Place Names, Seascape and Cartography of Marine Rights: Case of claims to places on the reef of Batasan in Bohol

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Abstract

The essay looks into how islanders of Batasan in Bohol delineate the geographic distinctions of their environment. Islanders identify places to define markers that describe their environment's geo-ecological features, provide maritime directions, frame physical and social boundaries, and set limits of marine activities. Such delineations indicate varying degrees of rights and claims. I also address in this essay how codes of access and exclusion reconfigure the physical and social environment of the island. A sense of ownership of what I term as 'village-encoded local ecological knowledge' predisposes villagers to claim access to these resources. Central here is how they incorporate this knowledge into issues of tenure and the allocation of use rights that, in the process, rearrange divisions among islanders and between groups of islanders and non-village individuals, organisations and institutions. In the end, islanders' narrative geography frames their socio-economic practices as they navigate the political terrain of resource rights allocation.

"Who gets what environment—and why?" (Low and Gleeson 1998:2)

Introduction

One of the most interesting stories that I gathered during my

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exploratory visit to Batasan Island in Bohol in 2002 was the 'discovery', in separate instances, of two submerged reefs near the island by hook-andline fishers (mamasolay) from the village. One reef, called Takot Emong (Emong's Reef) by Batasan islanders, was named after Emong Ranario (born 1908) and the other after Adring (real name: Andres Dolera; born 1924). Emong, based on the oral narrative of his son Fredo and friend Adring, chanced upon a reef submerged between 15-20m under water in the mid-1920s when his sinker tapped the reef's coral heads during one of his fishing trips. My underwater reef survey in 2005 showed that the reef was mainly rubble, indicating that it is a dead reef. Adring narrated that he located in 1938, while searching for fishing grounds, a reef that would later be called by Batasan islanders as Takot Adring (Adring's Reef), also by way of tapping submerged coral heads through his line sinker. Takot Adring sits between the islands of Batasan and Ubay, but jurisdictionally belongs to the latter. Moreover, residents describe the south promontory of Batasan Island as a dancing beachhead because its direction changes depending on where the monsoon winds blow its sands. These accounts opened up for me a floodgate of narratives about sites that carry the names of some of the villagers' ancestors or places with denotational or symbolic ascriptions pertaining to the geographic and ecological features of Batasan's seascape.

What is striking about these narratives is that Batasan islanders frame the story of their village not only with reference to time-pegged moments in their history, e.g., World War II, typhoons that struck the islands, or the reign of a village tyrant. Rather, their stories are also framed, in several instances, with reference to places, i.e., within named or unnamed and claimed or contested places of the island. The spatial strategy of storytelling, I believe, underscores the significance of places as markers of local history in relation to a knowledge system pertaining to the utilisation of resources, which I term in this essay as 'village-encoded local ecological knowledge'. This narrative geography is, I contend, a historiography that frames the socio-economic practices of islanders as they navigate the political terrain of resource rights allocation.

In this essay, I ask how Batasan islanders' delineation of the geographic distinctions of their environment indicates varying degrees of marine rights and claims. I follow Hviding's (1996) contention that natural geographic and ecological markers are important distinguishing features that organise the socio-cultural environment of villages, which feed into what more recent scholarship in political ecology describes as

socio-natural arrangements (Bryant 2000; Escobar 2001) within interdependent social-ecological systems (Folke *et al.* 2007). Socio-natural arrangements pertain to processes by human society to reshape and reinterpret nature, rendering the 'objective' nature a social construct (Pepper 1993). Escobar (1999: 5) argues that "nature is differently experienced according to one's social position and that it is differently produced by different groups or in different historical periods." The men and women of society and their social relations give meaning and value to place and nature.

Society and nature are interdependent social-ecological systems (Folke *et al.* 2007). The social (human society) and the ecological (nature) are not just linked; they are, according to Folke *et al.* (2007), interconnected and they co-evolve across spatial and temporal scales. Several scholars have stressed the complex ties that link the natural-physical environment with the specificities of place and time, and that locally encoded knowledge systems about nature in specific places are neither static nor stable, one reason of which is that place, or a sense of place, is informed by underlying structures of power (e.g., Agnew and Duncan 1989; Agrawal 1998; Casey 1996; Escobar 2001; Geertz 1983; Harvey 1996; Johnson 1992; Massey 1995, 1997; Ostrom 1990; Prazniak and Dirlik 2001; Rosaldo 1988; Rose 1995; Scott 1998; Watts 2000).

The relationship established by people with their natural environment informs and is informed by their interaction with other people. In this essay, I illustrate that villagers' knowledge of place is not only a map of the distinctive features of their marine resources, but is also—to use Blomley's term (1998: 570)—a code of access and exclusion. Knowledge of place reflects a geography of rights that both islanders and non-islanders continuously reshape in the context of linked relationships among households, villages and different multi-sited communities of interests. The quotation at the beginning of this essay—"who gets what environment—and why?" (Low and Gleeson 1998: 2)—is, therefore, critical for understanding property rights regimes in the context of villages' simultaneous involvement in resource extraction and conservation.

Section 1 presents a short description of the island of Batasan. Section 2 examines toponyms based on geo-ecological features of the island and its marine environment, and how a sense of ownership of the encoded knowledge about places constitutes differentiated access and use rights. Section 3 discusses toponyms derived from ancestors' names, and looks into how certain claims to places configure the villages' demographic and social environment, which in some ways reflect the distribution of particular rights or claims among certain individuals.

The research site

Batasan is a small, elongated sand bar, which is under the jurisdiction of the municipality of Tubigon in Bohol (Figures 1 and 2). Settlers artificially created the island by piling corals. Based on my GIS calculation, its length is roughly 900m, while its width ranges from 200-500m. The island rests on a large reef flat that measures about 260 hectares.¹ The island can be reached in about 30 or 40 minutes by small motorised boat from the town centre of Tubigon on the mainland.

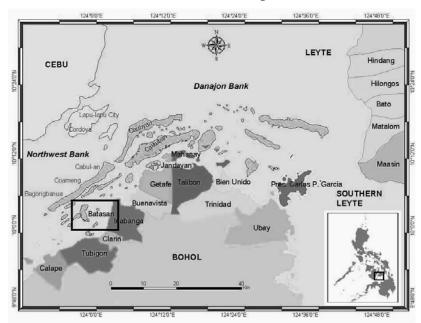


Figure 1. Location of Batasan Island, Tubigon, Bohol on Danajon Bank

Batasan is comparatively poor in a relatively well-off municipality. It ranks the fourth poorest among Tubigon's 34 villages in terms of households with income under the poverty threshold (33% Batasan households) (Bohol PPDO 2004; BLDF 2008; LPRAP 2005), or a monthly income of about or less than PhP5,853 (at 2005 levels) or approximately US\$120 (NSCB 2007). The percentage of Batasan

¹ There were no available data about the size of Batasan's reef. The figure I presented above is my own estimate based on data about the island's mangrove forest, which, reports say, measures 52 hectares and comprises 20% of the reef flat (Batasan PCRA 1998; Haribon-PS-CRMP n.d.).

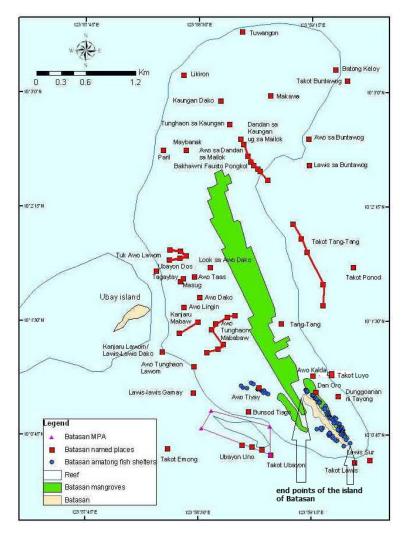


Figure 2. Selected named places in Batasan. Note: Ubay Island is not part of the island village of Batasan

households under the poverty threshold, however, is lower than the municipal percentage (35%) and provincial percentage (61%) of incomedeficient households (Bohol PPDO 2004; BLDF 2008).

Tubigon is one of three major political, economic and educational centres in the province; the other two centres are the province's capital city, Tagbilaran, situated on the southern mainland, and the municipality of Talibon on the northern part of the province. Tubigon has a port that connects the province to Cebu, the regional centre of Central Visayas. It is Bohol's secondary port (next to Tagbilaran City's).

Batasan is one of 40 islands that lie on or near Danajon Bank,

located off northwestern Bohol (Green *et al.* 2004) (Figure 1).² Danajon Bank is the only double barrier reef in the Philippines, and is one of only three such sites in the Indo-Pacific (Pichon 1977). It reaches a length of about 135km (PS 2004). The outer reef is called the Caubyan Reef and the inner reef the Calituban Reef (Pichon 1977; Christie *et al.* 2006). The bank has a high degree of diversity in its marine flora and fauna, which makes it one of the major fishing grounds in the Visayas (Christie *et al.* 2006). Its coral reef and mangrove areas are the largest in the Central Visayas region (Green *et al.* 2004). Some parts of the bank's reefs are considered fair in status (25% to 49.9% live coral cover) (Green *et al.* 2004), although the overall reef condition is considered degraded (Christie *et al.* 2006). Many of the reefs of Danajon Bank are exposed during low tide.

Like many fishing grounds in the Philippines, Danajon Bank faces a host of serious threats, e.g., extremely high fishing pressure largely through destructive, unsustainable and illegal fishing methods; overfishing; degraded overall reef condition; sediment accumulation; conversion of mangroves into other uses; and high population density and poverty incidence in communities around the bank (Christie *et al.* 2006; Green *et al.* 2003, 2004). About 68% of households in ten municipalities in northwestern Bohol that have territorial jurisdiction over portions of Danajon Bank have cash income under the poverty threshold (Bohol PPDO 2004; BLDF 2008).

Four provinces have administrative jurisdiction over Danajon Bank: Bohol, Cebu, Leyte and Southern Leyte (Aumentado n.d.; Christie *et al.* 2006). This politico-administrative delineation has implications for the implementation and management of a territorially shared resource base.

Batasan established in 1998 a 21-hectare no-take marine protected area (MPA), although the formal barangay and municipal ordinances and

² Spanish and American historical records indicate the shores off north and northwestern Bohol as two geographic coasts: Danajon Bank and Northwest Bank (de Arana 1879; United States Allied Geographical Section 1944; United States Coast and Geodetic Survey 1902; United States Department of Commerce 1940; Bureau of Coast and Geodetic Survey 1953). The study by Pichon (1977) and documents that came out beginning in the 2000s describe Northwest Bank as part of Danajon Bank (e.g., Aumentado n.d.; Christie *et al.* 2006; Green *et al.* 2000, 2002, 2004). Working within the framework of an ecosystem-based approach in the management of resources, the two coasts are integrated for a more holistic management of the fisheries and communities in the northwestern and northern regions of Bohol, which cover Batasan. Contemporary maps about the area, however, produced by the government's mapping bureau (the National Mapping and Resource Information Authority or NAMRIA) continue to label Danajon Bank and Northwest Bank separately, which I indicated in Figure 1.

resolutions were issued in 1999 (Figure 3).³ The MPA was facilitated by the partnership of Project Seahorse (PS) and Haribon Foundation. PS is an international marine conservation organisation based in Canada and the United Kingdom, with an established organisation in the Central Visayas region in the Philippines that focuses on marine environmental research and advocacy. Haribon is one of the Philippines' largest non-governmental organisations dedicated to environmental protection, conservation of critical habitats, sustainable use of natural resources and the preservation of the culture of indigenous Filipino cultural communities. On Danajon Bank, there are at least 60 MPAs (Christie *et al.* 2006), 33 of which (all no-take) have been facilitated or supported by PS-Haribon (PSF 2006).

Batasan is presently considered an initial component of the National Integrated Protected Areas System (NIPAS) of the country

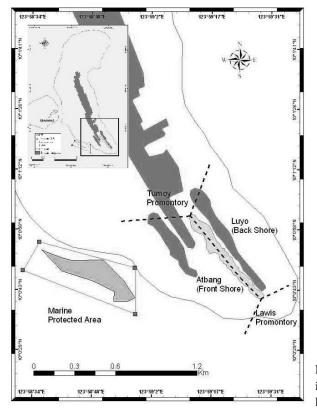


Figure 3. Directional terms indicating spatial orientation of Batasan

³ These documents include the following: 1) Batasan Barangay Ordinance No. 1, series of 1999; 2) Batasan Barangay Resolution No. 1, series of 1999; 3) Tubigon Municipal Council Resolution No. 99-27, series of 1999; and 4) Tubigon Office of the Mayor (1999) endorsing the barangay resolution of Batasan on the establishment of its MPA.

(PAWB 2004). The NIPAS Act of 1992, or Republic Act No. 7586, provides the criteria and processes for the selection of several categories of protected areas, and the island is designated for inclusion as a nationally legislated protected area. Batasan's inclusion into NIPAS has implications for the use and management of the island's marine environment and for the contest among villagers over tenure within their settlements and rights to the resources of their island.

Based on the household census I conducted in 2004, fishing is the main source of livelihood for practically all the 212 households in Batasan. It is difficult to estimate the number of fishers engaged in specific methods as fishers in Batasan may simultaneously fish with various gear or target specific species, depending on and according to the lunar cycle, tidal levels, wind directions, sea currents, fish migration or movement patterns, and market demands. Classification of fishers is also difficult to ascertain as fishers in Batasan may classify themselves according to the gear used or the target species. Many fishers, nevertheless, specialise in specific fishing methods or target species even if they simultaneously or alternately engage in other methods of fishing. Table 1 provides an estimate of the different types of fishers in Batasan based on how they classified themselves on the census that I conducted in 2004.

The gear that Batasan fishers use are generally those that are allowed in municipal waters (within 15km from the shoreline). Types of fishing based on gear include spear fishing (*pana*), lantern fishing (*panuo* or *panô*), net fishing (*pokot*, including *panikbong* and *yabyab*), line fishing (*pasol*, including *palanggre* or bottom-set longline and *subid* or troll line), pot or trap fishing (e.g., *timing* and *panggal*), dive fishing (*manawom*, with or without compressor units), and corral fishing (*bunsod*). Based on target species, types of fishing include blue crab fishing (*panlambay*), fishing for tropical or aquarium fish (*panimilya*), and squid fishing (*pangnokos*).

Fishers cover the entire Batasan reef for their fishing. Sites are selected based on target species, gear used, distance from the island, and other geographic and ecological factors. They also go to fishing grounds outside their island-barangay (Figure 1), specifically those under the jurisdiction of the municipalities of Tubigon (off the villages of Ubay, Calawrinyo or Clariño, Balicog, Kanlangi, Bagongbanua, Calamosi, Tambulian, Pangapasan, Inanoran, Cabgan and Tubaon), Clarin (especially in Silo-siloan and Madietpet), Inabanga (on the shores of Coameng and Bugatosan), and Calape (near Mantatao Island). Batasan fishers also compete with fishers from other islands and coastal villages

Types of Fisher	Number of individuals	Percentage of fisher population
Spear fisher (mamanaay)	47	17.47
Blue crab fisher (<i>manlambayay</i>)	36	13.38
Lantern fisher (<i>manoay</i>)	30	11.15
Net fisher (<i>mamokotay</i>)	28	10.41
<i>Timing</i> pot/trap fisher (<i>manimingay</i>)	24	8.92
Aquarium fish collector (manimilyaay)	21	7.81
Line fisher, incl. Those using <i>palanggre</i> or chain or long line (<i>mamasolay</i>)	20	7.44
Squid fisher using troll line (manubiray)	18	6.69
Fishing, general (managatay)	14	5.20
Corral fisher (<i>mamunsoray</i>)	11	4.09
Others: (species-specific or other gear)	20	7.43
Grouper (3) (<i>pugapo</i>)		
Compressor diver (3)		
White clam fisher (4) (<i>manambayang</i>)		
Shellfish diver (4) (manawom kinhason)		
Panggal trap fisher (2) (mamanggalay)		
Fisher targeting garfish (bawo) (2) (pamalong)		
Sea urchin fisher (2) (<i>manuyom</i>)		
Total	269	99.99

Table 1. Types of fishers in Batasan based on household census conducted by the author in 2004. **Note.** Enumeration is by single response of working individuals who indicated a specific type of fishing as either a full-time activity or a primary source of cash income.

who come to their reef. They include those coming from the municipalities of Tubigon (the islands of Mocaboc, Ubay and Pangapasan), Clarin (mainland and the island of Tangaran), and Inabanga (the islands of Coameng, Hambungan and Taoran).

The wide expanse of the reef of Batasan is primarily a gleaning haven. Gleaning (locally termed *panginhas*), carried out by both men and women and by children, is an important source of household income. Batasan's reef is home to an estimated minimum of 364 species of seashell species based on identification by recognised expert gleaners and shell divers from the island.⁴ Some of the commonly gleaned shellfish species include top shellfish (amongpong and samong), strombus conchs (aninikad and saang), tritons and murex shells (gang-gang, sodlay-sodlay and honsoyhonsoy), pheasant shells and periwinkles (laway-laway), vanikoro snails (taktakon), thorny oysters (tikod-tikod), nerites (sihi), cowries and egg cowries (sigay and poki), scallops (iskalop), abalones (kapenan), rock shells (guba-guba), ark shells (litob), sea mussels (amahong), moon snails (buwanbuwan), ceriths and turrids (sanggoreyong or sanggarelyong), Venus and Lucina clams (kilos and bug-atan), asphis clams (tamislat), soft-shell clams (tambayang), winged oysters (brownlip), horse conchs (posik), tree oysters (wasay-wasay), pearl oysters (tipay), and pen shells (tab).⁵ Batasan gleaners also regularly collect sea cucumber (bat or balatan⁶, or trepang or beche-demar as it is known in the market), crustaceans such as blue crab (lambay), the spaghetti-like egg mass of sea hare (dongsol, a sea slug species) called *lukòt*, Caulerpa (*latô*), wild seaweed (*gusô*), and sea urchin (*tuyom*). Many of these gleaned species have great value in both the international market and the tourism industry in Cebu, either as processed products or as materials for the production of handcrafted products (C. Campos, personal communication, 2005; S. Pongcol, personal communication, 2005, and R. Saavedra, personal communication, 2005). Gleaned resources with low economic value serve as food for those who cannot afford meat and

⁴ My informant fishers, S. Pongcol (2004, 2005) and R. Mejares (2005a, 2005b) and I consulted Abbot's (1991) illustrated guide book to seashells, which served as our reference to identify the families and species of shellfish that occur in Batasan.

⁵ Local names of these shellfish species are not precisely equivalent to the English names. A single local name may apply to several species in the scientific literature, and conversely several local names may apply where there is only one scientific name for a species. This highlights interesting differences in classification between the scientific community and local knowledge, but this variance in nomenclature and taxonomy is beyond the scope of this study.

⁶ I use the term *bat*, instead of *balat* or *balatan*; all refer to sea cucumbers. *Bat* is the term commonly used by Batasan islanders to refer to the various species of sea cucumbers that they collect.

Batasan, however, is also to a significant degree a village of wage labourers employed in jobs found outside the island. Wage labourers are working in growth areas in the Visayas and Mindanao, although some also work in Metro Manila and urban centres in Luzon; they work in factories, market stalls, department stores, construction and transport services, export processing zones, and various seasonal or odd jobs (e.g., as porters, drivers, errand persons). Batasan women who work away from the island are mainly employed as househelpers. Entrepreneurs are generally traders of various marine resources found on the island's reefs, and trading is a significant economic activity on the island.

Field observations, interviews, focused group discussions, validation workshops and resource mappings during preliminary trips to the site (summers of 2002 and 2003) and my fieldwork from 2004 to 2005, using the same methods, provided insights on the different issues that I discuss in this study.⁷ In 2002, six key informants from the village identified historically and economically significant marine spots in Batasan. In 2003 and 2004, the same informants accompanied me to these places, which I marked on my GPS unit for mapping purposes. Figures 2 and 3 identify named places and distinctive directional orientations of Batasan, respectively.⁸

Geo-ecological markers: Mapping places and encoding local ecological knowledge

In general, places in Batasan with historic or economic significance might be named (Figure 2) by islanders themselves, yet not be the object of strong individual claims of rights. They named many of these places based on their features, characteristics or utility. Names are often reflections of resource potential. These names indicate islanders' knowledge of their marine environment, as informed by their constant use of these places. This ecological knowledge forms one of the bases of the choice of extraction sites by villagers and the location of their respective no-take marine protected areas or MPAs.

⁷ My appreciation of place names in Batasan has been enriched by interviews with the elderly of the island: A. Dolera (2003, 2005), F. Lariba (2005), D. Oldenaria (2002), S. Oldenaria (2005), A. Ranario (2003, 2004, 2005), S. Rebucas (2005), F. Tapayan (2002, 2003, 2004), and S. Tulang (2005).

⁸ Takot Adring is not mentioned in the two maps. Eighty-year-old Adring himself volunteered the location of the site, but requested not to identify the site in any map that I will produce.

Sayer (1995) argues that it is possible to have significant control or influence over a thing without necessarily owning it. In the case of named places with no strong individual claims of rights, I contend that what villagers own is neither the place nor the resources in the place, but the information about the place and its resources. Names, in this sense, provide "a unique way of encoding information" (Cruikshank 1990:63). A sense of ownership of what I term as 'village-encoded local ecological knowledge' predisposes villagers to claim access to these resources. Central here is how they incorporate this knowledge into issues of tenure and the allocation of use rights that, in the process, rearrange divisions among islanders and between groups of islanders and non-village individuals, organisations and institutions. In the end, division of encoded knowledge reconstitutes social relations among a wide range of players engaged in the use and management of local resources.

Derivation of place names: Identifying ecological features

Islanders identify named places in Batasan to define markers that describe their environment's geo-ecological features, provide maritime directions, frame physical and social boundaries, and set limits of marine and terrestrial activities. Some places in Batasan derive their names from certain ecological features of the sea (e.g., water current, and presence of corals and sand) or shoreline (shape and contour). For fishers and gleaners, knowledge about the ecological features of the marine environment provides them with a general sense of where to locate and collect which species, and the appropriate fishing methods to use.

Examples include a reef crest named Likiron, a curved angle or corner that serves as a turning area (*likiron*) for boats. A reef patch called Takot Tang-Tang has the appearance of pulling away from (*tang-tang*) the main reef. Paril sa Atbang is a sea wall that runs close to 2 kilometres in length; the seawall is a pile of corals brought to the reef edge by strong waves. It is called Paril sa Atbang (sea wall on the front shore) to differentiate it from another sea wall at the back of the island (Paril sa Luyó), which was formed only in the 1980s when the island was hit by a strong typhoon. A sea channel is called Masog or Masug for its strong current; *masog* or *masug* is derived from *makusog*, the root word of which is *kusog*, which means 'strong'. Migrating fish pass through this channel, which is opportune for permanent barriers such as fish corrals. The head of a politically influential family in Batasan has secured a portion of the reef near this sea channel for his permanent fish corral. The contour of a

reef crest, called Mailok-shaped like an armpit (ilok)-also provides a suitable location for fish corrals. One male elderly of Batasan described this place as an area believed by some residents of Batasan as home to small sharks that guard precious pearls that thrive aplenty underwater. At the time of field research, a village council member, who is a son of the owner of the fish corral on Masog, had claimed a portion of Mailok for his two permanent fish corrals, which he uses alternately depending on the monsoon winds. Like all fish corral owners, he pays the annual permit fees at the municipal fisheries office. Hence, he enjoys some form of territorial control on portions of the fishing ground, one of which is to disallow some types of fishing that tend to limit the entry of fish into his fish corral. A fish corral is an example of a device that informs fishers of the owner's jurisdiction over the territory and the presence of certain fishing restrictions near the site. I discuss in the latter part of this essay a conflict involving two families that resulted from alleged violations on fishing restrictions near this type of fishing structure.

Because of the presence of good corals, Mailok is also preferred by gleaners and various types of fishers: spear fishers (*mamanaay*); drive-in net fishers (*manikbungay*); fishers using traps and pots to catch wrasses (*manimingay*); gill net fishers targeting big fish species (*mamokotay pokot panagko*); lantern fishers collecting sea cucumbers and seahorses (*manoay* or *manugaay*); and collectors of tropical fish (*manimilyaay*), giant clams, and the highly valued Noble Tugonia shells (*manambayang*). Many named places in Batasan with reef features similar to Mailok are considered economically important fishing grounds by villagers from Batasan and nearby islands.

Places are also named based on the extent or depth of fishing grounds and various parts of the reef environment. Most of Batasan's fishing grounds, such as shoals (*awo* or *awong*), crests and reef patches, are named using this system. Examples include Awo Dako (Big Shoal), Awo sa Tunghaon Mabaw (shallow shoal at Tunghaon), Awo sa Tunghaon Lawom (deep shoal at Tunghaon), Kanjaru Mabaw (Shallow Kanjaru), Kanjaru Lawom (Deep Kanjaru), Kaungan Dako (Big Kaungan), Maybanak Dako (Big Maybanak), and Maybanak Gamay (Small Maybanak).

I must emphasise a few points about some of these shoals. Awo sa Kaungan used to be a favourite site of blast fishers from Batasan and nearby islands such as Coameng, Hambungan, Mocaboc and Bilangbilangan. '*Way tuog ang isda diri sa una* (Fish never got a chance to sleep or rest in this site)' was how fishers described the place to signify the intensity of blast fishing in the site. Awo Dako was the extraction site of tropical fish by non-Batasan fishers who used cyanide in their fishing, which was a major conflict during the 1980s. Fishers from Sta. Rosa, an island which is part of Mactan (Opon in Cebu), got rich from catching bluefish, an expensive tropical fish, in Awo Dako. Awo Dako continues to be a favourite spot of tropical fish collectors, double-gill-net fishers and fishers using mobile or movable fish corrals.

Fishers and gleaners adapt fishing methods and gleaning tools based on their knowledge of the estimated size and depth of these places. In several instances, fishing devices set at sea constitute a degree of territorial claim. For example, small marker buoys attached with kerosene lamps and set at sea during the night suggest the presence of crab bottom gill nets, and serve as warning devices not to trespass the fishing site, at least while the nets or crab traps are in place. Remnants of a fish corral, such as standing bamboo stakes, are indicators (*timailhan*) that an owner has not completely abandoned his fish corral site. Some submerged reefs are closely guarded secrets by spear fishers who dive in these areas to catch and collect fish, mollusks and shell species with high commercial value.

Directional terms: Estimating measurements, and framing islands and reefs

Named places also derive their identification from directional terms that provide the spatial orientation of sites, e.g., *ubáy* or *ubayon* (beside), *tungâ* (middle), *lawis* (beachhead), *tumóy* (endpoint), *atbang* (front), and *luyó* (back) (Figure 3). These directional terms define the spatial relation of places.

An island-village that lies northeast off the reef of Batasan is called Ubay (which means 'beside' Batasan) (Figure 2). Two reefs lying beside Batasan's main reef flat are called Ubayon Uno and Ubayon Dos (Ubayon One and Ubayon Two). Ubayon Uno (or first reef beside the main reef) is the site of Batasan's no-take MPA. A reef patch beside Ubayon Uno is called Takot Ubayon. Because of its proximity to the marine reserve, Takot Ubayon is preferred by net fishers (*mamokotay*), pot fishers (*mamanggalay*), compressor fishers (*kompresoray*) and aquarium fish collectors. Opposite Takot Ubayon is the controversial Bunsod Tiago, which stands on a crest of Batasan's main reef (Figure 4). This reef crest is a highly contested site because of the presence of good corals, which makes it a good site for fishing. Further, this reef crest is beside a sea channel where migrating fish pass; the fish corral often traps some of these migrating fish species. Because it is also near the location of the MPA, islanders are of the opinion that the reef crest where Bunsod Tiago stands is an ideal site to trap fish that swim from the MPA zone.

The second reef or Ubayon Dos (also called Ubayon Ubây) lies on a sea channel that separates the reefs of Batasan and the island-village of Ubay. Ubayon Ubây is preferred by aquarium fish collectors, hook-andline fishers, drive-in net fishers, squid fishers and spear fishers. Squid fishers from nearby Hambungan Island are often sighted in this area using illegally sized mesh nets. Two fish corrals owned by the father of a village official stand on this site.

Lawis-tumóy promontories: Demarcating boundaries, zoning entries and exits

The term *lawis* generally refers to a beachhead, promontory, cape, peninsula or tip of an island (Cabonce 1983; Garcia 1990). On Batasan's reef flat, one fishing ground that forms a series of promontories is called Lawis-Lawis, but is also often called by its proper name Kanjaru, which used to be a popular site for blast fishing. One of the reefs of Lawis-Lawis (Lawis-LawisGamay) is said to have been claimed by a certain Pilo, a resident of Batasan who has long since passed away. Kanjaru is a site preferred by aquarium fish collectors, reef gleaners (manginhasay) and fishers using mobile fish corrals (mamunsoray). There also stands on Kanjaru a permanent fish corral established by a former village official. The Marine Aquarium Council (MAC), an international organisation that promotes non-destructive collection practices, has identified Kanjaru as one of the major collection sites for Batasan aquarium fish collectors. In 2004, the organisation erected three concrete posts on the site to designate it as a fishing zone for MAC-certified fishers. The fishing ground, despite being demarcated as collection sites of MAC-accredited fishers from Batasan, is also open to non-MAC aquarium fish collectors and all other types of fishers from the island. The sea channel beside it is a favourite spot for gill net fishers targeting big species of fish.

On Batasan's island itself, residents differentiate the two promontories on its tips (Figure 3). The first *lawis* promontory maintains its *lawis* label, while the opposite *lawis* is called *tumóy* (end tip) to designate it as the island's endpoint. In this sense, the original *lawis* is the 'entrance' to the island, while the *tumóy* serves as the backdoor of the Batasan's *lawis* beachhead is what is left of the sand bar after early residents piled corals one on top of another to form a more 'stable' settlement in the 1930s. The beachhead is shaped like a pendulum. As mentioned earlier, the beachhead changes directions depending on where it is blown by seasonal shifts of the two dominant wind directions in the country, the northeast monsoon (*amihan*) from December to May and the southwest monsoon (*habagat*) from June to November.

The beachhead-endpoint (*lawis-tumóy*) differentiation is tied to the production and exchange relations of the people with the mainland and nearby islands. Privileging one *lawis* as the 'entrance' to the island is indicative of how islanders organise the spatial orientation of the island, which is more oriented toward its exchange relations with the mainland than its production relations with nearby islands. The *lawis* beachhead of Batasan points in the direction of the poblacion (centre) of Tubigon, which is the municipality that administratively covers Batasan. The town centre is roughly 7–8km from the island. Batasan residents send their children to the poblacion of Tubigon for their high school education. In this regard, the beachhead—the designated 'entrance' to Batasan—emphasises the island's relations with the economic, political and cultural centre.

The *tumóy* endtip, on the other hand, faces the vast reef, which is the site of almost all resource extraction activities of islanders. Beyond the reef are other islands whose residents fish or glean on several sites of Batasan's reef. Villagers also engage in some form of economic exchange with residents of these islands (e.g., trading of aquarium fish and sea cucumber), but not on the scale of exchange with Tubigon and other town centres on the mainland. In this sense, the *tumóy* endtip is mainly the extraction or production side, the 'backdoor' to the island.

Part of the reef on the *tumóy* endtip is Batasan's 52-hectare mangrove forest (Figure 2), which is considered government-owned. This mangrove forest was initiated in the mid-1990s by the Department of Environment and Natural Resources, with residents of the island contracted by the government agency to reforest the area (Haribon-PS-CRMP, n.d.). Even though Batasan residents were involved in the planting of these mangroves, they do not consider themselves as having ownership rights over these mangrove trees. Some gleaners, mainly those who are often cash-deprived, uprooted some of the mangrove propagules

that were planted on Awo Tiyay and Awo Kalda (C. Pongcol, personal communication, 2005). Gleaners said that these two shoals are customary gleaning sites, and the mangroves impinged on what they believed are their territorial rights to these places.

Mangroves, however, that are located on the shore directly adjacent to residences of villagers are considered the property of the owner of the residence (Figure 2). Based on the property survey I conducted in 2004, seventy households or 33% of total village households, own a total of 18,943 mangroves trees, with ownership ranging between 2 and 2,000 trees (240 ± 474.30). Mangroves considered to be communally owned are those planted by schoolchildren, particularly those lining the premises of the school grounds.

In the above examples, an area's topography not only indicates physical characteristics or specific elements of the environment but may also frame zones of production and exchange that delineate the island's entrance and backdoor. This spatial distinction is further highlighted by how villagers distinguish the 'front' and 'back' of the island, which I tackle in the next sub-section.

Atbang-luyó dichotomy: Geo-referencing zones of production and exchange

The distinctive emphasis on exchange relations is manifest in the way Batasan residents use another set of spatial markers: the front-back (*atbang-luyó*) dichotomy (Figure 3). *Atbang* means front, while *luyó* means rear. An invisible line divides the island in two along its entire length. The part of the island and reef that faces the town centre on the mainland is referred to as the front zone of the island; the opposite side is the island's backshore. Which side is the front and which is the back ascribes the economic and social geo-referencing of islanders' activities in the village.

The front is the zone of much movement of people and resources. The front organises fishers' exchange relations with market players, while the back establishes production relations among island dwellers. Conceptually defined based on conditions of exchange and extraction, villagers' front-back dichotomy of the island establishes the marketinfluenced orientation of the island, and the socially delineated zones of different types and levels of intra-village and inter-island interaction. In this regard, the front-back zoning of the island and the reef is a conceptual grid that is manifested in the way Batasan islanders use and make sense of their marine environment.

The front shore of Batasan funnels the movement of people and resources. It faces the town centre of Tubigon. The front zone covers the route used by Batasan residents to reach the mainland, where they sell much of their marine catch and buy all the goods they need back on the island. Every day, island traders, fishers and other residents go to the mainland for several reasons. Every day, traders take the route to the mainland to sell marine products during market days (tabo) in the different town centres of central Bohol (e.g., the coastal municipalities of Tubigon, Clarin, Inabanga, Calape and Buenavista; and the interior towns of Sagbayan, Carmen and Catigbian); in Tagbilaran, the provincial capital; or the regional centre in Cebu. Most use their own boats to go to mainland Bohol, but a few take any of the two passenger boats that ferry people daily to the town centre. These passenger boats leave the island early in the morning, and then come back before noon. Most fishing boats generally come and go at this side of the island. In this regard, the *atbang* functions as Batasan's gateway to the different town centres of the province.

The front shore is likewise the zone of economic and social activities of the residents of Batasan. Depending on tide levels, monsoon winds and the lunar cycle, the whole day on the front shore is characterised by non-stop fishing by different types of fishers alternately using various fishing methods or devices. Evenings and into the wee hours of the morning at the front shore are times for yet other types of fishing. The front shore is also often used by fishers, both during the day and the night, as their path of exit from and re-entry to the island for most of their fishing or gleaning trips around and beyond the reef. Moreover, fishers anchor their boats more often on the front shore than at the back for the practical reason that it is much easier and cheaper to access the route to the mainland from the front shore than from the back. Moreover, fishers sleep overnight on their boats anchored on the front shore to safeguard their boat's engine from thieves. They pass away time by either listening to the radio or conversing with other islanders who are likewise spending the night on their boats. There is, thus, the constant presence of people on the front shore. The whole community itself functions as patrol guards of the MPA, which is also located on the front zone of the island, for the entire duration of the day and night, and at various natural and social seasons of the year.

The front shore is also the preferred locale for festivities and

family gatherings. Families, their friends, relatives, and guests eat on boats, together with other islanders on their respective boats, all gathered on the waters at the front shore. They do this on special occasions, particularly during the feast days of San Pablo and San Juan, the annual fiesta celebrations, and family gatherings like birthdays and anniversaries. During important events, marine sports like boat racing are held on the front shore. Hence, the *atbang* is associated with most of the important social functions of Batasan islanders.

Although several types of fishing are conducted along the front shore, fishing is much more intensive and productive at the back of the island, the *luyó*. "If you are in need of money, go fish at the back," is a common saying on the island. The back zone is also sometimes used as a relatively permanent anchoring area, but only if anchoring for several days or weeks, or to take refuge during strong southwesterly winds striking the island. Seldom is the back zone used by residents for any of the important social occasions or special events observed on the island, except as a route for the fluvial parade commemorating the annual feasts of San Juan and San Pablo. Residents also say that some surreptitious activities take place at the back zone to escape notice and disapproval by the community. Examples of these activities, according to residents, include illegal fishing, alleged selling of illegal substances (reportedly illegal drugs among the youth), and meeting with somebody other than a marriage partner or between two young unmarried individuals in a secret relationship. The *luyó* and the northern section (*tumóy*) of the island's huge reef are also the preferred extraction sites of fishers from other islands. Some of these fishers use illegal fishing methods, which usually go unnoticed because of the vast expanse of the back zone.

Let me now turn to a brief discussion of how the front-back zones played a role in the selection of Batasan's marine protected area.

Putting conservation sites in place: The spatial logic of Batasan's marine protected area⁹

Residents and officials of Batasan approved in 1998 the

⁹ My arguments here have been enriched by several discussions with members of two people's organisations that helped facilitate the establishment of the MPA in the village: the United Batasan Fishers' Association or UBFA, and the *Kapunan sa Kababaihang Alagad sa Katawhan sa Batasan* (KAKBA or Association of the Women of Batasan). Most members of both organisations were either barangay officials of Batasan during the field work or have held political posts in the past. Many of them have also been involved actively in church-based activities on the island.

establishment of an MPA on one of the reefs under its jurisdiction. Islanders chose Ubayon Ubây as the most appropriate site, which lies opposite or 'in front' (atbang) of the island (Figures 2 and 3). Another reef, Takot Luyó, located at the back of the island (*luyó*), was a favoured site by members of PS-Haribon that supported the project, but was not considered an ideal site by the islanders. Takot Luyó has three shoals (awo) and a long seawall (paril), which is about 2km in length. The seawall was formed by a strong typhoon that hit the area sometime in the 1980s. The seawall is a pile of corals brought to the reef edge by strong waves caused by the typhoon. Observed during the fish and benthic cover survey were coral collectors (manghakutay-bato) extracting dead corals. Dead corals are gathered and sold to islanders as construction materials. This is also a favourite site of hook-and-line fishers, blue crab fishers, lantern fishers collecting sea cucumbers, and gill net fishers targeting big fish species. A fish cage owned by a major trader in Batasan is also located in this area. Fishers from other islands also pass through this area on their way to the town centre of Clarin; they usually fish while in transit (panubid ug bawo, troll-line fishing targeting needlefish).

Islanders, nevertheless, chose the reef at the *atbang* as the more appropriate MPA site. According to residents who were proponents of the MPA, if the MPA were sited at the back, protecting it from poachers would have been much more difficult given the limited resources Batasan has at its disposal.

The location of the MPA on the island's front side provides villagers with a natural way of patrolling the restricted zone. One good proof was when my dive team and I used a newly painted boat for a biological survey of the MPA. In less than 20 minutes of staying on the site, we saw a fisher from the island paddling his way towards us with the intention of apprehending us for what he initially thought was an incident of 'unapproved research' in the restricted zone. He said that he could only recognise human figures in underwater suits from where he was on the island, but the boat that we were using was unfamiliar to him. Islanders are used to seeing researchers on the site, and they recognise, even from afar, the design and colour of the official boat that the team uses. At that time, our boat was under maintenance and we borrowed a newly painted boat from one of the islanders. The unfamiliar boat made him suspect that we were researchers from another group; we were the only village-approved researchers at that time. In the afternoon, I learned from the village chief that he, too, became suspicious when he could not

recognise the boat from where he was watching us from his house. He added that had we gone off elsewhere, he would have called on village guards to run after us. Knowing that we had a scheduled survey that morning, he also had a hunch that we were, indeed, those on the site. Another instance was when my team and I, together with some villagers, recognised an unfamiliar boat anchored in the MPA site and human figures in diving suits snorkelling in the restricted zone. We rushed to the site and saw non-villagers constructing what looked like a frame for a fish cage. They were accompanied by the son of the village chief, who informed us of a research project by a different group, something which villagers had no knowledge about. The project became a major issue on the island that set off a series of heated dialogues between and among residents, village officials, municipal and provincial officials, a research organisation, and international donor organisations.

The choice of the MPA site, I believe, suggests Batasan islanders' calculation of self-interest based on their knowledge of their marine environment-that is, shifting access and use rights that would least impact on their fishing. Ubayon Ubây, at that time, was one of the most degraded fishing grounds because of intense blast fishing conducted on the reef from the 1950s until the early 1990s, and has become one of the least preferred fishing grounds by islanders. Losing the reef and giving up their use rights on the reef for the establishment of an MPA was, thus, one of the practical considerations by the islanders. The reef on the island's rear, on the other hand, was considered more appropriate by NGO members as a site for the MPA because of its relatively healthier biophysical conditions and, thus, better chances of project success. It was, however, one of the many preferred fishing grounds of islanders. Giving up this site meant losing one of their sources of household income; thus, fishers and gleaners were not willing to give up their rights to this site. Choosing the reef in front of the island was the preferred choice of islanders because they had on the site the least interests to surrender.

Villagers' distinction of the island's *atbang-luyó* illustrates how a community's dynamic knowledge of the ecological conditions and demarcations of their marine environment and the social boundaries of resource use and exchange may provide functional options for the selection of sites of negotiated marine conservation schemes such as a no-take MPA.

To summarise, the process of geo-referencing places affirms and revises existing and envisioned practices of marine resource use and conservation. Village-encoded local ecological knowledge structures resource use practices that frame places as ecological and social zones of production, extraction and exchange, of accommodation and contestation. Encoded information provides villagers with a range of access claims and use rights that may not necessarily indicate ownership of places as such.

Toponyms and people: Mapping demography and encoding claimed places

I now turn to places named after specific persons, and how these places reflect the social geography of the islands and, to a certain extent, the negotiated territorial arrangements of villagers. In several instances, naming a place designates proper names of users of resources, which may or may not predict forms of ownership or rights of a person to a place. First, it may simply be (1) a way of recognising a person's occupancy, not necessarily ownership, of a place, (2) a marker of a preferred site for fishing, gleaning or transit, or (3) a token of acknowledgement of a person's 'discovery' of a site. Second, places may be named after persons to designate ownership of a place from which emanates a degree of territorial control and a range of rights. Apparently, the scale of production technology and the ties of a particular resource to commercial markets other than for subsistence influence the degree of territorial claim and character of relations of ownership. With either of the two possibilities mentioned above, named places in Batasan include reef patches, shoals, passageways, natural geo-ecological features, and sites of fish corrals (bunsod) and fish shelters (amatong). I offer examples below to illustrate these two possibilities.

Mapping demographic history: Remembering ancestors, acknowledging occupancy

As mentioned earlier, two submerged reefs off Batasan carry the names of two fishers from the island who chanced upon them in the 1920s and 1930s: Takot Emong and Takot Adring. Two shoals, Awo Tiyay and Awo Kalda, were named after two of the island's women gleaners, Tiyay and Kalda, respectively, who were often seen gleaning shells on the sites, specifically during the 1950s until the 1970s. Awo Tiyay is preferred by double-gill net fishers and reef gleaners, particularly those collecting Noble Tugonia white clams (*tambayang*). It is also frequented by Batasan residents to extract sand and dead corals, which they use as construction materials for their houses, rainwater tanks, and a fish shelter called

Batong Keloy (Keloy's Rocks) is a site claimed by a resident of Batasan named Keloy (Tranquilino Ingente). Keloy piled up corals which formed the base of his hut (*payag*) where he kept watch over his fish corral. The hut he constructed on this pile of corals served as a resting place (*pahulayan*) for fishers, particularly reef gleaners and torch or lantern fishers. Batong Keloy was also fondly called *dangpanan*, which means a place sought for rest, temporary shelter or protection. Keloy has long passed away. The pile of corals was allegedly collected by residents of nearby Ubay Island. There are no more any indications that the site had once been the site of a fish corral and way station of fishers.

Bakhaw ni Fausto is a site where mangroves planted by another Batasan resident, Fausto Pongcol, are located. This short strip of mangroves served as a marker for Fausto to help him identify his location in the sea. He planted these mangroves to aid him in his fishing because, at that time, he was starting to lose his eyesight.

Neither the above-identified fishers and gleaners nor any member of their families claimed the reefs, shoals or fishing grounds near these sites. Having them named after these persons by their contemporaries did not confer on them or any of their relatives and descendants any special privilege or entitlement to the use of the fishing ground or gleaning area. Fishers from Batasan and nearby coastal and island villages have access to the sites without any need to seek their consent. In fact, Emong, Adring and their descendants willingly gave instructions to fishers on how to locate 'their' reefs, providing them with landmarks that best identify the sites. Tiyay and Kalda had also accepted gleaners from the island and other villages into their namesake shoals.

The shoals of Tiyay and Kalda, moreover, were favourite sites of Batasan residents for their fish shelters called *amatong*, which are best located in tidal areas with a sandy bottom that remain filled with seawater even at low tide. An *amatong* is a loosely knit structure of mangrove branches, and corals, rocks or stones. Because not much capital is needed to construct this type of fish shelter, almost anyone can engage in this method of fishing. Grouper fingerlings (for mariculture grow out) are the most common harvest.

A female Batasan owner likens the *amatong* to a piggy bank (S. Mejares, personal communication, 2004). She compares the maintenance of the unit to how a farmer maintains his rice fields to ensure a good

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harvest. Regardless of economic standing, anyone can maintain this kind of fish shelter provided one is hardworking enough, because a person needs to invest time and patience to make it work. Every other day, an owner has to check if the rocks are properly in place, and clear the shelter of any debris that may gather or accumulate over time. Wave action may dislodge the rocks, close the shelter, and trap the fish inside. In some cases, wave action may dislocate the rocks and ruin the shelter. Maintaining a clean *amatong* lures fish to stay inside it. "You will like it if you are industrious; you will loathe it if you are lazy" (S. Mejares, personal communication, 2004).

Amatong owners in Batasan were not required to ask permission from Tiyay and Kalda to construct their units on their namesake sites. Fishers, however, have gradually shifted their *amatong* sites nearer their residences (Figure 2) because of past incidents of poaching and fishing using cyanide (*koskos*) or natural poison (e.g., *tubli*) by local residents and fishers from other islands. At present, most of these fish shelters are hidden in mangrove tidal flats, although Awo Tiyay continues to be a preferred site for some *amatong* owners in Batasan.

All anchoring sites in Batasan remain nameless, except for two named after residents of Batasan (Dunggoanan ni Tayong or Tayong's Anchoring Site and Dan Oro or Oro's Path). Anchoring sites in Batasan are called *dunggoanan*, and the term provides a clue about the nature of these sites. Generally, the term *dunggoanan* connotes relative transience. The term suggests the temporary anchoring of a fishing vessel or boat, and connotes the vessel's continuing or continuous transit. It is a point used by people transiting in an area. A *dunggoanan*, in this regard, suggests a brief interval of rest (N. Javier, personal communication, 2003).

The use of Batasan residents of the term *dunggoanan* reflects the more frequent change of anchoring points, which is dictated by the natural ecological feature of the island. A fisher in Batasan frequently changes his boat's *dunggoanan* as the tide changes. As the tide recedes, he has to tow the boat farther from the shore. Every hour or so, the anchoring site changes as the tide continues to ebb. During low tide, the farthest anchorage is on the reef crest about 150-400m from the island. The reverse is true during the flow of tide. The anchorage gets closer to the house as the tide enters. The anchoring site during high tide is eventually right against one's house. This anchorage, however, lasts only a while as the tide turns in three or four hours.

I have mentioned earlier the presence of fish corrals (*bunsod*) on some sites in Batasan. Let me briefly discuss here the operation of fish corrals before I proceed with other aspects of named places to illustrate the dynamic of marine rights among islanders with respect to the use of sites for this particular fishing device.

A fish corral is a guiding barrier constructed of bamboo and nylon nets or chicken wire, which are set by means of regularly spaced stakes or posts in tidal waters or along the natural paths of fish. Fish corrals are variously shaped so as to direct the movements of fish into a chamber or desired area (Dugan *et al.* 2003; Umali 1950). Fish corrals are named after the recognised owner of the device.

There are two types of fish corral: the permanent trap and the mobile type. A permanent fish corral, locally called *bunsod pasagad* or *bunsod dumpil*, is usually set in deeper portions of the inter-tidal zone. Because of its large size, only persons with enough capital can initiate and sustain this type of fishing. It was popular in the Philippines from the 1940s until the 1980s. The decline in its popularity was mainly due to increasing capital costs and the introduction of new methods of fishing (Eggan *et al.* 1956; Thomas 1999). The mobile type or *bunsod ponot*, on the other hand, is smaller in size and, thus, requires less capital. It is constructed in shallow waters, stays there for two to seven days, and is either moved to other sites or rested for a few days for cleaning and repair.¹¹ Mobile fish corrals continue to be popular among some fishers in Batasan.

¹⁰ Unless indicated otherwise, data in this section about fish corrals were from interviews with residents of Batasan: A. Dolera (2005), F. Lariba (2005), S. Oldenaria (2005), A. Rebucas (2005a, 2005b), S. Rebucas (2005), and S. Tulang (2005). Except for Lariba and Tulang, all interviews are or have been corral fish owners, all of whom have held or been appointed local political positions in the past.

¹¹ Umali (1950) provided no clear distinction between *dumpil* and *ponot*. He described the *bunsod-dumpil* in the Visayas as generally referring to fish corrals that were semicircular in shape and consisted of two strips of split bamboo matting, while the *ponot* was the general term used for various types of fish corrals in the Visayas and Palawan. In Ubay, however, a coastal municipality in northeast Bohol, the *dumpil* of the pre- and post-WW2 period referred to small mobile fish corrals (Umali1950), while my informants from Jandayan Island in Getafe, Bohol describe their *dumpil* as the permanent type and their mobile-type fish corral they call *ponot*. These distinctions need to be made clear so as not to create confusion with other studies that may interchange the use of these terminologies for the different types of fish corral. For variations of fish corral in the Visayas during the American colonial period, see Aguirre (1916), Capistrano (1915), Kangleon (1916), Locsin (1915), Palencia (1915), Tingson (1916) and Torralba (1916).

In Batasan, sites with permanent fish corrals are sometimes called *tan-anan*. These areas cover the intertidal zone, principally the tidal flats on the shore, at times extending to the reef crest and fringes, particularly those that are near sea channels or on sites where schools of fish are known to pass or congregate. These sites are generally off-limits to other fishers, but fish corral owners sometimes allow other fishers access to the site depending on various circumstances.

Mobile-type fish corrals do not provide owners of the device with territorial control over sites where they are set. Permanent fish corrals, on the other hand, require permits for their operation. As mentioned earlier, a fish corral owner pays an annual fee at the municipal fisheries office. The owner enjoys some form of territorial control on portions of the fishing ground near his or her fish corral. The presence of permanent fish corrals on some portions of the coast means zoning off the site to some types of fishing, especially structures that may block the entry of fish into the corral's chambers. Although no specific measure of distance applies, the principle behind an owner's imposed restrictions is to secure the potential gains that could be derived from this form of fishing.

For example, the mobile-type of fish corral is not allowed to be set up near the permanent corral. Set gill nets (*pokot pahubas*), an impounding net that filters the catch during the receding tide, should also be set far from the structure. Spear fishers are allowed near a fish corral only during the receding or low tides (*hunas*). During high tide (*taob*) at any time of the day or night, spear fishers, gill net fishers (*mamokotay*) and lantern fishers are prohibited from going near a permanent fish corral, but those using hook-and-line (*pasol*), considered a passive method, may fish near the structure. Owners also allow gleaners to gather shells and other species near their fish corrals.

While these restrictions are not indicated in permits issued by the municipal government, islanders recognise these 'rules' imposed by owners. Not everyone, however, agrees with these prohibitions. They recognise the proprietary rights extended by the municipal government to operators on the sites of these permanent-type fish corral structures, but they contest the assumption of 'rights' by owners on sites *near* corrals. It is also a common practice in Batasan that apart from access and control of these areas, family members of fish corral owners are extended entitlements to 'inherit' rights to the site.

Aside from being a gauge of economic status, fish corral

ownership is also an indicator of village-level political hierarchy. In Batasan, present owners are mostly village officials or those who have held some form of political authority in the past.

Conflicts arising from a contestation of rights near fish corrals, nevertheless, are rare in Batasan, perhaps because islanders tend to negotiate fishing arrangements with operators of permanent fish corrals, in spite of the latter's assumption of 'rights' to these sites. In cases of disputes, they usually settle the issue among themselves or bring the case to the village council in situations where conflicts seem irreconcilable among parties involved.

One controversial fish corral site in Batasan, which I have mentioned earlier, lies on a reef crest opposite the MPA site (Figure 4). This site is now named Bunsod Tiago, after its owner Santiago. There is a long-running conflict over this site among different families in Batasan, who are all socially regarded highly by islanders by virtue of their economic and political standing. The conflict dates back from shortly after World War II, and continues unresolved among involved parties, in spite of the intervention of the municipal mayor in 1989 to resolve the conflict.



Figure 4. The guardhouse of the Batasan marine protected area (right) and a fish corral named Bunsod Tiago on a highly contested site on Batasan reef at low tide (Photo by E. R. Guieb III, 2005)

Prevalent in conflicts over fish corrals is theft of fish from the collection chambers committed by villagers and residents of other villages. Conflicts ensuing from these incidents have, in some instances, led to violent clashes between families, with some family members resorting to physical harm against those suspected of or caught stealing the harvest. Owners constantly keep watch over their fish corrals, particularly when harvest time is near. They spend the night on their boats anchored near their property to protect the catch. Not only are fish

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corrals vulnerable to theft; fish cages, increasingly popular among entrepreneurs in the island, have become targets of poachers as well. Thieves strike at the moment an owner lets his guard down. Theft is done underwater. Thieves usually slash the submerged nets of the collection chambers, and scoop the catch or let the fish swim to their nets. In most cases, not all the fish are collected, in order to escape notice. During the fieldwork, three incidents of poaching on fish corrals and cages were reported in Batasan. No one was apprehended as owners failed to identify perpetrators of these thefts. Our diving team was requested twice by owners to inspect the corral's or cage's collection chambers for any damage in the submerged nets.

One alleged poaching incident in August 1990 turned violent, leading to the killing of the suspected thief and another member of his family.¹² The case involved two families who are distant relatives. Family X found out that someone had slashed the net of the chamber of their fish corral. They suspected a member of Family Y of being the perpetrator of the theft. The suspect was once apprehended for illegal fishing by a son of the household head of Family X, who was a fish warden deputised by the municipal fisheries office. Family X suspected that revenge by Family Y could have been the motive behind the theft. On their way home after inspecting their fish corral, the fish warden, his father and two brothers ran into an uncle of the suspect, who teased the four for openly carrying a shotgun. The remark infuriated one of the brothers of the fish warden. Tempers flared, and a verbal tussle ensued. Fearing for his life, the suspect's uncle ran away, but one of the brothers of the fish warden caught up with him, and shot him in the chest. Meanwhile, the suspect, who had received the news about the shooting, lay in wait for the four, ready with his fish blasting device, but missed his target when they passed by him. He ran inside his house, picked up a knife and wounded the fish warden who had run after him. The fish warden, younger and stronger, was able to grab the knife from the suspect, and stabbed him several times in the stomach. It was only then that neighbours were able to intervene in the scuffle. Two members of Family Y-the suspect and his uncle-died a gruesome death at the hands of Family X. Those involved in the crime served their sentence, but Family Y believes that the punishment was not enough to repair the wrong committed by distant relatives.

¹² Because of the sensitive nature of the case, I am withholding the identity of my informants and the parties involved in this incident.

Summary: Contextualising rights in delineated environments

I have shown in this essay that the knowledge that villagers of Batasan have about the distinctive features of their marine environment results from, and is likewise informed by, a history of localised experiences of accessing these places. Many places, named or unnamed, may not exhibit strong individual claims of rights, but village codes of access and exclusion mark the use of resources found therein. Islanders' knowledge of the physical geography of their places generates a map of their social environment that configures zones of production, extraction and exchange upon which certain rights are exercised. At the same time, rights to claimed territories, which can likewise be named or unnamed, arise from and give birth to village-level economic and political differentiation among individuals and groups. As in many islands and coastal villages in the Philippines, distinctions are found in the particularities of owning or controlling parties and in the scale of extraction or production (Jacinto and Castro 1994). The essay likewise emphasised the particularities of place-specific and time-circumscribed particularities of the construction of both named and unnamed places in Batasan. These particularities influence access to and control of the resource base. The environmental map of the islands, in this sense, is a cartography of rights that is produced by-and also produces-the political, economic and social topography of the villages.

Coded referents also apply to places that have no direct economic value. Historically significant places and those that are named mainly on the basis of their ecological and physical features or characteristics are often linked, in some ways and to a certain extent, to their economic value. Perhaps what needs further exploration is how, when and why islanders confer names on sites that are not exclusively bounded by their concomitant economic potential, but primarily or generally associated with, for instance, an environmental ethic other than the economic. Such an investigation challenges us to account for the other "ontological foundations of human practice in the world" (Hviding 1996: 180) situated within the specificities of a place. In this way, we establish the complex interconnection, not the dichotomy, between nature and society (Descola 1996, Escobar 1999).

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