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Retentive and Innovative "Night" in Atayalic Languages*

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1. Introduction

The Atayalic subgroup, belonging to the Austronesian language family, comprises two languages, Atayal and Seediq. Both languages are spoken by indigenous people in central to northern Taiwan. There are other indigenous languages spoken in mainland Taiwan that also belong to Austronesian language family, and they are collectively referred to as Formosan languages.

Atayal consists of two main dialects, Squliq Atayal and C'uli' Atayal. The data for both dialects are cited from previous literature. For the C'uli' Atayal, its subdialects are specified in this paper because the forms among these subdialects are rather diverse in some cases. These subdialects are Mekarang, Rinax, Skikun, Palngawan and Hanxi, and their data are taken from Indigenous Languages Research and Development Foundation (2020).¹

Seediq also consists of two main dialects, Paran Seediq and Truku Seediq. The data for Paran Seediq is based on the author's fieldwork while that for Truku Seediq is cited from previous literature.²

This paper investigates the forms for "night" in Atayalic languages.³ Section 2

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¹ The Chinese characters for these subdialects of C'uli' Atayal are Mekarang (澤敖利), Rinax (汶水), Palngawan (萬大), Skikun (四季), and Hanxi (宜蘭澤敖利) in Indigenous Languages Research and Development Foundation (2020).

² Based on my field notes, Squliq Atayal has the following phonemes: the vowels /a e i o u ə/, and the consonants /p β t k γ q ? s x h z r l m n η y w/. The consonants / β / and / γ / are written orthographically as b and g. Among these vowels, e and o are observed to date back to the diphthongs ay [aj] and aw. According to Huang (1995:16–17), C'uli' Atayal has the same phoneme inventories except that it adds /ts/ (written as c in this paper) and lacks the /ə/. As for Seediq, Paran Seediq has five vowels /a e i u o/, 18 consonants /p b t d ts k g q s x h m n η l r w j/, and the diphthong /uj/ (Ochiai 2016a: 19). Truku Seediq has the four vowels /a i u ə/ and three diphthongs /aw/ /aj/ /uj/ (Tsukida 2009: 56–62). The consonants are the same as those in Paran Seediq, except for /ts/, which becomes /s/ in Truku Seediq. Throughout this paper, /r/, /j/, and /ts/ are transcribed as r, y and c, respectively. According to Tsukida (2009), 1 is [ξ] and g is [γ] in Truku Seediq. In Atayalic languages, the length of the vowel is not a distinctive feature.

³ For the further information of the investigation of "morning" in Atayalic languages, see Ochiai

introduces Proto-Austronesian forms for night, *bəRŋi or *Rabi.⁴ Section 3 shows that the former proto-form is retained in Squliq Atayal as *biŋi*. Section 4 discusses that the latter proto-form is retained in Seediq as *rabi*. It is also retained in Atayal as *abi*, but its meaning is shifted to "to sleep." Section 5 argues that the Proto-Austronesian form *Rabian, derived by suffixing -an, is also retained in Atayalic languages: gəbi-an in Atayal meaning "evening, night" and as *gəbi-an in Proto-Seediq meaning "evening." Section 6 introduces innovative forms for "night," unrelated to *beRŋi and *Rabi, in Atayal and Seediq. The origins of these innovative words have been unknown; however, the identification of cognates and investigation of their meanings have revealed their etymology. In Atayal, mələhaŋan is an innovate form for "night." This form originates in Proto-Atayalic *kəlahaŋ, which means "to guard." In Seediq, kəəman is an innovative form for night, which is derived from kuuŋ "dark." Section 7 concludes that taboos related to the word "night" could be a motivation to innovate the new forms in these languages.

2. "Night" in Proto-Austronesian: *bəRŋi and *Rabi

Blust and Trussel (2010) reconstructed two forms for "night" in Proto-Austronesian. One is *bəRŋi and the other is *Rabiqi.

The second form, *Rabiqi, is revised to *Rabi in this paper since some data including the suffixed form with *-an, such as *gəbi-an* (not *gəbiqi-an*) in Atayal, suggest the protoform to be *Rabi without the final segments *qi, as is noted by Blust and Trussel (2010) themselves. The two Proto-Austronesian forms, *bəRŋi and *Rabi, meaning "night" are concerned in this paper.⁵

3. A reflex of Proto-Austronesian *bəRni "night" in Atayal

Atayal retains the Proto-Austronesian *bəRni in the form *bini*. ⁶ To the best knowledge of the author, no cognate is found in Seediq. In Atayal, the form *bini* is reported in Ogawa (1931: 9) and Egerod (1980: 72) with the meaning "night." Both references are to the wordlists for Squliq Atayal. The wordlist of the Indigenous Languages Research and Development Foundation (2020) also reports *bini* "night" in

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⁽²⁰¹⁹b, 2023).

⁴ The phoneme written by the letter *R in Proto-Austronesian is assumed to be a uvular fricative, uvular trill or alveolar trill (Blust 2013: 588).

⁵ The two Proto-Austronesian forms share segmental similarities, although it is difficult to relate the two forms derivationally. Both forms have consonants *b and *R, and the final vowel *i. However, it can be said that *bəRŋi is unusual for a Proto-Austronesian form in that it has a medial consonant cluster, which is usually avoided. There still could be a historical explanation for this form.

⁶ This Atayal form is not listed in the list of cognates for *bəRŋi in Blust and Trussel (2010). However, Ogawa (1939) noted that there are a few types for the forms of "night"; one of the types includes the following cognates, *bi-ini* in Babuza (a Formosan language), Atayal *qotox biŋi* "one night," Kapampangan *bengi*, and Javanese *wěngi*. This type corresponds to *bəRŋi in Blust and Trussel (2010).

Squliq Atayal.⁷ However, this form is not found in five subdialects of C'uli' Atayal, Mekarang, Rinax, Palngawan, Skikun and Hanxi, reported in the Indigenous Languages Research and Development Foundation (2020). These findings are summarized in Table 1.

Table 1: The reflexes of *bəRni in Atayalic languages

Squliq Atayal	C'uli Atayal ⁸	Paran Seediq	Truku Seediq
biŋi			

As shown below in Section 4, Atayalic languages also retains *Rabi, another form for "night." There could be a difference in usages between the reflexes of *bəRŋi—biŋi in Squliq Atayal and the reflexes of *Rabi. The data for Squliq Atayal show that the occurrences of biŋi are preceded by a numeral meaning "how many day(s)." For instance, Ogawa (1939: 9) and Egerod (1980: 72) have qutux biŋi "one night." In addition, Egerod (1980: 72–73) has pira biŋi "how many days."

In relation to this, Blust and Trussel (2010) noted for Western Malayo-Polynesian and Oceanic subgroups of Austronesian language family that "In addition to designating "night" (opposite of day), *bəRni marked the 24-hour unit used in counting "days" (hence "how many days?," "three days ago," "three days hence," etc.)" 10

4. Reflexes of Proto-Austronesian *Rabi "night" in Atayalic languages

This section deals with the reflexes of *Rabi in their basic forms in Atayal and Seediq, while next section introduces the reflexes of the suffixed from with *-an, *Rabi-an, in Atayal and Seediq. According to Blust (2013), the typical function of this suffix is to mark the location of an action when used verbally, but it also derives a noun of location. In

several days near home and "night" is used when one works away from home so that one has to stay several nights outside home. This pattern was observed in Paran Seediq. When asking "how many days will it take?," *piya ali* (how.many day) was likely used for the work near home, and *piya rabi* (how.many night) was likely used for the work away from home.

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⁷ This form needs some explanation regarding the irregular sound correspondence. An expected form in Atayal is *bagŋi* (*R becomes g in Atayal according to Li (1981: 274)). In the attested form, *biŋi*, the medial consonant g is dropped, probably due to the avoidance of a consonant cluster in a word-medial position. In addition, the schwa in the expected form is sporadically changed to *i* in the attested from.

⁸ It is also possible that C'uli' Atayal has *biŋi* but it was not documented in the previous studies.

⁹ However, Egerod (1980: 72) has one occurrence of *biŋi* preceded by a non-numeral, which is *ska*

biŋi, meaning "midnight" (ska means "middle.")

10 Megumi Kurebito pointed out that a similar way of counting days by words expressing "night" was reported in Chukotko-Kamchatkan languages. Shinjiro Kazama pointed out that words for "night" or "to stay (a night)" were also used to count days in Tungusic languages and Mongolic languages. He further mentioned that it could be the case cross-linguistically that "day" is used when one works for

For the two Proto-Austronesian forms, *bəRŋi and *Rabi "night," the relationship with numerals seen in *bəRŋi might differentiate itself from *Rabi.

addition to this, this paper considers it to function in deriving a noun relating to time as evidenced by *Rabi-an in Section 5.¹¹

Both Atayal and Seediq retain the reflexes of *Rabi, the Proto-Austronesian form for "night." In terms of semantics, the Seediq reflex retains the original meaning, while the Atayal reflex has changed the original meaning to mean "to sleep."

The reflex of Proto-Austronesian *Rabi "night" corresponds to *rabi*, meaning "night" in both Seediq dialects. ¹² Therefore, the Proto-Seediq form and meaning can be reconstructed as *rabi "night."

The reflex of Proto-Austronesian *Rabi "night" in Atayal corresponds to *abi* in Squliq Atayal and C'uli' Atayal as seen in Table 2. However, the meaning in both dialects is not "night," but rather "to sleep." Thus, not only did it change meaning, but it also changed from a noun to a verb. 13

With regard to the sound correspondences, the consonant *R in Proto-Austronesian appears as *g in Proto-Atayal (Li 1981: 274). Therefore, the expected Proto-Atayal form is *gabi; however, the initial consonant g is absent in the attested form, abi, in Atayal dialects. This initial consonant was likely dropped in Proto-Atayal, with the word reconstructed as *abi. A similar deletion of the initial consonant g (which dates back to Proto-Austronesian *R) in Atayal is reported in Ochiai (2020a: 66–67). The meaning of Proto-Atayal *abi could also be "to sleep," as suggested by the attested meanings in the Atayal dialects.

Based on the forms and meaning, *abi "to sleep" in Proto-Atayal and *rabi "night" in Proto-Seediq, the Proto-Atayalic form is reconstructed as *Rabi and its meaning as "night." The above discussion is summarized in Table 2.

due to the preceding like vowel.

Other words derived by the suffix -an with a time function are as follows: *Rabag-an "summer" in Proto-Atayalic (Ochiai 2019a: 143), cama-n "tomorrow; morning" in Seediq (Ochiai 2019b: 141), and sasa-n "morning" in Atayal (Ochiai 2023). In the two latter cases, the vowel a of -an was contracted

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¹² However, Ochiai (2016a: 78) notes for Paran Seediq that *rabi* has become an archaic form and *keeman* is now widely used as the word for "night."

¹³ There is a similar example of a meaning shift from a noun to a verb in Atayal. The Proto-Austronesian form for "hand" is *lima and its reflex *ima* in Atayal shifted its meaning to "to wash oneself" (Ochiai 2020b: 3–4).

Proto-Atayalic

*Rabi "night"

Proto-Atayal

Proto-Seediq

*abi "to sleep"

*rabi "night"

Squliq Atayal¹⁴

C'uli Atayal¹⁵

Paran Seediq

Truku Seediq¹⁶

*abi "to sleep"

*rabi "night"

rabi "night"

Table 2: The reflexes of *Rabi in Atayalic languages

5. Reflexes of Proto-Austronesian *Rabi-an and its reflexes

Blust and Trussel (2010) reconstructed *Rabi-an in Proto-Austronesian with the meaning of "evening, night" based on the forms from two Formosan languages, *gəbi-an* "late afternoon, evening" in Atayal and *labi-an* "night" in Bunun.¹⁷

The Squliq Atayal form in Ogawa (1931: 305) is *gəbi-yan*, with a glide *y* [j] inserted between the hiatus. According to the Indigenous Languages Research and Development Foundation (2020), the Squliq Atayal form is *gəbi-an* without a glide. It seems the glide insertion is not obligatory in Squliq Atayal, but it was preferrable to insert it in the 1930s.

In the Indigenous Languages Research and Development Foundation (2020), some C'uli' Atayal has the from *gəbi-an* with the meaning "evening, night." This form are reported in Mekarang, Skikun, and Hanxi, the subdialects of C'uli' Atayal. The Rinax subdialect, on the other hand, has *gabiyan* "night" in which a glide *y* appears between the hiatus. Whether the glide is inserted or not seems to depend on the subdialect. From these forms and meanings in both dialects, Proto-Atayal is reconstructed as *gəbi-an "evening, night."

Next, the reflex of *Rabi-an in Truku Seediq is gəbi-yan. This form has a glide

¹⁴ This form and meaning in Squliq Atayal are taken from the Indigenous Languages Research and Development Foundation (2020).

¹⁵ The form and meaning in C'uli' Atayal are based on the data for its subdialects Mekarang, Skikun and Hanxi in the Indigenous Languages Research and Development Foundation (2020). Other subdialects of C'uli' Atayal show a different form for "to sleep"; *abel* in Wanda and *maqilaap* in Rinax, among which the form in Palngawan may be a cognate of *abi*.

¹⁶ This form and meaning in Truku Seedig are taken from Rakaw et al. (2006: 633).

¹⁷ The form in Atayal is shown as *gbi-an* in Blust and Trussel (2010). The present author supplemented a schwa between the consonant cluster since its earlier form is *gabi-an* which becomes *gəbi-an* after the weakening of prestressed syllables. It is common to delete the vowels of weak syllabes in a Romanized writing system in Atayal. Blust and Trussel (2010) seemed to cite the form written in this writing system.

¹⁸ A subdialect of C'uli' Atayal, Palngawan, also has a cognate, *gaben*.

¹⁹ The antepenultimate vowel appears as *a* in *gabiyan*. This may be related to the realization of weakened vowels in prestressed syllables. As Huang (2018: 273) points out, weakened vowels tend to appear as *a* in a subdialect of C'uli' Atayal.

insertion and means "evening." The reflex in Paran Seediq is bubi-yan. This form also has a glide insertion and also means "evening." The reflex of *Rabi in Seediq is rabi as shown in Table 2. The initial consonant is r; however, in gabi-yan, the reflex of *Rabian, the initial consonant is g. In Seediq, *R in Proto-Austronesian appears either as r or g, and this ambiguity is reported in Ochiai (2020a: 64–66). From these forms and meanings in the two dialects, Proto-Seediq is reconstructed as *gabi-an "evening."

In Proto-Seediq, the meanings of *rabi "night" and its derived form *gəbi-an "evening" are differentiated as seen in Table 2 and Table 3. The former means "night" while the latter means "evening." Together with *gəbi-an, the derived from in Atayal, the Proto-Atayalic form can be reconstructed as *Rəbi-an. Its meaning could be "evening." However, this meaning was extended to include "night" in the Atayal dialects.

Table 3: The reflexes of *Rabi-an in Atayalic languages

		, , , , , , , , , , , , , , , , , , ,	0
Proto-Atayalic			
*Rəbi-an "evening"			
Proto-Atayal		Proto-	Seediq
*gəbi-an "evening, night"		*gəbi-an	"evening"
Squliq Atayal	C'uli Atayal	Paran Seediq	Truku Seediq
gəbi-an "evening,	gəbi-an "evening,	bubi-yan "evening"	gəbi-yan "evening"
night"	night"		

6. Innovative "night" in Atayalic languages

Along with retentive forms of the Proto-Austronesian form for "night" discussed in Sections 3, 4 and 5, other forms for "night" are widely used in Atayal and Seediq, and these forms can be regarded as innovative. The following subsections examine the origins of these innovative forms for "night." Section 6.1 deals with the innovative "night" in Atayal and Section 6.2 deals with that in Seediq.

6.1 Innovative "night" in Atayal

In Atayal, *gəbi-an* is a word for "evening, night" as seen in Table 3. However, *məhaŋan* in Squliq Atayal also means "night," as reported in Ogawa (1931: 402). The same form is reported as *məhəŋan* with the penultimate schwa in the Indigenous Languages Research and Development Foundation (2020). The penultimate vowel *a*

²⁰ The form and meaning in Truku Seediq are taken from the Indigenous Languages Research and Development Foundation (2020).

²¹ In Paran Seediq, the weakened vowel in a prestressed syllable appears as u. With regard to the unexpected initial consonant b in *bubiyan*, it underwent assimilation to the following consonant, which is b, according to Ochiai (2016a: 78).

²² This paper modified Blust and Trussel's (2010) reconstruction of the Proto-Atayalic form *gabiyan "evening."

likely weakened to schwa as the stress moved from the penultimate syllable to ultimate syllable.²³ The Indigenous Languages Research and Development Foundation (2020) shows the variant *mələhəŋan*. This variant has a consonant *l* following the initial consonant *m*. C'uli' Atayal cognates are *məhəŋan* (Skikun), *malahəŋan* (Palngawan), and *ləhəŋan* (Mekarang and Skikun). These forms are summarized in Table 4.

Table 4: Cognates for "night" in Atayal dialects²⁴

Squliq Atayal	məhəŋan (< məhaŋan), mələhəŋan
C'uli' Atayal (Skikun)	тәһәŋап
C'uli' Atayal (Palngawan)	malahəŋan
C'uli' Atayal (Mekarang)	ləhəŋan
C'uli' Atayal (Skikun)	ləhəŋan

To decipher these forms, vowel weakening in prestressed syllables in Atayalic languages has to be introduced. Li (1982: 239) points out that Atayalic languages undergo weakening of the vowels in prestressed syllables. The stress falls on the penultimate syllable in Atayalic languages.²⁵ The vowels in prestressed syllable are considered weak and undergo the reduction of the vowel quality to schwa (Li 1981: 239).²⁶

The longest form in Table 4 is *mələhəŋan* in Squliq Atayal and *malahəŋan* in C'uli' Atayal (Palngawan). As the latter form likely underwent a vowel change to a in the prestressed syllables, these forms can be represented as *mələhəŋan*, which in turn dates back to *mələhaŋan* with the vowel a in the penultimate syllable. This is tentatively considered to be the Proto-Atayal form.

The shorter forms consist of two types: either the initial syllable is lost or the second syllable is lost from the long from *mələhəŋan*. The initial syllable loss is seen in *ləhəŋan* in C'uli' Atayal (Mekarang and Skikun), while the second syllable loss is seen in *məhəŋan* in Squliq Atayal and C'uli Atayal (Skikun).

This paper suggests that the tentative Proto-Atayal form *mələhanan is derived from

²⁴ The form in the Rinax subdialect is *mahantan* (Indigenous Languages Research and Development Foundation 2020). This form is similar in part to other forms but is not included as a cognate due to its imperfect sound correspondences.

²³ Ogawa and Asai (1935: 22) report that the stress in Atayal falls on the penultimate syllable except for under certain conditions. However, in modern Squliq Atayal, the stress is predominantly ultimate according to my fieldwork.

²⁵ The stress in Atayal can be considered to fall on the penultimate syllable in Atayal according to the description in Ogawa and Asai (1935: 22). They also point out that the stress exceptionally falls on the final syllable under the condition that the penultimate vowel is a schwa, the final vowel is long, or the final consonant is a glottal stop (cf. footnote 23).

²⁶ Li (1982: 239) also noted some exceptions. The weakened vowels further changes into u in Paran Seediq and into a in Maspazi subdialect of C'uli' Atayal.

an Atayal verb *məlahaŋ* "to nurse, protect, preserve, observe; rule."²⁷ This form functions as realis of the actor voice. The form can be presented as *mə-lahaŋ*, with a prefix *mə*-indicating the function. An example is shown in (1).²⁸ Even without this prefix, the verb also has the function of realis of the actor voice as shown in (2). Both examples are taken from Egerod (1980: 315).²⁹

- (1) m-uah mə-lahan nunan =ta

 AV-come AV-protect mind =1PL.INC.GEN

 "They come to protect our minds."
- (2) usa lahan kachin qasa go.AV.IMP watch cow there "Go watch the cow over there."

However, there is a related form, m entsup m entsup alahay, in Egerod (1980: 315), which indicates that m entsup alahay functions as a root. This form can be presented as m entsup alahay with the infix indicating the realis of the actor voice. An example from Egerod (1980: 315) is shown in (3).

(3) ima =ta lalu m-osa m<əm>əlahaŋ inu who =1PL.INC.NOM name AV-go <AV>protect that.place "What place is everyone among us going to protect [i.e., to rule]?"³⁰

This paper proposes *məlahaŋ* was reanalyzed as a verbal root, and it derived *mələhaŋan*, the form for "night," by suffixing -an.³¹ From a semantic point of view, *mələhaŋ-an* could refer to the time of the day when people need to nurse a sick person or protect a village, which implies "night."

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²⁷ The form and meaning are taken from Egerod (1980: 315).

The abbreviations used in this paper are as follows: AV (actor voice), GEN (genitive), IMP (imperative), INC (inclusive), NEG (negator), NOM (nominative), PL (plural), SG (singular).

²⁹ The interlinear glosses are added by the present author. The Atayal sentences and their translations are taken from Egerod (1980: 315). The orthography is slightly modified by the present author. For instance, Egerod (1980) places a glottal stop to most words ending in a vowel. However, the glottal stop is not shown in this paper, as the author considers it to be phonetic rather than phonemic realization.

³⁰ The Atayal sentence likely means "What [who] is the name of the place where we all go to protect?" The final word *inu* means "where, anywhere" in Egerod (1980: 233). However, *inu* in this sentence seems not to be used interrogatively, but demonstratively. Thus, the author glossed it as "that place" in (3). The pronoun =ta, which is the subject argument of the verb $m < \partial m > \partial laha\eta$, behaves as a second position clitic here.

position clitic here.

31 The penultimate vowel *a* in *məlahaŋ* is weakened to schwa after moving to the antepenultimate syllable by suffixation of -an.

Seediq dialects have its cognates. The form in Paran Seediq is *qulahaŋ* and it means "to nurse, to guard (a village), to watch for enemies." The antepenultimate vowel *u* is a weakened vowel in this dialect (See footnote 26). The cognate in Truku Seediq is *qəlahaŋ* "to nurse, be watchful, guard." Based on the forms in the Seediq dialects, *qəlahaŋ can be reconstructed as Proto-Seediq.

The initial consonants differ in the Atayal and Proto-Seediq forms: m in Atayal and q in Proto-Seediq as seen in Table 5. This paper suggests that the Proto-Atayalic form is $k \ni laha g$, with the initial consonant k, which is changed to q in Proto-Seediq. In Atayal, the indicative form of the actor voice k < n m > a laha g underwent the loss of the initial syllable $k \ni laha g$ to become laha g. Parallel sound changes are seen in the word for "to see." The Proto-Austronesian form for "to see" is reconstructed as *kita (Blust and Trussel 2010). In Atayal it is reflected laha g according to Blust and Trussel (2010). Its actor voice form is expected to be laha g in Atayal. The initial segment laha g is dropped in the attested form.

The cognate of *kita "to see" in Seediq is *qita*. Its actor voice form is q < um > ita in Paran Seediq. In Seediq, the initial consonant k is sporadically changed to q. Paran Seediq also has a variant, *mita*, without the initial segment qu.

In Paran Seediq, the actor voice form of *qulahaŋ* is q < um > lahaŋ. In line with the form for "to see," its tentative Atayal form is $k < \partial m > \partial lahaŋ$, from which the initial segment $k\partial$ is dropped, and the attested form $m\partial lahaŋ$ is obtained. The root of the tentative form above is $k\partial lahaŋ$. This root is reported once in Egerod (1980: 315), as shown in the example (4).³⁴ Here, $k\partial lahaŋ$ functions as one of the realis forms together with $m\partial lahaŋ$ and lahaŋ in (1) and (2).

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(4) iyat =saku kəlahan nəbu

NEG =1SG.NOM nurse sick.person
"I will not nurse the sick person."
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The form $m \ge laha \eta$ functions as the realis of the actor voice. It is also reanalyzed to be a root form of a verb, as evidenced by the infixed form $m \le m \ge a laha \eta$. The reanalysis of $m \ge a laha \eta$ as a verbal root enabled the derivation of $m \ge a laha \eta$ "night" by attaching a nominalizing suffix -a n.

The above discussion of *məlahaŋ* was related to Squliq Atayal. It is also likely that it can be applied to C'uli'Atayal based on the cognate, *məlahaŋ*, seen in the Indigenous

³² The form is taken from Rakaw (2006: 588) and the meaning is taken from Rakaw et al. (2006: 588) and Pecoraro (1979: 101).

The form *mita* "to see" is taken from Egerod (1980: 280).

³⁴ The root form in general is used in irrealis constructions in Atayal. However, *kəlahaŋ* seen in (4) is used as a realis of the actor voice.

Languages Research and Development Foundation (2020) for the subdialects, Mekarang, Rinax, Skikun and Hanxi. Some subdialects report forms that retain the initial consonant k, such as $k < \partial n > laha\eta$ (Hanxi) and $k \partial l \partial h \partial g - an$ (Mekarang and Skikun).³⁵ From these, the root form in C'uli' Atayal is assumed to be $k \partial l \partial h \partial g - an$

Table 5 summarizes the reconstruction process of *kəlahaŋ in Proto-Atayalic, the source of the innovative form for "night" in Atayal. The meanings of its reflexes vary: to nurse, protect, preserve, observe, rule, guard (a village), to watch for enemies." Abstracting these meanings, this paper presents the meaning in Proto-Atayalic as "to guard."

Table 5: The reconstruction of *kəlahan "to guard" in Atayalic languages

Proto-Atayalic			
*kəlahaŋ "to guard"			
Proto-Atayal		Proto-	Seediq
*kəlahaŋ		*qəl	ahaŋ
Squliq Atayal	C'uli Atayal	Paran Seediq	Truku Seediq
kəlahaŋ	kəlahaŋ	qulahaŋ	qəlahaŋ

6.2. Innovative "night" in Seedig

Apart from *rabi* "night," there is another form for "night" in Seediq. This form in Paran Seediq is *keeman* pronounced as [ke.e.man]. In word with the structure CV.V.CVC where an antepenultimate vowel and a penultimate vowel are next to each other, such as *keeman*, a glottal stop is optionally inserted in the hiatus, becoming [ke.?e.man]. In such a word, the penultimate vowel causes the assimilation of the antepenultimate vowel (Ochiai 2016a: 30).³⁷ That is why the form in Paran Seediq is *keeman* [ke.e.man], not *kueman* [ku.e.man] (*u* is a weakened vowel in this dialect).

The cognate is transcribed as *kəəman* in Truku Seediq dictionary (Rakaw et al. 2006: 363). Tsukida (2009: 68) says that a glottal stop is inserted between a hiatus in Truku Seediq. Based on this, it is supposed to be pronounced as [kə.ʔə.man].

A historical schwa in the penultimate syllable changed to *e* in Paran Seediq (Ochiai 2016b: 304). Therefore, *kəəman can be tentatively reconstructed in Proto-Seediq. This proto-form has three syllables. A typical content word consists of two syllables in Seediq, so it is possible that this proto-form is attached with an affix. The most probable candidate is the suffix *-an, which leaves *kəəm as its root.

³⁶ These forms in C'uli' Atayal means "to take care of a sick person" according to the Indigenous Languages Research and Development Foundation (2020).

The infix $\langle n \rangle$ indicates the past tense of the undergoer voice (object subject).

Ochiai (2016a: 30) regareds the glottal stop in the hiatus as phonemic. However, this paper regards it as phonetic.

This tentative root *kəəm has a formal similarity with kuun seen in Paran Seediq (pronounced as [ku.un] or [ku.?un]) and Truku Seediq (supposed to be pronounced as [ku.ʔun], according to Tsukida (2009: 68)). The root kuun is attached with a prefix (muin Paran Seediq or mo- in Truku Seediq) to derive a stative verb meaning "dark." For example, the derived form appears as mu-kuun "dark" in Paran Seediq.

Atayal dialects have the cognates. Squliq Atayal has mənə-kum. C'uli' Atayal subdialects have mə-ku?um (Mekarang), mina-kuŋ (Palngawan), mənə-kum (Skikun), and ku?un (Hanxi). 38 These forms all mean "dark." The roots of these cognates are summarized in Table 6.

According to Li (1981: 267), the word final *m in Proto-Atayalic changed into η in Seediq, while being retained in Atayal. The forms in Table 6 show this pattern. A wordfinal consonant is η in Seediq while it is m in Atayal, apart for two forms from the C'uli' Atayal subdialects, Palngawan and Hanxi, that have the final η . Therefore, a Proto-Atayalic form should be reconstructed with a final *m.

In Table 6, three forms, kuun in Seediq, ku?um in C'uli' Atayal (Mekarang), and ku?uŋ in C'uli' Atayal (Hanxi), have two like vowels u word-medially. The other three forms, kum in Squliq Atayal, kum in C'uli' Atayal (Skikun), and kuŋ in C'uli' Atayal (Palngawan), have a single vowel u word-medially. As a typical word consists of two syllables in Atayalic languages, a Proto-Atayalic form should be reconstructed with two word-medial vowels, which could tentatively be reconstructed as *uu. For those forms with a single word-medial u, a concatenation of like vowels might have taken place. There is a word-medial glottal stop in two forms from subdialects of C'uli' Atayal, Mekarang and Hanxi, in Table 6. This glottal stop is likely phonetically inserted between a hiatus similar to Seediq.⁴⁰ Comparing the forms in Table 6, *kuum "dark" could be tentatively reconstructed in Proto-Atayalic.

³⁸ The forms are taken from the Indigenous Languages Research and Development Foundation (2020). However, the orthography is slightly modified by the present author. A schwa is inserted between

consonant clusters and the hyphens segmenting morphemes (a prefix and root) are inserted. ³⁹ This suggests that the change from the Proto-Atayalic *m to η is currently underway in Atayal

⁴⁰ It can be said that a hiatus tends to be avoided in Atayalic languages. Two types of insertion are used to break a hiatus. One is the glide (either y or w) is insertion. For example, a glide y is inserted between i and a as in $g \ni bi - y - an$ "evening" discussed in Section 5. The other type is the glottal stop insertion. For the forms in Mekarang and Hanxi, the expected underlying forms could be kuum and kuun. The hiatus consisting of two vowels of the same quality, a glottal stop was likely chosen to split the hiatus.

Table 6: The roots of cognates meaning "dark" in Atayalic languages

Seediq	kuuŋ ([ku.uŋ], [ku.ʔuŋ])
Squliq Atayal	kum
C'uli' Atayal (Mekarang)	ки?ит
C'uli' Atayal (Skikun)	kum
C'uli' Atayal (Palngawan)	kuŋ
C'uli' Atayal (Hanxi)	ки?иŋ

The tentative Proto-Seediq root obtained from *kəəm-an "night" was *kəəm. The form for "dark" tentatively reconstructed in Proto-Atayalic was *kuum. This paper proposes that they have the same origin, and its meaning is "dark." However, the two related forms, *kəəm and *kuum, differ in vowels.

To decide whether the vowels are ϑ or u, the penultimate vowel in a bare form and a suffixed form needs to be examined as shown in Table 7. The stress falls on the penultimate syllable in Seediq, and the vowel is stable and resistant to a sound change in this position. On the contrary, the vowels in the prestress syllables undergo weakening to schwa (see also Section 6.1).

Among the two tentative forms, *kəəm and *kuum "dark," the former is reconstructed based on the suffixed form and the latter is reconstructed based on root forms in Seediq and Atayal dialects. The latter form *kuum likely retains the original penultimate vowel. Then, the penultimate vowel in the proto-form is *u.

Next, a historical schwa in a final syllable underwent a change to u in Seediq diaelets according to Ochiai (2018). However, the historical schwa in a final syllable reappears as a schwa when a root is suffixed and the vowel in question moves to a penultimate syllable. The suffixed from, $k \circ om - an$ [ko.(?)om.an] "night," on the other hand, suggests that the final vowel of the root is historically *ə as it appears as o (emphasized by a bold face in Table 7) by moving to the penultimate syllable. To sum up, the penultimate vowel is reconstructed as *u and the final vowel as *ə. The Proto-Seediq form is modified as *kuəm "dark," which is also reconstructed to Proto-Atayalic.

Table 7: The penultimate vowels in *kuum "dark" and *kəəm-an "night"

Bare form	*k u um	"dark"	
Suffiexed form	*kə ə m-an	"night"	

In Proto-Seediq, *kuəm "dark" derives *kəəm-an "night" (< *kuəm-an), by suffixation of -an (the antepenultimate vowel undergoes vowel weakening). The connection between the two meanings is evident: "night" is a "dark" time.

This paper further identifies a word with the same formation in Atayal, *kuəm "dark" with the suffix -an. This form in Squliq Atayal is presented as k?man in Egerod (1980:

312), meaning "grass." C'uli' Atayal has the identical cognate presented as k ? man in the Indigenous Languages Research and Development Foundation (2020). ⁴¹ An expected form could be *kəəm-an, and phonetically it likely appears as [kə.?ə.man]. ⁴² These can be represented as k > 2man in consideration of other cognates.

Forms in other subdialects of C'uli' Atayal shows some variations regarding the realization of the schwa. Rinax subdialect has *kiman* and *ki?man*. Palngawan subdialect has *kaman*. The expected sequence of schwas appears either as i or a with concatenation into a single vowel. One of the variants, ki?man, in the Wehshui subdialect suggests that the earlier form was ki?iman and the second i was deleted later. This could have also occurred in k?man. To sum up, a Proto-Atayal form could be kə?əm-an, with the second a deleted to become ka?m-an.

The two meanings "night" and "grass" seem to have little connection semantically. However, *keeman* "night" derives *mun-keeman* in Paran Seediq, which means "gloomy due to dense and tall grass."⁴⁴ This form relates grass and darkness.

Table 8 summarizes the semantic diversification of Proto-Atayalic *kuəm-an, the root *kuəm, meaning "dark," is suffixed with *-an with the meaning tentatively reconstructed as "darkness." The meaning then shifted to "grass" in Proto-Atayal and to "night" in Proto-Seediq.

Table 8: Semantic diversification of Proto-Atayalic *kuəm-an

Proto-Atayalic *kuəm-an "darkness"

Proto-Atayal *kəəm-an "grass"

Proto-Seediq *kəəm-an "night"

6.3 Summary of innovative "night" in Atayalic languages

Table 9 presents the sources of the innovative forms for "night" in Proto-Atayal and Proto-Seediq as discussed in Sections 6.1 and 6.2. The innovative "night" in Proto-Atayal *mələhaŋan originates in *kəlahaŋ "to guard" and is derived by suffixing -an. The

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⁴¹ This form is seen in the Mekarang, Skikun and Hanxi subdialects. In addition, for Squliq Atayal, Ogawa (1931: 111) reported this form as *khaman*, in which the glottal stop seems to become *h*.

⁴² The obtained forms suggest that the schwa is deleted orthographically.

⁴³ In relation to this argument regarding schwa and the glottal stop, Ochiai (2022: 127–128) notes that a glottal stop in an Squliq Atayal form C?VC corresponds to a schwa in Seediq (e.g., s?aŋ "angry" in Atayal and *səaŋ "angry" in Proto-Seediq). This paper inserted a schwa between a consonant cluster in the previously reported Atayal form k?man and presented it as kə?man. Because it is common to delete the weakened vowels in prestressed syllables in a Romanized writing system in Atayal (see also footnote 16), this paper assumes that there is a hidden schwa between the consonant cluster. Based on this, the same can be applied to Squliq Atayal s?aŋ "angry." The form can be represented as sə?aŋ.

⁴⁴ Ochiai (2019b: 137) reported this form and meaning in relation to the word, *məgə-kəman* (literally, it means "similar to night," and a hyphen between a morpheme boundary is added by the present author), which means "dawn" in a subdialect of Truku Seediq. The prefix *mun*- in *mun-keeman* derives a stative verb according to Ochiai (2016a: 65–66).

innovative "night" in Proto-Seediq originates in *kuəm meaning "dark" and is derived by suffixing -an. Both innovative forms in Atayal and Seediq have the suffix -an in common.

Table 9: Sources of innovative "night" in Atayalic languages

Proto-Atayal	Proto-Seediq
*mələhaŋ-an	*kəəm-an
< Proto-Atayalic *kəlahaŋ "to guard"	< Proto-Atayalic *kuəm "dark"

7. Conclusion

Figure 1 summarizes the discussions presented in Sections 3, 4 and 5, giving the reflexes of the Proto-Austronesian forms for "night," *bəRŋi and *Rabi as well as the form derived by the latter *Rabi-an "evening" in Atayalic languages.⁴⁵

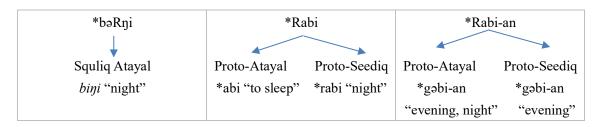


Figure 1: Reflexes of Proto-Austronesian *bəRŋi "night," *Rabi "night," and *Rabi-an "evening" in Atayalic languages

The reflex of *bəRŋi is retained in Squliq Atayal as *biŋi*. The reflex of *Rabi appears as *rabi in Proto-Seediq, whereas it appears as *abi in Proto-Atayal, with the meaning changed to "to sleep." The reflex of *Rabi-an appears as *gəbi-an in both Proto-Seediq and Proto-Atayal. Proto-Atayal extended its meaning to include "night."

Section 6 introduced the innovative forms for "night" in Atayalic languages, and identified its sources as seen in Table 9. Table 10 shows the forms for "night," including both the retentive and innovative forms in Atayal and Seediq.

Table 10: The retentive and innovative forms for "night" in Atayalic languages

	Atayal	Seediq
retention	biŋi gəbian	rabi
innovation	mələhaŋan	kəəman ⁴⁶

⁴⁵ According to Blust and Trussel (2010), *Rabi-an means "evening, night." However, its root form *Rabi means "night." Therefore, this paper assumes *Rabi-an means "evening" (see also footnote 22).

⁴⁶ The form in Truku Seediq, *kəəman*, is shown in Table 8 as it underwent fewer sound changes than in Paran Seediq.

In Atayal, the forms reflecting and being derived from the Proto-Austronesian "night," *bəRni and *Rabi, are *bini* and *gəbian*, respectively. Another form for "night" is *mələhanan*, which is innovated from a word meaning "to guard." In Seediq, the retentive form of *Rabi is *rabi*. Another form for "night" is *kəəman*, which originally meant "grass."

If there are retentive forms for "night," innovative forms might be unnecessary. However, taboos related to certain words could be the motivation for the emergence of innovative forms. Sayama (1983: 160) reports that Atayal uses secret language when they do not want others to know about ceremonial events such as marriage and head-hunting. One of the examples given by Sayama (1983: 160) is *patus* "gun," which is expressed by *tutuh* "smoke pipe."

"Night" related to darkness and danger could be a target of the taboo lexicon in Atayalic society, which may be a trigger for the innovation of new forms for "night" in both Atayal and Seediq.

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Summary

アタヤル語群における「夜」の保存と改新

オーストロネシア祖語において「夜」を表す形式は*beRŋi または*Rabi と再建されている。前者はアタヤル語 biŋi として、後者はセデック語 rabi として保存されている。また、後者はアタヤル語では「眠る」という意味の動詞に変化した。後者*Rabi に接尾辞-an(時間・空間を表す機能をもつ)が付加した形式である*Rabi-an はアタヤル語群において「夜」(アタヤル語の gəbian)または「夕方」(セデック祖語の*gəbian)の意味で用いられる。アタヤル語とセデック語のそれぞれにおいて「夜」を表す語が別にあり、この形式が「夜」として広く用いられている。別の形式の「夜」はアタヤル語で mələhayan であり、セデック語で keeman である。これらの由来についてはそれぞれの同源形式を特定し、その意味的関連を検討することによって明らかになる。アタヤル語の形式はセデック語の qulahay「監視する」と同源であり、この同源形式に接尾辞-an が付くことで成り立っている。セデック語の形式 keeman は kuuy「暗い」に対し接尾辞-an が付くことで成り立っている。アタヤル語にもこの成り立ちと同じ形式が見られ kə?m-an「草」である。セデック語に mun-keeman「鬱蒼としている」という派生語も見られることから「草」と「暗い」は意味的に関連していることがわかる。

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