

# The Boats of the Tawi-Tawi Bajau, Sulu Archipelago, Philippines

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ISLAND SOUTHEAST ASIA has perhaps the greatest variety of watercraft of any culture area in the world. Through centuries of adaptation to tropical riverine and maritime environments, the people of this island world have created hundreds—indeed, probably thousands—of different kinds of boats. The primitive rafts that first transported the early inhabitants to offshore islands evolved into the sophisticated sailing vessels that allowed this population to become the most far-flung on earth before the expansion of European cultures. By the time Europeans began to venture beyond their shores, Austronesian speakers had spread throughout all of Island Southeast Asia, west to Madagascar, north to Taiwan, and east to Micronesia, parts of Melanesia, and the outposts of Polynesia.

Perusal of a map of Island Southeast Asia explains the proliferation of watercraft in this area. Thousands of islands make up the modern nations of Indonesia, the Philippines, and Malaysia, and one can sail within sight of land throughout the entire area before reaching its outer limits. The lure of these islands to the always curious human mind as well as the abundant food resources in their surrounding waters were doubtless prime motivators for the first boat-builders—as indeed they continue to motivate contemporary boat-builders. Virtually all islands large enough to accommodate human populations are inhabited, and some have been so for millennia. The separation of human populations by expanses of water, as well as the diverse currents of history that have moved through the area, has resulted in a rich mosaic of distinctive cultures. All coastal cultures of Southeast Asia are oriented to the sea, one of the prime shapers of their world view and history. Of all these peoples, however, no other is so totally committed to the sea as the boat-dwelling populations, the so-called sea nomads.

These nomadic boat-dwellers were reported by the early Chinese chroniclers who visited the waters as well as by the first European voyagers to Southeast Asia. At one time they were found in the Mergui Islands of southern Burma, near the coasts and islands of southern Malaya, along the coasts of Java, Sumatra, and Sulawesi in Indonesia, in the coastal regions of eastern Borneo, and throughout the Sulu Islands as far north as the Zamboanga Peninsula in the Philippines (Sopher

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1965). Linguistic relationships are found among most of these populations (excepting the peoples of the Mergui Islands [Palleesen 1977]), although their more precise historical relationships remain unknown. Most of these peoples have abandoned full-time boat-dwelling within this century, with the exception of the Mergui Islands people, scattered communities in Sulawesi, and the Bajau, a group of Sama-speaking people in the Tawi-Tawi Islands of the southern Sulu Islands. Few data are available on the Mergui Islands and Sulawesi people, but considerable field research has been conducted among the Bajau of Tawi-Tawi. To state the obvious, boats are central to their lives, and not surprisingly a variety of boat types is found among them.

This paper<sup>1</sup> is a description of the boats built by the Tawi-Tawi Bajau, and it includes discussions of boat construction and sailing. My intent is to add to the growing documentation of contemporary, historic, and prehistoric watercraft in the Austronesian culture area. Data were collected during six months of field research in 1963, nine months in 1965–1966, a month in 1967, a one-week visit in 1977, and a month's stay in 1982. The following discussion describes Bajau boats as they existed in the 1960s.

I began writing this paper with great reluctance. While visiting Tawi-Tawi in 1982, I realized that much of the culture I had studied in the 1960s was gone. I left with a strong sense of responsibility to write up my unpublished data on the Bajau since my data represent a bygone chapter in their history. My reluctance to write this paper stems from the realization that my data on Bajau boats are far from complete. But rather than leave the record entirely blank, I offer the following discussion of the boats of the Tawi-Tawi Bajau.

### THE BAJAU OF TAWI-TAWI

The Tawi-Tawi island group takes its name from the long, narrow island that stretches in a northeast-southwest direction for approximately 40 km in the southern Sulu Archipelago (Fig. 1). The verdant forests and volcanic peaks of the island provide a mountainous backdrop for the dozens of small, coral islands that cluster about its southern shores. For unknown centuries, its human inhabitants have lived in pile dwellings built along its coasts, and even today, except for a few notable penetrations, the interior of the island is still largely uninhabited. To the north and west of the island are the deep waters of the open sea, filled with rich fishing grounds well-known to Tawi-Tawi's seafaring population. Compared to other seas of the world, these waters are gentle, but nonetheless, during the seasons of the monsoons only the most hardy venture upon them. To the east and especially to the south of the island, the seas are shallow and filled with myriad coral islands and reefs that make navigation by large ships virtually impossible. At high tide, the waters are as varicolored as only coral seas can be, but at low tide the great sprawling reefs lie exposed. It is among these southern reefs and islands that the Tawi-Tawi Bajau have carved their unique ecological niche; their small houseboats ply the waters as regularly and as persistently as the fishes themselves.

No accurate population figures are available for Tawi-Tawi during the period under discussion, but probably 75 percent of the population is Sama, 20 percent is Tausug, and the remaining 5 percent is Chinese and Christian Filipino. Unique in the group of Sama speakers are the boat-dwellers, the so-called *Bajau*. Their most

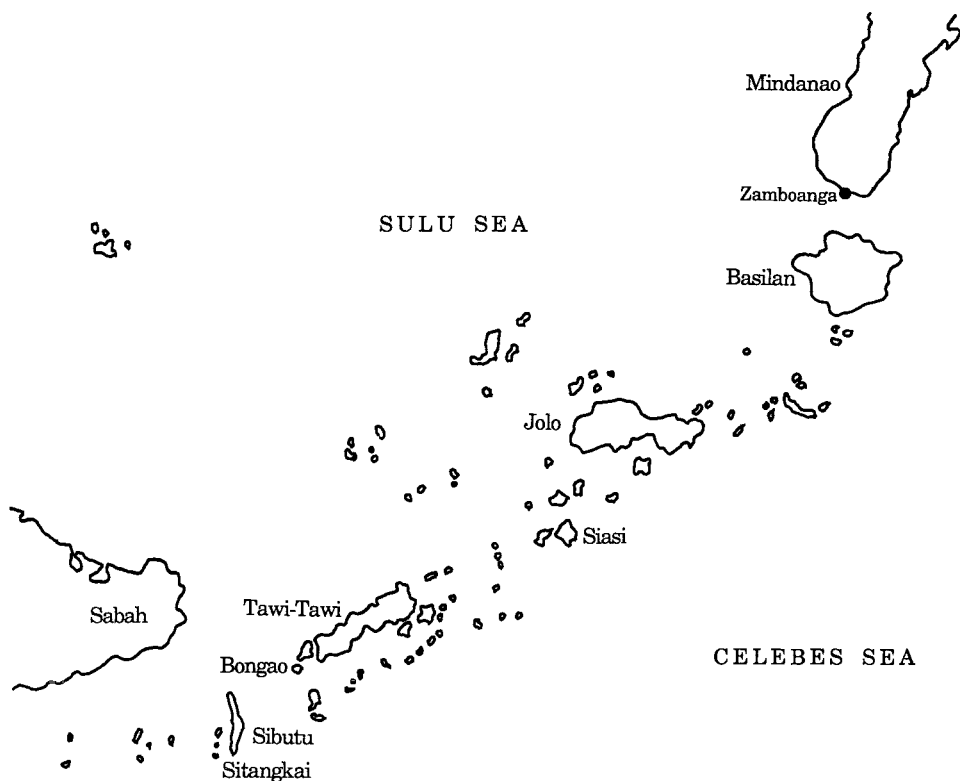


Fig. 1. The Sulu Archipelago.

obvious distinctions from the Muslim land-dwelling Sama are their boat-dwelling tradition, retention of their traditional religion, and certain physical features that can be traced to boat-dwelling. In Tawi-Tawi, the Bajau number approximately 1600 and represent only about 4 percent of the total population. Their moorages are all located in the western half of the Tawi-Tawi Islands, and except for occasional fishing trips they seldom leave these waters. The Tawi-Tawi Bajau are the most conservative of all the Sulu Sama and probably reflect much of pre-Islamic Sulu culture. Their sea-borne homes, which effectively isolate them from the land-dwelling peoples, seem most responsible for this conservatism; it is significant in this respect that other Bajau groups in Sulu who have abandoned the boat-dwelling life to become house-dwellers have become amalgamated into Islamic Sama culture. Although greatly influenced by Sulu Islam, the Tawi-Tawi boat-dwellers are still regarded as pagans by the surrounding Muslim peoples.

Lone Bajau houseboats and occasional clusters of houseboats can be seen at any time throughout the western Tawi-Tawi waters. The small groupings, however, generally consist of Bajau on fishing trips or en route to some other destination and cannot be considered permanent Bajau settlements. Five sites are recognized as regular moorages by the Bajau; they are permanent in that some houseboats are always found there, though in varying numbers. These five moorages surround the seas most commonly exploited by the Bajau (Fig. 2).

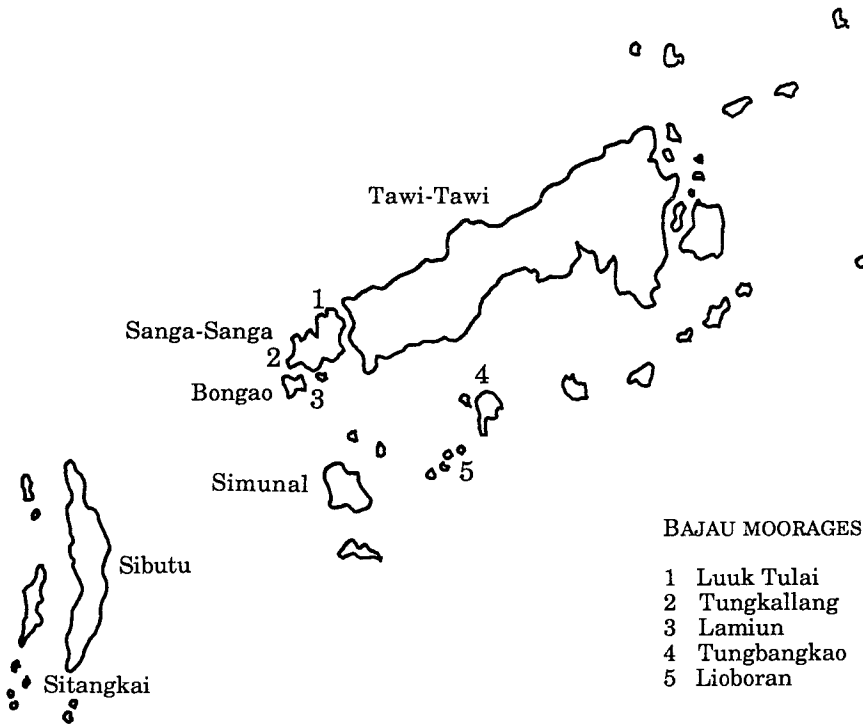


Fig. 2. The Tawi-Tawi Islands. Numbers on map show the five main Bajau moorages.

Although each of the Bajau moorages is in some respects unique, the five have several common features. Each moorage is located on a protected reef, partly exposed at low tide, which serves also as a source of edible marine life. This reef may be very small, or it may extend for several miles. Part of this exposed reef, or a nearby beach, is used for boat-building and other work by adults and as a play area by the children. Generally, several shallow channels are found among the boats, as well as a deeper channel that serves as a passage for boats entering and leaving the moorage at low tide. Throughout the moorage area, poles stuck into the reef are used for mooring the boats. Three of the moorages have from six to twenty houses where the more sedentary segment of the community lives. The Bajau are usually found only a few hundred meters from land villages, and relations between the two groups are symbiotic in nature, with the boat people trading fish for the fruits and vegetables of the land-dwellers.

The population of a Bajau moorage varies greatly at different times of the month and at different seasons of the year. Several factors account for this variation. Fishing cycles contribute to a great deal of Bajau movement. Depending upon the phase of the moon and the season of the year, fishing is profitable in different areas of Tawi-Tawi. During the full moon when net fishing is very productive in the waters of the eastern moorages, most of the Bajau are found in that area. As the moon wanes and different kinds of fishing are productive in other parts of Tawi-Tawi, the Bajau disperse accordingly. Similarly, at certain seasons of the year particular types of

fishing are profitable in certain waters, and at those times more Bajau are found in those waters. Ceremonies also contribute to much Bajau movement. Kinsmen are expected to attend one another's ceremonies, and since any Bajau's kinsmen are scattered among the five moorages, a ceremony in one of the moorages attracts visitors from the others. Usually, ceremonies are scheduled to coincide with those times of the month when many boats are in the area for fishing activities. Two small cemetery islands near the eastern moorages also account for some Bajau movement. Since all Bajau are buried on these islands, a death at any of the moorages means that an entourage of mourners must travel to one of the cemetery islands for the burial. Also, Bajau religious beliefs demand periodic visits to the graves of deceased relatives. Some moorages are located away from potable water, so during dry periods when rainwater is not available, Bajau from these moorages must travel to larger islands for water.

The nomadic territory of the Tawi-Tawi Bajau is difficult to define, since some Bajau have traveled almost the entire length of the Sulu Archipelago, while others have never been outside the Tawi-Tawi area. However, most Bajau travels are limited to the vicinity of Tawi-Tawi, and the territory most commonly exploited by a Bajau generally does not exceed 40 km in any direction from the home moorage. This territory is very limited compared to that of some Sama groups in Sulu who regularly travel hundreds of kilometers on fishing trips of several months' duration.

The Bajau houseboat typically houses a single nuclear family, an average of five people. Although this family frequently does a great deal of traveling among the various houseboat moorages, it always identifies one moorage as its home; or, if the husband and wife are from different moorages, the family divides its allegiance and time between the two moorages. Frequently, the nuclear family fishes and travels with married siblings of either the husband or wife to form the second important social unit in Bajau society, the family alliance unit. This unit reveals great structural variation and is very ephemeral since houseboats regularly join and leave the unit. Its primary function is that of mutual aid for fishing, ceremonies, and other activities that require group assistance. Each moorage consists of several of these family alliance units to constitute a group of cognatically related persons, or a localized kindred, with an older man acting as headman. At the larger moorages, several such localized kindreds may be found, and the headman of the kindred that first began mooring there serves as headman for the entire moorage. No formal political organization exists beyond the moorage level to unite the several moorages, but because of the many kin ties and frequent movements among them, the moorages constitute a single, albeit dispersed, Bajau community (Nimmo 1972:9-43).

### BOAT-BUILDING

The moorages in western Tawi-Tawi, especially Tungkallang and Luuk Tulai, both located near Sanga-Sanga Island, always have more boat-building activities than the other moorages. At Tungkallang, I once saw 11 boats under construction, while during a visit to Luuk Tulai, I observed 13 boats being built. These numbers were exceptional, however; more typically 3 or 4 boats are under construction at any one time. Three reasons seem responsible for this specialization in these moorages: (1) these waters are less productive as fishing grounds, and boat-building provides additional income; (2) the nearby islands have trees suitable for boat-building; and

(3) large logs suitable for boat-building, adrift from lumbering camps in Sabah, are often found in the nearby sea. Several boats are always found in various stages of construction at these moorages, whereas very little boat-building occurs at the other three moorages.

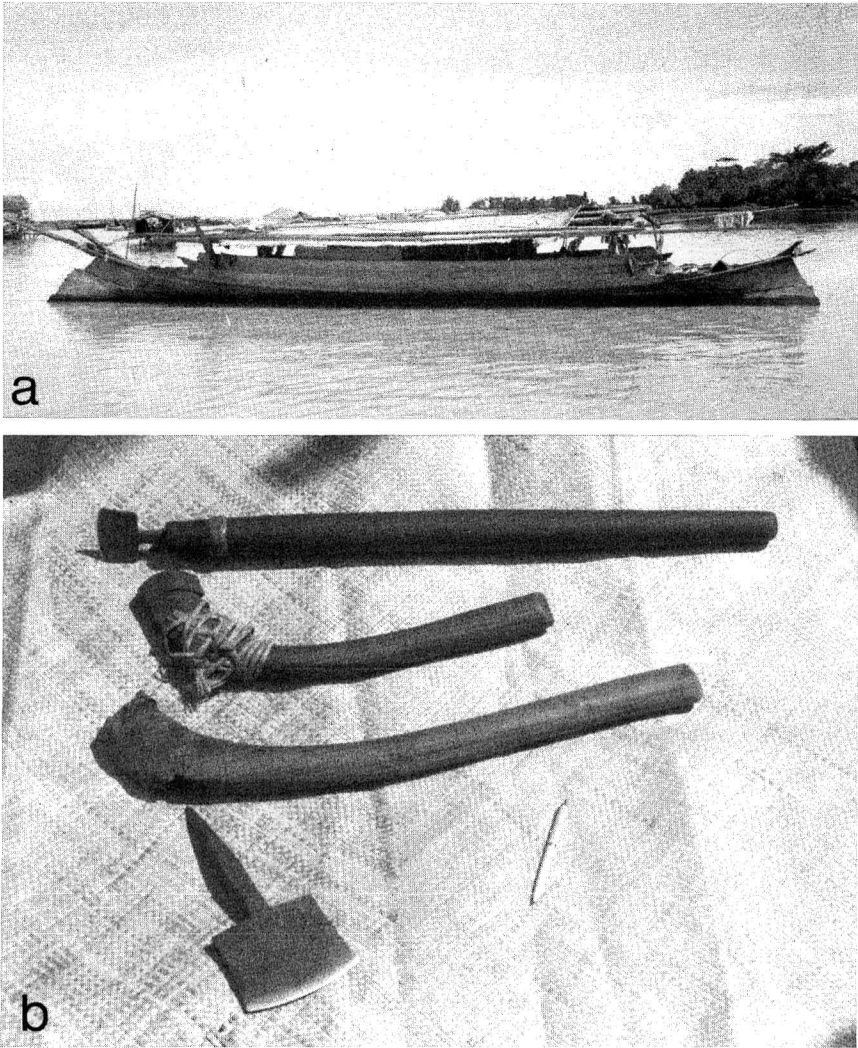
Many men build boats only for their personal use, whereas others are professional boat-builders or at least depend upon boat-building for a good share of their income. Such men sell their boats to Bajau who lack boat-building skills or to land-dwellers. Frequently a Bajau supplies all the materials to the builder, assists him in what ways he can, and provides fish to him during the construction stage. In addition, he usually pays a cash sum to the builder. Typically, the two men are kinsmen, and the cash amount is considerably less than it would be for an unrelated person. For example, it is not unusual for large *lipa* (Pl. Ia) to sell for 800 to 1000 pesos to an outside buyer. But I knew several men who assisted relatives as they built *lipa* and paid them only 150 to 250 pesos. Sometimes valuables, such as jewelry, are given rather than actual cash.

Several factors determine how long it takes to build a boat. If the builder has all the lumber he needs, does not have to interrupt his work to fish, and has someone to assist him, he may finish a large boat, such as a *lipa*, in two months. Typically, however, it takes longer. Usually all the lumber is not available initially, and after perhaps completing the hull, the builder must wait for another log to be found at sea or must search the forest for suitable timber. He often works alone and must fish periodically to provide for his family. Under such conditions, the construction of a boat may stretch to six or eight months. The smaller boats, of course, take less time.

All boat-builders I interviewed said they had learned their craft by working with others, usually their fathers, when young. And, expectedly, many of these men were assisted by their sons who will doubtless become boat-builders themselves. Thus, it is very much a family skill passed through the generations. Men tend to specialize in one type of houseboat (always the one used by their kin group), but they are usually able to construct several types of fishing boats. Among the Bajau men recognized as master boat-builders in Tawi-Tawi during my visits were Had-julani, Maisahani, Kaiyani, Suarani, Saraban, Amileludden, Lajahulan, and Sal-baiyani. All had sons of varying ages who assisted them. During my stay, two of the sons made their first small dugouts and proudly paddled them through the moorage for the first time.

Logs are frequently found at sea by the Bajau while fishing.<sup>2</sup> These are great boons to the finders since they provide the best wood for boat-building. If the finders are not interested in building, they can sell the logs to boat-builders. Finding such large logs is virtually essential to building certain types of boats, since trees of that size are difficult to find in the local forests, and if they are found, it is nearly impossible to drag them to the coast. Although rapidly being depleted, the forest is still an important source of materials for boat-building. Never does a single log found at sea provide all the wood needed for a boat, and the forest fills the additional requirements.

Most of the forested interiors of Sanga-Sanga and Tawi-Tawi islands are considered public land, and an individual may take trees from them if he buys a permit from the Bureau of Forestry. Few Bajau bother to get such permits and consequently are often fined if caught. When a Bajau needs a log from the interior, he always goes with one or two companions. Not only does he need assistance in the strenuous



Pl. I. a. *Lipa*. b. *Patuk* and handles.

labor of felling and cutting the trees, but also he feels more secure with company in the forest, which to the Bajau is a place filled with malevolent spirits and outlaws. No special ceremonies are held before entering the forest, nor for any other stages of boat-building, but most men wear *anting-anting*, amulets that they believe protect them from harm (Nimmo 1990a).

Finding a suitable tree for boat-building is no small job. The men must trek through the forest, hacking through the underbrush, until they find an appropriate tree. Often they must clear an area around the tree for space to start chopping. They then take turns chopping until the tree is felled.<sup>3</sup> Sometimes before they can cut the smaller limbs from the felled tree, they must clear away additional underbrush. Then after the trunk has been cleared of branches, a deep V-shaped groove is cut

down its length in order to split it. The trunk is rolled over (often a major job in itself), and another groove is cut opposite the first one. Wooden pegs, made from branches of the tree, are driven into the groove with a heavy mallet, also cut from one of the branches. As the log begins to split, limbs are placed in the fissure, and the peg is moved forward to drive again into the log. Additional limbs are placed in the fissure until the log is split. Not infrequently, the center of the tree is rotten and unsuitable for the keel of the boat, although usually enough can be salvaged for planks. Once I was with two men who felled and split 12 trees before finding one that was not rotten. After the log or logs have been split into manageable lengths, they must be dragged to the beach. Frequently, a path must be cut through the dense vegetation. I once saw ten men drag a large log for 1.5 km to the beach. All of this process, of course, takes several days, and frequently the men become lost for several hours while trying to find their way out of the forest, or while trying to locate the log the following morning. Once the logs reach the water, they are tied to boats and taken to the home moorage where the boat will be constructed. Acquiring logs in this fashion is perhaps the most strenuous of all Bajau work.

If a man is fortunate enough to find a log floating in the sea, he is spared much of the labor described above. The log is carefully examined by the owner, and its size and quality determine what kind of boat he will make from it. If the log is exceptionally long and of good quality, most likely it will be used to construct a *lipa* (Pl. Ia). Before beginning work, the builder often erects a sun shelter with poles that support a flimsy roof made of palm fronds spread over a lattice of poles. Sometimes a sail spread above the work area serves the same purpose. It is not uncommon for men to work during the full moon in order to take advantage of the coolness of the night hours. After deciding which half of the log will be used for the keel, the builder splits the other half into rough planks, which will be used later in planking the sides of the boat. If the log is large, the owner may get as many as three planks—about 25 cm wide and 5 cm thick—from the top of the log and one from either side. The remainder of the log will be used for the keel. Any salvageable part of the log not needed for the boat is cut into boards of varying lengths and sold in the Bongao market. Practically all the work is done with the *patuk*, a general name applied to a variety of ax-, hatchet-, and adze-like tools (Pl. Ib). The blade of this tool may be attached to a long handle and used as an ax, attached to a shorter handle to become a hatchet, twisted in the same handle to become an adze, or stuck into the end of a handle to become a chisel. A large knife, or *bolo*, is useful for some stages of the work. Sanding is done either with the rough skin of a sting ray attached to a block of wood or a piece of metal perforated with nail holes and attached to a block. A Western-style brace and bit are usually used for making the holes for the wooden dowels that attach the planks. In making the planks, the end of the log is split. A wooden wedge, cut from any convenient piece of wood, is placed into the crack and pounded with a wooden mallet, also made from any handy wood, to expand the crack. As the split is lengthened, the wedge is moved forward until the entire plank has been split from the log. After being removed from the log, the plank is hewn into an even width and thickness. It is then placed on a small pile of rocks, see-saw fashion, and large rocks are placed on both ends until they reach the ground. The plank is dampened periodically and allowed to remain in the sun several days until it is properly bowed to fit the keel. Bamboo poles for outrigger floats are bowed in a similar fashion so that the bow ends are elevated above the water line.



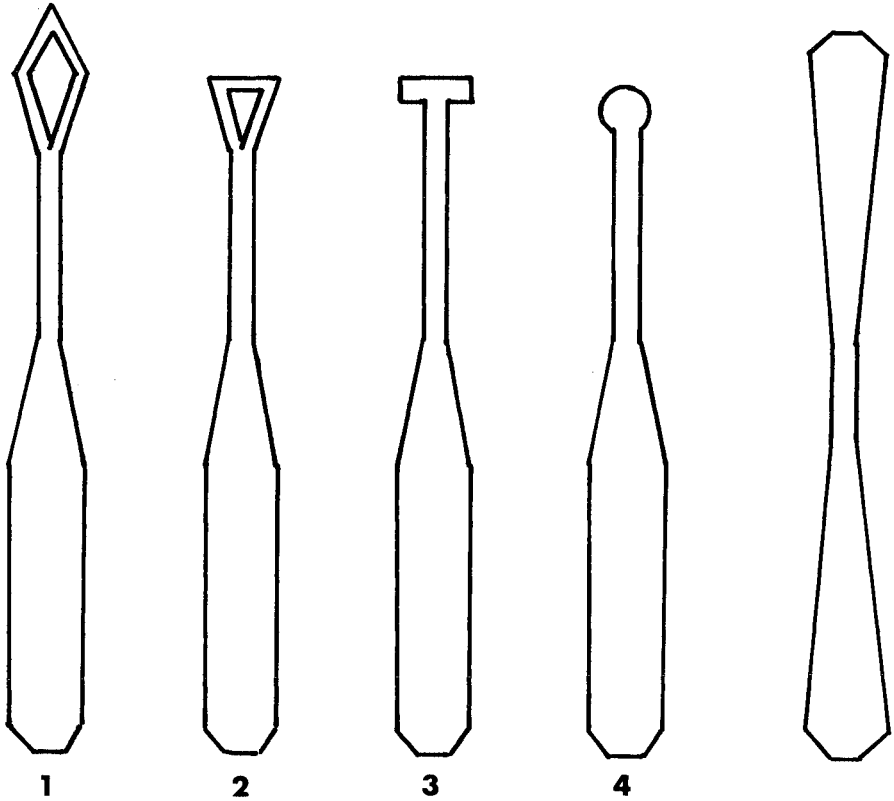


Fig. 3. Paddles: variations of the *busai* (1-4) and the *keleh*.

The keel is shaped with the *patuk*. After it has been scooped out, water is frequently placed in it (or it is covered by palm fronds) when it is not being worked on to prevent cracking from the heat of the sun. After the keel is shaped, it may be submerged in the reef waters for several hours, or perhaps overnight, to destroy insects that might damage the boat. Rocks are sometimes placed in the keel to expand its beam.

Wooden dowels, called *pasok*, are used to secure the parts of the boat together. Holes are drilled into the edges of planks that abut one another, and dowels are placed in the holes to attach the planks. As the planks are forced together, the soft bark of a shoreline tree (*gelum*<sup>4</sup>) collected from nearby islands or purchased in the Bongao market is placed between them to serve as caulking. Dowels are used in similar fashion to attach other parts of the boat. All bindings are done with rattan (*buai*), which also is available either in the island forests or the Bongao marketplace.

Two types of paddles are used by the Bajau, namely, single-bladed paddles, or *busai*, and double-bladed paddles, or *keleh* (Fig. 3). The single-bladed paddles are more common and vary in size from very small ones made for children's boats to very large ones that serve as steering paddles for the large boats. Other than size, the major variation in paddles is in their handles. Four types of handles made by the Bajau are illustrated in Fig. 3. Type 3 is most common, and Type 1 is the least

common. Great variation is found in the width and length of the blades of paddles. The double-bladed paddle is generally used in propelling the small outriggerless dugouts.

Fifteen types of boats are built by the Tawi-Tawi Bajau.<sup>5</sup> These boats range from large houseboats that may reach 18 m in length to miniature boats no more than 60 cm long that serve as gravemarkers. To my knowledge, the Bajau have no general term comparable to the English word *boat* that applies to all watercraft. The most inclusive term I learned is *bangka*, which is applied rather indiscriminately to all nonhouseboats, with or without outriggers. I have even heard houseboats referred to as *bangka*, but more typically they are called by their specific names. Although the Bajau have a term for each boat type, they are often rather casual in their use of these terms. For example, two Bajau may use different names for the same boat, and similarly the names used for the parts of the boats may vary among individuals. This is probably partly due to the fact that different types of boats have diffused to Tawi-Tawi from both the north and the south, sometimes bringing with them different names for similar boats and parts of boats. Also, the presence of Tausug speakers in Tawi-Tawi, as well as the various Sama dialects, with their different names for boats and boat parts, have probably contributed to the variety of terms.<sup>6</sup> The result is an array of terms rather confusing to the outsider.

## HOUSEBOATS

Of all the boats, the houseboats are most central to the lives of the Bajau; these boats serve as their homes, their transportation, and their fishing boats. Most Bajau are born in houseboats, live their entire lives in houseboats, and die in houseboats. Not surprisingly, the houseboats are the epitome of the Bajau boat-building craft and display some of the finest carvings found in Tawi-Tawi, if not in all of Sulu. The Bajau world view is influenced by the houseboats, and even their physical appearance is somewhat shaped by the boats. The low roofs of the houseboats demand that all movement be done in a crouched position, which ultimately results in underdeveloped lower limbs and curvature of the lower spine in adult Bajau. The distinctive gait resulting from these deformities distinguishes the Bajau from the other people of Tawi-Tawi. After a lifetime of boat-living, some old people are unable to walk at all and spend their final years confined to their boats.

Although the houseboat interiors vary, certain general features apply to them all. One of the most spacious living spaces I measured was 12 m long, 1.7 m wide, and 1.5 m high. The smallest I measured was only 1.8 m long, 1.2 m wide, and 1 m high. The first was home for a family of six, the second was the dwelling of a young couple and their infant son. Most living spaces fall between these extremes. Cooking is done on a pottery stove on the open deck at the stern. Purchased from Simunul Island potters, the stove, about 0.5 m long and 0.33 m wide, is a shallow oval-shaped firebox with elevated prongs at one end to support cooking pots. A cache of firewood and a ceramic water jar of Chinese manufacture from Borneo are located nearby. A simple rack, sometimes decorated with carving, holds the few Bajau cooking utensils. Many boats have a sturdy tree branch in this cooking area with limbs that serve as hangers for assorted items. The front open deck is usually kept clear. If there is a small child in the household, a fence-like barrier may be placed at either end of the living space to prevent the child from entering the open deck areas

where he or she may fall overboard. Mats of plaited coconut fronds are sometimes placed along the sides to fill the open space between the roof eaves and the gunwale as well as at either end of the shelter to provide privacy during the night and protection during inclement weather. The roof is not securely attached and is far from watertight. Poles of fishing spears are placed atop the eaves and tied in place to help hold down the roof. Heavy rains eventually dampen most boat interiors, and a strong wind usually removes several roofs in a moorage. The houseboat has no furniture. Mats used for sleeping at night are rolled up and stored along the sides during the day. *Kapok*-filled pillows provide comfort for sleeping and lounging. Extra items of clothing owned by the family are rolled into bundles and tied from the roof poles at either side. Articles that cannot be harmed by the bilge are stored in the hull under the deck. Half coconut shells, or any convenient containers, serve as bailers to periodically remove the bilge from the hull. Fishing nets are rolled up and placed along the sides, while long fishing spears are tied to the roof beam or, as noted, tied outside at the eaves of the roof to help hold it in place. These spears are sometimes erected atop the roof to provide a frame for drying fishing nets. If there is an infant in the household, a hammock-like cradle is suspended from the central roof beam. A small kerosene lamp, usually a glass jar with a perforated lid for a wick, placed in a section of bamboo with one side removed, is hung from the side of the boat to provide feeble light for the nighttime hours. While in the moorage, a mooring pole (*samboang*) secures the bow of the boat while an anchor (*labuh*), usually a piece of heavy coral, is dropped from the stern to prevent the boat from drifting with the currents.

The houseboat interiors are kept clean, although infestations of cockroaches and other undesirable insects sometimes occur. Even the occasional rat invades the large boats. Periodically the boat is dry docked. Using a dried palm frond as a torch, the keel is scorched to destroy algae and other parasites. The interior of the hull is scrubbed thoroughly, with coconut husks used as brushes. The deck boards are removed and scrubbed along with all the other removable parts. Such a thorough cleaning is done about once a year by most families, although more fastidious boat-dwellers may do it more often.

It is difficult to judge the longevity of a houseboat since worn parts are frequently replaced. Periodically the entire boat is taken apart. Worn planks and dowels are replaced, and the boat is recaulked. Such a thorough overhauling occurs only when needed, but when done, the result is virtually a new boat. Consequently, a boat may be many years old, but its parts may have been replaced several times.

The following descriptions apply to the *lipa*, *djenging*, *balutu*, and *pilang*, the boats most commonly used as houseboats by the Tawi-Tawi Bajau. It must be remembered, however, that each boat is somewhat distinctive, reflecting the idiosyncrasies and tastes of the individual boat-builder, and may not conform in detail to the following descriptions.

### *The Lipa*

The *lipa* (Pl. 1a) is the houseboat most commonly associated with the Bajau of Tawi-Tawi. The boat is also called *pidlas* by some Tawi-Tawi Bajau—a name more commonly used by the land-dwelling Sama to refer to the boat.<sup>7</sup> Aesthetically, it is perhaps the most attractive of all the houseboats, with its flowing lines that sweep

into the prominent prow (*jungar*), the distinguishing feature of this boat. It is, however, the most recent boat type to be adopted by the Bajau. Older Bajau claim that it was not common among them before World War II and that it came into Sulu from Borneo. Sitangkai Bajau informants support this view and also claim that it was introduced to them from Borneo some time before World War II.<sup>8</sup> According to the Tawi-Tawi Bajau, they first bought the *lipa* from Sitangkai boat-builders, and then learned to build it themselves. Today it is one of the most popular houseboat types, with well over half of the population using it as full-time living quarters. Its rapid spread throughout the Sitangkai and Tawi-Tawi waters seems largely due to its greater efficiency as a fishing, sailing, and reef boat. The outriggerless *lipa* probably evolved in a shallow reef environment; at any rate, it is the boat best adapted to such an environment found among the Tawi-Tawi Bajau. Its broad hull results in shallow displacement to allow easy movement through the shallow waters of the southern Sulu reefs. Not surprisingly, it is found in greatest numbers among those Bajau whose home moorages are located on extensive reefs. The absence of outriggers makes it efficient as a fishing boat, since most Tawi-Tawi Bajau are net fishermen, and the outriggerless *lipa* allows greater ease in handling nets over the sides. Furthermore, the broad beam and great length of the boat allow for a larger living space than is typically found in the other houseboats.

The *lipa* varies considerably in length, but in general it tends to be the longest of the Bajau houseboats. The longest *lipa* I measured was 18 m from bow to stern and 1.8 m wide at its beam; this was, however, an exceptionally long boat, and typically the length is about 11 m. The keel (*tadas*), made from a single log and slanted outward from both the bow and stern, is built up with five planks attached by wooden dowels. Rib-like braces (*sunkol*) support the hull at about 1 m intervals. Cut from a single piece of wood, these ribs are added after the hull is completed and are secured under projections carved on the second plank. A deck of boards (*lantai*) that run parallel to the planks of the hull is supported by cross-braces, also called *sunkol*, that rest upon the projections that support the ribs to provide a floor for the house area as well as open living spaces at either end. The beam of the deck is about 1.5 m. The *nipa* mat roof (*sapao*), which also serves as a space for drying fish and can easily be taken down to convert the *lipa* into a sailing boat, is less than half the length of the total boat and about 1.3 m at its gable. The bow and stern, as well as wing-like braces (*sa'am*) that project from either side of the hull at both ends, are carved in curvilinear designs. Usually a panel of geometric painting adorns both sides of the hull.

The following parts of the side view of the *lipa* correspond to the numbers in Figure 4. This and subsequent drawings are only approximately to scale and are intended primarily to illustrate the different parts of the boats.

1. *tadas*, the keel.
2. *pangahapit*, the first plank of the hull.
3. *bingkol*, the second plank of the hull.
4. *kapi-kapi*, the third plank of the hull.
5. *durun-durun* (or *koyang-koyang*), the fourth plank of the hull, usually with carving at either end.

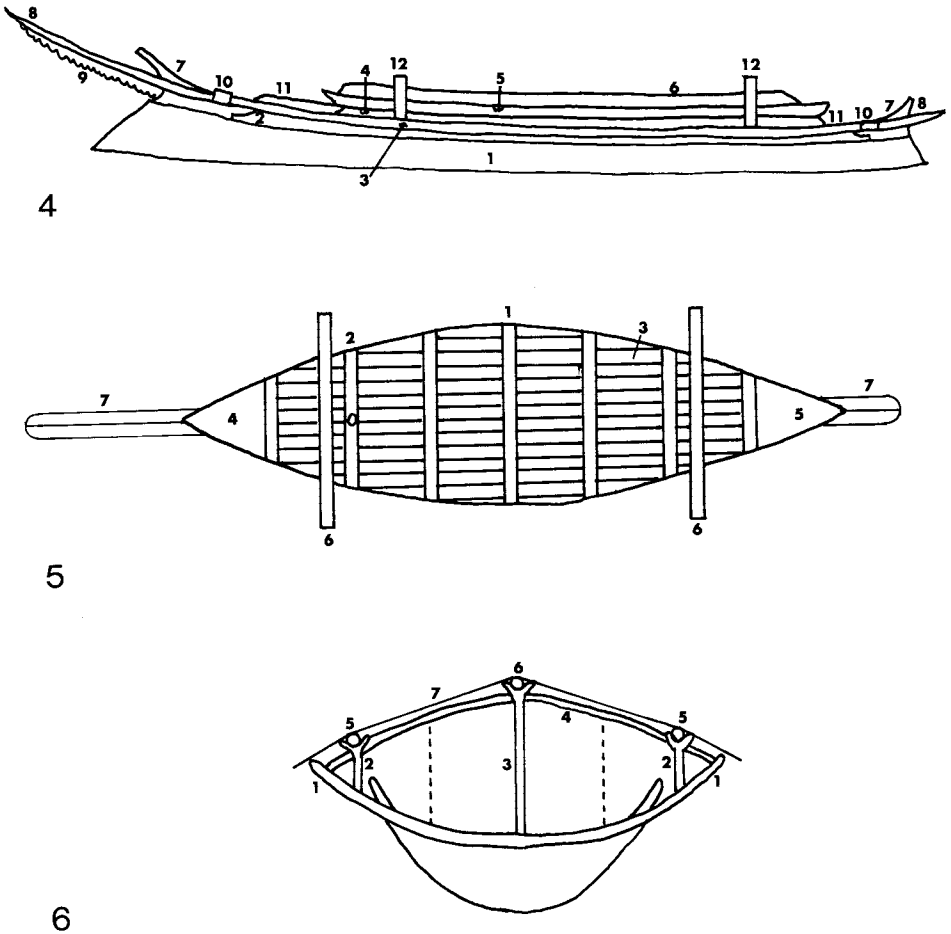


Fig. 4-6. *Lipa*: 4, side view; 5, top view; 6, front view. (Numbers on diagrams are explained in text.)

6. *ding-ding* (wall), the final plank, or gunwale, of the hull, usually with carving at either end. This name is also used for the plaited palm frond panels sometimes hung from the eaves and the gables to enclose the living area.
7. *tujah*, the main bow and stern pieces of the hull.
8. *jung'ar*, the long prow that extends beyond the *tujah* at the bow, and the small extension beyond the *tujah* at the stern.
9. *ling'ai'at*, the strip of carving sometimes found under the *jung'ar*.
10. *sikom*, the small brace at the bow and stern that holds the two *tujah* together.
11. *adjung-adjung*, the bow and stern extensions of the *kapi-kapi*, which usually have carving.
12. *sa'am*, the braces with carved wing-like projections that extend beyond the hull at the bow and stern.

The following parts of the top view of the *lipa* correspond to the numbers in Figure 5.

1. *sunkol*, the cross braces that support the deck boards; also the name for the rib-like braces in the hull (not shown).
2. *patarukan*, the foremost cross-brace with a hole for the mast (*taruk*), which rests in the *ponsot patarukan*, a depression in the bottom of the keel.
3. *lantai*, the deck boards (the number and width of these vary).
4. *panan-sahan*, the V-shaped deck board at the bow.
5. *sung'utan*, the V-shaped deck board at the stern; this term is also sometimes used for the *panan-sahan*.
6. *sa'am*, the braces with wing-like carved projections that extend beyond the hull at the bow and stern.
7. *jung'ar*, the long prow extension, and the short stern extension.

The following parts of the front view of the *lipa* correspond to the numbers in Figure 6. This drawing does not include the prow.

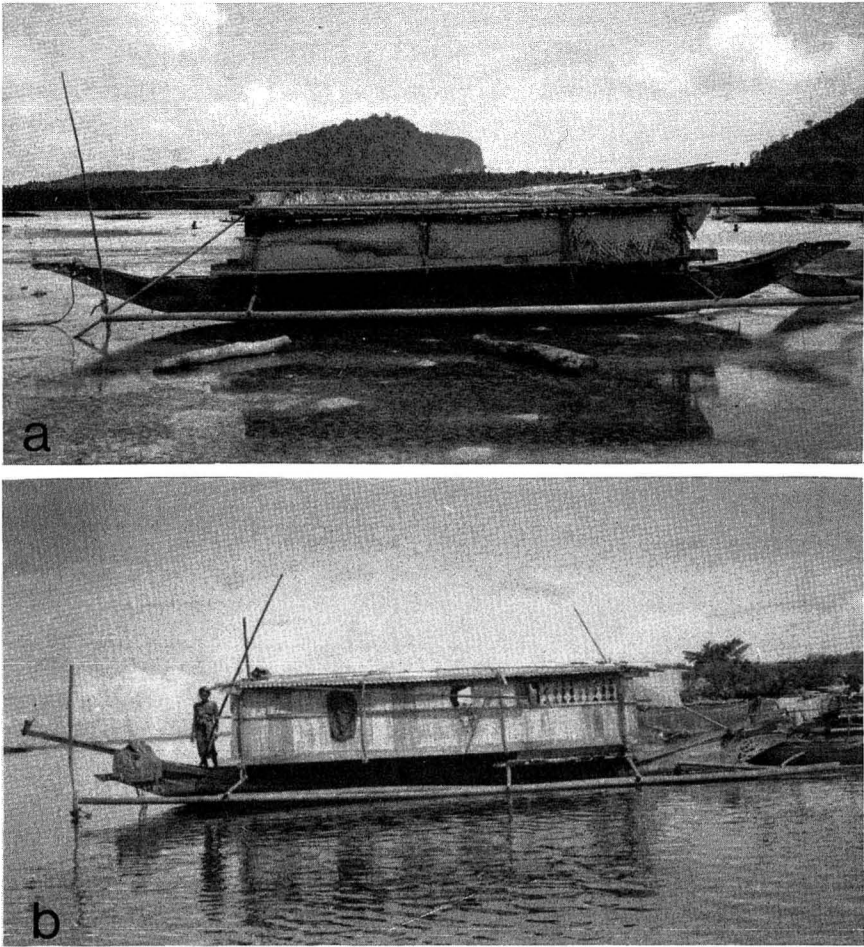
1. *sa'am*, the same as number six in the preceding list.
2. *pang'ga*, the fork for supporting the roof poles (*dandang*) on either side.
3. *tubung-tubung*, the fork for supporting the center ridge pole of the roof; sometimes two of these are used, as indicated by the dotted lines.
4. *sungkelan*, the gable support (may be one or two pieces).
5. *baihuan*, the pole that supports the roof eave.
6. *buhungan*, the ridge pole of the roof.
7. *sapao*, the *nipa* mat roof.

### The Djenging

According to many Bajau, the *djenging* (Pl. IIa) is the houseboat that was used by their forefathers, and many remember when it was more widespread among them before the arrival of the *lipa* after World War II.<sup>9</sup> Some Sama speakers from the Siasi area of Sulu still refer to the Tawi-Tawi Bajau as "Sama *djenging*," suggesting an old association between the Tawi-Tawi people and this type of houseboat.

The *djenging* is basically a planked log dugout with two to four double outriggers that support a deck, which in turn supports a house. The *djenging* is typically shorter than the *lipa*, but it is not unusual for one to reach 11 m. Some, however, are no more than 4.5 m long. It has totally disappeared among the Sitangkai Bajau, but it is still found in Tawi-Tawi, although not in great numbers. I saw few *djenging* being constructed during my field research, whereas many *lipa* and *pilang* were being built. It will probably soon disappear among the Bajau.

Distinctive features of the *djenging* include the intricate carving usually found at both the bow and stern, which are almost equally elevated with the bow being somewhat more prominent. The hull consists of a basic dugout keel (*baran balutu*), U-shaped in profile, with two planks (*tapid* and *lingkam*) attached by wooden dowels. Two to four outrigger booms (*batangan*) made of single pieces of wood pass through the first plank and are lashed to bamboo floats (*katig*). Shorter secondary

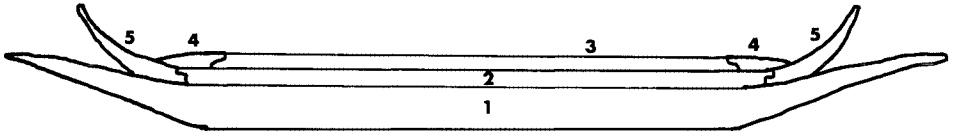


Pl. II. a. *Djenging*. b. *Balutu*.

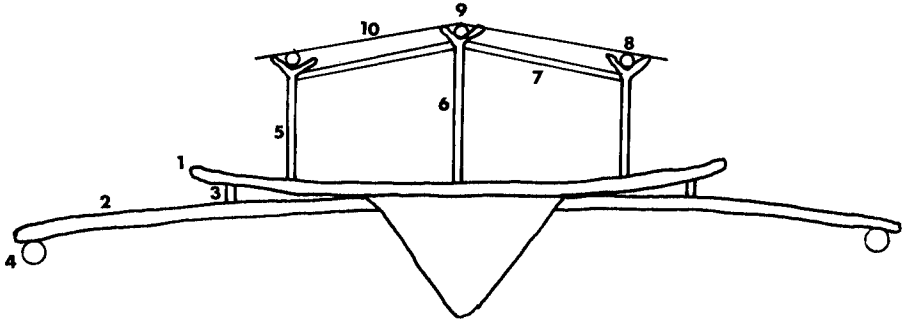
booms (*sa'am*), also made of single pieces of wood, pass through the gunwale directly above the primary booms to which they are attached via one, two, or three rattan lashings (*tuk'lug*). The hull is decked with removable transverse planks (*lantai*). This deck is extended over the secondary outrigger booms by planks (*lantai*), or less often by split bamboo, that run horizontally to the hull. The living quarters consist of the *palau*,<sup>10</sup> a variation of the house structure on the *lipa*. As on the *lipa*, this structure can be easily taken down to convert the houseboat into a sailing or fishing boat.

The following parts of the side view of the *djenging* correspond to the numbers in Figure 7.

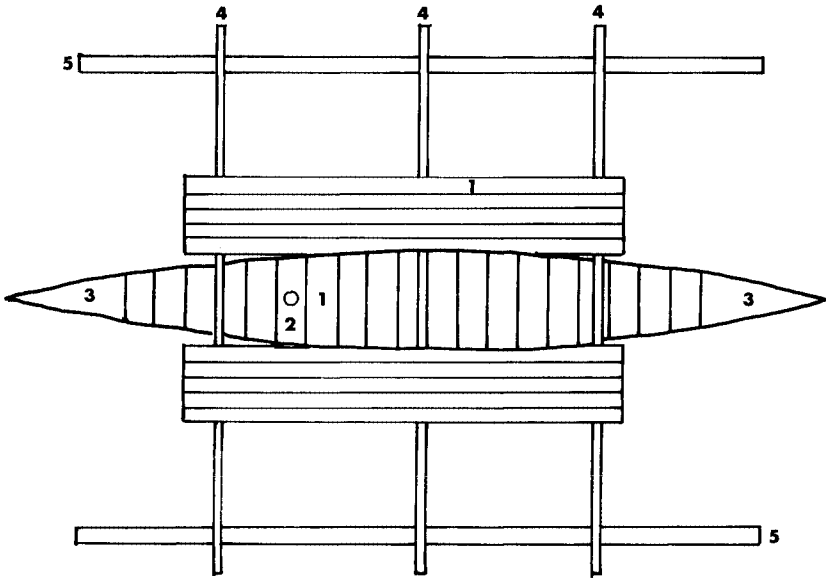
1. *baran balutu*, the keel, which usually has carving at either end.
2. *tapid*, the first plank of the hull.
3. *lingkam*, the second plank of the hull, or gunwale.



7



8



9

Fig. 7-9. *Djenging*: 7, side view; 8, front view; 9, top view. (Numbers on diagrams are explained in text.)



4. *dauk-gus*, the extension at either end of the *lingkam*. Sometimes the *lingkam* is long enough to negate the need for these extensions.
5. *tunggu*, the attachments to both ends of the *tapid*, which form upward sweeps to the bow and stern; these are often absent in the simpler *djenging*.

The following parts of the front view of the *djenging* correspond to the numbers in Figure 8.

1. *sa'am*, the secondary boom that helps support the lower primary boom.
2. *batangan*, the primary boom.
3. *tuk'lug*, the rattan lashings between the primary and secondary booms; there may be one, two or three of these on each side.
4. *katig*, the bamboo outrigger float.
5. *pang'ga*, the forked support for the roof eave pole.
6. *taruk*, the forked center support for the ridge pole; this name is also used for the sailing mast.
7. *sungkelan*, the gable supports; may be one or two pieces.
8. *dandang*, the pole to support the eaves of the roof.
9. *buhungan*, the ridge pole for the roof.
10. *sapao*, the *nipa* mat roof.

The following parts of the top view of the *djenging* correspond to the numbers in Figure 9.

1. *lantai*, the deck boards, both horizontal and vertical.
2. *patarukan*, the cross-brace with a hole for the mast (*taruk*), which rests in the *ponsot patarukan*, a depression in the bottom of the keel.
3. *panansa'am*, the V-shaped deck boards at bow and stern.
4. *batangan*, the primary boom.
5. *katig*, the bamboo outrigger float.

### The Balutu

A type of large *djenging*, called *balutu*, *kubu* or simply *djenging* by the Tawi-Tawi Bajau, has a large, permanently attached house structure (*kubu*) (Pl. IIb). I have chosen to call this houseboat *balutu* to distinguish it from the smaller *djenging* already described. Only about a half-dozen of these boats remained during the period of my field work in the 1960s, and most of them were in various stages of disrepair and decay, probably the last of their kind. At one time, they were common dwellings for the Sitangkai Bajau (Taylor 1931; Martenot 1981:198–202), but they were totally gone from Sitangkai during the period of my research. The surviving pictures of these boats (Taylor 1931, 1936; Follett 1945:130–131) reveal elaborate carvings that are much more extensive than those on most existing Bajau boats. At one time they apparently served as somewhat permanent living quarters at moorages while smaller boats were used for fishing and other travel demanded by the Bajau life-style. This seems to have been the situation in Sitangkai where Taylor (1931:483) claimed, “They never leave their anchorage and are used for residence purposes only; for the

most part they are restricted to wealthy headmen." No special status was associated with the remaining ones in Tawi-Tawi; in fact, most were derelicts.

The basic hull of the *balutu* is identical to that of the *djenging* except that the former has bow and stern attachments not found in the latter. Upward-sweeping wing-like projections (*tunggu*) above the carved bow and stern create gaping mouths, which the Bajau call *buaia*, "crocodile" (Pl. IVa), acknowledging the open mouth of the crocodile as the inspiration (or perhaps as an after-the-fact explanation) of the feature. Extensions (*salagunting*) of the gunwales on both sides and at both ends are attached to the upper part of the prow and extend about 1.5 m above and beyond the bow and stern. The ends of these extensions are secured together by caps (*tumpang*) decorated with carving. As in the *djenging*, the bow and stern of this boat are almost indistinguishable from one another.

The house structure, or *kubu*, is permanently attached and built of upright planks secured to a framework attached to the boat. Carved lattice-work provides cross ventilation at one or both ends of the house. The sides of the house were originally painted in geometric designs of bright colors, although all I saw were almost entirely faded away. The house has an open door at either end with plaited palm frond covers used at night or during inclement weather. The house is very spacious compared to most Bajau houseboats. Although not as long as some *lipa* houses, it is wider (sometimes over 2 m) and sometimes high enough for an adult to stand upright at the gable. The larger living space allows more storage for items above deck, and sometimes provides residence for two or even three families. As with the *lipa*, the kitchen area is on the open deck at the back. These large *djenging* are difficult to sail (perhaps impossible; I never saw one under sail) and awkward as fishing boats. These limitations were pointed out to me as reasons why they are unpopular as houseboats.

The following parts of the side view of the *balutu* correspond to the numbers of Figure 10.

1. *baran balutu*, the keel, which usually has carving at either end.
2. *tapid*, the first plank of the hull.
3. *tunggu*, the attachments to both ends of the *tapid*, which form upward sweeps to the bow and stern.
4. *lingkam*, the second plank, or gunwale.
5. *dauk-gus*, the extension at either end of the *lingkam* (sometimes the *lingkam* is long enough to negate the need for these extensions).
6. *salagunting*, the planks attached to the *dauk-gus* at either end, which extend above and beyond the bow and stern.
7. *tumpang*, the cap, at either end, often carved, that holds together the ends of the *salagunting*.

Names for the outrigger parts of the *balutu* are identical to those of the *djenging*.

### The Pilang

The *pilang* (Pl. III a–b), like the *lipa*, appears to have originated outside Tawi-Tawi, in this case in the northern Sulu Islands. This double outriggered boat is related to boats of that area, especially the so-called *vinta*,<sup>11</sup> and those Tawi-Tawi

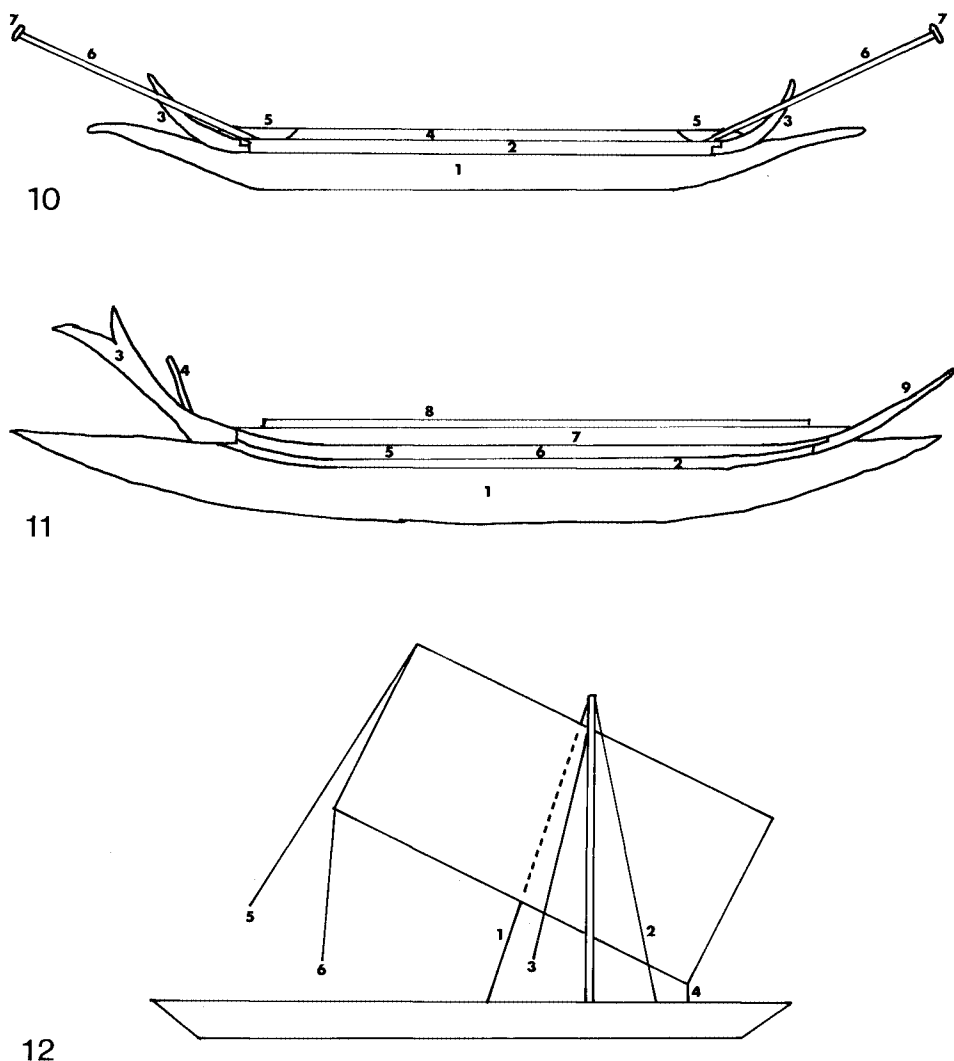


Fig. 10–12. 10. Side view of *balutu*. 11. Side view of *pilang*. 12. Sail ropes.

Bajau who use it as a houseboat trace many of their kin ties to the Siasi and Jolo areas of northern Sulu. Nonetheless, it is firmly established in Tawi-Tawi as a houseboat. Taylor (1931) claims the Sitangkai Bajau made the *vinta* (*pilang*) at the time he visited them. I question his claim, however; during the course of my field work in Sitangkai, I learned of no tradition of building *pilang* by these Bajau. Nor did Martenet (1981), apparently, since he does not mention it in his article on the boats of the Sitangkai Bajau. It is quite possible that *pilang* were in Sitangkai at the time of Taylor's visit, and he assumed that Sitangkai Bajau owned and built them rather than Tausug and other Sama. Tausug and various other Sama people resided in Sitangkai at the time of my field work in the 1960s, and very likely similar populations were there when Taylor visited the area. It is also possible that Taylor confused



Pl. III. *a. Pilang. b. Pilang prow.*

the *pilang* with the standard *djenging*, which was in Sitangkai at the time of his visit but which he does not mention.

The *pilang* has a U-shaped keel (*baran*) with five added planks to form a deep and rather narrow hull. The length of this boat, from bow to stern, ranges from 4.5 m to 10 m. The longer boats have as many as four booms (*batangan*) to support the bamboo floats (*katig*). The outstanding feature of most *pilang* is the elaborately carved prow, gaping like an opened crocodile's mouth, or *buaia*, after which it is named. Some of these prows are among the finest carvings found in Sulu. The stern is a simpler and smaller, uncarved version of the prow. Some of the finer boats have two rows of intricate curvilinear carvings or intricately painted bands of geometric patterns along either side of the hull. As with the *djenging*, the hull is decked with removable transverse planks (*lantai*). This deck is extended over the secondary outrigger booms (*sa'am*) by planks (*lantai*), or less often by split bamboo, that run horizontally to the hull. The *palau* structure erected over the deck is like that described for the *djenging* and can be easily taken down to convert the houseboat into a sailing boat. Smaller than on the *lipa* or the *balutu*, the living space on the *pilang* is comparable to that of the standard *djenging*.

The following parts of the side view of the *pilang* correspond to the numbers in Figure 11.

1. *baran*, the keel; carving is usually found at the bow.
2. *tapid*, the first plank added to the keel.
3. *palansar*, the upper part of the prow, often elaborately carved.
4. *sap'lun*, the washboard at the prow, often carved.
5. *dudung*, the second plank; usually has carving or painted design its entire length.
6. *dudung*, the narrow strip of carving on the second plank.
7. *dudung*, the third plank.
8. *tihim sa'am*, the fourth plank, or gunwale.
9. *sangpad-sangpad*, the upper extension of the stern.

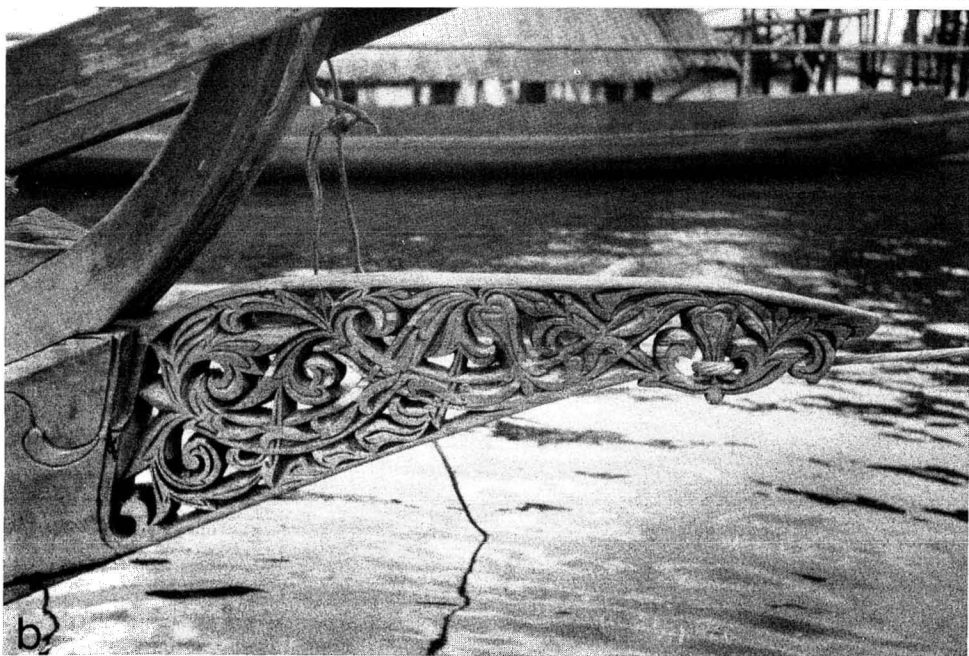
The names for the outrigger and house structure are identical to those for the *djenging*.

## BOAT ART

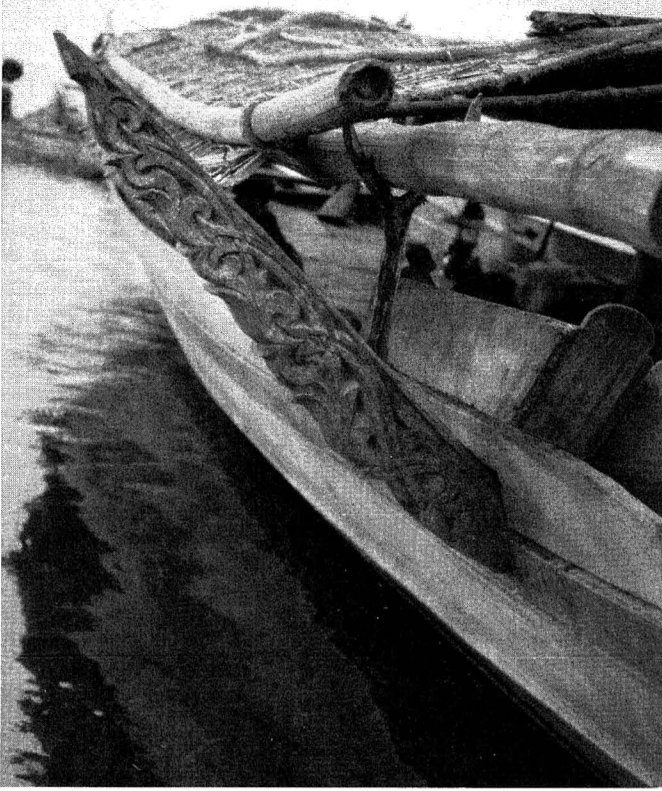
Art (*okil*), as carving or painting, is reserved for the houseboats, although some of the elaborate *tonda'an*, small *pilang* used primarily for fishing, are sometimes decorated; even these, however, frequently serve as part-time living quarters. Since the houseboats are the most important boats to the Bajau, it is not surprising that they are decorated with some of their finest art. The carvings on some boat prows are surpassed only by some of the Bajau gravemarkers, which, in turn, are among the finest art in all of Sulu.

Carvings on Bajau boats can be reduced to a very limited number of motifs; it is the combination and execution of these motifs by the artist that results in the intricately carved prows found on all four houseboat types.

*Dau'an-dau'an* (leaves) is one of the most common motifs. In combination with the *kalo'on* (curlicues or curved lines), it is used to decorate the spectacular *buaia*



Pl. IV. a. *Balutu* prow. b. *Djenging* prow.

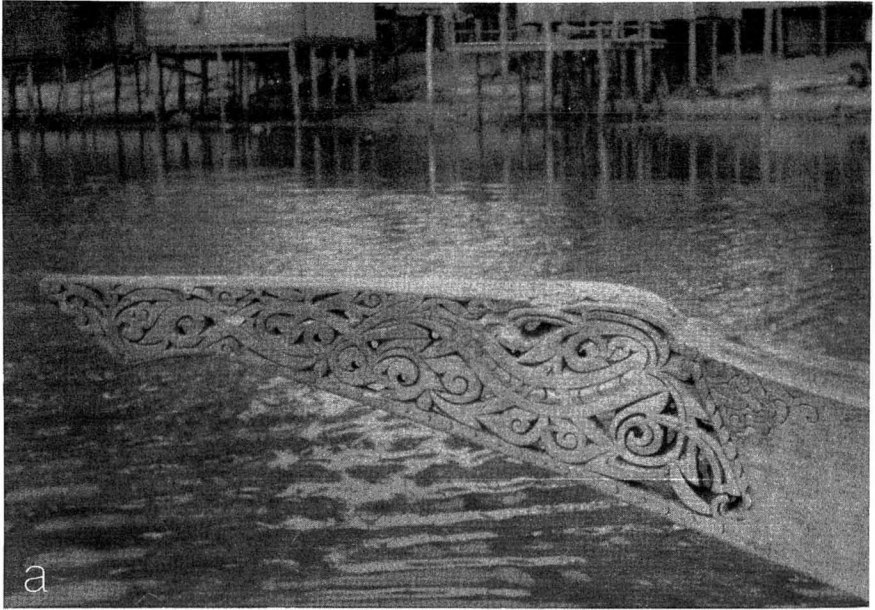
Pl. V. *Lipa sa'am*.

(crocodile) prow of the *pilang* (Pl. III *b*). The *dau'an-dau'an* and *kalo'on* motifs are used in combination with the fish-like *agta-agta* motif<sup>12</sup> on the bow and stern of the *djenging* (Pl. IV *a-b*, VI *a*). *Dau'an-dau'an* is also commonly used with the *kalo'on* motif for the prow (Pl. VI *b*) and *sa'am* (Pl. V) of the *lipa*.

The hull of the *pilang* is frequently carved with one, two, or three lines of curvilinear carvings called *bahan-bahan*, a term that translates as “bending or curving.” Plate VII *a* reveals variations of this pattern: the upper line has a floral motif, the middle line is reminiscent of both the *kalo'on* and *agta-agta* motifs, and the lower line is a variation suggesting small waves. Sometimes these lines are painted in great detail using the traditional Bajau colors of red, blue, green, yellow, and white. Typically, they are painted when the boat is new, but as the paint wears off it is not repainted.

The few remaining *balutu* reveal a carving style not found on other Bajau boats. Frequently, an upper panel on either side at the bow or stern of the house is carved to allow air circulation (Pl. VII *b*). This type of carving is called *lauwa-lauwa*, which translates as “web, as in spider’s web.”

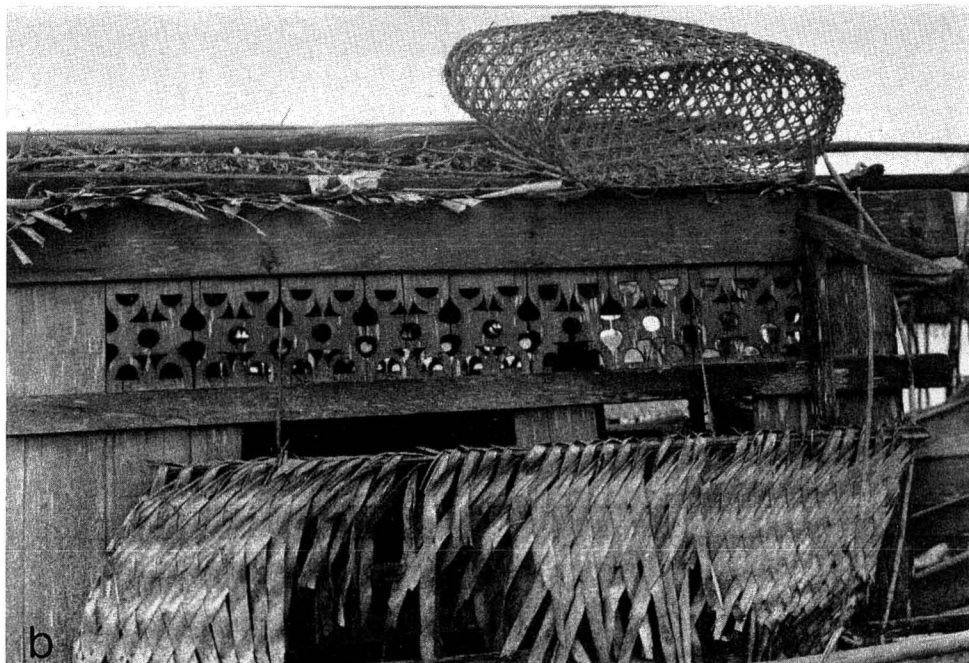
In addition to carvings, the Bajau decorate their boats with bands of geometric paintings. The few remaining *balutu* have faded remnants of such paintings on the sides of their houses, and the paintings are frequently found on the sides of the *lipa*,



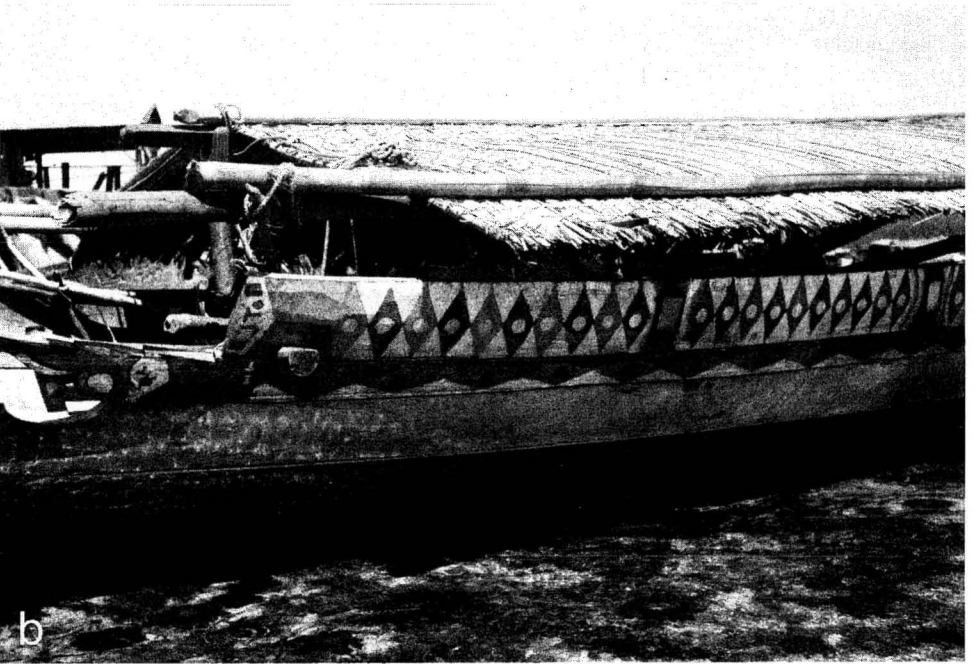
Pl. VI. a. *Djenging* stern. b. *Lipa* prow.

seemingly having been transferred to this boat which has superseded the *balutu*. Several motifs are used in these paintings. In Plate VIII a *pinis gunting* is the upper wide band that consists of squares of two different types of triangles separated by white bands. The lower line, a *bahan-bahan* carving that has been painted, was identified as *sambili*. Plate VIII b reveals two more patterns. The upper band of triangles

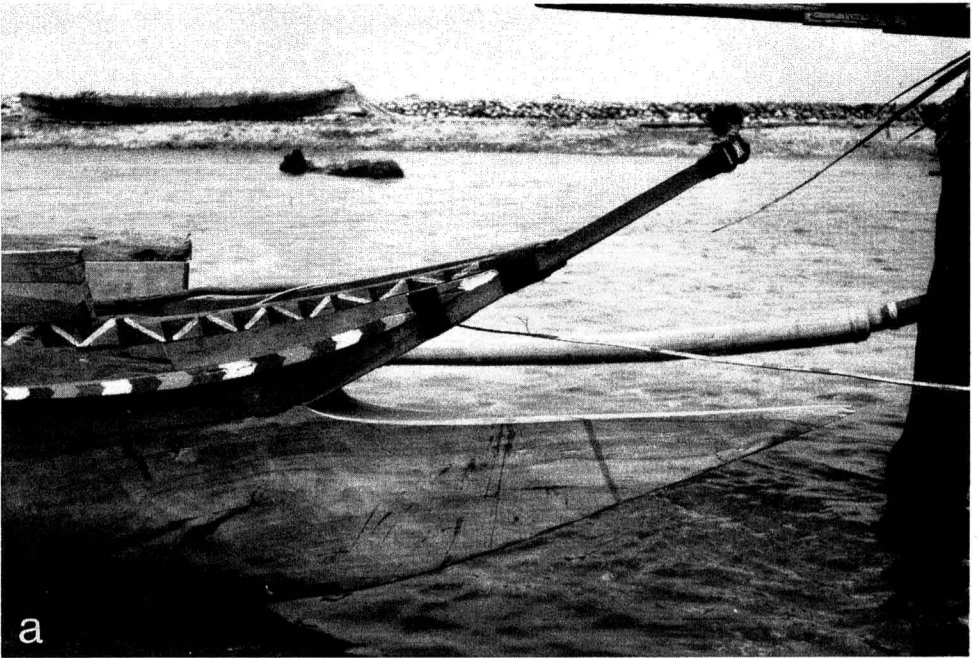




Pl. VII. *a.* *Pilang* hull showing *bahan-bahan* type carvings. *b.* *Balutu kubu* panel showing *lauwa-lauwa* type of carving.



Pl. VIII. a. *Lipa* hull with *pinis gunting* and *Sambili* patterns. b. *Lipa* hull with *sabit* and *pis sabit* decoration.



Pl. IX. *a. Pilang hull with dudung and gipis decoration. b. Boggo'.*

with circles in their centers is called *sabit*, or “many colored.” The lower band is called *pis sabit*, “the many colors of the *pis*”; *pis* is the colorful handwoven textile traditionally worn by Tausug men as turbans. These bands are also painted on *pilang*, as shown in Plate IX *a*. The upper band is called *dudung*, also the name of the plank on which the painting appears. The second line is called *gipis*.

The quantity and quality of the carving and painting on boats vary considerably. It is quite likely that most boats had more painting when they were new. I never saw anyone repainting an old boat, and I frequently saw boats, especially *lipa*, with bands of painting almost totally faded away. Virtually all *lipa* have carvings at the prow and stern and on the *sa'am*, but the quality of it varies considerably. Although most *djenging* have carving on both the bow and stern, some have it only on the bow, and some have none at all. The *pilang* usually has carving at the prow and at least one line of carving the length of the hull on both sides. Some, however, lack the band of carving on the hull, and some have no carving at all.

Carving is a talent limited to a few men. I knew of no women carvers. Not all boat-builders can execute the carvings, and instead they must hire a carver, who is usually a relative, to do the work. When I was in Tawi-Tawi during the 1960s, Salbaiyani was one of the most respected carvers and boat-builders in the area. The *pilang* was his specialty, and Plate III (*a* and *b*) illustrates his skill. Suluhani was another highly respected carver. Although he was not considered among the finest boat-builders, he was often hired to do the carvings on boats built by men who could not carve. He excelled in carvings on *lipa*. A Bajau cultural ideal dictates that a carver must always be paid for his services, even if he is carving the boat of a close kinsman. I encountered this cultural dictate in the realm of religion, also. Certain chants important in healing are effective only if the chanter is paid; if the chanter is not paid, the ceremony is ineffective. Similarly, if the carver is not paid, misfortunes will befall those involved. In reality, carvers often do not accept payment from close kinsmen, or if they do, it is a very small amount, since they know that the reciprocal nature of Bajau kin relationships will compensate them for their service. However, more distant kinsmen and especially nonkinsmen are expected to pay for the talents of these gifted men.

The fine carvings are highly regarded by the Bajau, and they sometimes pass through several boats if they can be detached from old boats and incorporated into new ones. Several men told me that the carvings on their boats were their gifts to their children. It is a Bajau cultural ideal that the prow of a man's boat be left on his grave at his death. Rarely is the prow of a boat that still serves as a houseboat taken, but it is quite common to leave unusable boat carvings on the graves of relatives.

## FISHING BOATS

“Fishing boats” are used primarily for fishing, but they also serve for moving among the houseboats at the moorages. Each houseboat has at least one such boat and frequently two. These boats are sometimes used as temporary houseboats on fishing trips or when the larger houseboat is being repaired. Newlyweds sometimes live in a fishing boat until they acquire a suitable houseboat. Five such boats are recognized by the Tawi-Tawi Bajau: the *boggo'*, the *birau*, the *junkun*, the *bitok*, and the *tonda'an*. Sometimes when the keel of a *lipa*, *djenging*, or *dapang* has been replaced, the old keel, with perhaps an added plank, may be kept as a fishing boat.

### *The Boggo'*

One of the simplest Bajau boats, the *boggo'* is made from a single log (Pl. IX *b*). This simple dugout has a rounded bottom that comes to a point at the bow and stern. The sides do not slope inward until about 7 cm down, thereby giving the appearance of an added plank, or gunwale. Both the bow and stern are capped by rectangular knobs, are slightly elevated, and drop perpendicularly or slope outward. The bow and stern are indistinguishable. The interior of the hull may have several projections opposite one another at the gunwale to hold planks for seating. A plank is occasionally added to give the hull greater depth, but more commonly the *boggo'* is unplanked. Sometimes a simple outrigger is added by attaching two booms to the gunwale with rattan, or by passing the booms through holes drilled through the gunwale and attaching them with rattan. *Boggo'* range from 1.5 m to 4.5 m in length.

### *The Birau*

The *birau* (Pl. X *a*) is almost identical to the *boggo'*. The only differences between the two are that the bow and stern of the *birau* both slope inward, whereas those of the *boggo'* drop perpendicularly or outward, and the *birau* does not have the "fake" gunwale. Its length, too, is similar to that of the *boggo'*. It, too, may have outriggers added as described for the *boggo'*.

### *The Bitok*

This simple dugout is almost identical to the *birau*, except that it lacks the knobs at the bow and stern and is generally smaller. It has a wider beam, and the hull is usually shallower than that of either the *boggo'* or *birau*. It rarely has outriggers or added planks.

### *The Junkun*

The *junkun* typically consists of a simple dugout hull, although a plank is frequently added to either side (Pl. X *b*). Lengths range from 2.5 m to 8 m. The longer boats often have several half-circle braces, or ribs, made of single pieces of wood and secured under projections carved in the hull at the gunwale. Above these projections, planks are placed for sitting, or they may hold cross-braces that support deck planks on some of the larger boats. As on the *boggo'*, the bow and stern are capped by a rectangular knob and are of the same height and indistinguishable. Unlike the *boggo'*, however, the *junkun* has both bow and stern sweeping up considerably from the water line. Outriggers are sometimes added to the *junkun*. As with the *boggo'*, the booms are simply passed over the gunwale and tied with rattan, or passed through holes drilled in the gunwale and secured with rattan. Two *junkun* served as full-time houseboats during my stay, but both owners claimed they were using them as such only because they could not yet acquire a proper houseboat. More typically these boats are used for fishing or short-distance travel.



Pl. X. a. Birau. b. Junkun.

### *The Tonda'an*

This fishing boat is a smaller version of the *pilang*. It is shorter, has fewer planks, and usually lacks the elaborate carving of the *pilang*. The outrigger attachment is much simpler. Usually only two primary booms are secured to the gunwale with rattan or passed through holes drilled in the gunwale. It is frequently used for ex-

tended fishing trips, when a temporary house, *palau*, may be erected on it. It is sometimes used as a houseboat while its occupants await a more commodious boat.

### MINIATURE BOATS

Six miniature boats are made by the Bajau: the *palungan*, the *ontang*, the *pamatulakan*, the *pamatulakan ta'u ta'u*, the *bangka anak-anak*, and toy boats. The *palungan*, *pamatulakan*, *pamatulakan ta'u ta'u*, and *bangka anak-anak* are patterned after the *boggo'* or *birau*, while the *ontang* is a small raft.

#### *The Palungan*

These small boats, usually no more than 1 m long and patterned after the *boggo'*, *birau*, or *bitok*, are hung from either side of the larger houseboats at the stern near the cooking area. Filled with soil, they serve as planters for culinary herbs and medicinal plants. I once saw one planted with colorful flowers, but typically the plants are more utilitarian. Although not all houseboats have *palungan*, they are fairly common.

#### *The Ontang*

The *ontang* is a small raft used in fishing. It consists of two bamboo floats, about 1 m long, connected by two bow-shaped booms that support a small platform. Sometimes the *ontang* serves as a small raft to hold a lantern used in certain types of nighttime fishing. At other times, it is pulled behind a houseboat that may be traveling to another moorage or to fishing waters. Lines and hooks are hung from the rope towing the raft, and periodically the rope is pulled in to take the hooked fish and rebait the hooks.

#### *The Pamatulakan*

This small boat, used in a special religious ceremony to rid the moorage of evil spirits (Nimmo 1990b), is usually a crude version of the *boggo'* or *birau*. During times of great misfortune or illness, the moorage shaman may construct a *pamatulakan*. Different families of the moorage make its different parts and contribute such items as food, betel, cigarettes, and perfume to place in the hull. When the boat has been finished and filled with its cargo, several shaman pull it through the moorage waters to attract the disease-causing spirits. Sometimes carved anthropomorphic images, called *ta'u ta'u*, are also placed in the boat. After canvassing the moorage, the shaman take the *pamatulakan* with its evil spirits to the open sea and set it adrift on currents that will take it away from the moorage. Sometimes a small abandoned *boggo'* or *birau* is used for the ceremony.

#### *The Pamatulakan Ta'u Ta'u*

These small boats, rarely more than 1 m long and decorated with traditional Bajau carving, are used as gravemarkers for men's graves. A male human figure, called *ta'u ta'u*, is placed in the boat (sometimes it is carved as a single piece with the boat) and left atop the grave. The marker is frequently called simply *ta'u ta'u*.

### The Bangka Anak-anak

Fathers frequently make small boats for their children, which are usually called *bangka anak-anak* (children's boats). The boats are used for transportation within the moorage, or sometimes for playing in the surf at the moorage's edge. They are very simple dugouts, usually patterned after the *boggo'* or *birau*, with miniature paddles fashioned after the larger paddles. For very small children, such boats may be no more than 1.5 m long. Needless to say, children learn to handle boats at a very early age and it is not uncommon to see a child of three or four paddling his or her own dugout among the moorage boats.

### Toy Boats

Fathers often make toy boats for their sons, or boys may make their own. The most sophisticated of these are small *lipa*, perhaps 1 m long, carved from a single piece of wood, while the simpler ones are crudely made little dugouts or outrigger boats. Boys often make sails for their toy boats and hold races in the moorage waters.

### SAILING

It is somewhat ironic that the navigational skills of the Tawi-Tawi Bajau are rather rudimentary, considering they spend their entire lives on the sea. On the other hand, the maritime environment in which they travel is relatively small, usually no more than 40 km in any direction from the home moorage, and dotted with hundreds of islands. Thus, they seldom travel long distances in their boats, and whatever traveling they do is within sight of numerous islands, their most important navigational guides. They rarely travel long distances at night, but when they do the moon, various stars and constellations, winds, and currents serve as guides if the islands are not visible. Although the Bajau identify many stars and constellations, my impression is that their knowledge of them is no greater than that of other people who live intimately with nature. Bajau do not like to travel in rough seas and will postpone trips until waters are calm. They avoid the swift currents of the area, and have a folklore (no doubt based on actual events) of unwary boats that ventured into them being swept to Sulawesi.

Although all Bajau families have sails, or *lamak*, and most houseboats can be easily converted to sailing boats, Bajau do not utilize sails on their houseboats unless they are in a hurry to get from one place to another—which is not usual. If a Bajau family visits another moorage or travels to an area for fishing activities, it is usually a slow journey with stops along the way for water, to purchase cassava, or to fish. Normally the boat is poled, or paddled, in the shoals of nearby islands, taking advantage of tidal currents that dictate times of travel much more than do winds. If there is need to traverse a wide, deep channel between islands, then the family may put up a sail to take advantage of a wind or perhaps may wait several hours for a wind to come up. Once shoals are again reached, unless there is a hurry, the sail is dismantled, and the boat is poled through the shallow waters with an eye for possible fish. Thus, a trip that would take only a matter of hours by sail with a good wind might take a couple of days. Poling the heavy boats, especially the *lipa*, is not as formidable a task as it may seem. The prows of the larger *lipa* provide about a 2 m





Pl. XI. *Banog pindang* sail.

walkway for the poler. He thrusts his pole into the reef floor, walks forward and leans backward on the pole, as the weight of his body moves the boat forward. The wife, or perhaps an older child, sits at the stern with the steering paddle.

Sails are utilized on fishing boats more frequently than on houseboats. If the fishing waters are some distance from the moorage and winds are favorable, sails are used to get to and from the waters. Fishing boats are generally smaller than the houseboats, and sails for such boats are correspondingly smaller. The smaller boats and sails can be handled by one man, although typically one handles the sail while another manages the steering paddle.

Bajau sails are made of any available materials. A few are made of canvas, but more typically they have been patched many times with rice bags or any other available materials. Most resemble patchwork quilts more than anything else. I was told that in earlier years the sails were mats of plaited pandanus leaves and displayed a variety of colorful designs. Now the availability of materials determines both color and design. Sails vary in size; the larger sails used on houseboats may be squares 3.5 m on a side or larger, whereas the ones used on the smaller fishing boats may be squares of no more than 2 m on a side.

Pl. XII. *Bukai* sail.

Four different types of sails are recognized by the Bajau. *Kapis* is a small rectangular lug sail, with two parallel spars hung from the mast. The *banog pandang*, a sprit-type sail, is attached to the mast with ties and has a spar on its outer side (Pl. XI). The *bukai*, a large rectangular lug sail often used on the *lipa* and other large boats, has two parallel spars with the upper spar attached at the center to the mast (Pl. XII). The *banog binabagan* is a *bukai*-type sail with a single spar across the top and the lower end pulled to a mouth; it, too, is frequently used on the *lipa*.

Six different ropes are used on the sail, as illustrated in Figure 12: (1) the *talih-talih*, used to secure the mast (*taruk*) aft; (2) the *tunbilan*, sometimes called *pintal*, used for securing the mast fore; (3) the *hambauwan*, used for raising and lowering the sail on the mast; (4) the *ingkot boah*, used to tie the bottom spar to the gunwale; (5) the *kelat diata* and (6) the *kelat dea*, both used for steering.

## CONCLUSION

For such a small population, the Tawi-Tawi Bajau have a great variety of boats. Some of these boats are found among other peoples of Sulu, but not in such great variety. For example, the Bajau of Sitangkai have only the *lipa* and the *boggo'*. The variety of boats among the Tawi-Tawi Bajau may be partly due to their conservatism as well as to their geographic location. They are among the most traditional people in Sulu and have retained features of their culture, including boat types, that others have lost. Their location between northern Sulu and Borneo also partly explains the many boat types among them. Although most genealogies of the Tawi-Tawi Bajau reveal kin connections to the Sitangkai Bajau, some families trace kin

ties to Siasi and even Jolo; it is significant that these are the families who make and use the *pilang*, a boat found among Sama speakers of Siasi and Jolo. Further research among these peoples may reveal that the *junkun* and *birau*, boats not found in Sitangkai, are also part of the watercraft traditions of northern Sulu. The *lipa* has entered the Tawi-Tawi area from Borneo via Sitangkai within the memories of some living Bajau.

Studies of other boats in Sulu would add to an understanding of Sulu history. Islands, sometimes even villages, tend to be associated with certain boat types. Thus, a survey of the boats throughout the archipelago might reveal patterns of movement and diffusion. Such a survey is urgently needed since the widespread use of inboard and outboard motors in recent years is drastically altering traditional boat-building. For example, the *lipa* of Sitangkai has been considerably altered to accommodate the outboard motor, which is now almost standard household equipment in that community. Furthermore, Sulu people are increasingly using the growing number of motorized launches for transport throughout the islands and find less need for their traditional boats.

The boats of Sulu are not without documentation. David Szanton's survey (1963:42–47) of the arts of Sulu includes a brief discussion of Bajau boat art (which unfortunately confuses boat types), accompanied by several photos of boats. Alexander Spoehr (1971) published a descriptive account of a Sama *vinta* in Zamboanga, a boat related to the Tawi-Tawi Bajau *pilang*. Edwin Doran, Jr., also discussed the Sama *vinta* of Bongao in a study of Austronesian canoe origins (1981), in a study of boats and culture history (1973), and in a comparative study of the sailing efficiency of three different boats (1976). James Warren (1981:256–258) has a brief but good description of three boats that were important in Sulu during the trading and piracy activities of the nineteenth century. Alain Martenot (1981) has published an excellent description of the *lipa*, the *boggo'*, and the *balutu* of the Sitangkai Bajau. An article by Muhammad Kurais II (1975) contains much information about Sama boat-building, boats, and sailing in Tawi-Tawi. His data come from Sama tradition and also apparently from his personal observations and experiences. The article is an important addition to the literature on Sulu boats, not only because of the wealth of information it contains, but also because it is written from a Sama perspective. Clifford Sather (1985:190–194) has good descriptions, accompanied by many photographs, of the *lipa* and *boggo'* of the Bajau Laut of Semporna, a people closely related to the Sitangkai Bajau. In addition to these academic publications, various other books and articles published throughout the years contain pictures of indigenous Sulu watercraft. For example, the works of Worcester (1898:181), Brownell (1905:980), Orosa (1970 [1923]:2, 3, 24, 60, 63, 68, 84, 87), Taylor (1930a:158, 159; 1930b:290, 291; 1931:476, 477, 480, 481; 1936:46, 47, 60, 61), Follett (1945:10, 11, 130, 131), Dacanay (1967:150), Nimmo (1971), and de Henning Singh (1976) have photographs or sketches of Sulu boats. Although the accompanying descriptions are sometimes brief, misleading, or nonexistent, the pictures nonetheless provide important documentation.

The boat descriptions in this paper are based on field research conducted during the 1960s. Since that time, Bajau society has been significantly altered by the tragic events of the civil war in Sulu that lasted throughout the 1970s and is still smoldering in a somewhat tenuous truce. Many Bajau were killed during the conflict, some fled to Borneo, and those who remained in Tawi-Tawi are now living in greater intima-

cy with the neighboring Muslim peoples (Nimmo 1986). Many Tawi-Tawi Bajau have moved to houses, and, as happened among the Sitangkai Bajau, the former houseboats have been simplified to become fishing boats. Also as happened among the Sitangkai people, boat art has deteriorated. The *djenging* was being replaced by the *lipa* during my stay in the 1960s; I would not be surprised to find it virtually absent in Tawi-Tawi now.

Although the current changes in Bajau watercraft are probably occurring at a more accelerated rate than in the past, they should be viewed as part of the continuing evolution of boats in the Sulu Archipelago. For countless centuries, the ancestors of the Bajau lived intimately with the sea and adapted to innovations in boat-building that made that intimacy more rewarding. This adaptability allowed them to survive the many currents of history that flowed through their waters. The present is a more turbulent current, but if the past is indicative of the future, the Bajau will survive it, too.

## NOTES

1. This paper is based on field research in Tawi-Tawi Province, Philippines, sponsored by the East-West Center, Honolulu, Hawaii; the National Science Foundation, Washington, D.C.; the Wenner-Gren Foundation for Anthropological Research, New York; and the Carnegie Corporation, New York. I gratefully acknowledge the support of these foundations. This paper, as well as my other publications on the Bajau, could never have been written without the cooperation of the Bajau themselves. I can never repay them for the many kindnesses and comforts they extended to me during the course of my field research among them. I can only hope that my documentation of their unique culture will allow their descendants to better know and appreciate them.
2. Unfortunately, I do not have data on the kinds of trees used in boat construction. Spoehr (1971:118) identifies the trees used in the construction of a *vinta* in Zamboanga: "The hull is made from a tree locally called red *lauan* (*Shorea negrosensis*), which is easy to work. The thwarts and the dowels used to secure the gunwale and side planks to the keel are *bakauan* or mangrove (*Rhizophora* sp.), a strong and tough wood." Probably these same trees, as well as others I am unable to identify, are used by the Tawi-Tawi Bajau.
3. Kurais (1975:83) reports that among some Tawi-Tawi Sama the position of the felled tree determines which sections will be used for the different parts of the boat: "The bottom of the boat would be the side that struck the ground; the hull the upward side; the prow is towards the root, and stern towards the treetop." I learned of no such tradition among the Tawi-Tawi Bajau.
4. Sather (1985:194) identifies the *gelum* tree as *Osbornia octadonata*.
5. In my first published paper on the Tawi-Tawi Bajau (Nimmo 1965:425), based on my first field trip, I reported that they had eight different types of boats. My subsequent field research revealed seven additional types.
6. Several of the terms used by Kurais (1975) for boats built by Sama (presumably in eastern Tawi-Tawi) are used by the Tawi-Tawi Bajau for different types of boats.
7. I referred to this boat as *pidlas* in an early publication (1965), but subsequently learned that it is more commonly known as *lipa* among the Bajau. Kurais (1975:123) claims that the proper spelling of this boat is *pedlas* and not *pidlas*. He acknowledges variant pronunciations of the word in eastern Tawi-Tawi, and quite possibly the pronunciation I recorded (Nimmo 1965:425) is a variant in western Tawi-Tawi.
8. Taylor's articles (1930a, b, 1931) on the Sitangkai Bajau have pictures of the *lipa*, which he describes as one of the three boats built by these Bajau. In his book (1936), based on the same visit to Sitangkai, he claims that the Bajau sometimes bought their *lipa* from boat-builders in Borneo. Thus, it would appear that the *lipa* was firmly established in Sitangkai by 1930.
9. The name *djenging* appears elsewhere in the literature. In describing the boats of the Bajau (Sama) of the Darvel Bay area of Sabah, Warren writes: "Among the most common were the *jengeng*, often called *dupong*, an elaborately carved, double out-riggered canoe used primarily in fishing" (1971:10). In Tawi-Tawi, these names refer to two different types of boats. Kurais (1975:97) claims that *depang* is the Tausug name for the *pilang*, and I was told that *dapang* is the Tausug name for the *pilang*. Kurais (1975:97) provides a brief description of the *djenging*, which he spells *zing-ning*.
10. *Palau* is also a name used by some land-dwellers to refer to the Bajau; it is, however, considered pejorative by the Bajau themselves.

11. *Vinta* appears to be a name introduced to Sulu from the northern Philippines. The Bajau call this boat *pilang*, while the Tausug call it *dapang*. Kurais (1975:97) reports that it is known as *pelang* by the Sama and *depang* by the Tausug.
12. *Apta-apta* is probably a cognate of *naga*, an art motif found among the Maranao of the Lake Lanao region of Mindanao. David Baradas (1981:177) describes *naga* as a "serpent figure in the shape of the letter S" and believes it is related to Sulu art motifs (p. 181). Several Bajau told me the *apta-apta* motif represented an animal, but most said they did not know what kind of animal. One man told me it represented a crocodile, and another said it was a fish; none mentioned the serpent as its inspiration.

## REFERENCES

- BARADAS, DAVID B.  
1981 Some implications of the Okir motif in Lanao and Sulu art, in *The Muslim Filipinos: 172-209*, ed. Nagasura T. Madale. Quezon City: Alemar-Phoenix.
- BROWNELL, ATHERTON  
1905 A Moro experiment. *Outlook* 81(12):975-985.
- DACANAY, JULIAN E., JR.  
1967 The *Okil* in Muslim art: A view from the drawing board, in *Brown Heritage: 149-162*, ed. Antonio G. Manuud. Quezon City: Ateneo de Manila University Press.
- DORAN, EDWIN, JR.  
1973 *Nao, Junk, and Vaka: Boats and Culture History*. College Station: Texas A & M University.  
1976 Wa, vinta, and trimaran, in *Pacific Navigation and Voyaging: 29-46*, ed. Ben R. Finney. Wellington: Polynesian Society.  
1981 *Wangka: Austronesian Canoe Origins*. College Station: Texas A & M University Press.
- FOLLETT, HELEN  
1945 *Men of the Sulu Sea*. New York: Charles Scribner's Sons.
- DE HENNING SINGH, ANNE  
1976 The sea gypsies of the Philippines. *National Geographic* 149(5):659-677.
- KURAI, MUHAMMED II  
1975 Boatbuilding of the Sama. *Mindanao Journal* 1(4):67-125.
- MARTENOT, ALAIN  
1981 Bateaux Sama de Sitangkai. *Archipel* 22:183-207.
- NIMMO, H. ARLO  
1965 Social organization of the Tawi-Tawi Badjaw. *Ethnology* 4(4):421-439.  
1971 Bajau: Gentle boat-dwellers of the Philippines, in *Nomads of the World: 72-91*. Washington: National Geographic Society.  
1972 *The Sea People of Sulu*. San Francisco: Chandler Press.  
1986 Recent population movements in the Sulu Archipelago: Implications to Sama culture history. *Archipel* 32:25-38.  
1990a The religious beliefs of the Tawi-Tawi Bajau. *Philippine Studies* 38(1):3-27.  
1990b The religious rituals of the Tawi-Tawi Bajau. *Philippine Studies* 38(2):166-198.
- OROSA, SIXTO  
1970 *The Sulu Archipelago and Its People*. Yonkers-on-Hudson: World.  
[1923]
- PALLESEN, KEMP  
1977 Culture contact and language convergence. Unpublished Ph.D. diss. University of California, Berkeley.
- SATHER, CLIFFORD  
1985 Boat crews and fishing fleets: The social organization of maritime labour among the Bajau Laut of southeastern Sabah. *Contributions to Southeast Asian Ethnography* 4:165-214.
- SOPHER, DAVID E.  
1965 *The Sea Nomads*. National Museum Memoir 5. Singapore: National Museum.
- SPOEHR, ALEXANDER  
1971 The double outrigger sailing canoe of Zamboanga and the Sulu Archipelago, southern Philippines. *Occasional Papers of Bernice P. Bishop Museum* 24(7):116-126.

## SZANTON, DAVID

- 1963 Art in Sulu: A survey, in *Sulu's People and Their Art*: 29–66, ed. Frank Lynch. Quezon City: Ateneo de Manila University Press.

## TAYLOR, CARL N.

- 1930a The Bajaos—Children of the sea. *Philippine Magazine* 27(8):158–159, 176.  
1930b The Bajaos—Children of the sea. *Philippine Magazine* 27(10):290–291, 322–324, 326.  
1931 The sea gypsies of Sulu. *Asia* 31:434–435, 476–483.  
1936 *Odyssey of the Islands*. New York: Charles Scribner's Sons.

## WARREN, JAMES

- 1971 *The North Borneo Chartered Company's Administration of the Bajau, 1878–1909: The Pacification of a Maritime Nomadic People*. Athens: Ohio University Center for International Studies.  
1981 *The Sulu Zone, 1768–1898*. Singapore: Singapore University Press.

## WORCESTER, DEAN C.

- 1899 *The Philippine Islands and Their People*. London: Macmillan.