A DISAPPEARING TRADITION: *GAPAS* (COTTON, *Gossypmium hirsutum)* AS TEXTILE AND MEDICINE IN SANTANDER, CEBU

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The utilization of available flora (and fauna), is closely linked to culture as well as to the larger national and international forces which affect local environments. The proliferation of specific species in a given locale largely depends on how it is utilized. This paper documents local knowledge on *gapas* or cotton [*Gossypmium hirsutum*] as crop, as textile and as medicine over time in Santander, a south-eastern Cebu town, in order to determine its place in Santander culture and recommend steps for the conservation and revitalization of an important natural and cultural heritage. External forces such as the market have affected the proliferation of *gapas* (cotton) as a crop in this town.

Keywords: *Ecological anthropology, cotton, local knowledge, natural cultural heritage*

Introduction

The current study revolves around the cotton plant traditionally grown in a south-eastern town of Cebu, the Philippines and how its proliferation and utilization in the locality has been affected by colonial and post-colonial market forces over time. Ecological anthropologists have studied various strategies of human adaptation to as well as human impacts on the environment. Ethnoecology as a field in ecological anthropology explores how nature is viewed by human cultures through their beliefs and knowledge, and how distinct groups of humans manage natural resources (Toledo 2002). Larger national and international forces have however affected how human cultures currently utilize natural resources; with the rapidly expanding world capitalist system and globalization, local cultures' utilization of existing flora and fauna has been affected. Traditional corn

varieties for example have been replaced with hybrid varieties of corn developed and produced by multinational seed corporations in the United States (Ziegenhorn 2000). This is also the case in Philippine agriculture where many traditional varieties of corn, rice and vegetables planted by farmers have been gradually replaced by high-yielding varieties promoted by multinational corporations. However, anthropological studies have also pointed out that people's practices may also determine whether or not particular plant species will continue to proliferate or not. A study by Brush (1992) emphasized the persistence of diversity in Andean potato agriculture despite market incorporation, demographic growth and technological innovation, which he attributed to farmers' continued planting and consumption of different varieties of potato because of practical as well as cultural motivations. But with globalization, most local products have been overtaken by larger market forces, thereby affecting the cultivation of plant species from which they originate.

Local knowledge on cotton as a crop, a textile product, and as medicine was documented in this study in order to determine its place in Santander's (or the former Tañonganons') cultural heritage. The fieldwork was conducted in 2007 to 2009 and in 2012-2013[1], as part of two separate studies which gathered insights and information on the events and situation of Santander years ago through key informant interviews primarily with the elderly, and on the herbal remedies utilized by a female and a male healer in the locality. In the processing of the data, the author noticed the prominence of cotton, locally called *gapas,* in the informants' narrative accounts. Thus this paper is a result of serendipity, wherein qualitative data gathered in the course of two separate studies have been utilized to come up with an analysis of the place of cotton in Santander's history and culture. The interview data were supplemented with archival data from historical documents. Secondary data only revealed the total production for trade, but not the local uses of the plant.[2]

The municipality of Santander is located approximately 134 kilometers south of Cebu City in the province of Cebu, the Philippines. It is the southernmost municipality of the province, bounded by the municipality of Oslob on the northeast and by the municipality of Samboan on the northwest. To the southeast is the Bohol Strait, and at its southwest is Tañon Strait.

[1] Please see the acknowledgements at the end of this article.

[2] Oslob was actually the top-producing town in *gapas* production in the past. We could surmise that healers from Oslob would have also used *gapas* since it was also abundant there.

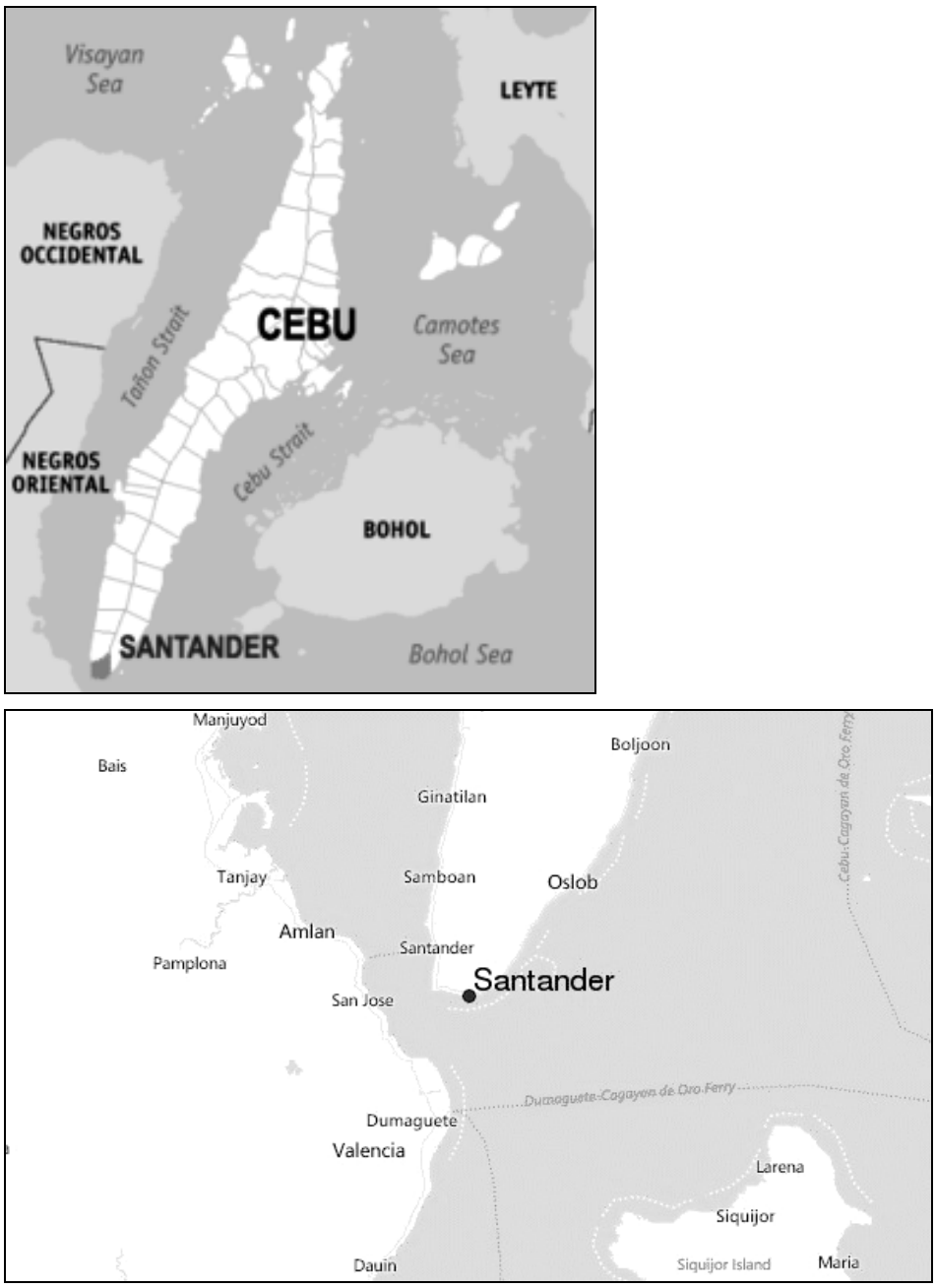

Figure 1. Map of Cebu showing Santander (left); and location map of Santander showing proximity to Negros Oriental (right)

Santander serves as the gateway of Cebu to the neighboring province of Negros Oriental.[3]

Santander's location along Tañon Strait, the narrow channel between Cebu and Negros, is the reason why the place was originally called Tañong, and the people were called Tañonganons. In the Spanish colonial period the name Tañong was said to have been changed to Santander by one of the visiting Spanish missionary-priests, after Santander, Cantabaria, his hometown situated in the north coast of Spain.

Santander's topography is characterized by mountainous rugged terrain that rises to an elevation of 200 meters. It has gently-sloping contours in the central part of the municipality and flat but narrow plains along its coastal area. The municipality is composed of ten barangays, six of which are coastal and four are mountain barangays. The municipality has a total estimated land area of 3,567 hectares, of which 2,953 hectares is classified as rural, while only 209 hectares is urban. Generally, the mountain barangays have a larger land area compared to the coastal barangays. In terms of land classification, 866.3 hectares are classified as reservation/timberland, while 2,700.67 hectares are certified as alienable/disposable land. Thirty-six percent of Santander's land area is devoted to agriculture. Agriculture devoted to coconut, corn and banana account for the greater part of this. Only 0.16% is classified as industrial zone. Based on the 2010 census, Santander's population was 16,105, an increase of 811 persons within a three-year period or a 1.77% annual growth rate.[4]

Santander was one of the towns that produced all types of crops, as accounted in the agricultural production data of 1890. Although the total harvest for each crop was not that large, in that year Santander produced 7 *picos* of abaca, 21 *cavanes* [cavans] of cacao, 14 *cavanes* of coffee, 27 *cavanes* of *mongo,* 10 *cavanes* of potatoes, 10 *quintales* of tobacco, 830 *picos* of *camote* (sweet potato), 41 *picos* of *gabe* (taro), 10 *picos* of sugar, and 67 *picos* of *ube* (purple yam).[5] Santander was one of only seven towns

[3] With its three ports/wharves: one in Barangay Talisay, which serves barges and ferryboats bound for Tampi, Amlan, Negros Oriental; and two others in Barangay Lilo-an for pumpboats and fastcrafts bound for Sibulan, Negros Oriental. Regular bus trips ply the Cebu-Negros route via these ports

[4] In comparison, in the 2007 Census of Population, Santander had a total population of 15,294. Its population grew by 1,452 from its 2000 population of 13,842 persons in 2,895 households. Inter-censal population growth rate for the period 2000 to 2007 was 10.49% or an annual growth rate of 1.50%.

[5] Picul = 137 1/3 pounds / a 'shoulderload'; *quintal* = ~46 kilograms.

producing potatoes at that time. Interestingly, Santander had a production of 3,121 *picos* of cotton, which is considered high compared to other crops grown there, as well as in comparison to the cotton production of other towns (Velasco 1892).

Cotton as a crop

Cotton grows well in a subtropical climate. The minimum annual rainfall requirement for cotton cultivation is at least 50 cm. It needs a minimum temperature of 16ºC for germination, 21-27ºC for vegetative growth, and 27-32ºC with cool nights during fruiting period ('Cotton production' n.d.). Thus the climate in Santander, especially in its upland barangays, is suitable for cotton.

During pre-colonial times, cotton production was already a major activity in Southern Cebu. Local cotton (*lumpot*) weaving and its trade was active with Chinese and other Asian traders doing business in Cebu. The 16th century marked large-scale cotton production with Cebu as the center of trade (CODA n.d.). Based on agricultural statistics during the Spanish period (Velasco 1892:42), Santander had a production of cotton reaching 3,121 *picos*. It was the second highest among the 19 cotton-producing towns in Cebu, which produced only a total of 8,279 picos of cotton. Thus, almost half of the total cotton production in Cebu was from Santander. Oslob, an adjacent town, was the top producer, at 4,000 picos. This data points out the fact that these two southern Cebu towns produced a combination of 86% of the entire province's cotton production.

Accounts by Loarca in 1582 stated that Cebu produced only a small quantity of cotton, since the cloth that they used for garments was made from a kind of banana (probably abaca, which looks like a banana plant) (cited in Veneracion 2001:59).

In the early phase of the American regime, the town of Santander was re-integrated to the town of Oslob as one of its barrios, by virtue of Executive Order No. 952 dated October 22, 1903; which reduced to 41 the 57 municipalities of the province of Cebu (*Gaceta Oficial* 1903:805*)*. During this time cotton was a product of considerable importance in the town of Oslob, as well as in barrio Santander.

My elderly informants narrated that cotton grew almost everywhere in Santander. They told of how when they harvested cotton, they had to bring big baskets to put the cotton in, and would go back and forth several times as there was so much cotton to be harvested. They described the hills of Santander as turning white when the cotton was already ready to be

harvested. Thus, cotton as a crop was part of Santander's physical environment; it just grew in a practically wild state, with little cultivation or attention.

A 79-year old informant said that they used to have cotton plantations in their property when she was young. She also said that her great-grandmother told her stories of cotton planting and harvesting, and that she taught them to process the cotton into cloth. A 101-year old woman narrated that cotton plants used to grow in the hedges just like weeds, and that they used to harvest cotton, placing it in a *"bukag"* (a big basket). The old folks believe that cotton will grow more abundantly if planted when the sea had big waves, because the waves cause white foam to form on the surface, which looks like cotton.

Cotton as textile

Almost every house then had looms and produced enough cotton cloth to supply local demand. The local folk wove their own cloth and blankets. One of my elderly informants was wearing a hand-woven cloth as her skirt when interviewed. She also had a complete set of equipment for cotton processing and weaving. Other old folks recalled that they also had looms and other equipment for cotton processing in their houses then.

The processing of raw cotton into cloth made use of several implements and simple machines: the *dutdutan* [cotton gin] was used to separate the seeds from the cotton. After the seeds had been separated, the cotton fiber was placed in the "*busugan"* to make the cotton fluffy, 'like the clouds'. The fluffy cotton was then placed in the *lulihan* [carding or combing devise] which made it into long strips . The resulting strips were processed using a *galingan* [grinder] to turn them into threads. The *salik* or *kalinyasan* [spindle] was then used to twist the cotton thread. *Almirol*, or starch stiffener, was applied to the threads to make them stronger. The stiffened threads were then organized or laid out through a process called *han-ay* before being woven into cloth through a *suluran* [loom reed], or a *hablanan*. Some would also apply dyes from various trees and plants to the cotton threads to make the cloth and blankets more colorful. They used the leaves of the *tagum* plant [*Indigofera tinctora*] to produce either violet or green color. They would pound the leaves and mash them with their hands. They then boil two handfuls of mashed leaves in one liter of water to produce the dye.

Figure 2. Cotton plants in Santander: note the dry cotton on the branch (left) and the cotton on the ground (right) connoting non-harvesting and non-utilization

According to one informant, making cloth from cotton follows different processes depending on the size and the design of the cloth. One has to count the number of threads that needs to be placed in the *suluran*). A *lansadera* [shuttle] is used to deploy and guide the threads into the loom (*han-ay* and *suluran)*. A person could produce one blanket and could begin working on another one in one day. A number of locals engaged in cotton weaving to produce textiles for their own use.

Cotton as medicine

Aside from textile production, different parts of the cotton plant were utilized for medicinal purposes by local healers (*mananambal*) in Santander; among those interviewed, *gapas* was on top of their list of medicinal plants used for various ailments. By comparison, healers or *mananambal* in the neighboring towns of Boljoon, Dalaguete and Argao[6], did not mention *gapas* as a plant commonly used for healing.

The parts of the cotton plant used as medicine by the two healers interviewed in Santander include the sprouts *(udlot)*, the leaves *(dahon)*, the roots *(gamut)* and the flower buds *(pipis)*. The utilized plant part is usually mixed with other plants either through decoction or expression. For example, the sprout of the cotton plant is mixed in water with sprouts from other plants including "*hilbas" [Artemisia vulgaris], "diladila"[Pseudelephantopus spicatus], "tigao" [Callicarpa formosana*

[6]These towns were also included in the ethnomedicinal study.

Rolfe] and *"alingitngit*" *[Carmona retusa]*[7], and brought to a boil. The resulting decoction is utilized to manage dizziness, "*kabuhi"* ('heartburn') as well as deafness. Other ailments to which *gapas* is applied include "*panuhot"* (gas pains), and "*bughat"* (or the relapse of sickness). *Gapas* medicinal preparations are usually applied either through oral ingestion or skin penetration. The earlier example given was administered to the ailing person drinking the decoction. Another example is the mixing in water of the roots of *gapas, alingitngit* and *tigao*, also brought to a boil. The resulting decoction is administered also through ingestion to manage *kabuhi*.

The two *mananambal* (male and female) who were interviewed narrated that they learned about the medicinal value of the different parts of the *gapas* plant through their parents and grandparents in the past. This knowledge has been passed on from one generation to the next over time. This is the reason why they make sure they have a *gapas* plant near their homes because of its utility in managing or treating various ailments. Ordinary folks, however, no longer consider the medicinal importance of *gapas* as most now rely on synthetic over-the-counter drugs in pharmacies, hospitals and health centers. I asked personnel from the Poblacion, Santander health center as regards local *mananambal* utilizing plants for healing and they did not know of any. They proceeded to tell me that the use of plants is no longer commonly practiced for healing of various ailments, except in very remote places, because we are now "modern".

Factors affecting cotton production

The use of cotton in Santander decreased over time however. The opening of the galleon trade in Manila greatly affected the local market especially with the entry of fine quality cotton from other countries such as Egypt, the USA, and European countries. Imported cotton textile was favored over the traditional locally-made native fabrics. The sale of native cotton fabrics from Cebu then had to depend only on the domestic market. As a result, the market for local textile dwindled and thus cotton as crop also declined.[8] With American colonial rule, textiles and synthetic medicines from external sources entered or even flooded the market, further affecting the local home-based textile production as well as utilization of plants as medicine. This has eventually resulted to the dwindling population of *gapa*s plants in Santander over time. With less harvesting of cotton, the cotton seeds were not able to propagate themselves as fast as when the cotton textile industry was at its

[7][Ed.: Each of these terms may refer to more than one plant species.]

[8]See the brief history provided in the government Cotton Development Administration website (CODA n.d.)

peak. According to my elderly informants, the entry of ready-made textiles and ready-to-wear clothes brought in by merchants from the city affected cotton production and weaving as people preferred the more convenient way to procure cloth and clothes.

Local cotton is no longer utilized for textile production among the present-day population of Santander. The old looms and other equipment for home-based cotton textile production lie idle and forgotten. They have either been destroyed or discarded by the local folk who no longer have any knowledge on how to produce cotton fabrics.

The entry of western medicines to the local health care system likewise affected the use of *gapas* as medicine among local community folk since synthetically prepared drugs have presented themselves as more "scientific" alternatives to the local *mananambal*'s decoctions and medicinal preparations. Although the local *mananambal* would have a cotton plant in their garden and in the vicinity of their homes, but they observed how the plant is no longer that common in the Santander landscape, unlike in the past where its hills are whitened by the cotton to be harvested. At present, cotton plants are scarce with only a few patches left.

Conclusion

In conclusion, it can be said that while utilization of environmental resources is determined by cultural knowledge and practices; at the same time human activities as well as global forces affect the very environment from which these resources come from. First, resource utilization is largely shaped by local people's knowledge. In Santander, the growth of cotton in a seemingly wild state had been maintained with harvesting as seeds are separated from the cotton and thrown just anywhere by the users especially those making textiles. This contributes a lot to cotton's fast propagation even without cultivation. With less human harvesting going on, cotton seeds would only rely on natural propagation by wind, water, animals and other natural processes. During fieldwork, it was observed that given no harvesting, the cotton buds would just fall beneath the shrub itself and they seldom would grow into another full-grown cotton plant. Furthermore, since it has become of little use to most people in the area, some *gapas* plants in the wild have been cleared to provide more space for farming.

External factors likewise affect how people utilize a specific resource. In the case of *gapas* in Santander, the entry of textiles and medicines from other countries into the local market which heightened during the American colonial period (and continues up to the present) has greatly affected local resource utilization. Cotton harvesting as well as local home-based cotton

textile production declined as a result of the availability of these ready-made textiles. Use of cotton plant parts as medicine likewise declined with the availability of over-the-counter drugs, although medicinal preparations from cotton plant parts are still utilized only by local herbalists and by those who go to them for consultation and healing. Over time, local knowledge on the utilization of the cotton plant either as textile or as medicine is no longer considered relevant by the new generation who no longer practice such. As a result, the practice gradually disappears and becomes a mere part of history. Decreasing utilization of a specific resource affects its propagation, growth and proliferation. Thus, the dwindling population of the *gapas* crop in the area.

With this situation, there is a need to continue documenting this local knowledge on cotton production and utilization based on the memories and narratives of elderly folk and local *mananambal* in Santander. There is a need to explore the possibility of reviving cotton textile production in the town (with a comprehensive revitalization program spearheaded by the local government unit). Cotton propagation is also necessary. In terms of usage as medicine, the local *mananambal* can still be tapped to share their knowledge on the medicinal value and utility of *gapas*.

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