Spatial orientation in Western Austronesia

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Spatial orientation in Austronesia

Most discussions of Austronesian orientation focus on the seaward-landward distinction:

"the most general principle of macro-orientation in Austronesian languages is the seaward-landward axis, associated with the PAN terms *daya 'toward the interior' and *lahud 'toward the sea'' (Blust 2009:311)

"The fundamental axis of orientation in Austronesian societies is the inland versus the sea. Proto-Austronesian *daya 'towards the interior' and *lahud 'towards the sea' have reflexes in a huge amount of daughter languages all over the Austronesian area." (Adelaar 1997:43)

This is especially true in Oceanic (cf. François 2004,2015; Palmer 2015, Bennardo 2002, Senft 2004).

Here we focus instead on the non-Oceanic languages, which have received relatively less attention.

Spatial orientation in Austronesia

- Specifically, we focus on geocentric (as opposed to egocentric) orientation.
- While there is some structural overlap with deictic systems, we focus on non-deictic orientation.
- These are ABSOLUTE systems of orientation, i.e., those which are invariant with respect to rotation of either the viewer or the ground object (Levinson 2003:52).

Confusingly, these systems are sometimes referred to as "relative," in that they must be interpreted relative to a geographic reference. But all absolute systems are relative in this sense.

Icelandic (Haugen 1957)

Scale of orientation

- Spatial orientation systems may function on multiple scales:
  - Local or small-scale, roughly the domain within and immediately surrounding a dwelling
  - Intermediate scale, roughly the domain of the village or island
  - Regional or worldwide, roughly the domain beyond the immediate group of villages or island
- Languages may use different systems at different scales, or a system may vary in meaning on different scales
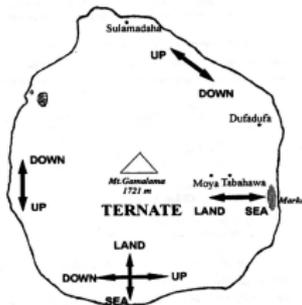
Data challenges

- Paucity of available data on spatial orientation.
- Where orientation is described, it is often based on information from a single geographic location.
- Uses at different scales often not discussed in the literature.
- Problem of negative evidence: descriptions usually not explicit about what is not known.

Regarding Madurese *daja* 'north', *lao'* 'south':

> "The question remains whether the above directional terms are used in the same way in Madurese dialects spoken in the northern and north-western parts of Madura, which do not have the sea to the south or the interior to the north. In other words, are the directions still linked to local geography, or have they become independent from it so that the system now has a 'fixed' set of terms for cardinal directions?" (Adelaar 1997:57)

Regarding Nias terms *raya* 'south' and *löu* 'north':

> "I have not yet checked whether the meanings of directional terms change depending on which part of the island the speaker is." (Brown 2001:436)

Existing studies

We rely critically on detailed studies of spatial orientation in Western Austronesia, including (but not limited to) the following:

- Melanau (Clayre 1973)
- Gane (Teljeur 1987)
- Balinese (Wassmann & Dassen 1998)
- Taba (Bowden 1997)
- Makassarese (Jukes 2006)
- Ambel (Arnold 2018)
- Muna (van den Berg 1997)
- Balantak (van den Berg & Busenitz 2012)
- Aralle-Tabulahan (McKenzie 1997)
- Tukang Besi (Donohue 1999)
- Halmahera (Yoshida 1980)
- West Indonesia and Madagascar (Adelaar 1997)

Lexical evidence

Where full descriptions are not available, often forced to rely on
lexical evidence. But interpreting dictionary data can be difficult.
Cf. W. Bukidnon Manobo terms referring to rivers (Elkins 1968):

- *divava'* 'downstream'
- *dizaya* 'upstream'
- *urahik* 'go upstream'
- *segangseng* 'travel upstream'
- *epu'ung* 'the wave of high water which moves down a stream when heavy rains upstream cause flooding; of the wave, to move downstream'
- *rapas* 'to cross a river or stream'
- *tiger* 'to cross a river or stream'
- *layun* 'other side of stream, valley or canyon'
- *bekeley* 'to shortcut across a bend in the river; to go around an obstacle'
- *dal'ug* 'a dry gully, ravine, or canyon which has no stream in it'
- *lidtung* 'a pool of water which remains when a stream dries up; of a stream, to dry up leaving only scattered pools; figuratively, in a debate or argument, to answer successfully someone's arguments.'
- *sanapsanap* 'of a stream which is drying up, to have just a trickle of water'
- *anud* 'of a stream or a river, to wash something away'
- *punul* 'a strip of land between two rivers at a fork'

Syntactic status

Systems of orientation often occur as semplates across a number of different domains.

- demonstratives
- adverbs
- motion verbs
- directional affixes

Ngaju (Binti 2017)

(1) *Pea ketun **masuh** tinai?*
    when 2PL downstream again
    'When do you go downstream again?'

(2) *Aku handak ka **ngawa** ma-mili behas.*
    1SG MOD PREP downtream AF-buy rice
    'I am going downward (to a location) to buy rice.'

Syntactic status

Spatial orientation is often embedded within a larger paradigm:

|	
ni'i	'this, close to speaker (held, touched, pointed to, in direct vicinity)'
nono'	''that, close to addressee'
ya'a	'this/that, neither closer to speaker nor to addressee(s), equidistant among a group of people engaged in conversation'
tu'u	'that, not close to either speaker or hearer, somewhat vague or indistinct'
le'e	'that, sideways from the speaker (and at the same height)'
ra'a	'that, to the front and/or higher than the speaker'
ro'o	'that, lower than the speaker'

Balantak demonstrative roots (van den Berg & Busenitz 2012:169)

However, this presentation focuses on the semantics of spatial orientation.

Survey

Surveyed 155 languages of Western Austronesia, though we were only able to determine an orientation systems for 77 (120) of these.
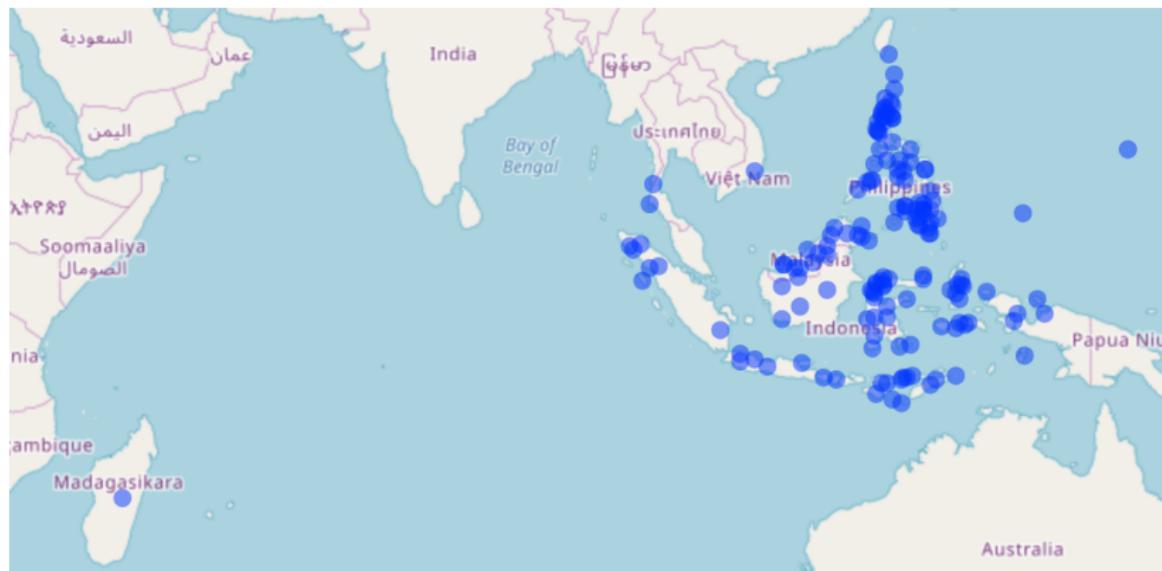
Tentative Typology

Types of spatial orientation systems in Western Austronesia:
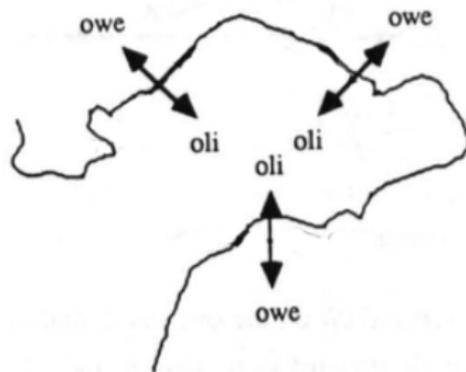
- Seaward-landward
- Riverine
- Coastal
- Elevational
- Cardinal

Each system may have secondary orthogonal axes, resulting in a variety of hybrid systems that combine features of more than one type of system.

For each type we discuss a prototypical example, followed by some variants.

Seaward-landward systems

- Geographically oriented axis, located orthogonal to the coast.
- Distinguishes 'toward the sea/water' from 'toward the interior/mountain'.
- Languages differ in the extent to which they maintain the form and meaning of PAN reflexes *daya and *lahud.
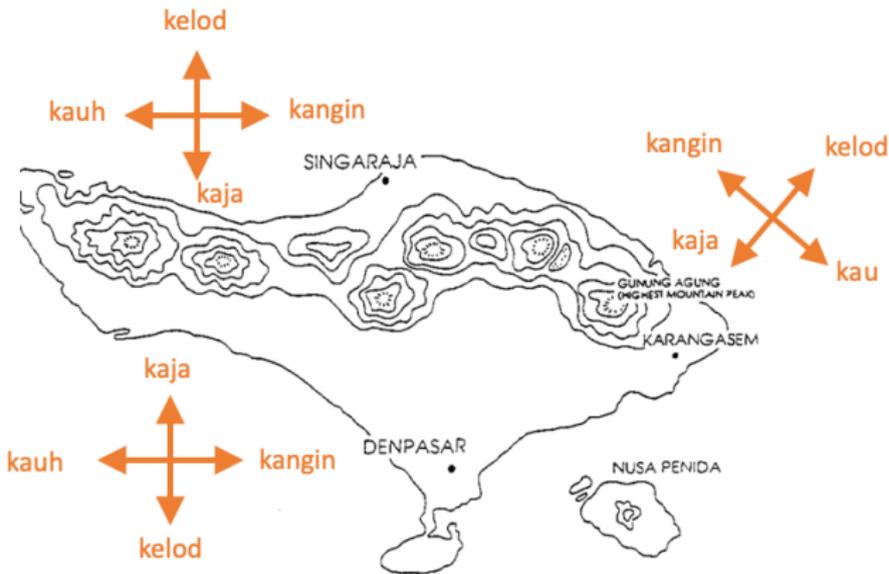

Kedang *owe* 'seaward', *oli* 'landward' (Samely 1991)

Seaward-landward plus 'cardinal': Balinese
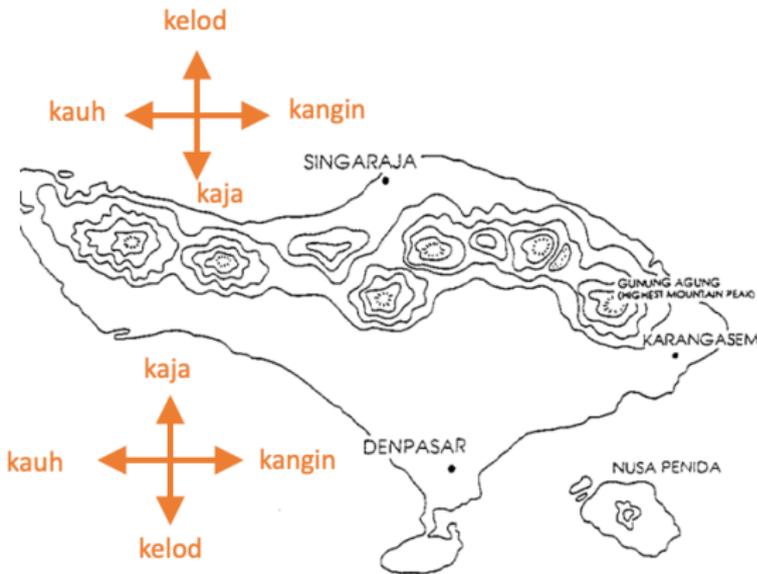
Cardinal axis *kauh-kangin* remains "fixed" on both sides of the island (after Adelaar 1997).

Seaward-landward plus 'cardinal': Balinese

In fact the "cardinal" axis may be better described as coastal, as evidenced in East Bali (cf. Wasssmann & Dasen 1998).

Riverine systems

- Primary axis oriented parallel to a river, distinguishing upstream and downstream directions.
- Often lexified with reflexes of *lahud 'seaward' and *daya 'landward'
- But crucially *not necessarily aligned with seaward-landward*.

Mansaka (Svelmoe 1990)

(3) a. *Kisurum dato   ako lawud.*
         tomorrow to.there 1SG downstream

         'I will be downstream tomorrow.'

     b. *Olobang ko yaning opi na   sikun   agsaka.*
         plant.taro 1SG this   taro which come.from upstream

         'I will plant the taro seedlings that came from upstream.'

Riverine plus 'towards/away from the river'

Ngaju (Barito) (Binti 2007)

|	
ngaju	'upstream'
ngawa	'downstream'
ngiwa	'toward the river'
ngambu	'away from the river'

Coastal systems

- Coastal systems of spatial orientation include an axis aligned parallel to the coast, inherently oriented according to direction along the coast.
- Terms often (though not always) co-lexified with vertical 'up' and 'down' (with default meaning being coastal, not vertical).
- Usually also include a sea-land axis, orthogonal to the coastal axis.
- very common throughout Halmahera and its surrounding islands, used across all languages of the region: AN, non-AN, and local Malay.

Makassarese

Makassarese (Liebner 2005: 271)

(4) *ero'-a'   naung   ri*
    want-1SG move.downwards LOC
    Pare-Pare
    P.
    'I want to go down to Pare-Pare'
    (spoken in Makassar)

(5) *apa-ji   kabara'-na   i-rate?*
    what-qal news-3SG.poss LOC-up
    'What is the news from above?'
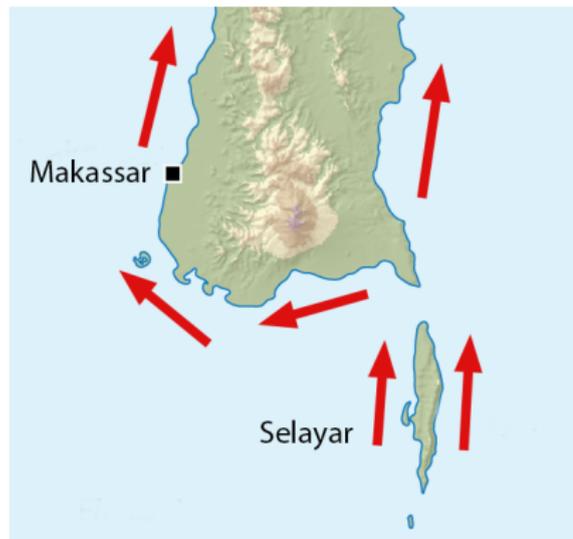
Orientation of the 'down'
direction (Jukes 2016).

Elevation Systems

- Distinguish global elevation with respect to deictic center.
- Typically 2-way HIGH–LOW or 3-way HIGH–LEVEL–LOW
- Distinct from strict verticality.
- Distinct from riverine systems ("geophysical elevation").
- Common in the non-Austronesian languages of East Nusantara and New Guinea, but also found in our survey, often in combination with other systems.

	LOC	TRANS	CIS
HIGH	*daŋ*	*tanai*	*nai*
LEVEL	*a*	*tansao*	*nsao*
LOW	*baba*	*tanao*	*nao*

Bantik (Utsumi 2014)

Elevation: Tukang Besi

Tukang Besi (SE Sulawesi) has taken an an original seaward-landward system and reinterpreted it as an elevational system.
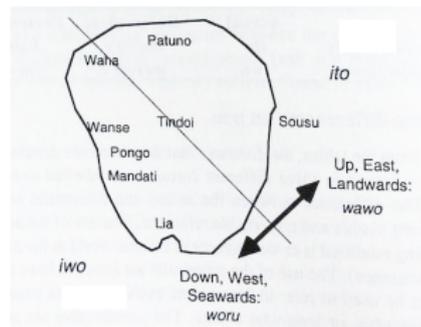
|	
ito	'landwards, up, (north)east, in, higher social status'
iwo	'seawards, down, (south)west, out, lower social status

Tukang Besi seaward-landward terms with extended meanings (Donohue 1999:139)

HIGH further conventionalized, associated with cardinal East and with locations of higher social status.

Elevation: Tukang Besi

HIGH and LOW terms can be used in contexts where there is no elevation difference (arrowheads indicate HIGH direction) (Donohue 1999:141).
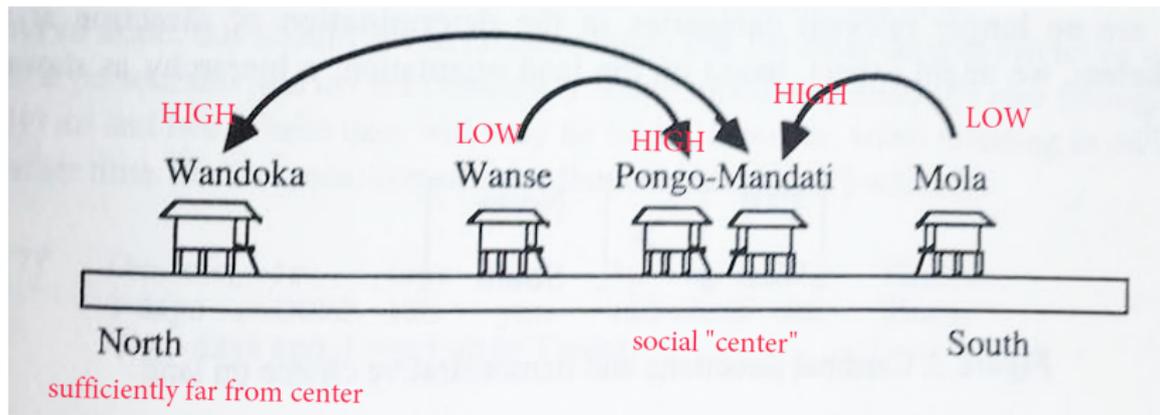
Aralle-Tabulahan: A mixed system

- Three-way elevational distinction between HIGH, LEVEL and LOW used alongside a riverine system.
- Speakers choose between the systems according to context.

Aralle-Tabulahan (Mckenzie 1997)

(6) a. *Me-pahe   tau   naung di Pikung*
       INTRANS-rice people down   at P.

       'They are going to harvest rice down at Pikung.'

    b. *Ma'allo-Ø   sola-mu   sau*
       go.church-3ABS friend-2SG.POSS downstream

       'Your friend is going to church downstream.'

Cardinal systems

While all languages employ a cardinal system, Austronesian languages differ based on its origin and the scale of its use.
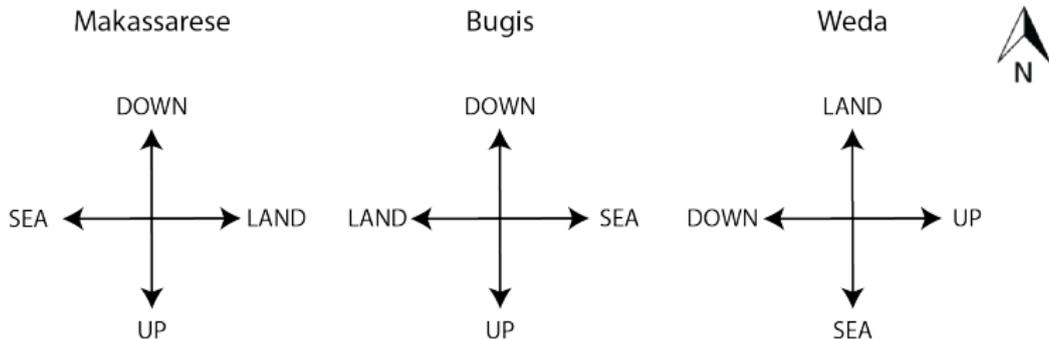
Scale

- Cardinal systems commonly used on the worldwide scale, even when another system is used at local and intermediate scales.

Origin

- Conventionalization of *daya and *lahud to spread across a large region
- Terms referring to the path of the sun with meaning such as 'birth, appearance, shine' and 'sinking, disappearance' (cf. Blust & Trussel 2010, Gallego 2018).

Conventionalization of cardinal systems

Often, the terms used to lexify the cardinal axes arise based on conventionalization of the spatial orientation terms used at smaller scales.

Alignment of cardinal axes at navigational scales in three languages which otherwise use coastal systems.

Cardinal terms in Javanese and Madurese

The conventionalization of the original seaward-landward distinction as a cardinal axis reflects the (historical) geography of the population centers.

Javanese	Madurese	
lor	*dhájá*	'north'
kidul	*lao*	'south'
wétan	*temor*	'east'
kulon	*bhárá*	'west'

(after Adelaar 1997)

Distribution of orientation systems

Distribution of orientation systems

Some geographic tendencies:

- Riverine systems common in Borneo but also found elsewhere.
- Coastal systems prevail in Halmahera but also found elsewhere.
- Elevation systems common in Sulawesi
- Lots of diversity in Eastern Indonesia.
- Cardinal system prevail in Northern Philippines and Western Indonesia (though we are likely overcounting).

Type	Count
sea-land	16
riverine	21
coastal	11
elevation	8
cardinal	21

Reflexes of *daya
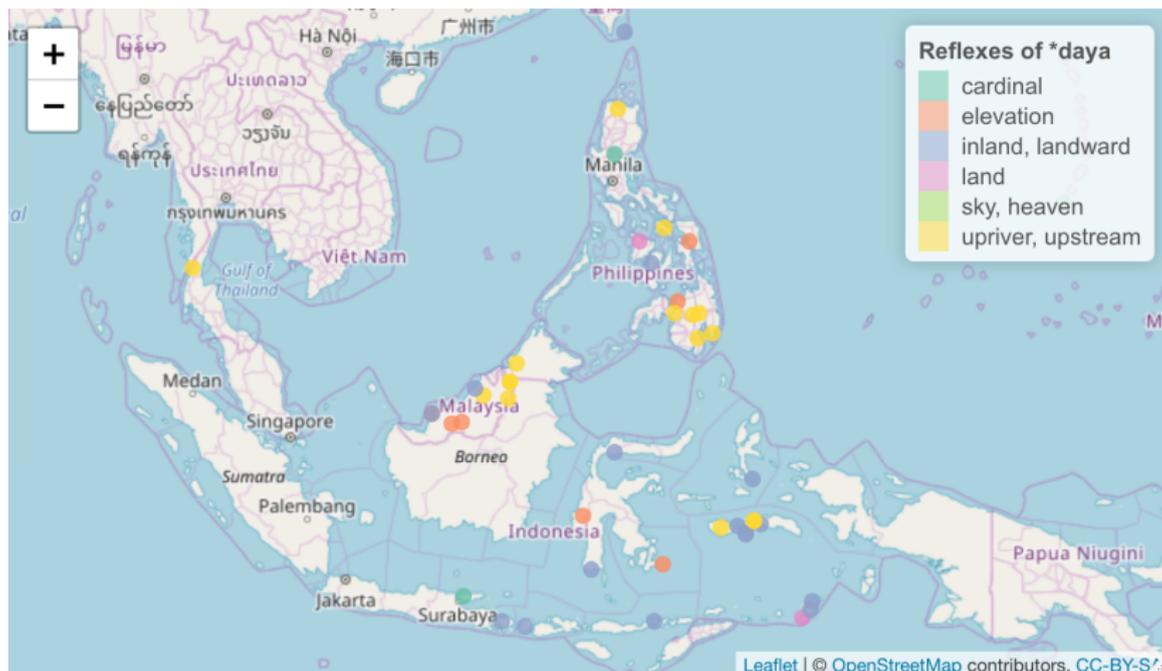
Reflexes of *lahud
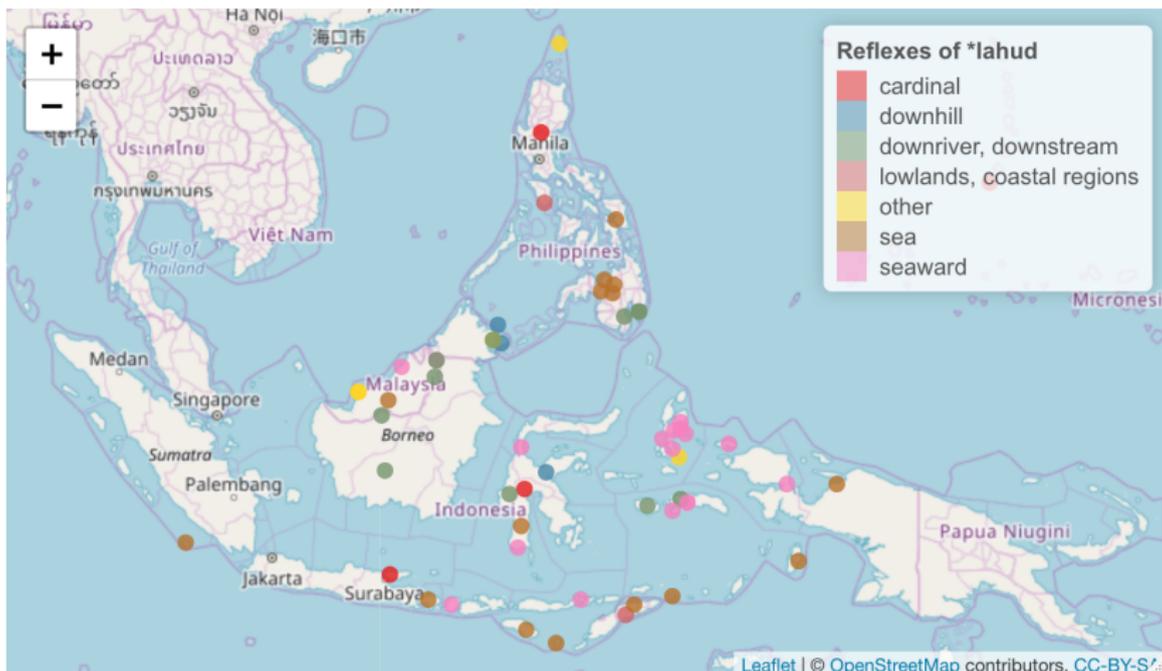
Seaward and landward in Western Austronesia

- Reflexes of *daya and *lahud can be found across Western Austronesia, but they often function as part of much more elaborated system of orientation.
- Some languages maintain the seaward-landward distinction in spite of having lost reflexes of *daya and *lahud.
- Reflexes of *daya and *lahud may be incorporated in novel ways (such as the away-toward river orientation in Melanau).

Concluding remarks

- The languages of the Western Austronesian region exhibit a great diversity of orientation systems.
- The original PAN *daya-*lahud seaward-landward system has been greatly modified, elaborated, or entirely replaced in the Western Austronesian languages.
- From a synchronic point of view, the seaward-landward distinction plays less of a role in Western Austronesian spatial orientation (as compared to, say, Oceanic).
- More documentation and research is essential to obtain a broader understanding of (Western) Austronesian spatial orientation systems.

Please help!

We welcome comments/corrections/additional information.

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