# OF PLACE-NAMES, MAPMAKING, AND WAYFINDING: THE SAGO (*METROXYLON SAGU* ROTTB.) FOREST IN BUNAWAN, AGUSAN DEL SUR

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The sago (*Metroxylon sagu* Rottb.) forest found in Bunawan, Agusan del Sur is engaged by the Agusanon Manobo in various means and scale – primarily for sago starch extraction, thatching, and also for seasonal fishing and hunting. In the process of engaging the resources of the sago forest, the Agusanon Manobo have assigned place-names based on the cluster-forming vegetative characteristic of the sago palm. This paper looks at the interface between physiographic aspects and cultural dimensions in the utilization of and engagement with the sago forest. Two key informants who have a long history of engagement with the sago forest were asked to do an inventory of the place-names they know. The said informants were further asked to draw a map showing the place-names' locations. The generated maps indicate knowledge variation between the two informants – e.g., number of place-names they know and the locations of place-names relative to one another. I further investigated by venturing inside the sago forest to obtain the GPS coordinates of the place-names. These coordinates were then plotted on a high-resolution satellite image of the sago forest. By juxtaposing the GPS data and the actual cultural practices, a plausible explanation for the knowledge variation between the two informants can be put forward.

***Keywords:*** *Sago forest, place-names, mapmaking, wayfinding, ecotope*

"… the landscape is never complete: neither 'built' nor 'unbuilt', it is perpetually under construction. This is why the conventional dichotomy between natural and artificial (or 'man-made') components of the landscape is so problematic." – Tim Ingold, "The Temporality of the Landscape" (1993:162)

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**Introduction: Distinguishing between sago clusters and forest**

In Bunawan in Agusan del Sur, sago (*Metroxylon sagu* Rottb.) thrives as forest-like structures on the marshland part of the town. One of the key features of sago, locally known as *lumbia*, is its cluster-forming vegetative characteristic. If left undisturbed for a long period of time, a single sago stand can grow into an extensively large sago cluster and eventually becomes forest-like or locally referred to as *kalumbiahan*. Among the Agusanon Manobo, the Indigenous Peoples of Bunawan[1] in Agusan del Sur, they have specific terms for two types of sago clusters – the vast and 'wild' are called *kag-od*, while the small and planted are called *tadlok.*

**Figure 1**. The palms on the right side of this photo are an example of sago clusters (*tadlok*) growing on a rice field beside a barangay road in Mambalili.

[1] The specific barangays in Bunawan where I conducted the study are Mambalili, Nueva Era, and Poblacion. I have considered concealing the names of the specific barangays where I conducted my fieldwork to protect the interests of the communities from any repercussion that this study might entail. However, anyone who inquires about the location of the sago forests in Bunawan would unmistakably be pinpointed to these barangays, thus rendering the concealment irrelevant. The names of the key informants, however, were replaced by pseudonyms.

In an earlier study, *tadlok* is defined as "*natural na mga parsela o magkakadikit na mga klastera ng mga punong yumbia"* (natural parcels or contiguous clusters of sago trees [my translation]) (Paluga & Abadesco 2010:5). In this study, however, three Agusanon Manobo informants define *tadlok* as: (1) "*gagmay ra na siya na pundok basta tadlok*" (*tadlok* are just small clusters); (2) "*kanang tadlok na pinulungan, kana bitaw'ng solo ra, wa magdikit*" (the term *tadlok* refers to solitary sago stands, those that are not contiguous; and (3) "*basta tanom, tadlok*" (it's *tadlok* if it is planted).

A *tadlok*, therefore, has two basic characteristics: (1) small, and (2) planted. In the vast sago forest, a sago cluster that is not attached to a bigger cluster will be considered a *tadlok.* The category *tadlok* is defined based on its size and in relation to a *kag-od. Tadlok* that are found in rice farms (Figure 1) are usually privately owned, while those that are found in the sago forest are considered communal.

**The sago forest as an 'ecotope'**

Landscape ethnoecology is defined as:

> a set of named categories such as "marsh," "cliff face," "old-growth forest," "hedgerow," "mangrove swamp," "oak copse," and "lawn," each of which refers to a perceptually and functionally distinct landscape feature" (Hunn & Meilleur 2010:15).

In this formulation, the sago forest can be considered as an 'ecotope' which is defined as the "smallest ecologically-distinct landscape feature" (Hunn & Meilleur 2010:15). This is evidenced primarily by the concepts of *kag-od, tadlok*, and the grassland (*hamit*) that uncover the categories that the Agusanon Manobo employ in distinguishing the sago forest as a distinct landscape,[2] compared with other recognizable ecotopes in the area such as the lake (*danao*), marshland forest (*guyang*), and even rice fields (*basakan*). The term '*kalumbiahan'* itself is already concrete evidence that the sago forest in Bunawan is a 'perceptually and functionally distinct landscape feature'.

[2] The sago forest as a distinct landscape could serve as the basis of the name of a place. For instance, a place in Cebu island called Saksak is based on the presence of *M. sagu* in the area (Seidenschwarz 1988). Another example would be Barangay Lumbia in Cagayan de Oro City, which is the location of the old airport of the city.

The sago forest also serves as a resource not only for sago harvesting (*sakol*) and sago thatching (*sani*) but also as hunting grounds. The sago forest as an ecotope is home to various species of game animals. They are hunted by various methods such as by *ping-pong*,[3] guns, or traps (*lit-ag*). Wild pigs are called *baboy kadlanganun*, with the adult male called *pakot* who is notoriously known to be fierce and will put up a fight when threatened by humans. Local monkeys are called *amo* and the alpha male is called *aliwas.* A mother is called *bansyad* and a young macaque is called *piyas*. Civet cats or *milu*, as well as wild chickens, are also reportedly found inside the sago forest.

During the seasonal flood (*sigay*) around November to February, a large portion of the sago forest, especially the grassland (*hamit*), is submerged in floodwater. Among the Agusanon Manobo, this is an anticipated event because aside from the possibility of towing sago boles from the sago forest, it is also an opportune occasion for them to fish. Aboard their canoes (*baruto*), most if not all Agusanon Manobo farmers in Mambalili become fishermen using various fishing technologies (*pangawil*) ranging from hook-and-line to cast nets.

Alaba (2010) describes the Agusanon Manobo as 'part time fisher, full time farmer.'The freshwater fish that is mostly associated with the sago forest is *pantat* (*Clarias* spp.), although *puyo* (*Anibas testudineus*) and *haluan* (*Channa* spp.) are also caught. Alaba further writes that 'passive fishing' is commonly practiced in the area. Examples of this include using bamboo fish traps (*bubu*) that are strategically placed and left overnight in areas perceived to be abundant in fish.

### ***Kalumbiahan*** **as the sago forest**

The most important and significant sago clusters are found in the boundaries between the barangays of Mambalili, Poblacion, and Nueva Era (see Figure 2). As mentioned earlier, these sago clusters constitute forest-like structures due to their vastness. Abadesco (2010) lists the place-names of this sago

[3] *Ping-pong* is not the actual table tennis ball but it is an assemblage of several materials that resemble a *ping-pong* ball in shape. It contains gunpowder and crushed marble tiles wrapped by multiple layers of plastics obtained from food packs such as Milo®. It is coated in beeswax as its final wrap to avoid water from seeping in to the inner chamber where the gunpowder is found. *Ping-pong* that explodes when eaten by an animal is used in passively hunting wild pigs. It is installed in strategic places in the sago forest, especially those areas that are perceived as the pathways of wild pigs, the target game. It is placed inside a boiled egg or wrapped using a monitor lizard (*halo*)'s skin that serves as bait.

forest in Mambalili, which I used as initial data in studying the sago forests in Bunawan. Table 1 shows the expanded list of the place-names from 17 (Abadesco's study) to 23 (this study) and the names of the previous owners were added as new data. Abadesco identifies three factors in the naming system of sago forest, namely: (1) based on a person's name; (2) observed physical characteristics; and (3) 'folkloric source'. He derived these factors by examining the etymology of the place-names – e.g., *Dunggon Busaw* was named because of the *busaw* (malevolent spirits) that are believed to be found in the place.

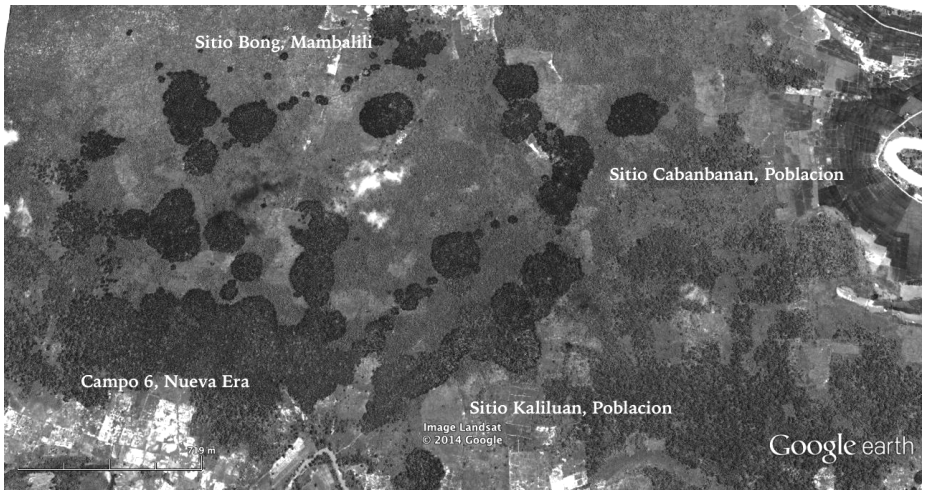


**Figure 2.** A high-resolution satellite image of the *kalumbiahan* in relation to the four surrounding communities. The dark shades in the middle of the map indicate the sago clusters and their sizes.

(Map source: Applied Geodesy and Space Technology Research Laboratory, Department of Geodetic Engineering and TCAGP, UP Diliman, Quezon City [hereafter referred to as AGSTRL])

**Table** 1. A collated list and description of sago forest place-names.

| Place-names | Descriptions |
|---|---|
| *Dunggon busaw* | One of the nearest sago clusters |
| *Eluncio* | Near *Dunggon Busaw* and *Samong* |
| *Hinawa* | Next to *Lingkad* |

| Place-names | Descriptions |
|---|---|
| *Ibay* | Sometimes called *Ki-ibay* |
| *Kabakungan* | Few wild pigs are found |
| *Kagi-atan* | Floating sago cluster; home of the wild pigs; frequently engaged for sago starch |
| *Kang Seling* | Frequently engaged for sago thatch |
| *Kangbuwawan* | Sago boles were used in exchange for gold, thus the name; originally named 'makalibre,' became a source of food during the war; frequently engaged for sago thatch |
| *Ki-iya* | Largest area; fenced/surrounded (*gikural*) by sago palms; last sago cluster |
| *Kibagyo* | Abundant with harvestable sago boles; rich in wild pigs |
| *Kibuyo* | Only a few harvestable sago boles; frequently engaged for sago thatch |
| *Kilabungan* | Sago boles are small in size |
| *Ki-uyog* | Sometimes called *Kinyog* |
| *Langoyon* | Near *Samong* |
| *Lingkad* | 3 hectares in coverage |
| *Maubod* | Last area for shooting (*pamusilanan*) games; divided into two areas, together with *Panaka*; site of the '*Iglesia'* when they tow sago boles |
| *Panaka* | Divided into two areas, together with *Maubod* |
| *Pangwas* | Set afire (*nasunog*) by sago thatcher in the 1980s |
| *Piyo* | The first and nearest sago cluster |
| *Samong* | One of the nearest sago clusters |
| *Sinunugan* | Sometimes called *Kang Leoncio* and/or *Ki-uyog* |
| *Suna* | Sometimes called *Kilabungan*; large sago boles but lesser starch content |
| *Tapiso* | 20 hectares |

Abadesco further reports that many of the place-names were actually derived from a person's name (e.g., Piyo). He explains that this was mainly due to the people who camped out in the sago forest when the old settlement of Linunsuran was too far away from the sago forest. This naming system of the sago forest based on a person's name was also confirmed by many informants of this study. For instance, one informant narrates that Piyo and Ibay might actually have been a couple since Ibay is a name for a woman; thus, they may have owned this specific sago cluster conjugally. The morpheme "ki" supports this idea because it could mean "owned by" – as in the case of Ki-iya (owned by Iya), Kibagyo (owned by Bagyo), Kibuyo (owned by Buyo), and so forth. However, I could not find anybody from the research area who knew anything about the people whom these place-names were named after.

I asked the old informants whether they knew who Piyo was, but they said they did not know him because he would be one of the "*karaang tawo"* ('people from long ago'). While places named after people suggests a form of ownership, at present sago forest areas are not associated with any living person in the village and are considered communal resources. Yet my inquiries seemed to indicate that while the sago forest is considered communal right now, it has claimants in the past. Given that some of the place-names are named after personalities who no longer occupy a space in the memory of the present Agusanon Manobo, we could surmise then that the sago forest is a very old ecological landscape. In terms of dating the landscape I would note the importance of sago in trade during the 16$^{th}$ century (Ellen 1979), as well as Dampier's (1937) account of sago consumption in Mindanao in the 17$^{th}$ century, sago suckers (not only the sago starch) might have been traded from Butuan (Hontiveros 2004) to upper Agusan via the complex river network.

**Narratives on place-names**

What follows are the narratives of various informants on selected place-names, which may serve as indicative narratives on the rich history of the sago forest according to the Agusanon Manobo experiences.

***Kangbuwawan***. This place-name is also known as '*makalibre*' because people can obtain food here for free (*libre*), especially during emergency or difficult situations. During the Second World War, the Agusanon Manobo depended on this place for their food. This is also called '*kadakuwaan*' which means it is the largest sago forest in terms of land coverage. A sizeable portion of this place-name, however, was converted to rice farms

by Cebuano[4] migrants. Some informants note that there used to be a cemetery found in this place, especially in the area that is near Campo 6, Nueva Era. Grave goods were found in the said cemetery because the people who were buried were "*diwatahan"*.[5] The Cebuano migrants allegedly found the grave goods when they cleared this area for rice farm conversion. This was confirmed by the barangay captain of Nueva Era. He said that they found porcelain and other antique materials when they cleared and converted this portion of sago forest into rice fields. The barangay captain quickly added, however, that most of the artifacts were already damaged.

***Kagi-atan***. This is described as an elevated places that serves as a refuge of wild pigs during high floods. One informant described this place to be a former site of 'treasure hunting' where they dug the ground in search of gold. Instead of gold however, only piles of sago bark were found. Beneath the sago bark was water. This is the reason why Kagi-atan is known to be the "*naglutaw-lutaw nga lumbiahan"* (floating sago forest). A complaint against a certain person was also filed with the Department of Environment and Natural Resources (DENR) because he allegedly cleared portions of this sago cluster to make a rice field. There were also other individuals who built their houses in or near Kagi-atan in an attempt to convert the area for rice fields. They all eventually left because they could not endure working the marshy terrain. Whenever they worked the land by removing and clearing the vegetation, the water merely got deeper. Thus, the land was not suitable for rice farming, as their crops would only be submerged.

***Sinunugan***. The story of *Sinunugan*, as the name suggests, involves fire. One informant narrated:

> *Kana diayng gi-ingon nako na Sinunugan. Siyete ektaryas na. Ting-init man to unya daghan lagi nang-abatod, sus naka ana diay ug sigarilyo didto sa kuan unya mala kaayo ang dahon na mga patay! Pag adto lagi, asa pay paka sa lumbia makita nimo. Pirting hamisa na, laos tanan kalumbiahan. Ting init to, 1981.*

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[4] This refers to the language Cebuano or commonly "Bisaya" or "Binisaya", and not the place origin that is Cebu Island. Thus, the migrants I refer to may come from other islands such as Bohol or Leyte. .

[5] *Diwata* are supernatural beings that can guide one's social and spiritual life (De Castro 2010; Buenconsejo 2002). Thus, these *diwata* were actually *baylan* (shamans) who occupied a prestige status next to the Datu, according to Jose.

> [That *Sinunugan* I have mentioned is seven hectares [in size]. During the summer of 1981, a lot of people harvested sago grubs [*abatod*] and one of them threw his cigarette, it fell on the dried sago fronds which littered the place. After the fire, the sago forest was burned to ashes.]

**Figure 3.** One of the sago clusters that is least disturbed from starch extraction or thatching activities, *Kibagyo* is known to be abundant with harvestable sago boles and rich in wild pigs. The sago stands in this photo were devastated by Typhoon Pablo in December 2012 thus the small number of sago fronds left on its crown.

**How large is the sago forest?**

Having had the privilege to view a high-resolution satellite image (HRSI) of the sago forest, it appears to me that the sago clusters are not actually as large as some Agusanon Manobo informants often project them to be. For instance, one informant estimates that the entire sago forest is about 300 hectares. In many occasions, I have also heard of such generous estimates whenever I ask how large the sago forest is. This could be explained perhaps by the difficulty of traversing the terrain. As someone who has ventured inside and trekked in the sago forest a couple of times, I could attest to how demanding the endeavor is. A stretch of one to two kilometers may take an hour of treading on the thick and deep mud. Because of such difficulty and slow mobility inside the sago forest, it gives one a feeling that it is vast indeed.

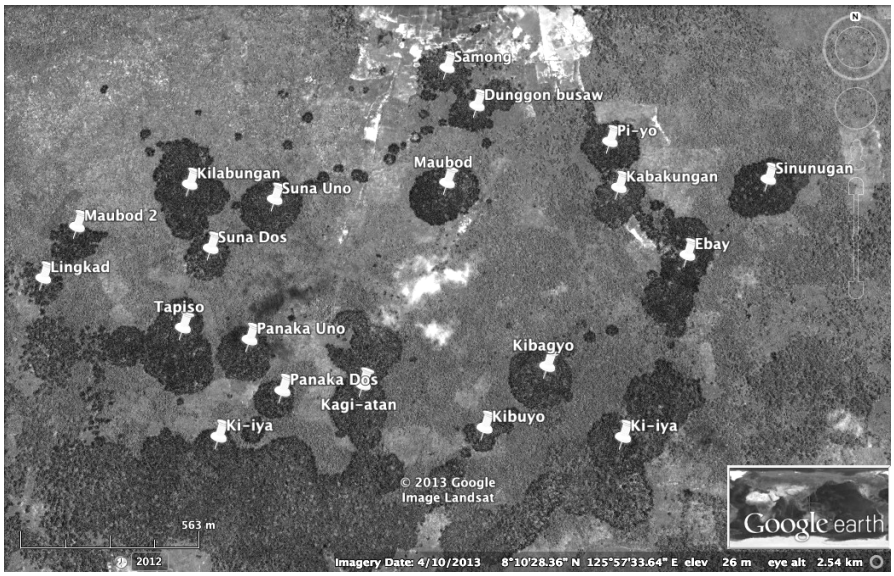


**Figure 4.** Plotted sago forest place-names

(Map source: AGSTRL)

From a bird's-eye view, as can be gleaned from the HRSI, the sago clusters appear relatively near one another (Figure 4); the sago forest is actually not that large as compared with local estimates. It is not in fact a continuous stretch of forest. Rather, it comprises several sago clusters, and in between these clusters are marshland grasses that are sometimes greater in coverage compared with the sago clusters. Many informants refer to this grassland gap between sago clusters as "*lat-ang*" and they often include it in their estimate of the size and vastness of the sago forest. This is the main reason for the generous local estimates.

Recently, a study was conducted to survey and map out sago areas in the Philippines using 'optical and radar image analysis' (Santillan et al. 2013). The sago forest in Bunawan is ranked second largest among 'aggregated areas of sago palm stands' in the entire Philippines with a total of 154.55 hectares (Santillan et al. 2013:155). The largest and third largest sago forests in the Philippines are also found in Agusan del Sur – in the municipalities of La Paz (231.84 hectares) and Veruela (145.88 hectares), respectively. These sago forests are found in protected areas, particularly in the environs of the Agusan Marsh and Wildlife Sanctuary.

**Two cases of mapmaking using sago forest place-names**

In order to further understand the sago forest place-names, I asked two informants to draw a map of the place-names known to them – a method first explored by Paluga and Abadesco (2010). The first map (Figure 5 was drawn by Ariel and the second one (Figure 6 was drawn by Jose. Ariel – is actively engaged in hunting activities inside the sago forest. He uses ping-pong (see footnote 3) to passively hunt wild boars inside the sago forest. Ariel resides in Mambalili. Jose is the tribal leader of one of the surrounding communities of the sago forest. He, too, used to hunt for wild game inside the sago forest until he was constrained to stop by old age. Both informants are Agusanon Manobo. Ariel and Jose are knowledgeable about the place-names based on their seasoned experience in engaging with the sago forest as hunters. Although there are other informants who are also knowledgeable about place-names, their mode of engagement with the sago forest is usually exclusively sago starch harvesting.

Ariel and Jose, aside from being sago starch harvesters themselves, hunt for wild game inside the sago forest, which necessitates deep knowledge not only of place-names but also skill in traversing the various difficult terrains of the sago forest. In their hunting activities, Ariel and Jose often reach other named places, such as *Lingkad* and *Tapiso*, which are not reached by the typical sago starch harvesters.

There were no women informants that were as knowledgeable about place-names, if compared with Ariel and Jose. This is not to say, however, that there are no women who venture inside the sago forest, as I have interviewed women informants who actively harvest sago starch from the sago forests. Their knowledge of place-names, however, is not that substantial compared with that of Ariel and Jose.

Jose's knowledge of place-names is particularly important because he resides in Sitio Kaliluan in Barangay Poblacion, the southern portion of the sago forest. While Jose has extensive knowledge and experience in engaging with the sago forest, his accounts are different compared with those of Ariel and other Mambalili informants.

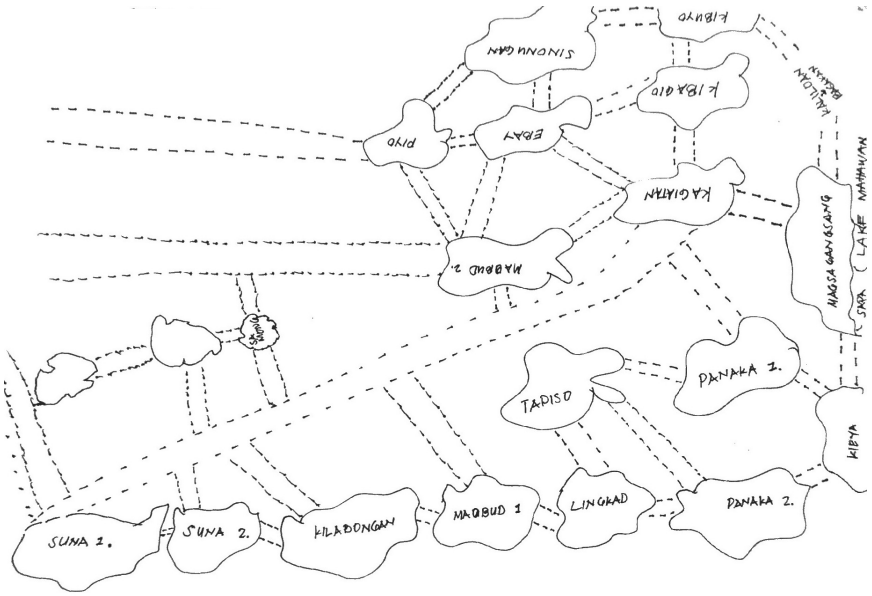


**Figure 5**. The sago forest map drawn by Ariel of Brgy. Mambalili.

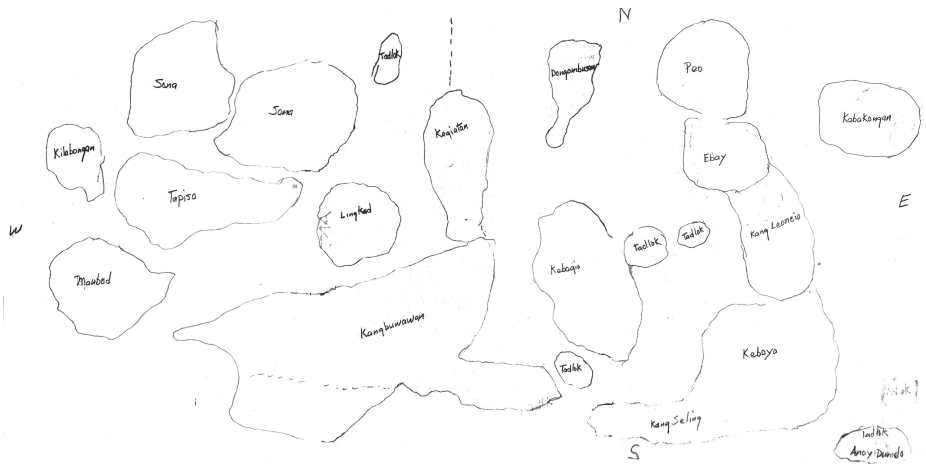


**Figure 6.** The sago forest map drawn by Jose of Brgy. Poblacion.

**GPS coordinates of place-names**

One notices the differences between the two maps (Figures 5 and 6) in terms of the number of place-names indicated on each map and the locations of each place-names relative to one another, as indicated by circular shapes on each map. To further probe this, I obtained the GPS coordinates of the identified place-names using a camera with geo-tagging capability and plotted these coordinates on a high-resolution satellite image (HRSI) of the area to ascertain the place-names' actual locations. Equipped with the said camera, Ariel and I ventured inside the sago forest with the goal of getting the coordinates of all place-names. This fieldwork provided me with an opportunity to see the place-names that I had already heard mentioned many times (refer to Figure 8).

In Figure 4, the actual GPS locations of the sago forest place-names are plotted on a HRSI of the sago forest on Google Earth. If these plotted place-names are compared with Jose's map, one can see that Jose is quite detailed with regard to the place-names near his place (i.e., Sitio Kaliluan, Brgy. Poblacion). For instance, he has drawn two *tadlok* on the northeastern side of Kibagyo which are also visibly clear on the HRSI.

Interestingly, what Jose calls "Kangbuwawan" is actually "Ki-iya" for Ariel and the rest of the Agusanon Manobo of Mambalili. Ki-iya is described as the largest (*pinakalu-ag*) and said to be at the edge (*katapusan*) of the sago forest.

Comparing Ariel's map with the HRSI of the sago forest, one notices that the place-names are not as neatly lined up as represented on his map – e.g., from *"Suna 1*" to "*Panaka 2*". I do not wish to suggest, however, that Ariel's map of the sago forest place-names is erroneous, in fact what Ariel has drawn can be considered as pathways leading from one named place to the next. So if one is in "Suna 1", the next pathway is "*Suna 2*", and then "*Kilabungan*", and so on, even though on the HRSI these areas form a triad instead of linear sago clusters.

The named sago forest places also have a counter-clockwise direction if one decides to explore it from end to end, just as we did when Ariel and I obtained the GPS coordinates of the place-names. Thus, our route was: *Samong, Dunggon Busaw, Suna, Maubod, Lingkad, Panaka, Kagi-atan, Kibagyo, Ebay, Kabakungan,* then *Piyo*. The only sago cluster in the middle is Maubod. This is not a prescribed route, however, because one can always take various routes depending on one's purpose and availability of the

pathways. When I asked another Agusanon Manobo informant from Mambalili to enumerate the sago forest place-names he knows, he replied:

> *Piyo, Sinunugan, dayon tadlok, dayon Kibagyo. Abot Kibagyo, kuan dayon, kining Kibuyo. Dayon Kagi-atan, Suna, Panaka, Tapiso. Layo na na. Hapit na na molusot sa Nueva Era. Atras na pud sa Suna, Suna Dos. Dayon diri sa ingnon nila nga Maubod. Duhay ngalan ana, Maubod didto sa Suna Uno. Ibay. Piyo. Sentro ang Piyo ug Ibay. Kung diri mi mag-agi sa Piyo, didto mi mangunaw sa Kibagyo ug Kibuyo. Unya kung diri mo-agi, kaning mga tadlok-tadlok diri sa Dunggon Busaw. Lahi ning Maubod diri sa Suna Uno, Suna Dos. Upat ang agi-anan*.
>
> [Piyo, Sinunugan, then *tadlok*, then Kibagyo. After Kibagyo, it's Kibuyo. Then Kagi-atan, Suna, Panaka, Tapiso. That's already far, near Nueva Era. Then back to Suna and Suna Dos. And then Maubod which is actually two, the other one is near Suna Uno. Then Ibay and Piyo, which are the centers. If we will enter Piyo, we harvest sago at Kibagyo and Kibuyo. If we enter at the *tadlok,* we're headed to Dunggon Busaw. The Maubod in Suna Uno and Dos is different. There are four pathways.]

The response above is instructive because if one follows it by looking at the plotted place-names, one can see how the informant envisions his route when he engages with the sago forest. Because he regularly harvests sago starch, the center for him is Piyo and Ibay, which are the nearest place-names with harvestable sago boles. This strongly suggests that the place-names' perceived distance and location is relative from one person to another, depending on one's intent and purpose in traversing and engaging with the sago forest. The same informant also notes that there are four entry points (*agi-anan*) from Sitio Bong, Mambalili that one can choose from in entering the sago forest.

It must also be emphasized that Nueva Era residents, who are mostly Cebuano migrants who reside in the southern part of the sago forest, are unfamiliar with the Agusanon Manobo place-names.

With the aid of HRSI of the sago forest, one can see visual clues of the effects or traces of anthropogenic activities. For instance, in Figure 7, there are patches of brown in the midst of dark green (the actual sago clusters) portions of the map, which indicate the areas that have been cleared due to sago starch extraction ventures. Moreover, the largest sago cluster that is facing the settlement of Campo 6, Nueva Era (refer back to Figure 2 has a lighter shade of green, suggesting that the sago palms in these areas have no harvestable sago boles because they are heavily engaged for sago leaflets for

the thatching business. Once a sago stand is harvested for sago leaflets, its growth is stunted and it usually cannot develop boles for sago starch extraction.

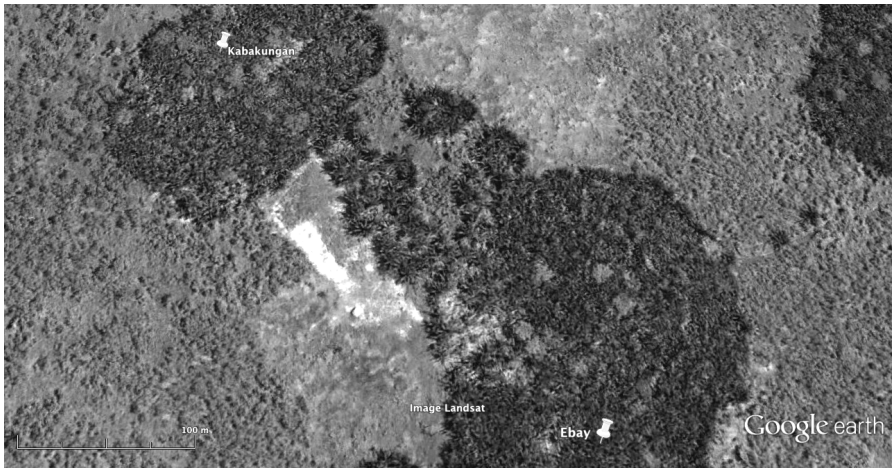


**Figure 7.** The light shades in this image suggest the extent and traces of anthropogenic activities (e.g., sago starch extraction) in the places named Kabakungan and Ebay. (Map source: AGSTRL)

**Mapmaking vis-à-vis wayfinding**

Ingold has made clear the conceptual distinctions between mapping and mapmaking, and wayfinding and navigation—"mapping is not mapmaking" and "wayfinding is not navigation" (200:219-242). According to Ingold, maps offer 'cartographic illusion' where "the structure of the world, and so also that of the map which purports to represent it, is fixed without regard to the movement of its inhabitants" (Ingold 2000:219-242). He further explains that "maps cease to be generated as by-products of story-telling, and are created instead as end-products of projects of spatial representation" (Ingold 2000:234).

By contrast with the bird's eye view of the map, Ariel and Jose rendered a life-long experience of engaging with the sago forest as 'laterally' experienced as one moves—or 'finds their way'—on the ground. If knowledge of place-names is 'laterally' experienced, how can one make sense of the movement inside the sago forest? Ingold's (2000:155) notion of 'wayfinding' is insightful:

> In wayfinding, people do not traverse the surface of a world whose layout is fixed in advance – as represented on the cartographic map. Rather, they 'feel their way' through a world that is itself in motion, continually coming into being through the combined action of human and non-human agencies.

The maps that were drawn by Ariel and Jose are useful in finding and 'feeling' my way in and around the sago forest [whereas the satellite maps are less useful in this regard]. The maps drawn by Ariel and Jose are unnecessary for themselves because they are already cognitively equipped with the intricate knowledge of the sago forest place-names, as a result of a lifelong experience. This knowledge, moreover (as Ingold explains), is still 'continually coming into being' for Ariel, Jose, and other Agusanon Manobo in their continuous engagements with the sago forest which itself continually transforms in relation to the movements and activities of people and other creatures.

### ***Dalan*** **as physical and social pathways**

To better substantiate the notion of 'wayfinding' as the movement experience inside the sago forest, the concept of *dalan* or 'pathways' is most illuminating. According to my informants, there are at least two types of *dalan*: (1) inside the sago forest, and (2) on the marshland grasses found in between the sago clusters. Both types are made by first, clearing the vegetation using a jungle bolo and second, the successive and repetitive process of being trod on. As humans with various intentions (sago harvester, thatcher, hunter, or fisher) engage a particular *dalan*, it gradually becomes an established and regular pathway. The task of clearing to create a new *dalan* is very laborious. People would often wait for whoever would dare to undertake this painstaking endeavor – a task which is often carried out by Ariel, being the most active Mambalili resident who engages the sago forest for his wild pig hunting activities. Thus, I often heard Ariel proclaim, when we obtained GPS coordinates of the place-names, that "*ako naghimo ani nga dalan*" ('I made this pathway').

While one individual makes the initiative to create and clear a *dalan,* everyone else contributes to its existence by the continued treading and engagement with the sago forest, magnifying the *dalan*'s social character. The *dalan* are also provisional for it would eventually disappear if people discontinue to use it. This happens annually due to the seasonal flood (*sigay*) when the *dalan* are fully submerged in water. Lost *dalan* will eventually be reclaimed by creating a new one, or reestablishing an old *dalan* by retracing

it, as people start to engage with the sago forest once again. Thus, the processes of production and reproduction, both physically and socially, of the *dalan* continue every season.[6]

**Figure 8.** Ariel stands on a *dalan* in the middle of a grassland area of the sago forest. One the left side of the photo, the s-shaped *dalan* leads to Kagi-atan while the one on which Ariel is standing leads to Suna. These *dalan* may not be discernible to an inexperienced individual; thus there are a number of cases where people are lost inside the sago forest.

Wayfinding is contingent on the *dalan* that is temporary and changing, based on its anthropogenic character. When I asked another Agusanon Manobo from Mambalili to draw a sago forest map for me, he refused by saying:

> *Dili ko ka kuan anang drowing kay dugay-dugay nako wala katahak diha puhon. Kay kung pareho pa sauna nga ganipa pa mi diha ug ga operation mi dirang eryaha, so masubay namo asa ang dalan. Unya*

[6] See Turnbull's (2007:143) discussion on the 'inherent performativity of paths, tracks, and trails.'

> *karon kung magbuhat unya dili na mao ang dalan, malahi ang pag kuan nimo*.
>
> [I cannot draw it because it has been a while since I entered the area. If it had been like before when we actively harvested sago leaves for thatching, we can trace the pathways. But if I draw it right now and the pathways are no longer the same, that won't be accurate anymore.]

The response above reveals the crucial role that the *dalan* plays in how the Agusanon Manobo, and other residents in Bunawan who wish to engage various sago resources, move in and around the sago forest. Losing one's familiarity with the *dalan* is tantamount to unlearning one's knowledge of the sago forest, even for an Agusanon Manobo who has previous experience of engaging with the sago forest, as clearly demonstrated by the informant above who refused my request to 'map' the sago forest place-names.

**Moving in and out of the sago forest: humans and nonhumans**

Aside from the *dalan*, there are other factors to consider when moving into and out of of the sago forest. However, unlike in urban settings wherein most, if not all, of the structures are practically permanent, the sago forest poses a real challenge to anyone who has the least engagement with it like myself. Firstly, the visual clues are very minimal as the sago stands look all the same to me. Secondly, remembering a mature sago stand as a visual clue serves only for a brief period of time as it is a strong candidate for sago extraction. Are there any visual clues in navigating inside the sago forest?

To find an answer, I told Ariel of a hypothetical scenario where he would be blindfolded, taken onboard a helicopter, and then dropped anywhere in the sago forest – forcing a fresh and instantaneous encounter by denying him the experience of treading on the pathways. Would he be still able to recognize and identify the name of the specific place he's at? He answered confidently in the affirmative, saying that by assessing the physical characteristics of *lumbia* stands, he would be able to identify it.

The place-names, while they appear to an outsider like me as similar in physical appearance with one another, have peculiar characteristics that only the person with seasoned and long experience with the sago forest will be able to fully discern. Memories of the past engagements as well as 'fine-tuning' (Ingold 2000:155) of the sensorial experiences are two of the most important factors in wayfinding inside the sago forest.

Nonhuman dwellers of the sago forest also pay attention to the *dalan*, whether made by humans or one of their own. For instance, Ariel says that

wild pigs would often avoid established *dalan* created by humans. In his hunting activities inside the sago forest, Ariel also pays close attention to the *dalan* created by wild pigs, in that this is where he would install his hunting materials (i.e., *ping-pong*). As a hunter, he knows every track left by nonhuman dwellers (e.g., monkeys, pigs, chickens) inside the sago forest.I realized this when we obtained the GPS coordinates of the place-names and Ariel simultaneously installed some of his *ping-pong* in specific places inside the sago forest by carefully studying the various tracks he identified. Thus, both humans and nonhuman actors pay attention to each other's *dalan* inside the sago forest.

**Conclusion**

As an important ecotope both ecologically and culturally, I argue that the sago forest is not a 'natural' landscape. This mainly follows the assertions of Ellen , who explains that sago stands are inextricably linked to the 'ecology of human modification' (2006:289), and Rhoads , who states that *M. sagu* "persist only through the assistance of human activities which in fact deflect natural processes" (1982:24).

The place-names based on the cluster-forming vegetative characteristic of the sago palm, and assigned by the Agusanon Manobo in their engagement with the sago forest, strongly attest to the forest's anthropogenic character and its historicity, as demonstrated also by looking at the narratives.

To elaborate this point further, on the stories about Kagi-atan, Ariel says that there were previous attempts to clear and transform the said area into rice farms. This is the reason why, if seen on the HRSI, the middle area of the sago forest has no sago clusters. But because of the physical environment of the sago forest – i.e., it is perennially wet as part of the peripheral environs of Agusan Marsh – aggressive attempts to convert it into rice farms have mostly been unsuccessful.

This could be interpreted as the agency of the sago palm – that through its physical environment (i.e., marshland) as well as vegetative characteristics (e.g., cluster forming and thorny) – it can, in one way or another, resist anthropogenic interventions that pose a threat to its continued existence as a distinct landscape feature or ecotope.

By according the plant with agency, I recognize its capacity to assert its existence as a species through the environment where it thrives, in the context of human social-relational practices. This echoes Ingold's (2000:42) argument that we view "the human condition to be that of a being immersed

from the start, like other creatures, in an active, practical and perceptual engagement with constituents of the dwelt-in world".

Place-names are crucial in the engagement with the sago forest not only in starch extraction but also in hunting and fishing activities. In presenting the case of the place-names of the sago forest, I apply Ingold's (2000:220) notion of 'wayfinding' to understanding movement as humans 'come and go' on the sago forest. Moreover, the exercise of drawing 'cognitive maps' of the sago forest might prove useful in managing cultural resources (Austin 1998) and other practical pursuits that will serve the interests of the Agusanon Manobo as a collective in the context of their ancestral comain management – e.g., 'geographical education' (see, for example, Kitchin 1994:11) on cultural resources among their youth.

Further, I wish to underscore that the engagement with the sago forest is not haphazardly done. There is a rhythm of 'orchestral performance and social life' (Ingold 1993:196) that is embedded in the socioecological rhythms of the communities that engage with the sago forest— in the ecological tempo weaved into many complex yet interplayed cycles of social life.

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