

## INTRODUCTION

During the past four millennia the world has developed into a modern and complex culture with diversified economic systems. The forms of economic system salient to the progress of human life at present are agriculture and trade. Archaeological records show that agriculture was introduced into Island Southeast Asia by the migrations of Austronesian-speaking people after 2,800 BCE (Bellwood 1997: 221). Exchange and trade occurred later when luxury products such as spices and incense-wood were in high demand in the Chinese and Western Asian markets. However, despite all this trade and development in some regions in Island Southeast Asia, there still exist surviving hunter-gatherer populations, particularly in Peninsular Malaysia (the Semang), Philippines (the Agta), Sumatera (Kubu) and Borneo (Punan; Bellwood 1997:132).

There are two groups of hunter-gatherers that live in the same ecological niche equatorial rainforest-- differ in biology but were related in language (Austronesian). These are the Agta of the Philippines and the Punan of Borneo. Sather (1995:229) suggests that there are three general reasons for the persistence of a foraging economy amongst the Agta and the Punan. These reasons are: 1) survival of the prehistoric subsistence system known by both societies; 2) a "devolution" from agriculture into foraging; or 3) a cultural diversion into a specific niche driven by the demands of a sedentary farming society. Derived from Headland (1986) and Sellato's (1994) studies, I believe that the Agta continue with a foraging economy founded on a dissimilar motive that of the Punan. This essay will provide a social and economic history of the Agta and the Punan in order to understand to what degree they are primarily dependant on a foraging economy. It will further discuss the question whether the Punan practised agriculture before altering into a hunting and gathering lifestyle.

### **The Social and Economic History of the Agta and Punan**

The Agta are described as Negritos (Headland 1986:1-2, 167) that descend from a Proto-Austronesian population that reached the Philippines in the Late Pleistocene period. The Agta have body-heights under average, dark skin, and curly hair. Headland recorded that in 1985 the population of Agta was 15,000 individuals, residing in northern Luzon, the Visayas, Palawan, and Mindanao. They could be found living in small groups on the sea coast in temporary camps of huts made of wood and palm leaves. They are considered never to have practised open sea fishing. Hunting of wild pig and deer using bows and arrows in the rainforest is their main source of meat (Allen 1985:46). The Agta recognises twelve

species of wild tuber that provide starch including wild yam, while *Caryota sp.* (palms) provides starch from the trunk (Allen 1985:57; Headland 1986:9).

Headland (1986:15) argues that the Agta were not introduced to agriculture until the Spanish came in the Philippines in 1588, yet lived in close proximity to the "non-Agta lowland farmers". Brosius (1990:19) also claims that before the Agta came into contact with the Spanish, they relied "exclusively" on hunting and gathering as their means of subsistence. However, concurrently, he presumes that the Agta had practised "swidden agriculture" long before the Spanish period (Brosius 1990:22). His presumption is based on factors such as cultural history, change of environment, numerous species of plants, and population increase (Brosius 1990:23). In regard to cultural history, I assume the Agta Austronesian--language spoken today is the most significant evidence that long before the arrival of the Spanish contact with an agricultural and Austronesian-speaking population had occurred. Therefore, it can be assumed that then the Agta had recognised agriculture, and might have performed mutual exchange with the Austronesian farmers. Peterson (Headland 1986:172) discovered archaeological evidences of farming societies pottery, mortars, postholes and glossed harvesting tools-- in Palanan (1200 BCE CE 1). Archaeological data that indicate the practise of trade is discovered in Purakin and Alibaiyan by Fox (Brosius 1990:21), and Nahing and Gandong by Evangelista (Brosius 1990:22) comprising Chinese ceramics (ca. CE 1100-1300).

Headland (1986:172; Early and Headland 1998:11) further explains that the Agta occasionally worked as labour in rice fields owned by neighbouring non-Agta lowland farmers. Some tended their own cultivated land. But the Agta never took much interest in looking after land for farming, because the harvest was not as much as that gained from hunting. Furthermore, one year's harvest was only sufficient to feed an Agta band for 43 days (Early and Headland 1998:349). Such difficulties reflect the desires of the Agta to share food equally. However, Headland (Early and Headland 1998:179) questions the availability of yams as the main source of food for the Agta. Estioko-Griffin hypothesized (Early and Headland 1998:181) that the forest ecosystem where the Agta hunt does not alone provide sufficient food. Therefore, the Agta needed to obtain food supplements from the adjacent lowlander farmers by trade. And, eventually, such relationships became mutual as the Agta became the providers of forest product in exchange for rice, tobacco and salt from the farmers.

Contrary to the Agta, the Punan descend directly from an Austronesian-speaking people, who arrived in

Borneo ca. 1500 BCE. The Punan live deep in the interior of the rainforest, depending principally for subsistence upon sago palms (*Eugeissona utilis* Becc. and *Metroxylon*) as a source of carbohydrates, added to protein from wild pigs, fish and fruit (Sellato 1994:13). Farmers surround the territorial region of the Punan. This circumstance has led to a condition where the Punan are involved in forest product collection for exchange with the farmers. However, Sellato (1994:120) states that fulfilling the Punan's daily subsistence requirements is more important for Punan than obtaining forest products for trade. The Punan exchange forest products such as rattan, gharu and guliga (Hoffman 1986:64) for iron, salt, cloth, tobacco and flashlight batteries (Sather 1995:253).

Iron became essential for the Punan to replace stone axes and spear heads for felling sago palms and hunting animals. Interestingly, although iron is acquired from the neighbouring farmers for re-smelting, the Punan have considerable skill themselves in producing metal weapons. Unlike the Agta who use bows and arrows, the Punan nowadays are skilled in the use of blowpipes (Sather 1995:257; Sellato 1994:124). However, Nicolaisen argues that the language of the Penan of Serawak possesses a term indicating a weapon of bow formed as a miniature used for a toy (Sellato 1994:126). This is evidence for the use of bows and arrows in the past by the Punan for hunting before they invented blowpipes. Relationships between the Punan and neighbouring farmers also extend to a protection-concept. A sedentary farmer population protects a particular Punan band. For instance, the Long Gelat are allied to the Punan Murung, and the Kayan Malaran to the Punan Bahau. This condition provides great advantages to the farmers, since they can easily make use of the nomads for various purposes including labour.

### **The Foraging Economy of the Present Day Agta and Punan**

Based on available social and economic historical data it is understood that the Agta of the Philippines and the Punan of Borneo lead a very interactive life with neighbouring farmers in the rainforest environment. The Agta engage in agricultural labour and collect forest products to exchange for supplementary food with the farmers, which cannot be acquired by hunting. And, the Punan play a significant role providing forest products for the non-nomads in exchange for items of no great importance to the Punan such as "metal, salt and tobacco" (Sellato 1994:131). However, Headland (1986) and Sellato (1994:131) argue that both the Agta and Punan still concentrate on their foraging economy as their primary means of subsistence.

Headland (1986:403) suggests that the major

reason why the Agta persist with hunting and gathering is the existence of a "competitive exclusion principle". This places the Agta into a niche subordinate to the farmers and gives the Agta a mental template that directs them to "reject" agriculture to avoid competition. Hence, the Agta become professional forest product providers to the non-Agta lowland farmers, or "commercial hunter-gatherer". Headland (1986:406) assumed that there are six characteristics that define "commercial hunter-gatherers" e.g. 1) mutualism between the hunter-gatherers and the farmers; 2) the hunter-gatherers perform unsystematic cultivation in secluded areas; 3) the quantity of food considered as dietary is obtained from trade, instead of hunting and gathering or cultivation; 4) hunter-gatherers are unskilled in maintaining cultivated land; 5) hunter-gatherers are forever subject to government agendas; and 6) there is resistance by the farmer population for the hunter-gatherers to own land suitable for growing crops legally. Nevertheless, Brosius (1990:1, 23, 82-83) describes that the present day Agta residing in the highland of Central Luzon, the Zambales Province, tend to mainly rely on swidden agriculture of dry land crops sweet potatoes, corn, taro, rice, pigeon pea, and lima bean-- rather than hunting and gathering, presumably due to unavailable wet rice fields (Bellwood 2003 pers.comm.).

Unlike the Agta that have no access to sago, it seems that sago palms (*Eugeissona utilis* Becc., and *Metroxylon*) provides the Punan high carbohydrate for energy, which could be easily obtained in the rainforests of Borneo, scattered on slopes at 1,000 metres altitude. Sellato (1994:121) states that 100 grams of sago starch contains 350-400 calories. One trunk of the *Eugeissona* palm provides four kilos, and *Metroxylon* about 150 kilos. He explains further that:

"...A quick calculation indicates that a band of twenty-five people would need fifteen or twenty of these smaller palm trees a week, or between 800 and 1,000 palms per year. If a single palm grove...may contain from fifty to a hundred trees,...then the band would have to leave it for another grove after a week or two..." (Sellato (1994:121).

The high quantity of sago starch, added to the meat of wild pigs, mouse deer, monkeys, squirrels, birds and fish may well have persuaded the Punan to continue their foraging economy. Not to mention the use of metal manufacture as axes to fell sago palms, blowpipes, knowledge of "plant poisons" to tranquilize animals or fish, and the introduction of dogs by the Kayan, which provide more ability to the Punan to roam the forest in search of edible food.

### **Did the Punan derive from a Farmer Society?**

It is believed that the early Austronesian-speaking people possessing an agricultural economy

with rice migrated from Southern China towards Island Southeast Asia via Taiwan. Similar archaeological records reflecting cultural templates relating to agriculture found in Neolithic sites in Taiwan, the Philippines, and eastern Indonesia i.e. pottery, pottery stoves, stone barkcloth beaters, stone and shell adzes, domesticated dogs and pigs. Since the Punan are identified as descendants of an Austronesian-speaking people, it is logical to assume that the Punan once lived an agricultural lifestyle. Besides agriculture, sporadic hunting and gathering must have been practised continuously. This is supported by a large variety of faunal remains that are found abundantly in central Malaysia dating approximately 8,000-1,000 BCE (Bailey *et al* 1989:73). Sather (1995:238) also describes that the ability to travel across the South China Sea must have made them proficient seafarers with skills to build competent vessels.

Contradictory to their past history, present day Punan neither show any ability nor intention to practise agriculture. Sellato cited Seitz (1994:129) that Punan usually live farther away from the river than farmers, because unlike other Dayaks, they cannot swim. The Punan do not know how to build "dugout canoes" (Sellato 1994:129). However, once again if language is to be the source of a comparative foundation to study the society and culture of the ancient Punan, one can obtain many indications that will illustrate the characteristics of ancient Punan. For instance, linguistic evidence indicates that ancient Punan previously used bows and arrows instead of blowpipes for hunting, and stone axes and stone mallets before introduced to iron. Arnold (1958:69) notes that a raft is referenced in a Punan myth instead of a boat. This information infer that the ancient Punan once familiar with the use of water vessel. He also explains that the Punan Plieran build boats, but do not to use them valiantly. Based on the Punan language, it could be inferred that the Punan were once a partial farmer society who recognised alternate hunting and seafaring before diverting into hunter-gatherers.

## CONCLUSION

The surviving hunter and gatherer societies in Southeast Asia provide a complex picture of a prehistoric economic system that seems to resist modernisation. The reasons for the persistence of foraging economies are also various. The Agta sustain their hunting and gathering economy for the benefits of a mutualistic relationship with the non-Agta lowlander farmers. The Punan retain theirs for the sake of their own survival. And additionally, the language spoken by the Punan reflects the ancient history of the Punan as once a society practising an agricultural economy.

Conclusively, it can be inferred that up until today

both Agta and Punan maintain a prehistoric subsistence system as a cultural diversion, being pushed into a specific niche by sedentary farmers. Nevertheless, a group of present day Agta people in Zambales Province have altered their subsistence system relying totally in swidden agriculture. Meanwhile, rich sago starch and large varieties of animals provided by the Borneo rain forest ecosystem enable the Punan to survive by basically practising hunting and gathering.

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