

**TINIKAN, KAYAS, AT TÉNGLEWAN:  
BAMBOO KNOWLEDGE IN GAMATA,  
SAN CARLOS CITY, PANGASINAN**

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Bamboo is a locally abundant resource which has become part of the people who live in Barangay Gamata, San Carlos City, Pangasinan. Local knowledge of manipulation of bamboo into different products, including the manufacturing of exported goods like *obong* (chicken coops), baskets, figurines, and *bahay kubo* (nipa hut) is evidenced in distinct terms and folk sayings. This study on the current state of the bamboo industry in Gamata and its place in the life of the community describes processes involved in bamboo manipulation, and other knowledge related to bamboo. Interviews were conducted as the primary data-gathering method with most informants having direct involvement in the said industry. The narratives of the locals demonstrate how the bamboo industry has played a significant role in shaping the identity of the barangay.

***Keywords:*** *San Carlos City, Barangay Gamata, bamboo trade, Local Knowledge*

## **Introduction**

Gamata is an agricultural barangay in the City of San Carlos, Pangasinan. Located six kilometers from the city center, it is bounded by the barangays of Pangpang to the north, Pangoloan to the east, Buenglat to the south, and Balaya to the west. It has a land area of 100.78 hectares (San Carlos City

Library n.d.), and had a population of 1,427 in 2013 according to the San Carlos City Population Office (2013). Gamata became a barangay by virtue of the Barrio Charter Law in 1935<sup>1</sup>. Both Pangasinense and Filipino are used as lingua franca by residents of the barangay.

This region is also home of the ‘cattle caravans’ whose origins are traced to the interior plains of Pangasinan, or “ancient Caboloan”, as described by Marot N. Flores (2007). Her historical reconstruction of the roots of the caravan phenomenon (all over the world) went on to describe the cattle caravans in the Philippines and the exchange of goods between coastal communities (*Panag-asinan*) and the inner regions, with the former trading salt in exchange for “bamboo-based, agricultural and forest products” from the latter during the pre-Spanish era. The caravans were initially transporting agricultural produce. Flores (2007) mentions the plentiful supply of bamboo in Caboloan which served as the learning ground for basket weavers, together with other bamboo-related handicraft-makers. Caboloan settlers also used bamboo in constructing their houses (Flores 2007:383-384).

In 1962, the National Cottage Industries Development Authority (NACIDA) was created under Republic Act No. 3470. Flores (2007) states that the agency dictated market demands and this encouraged a cottage industry based on the production of household furniture with an interest in exporting the products in the global market. The NACIDA office in San Carlos was one of the first two centers established in Pangasinan, and the handicraft manufacturing industry has been cited as “the top dollar earner” in the province (Flores 2007:384).

This paper documents the bamboo industry and its current place in the lives of the people of barangay Gamata, identifying and describing some of the processes involved in production of bamboo furniture and handicrafts while taking note of local terminology [in Pangasinense] relevant to bamboo. Other forms of knowledge being passed on through generations such as folklore materials were also collected. It was part of the intention of this paper to explore the role of kinship and/or gender in the said industry. The discussion leans more towards understanding the changes that have occurred

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<sup>1</sup> Mentioned in a document entitled “The History of Barangay Gamata”, presented to the researchers by Mr. Jimmy de Guzman. This document also states that the barangay’s name is taken from how the two ‘islands’ of Gamata appear to be two eyes (*mata*) when viewed from above.

such as from the rise and peak of bamboo handicraft industry to its gradual decline, assessing the current state of the bamboo industry of Gamata based on the narratives of its dwellers.

The fieldwork took place from June 20 to June 30, 2016 at San Carlos City, Pangasinan. The researchers' general approach for this fieldwork was ethnographic. We conducted in-depth interviews with members of the community related to the bamboo industry and especially with informants dwelling in proximity to the barangay hall. These were documented with the consent of the informants, by field notes, and using voice recorders and cameras.

### **The bamboo industry in the Philippines**

In the Philippines there are about 70 known species of bamboo, of which 53 are erect while 17 are climbing. Among these, nine are considered as priority species, including “*kawayan tinik*” (*Bambusa blumeana* J.A. & J.H. Schultes), “*bayog*” (*Bambusa merrilliana* [Elmer] Rojo & Roxas comb. nov./syn. *Dendrocalamus merrillianus* [Elm.] Elm.), “*kawayan kiling*” (*Bambusa vulgaris* Schrad.), ‘giant bamboo’ (*Dendrocalamus asper* [Schultes f.] Backer ex Heyne), “*bolo*” (*Gigantochloa levis* [Blanco] Merrill), “*kayali*” (*Gigantochloa atter* [Hassk.] Kurz), “*buho*” (*Schizostachyum lumampao* [Blanco] Merrill) and “*anos*” (*Schizostachyum lima* [Blanco] Merrill). These priority species serve as raw materials for making houses, furniture, and other products (Aggangan 2015).

Bamboo is one of the most economically-important non-timber forest products in the Philippines (DOST-FPRDI 2011). With its versatility and wide variety of uses as a raw material, there have been numerous initiatives to maximize the potentials of bamboo globally. Faced by the issue of insufficient and limited supply of timber, bamboo can be tapped to meet ever-growing demand for wood. In 2010, the Philippine Bamboo Industry Development Council (PBIDC) was created under Executive Order 879 to promote the bamboo industry. It was directed to provide it for at 25 percent of the desk and other furniture requirements in public elementary and secondary schools.

The bamboo industry in the country is mainly divided into two: pole production, and, the processing of these poles into different products. According to the Philippine Bamboo Industry Roadmap, as of 2012, 33.3 percent of the pole production was utilized by the furniture sector, 32.1 percent was utilized by the handicraft sector, and 20.2 percent was harnessed

for the bamboo sector. At present, the Philippines is the fifth leading bamboo exporter in the world (Carillo 2015). With export revenues amounting to US\$3.2 million, the country's bamboo-based furniture industry has a growth rate of 15 percent every year. Meanwhile the bamboo-based handicraft industry is more progressive, reporting an export revenue of US\$8 billion, and has a growth rate of 7 percent annually (Carillo 2015). However, despite the continuous upsurge in the bamboo industry, both in the country as well as at a global level, bamboo pole resources are not enough to meet the demand. According to the Philippine Bamboo Foundation, only 52,000 hectares of land in the country are planted with bamboo (Carillo 2015).

### **Bamboo species in Gamata**

Bamboo is a type of grass that grows quickly and has a wide array of uses such as food (young bamboo shoots can be made into different dishes); as material for construction (mature bamboo poles can be used for support); and as the main material of different products such as a cane, basket, among other things. Various parts of bamboo can also be used in more complicated structures such as in furniture, and houses.

Three species of bamboos were often mentioned by the locals of Gamata, namely: the *kawayáng tunay* or *talaga*, more commonly known as *tinikan* or *tinik*, *kawayáng bayog*, and the *kawayáng kiling*, each with different qualities. These species are comparatively assessed by the locals in terms of ease of cutting and splitting and ability to withstand pests.

Among the three species that thrive in Gamata, it is the *kawayáng tinik* (Fig. 1) which grows abundantly. When reminiscing the old days, the locals still remember growing up with *kawayang tinik* in their surroundings. Until today, *tinik* bamboo line the narrow concrete roads and grow in backyards. *Kawayáng tinik* is characterized by its small branches, referred to by locals as *tinik* or *bulawit*, which could later be used as entrapments of small animals, and for fishing. *Kawayáng tinik* can be split easily, making it ideal for various handicrafts as well as for constructing nipa huts (*bahay kubo*). However, this bamboo species is usually attacked by weevils (*bukbok*) when it lacks exposure under the sun. It is sometimes artificially treated using chlorine and malathion as protective coating (personal communication from Violeta Vinluan, June 23, 2016).



**Figure 1.**  
*kawayáng tinik*



**Figure 2.** *Kawayáng bayog* as a roof support.

The second bamboo species common in Gamata is the *kawayáng bayog* (Fig. 2), which is recognized as the sturdiest kind of bamboo. *Kawayáng bayog* is primarily used in construction for house foundations and for roof support due to its thick and sturdy characteristics. According to most informants, unlike the *tinikan*, *kawayáng bayog* does not possess *tinik* or *bulitaw*, and its hollow inner space is small, hence its thick mesoderm or middle layer. *Kawayáng bayog* is not recommended as a material for handicrafts and other small-scale bamboo-made products.

The third species of bamboo is the *kawayáng kiling*, which is characterized by its ‘sharp’ skin and hard-to-cut pole (Merlita Santillan, personal communication, June 23, 2016). The *kawayáng kiling* can be used as a material to manufacture certain baskets like *tiklis*, or *kaing* (Fig. 3) (Salvador De Guzman, personal communication, June 23, 2016). However, *kawayáng kiling* is considered to be rare in the barangay.



**Figure 3.** *Tiklis* or *kaing*, made from *kawayang kiling*.

### **Bamboo as a manipulated object**

In Gamata, bamboo has been incorporated into domestic everyday life, with uses for food, recreation, and shelter.

Young shoots of bamboo, referred to as “*labóng*,” are edible and can be used in various dishes. However, according to our informants, *labóng* should not be harvested too often because this hurts the bamboo, causing its future ‘children’ to be smaller. Since this would be disadvantageous for the

barangay's bamboo industry, it is prohibited for anyone to take *labóng* without permission from the owner unless it proves to be a possible vehicular hazard growing too closely to the road.

Dried up bamboo can also be used as firewood. Based on the observations of the researchers, most of the barangay's locals rely more on firewood stoves than gas stoves.

Bamboo is commonly made use of by children at play. The locals have fond memories of games using bamboo, examples of which are *siatong* (which utilizes bamboo sticks for hitting and throwing), and *lipalpok* (a toy 'gun' to shoot leaf or paper bullets at other players). in architecture. The researchers were able to observe the presence of bamboo huts and houses in the barangay. According to informants, most of the houses in the barangay were made of bamboo, though most had been remade using cement. A strong typhoon which destroyed many bamboo houses forced the locals to adapt and modernize their architecture. However, bamboo is often incorporated in these houses, e.g. in the foundations and in the roofing.

Bamboo also has uses in other industries of the locals. In farming, which is the primary livelihood of the barangay, bamboo serves as supports for corn and crops that creep. It is also used for fishing: a bamboo length is submerged underwater, e.g. in the rivers near the barangay, to be used by the fish as a "house". Once there are enough fish living inside it, the bamboo length is pulled up.

These other uses for bamboo further emphasize the previous points regarding bamboo as a significant part of the locals' culture.

### **The bamboo industry in Gamata**

The bamboo industry in Gamata has been one of the main sources of income for the residents as far as they can remember. It has enabled them to sustain the basic daily needs of their families and their future generations. Perceived benefits from operating in the bamboo industry include having been able to send their children to school. According to some informants, through this source of income, and ample hard work and determination, they were able to put all their children through education.

Crafting bamboo-made products like nipa huts (*bahay kubo*) and handicrafts are becoming a family tradition. Currently, nipa-hut manufacturing is the leading industry due to high demand coming from commercial places like Laguna, according to some informants. Nipa huts are

often bought in bulk by commercial entities like resorts, which accounts for the rise in demand. However, the handicraft industry of the barangay is declining due to modernization and the beginning obsolescence of bamboo-made products which are now replaced with plasticwares. Other kinds of bamboo industry in Gamata face competition with the commercialization of bamboo all over the country.

The skill-passing among the locals is also a gendered phenomenon, wherein mindsets are conditioned on the difference between the biological capabilities of male and female. The locals believe for instance, that nipa-hut manufacturing is ‘fit’ for men since it involves heavy and vigorous activities of gathering and chopping bamboo and utilizing construction tools. This was shown by the surprised reactions of informants when asked if their daughters would or could inherit the skill. Women, then, have no option but handicraft-making, in regards to the bamboo crafting section of the bamboo industry. Handicraft making is also open to males.

### **Types of bamboo products**

Gamata is home to various bamboo products such as nipa huts (*kubo*), cradles (*duyan*), chicken coops (*obong*), baskets, furniture sets, and even figurines. These products are usually sold within San Carlos City, Pangasinan and other neighboring towns. Some products reach Ilocos, Tarlac, Isabela, Pampanga, Bulacan, and even as far as Manila. The following are the different types of work in the existing bamboo industry of Gamata. These have been categorized into: handicraft making, nipa hut manufacturing, being resellers, *viajeros*, and bamboo suppliers.

**Handicrafts.** Handicraft-making in Gamata is a recreation and an art form, usually involving neat strips of bamboo woven and/or shaped toward crafts for everyday home use.

Handicraft makers have picked up their skills from their parents through a ‘watch-and-learn’ method. This continues until the present but since the advent of plasticwares the audience has declined. According to Nelda Bulao, 70, the barangay’s bamboo handicraft industry had boomed because of ‘the Americans’ who found the handicrafts attractive and usually bought them as souvenirs. They became the primary target market. The industry peaked from the 1980s until the 1990s, with a lot of families working on bamboo handicrafts in their households. Children also worked on bamboo crafts



almost every day after school. However, with the departure of the Americans the industry slowly declined.<sup>2</sup>

Currently Gamata still has a number of handicraft-making dwellers who rely on made-to-order transactions from the suppliers or the *viajeros* who deliver to provinces like Tarlac, Pampanga and Nueva Ecija. Merlita Santillan, 47, has already been making bamboo handicrafts since her teenage years. During the peak of the industry she was able to create bamboo ship models and baskets. She mentioned that she is the first born, and the only child who continues her mother Lydia Sanchez, 60, legacy of handicraft making. Lydia along with her siblings had learned the craft from their father.

Together as mother and daughter, Lydia and Merlita are two of the three remaining active handicraft makers of Gamata. “*Kung minsan, ‘di na kami magbebenta sa bayan. ‘Yung mga nagbibiyaha na lang, sila na mag-oorder dito*” [‘Sometimes we don’t even bring our products to town. The buyers (*viajeros*) come here and place orders.’] (Santillan, personal communication, 2016 June 23). Currently, they produce practical objects for everyday use such as *duyan* (cradles) baskets and chicken coops (*obong*). She further mentioned that they are able to create a *duyan* in a day and that they sell it for ₱130 to the *viajeros*. The *viajeros* in turn would sell it for ₱250 each.

During fieldwork, the researchers witnessed Santillan’s manner of *pagkakayas*—the act of preparing bamboo strips by smoothing and thinning. Making practical bamboo handicrafts has been their family’s source of cash, along with her husband’s farming and carpentry work. “*Siyempre, halimbawa kung dito mo lahat kukunin, bibili ka pa ng bigas, pang-ulam, pambili ng mga sabon...*” [‘Of course for example to buy rice, viand, soap...’] (Santillan, personal communication, 2016 June 23). If, however, the income from handicraft-making is not enough for their needs, Santillan noted that they have crops such as *palay* (rice) stored for emergency purposes.

Lorieta De Guzman, 49, was also a handicraft maker since she was as young as 6 years old, following the livelihood of her parents. “*Nako, mula nu’ng pagkabata ko pa, ‘yun na ‘yung hanapbuhay ng mga magulang namin... Nagstart ako mga 6 years old*” (De Guzman, L., personal

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<sup>2</sup> [This may refer to the abandonment of the Americans of their military bases in Pampanga and Zambales due to the eruption of Mt. Pinatubo in 1991, and their final departure after rejection of the US Military Bases Extension Treaty by the Senate in the same year.]

communication, 2016 June 23). Originally from the neighboring barangay Buenglat, she now lives in Gamata together with her husband and their family. According to her, she has been making bamboo figurines for over thirty years. Her knowledge of handicraft making and basket weaving was learned from her parents. Her siblings are also involved in the bamboo crafting industry. Unfortunately, none of her children inherited her weaving and handicraft making skill.



**Figure 4.** Crafting birds made out of bamboo.

*The nipa hut or bahay kubo*, the traditional shelter of indigenous Filipinos (Lee & Nadeau 2011), is certainly one of the leading export products of Gamata. This stilt style house is never outdated in the tropical climate of the Philippines. The huts are high in demand for their well-ventilated design features. Nipa-hut manufacturing has become a leading industry of Gamata. The *bahay kubo*-makers either have their own business or are employed by contractors or agents who hire them for their services and then assign them to different provinces depending on where their skill is needed.

Jimmy De Guzman, a resident of Gamata, has been a nipa hut-maker for over forty years now. De Guzman learned how to construct huts by observing other builders when he was still a teenager, desiring to learn the trade in order to make ends meet. “*Sa hirap na rin ng buhay. Kung gusto mo*

*matutunan, yung gumagawa titingnan mo*”, he noted. Just like many hut-makers in the area, De Guzman is a hired builder, “*Yung ginawa namin pag may order, sineserbisan kami o doon kami gumagawa sa pwesto.*” [‘When there is an order, we are provided with transportation or we construct it *in situ.*’] He had traveled to many provinces such as Batangas, Laguna and Rizal, in order to make huts for resorts and other private contracts.

One problem local hut-makers often mention is of not owning their business. The local builders of Gamata lack the capital required hence the aspiration of having their own workshop or store is set aside. Another complaint the hut-makers mentioned is the small payment they receive for their labor. Rogelio Castro (2016), a nipa hut-maker, stated their income ‘is not enough’. “*Kung minsan nabibitin... Pagkasyahin mo na lang. Syempre iyan na talaga eh. Wala nang ibang mapag-kuhanan eh.*” [‘Sometimes it is not enough.... You just make it fit. That’s all you can do as there’s nowhere else to get (money).’] Others, like Jimmy De Guzman, resort to other types of work such in construction and farming.



**Figure 5.** A nipa hut (*bahay kubo*) work-in-progress.

Flores (2007) had revealed how the cattle caravans were romanticized and used to imply a 'local feel' in establishing the rurality of a setting in certain movies and television programs. Metropolitan festivities have also exoticized these caravans by treating them as decorative elements for these events. The increased demand for nipa hut production may also be attributed to such practice; the nipa hut is often seen in beach resorts, which are places that are visited for recreational purposes and even as a form of escape. The nipa hut then does not only provide guests with a well-ventilated rest area but it also aids in setting the 'mood' of being far from the hassles of everyday urban life. The nipa hut is commoditized as a symbol of the past, and 'rural', Philippines rather than its original meaning and purpose (i.e., a dwelling place).

In Gamata, the *bahay kubo* as a house to be lived in remains even if concrete houses are constructed more and more. By catering to the demands of the market, the nipa hut makers of this place have become themselves agents of the commodification of the nipa hut and its shift in meaning and value to its users.

The meaning of 'export' has come to include people with their skills. Gamata's homebred nipa hut makers are commissioned to do work in other towns and provinces as demand for their skills extends to other places in Pangasinan, to the adjacent cities and to far-off provinces within Luzon. It is more cost-effective for private and commercial entities to procure raw materials and labor than to transport the finished nipa hut.

### **Bamboo as a mobile object**

The bamboo of Gamata is a geographically-bounded natural resource. However, once manipulated into manufacture products, they may remain in the place where they originate and currently thrive, but also move from place to place, while keeping attached meanings and values intact through the livelihood of the resellers, *viajeros* and bamboo suppliers.

**Resellers and viajeros.** *Viajeros* are travelling salespersons who offer varieties of products ranging from bamboo merchandise to everyday materials. The traditional *viajero* caravan is made up of a simple wagon pulled by cattle (Flores 2007). But today most often the type of *viajeros* one will see are jeepney and tricycles carrying different bamboo products. The *viajeros* of the cattle caravans play a huge part in the transport and sales of these bamboo-based products. Informants from Flores' (2007) study claimed

that the caravans were already present during the 50s. The “*kariton*” during these times were roofless, contrary to the more familiar roofed (with “*tambobong*”) caravans that began to appear in the 70s (Flores 2007:394). The *viajeros* have not only reached neighboring provinces such as Tarlac and Pampanga, their route has also stretched to Metro Manila and even Southern Tagalog provinces (Cavite, Laguna and Batangas), and there are families from Gamata whose destination choice is northern Ilocos. These caravans have also been used in the media to portray rural and agricultural Philippines and to symbolize the romantic notion of nation (Flores 2007).

Dominador Macapinlac Bautista, 58, is one of the local *viajeros* of Gamata. His usual merchandise includes bamboo for hut-making, *papag* and *sala* sets. These bamboo raw materials are carried in a jeepney (Fig. 6) to be peddled to different provinces. According to him it usually takes over a month for all the products to be sold.



**Figure 6.** Modern day *viajeros* use jeepneys to transport and deliver raw bamboo and bamboo-made goods.

Unlike some of her fellow *viajeros*, local *viajera* Violeta De Guzman-Vinluan, 49, sells products originating from Gamata as well as from other barangays. Examples are the *palayok* (clay pots) coming from barangay Quintong in San Carlos and *bilao* (winnows) (Fig. 7). Both she and her husband buy and collect bamboo products from Gamata on Thursdays to Saturdays, and ride south to several provinces like Tarlac and Pampanga on Sundays to Tuesdays, to distribute and deliver the products to establishments such as *panciteria* (noodle houses) and *karinderiya* (eateries). Flores (2007)

mentions in her study on cattle caravans that on Saturdays, the locals of San Carlos, especially the *viajeros*, load their bamboo products in the plaza. Additionally, Kagawad Sammy De Guzman (2016) mentioned that on Fridays and Saturdays the *viajeros* coming from different barangays also load and sell their bamboo products at *Bagumbayan*, a new marketplace in San Carlos.



**Figure 7.** *Viajera* tells about her livelihood and how a *bilao* (winnow) is made.

The current Barangay Captain, Felipe Resuello, is a reseller of bamboo products. Unlike other sellers, he has his own bamboo furniture store located in Nueva Ecija. His merchandise includes bamboo beds (*papag*), chairs, *sala* sets, and huts. Both of his two sons are involved in the bamboo industry as resellers of bamboo products.

**Bamboo suppliers.** Aside from generating income from crafting bamboo products, and delivery and reselling services, Gamata is one of the communities that produce raw bamboo due to its bamboo resources.

The former barangay captain Benjamin Prado, 56 (“*Ex-kapitan*” to the locals) owns a 9-hectare land filled with bamboo that he inherited from his father. *Ex-kapitan* is one of the few bamboo sellers who generates his own

bamboo in bundles and sells them for ₱120/piece. Each pole ranges from 30 to 40 feet long. He narrated the high export rate of raw bamboo and the peak of the bamboo selling industry that occurred in the 1980s. He added that there was even a time where bundles of his bamboo were exported to Japan. But when the American agents gradually departed the country, the export rate slowly declined. Taking care of bamboo for him is easy and convenient. “*Oo, kasi, ‘pag pinataba mo ‘yan [bamboo], ‘pag tag-ulan, pabayaang mo lang ‘yan eh’*” [‘Yes, because, when you let it grow big, in the rainy season you just leave it alone’], he said. November is the month when bamboo is usually harvested, but he further noted that he harvests bamboo in different schedules to store some for other seasons of selling. Currently Ex-kapitan is hesitant to pass the land to his children who are mostly away, in other provinces and in another country, focused on their own careers.

### **Bamboo terminology**

Terms relating to bamboo were acquired from all informants, including those not directly participating in the bamboo industry, proving that bamboo has long been part of their ecological setting. The terms collected by the researchers mainly revolve around the applications of bamboo that could manifest a mental model or a schema of concepts in which bamboo is significantly involved.

***Bamboo color perception.*** The locals of Gamata track the age of bamboo by its color. Elder Alejandro Ramos (2016), mentioned that there are two distinct colors of bamboo to be observed, namely, (*ma*)*puti-puti* or ‘whitish’ and (*ma*)*pula-pula* or ‘reddish’. *Maputi-puti* bamboo (Fig. 8), is ‘young’ – “*bata*” or “*mura*”. The outer layer is usually smooth, soft and delicate in texture. The best example of this is the *labóng*, which can be eaten as viand or fed to farm animals.

*Mapula-pula* bamboo (Fig. 9), is also described as ‘old’ or “*magulang*”. The skin of a *mapula-pula* bamboo feels rough and sturdy. *Mapula-pula* bamboo can be used as material for construction and house support.

***Parts of bamboo.*** There are many terms for parts of bamboo in Gamata. The basic parts are diagrammed in Figures 10 and 11.

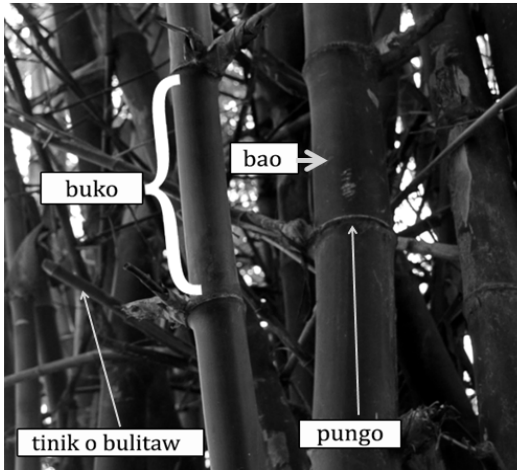


**Figure 8.** Young bamboo is described as ‘whitish’ (*maputi-puti*).

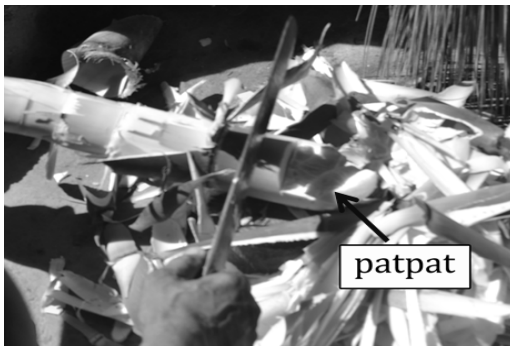


**Figure 9.** Mature bamboo is ‘reddish’, “*mapula-pula*”.





**Figure 10.**  
Parts of  
bamboo  
[according to  
informant  
Jimmy De  
Guzman,  
2016].



**Figure 11.**  
*Patpat* is the  
inner white  
skin.

*Bao* refers to the inner skin of the bamboo, which is often used for making handicrafts such as *duyan* (cradle) and baskets. *Pungo* is the line that encircles the body at each node and where the ‘eye’ (*mata*) or ‘knot’ of the bamboo originates. The ‘eye’ of the bamboo will be further discussed later on. *Buko* refers to the internode segment or the space between *pungo*. And when the *buko* is opened, the internal lining is called *patpat*. It is usually white in color, and used also for handicraft making.

***Duyan-making.*** The process of *duyan*-making is divided into eight steps described by the following terms according to handicraft maker Merlita Santillan (2016): With *kawayáng tinik* as raw material, the steps are (1) “*Panagbiyak*” – ‘to split’ the bamboo poles. (2) “*Panagsigsig*” – to make smaller thinner strips. (3) “*Panagbanban*” or “*Panagkayas*” (Fig. 12) –

peeling and smoothening the outermost layer (*bao*). (4) “*Panaglaga*” or “*Panaghabi*” (Fig. 13) – weaving. In this step, the pattern is kept with a temporary plank of wood inserted in the center. The plank is removed with (5) “*Panagbawer*”— shaping the cradle. (6) “*Panagsuksok*” – ‘insertion’ of remaining strips for finishing and aesthetic purposes. (7) “*Panagtagpis*” – adding a frame of thick bamboo. (8) “*Panagtaker*” – binding with [plastic] straw to secure the frame. The finished product will then be sold to *vijeros* and will be sent to other provinces.



**Figure 12.** Doing *panagkayas* or *panagbanban*.



**Figure 13.** Doing *panaglaga* or *panaghabi*.



Figure 14. Weaving a *duyan*.

**Other terms.** The locals of Gamata also have terms for bamboo relating to relative length. “*Ténglewan*” refers to bamboo that was broken during a typhoon. This term is also associated with folk sayings which will be discussed below. “*Kalasan*” refers to ‘short bamboo’, a specific length of bamboo. “*Bolo*” is a variation of *kalasan*, and was said to be a term borrowed from Kapampangan.

### **Bamboo-related beliefs**

The Gamata locals interviewed stated that bamboo has been abundant in their barangay for a very long time. They possess intimate knowledge of bamboo, as seen in their terminologies and based on the ethnographic observations of the researchers. Also proof of bamboo as an important element of the Gamata locals’ culture is the existence of bamboo-related beliefs and sayings. They were handed down by the elders and are possibly remnants of the locals’ ancestors’ religion which have found their way to the present via oral tradition. Today, many of the beliefs are considered by the locals as strange advice that has no logical meaning. Some choose to heed them while some choose to discard them.

Bamboo or bamboo-related material would be the center of the belief and the catalyst of action or an effect which is usually related to life or health. The aspect of bamboo involved is specific— it may be a part of it (i.e. ‘eyes’, top, bottom, etc.) or a form (i.e. harvested bamboo, used bamboo, bamboo craft, etc.). In these beliefs, bamboo affects those immediately related to the bamboo such as the owner of the piece of bamboo handicraft, or the family that lives in the house constructed fully or partially of bamboo, or their domesticated animals. These effects are related to the physical well-being of the affected. Death and illness are often the results.

The researchers have classified these beliefs into ‘bamboo eye-related’ beliefs and ‘other bamboo manipulation-related’ beliefs. The ‘eyes’ (*mata*) of the bamboo are the knots in the nodes of the bamboo. The manipulation-related category concerns bamboo after it has been used by humans (i.e., harvested, turned into handicrafts, used as building material, etc.).

**‘Eye’-related beliefs.** These are of common knowledge among most of the residents. The ‘eye’ (Fig. 15) of the bamboo is a notch in the middle of the ring that separates each segment of bamboo. The most well-known is the saying that one should not poke or stab the ‘eye’ of the bamboo (such as with a nail when the bamboo is used in construction) or else, someone will go blind. According to one of the *kubo* makers we interviewed, “...*yung sa kawayan, ‘pag ginagawang bahay, hindi daw puwedeng butasan yung mata. Para daw pag magbutas ka ng mata may lalabas na sa pamilya mo mabubulag daw ang mata.*” [‘when bamboo is made into a house, you are not supposed to put a hole in the ‘eye’. It’s like if you put a hole in the eye a member of your family will go blind.’]

Another ‘eye’-related belief is that the direction the eyes are facing can cause sickness to befall someone. When bamboo is used in the construction of a ceiling, the ‘eyes’ should not be facing downwards. If they are, the children of the house will grow up sickly. If someone in the house is sick, someone should check the direction of the ‘eyes’ and turn them towards the right direction so that the sick person can be cured. Bamboo ‘eyes’ facing the ‘wrong direction’ can also give the house’s inhabitants bad dreams.

Another ‘eye’-related saying involves the morphological characteristics of bamboo. The ‘eyes’ of the bamboo often alternate at the *buko* or node. A bamboo with consecutive eyes is considered lucky since it is a rare occurrence.

From the frequency of sayings involving the ‘eyes’ of the bamboo it is apparent that these are to be treated with respect, because if damaged or mistreated this causes something bad to happen, which could also be interpreted as a punishment. The ‘eyes’ of bamboo are powerful entities since they can affect health, and dreams.



**Figure 15.** “Eye” of the bamboo on slats at the floor of a nipa hut.

***Bamboo manipulation-related beliefs.*** These are often related to the building of houses, whether it is a house for people or for animals (i.e., chicken coop). An example of this is a bamboo that breaks in half during a storm, which is called *ténglewan*. If *ténglewan* is knowingly used in making a chicken coop, the chickens will die or something bad will befall the owner of the coop. If however the owner of the bamboo product does not know it is made of *ténglewan*, nothing will happen.

When bamboo is harvested, the top part is cut off first and the bottom part or “*puno*” is cut down a year later. According to the residents, the bottom part should not be used for the foundations of a house (the effect was unshared however).

A bamboo house post can also be used as a coin bank by making a small slit in the hollow part through which coins can be deposited. However if one saves coins there, it is said that an accident will occur, since the act of saving money anticipates an event which will use up the money.

The greatest enemy of those who use bamboo is the *bukbok*, an insect that eats wood. To prevent *bukbok* infestation, the elders say that one should knock on the bamboo with one's axe first before cutting it. Saying, "*Paumanhin po*" or excusing oneself from the bamboo before harvesting it is also said to prevent *bukbok*.

There is also the prohibition against cutting down bamboo when one's wife is pregnant, else she will have a difficult delivery. A saying that involves *labóng*, or the young bamboo, is that when harvested too often, bamboo will feel hurt and will only produce small 'children' (*anak*).

These beliefs show that the locals of Gamata have been harvesting bamboo and making bamboo products for a long time. They further prove that bamboo plays an important role in their material and symbolic culture.<sup>3</sup> The locals view bamboo as a powerful object and this power still exists when the bamboo is turned into a product. It is also apparent in the way the locals value having bamboo inside their homes, whether in the form of furniture, crafts, or their house foundations.

Those who did not directly use bamboo, such as the bamboo cutters and resellers, did not show as much knowledge of bamboo as the craftsmen. The informants who were not members of the bamboo industry or did not grow up in Gamata were unable to share bamboo-related beliefs or sayings. This shows that those who create products out of bamboo are more intimately acquainted with their material than other members of the industry and of the barangay.

Some informants expressed that they choose to heed them while others dismiss them entirely. Those that no longer understand the sayings but choose to follow them consider them as safeguards or backup plans. Those that reject the sayings have substituted modern science or Christian teachings. Mrs. Noreta de Guzman stated that her mother's generation lived by the old sayings and related them to her, but considers that such are no longer relevant and advised the researchers to 'believe in God instead'. [*Yung nanay ko parang nabubuhay sila sa ganung pamahiin. Kahit ngayon tinuturuan pa rin nila ako. Kahit kung may dinaramdam yung ano baka*

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<sup>3</sup> According to Oliver Douglas (2010), folklore is rooted in the ecological surroundings of a group. When a material in the environment (a type of plant, animal, artifact) has been in the lives of the group for a considerable amount of time, this material often finds its way into the group's folklore.

*kinukulam kung ano ano. Wala na. Wag kayo maniwala, dun sa Diyos kayo mag-ano.”]*

It is possible that the reason that the researchers were unable to collect bamboo related folklore is that many of the locals no longer listened to their elders’ sayings after being educated, or having been influenced by other cultures. It is possible that the reason there are only the barest hints of bamboo-related folklore in the barangay is due to this current shifting situation. The fact remains, though, that there is a corpus of bamboo-related beliefs and practices in the culture of the locals, which shows that bamboo has long been part of their ecological surroundings and has permeated their folklore and culture.

### **Barangay Gamata’s identification with bamboo**

Bamboo has been formally claimed by the barangay as a symbol of identity as can be observed from how bamboo is included in the official barangay Gamata seal (Fig. 16). Gamata is identified with the different bamboo products produced by the locals. These finished products serve as symbols of Gamata when they are distributed outside of the barangay through the *viajeros* and exporters.

Another manifestation of bamboo as a part of the barangay’s identity is seen in the barangay’s participation in the city-bound festival held every April. Each barangay showcases their identities in a parade during the *fiesta* in San Carlos. Gamata usually has bamboo-made decorations for the parade and even a dress made of bamboo for their contestant in the *fiesta*’s pageant.



**Figure 16.** The seal of Barangay Gamata includes bamboo as one of its elements.

## **Conclusion**

The importance of bamboo in Gamata has been described in terms of livelihood and the craft industry, as well as as a part of local culture. Bamboo is a part of the locals' surroundings and knowledge, and plays a significant role in their everyday lives. Bamboo has become a manipulated material for domestic use and has also become an industrial product exported outside the locale. With the export of materials made from bamboo as well as of the labor force in the construction and crafting of bamboo-made products, the bamboo industry thrived. The handicrafts industry further deepened the relationship between the locals and the bamboo they are surrounded by.

With the decline of the demand for bamboo products however, the locals' economic status has suffered. Gamata also has many competitors in the bamboo industry since there are many areas in the Philippines where bamboo thrives. The exporting of bamboo products, or, of their makers to areas with their own bamboo (and bamboo artisans) is very rare. Meanwhile, the local demand for bamboo within the barangay also declined as the locals shifted from bamboo products to plastic products due to practicality and modernization.

Though there was a decline in demand for bamboo products inside and outside of Gamata, the locals still see their bamboo industry as their main source of livelihood. A significant number of people continue to be involved as basket and *duyan* weavers, chicken coop makers, bamboo furniture makers, nipa hut makers, bamboo farmers, bamboo harvesters, and *viajeros*, even as not all members of the barangay are solely dependent on bamboo and are focused as well on farming crops and taking care of livestock.

This relationship with bamboo exists until today as proven and supported by the linguistic, material, and folklore knowledge they possess regarding bamboo. Kinship and gender relations are also implicated as informants involved in crafting and constructing bamboo merchandise, or bamboo selling, possess skills passed on to them by their parents, or another member of their kin group. With these longstanding knowledge and experiences, bamboo is already part of Gamata identity, valued by the locals as such.

## **Recommendations for further study**

Several suggestions for future studies are recommended due to the limited time spent by the researchers on the field. First, is to document other



processes of manipulating bamboo, such as in handicraft making and nipa hut and furniture manufacturing. (The researchers only documented the procedure involved in making *duyan* (cradle).)

Comparing Gamata's bamboo products with those of neighboring barangays in San Carlos will shed information on the distinct features of Gamata's products as well as processes involved in manufacturing. This may also show localized unique designs that vary from barangay to barangay. It may lead to related studies regarding consumer preference. Since many informants claimed that the rise and decline of the bamboo economy is greatly related to the American presence in military bases in the Philippines, another aspect that should be confirmed and further explored is how to account for the rise and fall of the bamboo export industry.

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