

Longhouses of East Kalimantan

Timothy C. Jessup

Longhouses are large dwellings built by the Kenyah, Bahau, Modang, Lun Dayeh, and other peoples of the interior highlands of East Kalimantan and surrounding areas in central Borneo. Building a longhouse requires great expenditures of labor and materials as well as considerable skill in wood-working and engineering. Formerly found widely throughout East Kalimantan, longhouses are now built only in a few remote parts of the province; and only in the isolated Apo Kayan plateau are they still the predominant form of dwelling. (Longhouses of a modern type described below are still common in the Malaysian state of Sarawak in northwestern Borneo.)

A longhouse (Kenyah *umaq*)¹ is actually a row of contiguous family sections, each consisting of an enclosed apartment on one side of the house and an open veranda on the other. Both are covered by one roof, with a dividing wall between apartment and veranda under a ridge-pole. Extending outward from the front and rear of some sections are uncovered platforms used for drying rice, and some apartments have enclosed extensions at the rear to provide more interior space. Inside are sleeping compartments and places for cooking and eating, for storing household goods, and for various intimate social activities.

The veranda sections joined end-to-end create a continuous gallery along the whole length of the house. The veranda is a place for all manner of work and play and for meetings, rituals, and storytelling. It is also sometimes a sleeping place for visitors and bachelors and always for the ubiquitous hunting dogs.

House sections are owned by the households or families living in them, although traditionally a

local aristocrat or chief occupying the central section has certain rights that resemble "ownership" of the house as a whole. Houses are therefore sometimes referred to as "the house of so-and-so," the aristocrat. For example, *Umaq Pelenjau* means "Grandfather Lenjau's House" (*lenjau*—"tiger," an aristocratic symbol and name). The central apartment of the aristocratic family is larger than its neighbors, and its roof is higher. Its exterior may be decorated with murals, wooden statuary, or roof ornaments.

Each house is also given the name of a nearby geographical feature, such as *Umaq Mudung*, "Hill House," or *Umaq Laran*, "House of the Laran Tree" (*Dipterocarpus oblongifolius*). Many communities occupy, or at one time occupied, a single longhouse, and perhaps for this reason the word *umaq* (or *uma*) can refer not only to a particular house but also to an ethnic community. This association with ethnic identity points to the material and symbolic importance of longhouses in the lives of central Borneo people.

Longhouses in the 19th century ranged up to about 400 meters (1,300 feet) in length, with as many as 120 apartments housing some 500 to 600 inhabitants. The width of a house was 8 to 18 meters (25 to 60 feet), and the height of the floor, raised above the ground on great hardwood piles, was generally 1 to 6 meters (3 to 20 feet). Some houses were raised even higher — as much as 12 meters (40 feet) — for defensive purposes, while others were built on fortified hill-tops. The roof rose another 8 meters (25 feet) or so above the floor and was supported on a massive frame of columns and beams. The hewn planks of the floor were up to 12 meters (40 feet) long and a meter wide.

Longhouses today are smaller than they were in the last century. Communities themselves are smaller, in large part because many have emigrated to the lowlands where economic opportunities are greater, and because large populations

¹ The terminology used in this article is in the Kenyah language unless indicated otherwise; most longhouse dwellers in East Kalimantan today are Kenyah. A terminal "q" indicates a glottal stop, rather like a "k" in the back of the throat. The Kayan word for house is *uma*, without a glottal stop.



The most distinctive feature of a traditional Dayak village is the longhouse. This communal longhouse in the north-central highlands of Kalimantan accommodates more than a dozen families. Each family lives in an individual apartment (lamin) with a kitchen extension off the back of the building.

Photo by Mady Villard, courtesy of Bernard Sellato

are no longer required for defensive purposes. Similarly, massive fortified houses are no longer needed, as they once were, to protect against marauding enemies. Changes in religion and social organization, which formerly bound people more closely to "house-owning" aristocrats, have also contributed to a reduction in the size of houses.

House Construction

Houses are periodically built or rebuilt, usually when a village group migrates. During the 19th century, many Kayan and Kenyah communities moved as often as once a decade, although some remained in one spot for much longer. Since the 1930s, with the cessation of tribal warfare and increased government control over population movements, migration has become less frequent, and so houses are rebuilt less often.

Pioneer migrants moving to previously uninhabited areas, sometimes far from their former villages, must build completely new houses. However, when houses are rebuilt on their earlier sites, or close to them, or on the sites of previous longhouses, some parts of the old houses can often be used again. If necessary, the old

parts can be transported overland or by river. Even heavy beams and columns can be lashed to canoes and floated downriver to be erected again at a new site.

Each family is responsible for preparing its own section of a longhouse, and all must contribute to the chief's central section. These preparations include selecting the various kinds of timber and other materials needed, felling and dressing the timber, and transporting the finished pieces to the house site. All this can take several years, as the work is done intermittently between agricultural seasons and may be delayed by various distractions, misfortunes, or bad omens.

The major structural elements of a longhouse are the roof-columns, beams and floorboards. For its various components, builders select different species of timber trees, palms (such as the mountain sago palms, *Eugeissona* species, whose leaves are sometimes used as roofing material), and rattan (used to fasten the other parts). Borneo ironwood (*Eusideroxylon zwagerii*) is prized where durability is important, as in shingles and piles, while lighter wood with a clear, straight grain (such as that of *Shorea* species and other dipterocarps or the coniferous *Podocarpus* and



The covered veranda of this Iban longhouse shows the gallery where daily activities and periodic ceremonies take place. Women weave and prepare food while children play nearby. Individual family apartments open onto this communal space. Photo from Dorothy Pelzer Collection, courtesy National Anthropological Archives, Smithsonian Institution

Agathis species) is preferred for making floorboards. Tropical oaks (*Lithocarpus* and *Quercus* species) are used to make shingles wherever ironwood is not available, as in the Apo Kayan. Altogether a great many species are used for building materials. A large amount of timber is required to build and maintain a house, and principally for this reason, villages are located wherever possible near stands of old-growth forest. Residents protect these forest reserves from over-exploitation or agricultural clearing.

Once all the parts of the house have been prepared and assembled at the building site, the actual erection of the structure is remarkably swift. The columns and beams are raised into position by teams of men, then fastened with mortised joints and rattan lashings or, in some newer houses, with nails. After the framework of the house is in place, each family, working on its own section, lays down the floorboards and fastens the lighter wallboards and shingles in place.

Until fairly recently, when saws began to be used, the wooden parts of a longhouse were worked entirely with a few simple tools, particularly axes and adzes. Kayan and Kenyah smiths forged these tools from locally obtained ores until

around the turn of the century, when trade steel came into wide use. Axes and adzes are still used in house construction, but other tools such as planes, handsaws, and even power saws have been added.

Architectural Variation

Longhouses differ in construction technique, materials and architectural style. Sometimes these differences can be attributed to the ethnic identity of their builders, but more often they occur as a consequence of local conditions, such as variations in terrain, the abundance or scarcity of different kinds of building materials and (in the past) vulnerability to or security from attack.

In 1900 for example, the Dutch explorer, A. W. Nieuwenhuis, observed differences between longhouses on the upper Mahakam River and those in the Apo Kayan. Apo Kayan houses were built much closer to the ground: their remote location and their inhabitants' reputation as fierce warriors made them relatively safe from attack. Other architectural differences reflected the availability of building materials. Here is Nieuwenhuis' description of the Kenyah village of Tanah Putih in the Apo Kayan:

All ten longhouses in the village were built in the usual Bahau [or Kayan] style, . . . but they stood on posts only one to two meters high and were made from different materials. The reason was that the dense population had exhausted the high forest in the surrounding area, and the quantity of timber necessary for the construction of such a large village could be obtained only from a great distance. Most of the people therefore had recourse to bamboo for constructing floors, and to large tree-leaves arranged in the form of mats for making walls and roofs. Only the houses of the heads [i.e., aristocrats] were built completely of wood. (Nieuwenhuis 1904-07, v. 2:368-369; my translation, assisted by Berthold Seibert)

Similar variations in the availability and use of materials can still be seen among the various Kenyah communities in the Apo Kayan.

A major innovation in longhouse construction appeared in Sarawak in the 1970s and spread to East Kalimantan in the 1980s. The new building technique uses relatively light-weight, sawn wooden members in place of heavy, hand-hewn timbers. (It is thus similar to the transition from framing with heavy timber to the use of the light "balloon frame" in the United States during the 19th century). This change was made possible by the introduction of power saws, which let builders cut wood into smaller, more easily transported pieces in far less time than was spent preparing timber by hand. The new houses also incorporate other modifications in design such as increased ventilation and semi-detached kitchens (to protect against the spread of fire). These changes were initially made at the behest of government officials but have since gained popularity.

Conclusion

A Dayak longhouse shelters a whole community within a single structure. They are built with

locally available materials by skilled craftsmen, who adapt form and construction techniques to the Kalimantan environment and to changing historical conditions. This adaptability can be seen in the architectural variety of houses, past and present, and in the structural innovations of recent years.

Nevertheless, it is sad (especially to one of Romantic temperament) to see the disappearance of the last old houses, with their massive hand-hewn timbers, their quaintly crooked lines, and their dark and homely smoke-filled interiors. Even more distressing is the complete abandonment of longhouses that has occurred, often through force of social pressures, in many parts of Kalimantan. In this light, the continuing innovation in longhouse construction should be welcomed as a way of combining economic development (which the people universally want) with cultural continuity and the spirit of community.

Timothy C. Jessup is a Ph.D. candidate in the Human Ecology Program at Rutgers University. He is presently working for World Wide Fund for Nature/Indonesia on long-term research and policy planning in East Kalimantan.

Citations and Further Readings

- Hose, C., and W. McDougall. 1912. *The Pagan Tribes of Borneo* (2 vols.). London: Macmillan.
- Jessup, T. C. 1990. House-building, Mobility, and Architectural Variation in Central Borneo. Paper presented at the First Extraordinary Session of the Borneo Research Council in Kuching, Sarawak, 4-9 August. To be published in the *Borneo Research Bulletin*.
- _____, and A. P. Vayda. 1988. Dayaks and Forests of Interior Borneo. *Expedition* (special issue on Borneo) 30(1):5-17.
- Kelbling, S. 1983. Longhouse at the Baluy River. *Sarawak Museum Journal* 32:133-158.
- Nieuwenhuis, A. W. 1904-07. *Quer durch Borneo* (2 vols.). Leiden: Brill.