

# Studying Linguistic and Cultural Contact in Borneo: Prospects and Challenges

ANTONIA SORIENTE \*

## Abstract

In the variegated landscape of languages and cultures of Borneo, the study of languages is a powerful tool to shed light on the intricate history of relations that has long been obscured by the polarization between 'Dayak' and 'Malay'. This article looks at some of the features of Lebu' Kulit Kenyah, Penan Benalui, Punan Tubu' and Ma' Pnaan (Punan Malinau/Segah) languages to clarify the linguistic and cultural affiliations among groups that were otherwise lumped together in vague classifications. It demonstrates what is to follow: according to a number of phonological, morphological and lexical evidence, and other historical evidence, Lebu' Kulit has to be listed among the Kayanic languages. Penan Benalui, like the other Penan languages, is not a Kenyah language, whereas Punan Tubu', despite the alleged cultural and social similarity with other Punan groups, cannot be classified within the Penan branch nor with other Punan languages. Ma' Pnaan or Punan Malinau/Segah is not a Punan language and is linguistically classified within the Kayanic branch of the Kayan-Kenyah subgroup.

**Keywords:** Borneo, classification, languages, Kenyah, Punan, Penan

## Introduction

The island of Borneo is home to a great number of different groups of varied identities and multiple languages and cultures. This diversity has been obscured in its history by a lack of historical data from one side and from the legacy of polarization between the Dayak and the Malay identities.

From one side, very little is known of these ethnic groups prior to the late nineteenth century, when they were already ethnically established, and the definition 'Dayak', a colonial construction, started to appear. This used to be a term, sometimes derogatory, to refer to all the populations living in the upper part of the many rivers flowing through what is today Indonesian Borneo. Dayak derives its meaning from the word

---

\* Email: [asorient@unior.it](mailto:asorient@unior.it)

*daya* that, in most of the languages in Borneo and in the Austronesian world means ‘upriver’ or ‘toward the interior’, and is in opposition to the coastal populations professing the Muslim religion and referred to as Malay (see King 1994). In the dichotomy Dayak/Malay, widely diffused over the whole island of Borneo, the diverse and complicated cultural network is divided in an overly simplistic way into two mutually exclusive cultural units. Popularly, the terms are used to distinguish between the Muslim and the non-Muslim indigenous peoples of the area. This usage arose during colonial times, persists to the present and has been embraced by the Malay and Dayak alike. The term Dayak has lost its negative connotation and nowadays is seen as suggesting the unity of a community of people who share a similar perspective on life and have the same political interests (see Schiller 2007). In the Malaysian Borneo, a new term ‘*orang ulu*’ upriver people’ has emerged as a new construction from the 1970s (see Metcalf 2001) and is nowadays a term used ‘politically’ by the articulated groups of people of small and larger identities who need to have a recognition.<sup>1</sup> This dichotomic opposition obscures this variety that only a deep interdisciplinary approach that describes the linguistic, cultural, and historical background of these people can display.

Ethnic switching is very common in Borneo. One well-known example is those people who ‘became Malay’ (*masuk Melayu*) through the adoption of Islam and other features of Malay culture. Yet, even this group cannot be seen as constituting a single, monolithic group. An underlying pattern of ethnic and linguistic factors may persist. Groups often labelled as Dayak – like the Selako and the Iban – may, for example, actually speak Malayic languages, whereas some groups like the Tidung in Kalimantan and the Narum in Sarawak, who call themselves Malay, speak languages that are most definitely not Malay. In Sabah there is the well-known case of the Kadazan, now called Kadazan-Dusun, a name meant to cover a large group of different native people. In the 1960s political leaders attempted to forge a political movement around the identity of Kadazan (Lasimbang & Miller 1990, pp. 130-131<sup>2</sup>). This kind of ethnic switching has also happened elsewhere, for example with the Ngaju in southern Kalimantan (Wadley 2000, p. 86).

As has been mentioned elsewhere, (see Metcalf 1974; King 1994; Wadley, 2000, Soriente 2008) the study of languages can shed light on

---

1 This has also created political organizations such as PDKT (*Persatuan Dayak Kalimantan Timur* ‘Association of the Dayak of East Kalimantan’) and *Yayasan Adat Punan* (‘Association of Punan customary law’) to name two examples.

2 See also Wong 2012. I thank one of the anonymous referees for pointing out this reference.

the intricate relations the people entertain on the island.

Studying the case study of some Kenyah and Punan languages, mainly the Lebu' Kulit<sup>3</sup>, the Penan Benalui, the Punan Tubu' and the Ma' Pnaan, we can clarify the linguistic and cultural affiliations among the groups that were otherwise lumped together in vague classifications, and understand how these are related to each other and what the real history of these people is. Linguistic evidence, be it its structure (grammar, phonology, syntax), its lexicon or taxonomy, or its oral literature, can contribute to unravel the relationships that history, ethnography, and, in general, culture can often only partially explain.

### **Language classifications in Borneo: the case of Kenyah and Punan**

During the last century, a number of researchers, beginning with Ray (1913), through Hudson (1978) and most recently Blust (2010) – to mention three, have attempted to classify the languages in Borneo. Considering the complexity of the linguistic and ethnic situation, this task has proven to be difficult because of the high variation of languages and because, as of today, many languages there have remained undescribed.

However, when we take into account that the whole area is undergoing many profound changes in many ways, the need for linguistic work to be done seems even more pressing. Intensive exploitation of the environment has caused ecological changes and the populations living in the interior are subjected to social, economic and cultural forces that are inexorably influencing their whole way of life. Language too is part of this process and there are forces at work that are not only leading to the extinction of species in the forests, but to the death of languages. Dislocation of peoples, from their traditional settlements to the urban centres on the coast, has determined that the populations of the interior of Borneo have undergone a process of intermingling with groups speaking other languages and of creating new social networks. It can no longer be assumed that the pace of change for cultural features, like languages, will be stable or slow. The effects on language are profound. Some languages are now on the verge of extinction, while others are undergoing strong processes of change, due to contact with other linguistic realities. Groups like Kenyah and Punan, which unfortunately have been only partially described and classified, are changing as we observe them. Time is pressing. The reality is that while these languages are still valuable sources of data for shedding light in the classification of ethnolinguistic

---

3 Lebu' Kulit is also known in the literature as Uma' Kulit.

groups in this part of the world, the evidence that they provide is likely to become compromised, because of the processes of rapid change currently underway. The changes these languages underwent can obscure, forever, our chances of clarifying the picture of language origins and relationships.

Both Kenyah and Punan ethnonyms are applied to groups of people that indeed present a high level of differentiation. Elsewhere, I have discussed the problem of classification of Kenyah languages (Soriente 2004, 2008); here I would like to discuss in detail the case of the Lebu' Kulit, one of the traditionally listed Kenyah languages, some of the members of the variegated group 'Punan' and eventually I would like to conclude that an in depth study of the languages of Borneo, many of them still undescribed and at risk of extinction, is a powerful tool to understand the history of Borneo.

Blust (2010) has proposed a Greater North Borneo (GNB) subgroup that includes all languages of Borneo except the Barito languages of Southeast Kalimantan (and Malagasy). According to Blust, this subgroup includes, in addition to Bornean languages, various languages from outside Borneo, namely, Malayo-Chamic, Moken, Rejang, and Sundanese. The languages studied in this paper belong to different subgroups within the North Borneo phylum. They include the North Sarawakan subgroup with languages that are spoken by agriculturalists, namely Kenyah (in particular Lebu' Kulit), and by hunter-gatherers (Penan Benalui, a Western Penan dialect, Punan Tubu', and Punan Malinau).

### *Kenyah languages*

Kenyah languages are spoken by ethnic groups inhabiting several river basins on both sides of the border between Sarawak (Malaysia) and North and East Kalimantan (Indonesia). However, the ethnonym 'Kenyah' refers to several groups, which ethnically and culturally, as well as according to their stories of origin, are quite different. In many cases, groups are mixed as a result of inhabiting the same place or intermarrying, which, in turn, leads to language contact and change. Although Kenyah people of a particular group will recognize traits which they share with other Kenyah groups, there is no commonly accepted indigenous term for the entire complex of groups referred to as 'Kenyah'. To justify this endonymic label, the people themselves make references to various origin myths, though they are unable to explain the origin of the endonym 'Kenyah' itself.

According to Rousseau (1990, p. 17) there are forty Kenyah groups spread throughout four regencies in Kalimantan and two districts of Sarawak. These groups collectively consist of 40,000 speakers. This estimate should probably be revised downwards because it is quite common to include groups whose languages are not directly or closely related to

Kenyah within the ethnonym 'Kenyah' – this is the case of many Punan and Penan groups, the Cebop and the Ngorek. The Kenyah people inhabit a large geographic area, which includes the mid upper reaches of a number of rivers, in particular the Kayan, the Kelai, the Mahakam and their tributaries in East and North Kalimantan, as well as the Baram and Balui in Sarawak. Kenyah also occupy urban areas in cities such as Miri in Sarawak and Samarinda in East and North Kalimantan.

Kenyah is the name given to one of many ethnic groups forming the great ethnic, linguistic and cultural diversity of Borneo. This particular ethnonym refers to diverse groups that do not necessarily have a common origin. They belong to a stratified social system and their subsistence economy is based on rice swidden cultivation. As Rousseau (1990, p. 67) states: "the Kenyah cannot be defined by a single criterion. The categories are coterminous with the sum of their parts and can be defined only by listing all their components". Linguistically, not all the Kenyah variants are mutually intelligible and this explains the high level of bilingualism and multilingualism in the area. This group shows a common feature in Kalimantan, where ethnic, linguistic and cultural diversity is commonplace. The ethnic groups are mainly defined on the basis of linguistic differences. Although several groups may share cultural similarities for example in clothing, dance traditions or home construction methods; nonetheless, characteristics of their language and traditions in oral history often reveal significant differences. Therefore, we can conclude that language is the most important cultural element that defines a collection of individuals as an ethnic group, and distinguishes them from other groups.

Although references to Kenyah languages are found throughout the literature dealing with the classification of the languages of Borneo, linguistic work focusing on Kenyah languages began quite recently. These available references did not provide sufficient information to draw reliable conclusions about the classification of these languages. Synchronic descriptions that include word-lists and texts written in various Kenyah varieties dated back to the first half of the nineteenth century.<sup>4</sup> In most of the previous work, toponyms and ethnonyms were used as language names; therefore the classifications turned out to be neither geographically nor linguistically accurate. Through applying the methods of historical linguistics, Soriente (2004, 2008) was able to develop an internal classification of Kenyah languages based on shared innovations. According to this classification, the Kenyah languages can be distinguished in three main branches (Upper Pujungan Kenyah, the Usun Apau Kenyah, and the Kayanic-Lebu' Kulit

---

4 For a detailed history of studies of Kenyah languages, see Soriente 2004, 2008.

Kenyah) and count 30 members.<sup>5</sup>

The languages in Borneo, and especially Kenyah variants, present unique challenges to the historical linguist due to the impact of extensive group migration and language contact. Although the most obvious correspondences between languages are lexical, delineating shared phonological innovations is a necessary step for the determination of relationships because lexical cognates could result from borrowing which spread across distinct groups. Soriente's research took place in several Kenyah villages as well as a few Kayan villages which were not yet classifiable based on previous research. The collected word-forms were compared with reconstructed Proto-Austronesian forms in order to see which common innovations defined each subgroup. The classification that derived from this research is more refined

---

5 A classification of Kenyah languages, according to Soriente (2004, 2008)

Upper Pujungan Kenyah

Lebu' Kulit (Kayanic) Kenyah

a. Uma' Lasan

Uma' Baha

Uma' Alim

b. Òma Lóngh

Lebu' Kulit

Lebu' Timai

Uma' Kelep

Uma' Ujok

Uma' Pawa'

Nyibun

Usun Apau Kenyah

A

Lepo' Tau

Lepo' Bem

Uma' Jalan

Uma' Tukung

Uma' Jengan

Lepo' Aga

Uma' Ake

Lepo' Ga

Lepo' La'ang

Sambup

Lepo' Sawa'

Lepo' Anan

B

Lepo' Ke'

Lepo' Kuda

C

Lepo' Ma'ut

Lepo' Ndang

Badeng

Lepo' Jamuk

D

Bakung

Lepo' Tepu'

than the classification proposed in *Ethnologue* (Lewis et al 2013) where the high diversity of Kenyah languages is not displayed. Other works addressing the problem of classification of Kenyah languages (Blust 2010) only report the diversity of Kenyah languages on the Sarawak side.

As seen in Soriente (2004, 2008), the Kenyah languages display a high level of dialectal variation, so much so that some early classifications mistakenly included non-Kenyah languages like Penan and Cebop, but excluded some more idiosyncratic variants like Oma Lógh. Soriente's classification includes two main branches: the Upper Pujungan Kenyah branch and the Usun Apau Kenyah branch which includes most of the so-called 'Mainstream Kenyah' languages. The Lebu' Kulit/Kayanic branch includes Lebu' Kulit and its sister languages.

As previously mentioned, the classification of the Kenyah languages was an important issue and a necessary step to better understand the history and the relationships of these people with the other groups of the area. As we will see in the next section, the development of classifications on the basis of non-linguistic criteria is extremely complicated in Borneo; thus the tools of comparative linguistics provides the researcher with a powerful tool through which to understand the history of a language and its historical relationship with other languages. In the section below, I provide a general and non-technical discussion of the methodology and evidence comparative linguistics, and how these tools shed light on the internal relationships between Kayan-Kenyah languages.

### ***Who are the Punan?***

'Punan' or 'Penan' is a term used indiscriminately to refer to groups of different origin and languages sharing a past and present of similar lifestyles, that is of hunter-gatherers. If Punan is the reading preferred to refer to the many languages spoken by hunter-gatherers in Indonesian Kalimantan, Penan is used to refer to the Western and Eastern Penan spoken in the Malaysian state of Sarawak. Traditionally, in the literature on Borneo, Penan languages were listed within the Kenyah subgroups, though such classifications had never attempted to make a clear distinction between borrowed and inherited materials. Very often, the Penan and Kenyah people are both linguistically and culturally associated and it is the purpose of a current project to assess more rigorously the complexity of language and history in this particular context of relationships between non-sedentary and sedentary populations.

As stated at the beginning of this paper, although Borneo's complex indigenous history has generated considerable speculation, debate and controversy, there is often little consensus regarding even general historical issues. This is illustrated for instance by debates regarding the history of foraging versus agro-cultural groups. The origin of forager groups in the region has

long been controversial, especially since foraging groups are sometimes involved, to differing extents, in agro-cultural activities (e.g. the production of rice, sago, tubers etc) in addition to forest foraging, hunting, and fishing. The history of hunter-gatherers of this region, and Southeast Asia as a whole, typically follows one of two evolutionary frameworks. In one theory, foragers are simply the descendants of older foragers, and have maintained their independence from agriculturalists (Nicolaisen 1976a, 1976b). An alternative view, discussed in Bellwood (1999) and Endicott (1999), is that foragers are devolved farmers (Hoffman 1986) or farmers who once depended on a mixed economy and became specialized in forest resources, thereby abandoning the agricultural option (see Soriente, Forthcoming).

Many scholars have observed the gradual shift of hunter-gatherers towards a more sedentary life and the strong cultural and linguistic similarities of some agriculturalists with nomadic groups. Hence, Hose and McDougall (1912, p. 193) speculated that these settled people were nomads who adopted a sedentary life, and consequently that modern hunter-gatherers are remnants of an earlier Pan-Borneo culture. More recently, Whittier (1973, p. 22), and Brosius (1988, p. 84), even proposed that the settled Kenyah, long-time dedicated swiddeners, are derived from nomadic Penan who opted for a sedentary existence two or three centuries ago. It can be disputed though how the idea of an earlier Pan-Borneo culture arises out of the sedentarisation of foragers. The same thing could have happened with previous diverse forager populations.

Hoffman (1986) favoured the idea that hunter-gatherer populations in Borneo are one-time agriculturalists who devolved to specialize in forest resources, which would make trade the primary force for driving modern foragers into their niche specialization. Bellwood (1999) developed a slightly different argument: modern foragers are Austronesians who re-specialized in basing their economy on sago to serve their subsistence needs when they entered the rainforest. This is based in particular on the current lack of archaeological evidence for settlements in the forest before 4000 B.C., which is debatable as an argument because the lack of evidence for small hunter-gatherer groups in a dense tropical rainforest cannot be taken as proof that such populations did not exist. Hoffman and Bellwood also focus on the general observation that nomads and agriculturalists have linguistic affinities and ethnic associations but give a different historical explanation. Clearly, many questions revolve around whether each of the Punan or Penan groups is more similar to its neighbouring settled group or to other nomad groups or, conversely, whether at all the foragers were diverse populations before having any contact with the agriculturalists.

Linguistic data have partly been evoked to support the latter approach, but these cannot be viewed as conclusive because they rely on only one of the many nomadic groups of Borneo, the Western and Eastern Penan.



Blust (1974, p. 248), using a selection of words from three Eastern Penan groups in Sarawak, lumped the two language groups, Penan and Kenyah, together and posited that his lexical evidence pointed to a cultural reversion of agricultural populations. Blust (1976) argued in a similar fashion that the original Austronesians were settled populations with grain crops, pigs, dogs etc. and that parts of these populations turned to the forest to become hunter-gatherers for economic reasons (Hoffman 1986). In fact, the linguistic situation of the nomadic populations of Borneo, generally referred to as Punan and Penan, is much more complex and comprises about forty heterogeneous groups. These belong to eight major macro-groups, based on available ethno-historical data and apparent linguistic affinities (see Sercombe and Sellato 2007 and Soriente, forthcoming). It is worth noting that not all of the hunter-gatherers are represented in the latest edition of *Ethnologue* (Lewis et al 2013), that some have a different affiliation and others do not fall into any of the eight groups and for many we do not have descriptions.

Sellato (2002) proposes an alternative Borneo history, suggesting that hunter-gatherers have a different origin from sedentary agriculturists - an idea not widely accepted by other scholars. In viewing them to have been part of a general trend from hunting-gathering to farming practices, he assumes that prior to the Austronesian expansion to Borneo, the island might have been inhabited by “non-Mongoloid” hunter-gatherers who spoke non-Austronesian languages. Instead of believing that these populations became extinct when the Austronesian people arrived on Borneo, he considers it more likely that they adapted, to varying degrees, to these early Austronesian immigrants; they may also not have been full agriculturalists but brought with them a mixture of fishing, horticulture and wild-plant collection (see also Bellwood 1999, p. 287). The partial similarity between nomadic foraging and sedentary agricultural peoples may have developed when certain forms of horticulture and new hunting-gathering techniques gradually spread inland until the second half of the second millennium A.D. Sellato argues that Punan societies have an individualistic, opportunistic and secular ideology which allows them to easily adopt cultural, religious, linguistic, and technological elements from other groups. This could arguably have resulted in a culture with an inner ideological core and an outer layer of borrowed linguistic and technological elements (Sellato 2002, p. 108).

Sellato assumes that, at least for some nomadic groups, the common pattern has been progressive language replacement by a food producer language and that the substratum of a previous pre-Austronesian language is still evident. On the one hand, Sellato (2002, p. 118-9) cites lexical borrowings as evidence: some Punan languages share items for ‘rice’, ‘pig’, ‘chicken’, and ‘iron’ with the agriculturalists’ languages, hypothesising that the Punan borrowed them with the associated technology. On the other hand, he proposes three lexical items for the common hunter-gatherer substratum, which are

not found in the languages of the main agricultural groups and for which no Austronesian root has been reconstructed: *kelovi* ‘child’, *kan* ‘to give’, and *kavo* ‘to die’. These words are thought to be of critical symbolic significance and to constitute evidence for a cultural and linguistic substratum uniting hunter-gatherer societies. In general, Sellato and Sercombe (2007, p. 15) conclude that “the original languages could have been overwhelmed by Austronesian languages”. Likewise, the Austronesians could have absorbed the less numerous autochthonous pre-Austronesians, with the result being that nomadic groups started to resemble farmers biologically.<sup>6</sup>

### **Linguistic comparison: inroads into historical origins of groups in Borneo**

As previously illustrated, Borneo is a region with impressive ethnic diversity and a complex social history, and is therefore a particularly challenging region for historians and anthropologists. In this situation, the study of linguistic comparison can function as a valuable tool, providing an empirically solid means by which to understand the basic historical relationships between groups. I focus on the research presented in Soriente (2004, 2008 and forthcoming) as a case study in how linguistic evidence sheds light on the history of ethnic groups in regions where other types of evidence have, as yet, failed to produce insightful conclusions.

It is important to observe linguistic facts when studying languages. In other words the phonological, the morphological, the syntactic and the lexical features are the tools to understand whether the languages are related either because of common origin or because of contact. If languages descend from a common ancestor they will display a number of shared innovations, that is a number of changes that occurred at the same time in the languages compared. Contemporary languages have developed from their ancestor language by undergoing a certain number of innovations, and by also displaying certain retentions through the process of conservation.

---

<sup>6</sup> Since a scenario of absorption and language shift by foragers, rather than devolution by agriculturalists, is recurrently attested outside Borneo (cf. the Vedda in Sri Lanka, the Negritos in the Philippines, the Pygmies in Central Africa, and the San in southern Africa), it is indeed also plausible for Borneo. Nevertheless, both pre-Austronesian genes and languages should have left traces, which may one day be more fully revealed. The most reliable features for investigating these issues are possibly genetic markers, in particular, for determining whether in the distant past there was language shift on the part of hunter-gatherers from a non-Austronesian to an Austronesian language, which is not obviously reflected in current linguistic and non-linguistic evidence. Unfortunately, population genetic data for Borneo nomads are non-existent, and historical reconstruction is compromised by the fact that they are small groups with a history of continuous migrations.

On the other hand, languages are in constant interaction with each other, and often change drastically as a consequence of such contact; therefore it is difficult to establish “family trees” for some languages. Not only words can be borrowed from other languages, but also sounds and complex grammatical structures can be exchanged. It is therefore important to investigate linguistic processes of contact to gain a better understanding of their impact on the history and development of languages. In areas like Borneo, bilingualism has existed for centuries, perhaps millennia: this makes Borneo an ideal location in which to study language contact where phenomena that may be the result of various processes, such as substratum influence (interference through shift), superstratum influence and cultural borrowing, have to be studied to understand its history.

### ***Lebu’ Kulit: Kenyah ethnicities and Kayanic languages***

Based on the methodological issues illustrated above and in previous publications (Soriente 2004, 2008) I established a set of 12 phonological innovations that defined a Kayan-Kenyah subgroup<sup>7</sup> from which two main further subgroups split: Kenyah and Kayanic. Some innovations that linked a certain number of variants spoken either in East and North Kalimantan or in Sarawak defined a subgroup that includes all the Kenyah languages and excludes all those variants that do not display those innovations. The main finding of this work is the position of the branch Lebu’ Kulit and its closest related variants like Lebu’ Timai, Uma’ Ujok, Uma’ Pawa’, Uma’ Kellep, all of which do not belong to the Kenyah subgroup but to the Kayanic subgroup.

I focus here, in a more detailed way, on the Lebu’ Kulit language<sup>8</sup> as a representative of the Kayanic branch comprising about 8,000 speakers spread in more than 20 villages in Kalimantan and Sarawak. This brief account

---

7 Listed are the twelve shared phonological innovations in Kayan-Kenyah as in Soriente (2004, 2008). The asterisk marks the Proto-Austronesian reconstructions.

1. \*zZ > j / # / \_
2. \*R > x > h
3. \*q > Ø, ʔ
4. \*l > n\_V [+hi]
5. \*S > Ø
6. \*s > Ø / \_ #
7. \*a > ə / (C)\_CVCVCC
8. \*ə > Ø / # / \_
9. Devoicing of final stops
10. Reduction of PAN reduplicated roots
11. Deletion of nasals in NC clusters
12. Lowering of PAN high vowels \*i and \*u in penultimate syllable.

8 Lebu’ Kulit is likely the language spoken in Long Dunin in Sarawak and defined as Kenyah Long Dunin, belonging to the Lowland Kenyah branch by Blust (2010).

is focused on showing how far the Lebu' Kulit language is related to other Kenyah and Kayan languages and why a rigorous approach is needed in the task of classifying languages, as well as other factors of a social, historical and archeological nature.

Without describing the technical issues of these innovations, it is important to stress that this methodology is very appropriate to understand the intricate relationships among the many varieties of Kenyah dialects. Individually, the phonological innovations do not seem to represent clear-cut changes, as most of them happen frequently in other Bornean languages and in general in other Austronesian languages. However, despite the fact that many of the individual innovations may occur in other languages in Borneo, what is critical for the subgrouping argument is the constellation of the innovations, the totality of the changes occurring in the languages under investigation, the ordering of these changes and the uniqueness in the North-East Borneo area. The key factor in this kind of research is that by discovering shared phonological and morphological innovations, it will be possible to better understand lexical and cultural similarities.

Besides the phonological innovations described in Soriente (2004, 2008), a number of morphological similarities link the languages of this Kayan-Kenyah subgroup. The same kind of verbal and nominal prefixes, the absence of suffixes and the retention of infixes in a small number of lexemes is noteworthy.<sup>9</sup> Similarly, all variants studied display the same use of vocative forms ending in *-y*, for example *amay* 'father' *inay* 'mother' *puy* 'grandparent'. Moreover, the parts of speech in all these variants display the same division of the pronouns into three classes: free morphemes, bound morphemes and the clitics, with a distinction between alienable and inalienable possession. In all the variants investigated, the use of dual forms for the personal pronouns and three types of deictics: this, that, and that-distant, was observed.

A number of cases have been detected of relic alienable and inalienable nouns with the fusion of possessive pronouns for the first, second and third persons. The use of clitic forms for the first three forms of the possessive, mainly *-k* for the first person, *-m* for the second person and *-n* for the third person is mainly seen in Kayan (see Clayre & Cubit 1974 and Blust 1977). In Lebu' Kulit, Lebu' Timai, Uma Ujok, however, these markers seem to be "frozen", or fossilized, and only used for some inalienable terms, terms that are considered to be intimate, irrevocable possessions like body parts, close relationship terms and some verbs like in the verb denoting possession.<sup>10</sup>

9 Examples of infixation are *kuman* (-um-) 'eat' from PAN \*kaen, or *lemidik* (-em-) 'cut branches'.

10 The verb to denote possession is *anun* 'have, possess'. The conjugated paradigm occurs as *anuk* 'I have, mine' *anum* 'you have, yours' *anun* or *anunna* 'he has, his/her'. Some

This marking system is still largely used for some of the relationship terms like the reference terms for older and younger siblings, mother and father and grandparents.

These languages are also associated based on a number of lexical similarities. In the numeral systems for example, all variants display the same system of enumerating with lexical innovations for 7, 8 and 9 (*tujultuseu*, *aye*, *pi'en* in Lebu' Kulit) and a similar way of forming the numbers from ten to nineteen (*se sui pulu* 'eleven'), as well as the same set of classifiers. Earlier descriptions of Kayan and Kenyah, published by non-linguists also asserted that there was a relationship between the two because of lexical similarities: for instance, the vocabulary of the relationship terms, the use of necronyms and teknonyms and the same or similar names and titles in nearly all the variants.

It is worth noting some lexical items that are unique to Lebu' Kulit and serve to set it apart from the other Kenyah languages like Lepo' Tau for instance. First, *inai* is the word used to address one's mother and *sinam* to refer to a woman older than the speaker, in contrast to *uwe* and *tinen* in Lepo' Tau. *Inai* and *sinam* are in fact Kayan words. The terms used to refer to and to address a woman or a man according to the sex of the first-born child, very common in the other Kenyah languages, is unknown here. Lebu' Kulit and its sister languages do not use the word *baing* used by the other Kenyah languages such as Lepo' Tau, to refer to 'machete, sword' a very important iron tool. In Lebu' Kulit, like in Kayan, this tool is named *malat*, a term generally known to the other Kenyah groups to refer to 'iron'. As proposed by Sellato (1995, p. 21) the switch of this term is a clear indication that Kenyah groups adopted the term for 'iron' from the Kayan, probably because they got acquainted with swords as trade goods before they learnt the technology. The fact that Lebu' Kulit ignores this term and uses the word exactly like Kayans do, supports the hypothesis that it is indeed a Kayanic language. Other examples are: the word for 'bird' in Lebu' Kulit is *manuk*, used in Kayan but ignored in the other Kenyah languages, and terms for 'fish' and 'domesticated pig' which are again different from the other Kenyah languages; they are *boong* and *avau* respectively, though no direct Kayan cognate has been detected. The term for 'papaya' and 'food accompanying rice' are *dung* and *luow*, whereas other Kenyah languages use *majan* and *lekey*. The word for 'drink' in Lebu' Kulit is *medu*, which is probably a cognate of Kayan *du'i*, ignored by the other Kenyah languages that use the term *nisep* instead. The term for 'sit down' is *uko* in Lebu' Kulit, a term unknown

---

of the body parts allow the use of these clitics, though in a very limited number since the process does not appear to be productive any longer; for example *matak* 'my eyes' is attested in nearly all the variants.

to the other Kenyah languages. The term *ngivan* (see Kayan *ngiban*) hardly known to Kenyah languages, refers in Lebu' Kulit to the residence pattern of uxori-locality when a woman of a higher rank (*paren*) gets married to a man of a lower rank (*detau tiga*). A number of adverbs of clear Kayan origin seem to be extensively used in Lebu' Kulit: *aring-aring* 'at the very beginning', *pa* 'and, also' *beka* 'but', the use of *daleu* and *o* as aspect markers of past and progressive actions. The preposition *cin* 'from' known to the other Kenyah languages is replaced by *met*, probably a cognate of Kayan *men*.

The speakers of the Lebu' Kulit (or Uma' Kulit) language who identify themselves as "Kenyah", are a large group in East Kalimantan. Like all Kenyah, people cannot explain the origin of the word 'Kenyah'. After all, the study of the languages can never be separated from the way people identify themselves. As is known, generally ethnonyms are derived from toponyms, but obviously the issue is much more complex. For Kenyah people the term 'Kenyah', is just the name of an ethnic group, as opposed to another word for the area, like for instance the Kayan, whose name is definitely related to a toponym, that is, the name of the Kayan River.

Several people have attempted to give a meaning to this ethnonym, but none have been satisfactory. The most recent explanation given by Okushima (2006), of Kenyah as 'barbarians', also does not find confirmation in the field, not even etymologically, and therefore still does not solve the problem.

Maybe the answer is to be found in the term itself. *Kenya* in Lebu' Kulit and its sister languages just means 'he/she says' and is a term that recurs continuously in every conversation where it has an evidential function, explaining the specification of the type of evidence on which a statement is based: for example, whether the speaker saw it, or heard it, or inferred it from indirect evidence, or learnt it from someone. In many utterances it is specified who said it, for this reason the clause 'he says/said' occurs continuously in the speech. *Kenya* comes from the verb *ken* 'to say' agglutinated to the third person singular of the pronoun. One hypothesis is that since the word '*kenya*' was heard constantly by other people, for instance the Kayan who inhabited the Apau Kayan prior to the arrival of the Kenyah, it became the way to identify these people as 'the ones who always say '*kenya*'. It is not new for languages to be referred to simply by using the way they say 'yes' or 'no', - in Jakarta a group of Betawi are defined 'Ora' (from the Javanese *ora* = 'not') and in the most eastern part of Java in Banyuwangi, a group of Javanese are called Using (from (*t*)*using*, 'not').<sup>11</sup> In France, there is the well known case of *langue d'oc* and *langue d'oïl*, differentiated by the way they say 'yes' or the way they say 'this' or 'that'. The languages which use the word '*kenya*' are the languages of the Kayanic branch that is Lebu' Timai and its sister languages, including Lebu' Kulit. If we correlate this to the fact that,

11 I thank one of the anonymous referees for suggesting this point.

according to history, the Lebu' Timai were the first to arrive in Apau Kayan when the Kayan left, it is likely the case that they are a branch of these Kayan-Kenyah people whose language had the feature of saying '*kenya*' at the end of many utterances.

It is indeed true, as confirmed by reports from informants and from direct observation, that Lebu' Kulit, now widely spoken, is used in all everyday activities, except when speaking with other ethnic groups in the area as their languages differ to some extent. According to oral migration traditions, Lebu' Kulit represented a split of the powerful group of Lebu' Timai, the first Kenyah group that entered Apau Kayan when the Kayan left. Whittier (1973, p. 25) stated that 'the Lepo' Timai<sup>12</sup> were considered a very united and powerful group but after they entered Apau Kayan they started to split into four groups: the Lepo' Timai, the Uma' Kellep, the Uma' Pawa', and the small group of Uma' Ujok'. The speakers of Lebu' Kulit claim that their language is a Kenyah variant, despite the fact that it displays a number of differences from the other Kenyah languages. Asked whether they think their language might have a closer link to Kayan, they promptly refuse the idea, but on the other hand they state that they are more able than the other Kenyah speakers to understand Kayan languages and other Kenyah variants. The closeness of this Lebu' Kulit branch to the Kayan has to have some explanations in history.

Extending these conclusions to other cultural features, the documentation of oral literature and language used in the oral stories has brought us to the temporary conclusion that oral stories also show a direct link between the Lebu' Kulit and the Kayan people. The story of Usung Bayang Marang (Soriente 2006b), a very well-known story of the Lebu' Kulit, but not so popular among the other Kenyah people, displays many similarities with the Kayan story of Usung Bayang Balui Tingan, recorded in the upper Mahakam. Unfortunately, this issue requires further research since many of the oral stories of the Lebu' Kulit and the Kayan rest undocumented. Nevertheless, the fact that entire chunks of Kayan-like language are found in the Lebu' Kulit story Usung Bayang Marang (Soriente 2006b), is evidence that the Lebu' Kulit share a close relationship with the Kayan people.

### ***Classifying Punan/Penan languages***

In the framework of the hypothesis put forward by Sellato (2002) of a unity of the language of hunter-gatherers, and in the attempt to describe and better understand the linguistic situation of the languages of the Borneo hunter-gatherers, a number of descriptive projects have been carried out,

---

<sup>12</sup> Lepo' Timai (sometimes also Uma' Timai) is the variant of the ethnonym Lebu' Timai.

involving three languages of the hunter-gatherers: Penan Benalui, Punan Tubu' and Ma' Pnaan (aka Punan Malinau/Segah). Applying the historical linguistics methodology to the description of these three languages, it is possible to demonstrate that these three Punan languages are not related to each other and therefore cannot be classified together.

Penan Benalui, a member of Western Penan originally classified within the Kenyah language, thanks to thorough analysis, is now seen together with the Eastern Penan languages, a different branch of the Kayan-Kenyah family (see Soriente 2008 and Soriente, Forthcoming). In the lexicon of Penan Benalui, despite the many cognates and regular sound-meaning correspondences, there are a number of loanwords from Kenyah related to a sedentary lifestyle like the words *mabuy* 'bearded pig' and *tebu* 'sugarcane' *ume* 'home' just to give some examples that may have been borrowed when Penan settled down (the traditional Penan shelter is called *lamin*). Words of obvious Kenyah origin like *lopu* 'village' *uba* 'want', *uyan* 'do', *tabat* 'medicine', and the locative preposition *ke* seem to occur alongside such genuine Penan words as *ju* 'want', *manew* 'do', and *tong* 'at'. Nevertheless, there are many words not shared by Kenyah that belong to such different lexical domains as verbs, body parts, plants, and animals. Many common words like 'day', 'moon', 'rain', and 'water' do not match, and the same is the case with common verbs like 'sleep', 'walk', 'come', 'fear', and the color 'black' and a great number of cultural and ethnobiological terms.

The more specific one gets, the more differences one finds. In comparison to Kenyah, Penan Benalui like other Western and Eastern Penan languages, has a much richer system of necronyms, or death names, (names or titles given to persons on the death of a close relative) (see also Brosius 1995). Moreover, due to the religious belief that all sentient living things possess a soul, Penan Benalui focuses on the interaction of spirits and souls. Consequently it is a rich, poetic and articulated language with avoidance terms in order to keep malevolent forces away.

For a similar reason the Penan are also careful not to use an animal's real name when discussing hunting, so that the animal is not alerted. For instance, in Penan Benalui most avoidance names refer to animals, for instance, *nyakit* is used instead of *bangat* 'grey leaf monkey', *uyem* instead of *modok* 'pigtail macaque', *ngoyeu* instead of *kuyat* 'longtail macaque', *bale bulun* instead of *telau* 'deer', and *payep* instead of *lage* 'sambar deer' (Koizumi p.c.). Agriculturalists do not have these avoidance terms.

In the field of ethnobiology (see Puri 2001), based on a list of 164 plant names Penan Benalui and Kenyah share an average of 70% of cognate roots (a sample of 110 animal terms yielded a cognate percentage of 65%). The ethnobiological study of the Penan Benalui by Koizumi and Momose (2007) analyzed the use, classification, and nomenclature of wild plants, specifically seeking an answer to the question of whether hunter-gatherers



have less knowledge of wild organisms than subsistence farmers. While it can be expected that hunter-gatherers know less about cultivated plants and domesticated animals, Koizumi and Momose found it unlikely that they would know less about wild organisms. Exploring this issue in a detailed study, they pointed out that comparisons should be made between people living in similar natural environments with similar species diversity, as this affects the number of taxa in a folk biological classification. They used two comparative frameworks in order to take into account the population diversity of Borneo in general, and the diversity of different groups of hunter-gatherers and agriculturalists in particular, regardless of the high number of biological species found there. In doing so, they employed inter-language comparisons (between hunter-gatherer and agricultural societies living under similar environmental conditions) and intra-language comparisons (between people engaging in different subsistence activities).

Although the knowledge of useful wild plants and their classification and nomenclature among the Penan Benalui and the Bornean farmers are very similar, the nature of this knowledge is different, as is expected when considering their different cultural preferences. The Penan Benalui had a much more limited knowledge pertaining to food plants than did the agriculturalists, who used more wild plants to enrich their diets. Conversely, the Penan Benalui could name more sago palm species and more fruit species. In the field of medicine, the Penan Benalui knew a smaller number of species for medicines and they had a more limited language relating to the use of plants for religious and magic purposes. Returning to the issue put forward by Selato (2002) of a unity of languages of the Borneo hunter-gatherers, there is no trace of the words considered of crucial importance to link the language of all the Borneo hunter-gatherers.

A parallel study of the Penan Benalui oral literature has the main objective of seeing to what extent Kenyah motifs and language are found in stories, myths and legends of the Penan. So far no main Kenyah myth or legend has been found, nor has a common set of 'Punan features' been established.

Punan Tubu', as well as some sister languages spoken in the Malinau Regency of North Kalimantan by around four thousand people, was until recently classified as a Kenyah language (see previous versions of *Ethnologue*). A study being carried out demonstrates that it cannot be classified with the Kenyah, or with the Penan languages mentioned above because it does not share the same number of phonological innovations. In particular, addressing the problem of the relationship with Penan Benalui and the other Western and Eastern Penan languages, despite the fact that it is spoken by people who share a hunter-gatherer past, the language does not display many similarities either with Kenyah or with Penan Benalui, to the point that the languages are unintelligible.

Nevertheless, Penan Benalui and Punan Tubu' share some morphological features, that is the same set of prefixes, lack of suffixes and the use of the infix <en> to mark the passive voice (see Soriente 2013b). A detailed study of the language and its oral literature demonstrates that instead of being closely related to Kenyah languages, it shows more similarities with Kayan and Kayanic languages, especially in the lexicon and in the use of the clitic pronouns for inalienable possession.

The Punan Tubu' have a body of oral literature represented by legends, animal stories and myths, where the most common themes are the exploitation of the forest and the exchange of products. Nevertheless, a number of characters and motifs are shared by Kayan stories too (see Soriente 2013a). The study of the language used in oral literatures is another powerful tool to shed light on the history of people. In Punan Tubu' stories the relations to the Kayan are so strong they induce one to think that either the Punan Tubu' are an off-shoot of the big Kayan group or conversely their relation to the Kayan people is so strong it influences the way of producing stories. As occurred to other hunter-gatherers in the world, the nomads of Borneo have shared a certain amount of tradition with the agriculturalists with whom they interact. In the case of the Punan Tubu' the relations with the Kayan are clear. The many similarities with the Kayan language and literature might be the result of a common origin or maybe of borrowing due to long-term contact. The nomads are known for their lack of material culture, deep historical knowledge and articulated rituals connected to death, birth and marriage. Unlike the agriculturalists whose lives are full of ritualized events marking the many rites of passage, the lives of nomads are nearly lacking any kind of ritual except the cases where the lives of sedentarised nomads have been deeply influenced by those of their agriculturalist neighbors and are displayed in a more simplified way. This can be the reason why some forms of oral literature seem to have an unintelligible language called *ketuya'*, probably the language imperfectly learnt from other people. The study of Punan Tubu' oral literature seems to point to the fact that these people's traditional knowledge is fragmentary and incomplete. Therefore, it is weak and subject to replacement.

In this framework, it has been temporarily observed that the Punan people that speak the Ma' Pnaan language, do not speak Punan languages. These are the Ma' Pnaan and the Punan Kelai inhabiting some villages along the Segah, and Kelai villages in Berau in East Kalimantan. On the other hand, their language displays very idiosyncratic features that set it apart from the Punan Tubu' and from the Western Penan branch. These Punan people (Pnaan) have always lived in symbiosis with a group of Kayanic agriculturalist people — the Manga'ay (or also called Segai) — and these languages have many common features. Due to the fact that even for the Manga'ay language very little material is available, data from Ma' Pnaan (Punan Malinau/Segah) has been compared on the one hand to the languages of the closest agriculturalists, the

Kayan and the Kenyah, and on the other hand, to some Punan languages. This has pointed out that phonologically Ma' Pnaan has a very peculiar phonological system that has resulted from specific phonologic innovations. The Proto-Austronesian voiced labial obstruents \*b and \*d and the semivowel \*w have the reflex g in Ma' Pnaan: e.g. \*buaq > gu 'fruit', \*duah > ago 'two', \*qubi > gai tuber, and \*quay > goi 'rattan'. There is also a strong tendency for historically disyllabic Proto-Austronesian forms to be realized as a monosyllable with a complex cluster (e.g. \*mata > mtan 'eye'; and \*takut > tkut 'fear') (see Soriente 2012). Some of these innovations are shared by the Manga'ay and morphologically and lexically show many similarities to Kayanic languages.

As far as passive voice is concerned, the Punan Ma' Pnaan behaves very similarly to Kayan and Kayanic languages. For this reason, the position of the Ma' Pnaan is not with Punan languages but with Segai, a language spoken by the agriculturalists of the area within the Kayanic subgroup. At the same time, preliminary observation suggests that at the level of morphosyntax Ma' Pnaan does not behave like other Punan languages like Penan Benalui and Punan Tubu' in the expression of voice where infixation of <en-> is employed for the undergoer voice (Soriente 2013b).

In conclusion, despite the fact that the Punan Ma' Pnaan stress the fact that they are Punan people, they do not possess phonological, lexical or morphological elements of Punan languages. It is indeed a Kayanic language.

## **Discussion and conclusions**

Due to its complexity, history of migrations, population convergences and population divergences, the history and identity of groups like the Kenyah and the Punan is extremely difficult to piece together. Nevertheless, as I have shown, linguistic analysis offers us a powerful means by which to gain a deeper understanding of historical relationships between groups.

We have seen that through the lens of linguistics, one finds solid evidence for internal subgrouping of the Kayan-Kenyah languages; thus, linguistic evidence provides an empirical foundation for further study of the history of the communities that speak these languages. Lebu' Kulit, based on a body of phonological, morphological and lexical evidence, as well as other historical evidence, has to be listed among the Kayanic languages.

The same kind of approach has shown that Penan Benalui like the other Penan languages is not a Kenyah language, whereas Punan Tubu', despite the alleged cultural and social similarity with other Punan groups, cannot be classified within the Penan branch or with other Punan languages. Punan Ma' Pnaan is not a Punan language and is linguistically classified within the Kayanic branch within the Kayan-Kenyah subgroup.

All languages dealt with here can be grouped under one subgroup, Kayan-Kenyah, which comprises Kenyah, Kayanic, and Penan. Blust (1974, 2010)

has proposed a bigger North Sarawakan language group. Recall that although Blust's general theory is compelling, it is only acceptable with some reservations; notably, his vowel deletion hypothesis cannot accommodate the Kayan varieties and his idea that the close relationship between Kayan and Kenyah is mostly due to contact is not substantiated by the empirical evidence.

A detailed study of the Lebu' Kulit language, traditionally listed as "Kenyah", has proved that it belongs, instead, to the Kayanic branch of the Kayan-Kenyah family despite exhibiting a high number of lexical similarities with Kenyah languages. The ongoing analysis of Lebu' Kulit is an example of the importance of the fieldwork undertaken to document the language and to assign its position within the Kayan-Kenyah subgroup. Lebu' Kulit speakers claim that their language is a Kenyah variant, but a 'special' one, because of some idiosyncratic sounds and lexical items. The speech community itself refuses the label 'Kayan' and shows a tendency to adopt more and more elements from the closer Kenyah variants, apparently, in an attempt to assimilate to them. The study of the morphosyntactic features of Lebu' Kulit demonstrates that Lebu' Kulit is indeed a Kayanic variant, although this clashes with local knowledge, myths and remembered histories.

Despite the great deal of research that remains unfinished, these conclusions, that sometimes go against local epistemology and ethnic labeling, are the result of the application of the comparative methodology, a methodology that is considered to be the most objective when dealing with linguistic facts.

Until recently, the predominant linguistic affiliation of the Penan was with the Kenyah subgroup; as proposed by both linguists and non-linguists (see Soriente, *Forthcoming* for details). This has been abandoned and now Penan is seen as a separate branch within the Kayan-Kenyah subgroup. There are strong cultural and historical relationships between the groups of people inhabiting a wide area in the highland of Central Borneo and the Kayan have a great role there (see Whittier 1973 and Rousseau 1990). The Kayan originated in the Apau Kayan region, which they left as the Kenyah moved in. The Kenyah, and other related groups like some Kajang, originally lived in an adjacent area of Central Borneo, Usun Apau, as did groups of Penan. It is thus difficult to prove that their linguistic relationship is due only to long-term contact. The Kayan, Kenyah and Penan languages share a high number of lexical innovations, but a number of phonological innovations are also shared between Kayan and Kayanic languages, such as Lebu' Kulit, Kayanic, and Penan. More extensive research on these and other Penan and Punan languages might show a higher or lower level of similarity with other languages in Borneo.

Returning to the general problem of the origin of the Borneo hunter-gatherers and their languages; while the linguistic facts strongly suggest a common origin with the languages of agriculturalists, this is not conclusive

evidence that all the modern hunter-gatherers are merely the result of devolution from agricultural ancestors. To a certain extent, the opposite could be the case, namely that populations which are now agriculturalists were once hunter-gatherers, as proposed by Whittier (1973), Brosius (1988) and Rousseau (1990). The genealogical relationship between the languages of foragers and food-producers may very well result from an earlier process, during which hunter-gatherer populations slowly or abruptly abandoned their original language in favor of the Austronesian language of the closest agricultural group at that time. However, the scattered lexical similarities between different Punan groups, which may hint at a concrete pre-Austronesian hunter-gatherer substrate population from which Penan and Punan developed, are still quite restricted. It is therefore necessary to look for more common elements in all the relevant languages. Only a systematic and detailed study which takes all possible historical processes, including language contact, into account can shed more light on this hypothesis.

A serious and rigorous study of Bornean languages is required to shed light on the many shadows that still darken and obfuscate this challenging and diverse area. In the open laboratory that is the island of Borneo, it is necessary to pay attention to linguistic facts when trying to draw the linguistic history of the languages investigated and yet keep in mind other facts like history, myths, ethnic labeling and local epistemology.

## References

- Belwood, P. (1999), Archaeology of Southeast Asian hunters and gatherers, in R.B. Lee and R. Daly eds., *The Cambridge Encyclopaedia of Hunters and Gatherers*. Cambridge: Cambridge University Press. 284-288.
- Brosius, J. P. (1988), A separate reality: comments on Hoffman's 'The Punan: Hunters and gatherers of Borneo', *Borneo Research Bulletin*, 20, 2, 81-106.
- Brosius J. P. (1995), Signifying bereavement: form and context in the analysis of Penan death-names, *Oceania*, 66, 2, 119-146.
- Blust, R. (1974), *The Proto-North Sarawak Vowel Deletion Hypothesis*, Ph.D. Thesis, University of Hawaii.
- Blust, R. (1976), Austronesian culture history: some linguistic inferences and their relations to the archaeological record, *World Archaeology* 3, 19-43.
- Blust, R. (1977), Sketches of the morphology and phonology of Bornean Languages 1: Uma' Juman (Kayan), *Papers in Borneo and Western Austronesian Linguistics*, 2 9-122.
- Blust, R. (2010), The Greater North Borneo Hypothesis, *Oceanic Linguistics* 49, 1, 44-118.

- Clayre, B. and L. Cubit (1974), An outline of Kayan grammar, *Sarawak Museum Journal*, 22, 43.
- Endicott, K. (1999), Introduction: Southeast Asia, in R.B. Lee and R. Daly eds., *The Cambridge Encyclopedia of Hunters and Gatherers*, Cambridge University Press, Cambridge.
- Hoffman, C. L. (1986), The Punan: Hunters and Gatherers of Borneo, Ann Arbor: University Microfilms International Research Press, *Studies in Cultural Anthropology*, 12.
- Hose, C. and William McDougall (1912), *The Pagan Tribes of Borneo: A Description of their Physical, Moral and Intellectual Condition with some Discussion of their Ethnic Relations*. Macmillan, London.
- Hudson, A. B. (1978), Linguistic Relations Among Bornean Peoples with Special Reference to Sarawak: an Interim Report, *Studies in the Third World Societies* 3, 1-44.
- King, T. V. ed. (1994), *World within: The ethnic groups of Borneo*. S. Abdul Majeed, Kuala Lumpur.
- Koizumi, M. and M. Kuniyasu (2007), Penan Benalui wild-plant use, classification, and nomenclature, *Current Anthropology* 48, 3, 454-459.
- Lasimbang, R. T. & Carolyn P. Miller. (1990), Language labeling and other factors affecting perception of ethnic identity in Sabah, in Collins J.T ed., *Language and oral traditions in Borneo*. Selected papers from the first extraordinary Conference of the Borneo Research Council. Kuching, Sarawak (August 4-9-90). The Borneo Research Council: Williamsburg VA.
- Lewis, P., Gary Simons and Charles Fennings. (2013), *Ethnologue: Languages of the world. Seventeenth edition*, SIL International, Dallas.
- Metcalf, P. (1974), The Baram district: a survey of Kenyah, Kayan and Penan Peoples, in Rousseau, J. ed., *The Peoples of Central Borneo*, *Sarawak Museum Journal*, Special issue 22, 29-41.
- Metcalf, P. (2001), Diaspore vs. Völkervanderung: The Orang Ulu Apparition, in Siikala, J. ed., . *Departures. How societies distribute their people*. The Finnish Anthropological Society, Helsinki.
- Nicolaisen, J. (1976), The Penan of Sarawak: further notes on the neo-evolutionary concept of hunters, *Folk*, 18, 205--236.
- Nicolaisen, J. (1976b), The Penan of the seventh division of Sarawak: past, present and future, *Sarawak Museum Journal* 24, 45, 35--61.
- Okushima, M. (2006), Ethnohistory of the Kayanic Peoples in Northeast Borneo (Part 1): Evidence from Their Languages, Old Ethnonyms, and Social Organization (1), *Borneo Research Bulletin*, 37, 86-126.
- Puri, Rajindra K. (2001), *Bulungan Ethnobiology Handbook*, CIFOR, Bogor.
- Ray, S. (1913), *The Languages of Borneo*, Whole issue, Sarawak Museum Journal 1/4.

- Rousseau, J. (1990), *Central Borneo*, Oxford University Press, New York.
- Schiller, A. (2007), Activism and Identities in an East Kalimantan Dayak Organization, *The Journal of Asian Studies*, 66,63 – 95.
- Sellato, B. (1995), The Ngorek: a survey of lithic and megalithic traditions in the Bahau area, East Kalimantan, and an interdisciplinary sketch of regional history. Report. Jakarta: Culture and Conservation, WWF & PHPA.
- Sellato, B. (2002), *Innermost Borneo. Studies in Dayak Cultures*. SevenOrients, Paris and Singapore University Press, Singapore.
- Sellato, B. and Peter Sercombe. (2007), Introduction, in Sercombe, P. and Bernard. Sellato, eds., *Beyond the green myth: Borneo's hunter-gatherers in the 21st century*. Nias Press, Copenhagen.
- Sercombe P. and Bernard Sellato, eds. (2007), *Beyond the green myth: Borneo's hunter-gatherers in the 21st century*. Nias Press, Copenhagen.
- Soriente, A. (2004), A classification of Kenyah languages in Sarawak and Kalimantan. PhD thesis. Universiti Kebangsaan Malaysia.
- Soriente, A. (2006a), Uma' Kulit: a Kenyah or Kayan language? *Linguistik Indonesia* 24,1, 71-81.
- Soriente, A. (2006b), *Mencalèny & Usung Bayung Marang. A collection of Kenyah stories in the Òma Lóngh and Lebu' Kulit languages*. Atma Jaya University Press, Jakarta.
- Soriente, A. (2008), The Classification of Kenyah languages: A preliminary statement, *Journal of the SEAsian Linguistics Society*. 14, 2, 49-62.
- Soriente, A. (2012), Ma' Pnaan, a language of East Kalimantan, Paper presented at 12th ICAL (International conference on Austronesian linguistics). Bali, Indonesia.
- Soriente, A. (2013a), Endangered oral literature genres in Punan Tubu' (East Kalimantan), in *Proceedings of the International workshop on 'Special genres' in and around Indonesia*. Research Institute for Languages and Cultures of Asia and Africa. Tokyo University of Foreign Studies:.
- Soriente, A. (2013b), Undergoer Voice in Borneo: Penan, Punan, Kenyah and Kayan languages, in Adelaar S. ed. . *Voice variation in Austronesian languages of Indonesia*. NUSA, 54.
- Soriente, A. (Forthcoming), Hunter Gatherers in Borneo and The Case Study of the Penan Benalui, in Güldemann, T., Patrick McConvell and Richard Rhodes eds., *Hunter-gatherers and linguistic history: a global perspective*. Cambridge University Press, Cambridge.
- Wadley, R. L. (2000), Reconsidering an Ethnic Label in Borneo. The 'Maloh' of West Kalimantan, Indonesia. *Bijdragen tot de Taal-, Land-en Volkenkunde* 156, 1, 83-101.
- Whittier, H. L. (1973), *Social organization and Symbols of social differentiation: An ethnographic study of the Kenyah Dayak of East Kalimantan*. Ph.D. Dissertation. Michigan State University. East Lansing.

