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The Batanes Islands, Their First Observers, and Previous Archaeology

Peter Bellwood and Eusebio Dizon

The project reported on in this monograph has been concerned with the archaeology of the Batanes Islands, an archipelago that must have been settled quite early in the process of Austronesian dispersal from Taiwan southwards into the Philippines. A multi-phase archaeological sequence covering the past 4000 years for the islands of Itbayat, Batan, Sabtang and Siayan is presented in the following chapters, extending from the Neolithic to the final phase of Batanes prehistory, just prior to the late 17th century arrivals of Jirobei, William Dampier, and the first Spanish missionaries. So far, no traces of preceramic settlement have been found in Batanes, but the archaeological sequence there from the Neolithic onwards, like that in the Cagayan Valley in northern Luzon, is now one of the best established in the Philippines. This chapter opens the volume with a review of pertinent aspects of Batanes natural history and ethnohistory.

The archaeological research reported upon in this publication grew out of the Asian Fore-Arc Programme, established by Atholl Anderson in 2001 as a research initiative of the Centre for Archaeological Research at The Australian National University in Canberra. The programme was funded from 2002 to 2004 by The Australian Research Council, the National Geographic Society, and by the former Faculties Research Fund and the Department of Archaeology and Natural History at ANU. The initial research team on the first Australian Research Council grant comprised Atholl Anderson, Peter Bellwood, Janelle Stevenson and Glenn Summerhayes from ANU, working in collaboration with Eusebio (Bong) Dizon from the National Museum in Manila and Victor Paz from the University of the Philippines, together with graduate students from both Australia and the Philippines. The Asian Fore-Arc Programme was concerned with the prehistoric archaeology and palaeoenvironments of the arc of large islands, including the Ryukyus and the Philippines, that forms the boundary of the subtropical to tropical western Pacific. Between 2002 and 2004, Asian Fore-Arc Programme archaeological projects were undertaken on Batan, Sabtang and Itbayat Islands. Some of the results of this first phase of research, including the first excavation at Sunget on Batan and the palynological research of Janelle Stevenson at Paoay Lake in Ilocos Norte (Luzon), have already been published (Bellwood et al. 2003; Szabó et al. 2003; Anderson 2005; Bellwood and Dizon 2005, 2008; Stevenson et al. 2010).

After 2004, when the Asian Fore-Arc Programme terminated, the research in the Batanes Islands continued under the direction of Peter Bellwood, Bong Dizon, Marc Oxenham and Janelle Stevenson, using further grants from the National Geographic Society, the Australian Research

Council, the Chiang Ching-Kuo Foundation (Taipei), and the Australian Institute of Nuclear Sciences and Engineering (the latter for AMS C14 dates). Important results from this more recent phase of research have been the identification of initial settlement in Batanes by 4000 years ago in Torongan and Reranum caves on Itbayat; investigation of 2500–2000 year old jar burials at Savidug on Sabtang; and some remarkable information about the exploitation of Taiwan nephrite in the Batanes Islands, especially ear pendant manufacture at Anaro on Itbayat (Hung 2005, 2008; Hung et al. 2006; Iizuka and Hung 2005; Iizuka et al. 2005, 2007; Hung et al. 2007; Hung and Bellwood 2010, Bellwood, Hung and Iizuka 2011). Several overview articles have also been published on Batanes archaeology in comparative perspective (Bellwood 2005, 2006, 2007a, 2011a; Bellwood and Dizon 2005, 2008; Bellwood et al. 2011). In addition, Shawna Hsiu-Ying Yang (2006), Hsiao-chun Hung (2008), Alexandra De Leon (2008), Mary Clare Swete Kelly (2008) and Fredeliza Campos (2009) have all completed postgraduate theses on aspects of the Batanes research (as listed in the Preface).

The purpose of this monograph is to detail the research results from all the Batanes sites investigated, with a discussion of the artefacts and economic indicators found and the implications for the overall course of Batanes and Island Southeast Asian prehistory.

The Batanes Islands

The Batanes Islands lie on the northern edge of the tropics, 150 km from the southern tip of Taiwan and 200 km from the north coast of Luzon (Fig. 1.1). They are separated from Luzon by the Balintang Channel and the Babuyan Islands, and from Taiwan by the open sea of the Bashi Channel. The group consists of three inhabited islands; dumb-bell shaped *Batan*, 18 km long and the most densely populated island of the group; 10 km long *Sabatang*; and 18 km long *Itbayat*, wider than *Batan* and the largest island in land area. There are also a number of small and now-uninhabited islands, of which *Ivuhos*, at 4 km long, is the largest. A chain of uninhabited islands also extends north of *Itbayat*, and research was undertaken on the southernmost of these, *Siayan*, in 2006.

The Babuyan and Batanes Islands belong to a double volcanic arc, the two arms of which run 50 km apart in the Babuyan Islands, but converge in the Batanes (Yang et al. 1996). The western arc formed before 3 million years ago as a submarine line of subduction volcanoes, since which time its four islands – *Itbayat*, *Sabatang*, *Ivuhos* and *Dequey* – have been uplifted above the sea, eroded, mantled with reef coral, and then uplifted again during the Pleistocene. The geologically younger eastern arc contains *Batan*, *Diogo* and the islands north of *Itbayat*, all created as emergent volcanoes during the Pleistocene (<2.58 mya), with *Mt Iraya* on *Batan* remaining violently active until as recently as 1500 years ago (Richard et al. 1986, and see Chapter 3). Consequently, the islands of the eastern arc, especially *Batan*, have fertile volcanic soils with some coastal areas of raised coral. Those in the more ancient western arc have weathered volcanic rocks with more widespread uplifted coral limestone.

In terms of the human environment, *Batan* is by far the most fertile island in the group, particularly its central “neck” between the *Iraya* and *Matarem* volcanos. Here, a remarkable patchwork of small hedged arable and pasture fields stretches right across the island from coast to coast (see Fig. 3.2). Most of the *Batan* archaeological sites occur in this area, or around the coastline like the modern settlements. *Iraya* itself is entirely under forest and uninhabited, as is *Matarem*. Much of central *Batan* was mantled by fresh volcanic ash from an eruption of *Iraya* around 1500 years ago, discussed further in chapter 3.

Sabatang has a similar volcanic landscape to much of *Batan* but the terrain is more ancient and weathered, thus the soils are less regenerated by the fertile ash showers that underlie the rich landscape of central *Batan* (see Figs 4.2, 4.3). *Itbayat* and *Ivuhos*, by comparison, are less fertile again, with undulating uplifted coral limestone or eroded volcanic interiors. However, much of the surface of *Itbayat* is still quite suitable for swidden farming and pasture, whereas the small

uninhabited Dequey is completely barren limestone and only supports a few goats today, as it did when William Dampier visited in 1687. Itbayat has only two small settlements, both in interior depressions away from the harbourless coastline with its sheer limestone cliffs.

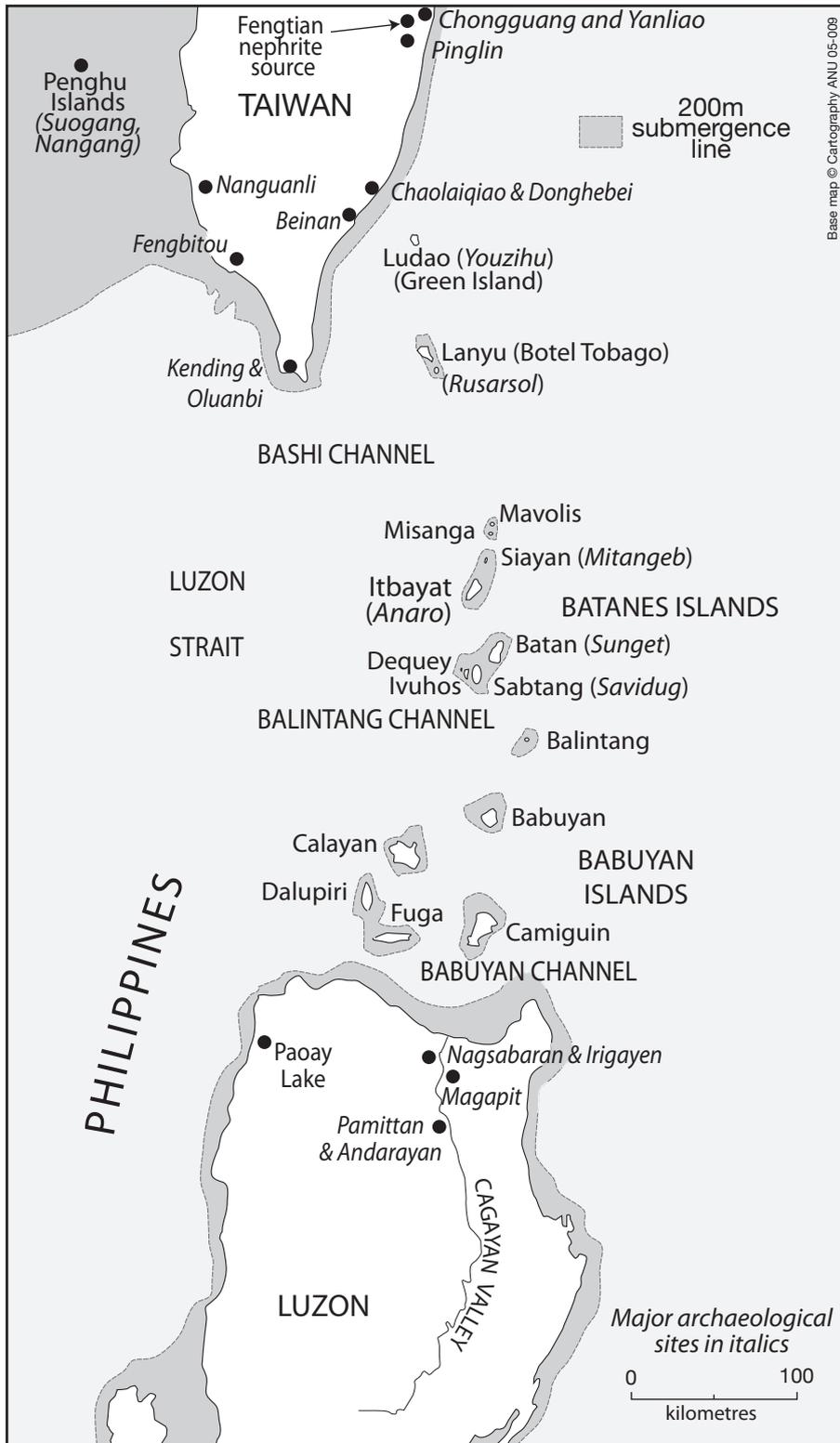


Figure 1.1. The Batanes Islands, showing their strategic location between southern Taiwan and northern Luzon.

Source: Map preparation by ANU College of Asia and the Pacific, CartoGIS.

On a clear day, the islands all the way from the northern Batanes (Mavolis) south to Luzon form an intervisible chain. From Sabtang, for instance, Babuyan Island (843 m high) is very clear across 80 km of ocean (personal observations, June 2007). Lanyu, off southeastern Taiwan, and Mavolis, the most northerly of the Batanes, are 100 km apart. Lanyu rises to 548 m and Mavolis 211 m, so it is possible that they could also be intervisible in clear conditions. Indeed, Hsü (1982: 14) quotes an 1801 missionary to the effect that Lanyu was visible on clear days from somewhere unspecified in Batanes (perhaps Mavolis Island, or somewhere on the northern flank of Iraya on Batan, which rises to 1009 m above sea level). If this is correct, then there would have been a chain of inter-island intervisibility in clear weather all the way from Taiwan to Luzon, since Lanyu is visible from Taiwan and Luda Island.

Because the Batanes are situated in the ocean strait between Taiwan and Luzon they tend to have rough seas and windy weather for much of the year, with prevailing winds from the north in the northern hemisphere winter (January) and from the south in the summer (July). Typhoons occur in late summer. William Dampier's ship (see below) was forced from its Ivuhos anchorage in early October 1687 (late summer) by a violent storm and blown out to sea. He was not able to return to the island for 6 days. Since the Batanes Islands lie at almost 21°N the winters are relatively cool, with average daytime temperatures just above 20°C, rising to an average in the upper 20s in the summer. Rainfall is very low from February to May, and peaks from August to October.

The warm Kuroshio current flows northwards up the eastern coastlines of the Philippines and Taiwan. This would have made paddling or sailing from Taiwan into the Batanes perhaps difficult at times. Indeed, Solheim (1984-5:81) believed that it would have ruled out completely any significant attempts to travel by boat from Taiwan to Luzon. However, this current produces surface counter-currents offshore from eastern Luzon (Isorena 2004), and presumably its rate of flow and longitudinal position undergo some variation throughout the year. Furthermore, there are documented drift voyages from Japan to Batanes, discussed further below, that make it clear that the Kuroshio current did not prohibit southwards movement by sea all the time. The Batanes Islands are also protected from the full force of the current by the north-eastern coastline of Luzon, and the Batanes archaeological record to be discussed makes it perfectly obvious that voyages to and from Taiwan and Lanyu must have occurred frequently in Batanes prehistory. Sailing south from Taiwan and approaching Itbayat or Batan from a north-westerly direction would presumably have taken sailors/paddlers away from the full head-on flow of the Kuroshio current.

The Batanes would have been forested before human arrival (Valerio 1995-7), but we are unable to locate any systematic reconstructions of either Batanes flora or fauna in prehuman times. Despite a great deal of "received wisdom" in the older literature that the Batanes and Babuyan Islands were part of a Pleistocene land bridge from Taiwan to Luzon, there is absolutely no geological or faunal evidence to demonstrate that this was ever the case (Heaney 1985; Bellwood 2007b). Sea bed depths in the Bashi channel attain at least 1000 metres – clearly far too deep to have been affected in terms of a land bridge by Pleistocene sea level fluctuations.

As in many of the similarly-isolated small islands of eastern Indonesia, we would expect the Batanes terrestrial mammal fauna to have been restricted to rodents and bats before human occupation – the distances from Taiwan and Luzon would have been too great even for wild pigs to swim across (Meijaard 2001). Pigs were certainly present in Batanes during human prehistory, presumably of an East Asian mtDNA lineage also found in Taiwan and elsewhere in the Philippines (Larson et al. 2007; Piper et al. 2009, and see chapter 10), although it has not yet been possible to extract and amplify ancient DNA samples from the organically degraded matrices of suid bones. Ethnographic accounts refer to a presence of deer in Batanes (Hidalgo

1996:64-5), but since neither Jirobei nor Dampier (below) referred to deer in their 17th century accounts it is unlikely that these animals were part of the native Batanes fauna. Perhaps they were humanly translocated from Taiwan or Luzon, and a few deer bones are reported from Batanes archaeological contexts (chapter 10), although none exist in Batanes today. A Japanese account of 1830 (Yamada 2007:333) also refers to monitor lizards up to 1.7 m long, but none are present in the archaeological record so it is possible that people also transported them from Luzon.

Ethnography and early historical records

Unlike Lanyu (Botel Tobago) Island off southeastern Taiwan, and Mountain Province in Northern Luzon, we have few detailed records of traditional native life in Batanes that can aid archaeological understanding. Most information is anecdotal or derived from vague missionary observations. A rather glaring example of this can be found in the huge compilation of historical documents on the Philippines by Blair and Robertson, in which it is stated (1903-9, Vol. 39, page 97, footnote) that “the present population of the Batanes is composed very largely of Ibanag from the Cagayan Valley (Luzon), introduced there as colonists by the Dominican Friars.” In actuality, the Ivatan (Batan and Sabtang) and Itbayaten populations, like the Yami of Lanyu, have their own languages and customs and would perhaps be disappointed to read such an offhand dismissal of their cultural background.

As Malcolm Ross (2005; and in Bellwood et al. 2011) points out, the Batanic languages are Malayo-Polynesian, and thus belong to the single extra-Taiwan subgroup that contains all Austronesian languages, apart from those in Taiwan. But they do not subgroup uniquely with any other Malayo-Polynesian languages, nor even with the languages of northern Luzon. This makes it likely, but without absolute demonstration, that the Batanic subgroup represents a very early, perhaps even initial, split at the base of the Malayo-Polynesian genealogy. However, the three internal member languages of the Batanic subgroup - Ivatan, Itbayaten, and Yami of Lanyu – are between themselves quite closely related, suggesting the reality of mutual contacts over a long period subsequent to initial settlement. Yami, indeed, appears to be an outlier of Batanic speech adjacent to the Taiwan mainland, and as such it has probably replaced an earlier (Formosan and non-Malayo-Polynesian?) language on the island.

There exist two absolutely invaluable 17th century eye-witness ethnographic documents about Batanes, one British and one Japanese. The first was penned by the English navigator and “privateer” William Dampier, who visited the Batanes in August-September 1687 (Blair and Robertson 1903-9, Vol. 39, pp. 95-112). Dampier arrived first off Batan, which he called Duke of Grafton’s Isle, and recorded the presence of “abundance of inhabitants” in at least four “large Towns”. At that time, both Batan and Sabtang were thick with terraced and defended settlements on hill tops and ridges, some apparently inland and some coastal, protected wherever possible by “precipices”. These defended sites are today termed *ijang*, and several have been investigated archaeologically (e.g. Savidug *ijang* on Sabtang, described in chapter 4). Unfortunately, Dampier did not record the precise locations of any of these towns, although some doubtless survive as archaeological sites today. The only one that is identifiable from Dampier’s account is Chuhangin *ijang* on Ivuhos Island (called Bashee Island in 1687), described as lying “with its back next the Sea” and discussed further below in this chapter. Dampier commented that he saw no signs of artificial defences in any of these “towns” and suggested that all the precipices were natural, as indeed they clearly are when observed today. However, he did not comment on the many still-visible house terraces, often reinforced by dry stonework. These terraces were accessed by ladder from below. Dampier noted that houses, built in lines on the terraces, were quite low (for wind resistance?), built of posts and boughs with plank floors, and so rather different from the stone-walled house style, introduced by the Spanish, that is traditional in Batanes today.

Dampier also stated that Itbayat (Prince of Orange's Island) was not inhabited. But since he did not land there he was not to know that all the inhabitants then, as now, probably lived in the interior, invisible from the sea. Presumably, his informants on Batan and Ivuho were reluctant to lose the benefits of a visiting European ship and so kept quiet about the matter. Dequey was uninhabited and used already for goat pasture, since Dampier named it Goat Island. The islands north of Itbayat were not mentioned by Dampier, but were presumably only visited by fishing parties and without permanent populations, as now.

Dampier was clearly a very keen observer of native life, like the Pacific navigator James Cook a century later. Like the Pacific peoples observed by Cook, the Batanes people were "greedy" for iron, a metal in great demand for "Hatchets" and "Utensils". Iron tools were apparently often given as a community dowry to a young groom to enable him to establish a house and farm for his family upon marriage. The inhabitants also had access to low-grade gold for making earrings. They grew bananas, pineapples, pumpkins, sugar cane, yams, cotton, and "Potatoes", a term which surely referred to the sweet potato, or *camote*, already introduced like the pineapples and pumpkins from South America to the Philippines by the Spanish during the sixteenth and seventeenth centuries. Rice was not seen growing, and no cattle or water buffalo were mentioned, even though they are universal as livestock today. Indeed, Dampier commented that buffalo hides for body armour had to be obtained from strangers, possibly from Luzon, whence he thought their iron might also have been obtained. Goats and pigs abounded, but poultry were rare. Culinary delights included fish cooked "with a very savory Stink" in the stomach contents of goats, and roasted locusts that fed on the sweet potato leaves in the fields. Sugar cane wine (*basi*) was widely consumed, as now.

Interestingly, Dampier observed no signs of religious activity or social ranking, save perhaps for the burial alive of a thief that he claimed to have witnessed. Batanes sea craft in 1687 appear to have been similar to those in use today, without outriggers and built using planks, dowels and nails, the latter presumably of iron. Dampier did not mention sails, but he did comment that the men of the islands were primarily employed in fishing. The largest boats were capable of carrying 50 people and rowed with 12-14 oars on each side. All in all, Dampier's description is a unique record of an Austronesian-speaking Iron Age society that had not yet entered the exploitative orbit of the European colonial powers.

In 2005 and 2007, we were very kindly sent translations of two further important eye-witness accounts of Batanes, dating from 1668 and 1830, by Yukihiro Yamada, a Japanese linguist who has carried out research on the Itbayaten language (Yamada 2007, Appendixes 1 and 2; see also Gaza and Yamada 1999). The most significant is an account by two crew members of a drift voyage in 1668, under the command of a certain Captain Jirobei. This commenced when they were sailing from Edo (Tokyo) for a destination in the vicinity of Nagoya, nineteen years before the visit of Dampier. While passing through the Izu Islands they were blown eastwards by a storm, then southwards and westwards until they finally landed in Batanes after 30 days of drifting. This direction is, of course, contrary to the flow of the Kuroshio Current and drives home the point that access by sea to Batanes from the north by drift or sail (and perhaps even by paddle) was not always impossible.

The Japanese probably landed in Mahatao on Batan, and the crew of 15 men was captured and made to work by the local Ivatans. After spending 16 months on Batan, from December 1668 to April 1670, they were able to escape to another village and return to Japan. Their account has points of both similarity and difference with that of Dampier. The Batanes people observed by the Japanese grew mainly root crops (unspecified) and apparently no cereals (although another part of the document states that they "plant corn"). They had pigs and cattle (Dampier did not refer to

the latter), and also dogs, horses (or so the Japanese claimed), and “sheep” (goats?). Cowhide was used for body armour. No reference was made to chickens. Iron was scarce, and old people were killed when they were no longer able to work, including the unfortunate Captain Jirobei himself. Houses were of wood with cogon grass thatch. The Ivatan also visited another island, that Yamada thinks could be Taiwan, for access to bows, guns, gold and silver, although Taiwan is not certain and another possibility would of course be Luzon to the south.

Finally, the Japanese described one remarkable and rather sobering occurrence about life in a warlike society in which each village was presumably independent of, and hostile towards, its neighbours. While they were on Batan, a war occurred from April 2 to May 10 1669 between Great Makata (Mahatao) and Sekina (Ivana). During this war, a rather incredible toll was recorded in which Mahatao lost 309 killed and 900 wounded, and Ivana lost 91 killed and 407 wounded. If we can trust these figures (could they be exaggerated? If so, why?), they are without doubt surprising for such a small island, and indicate just how crowded and stressed was the population during the late prehistoric phase of intensive *ijang* occupation, as also described by Dampier. Unfortunately, however, the Japanese account does not refer to any details of settlement areas or total population size.

Spanish missionaries had also begun to pay occasional visits to Batanes commencing in 1686, and many of them recorded observations that reflect on pre-Spanish social structure and religion (summaries can be found in Gonzalez 1966; Llorente 1983; Hidalgo 1996). Few of these accounts hold information relevant for understanding deeper prehistory, although Llorente (1983:15) comments that rice cultivation was always very marginal in Batanes owing to depredation by birds and rats, and to what she terms “the dry season”. Unreliability of annual and seasonal rainfall has been highlighted by Dewar (2003) as a major reason for the prehistoric disappearance of cereal cultivation in eastern Island Southeast Asia and the Pacific, and its replacement by more reliable tubers and tree crops. The Batanes Islands have almost no permanent water or flat alluvial land suitable for wet rice growing, but some swidden rice can be seen growing today in small plots on Itbayat and Batan in the summer (from May onwards).

Previous archaeological research in the Batanes Islands

Archaeology in the Batanes Islands was commenced by Tadao Kano, Otto Scheerer and Pio Montenegro in the 1930s and 1940s (see Beyer 1947:210-212). Most research at that time was focused on the so-called Jar-burial Culture, and Wilhelm G. Solheim II (1960) also described some late prehistoric jar burials from Batanes and Babuyan. A number of jar burial sites on Batan and Savidug Islands, investigated in our research, are described in the following chapters.

After these early visitors, Daniel Scheans and Joanne Laetsch reported surface finds of pottery from three locations near Uyugan in southern Batan (Scheans and Laetsch 1981). One assemblage, from their site 1, reveals possible parallels with the red-slipped pottery from Sunget, to be described in chapters 3 and 6. Following this, the first major archaeological research project in Batanes was carried out in 1982 by researchers from the University of Kumamoto (Koomoto 1983). This Japanese team surveyed and excavated sites across the central neck of Batan Island, between the Iraya and Matarem volcanic complexes, finding many assemblages of burial jars, sherds and other artefacts exposed on the present ground surface and in the walls of road cuttings. They apparently did not realise that many of the assemblages, especially those with red-slipped pottery, were buried under one or more layers of volcanic ash from a past eruption of Mt Iraya; their reports refer only to layers of unspecified “silt”. Several of these buried sites have been investigated in our recent

research and are discussed in the Batan chapter 3 below. One site reported by the Kumamoto team, the Sunget Neolithic site near Mahatao, was the main attraction in bringing the Asian Fore-Arc Programme team to Batanes in 2002 (Koomoto 1983:55-61; Bellwood 2007b:221).

Since 1982, there have been a number of other archaeological projects in Batanes organised by the National Museum of the Philippines and the Archaeological Studies Program at the University of the Philippines, particularly on Ivuhos, Itbayat and Batan Islands. Most have involved survey and test excavation of late prehistoric *ijang* settlements, of burials covered by boat-shaped enclosures or cairns of stones, and of further jar burials (Faylona 2003). Dizon and Santiago (1994) describe preliminary surveys in 1994 of *ijang* on Batan, Sabtang and Ivuhos, several almost certainly amongst those seen or visited by Dampier (presumably, for instance, Basco *ijang* on Batan, Savidug *ijang* on Sabtang, and Chuhangin *ijang* on Ivuhos). In 1996 and 1997, further examination took place of jar burials and boat-shaped cairns on Batan and Ivuhos (Dizon 1998-2003, 2000). Two boat-shaped cairns close to Chuhangin *ijang* on Ivuhos (the *ijang* visited by Dampier) were excavated, one covering a burial jar and the other a flexed adult male radiocarbon dated to 355 ± 70 uncal. years before present (Dizon et al. 1995-97:38; Dizon 2000). Recent stable isotope analyses of these Chuhangin burials indicates a diet based more on marine than on terrestrial protein (Garong et al. 2010).

In 1997 and 1998, excavation was undertaken at the late prehistoric stone-terraced settlement at Racuaydi (Rakwaydi) on Batan, and further survey and excavation was undertaken on Batan and Itbayat (Dizon and Cayron 1998-2003; Mijares et al. 1998-2003; Barretto et al. 1998-2003; Mijares and Jago-on 2001). A deep excavation through alluvial/colluvial deposits was also undertaken by Victor Paz at the Holiday Camp Site, near San Vicente in southwestern Batan. This latter excavation was the first time, since the Japanese visit in 1982, that archaeological materials were recovered directly from beneath layers of redeposited colluvium and volcanic ash – in this case at a depth of 220 to 300 cm below surface, in association with red-slipped sherds, charcoal, and waterlogged wood. An AMS C14 sample from this layer gave a date of AD 70-330 (Paz et al. 1998: 26; Paz 2002: 279). Apart from further National Museum surveys and test excavations undertaken in habitation sites on Itbayat during 2001 (Mijares et al. 2003), the next phase of archaeological research in Batanes has been that described in this monograph.