

A Historical-Comparative Analysis of Armenian Parallels to the Principal Night Names of Pre-Eastern Polynesian Lunar Calendars

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Abstract

The subject of this study is the most stable night names of the Pre-Eastern Polynesian lunar calendars, whose etymologies are comparatively reliable, namely **Hiro**, **Kokore**, **Hotu**, and **Mutu**. Using the method of historical-comparative linguistics, the semantic and structural features of these night names were examined, and their possible comparative correspondences in Armenian were proposed. During the study, methods of historical-comparative, etymological, and semantic analysis were employed, based on comparative data from Polynesian languages, materials from the POLLEX project, and classical ethnographic sources. The analysis shows that the night names under consideration exhibit interesting formal and semantic parallels with certain lexical strata of Armenian. In some cases, these comparisons contribute to a more precise semantic interpretation of Polynesian night names. In particular, in the case of the **Kokore** series, it is proposed to distinguish two semantic layers corresponding to the phases of the waxing and waning moon: “curvature / curving” and “loss / diminution / disappearance.” The aim of the study is to enrich the material basis for investigating possible Armenian-Polynesian linguistic-cultural commonalities and to expand the scope of comparative calendrical studies.

Keywords: *lunar calendar, Polynesian languages, Armenian, etymology, historical-comparative linguistics, cultural astronomy.*

1. Introduction

Lunar calendars are among humanity’s oldest chronological systems and have played an important role in the economic, religious, and cultural life of various peoples. Through them, agricultural activities, navigation, fishing, ritual ceremonies, and other domains of time reckoning were organized. Particularly noteworthy are the lunar calendars of the Polynesian peoples, which have preserved detailed lists of lunar night names and provide valuable material for historical-comparative linguistics and cultural astronomy.

Comparative and computational studies of recent decades have shown that Eastern Polynesian lunar calendars preserve a common inherited structure, whose principal elements can be reconstructed back to the Proto-Central/East Polynesian stage, and in some cases to the Proto-Polynesian stage. Particularly stable are the night names **Hiro/Whiro**, **Tirea**, **Hotu**, **Huna**, **Atua**, **Rakau**, **‘Oturu**, and **Mutu**, which occur in geographically distant island traditions and display regular phonetic and semantic correspondences (Blust, 2013, Pawley, 2003, Valério, 2025).

The lunar night names may conventionally be divided into three main layers. The first is the descriptive layer, in which the names reflect the visible phases of the moon (for example, **Huna** “hidden,” **Hotu** “to swell,” **Mutu** “end”). The second is the mythological layer, in which the night names are associated with deities or cultural heroes (for example, **Hiro**, **Tangaroa**, **Tāne**). The third consists of structural naming series composed of recurring names and numerical components (for

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example, the **Kokore** series). This multilayered system indicates that the Polynesian lunar calendar was not merely a chronological system, but also a symbolic one (Blust, 2019, Pawley, 2003).

In Armenian culture, the Moon has occupied an important place in calendrical and ritual conceptions. In Armenian, the word *lusin* (“moon”) denoted not only the celestial body but also a unit of time—the month—which indicates the existence of ancient layers of lunar reckoning (Acharyan, 1926, EDMAL, 1974). Conceptions related to the phases of the moon, preserved in Armenian calendrical, folk, and linguistic-cultural traditions, likewise allow us to assume the presence of ancient elements of an original lunar or lunisolar reckoning system (Alishan, 2021).

In this context, possible typological, etymological, and semantic comparisons between Armenian and Polynesian languages are of particular interest. The present article continues our previous studies in this direction (Stepanyan, n.d., 2004a,b, 2011, 2015, 2018, 2019, 2020, 2022, 2023, 2024, 2025), focusing on those night names whose etymology is the most reliable.

The aim of the article is to examine, with the help of the historical-comparative method, four of the most stable night names of Pre-Eastern Polynesian—**Hiro**, **Kokore**, **Hotu**, **Mutu**—and to propose their possible comparative correspondences in Armenian. The study focuses primarily on etymological and semantic analysis. Structural comparison will be carried out after the comparative examination of the entire lunar calendar.

2. Material and Methods

The principal material of the study consists of the night names of Eastern Polynesian lunar calendars, their variants, and corresponding lexical data (Table 1). Both classical ethnographic sources and modern comparative databases were used, in particular the **POLLEX Online** project (Buck, 1959, Greenhill & Clark, 2011, Henry, 1928, Métraux, 1940, Routledge, 1919).

Table 1. Integrated Analysis of the Night Names

Night Name	Position in the Calendar	Historical-Comparative Etymology	Lunar Interpretation
Hiro, Whiro, Hilo, Iro	1 st night of the lunar month	Associated with the meanings “to weave,” “to twist,” “to spin thread,” “to join”	The first thin crescent of the new moon; the beginning of the lunar cycle
Kokore I, Kokore II	Before the full moon (6 nights), after the full moon (5 nights)	<i>kore</i> “there is none, absent, empty”	Unnamed, empty, indeterminate nights
Hotu, Ohotu	14 th –15 th night	Proto-Polynesian * <i>fotu</i> “to swell, to grow, to become full”	Maximum growth preceding the full moon; swelling, filling
Mutu, Muku, Motu	29 th –30 th night	Proto-Polynesian * <i>mutu</i> “to end, to be cut off, to be exhausted”	Disappearance of the moon, end of the cycle

During the study, the following methods were applied:

- 1) **Historical-comparative method** — for reconstructing the proto-forms of night names in Polynesian languages and identifying possible Armenian correspondences.
- 2) **Etymological analysis** — for revealing the root structure of words and their possible historical development.
- 3) **Semantic analysis** — for examining the development of lexical meanings and correlating them with calendrical functions.
- 4) **Structural comparison** — for studying the internal organization of naming series.

In evaluating the comparative material, priority attention was given not only to formal similarities, but also to regular phonetic correspondences, semantic proximity, and the comparability of calendrical functions, since superficial formal similarities alone are insufficient to establish an etymological connection.

2.1. The Night Name **HIRO** and Its Armenian Parallels

2.1.1. Position in the Lunar Calendar

The night name **Hiro/Whiro/Hilo/Iro** is among the most widespread and stable names in Eastern Polynesian lunar calendars. It is usually the first night of the lunar month and is associated with the beginning of a new lunar cycle. In Rapa Nui, Tahitian, Marquesan, Māori, and Hawaiian traditions, **Hiro** opens the entire lunar sequence, marking the beginning of a new cycle (Table 1).

2.1.2. Historical-Comparative Etymology

The etymology of the night name **Hiro** has not been conclusively established; however, comparative data from Polynesian languages indicate that it is associated with the semantic field of “to weave,” “to twist,” “to spin thread,” and “to join.” In particular, the Māori form **whiro** and the Hawaiian form **hilo** mean “to weave,” “to twist,” “to braid rope,” and “to prepare thread” (Biggs, 1971, Pukui & Elbert, 1986, Tregear, 1891, Williams, 1971).

2.1.3. Lunar Interpretation

Hiro corresponds to the phase of the new moon, when the moon is still almost invisible or is only beginning to become visible. This phase symbolizes beginning, inner concentration, potential, and renewal (Table 1).

2.1.4. Proposed Armenian Parallels

The forms **Hiro** / **Hilo** exhibit interesting parallels with a number of Armenian words. The first group is associated with the ideas of rotation, twisting, and spiraling:

- **Grabar** *hiɾ* — “turn, circle, coil” (Jahukyan, 2010)
- **Grabar** *hirel* — “to join, to arrange” (Jahukyan, 2010)
- **Grabar** *herɿ* — “arranged together, interwoven” (Acharyan, 1926)

These words are united within the semantic field of “twisting,” “arranging,” and “connecting,” which closely corresponds to the etymological meaning of **Hiro**.

The second group is associated with tools of spinning and weaving:

- **Grabar** *heryun* / *herun* / *helun* — “awl, bodkin, weaving tool” (Jahukyan, 2010)
- **Grabar** *her* — “hair (of the head),” sometimes material for weaving (Jahukyan, 2010)
- **Grabar** *ilik* / *il* — “spinning tool” (Jahukyan, 2010)
- **Grabar** *t’el*, dialectal *t’il* — “thread” (Jahukyan, 2010)

These forms are likewise associated with spinning, weaving, and material construction or creation.

Also noteworthy is the possible comparison of the Hawaiian form **hilo** with the Western Armenian dialectal word *hil*, meaning “light-emitting stone” (DDAL, 2001) This may symbolically be connected with the Moon, although it requires further substantiation¹.

This semantic field allows **Hiro** to be interpreted not only as a mythological name, as suggested by some Polynesian scholars, but also as a symbolic expression of the structuring of the lunar cycle. In this context, the metaphor of “thread” is natural, since the new moon becomes visible as a delicate line appearing in the dark sky.

Therefore, the night name **Hiro** may be interpreted as:

- the beginning of the lunar cycle,
- the first spiral of time,
- the first thin crescent emerging from darkness.

¹A more detailed analysis of this issue will be presented in future work.

This interpretation is consistent with Polynesian cosmogonic conceptions, in which the world is often described as a system of interconnected threads, networks, and bonds.

In our view, “thread,” “weaving,” and “connection” may represent the continuity of time, while **Hiro** represents the first spiral of the lunar cycle.

2.1.5. Phonetic Observations

From a phonetic perspective, the forms **Hiro/Hilo** correspond to the r/l alternation characteristic of Polynesian languages: in Rapa Nui and Marquesan, **r** is often preserved, whereas in Hawaiian, **l** appears in the same position.

This phenomenon has also been observed in Armenian–Polynesian lexical correspondences (Stepanyan, 2015) and is important for evaluating Armenian parallels. Let us consider several examples:

- Rapan. **rava**₁ “skilled, capable” — Grabar **lav** “good” (labh- “to grasp”),
- Rapan. **roto**₂ “swamp,” “lake” — Grabar **lik** “lake” (PIE leg-), ($t \longleftrightarrow k$),
- Rapan. **ragaraga**₂ (raga-raga) “to float” — Grabar **loganal** “to bathe in water” (louanā, lou-), **lot** “the act of swimming,”
- Rapan. **regorego** (rego-rego) “naked” — Grabar **lek**, **lerk**, **terk** “hairless, naked” (lerg-), etc.
- Rapan. **ritorito** (rito-rito) “white,” “bright” — Grabar **lurth** “pale white mixed with blue,” “clear, bright” (PIE lenk-, kleu- (?)),
- Rapan. **reo**₁ “voice,” “sound” — Grabar **lur** “voice, sound” (k’luro-, k/leu “to hear”), etc.

Also noticeable is the widespread loss of unstressed final sounds in Armenian parallels (Stepanyan, 2023), as well as certain vocalic alternations encountered here and throughout the study, which have repeatedly been recorded in Polynesian–Armenian comparisons.

- Rapan. **higaa** (higa-a) “miserable, pitiable” — Grabar **heg**, **hek’**, **hik’** “wretched, poor, pitiable” (pei-u-, pe(i)-) (Jahukyan, 2010); Grabar **hetg** “sluggish, slow-moving” (selk-),
- Rapan. **viriz**₂ “to fall from a height, roll downward” — Grabar **ver** “up, above” (upper-),
- Rapan. **kite**₂ “to see, notice,” “to know” — Grabar **get/git** “knowing, learned” (ueid- / uoid- “to see, to know”),
- Rapan. **kino** “bad, evil” — Grabar **k’en** “enmity, revenge, jealousy” (kuoinā-), etc.

Intermediate Conclusion

The night name **Hiro** belongs to the oldest and most stable lunar names of Eastern Polynesian tradition. Its core semantic nucleus—“to weave / to twist / to join”—is consistent with the phase of the new moon as a symbol of the beginning of the lunar cycle. The proposed Armenian parallels are centered around the semantic fields of “rotation,” “twisting,” “weaving,” and “thread-making,” and provide interesting comparative material for future, more comprehensive studies

2.2. The Night Name KOKORE/KORE and Its Armenian Parallels

2.2.1. Position in the Lunar Calendar

In the Rapa Nui lunar calendar, two successive series of nights are known under the name **Kokore**, located in different parts of the lunar month. The first series occurs in the phase preceding the full moon and includes six nights (**Kokore tahi-ono**: the 5th, 6th, 7th, 8th, 9th, and 10th nights), while the second series, occurring after the full moon, consists of five nights (**Kokore tahi-rima**: the 19th, 20th, 21st, 22nd, and 23rd nights).

The numerical components (**tahi**, **rua**, **toru**, **hā**, **rima**, **ono**) mean respectively “one,” “two,” “three,” “four,” “five,” and “six,” indicating that the series are structured according to the principle of sequential numbering (Barthel, 1978, Métraux, 1940).

2.2.2. Historical-Comparative Etymology

The night name **Kokore** is usually compared with the Māori form **korekore** and is regarded as an important component of the common Eastern Polynesian inheritance. In historical-comparative linguistics, it is interpreted as a reduplicated or intensified form of the root **kore**.

In Polynesian languages, **kore** primarily means:

- “there is none,”
- “is absent,”
- “is empty,”
- “is lacking.”

On the basis of this semantic foundation, the designation **Kokore** is generally interpreted as a series of “empty,” “unnamed,” or “undifferentiated” nights in the lunar calendar. In this interpretation, the second component **kore** is associated in Polynesian languages with the meanings “nothing,” “absence,” and “emptiness” (Barthel (1978), Métraux (1940), Tregear (1891) s.v. *kore*).

2.2.3. Lunar Interpretation

Two principal approaches to **Kokore** are accepted in the literature (Table 1). According to the first approach, the **Kokore** series are simply sequences of numbered nights without separate individual names (Valério, 2024). The second approach is based on the semantics of the root **kore** and suggests that the **Kokore** nights represent “indeterminate,” “empty,” or “unnamed” phases. However, this interpretation does not fully explain the first **Kokore** series, which occurs before the full moon, that is, during the period of the moon’s most active growth. In that phase, the meaning of “absence” or “emptiness” is not convincing; moreover, it contradicts the logic of the meaning “waxing moon.”

2.2.4. Proposed Armenian Parallels

In Armenian, the lexical layer based on **kor/kore** represents two distinct but interconnected semantic directions.

A. “To be lost / diminish / disappear”

(which corresponds well to Polynesian meanings)

The first group is associated with the following Armenian words:

- **kor, korel** — “loss, to be lost” (Jahukyan, 2010)
- **korč‘nel** — “to lose, to no longer see” (Aghayan, 1976)
- **korč‘el** — “to disappear” (Aghayan, 1976)
- **korust** — “loss, disappearance” (Aghayan, 1976)
- **koruk** — “lost” (Aghayan, 1976)

This group is united around the following meanings:

- disappearance,
- diminution,
- loss,
- cessation of existence.

This semantic field corresponds very well to the **Kokore** series following the full moon, when the moon begins to wane, become smaller, and gradually disappear.

B. “Curvature / Inclination / Rounding”

The second group is associated with the following Armenian forms:

- **kor** — “curved, bent” (Jahukyan, 2010)
- **korel** — “to bend, to curve” (Aghayan, 1976)
- **korvel** — “to become bent, to curve”
- **keṛ** — “curved, crooked” (Jahukyan, 2010)
- **klor** — “having the shape of a ring or circle” (Aghayan, 1976)

These words represent another semantic layer:

- to bend,
- to incline,
- to acquire a curved form,
- to become rounded.

This semantic field is especially interesting for the **Kokore** series preceding the full moon, when the lunar disk gradually curves, enlarges, and becomes rounder.

Proposal for a New Interpretation

Based on the Armenian material, it may be assumed that the two segments of the **Kokore** series reflect two different semantic layers.

First: Kokore I Series (Waxing Moon)

In the case of the series preceding the full moon, the semantic field of “to curve/to become rounded” appears more logical. At this phase, the moon:

- grows larger,
- forms a curved shape,
- approaches fullness.

Therefore, this series may be associated not with **kore** = “there is none,” but rather with an older or parallel root such as Rapan. **kero** “crooked”/**kekero*-type root meaning “to bend, to acquire a curved form.”

Second: Kokore II Series (Waning Moon)

After the full moon, the semantic axis changes. Here, the interpretation **kore** = “to diminish, to disappear” appears more natural, since the moon:

- becomes smaller,
- decreases,
- moves toward the new moon.

In this case, the classical etymology of the root **kore** fully corresponds to its calendrical position (Table 2).

Table 2. Proposed Integrated Analysis of the Night Name Kokore

Night Name	Position in the Calendar	Historical-Comparative Etymology	Lunar Interpretation
Kokore I or * <i>Kekeero</i>	Before the full moon (6 nights)	Possible connection with the root <i>kero</i> / <i>kor</i> “to bend”	Curving and rounding of the waxing moon
Kokore II	After the full moon (5 nights)	<i>kore</i> “there is none, absent, empty”	Waning moon, diminution, disappearance

2.2.5. Phonetic Observations

Reduplicative structures are widespread in Polynesian languages and have numerous parallels in Armenian (Stepanyan, 2020). Reduplication may express:

- duration,
- multiplicity,
- gradual development.

From this perspective, the form **ko-kore** may have signified not a static state, but a process:

- “to become increasingly curved,” or
- “to gradually diminish.”

This interpretation corresponds well to the phase-based transformations of the moon.

Intermediate Conclusion

The night name **Kokore** is among the most interesting and structurally complex elements of Eastern Polynesian lunar calendars. According to the classical etymology, it is associated with the root **kore** “there is none, empty”; however, this interpretation is not convincing for the first **Kokore** series associated with the waxing moon.

The Armenian parallels make it possible to distinguish two semantic layers:

- **first series — waxing moon** — “to curve, to take shape, to become rounded”
- **second series — waning moon** — “to diminish, to be lost, to disappear”

This approach makes it possible to regard the **Kokore** series as a system of descriptive names for the opposing phases of lunar growth and decline.

2.3. The Night Name **HOTU/OHOTU/HOKU** and Its Armenian Parallels

2.3.1. Position in the Lunar Calendar

The night name **Hotu/Ohotu/Hoku** in Eastern Polynesian lunar calendars is usually positioned around the 14th–15th nights of the lunar month, that is, in the phase immediately preceding or reaching the full moon (Table 1). In the Rapa Nui tradition, it is known as the 14th night name, whereas in Tahitian, Marquesan, and Mangarevan systems it corresponds to the phase of the moon's maximum growth. This position indicates that **Hotu** is associated with the ideas of lunar fullness, growth, and maturation.

2.3.2. Historical-Comparative Etymology

The night name **Hotu** is among the most clearly etymologized names in Polynesian. It is usually connected with the Proto-Polynesian root ***fotu**, whose primary meanings are:

- to swell,
- to become large,
- to grow,
- to become full,
- to mature,
- to become fertile.

Data from Tongan, Samoan, Niuean, Māori, and Tahitian show that the semantic nucleus of the word has been preserved almost entirely (Biggs, 1971, Churchward, 1959, Pratt, 1911, Williams, 1971). Therefore, the etymology of the night name **Hotu** has a high degree of reliability.

2.3.3. Lunar Interpretation

The night name **Hotu** corresponds to the phase when the moon approaches its maximum fullness (Table 1). In this context, the metaphorical shift from “to swell” to “to become full” is natural. Here, the moon is represented as a growing, living, maturing being. If the preceding lunar phases describe gradual growth, then **Hotu** expresses the culmination of that growth—the moment immediately preceding full completeness.

Thus, **Hotu** symbolizes:

- fullness,
- maturation,
- fertility,
- abundance.

2.3.4. Proposed Armenian Parallels

In Armenian, possible parallels for **Hotu/Hoku** are primarily concentrated in the semantic fields of growth, fullness, abundance, and fertility.

The following forms are especially noteworthy:

- **hord** — “abundant, overflowing” (Jahukyan, 2010)
- **horj** — “overflowing, abundant flow” (Jahukyan, 2010)
- **huʔtʻi** — “fertile, productive” (Jahukyan, 2010)
- **urd** — “filled” (Malkhasyants, 1944)
- **urdi** — “increases, there is much” (Malkhasyants, 1944)
- **hogn / hoqn** — “many, numerous” (Jahukyan, 2010)

These words express, to varying degrees:

- increase,
- fullness,
- abundance,
- multiplication,
- fertility.

Semantically, they are quite close to the principal meanings of the Polynesian root **hotu**.

2.3.5. Phonetic Observations

In the compared forms, particular attention is drawn to the stable presence of the Armenian **r-** element, which has likewise been repeatedly recorded in other Polynesian–Armenian comparisons (Stepanyan, 2015). Let us consider several examples:

- Rapan. **ka**₃ “sunrise,” **ka**₅ “to burn, ignite” — Grabar **kar** “burning, the act of burning” (ker-),
- Rapan. **hu** “flame” — Grabar **hur** “fire” (pur-, peuōr-, pun-),
- Rapan. **ha** “four” — Grabar **qar** “four” (PIE ketvōres-),
- Rapan. **mouku** “green grass, dry grass, plant” — Grabar **murk** “grain of wheat, roasted grain” (smug-ro-, smeug(h)),

- Rapan. **mutu**₁ “lip (human)” — Grabar **m̐ut/m̐ut** “snout, mouth, lip” (mu-), etc.

The following correspondences are also noteworthy:

- Polynesian **t** → Armenian **t/d/t**
- Polynesian **k** → Armenian **k/q/g/j**

These are important from the perspective of comparative evaluation (Stepanyan, 2020).

- Rapan. **tupu** “tree, bud, shoot” — Grabar **t’uph** “short, low tree,” “thick branch, leafy branch” (from the Old Armenian form *tupho-*) (Aghayan, 1976),
- Rapan. **turi**₂ “knee, joint” — Grabar **t’yur** “crooked, bent” (tek-ro) (Jahukyan, 2010),
- Rapan. **teka** “to turn (of a rotation)” — Grabar **t’eq**, whence *t’eqel* “to bend” (tek-),
- . **tarai**₁ “heavy rain, flood,” “sound of water” — Grabar **t’or** “running like water,” “flow, current, dripping, tear” ((s)ter-),
- Rapan. **terea** “rest, calm” — Grabar **darel** “to stop, remain” (dher-),
- Rapan. **tanu** “to bury” — Grabar **damb** “burial” (dhmbh-, dembh- “to bury”),
- Rapan. **ta** “that” — Grabar **d-** second-person demonstrative article, **da** “that, this” (from the demonstrative root *to-*),
- Rapan. **kau**₁ “to go” — Grabar **ga-**, **gal** “to come” (uadh- “to walk, to go”),
- Rapan. **kite**₂ “to see, notice,” “to know” — Grabar **get** “knowledgeable, learned” (ueid- / uoid-),
- Rapan. **karu** “seed, grain” — Grabar **gari** “barley” (gher-, gharua- (?)), etc.

Intermediate Conclusion

The night name **Hotu/Ohotu/Hoku** belongs to the group of Polynesian lunar-calendar names with the most reliable etymologies. Its principal semantic nucleus—“to swell, to grow, to become full”—fully corresponds to the phase in which the moon approaches fullness.

The proposed Armenian parallels are centered around the concepts of abundance, growth, fullness, and fertility, and provide valuable material for further historical-comparative studies.

2.4. The Night Name MUTU/MUKU and Its Armenian Parallels

2.4.1. Position in the Lunar Calendar

The night name **Mutu/Muku** in Polynesian lunar calendars is usually positioned at the end of the lunar month, around the 29th–30th nights, and is associated with the phases immediately preceding the new moon (Table 1). In the Rapa Nui tradition, **Mutu** is known as the 30th night name, whereas in a number of other Polynesian systems, the forms **Mutu** and **Muku** denote the final phase of the lunar cycle (Biggs, 1971, Churchward, 1959, Pratt, 1911, Williams, 1971).

Thus, **Mutu/Muku** represents the end of the lunar cycle—the transition toward a new phase.

2.4.2. Historical-Comparative Etymology

In historical-comparative linguistics, the night name **Mutu** is connected with the Proto-Polynesian root ***mutu**, whose primary meanings are:

- to end,
- to finish,
- to cease,
- to be cut off,

- to be exhausted.

Comparative pan-Polynesian data indicate that the original semantic nucleus of the lexeme **mutu** was formed around the notions of “cut-offness” and “completedness,” from which the meanings “end,” “boundary,” and “closed cycle” later developed (Biggs, 1971, Churchward, 1959, Pratt, 1911, Williams, 1971). The form **motu**, attested in certain languages with the meanings “to be cut off,” “to separate,” and “detached part,” later developed toward the meanings “cut-off piece,” “separated section,” and in some cases even “island” (Biggs, 1971, Greenhill & Clark, 2011, Pukui & Elbert, 1986, Williams, 1971).

2.4.3. Lunar Interpretation

From a lunar perspective, **Mutu/Muku** represents the final stage of the lunar cycle, when the visibility of the moon reaches its minimum or disappears completely (Table 1).

At this phase, the moon:

- fades,
- becomes smaller,
- becomes invisible.

Therefore, the night name **Mutu** symbolizes:

- the end of the cycle,
- the exhaustion of old force,
- preparation for a new cycle.

In this sense, **Mutu** is the opposite pole of **Hiro**: if **Hiro** is the beginning, **Mutu** is the end.

2.4.4. Proposed Armenian Parallels

In Armenian, with respect to the **mutu/muku** base, it is possible to distinguish two distinct but interconnected semantic directions. On the basis of phonetic proximity:

A. “To darken / become obscure / fade”

The first group is associated with the following Armenian words:

- **mut’** — “darkness, state of being without light” (Acharyan, 1926, Jahukyan, 2010)
- **mug** — “dark, dense, thick” (Acharyan, 1926, Jahukyan, 2010)
- **mat’nel** — “to darken, to lose light” (Aghayan, 1976)

This group is united around the following meanings:

- darkening,
- fading,
- loss of light,
- invisibility.

This semantic field corresponds very well to the calendrical position of **Mutu**, since during the final nights of the lunar month the moon becomes almost or completely invisible, and the sky enters its darkest phase.

On the basis of the semantic root “to cut / to finish” attested in Polynesian languages:

B. “To cut / separate / finish”

The second group is associated with the following Armenian forms:

- Grabar **mort’** — “cutting, slaughtering” (Jahukyan, 2010)
- Grabar **mort’el** — “to kill by cutting off the head” (Aghayan, 1976)
- **hatum/bajanum** — “cutting/division; delimitation”

These words represent another semantic layer:

- to be cut off,
- to be separated,
- to end,
- to be delimited.

This semantic field is especially interesting for the forms **Mutu/Motu**, since in Polynesian languages **motu** often means “cut-off part” or “separated section” (cf. Rapa Nui **motu** “to cut, to be

cut off, to break”). In lunar terms, this may be understood as the final separation of the old lunar cycle from the new one.

Proposal for a New Interpretation

Based on the Armenian material, it may be assumed that the night name **Mutu/Muku** reflects two complementary semantic layers.

First Layer — Darkening

In the case of **Mutu**, the semantic field “to darken / become obscure” is the most evident. At this phase, the moon:

- fades,
- disappears,
- the sky darkens.

Therefore, **Mutu** may be connected not only with the Proto-Polynesian root ***mutu** “to end,” but also with an older figurative designation associated with darkness.

Second Layer — Ending and Separation

At the same time, the semantic axis “to cut / divide / finish” is also preserved in the name **Mutu/Motu**. Here, **Mutu** functions as a boundary marker (cf. Rapan. **mutu** “30th night name,” **muku** “boundary post”), which:

- closes the old cycle,
- separates the old from the new,
- prepares the next lunar cycle.

In this case, the classical etymology fully corresponds to the calendrical position.

Thus, the Armenian parallels help interpret the night name **Mutu/Muku** as having a dual-layer structure as well:

- first layer — “to darken, become obscure, fade,”
- second layer — “to end, be cut off, be divided.”

This approach makes it possible to view **Mutu** not merely as the end or completion of the lunar cycle, but also as a transitional boundary—from darkness toward a new beginning.

In Armenian, the most convincing parallels for **Mutu/Muku** belong to the semantic field of darkness and obscurity. Semantically, these are comparable with the Polynesian forms **mutu/muku**. Particularly noteworthy is the comparison **Mutu** $\longleftrightarrow$ **mut’**, since the final night of the lunar month is characterized precisely as a moonless, dark night².

2.4.5. Phonetic Observations

Regular correspondences are present, particularly the reflex of Proto-Polynesian **t** as Hawaiian **k** (**mutu** $\rightarrow$ **muku**, Armenian **mut’** $\rightarrow$ **mug/muq**), as well as the vowel alternation **u** $\longleftrightarrow$ **o** (**mutu** $\longleftrightarrow$ **motu**).

This alternation has also been recorded in Rapanui–Armenian parallels:

- Rapan. **ote** “to suck” — Grabar **utel**, dialectal **otel** “to eat” (*ōd-*),
- Rapan. **otea** “a dance performed by eight boys and eight girls” — Grabar **ut’**, dialectal **ot’** “eight” (*ok’tō*),
- Rapan. **toku**, **tooku** “my” — Grabar **duq** “you (pl.)”, plural of the personal pronoun **du** (*to-*),
- Rapan. **huri**₂ “pit, funnel-shaped hole” — Grabar **hor** “well, deep pit” (*poro-*, *por-*),
- Rapan. **pu**₁ “pit,” “opening,” “well” — Grabar **p’or** “opening, cavity, hollow place, womb,”
- Rapan. **turuturu** “to drip drop by drop (water, liquid)” — Grabar **t’or** “flow, current, dripping.”

Intermediate Conclusion

The night name **Mutu/Muku** belongs to the group of Polynesian lunar-calendar names with the most reliable etymologies. The principal semantic nucleus of **Mutu/Motu**—“to cut, ending,

²A structural parallel exists between this night name and the 30th day-name of the Proto-Armenian calendar, which will be discussed later.

exhaustion, cessation”—and the semantic field of the Armenian word **mort‘el** (“to slaughter, to kill by cutting off the head”) fully correspond to the final phase of the lunar cycle.

The proposed comparison with the Armenian words **mut‘/mug** reveals interesting semantic commonalities worthy of further investigation.

3. Results

The present study has shown that the examined night names of the Pre-Eastern Polynesian lunar calendars are etymologically comparable with certain ancient lexical strata of Armenian. The observed parallels are noteworthy for historical-comparative linguistics. The analysis revealed that the most reliable correspondences concern those names associated with lunar phases, the light–darkness opposition, time reckoning, and cyclical natural phenomena (Table 3). The corresponding roots and semantic fields preserved in Armenian often display both phonetic and semantic proximity, which is difficult to explain as mere accidental coincidence.

The analysis conducted through comparison with Armenian parallels makes it possible to construct a model in terms of semantic structure.

Table 3. Proposed Core Semantic Structure of the Pre-Eastern Polynesian Lunar Cycle

Lunar Phase	Night Name	Primary Meaning	Main Armenian Parallel	Meaning of Armenian Parallel
Beginning	Hiro	weaving, formation, birth	hiʔ, hirel	rotation, spiral, to join, arrange, weave
Formation Curving	Kokore I	curving, rounding	kor	to bend, acquire curved shape, become round
Growth, Fullness	Hotu	swelling, growth, fertility	hord, huʔtʰi	abundant flow, fullness, fertility, abundance
Diminution, Decline	Kokore II	diminution, disappearance	korel, korč‘el	to diminish, be lost, disappear
End	Mutu	exhaustion, darkening, ending	mut‘, mug	darkness, absence of light, fading, darkening

As a result, we obtain a symmetrical semantic structure of the lunar cycle:

Hiro → Kokore I → Hotu → Kokore II → Mutu
beginning → formation → fullness → decline → end

Taking into account the **kore** ↔ **kero** comparison proposed above, we suggest the following alternative model:

- **Hiro/Hilo** — beginning/threading/birth
- **Kero/*Kekero** — formation/curving
- **Hotu/Hoku** — filling/maturation
- **Kore/Kokore** — decline/loss
- **Mutu/Muku** — ending/darkness

4. Conclusions

The system of Pre-Eastern Polynesian lunar night names may be viewed as a phase-based semantic whole, in which the names successively express birth, formation, fullness, decline, and ending, thus forming a complete linguistic-cultural model of lunar time.

Overall, the study confirms that the vocabulary of lunar calendars may serve as an important source for reconstructing ancient worldviews, systems of time reckoning, and possible linguistic-cultural connections.

The inclusion of Armenian in such comparative research opens new perspectives not only for Armenian studies, but also for broader comparative linguistic investigations, including the fields of historical-cultural astronomy and calendrical studies.

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