

THE ETHNIC TRADITION

Ethnic architecture in the Philippines refers to different forms of folk and vernacular architecture found among the different ethnolinguistic communities in the country. These forms include dwellings, whether permanent or makeshift, granaries, fortifications, places of worship, and other temporary structures. Ethnic architecture is created by the different ethnolinguistic communities in the Philippines, from lowland communities to communities in the Cordilleras, the Visayan islands, Mindanao, and other adjacent islands.

Ethnic architecture draws inspiration mainly from the environment, specifically, the climate, terrain, vegetation, and fauna around it. It also responds to communal and social needs—the need to be safe from hostile and marauding tribes and to interact with fellow human beings.

General Characteristics

Ethnic structures are deeply rooted in the Southeast Asian building tradition and share its characteristics, namely, pile construction, the hip or gable roof, and the use of materials available from the environment, such as wood, vegetation, and sometimes mud. The favorite material, as in the rest of Southeast Asia, is bamboo which is used for posts, flooring, siding, roofing, and many others. Also used are coconut wood and fronds, bakawan or mangrove, some hardwoods, pinewood, and stones; cogon grass, nipa, banana bark as roof coverings and wall sidings; rattan and other vines for fastening.

Ethnic architecture is informal and intuitive, usually designed by the owner and executed with human resources provided by the family and the community. The design is often influenced first, by tradition, and second, by chance or *oido* or playing by ear. Tradition dictates the general shape or form and the structural concepts, while chance enables the builder-designer-artisan to improvise and make adjustments along the way, relying on intuition and aesthetic insight to solve the problems of design and execution.

Most ethnic houses conform to a general pattern: they have steep thatched roofs to facilitate drainage; they are elevated on posts or stilts for protection from the earth's dampness and humidity; they have slatted flooring to let in the cool air from below; in the lowlands they use bamboo, nipa, and cogon to keep cool, while in the uplands, they use tightly fitting solid planks to help keep in warmth. The ethnic house is generally a multipurpose one-room structure, light and airy, comfortable and functional, yet durable and structurally stable.

Altogether, ethnic houses reflect the wisdom of the vernacular building tradition of a long line of skilled artisans who blend aesthetics and utility into one harmonious whole.

Decoration, while done sparingly, is often a happy marriage between aesthetics and socio-politico-religious factors. Pig skulls, for instance, may adorn an Ifugao house mainly for social prestige, just as carabao horns and the colorful *panolong*, the decorated beam-ends of Maranao houses, indicate social position. In various Philippine mosques, the crescent-and-star motif surmounting the dome serves as a symbol of Islam. In ordinary houses the natural finish, texture, and pattern of pinewood or bamboo give aesthetic pleasure.

The ethnic house expresses the indigenous way of organizing space within and without. Territorial spaces are suggested by symbols, never stated with fences nor walls; these are respected by the passersby and other residents in the area. For example, one does not litter within a certain space, nor allow one's cows or carabaos to stray into the area. One avoids passing near a neighbor's window where someone may be sleeping. Within the house, even in the absence of walls or partitions, the use of different levels, mats, or a fireplace in a corner can distinguish one section from another.

While privacy is generally observed within the understood limits of each area inside and outside the house, the plot of land or the designated zone at sea or along the shoreline where the houses are built remains communal property. Thus the responsibility for maintaining the surroundings—like the hill where the cluster of houses stands—rests on all the residents in the area. This gives the children a wider and bigger place in which to play and run around, and the adults more space for socializing.

In a culture that encourages maximum interaction among people, communication is largely indirect. It is accomplished through suggestions, hints, gestures, and symbols, so that messages may be decoded with ease by members of that culture. It is a culture where people work together, build houses together, eat together, and generally do things together. They are bound by the great number of rituals and festivals they celebrate together.

The design and construction of houses in such a culture are also affected by a set of animistic beliefs and assumptions that govern the choice of site; time and season for building; rituals to be observed before and during the construction of the house, including the noting of certain signs or omens that may affect the progress or abandonment of the work; the orientation of the house as well as the distribution of interior spaces; and other beliefs and practices that assure good health, a prosperous and happy family life, as well as protection from evil spirits of both the occupants and the builders of the house. Many local beliefs are found in the rest of insular Southeast Asia, where traditionally the dwelling is considered animated, and its construction governed by ritual to pacify spirits.

The ethnic house is of modest proportions as it is used essentially as a shelter from the elements and as a place to cook, eat, and sleep. Most of the time its occupants

stay outside—working under the extended eaves of the house, or out in the fields. At other times, the house doubles as a social and cultural center. It becomes the setting for weddings, wakes, death anniversaries, religious rites, and other life-cycle celebrations. On such occasions ritual platforms may be constructed beside or near the house, or on some parts of the house such as the porch. The whole house itself may be used by simply adjusting areas to allow for more space and a more appropriate setting for the rituals. Among Muslim Filipinos, a separate place for worship is provided in the form of mosques and smaller chapels. The mosque is part of a complex that includes a school, a social hall, a library, and a conference room, among others.

Ethnic architecture may be classified using four different considerations. According to structure: cave-dwellings, lean-tos, elevated one-room huts over land or water, multilevel houses, longhouses for the community, tree houses, houseboats, and landhouses. According to use or function: places of worship, such as the prehispanic simbahan, a temporary structure built only as the need arises the masjid (mosque) and the langgal or ranggar (small chapel); as well as dwellings and palisades or fortresses. According to historical period: the ancient and prehispanic, pre-Islamic, Islamic, Spanish, American, modern, and contemporary. Finally, according to cultural groups or peoples: the Ifugao, Kalinga, Bontoc, Isneg, Kankanay, Ibaloy, and other peoples of the Cordilleras; the various Aeta groups such as the Agta, the Pinatubo Aeta, and the Dumagat; the various Mangyan groups in Mindoro, notably the Hanunoo and the Alangan; the Tagbanua, Batak, and Palawan peoples from Palawan; the Maranao, the Maguindanao, the Yakan, the Tausug, the Sama, the Badjao, the Tagbanua, the Bagobo, the Manobo, the Mandaya, and the Bukidnon from the Mindanao-Sulu-Palawan area. In this discussion, the first three considerations, i.e., structure, functions, and historical periods, will be merged into a general survey of all the types of structures found in the islands through history.

Types of Structure in History

Architecture, like other forms of art, is a product of history. Ethnic architecture has evolved in response to changes in time and history, so that although it is the repository of traditional skills and lore and remains a vital link to the past, it has allowed change and innovation over the years.

As in other parts of the world, cave dwellings were perhaps the earliest shelters in the Philippines. Evidence that early peoples of the Philippines used caves as habitations is found in the Tabon caves of Palawan. The cave was the most natural habitat for people whose survival depended on food gathering and hunting.

The next stage in the evolution of ethnic architecture was marked by the appearance of the lean-to, the first attempt at building. With just a few branches and twigs, and some leaves and fronds as sidings, early Filipinos constructed a wind-sun-and-rain screen supported by a pole at an angle on the ground. This suited the lifestyle of

nomadic groups such as the Aeta. In search of food and sustenance, they would travel from place to place bringing with them their life-symbol, the lean-to, ready to be put up anytime as needed. The present-day descendants of these groups—the Agta, Aeta, Baluga, Dumagat, Ita or Ati—are no longer as nomadic as their ancestors.

Later, the practice of kaingin or swidden farming gave rise to a more settled life in a real house. However, durability was not a major concern because swidden farmers knew that when the land's productivity reached a low ebb, they had to move to another site. Many ethnic groups still practice swidden cultivation, and it can only be inferred that their houses now resemble those of the original kaingin farmers.

The introduction of wet-rice agriculture brought about a truly settled life and a need for a more permanent dwelling. The houses then were probably similar in structure to present-day ethnic houses: a single-room house cage elevated on posts or stilts, with steep thatched roofs, slatted flooring and sidings made of bamboo or hardwood; they were cool and airy, well ventilated, and free from dampness and humidity. It may be concluded that the basic features then of the *bahay kubo* (nipa hut)—the dwelling of the lowland, Christianized populace—had already been established even before the Spaniards came.

Early Filipino communities, mainly coastal and riverine, were isolated groups of dwellings consisting of 3 to 30 houses. In large compact trading communities, such as Cebu and Manila, a few thousand people lived in clustered villages (Fox 1977: 355). In general, bigger and sturdier houses prevailed in nucleated villages, while smaller and less permanent types predominated in those areas close to the fields or kaingin sites.

Because of different environments, upland and lowland houses developed interesting contrasts. Lowland structures tended to have a more open, airy interior, while upland ones were tightly enclosed with solid planks, having few or no windows because of the chilly mountain weather.

Special types of houses developed in various parts of the Philippines. In fishing communities in the Sulu archipelago, houses were built over water for hundreds of years for practical reasons. In places where violent intercommunity clashes occurred, tree houses were built by such groups as the Ilongot and the Gaddang of northern Luzon, and the Mandaya and Bukidnon of eastern Mindanao. And in areas regularly ravaged by typhoons such as Batanes, sturdy, firmly fastened, lime-and-stone-walled dwellings with a thick grass roof protected their inhabitants from strong rains and winds.

Each house provided not only effective protection from the elements but also functioned, whenever needed, as a “temple” or “church”, or sociocultural center. Except for the *kuta* or palisades and fortifications, no other structures had specialized functions. Sometime during the 14th century, Islam was introduced in Sulu. Being an organized religion, it required a permanent and separate place of worship. The

tradition of the mosque began. Two types of mosques developed in the Philippines: the masjid and the smaller ranggar (Maranao) or langgal (Tausug and Yakan).

The masjid, the traditional Islamic mosque, is the “larger and more permanent structure, built on a stone foundation, often near a stream or a body of water” (Gowing 1979: 60). The Friday noon assembly prayers, with the obligatory *khutbah* or sermon, and *Id* observances, may be held only in the masjid. The ranggar or langgal is a hamlet “chapel”, a small “semipermanent structure built for the convenience of the faithful who live far from a masjid” (Gowing 1979:60).

For the Yakan of Basilan Island, the langgal functions generally in the same way as the masjid, so that even Friday noon assembly prayers may be held here. An interesting point about the langgal is that, like the typical Yakan dwelling, it too is built on piles and is conceived on indigenous lines. It is similar to Southeast Asian mosques, notably the Indonesian (Javanese) langgar and the Malaysian *surau*, both of which contain a “*voorgalerij* or porch with a separate roof and a large room with a niche (*pangimbaran*)” (Mayer 1897, 1:47 in Wulff 1981:113-127), standard features of a regular mosque.

The basic difference between the langgal and the typical Yakan dwelling is that in the langgal, the “side walls do not reach right up to the roof” (Wulff 1981:20). The entrance to this house of prayer is through the porch, which is a step lower than the main room and usually covered, with a roof that is somewhat lower than the main roof. At the opposite end wall is the *sunting* or niche that faces west. During services this part of the langgal is covered with cloth but normally devoid of any decor, like the langgal itself.

The masjid was originally a three-tiered bamboo or wooden structure similar to a Chinese or Japanese pagoda or Balinese temple, a pattern that is also widespread in Indonesia and the Malay Peninsula. Developed later was a second style, the more familiar onion-shaped dome on squinches set over a square or rectangular hall that is more common in the Middle East. Perhaps this style evolved from the accumulated experience of seeing Middle East mosques in the course of Mecca pilgrimages. While the pagoda-type masjid is older than the domed one, the langgal is even older than either one and antedates the former by several centuries.

The Tubig-Indangan Mosque in Simunul island in Tawi-Tawi is perhaps the oldest standing mosque in the Philippines. This mosque is said to be the work of the celebrated Muslim figure Makhdum Karim, who pioneered in the Islamization of Sulu around the last quarter of the 14th century. The Tubig-Indangan mosque is a prototype of the old-style mosque with its graceful two-tiered pagodalike structure set over a rectangular space and topped by a finial carrying the symbols of Islam: the crescent moon and the star. A typical mosque, it has a *mihrab* or niche with a small dome over it and inside has a wooden screen separating the men from the women.

Other mosques done in the old-style pagoda design may be found in Balo-i, Lanao del

Norte and in the old Muslim communities in the Ragain area east of Lake Lanao, especially in Taraka. All later mosques feature the onion-shaped dome and fancy minarets, evidently of Persian influence. Arabic geometric ornamental designs as well as large Quranic inscriptions have become more common and have replaced in some places in Mindanao the traditional *okir* designs, the colorful patterns beautifully carved on the *mimbars* or wooden pulpits, and other parts of old mosques.

The interior of the mosque is a carpeted square or rectangular hall that can accommodate at least 40 people, or 44 as in the case of Sulu, at any given time. The worshippers face Mecca in congregational prayers by turning towards the *qibla* (wall), in the direction of the mihrab, the recessed area in the middle of the qibla.

The Maranao “great house,” the *torogan* (sleeping place), is another important contribution to Philippine vernacular architecture. Earthquake-proof, solid, and durable, it is the Maranao ancestral house, residence of the *datu* or sultan of the leading kin group. Occasionally it is used as the setting for big weddings, wakes, and other socioreligious gatherings. Its elevated position among the other houses is immediately apparent in the exuberant wavelike patterns of colorful and intricate *okir* carvings on the protruding beam-ends of the house, making the *torogan* appear like a floating, sculptural mass. It looms huge and stately with its high, salakotlike roof that flares at the sides.

According to Melvin Mednich (Lebar 1975: 37), if the mosque is the politically defining feature of a Maranao hamlet, the *torogan* is its socially defining feature. Such is the importance attached to this multifamily dwelling whose great size bespeaks rank, wealth, and prestige.

Another important Muslim structure is the *kuta*, which, until the American colonial period, provided protection against enemy attacks.

With the advent of Spanish rule in the Philippines, a dramatic restructuring of Philippine religious, socioeconomic, and political life occurred. New structures were built, reflecting the major preoccupations and values of Spanish colonial life. The most important of these were the churches, plazas, and houses of the *ilustrado* class.

During this period, houses signified the wealth and social rank of their owners. The typical lowland dwelling, the *bahay kubo* became identified with the lower classes. The bigger houses made of more permanent materials like hardwood and stone became a symbol of affluence. These mansions were popularly called *bahay na bato* or stone-house, *bahay na tisa* or house with roof tiles, or by a rather misleading name, *bahay Kastila* or Spanish house. Being the homes of the well-to-do, these wood-and-stone houses were largely concentrated in the *cabecera* or capital of the town or the *poblacion* or town proper. The smaller and flimsy *bahay kubo*, the house of the poor, was found around the *visita* or small chapel of the *barrios*.

As the Christian ethnic house, the *bahay kubo* or cube house retained the features of

the traditional house, such as the steep roof, elevated quarters, slatted flooring, and wide eaves, but added wide awning-type windows; the *silid*, where the occupants of the house could change clothes in private; the altar, for the villager's santos and other holy images; benches, tables, and other furnishings required by the new hispanized manners.

Basically the bahay kubo consists of a *balkon* (front porch) that opens to a multipurpose *bulwagan*, the main room of the house, on one side of which is the silid. This leads to the kitchen, and finally, to a roofless *batalan*, a back porch which serves as a cleaning or washing area or even as a bathroom. The house is usually entered through the front porch or through the batalan via a bamboo ladder. In some cases, however, the kitchen is moved to ground level or else built as a separate structure. Depending on the locale and the terrain and the prevailing climate and weather, choice of materials and elevation of the house may vary from place to place.

The bahay na bato is a bigger, sturdier, and more sophisticated version of the prehispanic bahay kubo, retaining the usual post-and-lintel construction of the traditional dwelling. Some innovations, however, may be noted: a highly flexible interior where rooms may be joined or separated by opening or closing wide doors; the addition of an *azotea* or second-floor terrace at the back of the house, and a *caida*, a foyer at the top of the stairs; the *capiz* shell windows, later protected by a metal awning or *media-agua*, a sun-and-rain-screen; the *ventanillas* or "little windows" between the window sills and the floorboards; the stone skirt on the ground floor which inspired the native name for the structure; and of course, the tiled roofs. All these give the bahay na bato a genteel and elegant look, without taking away the light and airy qualities of its bamboo-and-grass antecedent.

Indigenous concepts persisted well into the American colonial period and were embodied notably in the suburban *tsalet* or chalet-type dwelling, a hallmark of middle-class living. One level but elevated, the *tsalet* is a simplified bahay na bato. In form and spirit, it is closer to the original bahay kubo in its return to simplicity and functionalism. Its most prominent feature is the front porch which, in many cases, extends to the sides of the house, creating what Rodrigo Perez III calls "space surrounding space." Its entrance is through an L-shaped or T-shaped stairway either in concrete or wood or both. Like the bahay kubo, the *tsalet* conveys lightness, elegance, and warmth.

The modern period gave way to American building concepts and technology. Skyscrapers made of steel-reinforced concrete and glass transformed the Philippine skyline. Amidst these symbols of American efficiency, bigness, and boldness, the original bahay kubo would reappear in the squatter shanties that sprouted in every conceivable manner on any available space—whether inland, coastal, or even along the esteros or urban estuaries.

Some architects are now experimenting with bamboo not only as decoration but as structural component. Many contemporary houses are being designed to cope with

the tropical weather and to revive certain psychological values inherent in the designs of the bahay kubo, such as that of social and family interaction. Many public buildings now sport the salakot-shaped roof or the okir motif of the torogan.

Interestingly, while many slum dwellers pattern their makeshift homes after the bungalow, the more popular American tropical residence, quite a number prefer the more practical bahay kubo design, utilizing GI sheets and scrap materials gathered from garbage dumps. Drawing from tradition, the better shanties along the coastal road leading to Las Piñas are one-room bamboo or wooden dwellings elevated on stilts. They convey an overall sense of lightness and roominess despite the cramped space and cheap materials. They also prove that, with creativity and ingenuity, dwellings may be fashioned out of recycled materials.

The Ethnic Houses

Ethnic architecture is influenced chiefly by the lifeways, environment, and social organization of the different cultural communities. From Batanes in the extreme north down to Tawi-Tawi Islands in the south, interesting forms emerge. In the north are the sturdy, lime-and-stone-walled dwellings of the Ivatan of Batanes; the flimsy lean-tos of the Agta of Palanan, Isabela; the twin houses of the Itawes of Cagayan Valley; the compact and cozy upland Cordillera houses. In central Philippines there is the communal Mangyan longhouse; and in southern Philippines, the Maranao torogan, the *Tboli gunu bong* or big house, the Badjao landhouse, the Tausug *bay sinug*, and the Mandaya or Bukidnon version of the tree house.

The most typical of northern ethnic houses is the mountain house of the Cordilleras. Using mostly the post-and-lintel method and following a very precise, fixed, and highly revered tradition of house building, the Cordillera house is an ingenious adaptation to the demands of mountain living. William Henry Scott noted two architectural styles in the Cordilleras, namely, the northern and the southern strains (Scott 1966).

The northern strain, which includes Isneg (or Apayao) and northern Kalinga, is characterized by a high, gabled roof formed by the combination of bowed rafters and tiered wall boards which fill in the gables; a rectangular floor space divided into three sections and two levels; and two separate sets of posts totally independent of each other, one set supporting the floor, the other, the roof. The southern strain, which comprises Ifugao, Benguet, and Bontoc, is marked by a steep hip or pyramidal or conical roof that rests on top of the walls of the house cage, the latter a space that serves either as the living area among the Ifugao, the Kankanay, and the Ibaloy or as a granary among the Bontoc and the Sagada. A set of four posts supporting two girders, which in turn support three beams or joists, carry the weight of the wooden box or cage that makes up the house proper.

Cordillera architecture, which includes huts, houses, and communal dormitories, shows an interesting relationship between building patterns and the Igorot life style

and environment. For the Igorot, a dwelling should provide adequate protection against humidity and dampness (since part of the house is also a granary, the grain has to be protected from mildew), the pervasive chilly mountain weather, as well as hostile tribes, predatory animals, and vermin. In addition, a good design must take into account the precipitous mountain terrain and the possibility of landslides.

While most people of the Cordilleras practice swidden or slash-and-burn agriculture, some, like the Ifugao, the Bontoc, and the Kalinga, engage in wet-terrace farming. Possibly an adaptation of lowland wet-rice agriculture to a mountainous terrain, these rice terraces may be found in elevations of anywhere from 500-1,600 meters. The walls reach up to 6 meters, in some cases even up to 16 meters. Traditionally considered the artists of the Cordilleras, the Ifugao fashioned long, massive, sloping walls of stone and earth that followed the contour of the mountainsides, making the terraces look like an enormous piece of sculpture.

The Bontoc terraces, on the other hand, run in straight lines with almost vertical stonefaces. They seem designed to maximize the level area for planting. The terraces of Kalinga, in contrast to the Ifugao and the Bontoc, have low stone walls supporting inward sloping earth walls.

Considering the rice terraces, the high level of craftsmanship and technical ingenuity of Cordillera dwellings certainly come as no surprise. Also, the design of these structures can be related with that of the different terraces. Compare, for example, the steep roof and strict, rigid nature of the Bontoc *fay-u* with the towering Bontoc terrace walls; the relatively low roofs and more open character of the Kalinga *binayon* or octagonal house with the low stone walls of their terraces; and the classical line and artistry of the Ifugao *bale*, as seen especially in Mayaoyao, with the graceful, sculptural treatment of their terraces.

The Ifugao, whose architectural style is typical of the southern strain, generally locate their houses and villages on their ancestral lands, amid their rice terraces, along hillsides and valleys, near springs or groves. Usually built close to each other for mutual protection, there are usually 10 houses in a small village and up to as many as 40 or more in a big village. They are grouped organically rather than lineally, in interesting arrangements where house, terrace, and the surrounding vegetation blend harmoniously. Because of their high locations, these houses may only be approached by foot paths on terrace walls. There are no fences, for it is said that “only houses whose owners have pigs have a fence (*alad*) around them” (Lambrecht 1929:117-41).

Two types of Ifugao dwellings are the *abong* (hut), and the *fale* or *bale* (house). Huts are temporary in nature and simpler to build; houses are more permanent structures, taller and characterized by pyramidal roofs. The *alang* (granary house) is usually considered a house. The *agamang*, a sleeping dormitory for unmarried boys and girls above 10 years of age, is classified as a hut. The *abong* is home to the elderly, who have given their own houses to their married children or to poor people who cannot afford a house.

The Ifugao bale appears like a giant mushroom. It is so organically related to its setting that it seems to be part of the earth, despite its 1.5- to 2-meter elevation. This is probably because of the low eaves and the heavy pyramidal roof that almost totally covers the planked walls of this one-room dwelling. The fale has three parts. The lower part, consists of the four *tukud* (foundation posts), with the characteristic cylindrical ratguards fitted towards the top of each post, and the two *kuling* (transverse girders), which rest on the posts. The middle or the house cage area starts from the three floor joists over which the floorboards are fitted and wallboards mortised all the way up to the loft above the upper frame of the cage. The upper part makes up the whole roof area. The house is therefore a three-tiered structure where the posts and girders carry the house cage which in turn carry the roof. There are wooden doors in front and at the back of the house. A ladder, the access to the house, is removed and lifted to safety at night, or hung neatly on the wall or placed under the house when the owner is away.

The interior of the bale is dark and smoky, cozy, warm, and intimate because of the pale glow that filters into this windowless, womb-like space. Some 4 to 9 square meters in size, only the parents and the smallest children sleep here; the rest of the brood and the other adult members of the household move to the agamang or sleeping hall of the village at night. In this small space the family cooks, eats, sleeps, performs rituals, and celebrates for many generations.

Built out of heavy, hand-hewn timber, such as narra, that interlock each other perfectly without the use of nails or hardware, this solid and durable house can be taken apart, moved, and raised anew on a new site all in one day.

Two indispensable features of the Ifugao house immediately establish the context and philosophy behind Ifugao and Cordillera architecture, namely, the fireplace and the ratguard. The fireplace warms and gives the characteristic black soot to the interior. The ratguard protects the grain, since the attic portion of the house also serves as a granary. The few shelves or racks in the house are mostly intended for the storage of firewood and grain. The granary is so central to Cordillera life and economy that the *alang*, its twin, is always built close to the fale.

While the Ifugao use only the attic or a separate structure for the granary, other Cordillera groups integrate the granary into the house plan. This may be observed in the case of the Bontoc fay-u and the Sagada *innagamang*. The Bontoc and Sagada, unlike other peoples in the Cordillera, live and sleep on the ground floor. In the Bontoc fay-u the elevated wooden chamber, with an area equivalent to half of the ground level area, functions as a granary. Furthermore, the roof structure allows for additional rice storage area in the attic, making the house virtually a three-story affair.

The Bontoc fay-u thus represents a further step in creating various uses for the ground floor area. By enclosing it completely with tightly fitting pine boards, as *ching-ching* (walls), and by making the steep thatched roof extend downwards and

flare outwards through the use of auxiliary rafters, it protects the working area under the house. More posts are used not only to support the extended roof but also to serve as nailing strips for the wooden *ka-ew* (planks) that enclose the area.

In the Sagada house, the *agamang* (granary), is made truly ratproof by a gabled roof of solid planks mortised and rabbeted together. The innagamang is like the Bontoc house, except that it is completely enclosed to keep out the cold. The wooden plank floor divides symmetrically into three levels: the sunken middle portion becomes the living area, while slightly raised platforms, to the left and the right, are used for sleeping and storage.

Other examples of the southern style include the Bauko house in the northern Kankanay or Lepanto culture area, as well as the Bokod house among the Kankanay and the Ibaloy, which includes the older *dokbut* with its walls of sawali (split-and-woven bamboo) walls, and the *tinabda* or *tinabla* (from Spanish “tabla”) or “large wooden house,” said to be a later style (Scott 1966).

The Bauko *binangiyan* has a steep roof built to such a height that the less significant attic of the Ifugao bale becomes an additional floor in the Bauko house. The addition of a small ridgepole parallel to the front provides two vents for easier elimination of smoke which rises to the roof and which, incidentally, prevents the roof from rotting and helps protect stored foodstuff and utensils from mildew. Also long planks laid down on the stone paving form a partial floor, making the house a three-story affair.

The Bokod house of the Ibaloy, on the other hand, solves the problem of restricted space by simply enlarging the elevated chamber itself. For this purpose, it uses longer and sturdier timber and more posts, sometimes totalling seven or even nine, to support the structure. Other features include a flaring roof and a small porch.

Typical examples of the northern style are the Isneg *binuron*, “big house,” and *alan*, the sawali-walled granary; the Kalinga *kulub* (small house) in the northeastern foothills, as well as houses in the Mabaca Valley from the northern edge of Kalinga subprovince in the Apayao border into the lower Saltan River.

The binuron’s rafters are bowed into the shape of a Gothic arch. Its floor and roof are supported on a completely independent set of posts, and the floor has slightly raised platforms along both sides. Its rectangular floor plan contrasts with the square houses found on higher ground in the Cordilleras, like the Ifugao house, the Kankanay, the Ibaloy, the Bontoc, and the Sagada.

The Mabaca Valley houses are similar to the Isneg’s, being elevated, elongated, and gabled. Across the front door, an annex or a lean-to is added and used as a kitchen. Such annexes or lean-tos, porches, and various covered areas in front and at the back of the house are a regular feature of northern houses. In Mabaca, the kitchen annex may duplicate in cross-section the house walls and roof, complete with its own underpinning—a significant innovation in northern houses since it almost totally

eliminates the smoke from the stove, a distinct advantage over the southern houses.

In the lower Saltan and the upper Mabaca valleys, the curved roof with bowed rafters may not always appear, but two invariable features are: the gabled front with its two tiers of vertical wallboards and upper triangular space loosely covered with bamboo lathing, and the distinctive floor, supported by a row of posts set inside the walls, independent of the roof-supporting posts. The floor is divided longitudinally into three sections running front to back and usually covered with a rolled matting of split rattan or reeds laid loosely on laths mortised into the floor joists. The betel nut-chewing occupants can simply roll back the floor covering to open up a space to spit the juice.

In general, Kalinga houses show a three-fold longitudinal division of the floor, which is raised to chest level by posts independent from those supporting the roof and walls. But in the octagonal Kalinga house called *binayon* or *finaryon*, there is a combination of the northern three-division floor with the southern-type three-joists-on-two-girders-on-four-posts underpinning. The octagonal form is achieved by extending all four sides of the square southern house and closing in with diagonal walls the areas in between.

The Mangyan of northern Oriental Mindoro build two types of houses: the single-room family house, common in the lowlands, and the communal house, probably the older of the two, now rarely seen.

The *banwas*, as the Mangyan community longhouses are called, are built either on top of or the side of a hill, on level ground, or on a plateau, just a few hundred meters away from the clearings. The preferred location for the house is the leeward side of mountains or hills, which offers protection against strong winds.

A typical house measures about 6 meters wide and 10 meters long, with the door usually located on the narrower side. A three- or four-step ladder or a notched log leads to the small entrance. Occasionally, side doors or simply openings are added for easy access to the section allotted to the family. There are no partitions; mats, or occasionally, the bark of the lauan tree spread on the floor serves to define the space for the different families.

A steep roof of cogon grass, with the roof ridge 4 meters or more in height, protects the house from strong rains. Since the walls are very low, only a meter or less in height, the projecting eaves give extra protection from the cold. Each family has its own fireplace, so that during cooking time, the absence of smoke holes makes the whole house “seem to be on fire because smoke comes out from every conceivable direction” (Maceda 1967:114). During mealtime there is a frequent sharing of cooked food among the different families. Communal houses are generally about 1 kilometer or more apart, depending on the terrain. The occupants of different houses communicate by shouting to one another as loudly as they could. They also announce the approach of strangers in this way. Proceeding farther south, the

number of large houses for single families increases. But even the smaller houses give the feeling of expanse, of openness, more here than in the north.

An example of a large house is the two-leveled Tboli *gunu bong* found in the Lake Sebu area of south Cotabato. Around 14 meters long and 8 to 9 meters wide, it looks bigger because it has no partitions. Divisions are suggested optically by means of levels and posts. The lower central space is thus integrated with the elevated side areas: the area of honor, the sleeping areas, and the vestibule. The great size of such houses is necessary because a typical Tboli household, like the Maranao's, consists of an extended family numbering anywhere between 8 and 16 people. Polygamy, practiced by those who can afford it, adds to the number of residents in a house. Three or four such houses form a cluster, which operates independently of other clusters. Situated along hilltops and rolling land, these houses express the harmony between man and nature. The *gunu bong* looks like a roof on stilts and gives the impression of "hovering over" rather than "resting on" the spot it occupies. This is so because the roof eaves extend about 1 meter over the side walls, which are themselves just a little over 1 meter high. Unlike northern houses, Tboli roofs are not very steep. The bamboo stilts rise 2 meters above the ground. Tree stumps are also used as posts for the inner portion of the house and floor.

Despite its dimensions the *gunu bong* is, to the Tboli, a "tawny, mellow-weathered bamboo womb" where he is nestled high and free, touched by the gentle glow and texture of bamboo and the decorative richness and color of the *klabu*, the cloth canopy that hangs over where he sleeps (Casal: 1978:62-64).

Of the several varieties of houses in the southern Philippines, the house on stilts built over the water is the most romantic. It embodies the Tausug-Sama-Badjao's closeness to the sea. While the northern groups in Luzon design their life and homes around the mountain, the people of the Sulu area keep up with the rhythm of the sea—the house on stilts along the shoreline; the landhouse built entirely over water; and the ever-familiar houseboat, which is both home and fishing boat to the Badjao.

The Sama, who occupy most of the smaller coral islands of Sulu, build their houses on piles driven into the reef floor. These houses are connected to the shore and to one another by a labyrinth of walkways and bridges of timber and split bamboo. The elevation of the house depends on the maximum high-tide level in the area. This is necessary in order to accommodate the outrigger boats, which the Sama tie underneath the house when not in use. Being fisherfolk and coral or shell gatherers, they need easy access to the sea and their fishing grounds; thus their *vintas* are kept under their houses. After fishing, the Sama could easily enter the house from the boat. The typical dwelling is made of bamboo and nipa, coconut lumber and mangrove, nipa or sawali for the roof and walls, bamboo for the stairs and floors, coconut wood, mangrove or other tree trunks for the posts and other structural elements. Because the roof is low the beams that support it are outside the walls.

The design of the house is simple. It consists of a single room. Bigger types may

have many small rectangular rooms. Sama houses always feature extensive, open porches or platforms called *pantan*, usually facing east. These serve as space for drying fish, woodworking, or preparing cassava; it is also the children's playground, a gathering place for families, or a place to hold rituals. A small house, built right along the porch or terrace, usually serves as a kitchen.

Traditional houses in the area are very large, the older ones 24 x 12 meters and about 9 meters high. The more recent ones are smaller, some only 4 x 6 meters and 3 meters high. It is said that older houses had two stories and balconies and were elaborately decorated with carvings. The reason for the large size is the extended family. It is not unusual to find as many as 46 people or anywhere from an average of 2 or 3 to a high of 15 nuclear families living together under one roof.

The Badjao, often called sea gypsies, are the nomads of the south, constantly roving across the channels of the Tawi-Tawi archipelago, or wherever fish and corals are abundant. They usually congregate and travel in groups in their houseboats, singing, clapping, making noises along the way. The Badjao have three types of boats: the *lepa* or *lipa*, the *djenging*, and the *dapang*. The *lepa*, which has no outriggers is the least stable but is equipped with sails for speed. The two other boats have outriggers. The *dapang* is much larger and can properly be called a houseboat. The cheapest is the *djenging*, while the most expensive is the *lepa*.

The well-built Badjao houseboat, with the characteristic outrigger, is equipped with a bench and a removable gable roof. The *djenging* is around 4 meters long and 1 meter high at the highest point, with just enough space to squat in and to store a few possessions, like a sail, a lamp for fishing, a water jar, a stove, pots and plates; a small chest, pillows and mats, and fishing spears. The floor is made of loose planks under which are kept various items and utensils and the catch of the day. An interesting feature of the Badjao houseboat is the ornate decorative carving based on the *okkil* motif on the walls and prows, stems, shafts, and in recent times, the gunwales, usually designed and executed by the boat builder, who most likely is the owner of the houseboat.

With the conversion of many Badjao to Islam, some groups ceased to be migratory boat dwellers, settling in so-called landhouses situated near their fishing grounds. The term landhouse is actually misleading, since it is not built on land but entirely on water. Unlike the Sama house on stilts which is still connected to the shoreline by house-to-house bridges, the Badjao house has no connection to the shore. Many Badjao, however, still prefer to live in their small family boats, claiming that they get "dizzy" in the fixed landhouse, and feel safer on the boat. From birth to death, they live almost exclusively on the boat. They regard the landhouse or other shore dwellings as temporary pile shacks. Here they could easily get sick after a mere two hours' stay.

Despite their free, roving existence, there is a strong sense of camaraderie and kinship among the Badjao. On certain occasions, such as weddings and funerals, communities

of from 50 to 200 family boats may come together for the performance of certain rituals. Regretably, this life-symbol of the Badjao “dies” with the death of the head of the family, for the boat is ceremonially broken up and made into a coffin to be buried with him, along with his fishnets, fish spear, and oars.

Although mistaken to be the typical Filipino house at the turn of the century, the tree house has always been a rare sight. It is found only in a few parts of northern Luzon and in some areas in eastern Mindanao, notably among the Manobo of Agusan and the Mandaya of Davao.

The Mandaya tree house is of two types. The first rests “on the limbs of trees, conforming in size and shape to the nature of the supporting branches” (Cole 1913:182); the second is built on the trunk of a tree whose top has been cut off above the ground. Smaller poles are added to support the floor and extend upward to form the wall and the roof. Some houses of the first type have vertical sides and sloping roofs; in most cases, however, the roofs slope directly from a central ridgepole to the edges of the platform, making side walls unnecessary. Either type of house is entered by means of bamboo or rattan ladders, which are drawn up at night to prevent unwelcome entry and surprise attacks by hostile groups. The tree house is often located on the edge of cliffs and can be approached from only one direction.

Whether up on a tree, high above the water, or close to the ground, the ethnic house has lived on. Through the centuries, it has gone through numerous adaptations, brought on by history and necessity. But its underlying philosophy—symbiosis with the environment and sensitivity to the needs of its dwellers and the larger community—has endured in its essential form, and has much to contribute in our present search for architecture that will express the Filipino. • C. Hila

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