CULTURAL KNOWLEDGE ASSOCIATED WITH VARIETAL DIVERSITY OF THE INDIGENOUS RICE

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Abstract

This narrative research aimed to determine the cultural practices associated with indigenous rice (Oryza sativa Linn.) production, vis-a-vis varietal diversity in Panay, in Supanga, Hilwan, Binolosan, Garangan, Tapaz, and Bingawan. Farmers have been growing indigenous rice from the mountain barangays who were the participants were interviewed as to the association of rice to their cultural knowledge and practices. Thirty samples have been collected from the farmers. They planted indigenous rice because the land is sloping which is ideal for fancy rice. This type of rice does not require commercial fertilizer but only organic materials that were decayed naturally. Rice has very particular purpose for their tradition or cultural practices especially during festivities and ceremonies like marriage, and baptism. The community folks served wine processed from fancy rice called Pangasi to visitors and guests. People from the community offered Sapal and other native delicacies such as suman, ibus, alopi, and many others during ceremonies. What makes rice so vital and preferred is its unique characteristics and besides when cooked, rice is soft, aromatic and palatable with or without viand. Specifically, this research documented the preservation of cultural practices and local knowledge associated with the cultivation and use of indigenous rice varieties that will push knowledge on the diversity of rice and determine farming practices. The study is one way of reclaiming peripheral knowledge and putting them at the center of academic discussion and literature.

Keywords: cultural practices, indigenous rice, local knowledge, varietal diversity

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1.0 Introduction

The Philippines is an agricultural country, and the staple food of Filipinos is rice although people in areas like Cebu and part of Mindanao prefer corn. The country produces several crops as Hybrid rice had been introduced by the International Rice Research Institute in Los Banos to sustain the increasing demand of the fast growing population. High Yielding (HYV) and Early Yielding Varieties had been experimented in answer to food shortage of the country Despite the endeavors of the country's agriculturists and scientists. There is still the problem of rice shortage for the reason that the topography of the country is very mountainous, and a vast area of agricultural land is not suited for varieties that require water (PCCAARD, 2012).

Abraham Akilit, NIA director, said 30 types were considered by the Revitalized Indigenous Cordelleran Entrepreneurs Inc. (RICE) for export, but only seven stood regarding quality, yield, and taste. These rice are called heirloom since these has survived more than 50 years of cultivation (Cariño, 2008). The extinction of these treasured rice becomes a problem to the people in the mountain area and the country as a whole.

Tumandok is a group of indigenous people on Panay Island. They have a population of some 18,000 spread out in the municipalities of Jamindan, Tapaz, Calinog, and Lambunao. The Tumandok people are mostly subsistence farmers who plant fancy rice as well as coffee, banana, coconut and lanot (a plant with tough fiber made into a rope) (Devilles, 2009).

Inhabitants in the mountainous areas cannot depend

so much on lowland products considering the distance from farm to the market road which is still a problem. They have to plant rice for their consumption. The rice that these people produce is considered indigenous or fancy rice because of its aromatic characteristic, good taste and soft texture. These rice varieties thrive well in the hilly areas where water does not stagnate. Fancy rice takes about 4.5 to 5 months to harvest, and the farmers have to produce only once a year. That is the very reason why there is still a shortage of rice in the upland a month or two after harvest. Many farmers in the lowland areas tried to plant some indigenous rice varieties like malido, azucena, and palawan in the lowland areas. They found out that some varieties have adapted to the soil condition however other varieties have not been tried. The Panay Bukidnon's of Lambunao, Calinog, Bingawan, and Tapaz had been growing fancy rice for their consumption, and some are sold to buy other commodities.

The people especially those living in the town and city liked the aroma, texture, and taste of fancy rice. Indigenous rice is hard to propagate in the sense that people are risking their lives planting in the rigid and hilly portion of the land. The transport of these rice products is costly because very seldom a jeep can pass through slippery, narrow and bumpy road. The motorcycle is the only available means of transportation that charge higher fare due to the high risk of an accident. Nevertheless, many people especially the well-to-do family are willing to pay the higher price just to eat fancy rice because they are quite sure that what they are eating is free from chemical spray and commercial fertilizer that might have serious effects on health. The increasing demand for fancy rice had caught the researchers' attention and decided to study further the uniqueness of these fancy rice and plan to do something about it and even to propagate it. The researchers interviewed Mrs. Mustrallas of Aglonok, a barangay about more than 40 kilometers from the Poblacion of Calinog. According to her, this fancy rice is not merely produced for consumption but rather it is essential or meaningful to their culture. People from the community utilized rice in their different cultural practices, their tradition, and folklore. Fancy Rice is the main ingredient of pangasi (a rice wine) and Sapal (a food preparation which is good for health). Rice wine is usually offered to the guest together with the elders and tribe members during festivity or ceremony such as Fiesta (pista, wedding (hungaw or kasal), and pabagti or pamalaye. Pabagti or pamalaye is an occasion where the parents of the groom and the bride come to an agreement before the formal wedding to plan the activity ahead and settle for the dowry. A fistful of cash or in kind the parents of the bride would demand from the groom in the assurance that the bride- to be will be in good hand and will not suffer difficulty while they are living together. The dowry can be a house, a handsome amount of money or cattle for the couple to start living. Other occasions are christening of a child bunyag, house blessing or himalay, pabatak it dungan a ceremony that they believe would keep the young ones protected and serve as an amulet to free the child from evil or unseen power and the paobra or patupad. A quack doctor or babaylan performs a ceremony or ritual associated with the belief that the sick person to cure the illness caused by a supernatural being and needs to drive the evil spirit. The folks from the village practiced the panguyang also known as pamag -o others call it pamutang-butang, a ritual after harvest where newly harvested rice *bag-o*. They cooked old *la-un* rice following the ceremonies welcoming the new crop, and the highlight of the festivity is the Thanksgiving, or the *pasalamat* celebrated every year usually on December 25. Farmers grew indigenous rice along the mountainous area of Calinog specifically Aglonok, Supanga, Marandig, Manaripay, Garangan, Masaroy, Cahigon, Tuyongan, Hilwan, Caratagan, Binulosan, Agcalaga, and Guinbunyugan. Other neighboring towns of Lambunao, Tapaz, and Bingawan grow guite similar indigenous rice.

2.0 Research Methodology

The study uses the narrative type of qualitative research. The narrative approach weaves together a sequence of events, usually from just one or two individuals to form a cohesive story (Sauro, 2015). This type of research emphasizes verbal description and explanations of human behavior and practices in

an attempt to understand how the units or member of the study population experienced or explained their own world. To gather information, the researcher uses one or combination of observation, interview, focus group discussion and in-depth analysis of the single case (David, 2005). The focus of this study was to find out cultural knowledge associated with and varietal diversity of the upland rice grown by local farmers. Ten local farmers propagating indigenous rice for the calendar year 2010-2011 were interviewed as to the characterization of their farming practices and how their products are being used in their ceremonies and festivities including wine-making and *sapal*. They were chosen purposively because they propagate fancy rice. The farmers identified the rice grain, and the researchers described its appearance of seeds both cleaned and uncleaned as to color and size that was measured using a ruler. The approximate size was expressed in millimeter. A sample of cleaned rice was cooked and evaluated as to aroma and eating quality. The participants were provided with other related information.

3.0 Results and Discussion

Cultural Practices

Cultural knowledge was noted, and cultural practices were observed by the researchers on the following aspects: Land preparation, planting, harvesting, storing, preservation and local traditions. This study is anchored on the Ecocultural theory of Gallimore, et. al. 1993 and Weisner et. al. 1988 (in Cooper and Denner, 1998). This study is anchored integration of ecological and cultural perspective. It is based on the universalist assumption that all families seek to make meaningful accommodations to their ecological niches through sustainable daily living routines. In the local setting indigenous people have their own belief and cultural practices that are followed from generation to generation.

1. Land Preparation. Farmers producing fancy rice follow traditional practices and ritual before planting. They have to identify the area using the slash and burn method or *kaingin*. After clearing the area they try to go around the area several times and murmur something as if talking to the unseen being. After clearing, the *binhi* or grains for planting are prepared by choosing full grains/ better and bigger grains. The *paminhi* also included egg, comb, *bagakay* (a bamboo family) and ginger are placed on top of the grain. The egg is for bigger grains, comb for attractive panicle, *bagakay* to drive rodents and ginger for more tillers.

2. Planting. After the usual ritual of land preparation, farmers see to it that the binhi and the paminhi are now ready for planting. The tagad or sharpened wood is used to dig planting hills were a pinch of the rice grain is buried and covered. If sharp trowel is available, they attached it to a wooden pole, and this was used as tagad. The process

of planting using tagad is termed as panggas. When rice grains are already planted, they have to monitor the growth and development of rice. From time to time, the farmer makes the round in his field and would kindle a fire that produces smoke to drive insects away. Weeds are removed whenever they appear in the field. Rice will be ready for harvest after 5-6 months according to Mrs. Mustrallas of Aglonok "*ya bisya hudyanan*" meaning it takes a long time for the grains to ripen.

3. Harvesting. When the rice grains are mature enough from pale yellow to golden brown or dark purple for tapol, the farmer begins his ritual alone, and nobody is allowed to go near the field. A day before harvest, the owner performs the *kutol* which means cutting and making the bundle of panicle is placed on the wall or ceiling above the stove *dapog* or *darapugan* to preserve and keep the panicle dry due to the radiation of heat coming from the fire built in the traditional stove using wood for fuel. The hanging panicle serves as a reminder and inspiration for bountiful harvest which they often see every time they cook. Another practice is they look into the eyes of the cat believing that when the pupil of the eye is fully black, it is high tide or taub and when the pupil is hollow it is low tide or *hunas*. They have to harvest on high tide because they believe that their granary will be filled up to the brim. During harvest, those who are invited to perform the ani or harvesting should implement the prohibited action such as "indi mag balikid kon nagapaadto sa uma" (don't look back), "hipos lang" (keep quiet while harvesting), and "indi magdura sa lupa" (nobody is allowed to spit on the ground). These practices has no scientific basis, yet to them, these are important because they believe in the intervention of supernatural like kama-kama (elves), tamawo (fairies), the *Kapre* (a huge hairy giant like creature), and many others. They believe that some are good while others are bad so that in order not to disturb these unseen creatures you have to abide by their practices.

4. Post-Harvest Practices. After the harvest, the rice grains are placed in a shady area or even in a shed in case rain falls. They use to pile rice as in haystack or *tumpi* for threshing or *linas*. They use manual threshing where the person who separates the grains from its panicle or uhay use only his feet. A bamboo pole is attached horizontally to two vertical poles for handle. A sawali or *amakan* is spread out to collect the grains while the farmer crushed the stack between his feet. Some farmers build an elevated papag for threshing so that they can separate the *upahon*, unfilled grains, from *tinggas* or full grained naturally without using a blower. The cleaned grains are dried under the sun because there is no dryer in the mountain areas unlike those in the lowland. In case it rains, the farmers just spread the amakan under the shed and place the rice grains there uncovered. They have to turn over the grains or ukay from time to time

to insure that moisture will not trigger seed germination. When rice is fully dried, they store it in big bamboo tabungos or sacks for consumption. Some are milled in the nearby milling station while others prefer to pound or bayu using homemade mortar and pestle or lusong kag hal-o. The binayu is more palatable than those milled in the machine because the *tiki-tiki*, vitamin B-rich coating of grains, is not removed by pounding alone compared to milled rice. If the weather does not favor for the drying of rice people use the alternative means like the *hiraha*. the drying of rice by using carajay or karaha where the word hiraha is coined. Rice is placed in the cooking pot above the fire and stirred regularly to insure the even distribution of heat so that grains will be evenly dried. Cleaning rice or removing the awn through pounding cannot insure 100% that awn are totally removed so there is a need to winnow or tahop to separate clean rice from those which were unclean. A method called disig is the effective means of separating the clean rice from those that still contain skin or outer coating, and then the unclean ones are placed back in the mortar for pounding. This process is repeated until they were able to clean rice grains ready for consumption and storing.

When rice is ready for cooking, another ritual is performed. The pangahaw, panguyang, or panguyangkuyang as mountain people call it while in the lowland they call it *pamag-o* is performed. The *panguyang* is prepared by cooking newly harvested rice and old harvest or laun separately. They also cook chicken or pork as viand and to add variety they cook *pilipig* young grains and newly harvested pounded rice while still hot to flatten the grains or *ubas* young grains soft enough to eat after the awn is removed by pounding. The ceremony is done by spreading the mat on the floor and the cooked rice both *bag-o kag laun* are placed side by side with the cooked chicken. To complete the set-up, salt placed in banana leaf, tobacco or tabako, tuba or pangasi and a glass of water are placed. The procedure starts with food preparation followed by the setting of the right place usually inside the room where the elder can perform the ritual alone before the family member could feast with some neighbors invited to join but not to bring any food outside the house. The mat is spread on the floor then foods are arranged around in the mat. Banana leaf is heated or lahub then made into cone where salt is placed. Rice is molded in a cup and placed in a plate then the cone containing salt is placed on top of rice. Tabako kag sangkap a preparation of bettle nut, ikmo or buyo, lime or apog and maskadahon which is made of tobacco are placed in one corner together with pangasi or tuba and water. The ritual usually lasted for 30 minutes to one hour. When the elder gets out of the room, he gives signal to the head of the family that they can share the preparation and feast with some guests. The elder is the expert in terms of cultural practices in their community

and he is respected not only of his old age but also of his good relation and management in his barangay.

5. Storing/ Preservation. Dried grains are placed inside the sacks preferably made of jute fiber or plastic and are stacked in a room where it can easily be taken for consumption. Some farmers prefer to use tabungos, a cylindrical container woven from bamboo strips to keep their dried *palay*. The *tabungos* is used because there is free air that could keep the rice grain cool and dry unlike the sack that may trap moisture and allow germination to occur if not completely dry. The storage room where rice is kept is closed and secured where traps for rodents are provided. Rice is covered with black cloth with the belief that it cannot be taken away by evil spirit and a cross made of bolo, a bamboo species that is smaller in size with rough surface is also wrapped with cloth and placed on top of the stack believing that it can drive evil spirit that might steal rice. Oftentimes, rice is not even enough until the next harvest season because instead of storing farmers sell it to the market at a higher price and would buy the lowland variety which cost lesser and buy other household commodities.

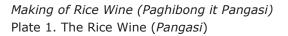
Cultural Knowledge and Tradition Associated with Rice

Rice had been very special for people in the mountain because it serves as the strong bond of their land, tradition and cultural practices. Fancy rice are main ingredient in wine *Pangasi*, *sapal* and other food stuffs such as *alope*, *baye-baye*, *ebus*, *muasi*, *but-ong*, *suman* which are served during special occasions like *pamalaye*, *patupad it dungan* and many others, hence the cultural knowledge and tradition of the farmers are preserved.

I. The Pangasi. Pangasi is a rice wine prepared by Panayanon in mountain barangays using the mixture of clean and uncleaned indigenous rice. The wine is very valuable to the Panay-Bukidnon because this symbolize their harmonious relation within their community. This specially prepared for wedding, thanksgiving and other special occasions. Prior to the pamalaye (a tradition wherein parents of the groom and bride plan ahead of the festivity with certain agreement or compromise) or wedding, the family of the groom (nobyo) made the Hibong, a process in making pangasi 2 to 3 weeks after the invitation is done. When both parties are already set, the *pagabi-abi* (welcome) follows wherein the *tagbalay* (host) requests the graceful woman dancer to start the festivity by performing their ethnic dance the binanog. After a short conversation, the wine in the sibulan (jar container) with two tayok nga bagakay which serves as straw is set before the visitors .The respected senior (ya *mal-am*) or the elders should be the first to drink from the container using natural straw. Not only that, they also observe belief, lihi, that this wine will measure the strength and integrity of the family. The tadol (quota) is

set and the parties should see to it that their respective share will be consumed without losing their control. In that manner, it is believe that their families will be living harmoniously. In case one party gets into trouble due to drunkenness, it will be a bad sign that the relationship of the family will become bitter and chances are the elder may not allow the marriage to push through, Pangasi is also used during rituals and thanksgiving wherein the babaylan (quack doctor) include the rice wine as part of the food, usually native delicacy from fancy rice like alope, baye-baye, ebus, muasi, but-ong, suman with native chicken or wild pig or black pig. They also use sea foods such as crabs or kalampay and shrimps or *urang* and *banag*. The *kumbidahan* is the highlight of the ceremony wherein they invite the dead elders uttering their names and praying.





Preparation of materials and cleaning of utensils or tools

Choose any fancy rice to be used such as malido. Estimate the amount of rice enough for the earthen jar sibulan or tibud. Clean the cooking pot with water using the leaves of bakhaw tree. Commercial soap is not allowed. The pot must be free from fats or oil from coconut. Avoid the contact of sesame seeds because this will destroy the fermentation process, in their dialect *indi magbati*. The area for the preparation must be free from little children because they might contaminate the mixture. When all materials are ready, rice is pounded in lusong and hal-o after which tahop is done. This is the process of winnowing to get rid of rice hull. In pounding, only one third is clean rice, the rest still contain the hull *pasi*. The mixture of cleaned and uncleaned rice is washed and cooked in a pot. The cooked rice is transferred to the banana leaf spread on the table. Using wooden or bamboo ladle, rice is turned over until cool. Tapay, similar to yeast is powdered and heated on top of a charcoal. When *tapay* is thoroughly brownish it is mixed on the rice. The mixture is then transferred to a sibulan, an earthen jar container that is covered it with banana leaf (tutubon ka dahon) tying the leaf on the neck of the

jar and cover with cotton or cheese cloth. Set aside for 3weeks to 1 month. Uncover the container and pour the liquid, this is rice wine. It can be served directly or it can be transferred to a bottle. Place in a cool dry place or refrigerate so as to stop fermentation and maintain the taste. Longer fermentation will cause the wine to turn to alcohol. The preparation of rice wine is always paired with the preparation of *Sapal* because without sapal according to the Caballeros is "*unon hay waay it paris*".

Varietal Diversity

Rice Variety

II. The Sapal. Sapal is a native delicacy of Panay-Bukidnon known for its medicinal value. It is cooked rice that undergo fermentation using *tapay*. According to Mr. Caballero it is a cure for amoeba. Just like *pangasi*, *sapal* is a delicacy served during *hiwat* or festivity. The making of *sapal* starts with the preparation of materials and cleaning of utensils. Clean cooking pot with water and *bakhaw* leaves. Measure fancy rice enough for the container. Wash rice and cook, transfer cooked rice in a

Native Pilit (Puti)-Elongated grain, (L 8mm, W 4 mm) dark brown skin, greenish flesh, aromatic, soft and very sticky when cooked.

Characteristics

Palawan- bigger grain, (L 9mm, W 4mm) with pale skin white flesh when cleaned. Aromatic and soft when cooked. Like malido, Palawan is also planted because it is high yielding.

Malido-Two types of malido were identified. The pinkish or reddish and white flesh after milled and the outer skin of the grain is brown, (L 8mm 4mm). Both are aromatic, soft when cooked. The rice is harvested after four to five months. Rice can be harvested before fully mature after four months because it can be made into ubas a delicacy prepared by heating the grains in carajay, allow to cool then pounded. It can be served as finger food or mixed with milk or chocolate like the commercial cereal. Another delicacy is the pinipig prepared similarly with ubas with the difference that Pinipig is being pound while still hot giving a flattened grain product.

Ilognon- Elongated medium grain, (L 8mm, W 3 mm) with pale brown skin white flesh, aromatic, soft when cooked.





MALIDO





Kirabut-Bigger elongated grain,(L-10mm, W-3mm) coffee brown skin, black flesh, sticky, aromatic and soft when cooked.

Kutsiyam-Upland rice adapted to lowland climatic condition with elongated grain, (L-7 mm, W-4mm). The tip of the awn is spiny or sturdy hair that make it hard to separate the grain from the panicle using the traditional linas crushing panicle between feet. The flesh is pinkish to reddish, not aromatic, soft only when still warn after cooking.

Kinawdas- Elongated grain, (L-8mm, W-4mm) creamy, flesh, not aromatic but soft when cooked. Usually preferred by the residents especially the old ones and those with illness because according to them it is very healthful.

Tabukanon- Medium- grains, (L-7mm, W-4mm) with pale skin, white flesh, aromatic and soft when cooked. This fancy rice is not common to towns' people because it is seldom sold in the market.

Sulig- Bigger grain, (L 7 mm, W 4 mm) with golden brown skin, white flesh, aromatic soft when cooked.

Manumbalay- Bigger-rounded grain, (L-8mm, W-4.1mm) with golden brown skin, creamy flesh, aromatic, soft when cooked.



Kaputi- Small grain, (L-6.8mm, W-3mm) pale cream skin, reddish flesh, aromatic, soft when cooked.

Kagaid- Bigger elongated grain, (L 9mm, 4mm) light brown skin, creamy flesh, soft and sticky when cooked

Katun-og - Small elongated grain,(L-7 mm, W-4mm) creamy skin, white flesh, aromatic, soft when cooked

Kapawod - Bigger grain, (L 9mm, W4mm) reddish brown skin, white flesh, aromatic soft when cooked.

Lobin- Grain medium-sized, (L-7mm, W-4mm) rounded; skin color is pale brown, white flesh, aromatic and soft when cooked.

Puting-gamay-Small grain,(L-6.5mm, W-3.8mm) pale skin, white flesh, aromatic, soft when cooked



Himal-os- Bigger elongated grain, (L-7mm, W-4mm) creamy skin, white flesh, not aromatic soft when cooked, adapted to lowland condition.



Awot- Bigger rounded grain, (L7mm, W4mm) golden brown skin, flesh is white with dark spot at the tip, aromatic and soft when cooked



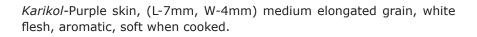
Kalipayan-Small elongated grain, (L 6.5, W 3.5) pinkish flesh, aromatic, soft when cooked.



OUS RICE VARIETIES

CALINO

Kamuros-Larger grain, (L-10mm, W-4mm) with pale brown hull, flesh has reddish stripe, non aromatic soft when hot and a little hard when cold.





Pingi- Rounded skin, creamy flesh, (L-10mm, W-5mm) aromatic, soft when cooked



Tapul-Bigger grain, (L-10mm,W-4mm), dark skin, purple to black flesh, aromatic, soft when cooked

Kalutak- Medium rounded grain, (L-7mm, W-4mm) purple with cream stripe skin, creamy translucent flesh, very sweet aroma, soft when cooked.

banana leaf, allow to cool, mix *tapay* until evenly done, wrap in *talos* leaf previously heated (*linahob*), set aside in a cool dry place for 24 hours to 3 days. Unwrap and serve.

Preservation Practices

Farmers usually preserve part of the harvest only as *binhi* seeds for the next planting season. Usually the harvest is being sold to buy some commodities needed in the house so they may have shortage of rice until the next harvest. Farmers usually store their rice in the tabungos a container made of bamboo woven cylindrically that varies in circumference and height. In this container the fully dried rice is placed in a cool dry place like such as the *tambubu* or the nipa hut adjacent to the main house if the house is too small for the tabungos. Some farmers provide a room for storage. To prevent the rice from gnawing animals, farmers provide nets and traps. They still believe in superstitious beliefs that some put a black cloth on top of rice and a cross covered with black cloth so that evil spirit cannot go near the rice. Other farmers are very resourceful because they utilize some natural leaves to drive insects and pest from attacking rice. Alagaw and other insect repellent aromatic leaf is spread on top of the cover cloth to drive weevil and other insects that may attack rice.

4.0 Conclusion

Indigenous rice varieties are preferred by many residents including those in the town and cities because of its aroma, flavor and texture. People in the highland prefer to plant fancy rice because it does not need commercial fertilizer, rather it need only organic and decaying plants rich in nitrogen and other micro- elements found in humus. The rice had been used in festivities and ceremonies. Farmers used to plant and harvest fancy rice once a year. Farming practices such as *kaingin* or slash and burn is used to clear the land, while *panggas* is a method of planting using *tagad*. *Kutol* and ritual is done by the owner before neighbors can join the harvest. The harvested rice is crushed between feet to separate grains known as *linas*. Some practices are *hiraha*, *bayo* and *disig* in the preparation of rice for cooking.

To give thanks for good harvest, farmers have simple feast called *pasalamat* together with *panguyang*. Fancy rice are used in delicacies like *but-ong*, *ebus*, *alupe* etc. which are needed by *babaylan* in *patupad*, *batak it dungan* and healing the sick. Rice is the main ingredient in *pangasi* and *sapal* offered to visitors during *pamalaye*, *hungaw* and *bunyag* as part of the *punsyon* as a big celebration in the community. These are included in the discussion in the school of living tradition.

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