeux Road West was officially crowned "Dried Seafood Street". From then on the folk name "Salted Fish Hood" gradually disappeared.

The supplies to and sales in markets in both mainland China and Hong Kong are actually shrinking. National income has increased since the economic reform that began in the 1980s, and the fish harvested along China's coastline now goes for domestic consumption. A higher living standard leads to a growing demand for fresh seafood, and less salted fish are wanted. Mr Wong knew the situation very well, "In the past we ordered the salted fish from China," he said. "Ng Fung Hong was our agent to import salted fish, which were then auctioned to us. After the 1980s, our trade with the mainland gradually died out." In Hong Kong, decreasing catches, wealthier lifestyles, urban space design, and a changing diet are killing the industry. Ironically, the price of salted fish has not come down but has rather increased 40–50% over the past two years. During the Chinese New Year of 2011, for example, white pomfret was sold at over USD 50 per kg, mainly because of a rise in production costs. Mr Wong told what it is like in Bangladesh: "Fish is pricier because of a worsened catch, and more expensive items in the production chain, such as salt and paper boxes. With revision of Bangladesh's labour laws and labour competition among investors, Hong Kong salted fish makers have to pay more for manpower." Yet the biggest crisis faced by the Hong Kong salted fish industry is discontinuity. Experienced salted fish makers have to train workers in Bangladesh and Vietnam to make salted fish instead.

The glorious days are gone and trade is diminishing, but those left in the trade have stood fast against the storm and are upbeat. Loyal old patrons still contribute to part of their sales, and the traditional mode of fish auctioning persists. A distributor would auction the food products to the retailers, who then sell them throughout the community. Taking charge of the whole auction, the distributor holds an abacus with a covered bottom awaiting the highest bid. One by one, the buyers come over and enter their bid price into the abacus, with its covered bottom facing the crowd so that only the distributor knows all the bids (Fig. 8). The price

Figure 7. Hup Lei, another large salted fish shop in Sheung Wan.

Figure 8. A salted fish auction in Yuen Shing Hong. The distributor is holding an abacus with a covered bottom and the buyer is entering the price.

is disclosed only when he announces the successful deal. As opposed to computerized buying and selling, fish auctions have a style all their own in this high-tech society, upholding a practice that has lasted for half a century.

Chinese herbal medicine — Pak Cheong Tong

Shark fins, fish maws, natural agarwood, cinnamon sticks and other dried goods may exist beyond the realm of our normal sense and imagination. Each commodity in the Nam Pak Hong area of Sheung Wan can be an interesting topic in modernology. Next we examine a Chinese herbal drugstore, one among many century-old shops in Sheung Wan.

On Bonham Strand West there is an impressive three-storey building with a gracefully embellished shop sign and huge wooden couplets on both sides of the front door — "Pak Cheong Tong" (Fig. 9). The couplets mean "Pak Cheong Tong Pearl Powder and Camphor" and "Pak Cheong Tong Ginseng, Deer Antler and Cinnamon" respectively, which indicate the main products sold at the shop. "The couplets were from Guangzhou and relocated to Hong Kong," said shop owner, Mr Tsang.

Pak Cheong Tong is more than a century old. As recalled by Mr Tsang, the shop started in Guangzhou and moved to Hong Kong in the 1920s. The shop has been at the same address since 1920, and still sells a similar range of medicinal products as it did then.

Upon entering the shop you first see small boxes of bottled and reasonably priced Macaque Calculus Powder placed in front of all the pricey medicines (Fig. 10). Before coming to Hong Kong, Mr Tsang's grandparents had been making the powder in Guangzhou. At first it was used only within the household to soothe the children after they had nightmares. Later, people in the neighbourhood often asked for the powder, and so it was bottled and sold at a reasonable price.

Mr Tsang's shop is certainly a living witness of the Chinese medicine trade in Nam Pak Hong. Anyone stepping into the shop would be immediately intrigued by a strong aroma, yet find it hard to identify. Camphor, also called "Plum Flakes" or "Dragon's Brain", is one of the featured medicinal products of Pak Cheong Tong. Camphor is a colourless solidified gum secreted from wounds on camphor trees. It is often used as an insect repellent. From the Chinese medical classics "Compendium of Materia Medica in the 16th century and Revised Materia Medica of the Tang Dynasty" in the seventh century, it can be seen that camphor has been long and widely used to ease strokes and locked jaws. Camphor trees are native to Southeast Asia, and camphor has been much sought after by Europeans since the 17th and 18th centuries.

Figure 9. The large couplets on both sides of the front door of Pak Cheong Tong indicate that pearl powder, camphor, ginseng, deer antler and cinnamon are the main products sold by this shop.

Figure 10. The gracious interior of Pak Cheong Tong provides a harmonious setting for the Chinese medicine trade.

"Except for camphor, Chinese medicines in Pak Cheong Tong are mostly wholesaled or dispensed," said Mr Tsang. Imported raw materials are sorted and processed in the shop before being sold to pharmaceutical manufacturers. Only a small amount of medicines are retailed. Among wholesalers, Pak Cheong Tong seems to have the most outstanding selection of medicines, such as the resuscitative drugs of ambergris, amber, musk, and camphor that help in directing curative effects to the unwell parts of the body; whereas pearl, "Horse's Gem" and "Macaque Stone" relieve nervousness (Figs. 11 and 12). The names of some priceless medicines of olden times are hand-written clearly on four antique delivery orders hanging high on the wall. There are of course medicines from all over the world, including Tibetan saffron, Yunnan amber and Tianzhou notoginseng; deer products such as pilose antler from eastern Japan, "three-family" elk horn and deer tail from northern China;

Figure 11. Macaque calculus powder sold in Pak Cheong Tong. It is made from the calculus of macaque stomach, liver or gallbladder. It is usually made into powder to calm children who cry often.

Figure 12. Horse calculus is made from stones occurring in the gastrointestinal track of a horse. It is usually round in shape and white. In Chinese medicine, horse calculus is a tranquillizer and can remove heat and toxicity. Usually it is taken as a powder.

Figure 13. Wu Daorong's rhyming couplet.

as well as the six kinds of ginseng, including wood-grown ginseng, North Korean ginseng, Jilin sand ginseng, Shizhu ginseng, Siberian ginseng, and American ginseng. In Sheung Wan, traditional Chinese medicine stores other than Pak Cheong Tong are worth a good look into because any such store here is a living classroom for Chinese culture and liberal studies.

Last but not least is the rhyming couplet in the store. Opposite the glass counter with all kinds of precious medicines there is another couplet on the wall that means "nostrum for guests as noble as azure dragons" and "fine medicine for immortals as elegant as white deer" (Fig. 13). It was written by Wu Daorong in August 1932 exclusively for Pak Cheong Tong. Wu was a renowned late-19th century scholar. Having his compliments implies that Pak Cheong Tong is superior among its competitors. In between the couplet is a Chinese calligraphic painting. The rosewood furniture below makes the décor of the store even more artistic.

As this example demonstrates, modernology does not provide comprehensive reflection and analysis of the history, but a glimpse of the fragmentary information and stories of Pak Cheong Tong here and there gives us hints regarding a fuller picture of the years that it has been through. Another episode in the 1920s will illustrate what we mean. Pak Cheong Tong used to hand out medicine to the poor. This practice is an earlier version of today's corporate social responsibility and a historical testimony of the geopolitical relationship between Hong Kong, Guangdong and Macau.

The disappearance of some precious medicinal materials in drug production also has a story to tell. Ambergris, for instance, is a medicine as well as an essential ingredient in perfumery. Because natural ambergris is difficult to acquire, and because a synthetic fixative is becoming more common, it is now a rarity in traditional drug stores.

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We are very grateful to Mr Tsang for telling us many insightful stories, and are also grateful to the stimulating atmosphere of the dried food shops, as well to the warm welcome provided by all employees.

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"Fish and People": An innovative fisheries science learning tool for the Pacific

Simon Foale[1]

One of cartoonist Gary Larson's most famous cartoons is titled, "Anthropologists! Anthropologists!" It was created in 1984 and depicts, through the window of a village hut, two colonial-era anthropologists, with cameras and notebooks, arriving in a canoe, ready for fieldwork. In the foreground, inside their hut, the natives are running about in a panic, trying to hide their TV, telephone, and VCR player. The cartoon is lampooning the noble savage fantasy, and copies of it have adorned the office doors of practicing anthropologists around the world since it was published. But for years now I have been fighting the temptation to replace the caption with "Conservationists! Conservationists!", because for me, the cartoon also embodies the earnest, contemporary charade in which an expatriate conservationist (usually working for a BINGO — Big International Non-Governmental Organization) steps out of a banana boat, into a Melanesian village, and begins attempting to persuade the locals that they have a burgeoning problem with overfishing, that it's a threat to "globally important" biodiversity, and food security, and that the best way to address it is by reducing fishing effort in some way, and as soon as possible.

The locals almost always nod and smile in enthusiastic and polite agreement. I call it a charade because it is an encounter in which someone who is very obviously wealthy (e.g. an expatriate BINGO employee who generally draws a comparatively large salary, and flies in and out of the country several times a year), is attempting to persuade someone who is very obviously poor that they need to "tighten their belt" and undergo a little austerity now, for their own (and for the planet's) long-term best interests. The logic of the food security aspect of "the message" (reduce fishing effort now so you can continue to have fish in the future) is in fact unassailable. The problem is that in so many cases the locals are far too pre-occupied with negotiating a beneficial *relationship* with the wealthy and powerful visitor (with the possible outcome of a job on the proposed conservation project, or some financial assistance with a business venture, or at the very least a free lunch at a workshop), to actually engage with or take seriously "the message".

The immense economic inequality represented in the person of the messenger can only make the prospect of a marginal increase in the villagers' fish harvest in five or ten years seem almost trivial. The *politics* of the encounter gets in the way of the science. If someone much wealthier than me, and indeed with a much larger ecological footprint than mine, started advising me about how I could live more parsimoniously, for my own long-term benefit, I would not be particularly well disposed to engaging with the message either, even if the truth of the message, in the context of my own life, is indisputable.

This problem has of course long been recognized and written about, ironically enough, mostly by anthropologists (Ellis 1997; Van Helden 1998; Foale 2001; West 2006; Li 2007; Filer 2004). There is also now a rapidly expanding literature on the myriad ways in which economic inequality is socially and politically toxic, at multiple scales, and in all societies (Marmot 2004; Wilkinson 2005; Wilkinson and Pickett 2010). But while this work has helped us understand the political complexities of "village entry" and the importance of the north–south inequalities embodied by transnational non-governmental organizations (NGOs), the environmental problem — burgeoning market and demographic pressures driving the decline and collapse of fisheries — has not gone away. In addition to the governance challenges associated with rapid social change and the breakdown of traditional leadership, a key challenge for coastal fishery management in the Pacific is a widespread lack of understanding of the vulnerability of populations of many coastal fish and invertebrate species to contemporary harvesting pressures (Sabetian and Foale 2006; Foale et al. 2011; Cohen and Foale 2013).

What to do? BINGOs these days have replaced many of the highly paid expatriates in their field projects with nationals, but "client" communities are nevertheless aware that the BINGO's national team members are still part of a transnational bureaucratic apparatus that receives funds from a donor in a wealthy, industrialized country. I should say

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that despite all of this, some BINGOs have learned many of the lessons that have now been so widely published, and do strive to develop lasting and trusting relationships with partner communities, with some amelioration of the distracting politics of engagement, and some consequent achievements. In a more lateral move, some governments and regional agencies are assisting with measures to increase access to other sources of fishery production, including pelagic species (particularly through deployment of nearshore fish aggregating devices) and aquaculture.

Another approach altogether (and the point of this article) entails a socially and politically informed strategy for delivering the scientific rationale for managing fisheries, in a way that completely removes the inequality distraction and, in fact, allows recipients of the message to more readily identify with the messenger(s). Chris Mooney (Mooney 2011) has argued that if we want to convince American conservatives of the facts of climate change, the best way to do it is to have a business or religious leader deliver the message. This logic has been invoked (among other strategies) with the creation of a new fisheries science education DVD, called "Fish and People". Its main target audience is high school students in Solomon Islands and Papua New Guinea, although it is already proving popular with a much broader range of audiences in those countries, and as far away as Kenya.

Figure 1. Opening frame of the Fish and People DVD.

The Fish and People DVD explains, in five, 12-minute modules, the basics of fishery biology, with particular emphasis on life cycles and scales of larval dispersal of common and economically important Indo-Pacific species. It also explains other aspects of their biology, such as growth rate and longevity, which, along with larval connectivity, are central to understanding how populations of each species respond to fishing, and protection from fishing, and at what scales in space and time.

Figure 2. A graphic from Fish and People of various types of larvae floating in the plankton.

The DVD includes a series of compelling interviews with Solomon Islanders (fishers, scientists, NGO workers, government officials and teachers), who each deliver a key part of the message, in language and context, which clearly has salience and immediacy for the target audience.

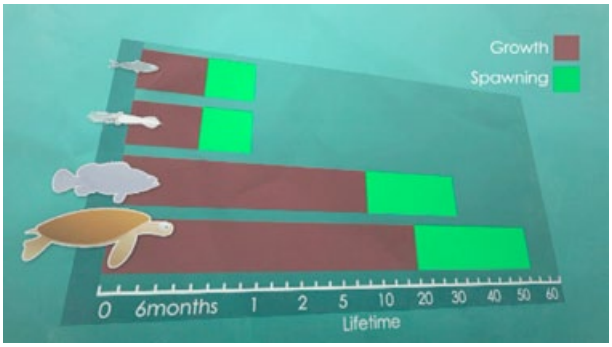

Figure 3. A graphic in Module 3 of Fish and People, demonstrating why knowledge of lifespan and age-at-maturity matters in fishery management.

The rationale for approaching the impending fisheries management crisis in the Pacific with a high-school-level learning tool such as Fish and People is straightforward. The assumption is that if a critical mass of young adults acquire a detailed understanding of how overfishing destroys fisheries and food security, they will not only innovate their own, "bottom-up" fisheries management strategies as they assume positions of influence within the community, but they will also be more likely to understand the need for, and therefore comply with, "top-down" management approaches such as size limits, gear restrictions, trade agreements, quotas and moratoria. While many Pacific Islanders can readily describe noticeable declines in the size and abundance of fish and marine invertebrates during their own lifetime, the aim of Fish and People is to help people to incorporate their own, often richly detailed empirical observations into a model of fishery dynamics that will engender a stronger sense of agency in managing fisheries for future food security and livelihoods.

Figure 4. A graphic used throughout the show to illustrate larval dispersal and connectivity processes at the ecosystem scale.

The key feature of this particular learning tool is its rich use of imagery to communicate the science. In addition to a series of powerful interviews with Solomon Islanders, Fish and People also features superlative underwater cinematography, and many high quality animations, which clearly explain the scientific concepts. The narration is in English, and where interviewees speak Solomon Pijin, an English translation is presented on screen. All key scientific terms, such as *gamete*, *zygote*, *larva*, and *plankton*, are printed in large font on screen as they occur in the narration. The DVD disk also includes a detailed Lesson Plan and Teachers Guide, along with various supporting materials, including still photographs of marine organisms spawning, and microscope photos of larvae, plus animated computer models demonstrating dispersal of larvae in reef and coastal environments. Fish and People was scripted by myself and Russell Kelley, and assembled and edited by multi-award-winning media professionals at Digital Dimensions and Eco Media Production Group (http://www.ecomedia.com.au/). Production was funded by the Australian Research Council, James Cook University, and Solomon Telekom Television Ltd.

Figure 5. Spawning sea cucumber. One of a variety of images supplied in the supplementary material on the Fish and People DVD.

My collaborators and I currently plan to redesign and re-edit Fish and People for different audiences, including Solomon Islands villages, along with school and rural village audiences in the Philippines, Indonesia, and other Pacific Island countries. This process will entail keeping most of the animations, shooting new interviews, and creating new, locally voiced, voice-overs. We are also currently testing the impact of the show on the scientific knowledge of Solomon Islands high school students.

Fish and People DVD modules can be streamed from:

www.coralcoe.org.au/videos/videos

and streamed or downloaded from:

www.ecomedia.com.au/fishandpeople.html

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RECENT PUBLICATIONS

Ellen R. (ed). 2011. (paper back edition) Modern crises and traditional strategies: Local ecological knowledge in island Southeast Asia. Vol. 6. Studies in environmental anthropology and ethnobiology. New York and Oxford: Berghahn Books. ISBN 9780857451453. USD 34.95. Paperbound, 272 p., maps, figures, b/w photographs, index.

The focal issues addressed in this volume are the creation, erosion and transmission of ecological knowledge and the hybridizing of traditional and science-based knowledge, particularly in populations confronting environmental stress, political instability and conflict, and various kinds of economic of hazard. The ways in which traditional knowledge has contributed to enabling local populations to cope with the various kinds of insecurity that arise from such problems is also examined. The volume consists of 10 articles.

Harris M. (ed). 2007. Ways of knowing: New approaches in the anthropology of experience and learning. Vol. 18 Methodology and history of anthropology. New York and Oxford: Berghahn Books. ISBN 9781845453640. USD 90.00. Hardbound, 340 p. b/w photographs, index.

The essays in this volume examine how "humans come to know themselves and their world. By going beyond the notion that a way of knowing is a perspective on the world, this book explores paths to understanding, as people travel along them, craft their knowledge and shape experience." The book is divided into four parts, and consists of an introduction, "Ways of knowing" by the editor plus 14 articles.

Marchand T.HJ. (ed). 2010. Making knowledge: Explorations of the indissoluble relation between mind, body and environment. Chichester, U.K.: Wiley-Blackwell-Royal Anthropological Institute. ISBN 9781444338928. USD 34.95. Paperbound, 201 p.; colour photographs, index.

Lowenhaupt Tsing A. 2005. FRICTION: An ethnography of global connection. Princeton and Oxford: Princeton University Press. ISBN 0-691-12065-X. USD 32.50. Paperbound, 321 p.; notes, references, index.

This is an exposition of ethnographic reporting on the destruction of Kalimantan rain forests and local attempts at resistance that in addition, advances an original perspective on the role of global capital. This book is an engrossing "read" because in addition to revealing an engrossing and moving "story", it is an important and original work that defines a new field in ethnography. The volume is divided into three parts and seven chapters.

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