From Kūkaniloko: the Celestial Rulers of Space and Time

Introduction
Kūkaniloko is the piko, the navel and center both geographically and culturally, of the island of O‘ahu in the Hawaiian Islands. It is also known as one of two royal birthing sites in the Hawaiian Islands (the other is Holoholokū in Wailua on the east side of Kaua‘i). The state’s archaeologists place the founding of Kūkaniloko between 1100 AD to 1400 AD. The kahu of the site puts the founding at 1060 AD. During the range of the presumed founding dates O‘ahu was associated with Kaua‘i and Ni‘ihau as the Northern Kingdom of the Hawaiian Islands, a kingdom the principal deity of which was Kāne.
The geographical centrality of Kūkaniloko is its being nine miles west of the Ko‘olau Mountain Range and seven miles east of the Wai‘anae Mountain Range and nearly equidistant from the ocean in the north and the ocean in the south. The most visible astronomical form of Kāne is the sun, and Kāne is also much associated with both cosmogony and hōkū (stars, asterisms, constellations, and planets). The mountain ranges provide mountains and hills and declivities that were named for the rise in the east and set in the west of stars and of the sun.

This paper addresses the precontact recognition of celestial objects as creators and rulers of space and time from the point of view of Kūkaniloko.

**Spacetime – the wā**

The term spacetime is usually attributed to Einstein, although Hermann Minkowski, one of Einstein’s teachers, may have coined the term before Einstein did. Minkowski also showed that Einstein’s special theory of relativity could be understood through geometry as a four-dimensional spacetime. Four dimensional space-time combines three dimensions of space with time to create the four dimensions.

The Hawaiian word for space is also the word for time – wā. Wā is not only space and time but is also the interval between places in space and moments in time. Wā is thus spacetime in a single uncompound word. It is already four-dimensional, but it has an additional quality. Wā as interval between moments in time and places in space and points in spacetime is not empty; it is a connection, a connecting ether, tissue, whatever one wishes to call it. Thus the wā has an additional quality, the connection between the past, present, and future.¹

The present is the nexus, the piko, that centers and mediates past and future. The terrestrial nexus and piko of O‘ahu is Kūkaniloko, which centers and mediates complementary, or if you prefer opposites that can create unity,

celestial objects and events that structure time and space. One element of that structure is east-west directionality. Directionality is a component the structure of space. East, of course, is where stars and the sun rise, and west is where stars and the sun set. Hawaiian worldview understands the west of an island to be the front of the island and the east to be the back.

The west, the front of the island, looks into the past, to origins and creation and the realm of ancestors. The east looks into the future, to what is becoming and will become, and to descendants. The center holds the west and east, the past and the future, together in the present. Neither the past nor the future are absent in the present; they coexist in and with the present. That coexistence is evident in Hawaiian epistemology.2

This is represented in the astronomy. The cyclical nature of astronomy, the stars that rise and set twice each year, once with or just before sunrise and once with the sunset or just after the sunset every year, the planets that meet one another in conjunctions at irregular but predictable intervals, the sun’s annual travels and its annual relationships with stars and periodic associations with planets are the foundations of precontact space-time.

The principal actors in precontact space-time are male-female pairs, particularly Wākea and Papa, Antares and Aldebaran, and Jupiter and Venus. Each pair participates in the structure of space and time and in the foundation-creation of spacetime. Each pair are rulers space and time.

There was, for those who accept that Io and Kolekole were known in precontact Hawai‘i, a sort of Big Bang. Io resided in Kolekole, Te Kore and Korekore in Maori, where he simply was. He was inactive, the pith or essence, the potentiality, until he self-activated and became the parentless all-parent of everything that came after – the beginning of the beginning, the Polynesian Big Bang. The Polynesian Big Bang continues in the

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present as does Western science. As a Maori tupuna, elder, said of Korekore, “it is the never-ending beginning.”³

**Pō and Ao**
The eras of Pō, of darkness during which increasingly complex forms appeared, in the absence of light, emanated from Io in Korekore. For those who prefer not to address the knowledge of Io in precontact Hawai‘i, we can look to Pō as the beginning. The eras of Pō culminated in the advent of ‘ilio (dogs) and ‘olohe (dog-men). Dogs and dog-men introduce the era of ao, of light and the sun and humankind. That makes dogs liminal creatures, at threshold between pō and ao.

But Pō did not cease to exist when ao began. It remains in the present as the terrestrial realm bounded by the limits of the sun’s, of Kāne’s, annual travels. The Tropics, the region between 23.5° north of the equator and 23.5° south of the equator is the terrestrial realm of ao, of light, and the regions north and south of the Tropics are the terrestrial realm of pō.

Map from Wikimedia commons, ao and pō designations by author.

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Terrestrial Ao and Pō

Pō has other meanings. Night is pō. So, too, is the realm of ancestors, the deceased, potentiality, spirit, mystery, the unknown, and the not yet born. Thus pō is with us in the present. Ao, too, has other meanings. It means realm, the Earth, world, and enlightenment. As a’o it means learning, counsel, teach, and teachings.

Pō and ao have cosmogonic and structural functions. Cosmogonically they are the two eras of development and evolution, first of non-human forms, and then of humankind and human culture. In the structure of daily life pō is night, ao is day, which together form the twenty-four hour day, whether you measure from sunset to sunset, sunrise to sunrise, or midnight to midnight. Pō is also the realm of existence before life and the realm of existence after life. Ao is the realm in which we are alive, the realm of the living. These last realms may not seem to us to be structural, but in a culture in which the past and ancestors remain in the present and in which death provides an entrance to the realm of spirit and ancestors and birth is the exit from pō and entrance into ao, these realms are a part of the structure of time and space.

The celestial pairs

The pairs of celestial objects are male-female pairs. They are complementary pairs, and their unions are productive. That is the nature of complementary relationships, or if you prefer of duality and the union of opposites.¹

It is easy to recognize the complementarity of Wākea (Sky Father) and Papa (Earth Mother). They represent the productive union of earth and sky. Earth without sky is unable to produce; sky without earth in unable to produce. The relationship between sky and earth produces new life. Sun shines, rain falls,

earth warms, water feeds – and thus plants and animals and people grow.

The celestial equator is the path to the piko of Wākea. The literal celestial piko of Wākea is the star Mintaka in the Belt of Orion, which sits almost on the celestial equator. The name of Mintaka is Kaawili – meaning the rolling (kaa) braiding/twisting (wili), the (ka) coiling or spiral (awili), and the management/rulership (ka’a) of the spiral/coil which is time and space. Coiling and spiraling refer to the braiding or interrelationship of time and times – of the past, present, and future – and their cyclical nature. This is generally understood in the West as literally cyclical, but the coiling and spiraling is not literally cyclical. The coiling/spiraling means that although cycles repeat they do not repeat in exactly the same way year after year. Coils/spirals move cycles up (present and future) and down (present and past) in space and time and thus in the different conditions present in each cycle.

Twice a year the celestial equator intersects the ecliptic – the path of the sun, moon, and planets. Those intersections are the equinoxes, one in March and one in September. Twice each year the ecliptic reaches its limits, its boundaries. The sun travels to the limits of the ecliptic but no farther. The northern limit is the Tropic of Cancer, at 23.5° north of the equator, and the southern limit is the Tropic of Capricorn, at 23.5° south of the equator. The ecliptic moves from the Tropic of Cancer to the Tropic of Capricorn and back every year. When the sun reaches the Tropic of Cancer it is the June solstice. When the sun reaches the Tropic of Capricorn it is the December solstice.
Thus the celestial equator and the ecliptic and the two Tropics are elements of the structure of space and time. Particular pairs of celestial objects have principal roles in this structure.

The male celestial objects Antares and Jupiter share the name Kahuaokalani – the foundation of the sky/the foundation/source of high chiefs. Hua of kahua has generative meanings – testicles, seed, ovum, egg. This is a primary quality
of the productivity of male-female union. It is not, though, the only production of such unions.

Aldebaran is the bright red star in the Hawaiian constellation Hinaieleele which the star lists equate to the constellation the West knows as Taurus. Taurus, a bull, is not a Hawaiian constellation. There were no bulls or other bovines in Oceania. A more likely constellation is Kete, the Rapa Nui constellation made up of Aldebaran and three other members of the Western asterism called the Hyades. Kete in Hawaiian is 'eke, and both words mean container, basket. Hina'i also means basket and container, a much more likely fit than a bovine bull. A female basket/container is, among other things, a womb. 'Ele is embryo. It also means dark or black, which in the case of an embryo refers to the pō of the womb, from which an infant will in time emerge at birth into the ao realm, the world of the living.

The stars of Kete, map from Wikipedia Commons, Creative Commons. Attribution, lines connecting stars of Kete by author
One of Aldebaran’s names is Haumea. Haumea is the goddess of childbirth, and when Papa divorced Wakea she took or retook the name Haumea. Another of her names is Oma. *Oma* has multiple meanings. It is an oven – another metaphor for the womb. It is a chief who assists as a partner of another chief. That does not exhaust the meanings of *oma*, but we turn for a bit to her celestial partner, Antares.

Antares is the bright red star in the constellation the West knows as Scorpius, and which Hawai‘i knows as Manaiakalani, the magical hook of Maui. One of the names for Antres is Ikuwa – the supreme lord of space-time. A name for Aldebaran is Keoma-aiku – the chief who rules with the supreme lord of spacetime. Structurally, one way Antares and Aldebaran rule time and space is through their relationship with the sun – Kāne.

**Solar zeniths and nadirs**
The sun has eight major sun stations in the Tropics, and only in the Tropics. There are the two solstices and the two equinoxes which every place in the world experience. But in the Tropics there are also two solar zeniths, when at approximately noon the sun is 90° above you, and two solar nadirs, when at approximately midnight the sun is 90° below you.
Author's drawings over copyright free 360° compass
Antares and the sun at the November solar nadir

Aldebaran at the zenith at the time of the solar nadir

The sun is with Aldebaran some minutes after noon for the May solar zenith. (The exact dates and times of the zeniths and nadirs depend on one’s latitude within the Tropics.) Months later the sun is with Antares some minutes after midnight for the November solar nadir. At the same moment that the sun
and Antares are together 90° below one’s place in the Tropics, Aldebaran is at the celestial zenith, 90° above one’s place on the earth. This is one quality of the two stars as a complementary pair, a pair of opposites whose union produces something. In this case the product is the up-down/above-below axis.

North-south and east-west are also axes, and they intersect in an two-dimensional cross-shape.

The addition of the Aldebaran-Antares up/down above/below axis creates three dimensions.
**Aldebaran and Antares**

More than that, Aldebaran and Antares are principal builders of the celestial house, the metaphoric *hale* (house) that structures space and time. That structural function is apparent in the names of Aldebaran and Antares and in the names of their landscape markers. Many of these names also show their function as rulers of space and time.

**Antares**

The tables below examine the names for Antares.

<table>
<thead>
<tr>
<th>Kukulukulu</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kū</td>
<td>To rule, reign</td>
<td>Rulership</td>
<td></td>
</tr>
<tr>
<td></td>
<td>To remain, endure,</td>
<td>Continuity, perpetuity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>exist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kulu</td>
<td>Time</td>
<td>Time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Timber used in</td>
<td>Structure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>houses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kūkulu</td>
<td>To build a house</td>
<td>Structure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pillar, post</td>
<td>Element of structure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>To establish,</td>
<td>Creation, foundation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>organize, et up</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To tie, tether</td>
<td>How parts are secured</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>together, structure</td>
<td></td>
</tr>
<tr>
<td>Kulukulu</td>
<td>To multiply,</td>
<td>Cosmogony, genealogy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>become numerous</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ikuwa</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Supreme, great</td>
<td>Status, rulership</td>
<td></td>
</tr>
<tr>
<td>Kū</td>
<td>Rule, reign</td>
<td>Status, rulership</td>
<td></td>
</tr>
<tr>
<td>Wā</td>
<td>Time, space, the</td>
<td>Structure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>intervals between</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Kao
Kao Mediate/mediator, intercede/intercessor, peacemaking/peacemaker Up-down axis as center – structure

Ana Mua – Tahiti
Ana Pillar/post Structure
Mua First, in front Structure

Among the landscape markers for Antares from the point of view of Kūkaniloko are:

Halekou House of kou wood The celestial house
As Halekōū House of looking in all directions
House of male potency The house representing the male half of a productive pair

Kahanalii The chief’s place (house) Who resides in the celestial hale
The chief’s work/responsibilities Structure and rule of space/time

Hapapa Part/half of an enclosure Half/part of a solar year,
Breath (life) of the foundation-earth (Papa) half/part of a house - structure
The relationship between sky and earth and the rewarming of the earth starting with the December solstice; the four foundations – structure
Hawk-catching stick  The stick catches the hawk, a symbol of the sun, and holds the hawk until the bird-catcher arrives – the sun (sol) stands still (stice) for 2-3 days at each solstice – structure and time

Kaupakuhale  Roof beam  House structure; figuratively the greatest

Alderbaran
Aldebaran is the Pillar/Post Behind/In Back.

Ana Muri – Tahiti
Ana  Pillar/post  Structure
Muri  Behind/in back  Structure

Oma
Oma  High officer of a chief  Rulership
'Oma  Oven  Womb; the heat at the May zenith – femaleness, cosmogony;

small adze/axe  structure
space between opposing armies where sacrifices were offered; first man killed in war
Lilioma
Oma  High officer of a chief
'Oma Oven; small adze or axe; space between opposing armies where sacrifices were offered; first man killed in war
Oma repeated
'Oma repeated

Lili
Jealousy, anger;
Blasted, withered, as fruit
Cosmogony – the story of Papa returning to Wākea because of jealousy of his new relationship; The eventual “withering” of Haumea

Muakeoma
Mū  Gather together, of crowds of people; public executioner, the one who procured victims for sacrifice; A name for the kōnane game (Kōnane – a game resembling checkers; bright moonlight
Sacrifice – an incident in cosmogony, and a practice with relationship to the calendar
Symbolizing the females Hina/Mahina and Papa, Haumea, and La‘ila‘i

Mua  In front, first; leader; senior branch of a family
Status – rulership

Ke  The
Oma  High officer of a chief

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6 For example, sacrifices were not conducted during the Makahiki period, now from October to March, formerly a shorter period.
From Kūkaniloko: the Celestial Rulers of Space and Time

'Oma  Oven; small adze/axe; space between opposing armies where sacrifices were offered; first man killed in war

The meanings of oma and 'oma

Hulikahikeoma

<table>
<thead>
<tr>
<th>Huli</th>
<th>To turn, reverse</th>
<th>Aldebaran crossing the zenith</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Section of a place or a house</td>
<td>Structure (house)</td>
</tr>
</tbody>
</table>

Kahi  To cut longitudinally

<table>
<thead>
<tr>
<th>One, only one; companion, wife</th>
<th>The cut = November nadir</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldebaran is the only one who does this; she is companion/wife of Antares and Wākea</td>
<td></td>
</tr>
<tr>
<td>Where it takes place (the November solar nadir)</td>
<td></td>
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</tbody>
</table>

Ke  The

Oma  See Oma

Keoma-aiku

<table>
<thead>
<tr>
<th>Ke</th>
<th>The</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Oma</th>
<th>See Oma above</th>
</tr>
</thead>
</table>

'Ai  To reign, to rule

Rulership

Kū  To rise, to anchor; to rule, reign; to remain, endure, exist; suitable, proper

Rulership; structure

Iku  Officer, as in a society (Pukui and Elbert); highest, head of all (N. B. Emerson)

Rulership

Kao- Maaiku
Kao Mediate/mediator, intercede/intercessor, peacemaking/peacemaker
Up-down axis as center and mediator – structure

Ma By means of/through
Maah To tie (to)
Knowing thoroughly, accustomed to
House joinery – structure

Iku Lord, highest ruler
Rulership

Aiku Ruler (ai – rule; ku – rule) and Iku
Relationship with Antares - structure

Oma has in its meanings the first warrior killed in battle, the place where that warrior was offered in sacrifice, and possibly also the oven in which the sacrifice was burned, all of which refer to an episode in cosmogony. Wākea was Haumea’s husband (after he was Papa’s husband, but Papa and Haumea are often interchangeable). The O’ahu chief Kumuhonua captured Wākea and tied him to an ‘ulu (breadfruit) tree. Haumea honied (greeted him nose to nose) him and in doing so entered herself and Wākea into the ‘ulu tree, thus saving Wākea. Haumea then went to war against Kumuhonua from which she emerged as victor.

Haumea as the goddess of childbirth, and the ‘ulu tree is one of her kino lau (body forms). But Haumea signifies more. She is associated with cliffs, especially a cliff at Kualoa on the mountain Kānehoalani, which is one of Haumea’s (Aldebaran’s) rise markers. She is associated with war, which is reflected in her Oma names, especially war against a bad chief in order to restore pono – balance, correct relationships, and harmony.

The name Hinaieleele is container/basket. In addition to the womb basket also may also refer to the three baskets of

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knowledge that with the help of Antares Kāne received from Io. “Hare Hongi explained that the women’s womb was the first Hawaiki, the second was Te Po, and the 3rd was Te Ao Marama. In Kaitahu korero the Supreme Being resides in the Po which [is] above the 10 heavens. Hinehauone or first woman is the connecting link between the spiritual and physical realm via her whare tanagata or womb. . . Her womb materializes things from spiritual realm into the physical realm. . . Ka titiria, ka poupoua - the 3 Baskets of Esoteric Lore were planted and firmly fixed into Papatuanuku and came forth via the process of Ira-tangata.”

Antares is the Pillar or Post in Front and Aldebaran is the Pillar or Post in Back. In our modern world we tend to think of the person in front as more important, of higher status, than the person in back or behind. But when we remember that when Aldebaran rises in the east Antares sets in the west, and when Antares rises in the east Aldebaran sets in the west, each star takes a turn being in front and in back. This speaks to several things, including interpretations of words indicating front and back, and perhaps more importantly our understanding of precontact gender status.

### Landscape marker names for Aldebaran

<table>
<thead>
<tr>
<th>Star</th>
<th>Rise az</th>
<th>Rise marker</th>
<th>Set az</th>
<th>Set marker</th>
</tr>
</thead>
</table>

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9 Phillip Lambert via Facebook, April 9, 2017.
The names of Aldebaran’s markers show her structural function. She is a house post, she is in charge of spacetime, she is the main purlin of the celestial house. Her landscape marker names Kanehoalani and Kaoio show her association with Kāne.

Kaoio’s association with Kāne needs explanation. Access to Io required the assent and assistance of Antares. The only being to whom Antares granted this assent and assistance was Kāne. Kāne then ascended to the highest level of the sky, where Io had his home, and Io gave Kāne the baskets of knowledge.

The better known Hawaiian meaning of Kaoio is the (ka) marchers of the night (oio), the spirits or ghost of deceased chiefs and warriors who walk on earth during the nights of Pō Kāne, the dark nights of the moon. This meaning also applies to Haumea through her defeat of the chief Kumuhonua and his warriors.

Here there is intertwining of knowledge systems that are integrated and interwoven in Hawaiian astronomical knowledge. The mo’olelo (story, history) tells us something about why Kāne is the god who is the source of highest wisdom. It tells us of the great importance and status of Antares, and it tells us that Hinaielele, with Aldebaran as its brightest star and the female partner of Antares, is a basket, a container of knowledge.

As previously noted, the basket-container is also a metaphor for the womb, the place where conception occurs and the foetus develops, the place in which an infant gows and from which it is born out of the pō of the dark, eleele, womb and into the ao of the living. Pō and ao are essential parts of the structure of spacetime. An infant emerges from pō and enters ao, matures and ages, and at death re-enters pō where it resides until it is again conceived and again emerges from pō to ao, the world of the living.
Brief Discussion
Space and time are thus cyclical. A Polynesian perception of cyclical time is that it is not exactly circular but is, rather, a coil or spiral. That perception includes time, in the sense of a fourth dimension. If time and space were simply cyclical we would all be living in Groundhog Day, when Michael Keaton repeated a single day over and over again. But as a coil or spiral, the cycles of space and time have motion upward and downward. Cycles are not identically repeated. Each cycle is in some way different from the cycle before and the cycle after, sitting on the coil-spiral that is not static but ever-evolving, ever-moving, yet repeating in essence. This meaning is indicated in the name Kaawili for Mintaka, the star that is the celestial piko (navel) of Wākea. Ka‘a is to turn, to twist, to revolve, and also to be in charge of, and wili is to wind, to coil, spiral.

Venus and Jupiter
Two other crucial members of the celestial rule of space and time are the planets Venus, who is female, and Jupiter, who is male. Both have variants of the same name.

<table>
<thead>
<tr>
<th></th>
<th>Hoku</th>
<th>Morning star; day star; eastern star; enlightenment star</th>
<th>Structure – direction and time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venus</td>
<td>Ao</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jupiter</td>
<td>Hoku</td>
<td>Morning star; day star; eastern star; enlightenment</td>
<td>Structure – direction and</td>
</tr>
<tr>
<td></td>
<td>Ao</td>
<td>star</td>
<td>time</td>
</tr>
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</table>

Both Venus and Jupiter rise in the east in the early morning and are thus morning star and eastern stars. Morning sunrise and east are directional and thus structural. Ao also means enlightenment and we’ll return to that meaning. Also as day star, Venus and Jupiter, alone among the planets, are sometimes visible during the day (ao).

Planets do not have cycles that match the solar year like stars do. Venus completes her cycle in 584 days. Jupiter
completes his in 399 days. Venus, like Mercury, is between the earth and the sun, and thus, like Mercury, Venus has an eastern or morning apparition and a western or evening apparition. Both the morning/eastern and evening/western apparitions of Venus last approximately 270 days – nine months, the period of human pregnancy.

Because no two planets take the same number of days to complete a cycle, they often meet in a conjunction. Likewise, conjunctions take place between a star and a planet. Venus and Jupiter meet approximately every eighteen months, two periods of human pregnancy.

**Venus**

Venus has names that reflect and refer to her structural functions. Her names include:

<table>
<thead>
<tr>
<th>Ka elele o ka wanaao</th>
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</thead>
<tbody>
<tr>
<td>Ka The</td>
</tr>
<tr>
<td>'Ele Embryo</td>
</tr>
<tr>
<td>Ka'ele Darkened</td>
</tr>
<tr>
<td>'Elele Messenger</td>
</tr>
<tr>
<td>O Of</td>
</tr>
<tr>
<td>Wa Time/space/interval</td>
</tr>
<tr>
<td>Na By, for</td>
</tr>
<tr>
<td>Wana A streak of light, as at dawn; to appear, as a ray of light</td>
</tr>
<tr>
<td>Wana’aao Dawn</td>
</tr>
<tr>
<td>Ao Day; the realm of ao – of humankind and light (the sun)</td>
</tr>
</tbody>
</table>

Cosmogony (Haloa the First)

Signals an event

Structure

Structure – morning/east – direction; time – morning

Structure – morning/east; time – morning

Structure and cosmogony
This name is usually translated as “messenger of the dawn. ‘Ele’ele, though, means dark, while ‘elele means messenger. I suspect that ‘ele’ele represents both dark and messenger. If dark is indeed an intended meaning it refers to the fact that Venus, like the moon, has phases.

![Phases of Venus](image)

If the phases of Venus are intended, this name probably applies to the dark phases of Venus as well as to her function of announcing the dawn. And when Venus is a dawn or morning star she is always in the east, and thus a directional indicator, an element of the structure of spacetime.
Ka hoku komohana

Ka
Hoku
Komo
Hana
Hānā
Komohana

The
Star, asterism, planet, constellation
To enter, go into
Duty, office, function
Ridgepost supporting ridgepole
West, western

Time – evening, thus structure
rulership
Structure
Direction – structure

This name tells us she is in her evening and western appearance, and thus again a directional indicator. It is her duty, office, and function to indicate the directions, in this case when she enters, komo, the western horizon and thus when she is descending in the evening.

Hoku-kau-ahiahi

Hoku
Kau
Ahi
Ahiahi

Star, planet, constellation
Period of time
Fire
Evening, late afternoon

Time
Time
The sun
Time, the sun, West – direction, thus structure
This name speaks of Venus when she is in the west in the evening.

Holo-i-kahiki
Holo To go, sail, ride
I To Indicates the direction West (the direction of Tahiti from Hawai‘i)
Kahiki Tahiti

Holo-i-kahiki is another directional name that indicates West and refers to Venus in her evening/Western apparition.

Mulehu/Molehu
Mōlehu Twilight Sunset – the direction west – structure
Mō Short for moku – island; short for mo'o – dragon, lizard, genealogy Female deity protecting water; Genealogy, cosmogony
Mū Public executioner Cosmogony and calendar/time
A name for the kōnane game Kōnane refers also to bright moonlight which Venus resembles
Lehu 400,000, figuratively very many The increase of the population – cosmogony
Mole Taproot, main root Structure and origin/cosmogony
Hū To rise, swell; commoners as a mass; to unite, join When Venus rises in the West she is associated with Polynesian origins in the West, and the increase of population
following initial cosmogony in Hawai‘i

This name has several interpretations. Mōlehu tells us she is an evening star. Mō tells us she has a role in cosmogony and genealogies and that she is a protector of water.

As public executioner mū indicates that Venus has a role in sacrifice – a role she shares with Aldebaran and Antares. In Central American cultures that share our latitude Venus did have that association. As we will see, the females in the pairs have equivalencies with one another and the males likewise have equivalencies with one another.

Mū as a name for kōnane, a Hawaiian game somewhat like checkers. Kōnane also means the light or luminescence of the moon, Hina, which Venus resembles through the dark and light phases both Venus and the Moon have. That resemblance also implies an equivalence of Venus with Hina, an equivalence that extends to Papa, Haumea, and La‘ila‘i, all females who figure in Hawaiian cosmogony.¹⁰

Lehu indicates the growth of population, something important in precontact Hawai‘i.¹¹ Venus as a taproot, mole, is another reference to Venus as a crucial actor in cosmogony.

Hu is not well known and not present in any of the literature I have found, but oral histories from Kāne practitioners in the Wai‘anae region of O‘ahu say that the Hu were the original people of the island.

Hoku-alii-wahine

<table>
<thead>
<tr>
<th>Hoku</th>
<th>Star, planet, constellation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ali‘i</td>
<td>Chief, chieffess, ruler, monarch, royal</td>
</tr>
<tr>
<td>Wahine</td>
<td>Woman</td>
</tr>
</tbody>
</table>

Gender – complementary

¹⁰ See footnote 7.
This name shows us that Venus was a royal female chief and a chief for women.

<table>
<thead>
<tr>
<th>Pulukea</th>
<th>Announces events</th>
<th>The womb</th>
<th>Menstruation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pū</td>
<td>Conch shell</td>
<td>Trumpet</td>
<td></td>
</tr>
<tr>
<td>Container</td>
<td>To drip, as water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulu</td>
<td>Wet, moist, saturated</td>
<td>The wetness of birth and the</td>
<td>Wetness/moistness</td>
</tr>
<tr>
<td>Kea</td>
<td>White, clear; breast milk</td>
<td>Reproduction – pō into ao;</td>
<td>Childbirth</td>
</tr>
<tr>
<td>Ke'a</td>
<td>Cross, crossed piece</td>
<td>Structure, including the ecliptic (the</td>
<td>Structure,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and what intersects it; the celestial</td>
<td>including the ecliptic (the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Structure</td>
<td></td>
</tr>
</tbody>
</table>

Because she was a particularly important celestial being, Venus’s rises and sets were culturally significant and were thus “announcements.” Container, drip water, moistness, and breast milk refer to Venus’s involvement with sexual fertility and reproduction.

*Ke’a* speaks to Venus’s function in the structure of time and space, her journeys up and down the ecliptic, thus her morning and evening appearances and her place as part of the structure of the celestial *hale* (house).
Lā  Sun, day(s)  Time; Kāne – god of wisdom and cosmogony
Kahe  To flow, menstruate  Gender as structure
Kāhela  To lie spread out as a wide expanse  The broad expanse – the sky
        Summation of productive forces of land and sea

The overarching meaning of Kahela is the summation of productive forces, and part of productive forces is sexual reproduction. The more detailed meaning of Kahela is the time of menstruation, an element of female fertility.

Kopu (Maori)
  Kopu  The womb, belly  Cosmogony, structure
  Hawaiian  Stomach, abdomen, womb  Cosmogony, structure

A Maori colleague told me “Hinehauone or first women is the connecting link between the spiritual and physical realm via her whare tanagata or womb. It so happens that her womb is called "Kopu" or the star Venus. Her womb materializes things from spiritual realm into the physical realm.”

Pualoa
  Pū  Conch shell trumpet; container  Announcement; the womb; knowledge
  ‘Ā  To glitter or sparkle like a star

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12 Phillip Lambert, via Facebook, April 9, 2017.
Pua  Blossom; to shine; to appear; descendant  Blossom – growth, child, descendant cosmogony

Pūʿā  To cut crosswise  The November solar nadir, 3rd axis
To feed by passing from mouth to mouth, as infants were fed  Reproduction, productive union of complements (female and male)

Loa  Far, permanent  Eternally repeating – structure

This name reprises the meaning of pū as an something that announces and as a container. ‘Ā indicates Venus’s glittering quality as one of the brightest objects in the sky.

*Pua* also refers to her brightness. *Pua* as blossom and descendant it speaks of her cosmogonic role in the growth of a foetus and the growth of the population and *pūʿā* speaks of her character as a mother.

*Loa* indicates her distance from us. As Tui Atua Tupua Tamasese Efi tells us, distance from us is a characteristic of a senior deity.\(^{13}\) Tupualegase is the planet Jupiter, thus here we return to Venus’s partner, her complement, Jupiter.

The Tui Atua explained that Tupualegase, Jupiter, and *le fee, ka he’e* in Hawaiian, the octopus, are gods who were celebrated in a yearly festival in two districts in Upolu in Samoa. The Tui Atua said that *tapu (kapu)* offerings were made to the octopus, but that offerings to Tupualegase, Jupiter, were the *amo*, the burden, carried for Tupualegase.\(^{14}\)

The octopus is close by and we can see and feel and touch an octopus. We can catch an octopus, but Jupiter cannot be touched and we cannot catch him. The Tui Atua said that

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14 Tui Atua Tupua Tamasese Ta’isi Efi, “Tupualegase.”
offerings to the octopus recognize the equality and “affinity” between humans and animals, but the offerings, the burden, to Jupiter recognize “the relationship between man and their gods ... [and] to the cosmos.”

Octopus is a *kino lau*, a body form, of Kanaloa (Tangaroa, Ta’aroa), the creator god in Western Polynesia. The creator role in Hawai’i is taken by Kāne, and his most prominent forms are the sun and fluids other than salt water, but in Samoa and as the astronomy at Kūkaniloko research indicates, in Hawaiʻi Jupiter is a senior male deity who was/is a creator and ruler of space and time.

Something of that was apparent when the name Kahuaokalani was addressed above – the foundation of heaven/the sky and the foundation of cosmogony and high chiefs – that is shared by Antares and Jupiter. There is thus an equivalence between Antares and Jupiter just as there is between Aldebaran and Venus. Other names of Jupiter add more.

<table>
<thead>
<tr>
<th>Iwa</th>
<th>Supreme, great; To speak</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘I</td>
<td>Rulership</td>
</tr>
<tr>
<td>Wā</td>
<td>Space; Time; The space between places; The space between moments in time</td>
</tr>
<tr>
<td></td>
<td>Space, time, spacetime – structure</td>
</tr>
<tr>
<td></td>
<td>Speech – rulership</td>
</tr>
<tr>
<td>Iwa</td>
<td>Frigate bird</td>
</tr>
<tr>
<td></td>
<td>Relationship with Kane/the sun and cosmogony</td>
</tr>
</tbody>
</table>

‘Iwa is a frigate bird, a large mostly black bird the males of which have a red gular pouch that they inflate to attract females. Male and female ‘Iwa both care for their young, and do

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15 Tui Atua Tupua Tamasese Ta’isi Efī, “Tupualegase.”
so for a longer period of time than almost any other birds. The color red indicates both royalty and Kāne.¹⁶

<table>
<thead>
<tr>
<th>Iao</th>
<th>Supreme, great; to speak</th>
<th>Rulership</th>
</tr>
</thead>
<tbody>
<tr>
<td>'Ā</td>
<td>To glitter or sparkle like a star; the booby bird, a bird associated with Kāne</td>
<td>Association with Kāne, thus with cosmogony and the sun</td>
</tr>
<tr>
<td>Ao</td>
<td>Light, dawn, enlightened; world, earth, realm</td>
<td>Eastern/morning star – structure; realm of rulership</td>
</tr>
<tr>
<td></td>
<td>Cosmogonic era of light and humankind</td>
<td>Cosmogony</td>
</tr>
<tr>
<td>A'o</td>
<td>Teaching, advice, counsel</td>
<td>Rulership</td>
</tr>
<tr>
<td>Ō</td>
<td>To remain, continue, endure; continuing Resonance as of the sound made by thumping a drum</td>
<td>Eternity, repeated cycles Rhythm = time</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ikaika</th>
<th>Strong, powerful, potent</th>
<th>Rulership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ikaika</td>
<td>Supreme, great; to speak</td>
<td>Rulership</td>
</tr>
<tr>
<td>Ō</td>
<td>To hit, strike as on a drum; a drum beater</td>
<td>Rhythm = time</td>
</tr>
<tr>
<td>Ka'i</td>
<td>To lead, to direct; to lift up and carry</td>
<td>Rulership</td>
</tr>
<tr>
<td>Ika</td>
<td>Strong</td>
<td>Rulership</td>
</tr>
</tbody>
</table>

Three of Jupiter’s names begin with “I.” This signals that he is supreme, great, and someone whose words have force and importance. In our present era the spoken word does not have the power and significance that it did – and still does – in cultures that did not until the last couple of hundred years use writing. In precontact Hawai‘i the spoken word, especially from someone of the status and consequent mana of Jupiter, was powerful and power-filled and not easily ignored or forgotten. A frequently quoted ‘ōlelo noeau (traditional wise saying) says

_I ka ‘ōlelo no ke ola, i ka ‘ōlelo nō ka make._
In words is life, in words is death.
(Words can heal, words can destroy.)

**Conclusion**

What does all this mean? First, it means that these pairs structure spacetime, the _wā_ that is both spacetime and the connecting intervals between moments in time and places in space. Second, it means that these pairs rule the structure of the _wā_. Third, it means the celestial house, the metaphorical perception of the celestial structure of spacetime. Fourth, it means that spacetime replicates cosmogony and vice-versa. Fifth, it means that completion of the structure of spacetime requires the joint creation and rulership of male and female. Sixth, it means the female rulers, while not interchangeable are nevertheless equivalent to one another, and that that is also true for the male rulers. Seventh, it means that we need to revisit and revise the understanding of male-female relations and status in precontact Hawai‘i, which I hope to do in a future paper.
Bibliography


Hanson, F. Allan and Hanson, Louise, *Counterpoint in Maori Culture*, London: Routledge and Kegan Paul, 1983.

Lambert, Phillip, via Facebook, April 9, 2017.


