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The Rain Stars, the World's River, the Horizon and the Sun's Path: Astronomy along the Rio Urucauá, Amapá, Brazil ¹

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Abstract

This article curates excerpts from astronomical narratives recorded in Palikur between 2000 and 2008 along the Rio Urucauá, in the Área Indígena do Uaçá on the border of Brazil and French Guiana. The material assembles around the seasonal cycle of stars associated with particular rains and seasonal changes in the landscape. Star maps of the major constellations are counterposed with wood carvings of the constellations. The curation of these narratives and carvings serves three arguments. First, the figures in this mythical cycle offer multiple references to Amerindian astronomies documented across lowland and highland South America. While the contemporary Palikur population knows its history as that of a federation of Amerindian groups and as one that has drawn Africans and Asians, slaves and settlers into its midst in relatively recent generations, the extent of the links that these texts offer to Amerindian astronomies elsewhere mitigates against

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representing this astronomy in culturalist terms as “Palikur ethnoastronomy”. Rather, we argue, the material augments the view that astronomical knowledge in the region affirms the history of a vast and extended network among Amerindian populations. Second, the material demonstrates that astronomical knowledge is strongly present in everyday practices and in narratives of residents along the Rio Urucauá. That it is spoken of very little in the everyday, we argue, reflects not so much the forgetting of oral knowledge – since the material has not been forgotten – but the complex choices people make on a day to day basis in navigating the rationalities associated with citizenship of wider collectives, including the global economy, the frontier towns of Brazil and French Guiana, and a range of church groups of which significant sectors readily render Amerindian astronomies as somewhere between maleficent and irrational. The third argument moves toward rethinking the representation of Amerindian astronomy with attention to the ways in which the memory of movement serves alongside the memory of star patterns to establish the references that make star positions predictable in the seasons. Yet while the memory of movement is translatable with reference to axes and lines, the ontology that gives them meaning is that of the movements of living beings: anacondas, ancestors, a tortoise, shamans, birds, with whom the elders had relationships. While the material is readily presented in the global language of information, to borrow from Bruno Latour (2010), the sorrow that accompanies some of the tellings speak of people’s loss of astronomy in the everyday as a loss of the language of transformation: a way of knowing that implies presence and relationality.

A rich literature on Amerindian astronomy supported Claude Levi-Strauss’ four-volume *Introduction to a Science of Mythology* (1969, 1973, 1978, 1981). Not surprisingly, astronomy occupies a central place in ethnographic research that was pursued in the lowlands and highlands of South America in the 1970s and 1980s, including Christine Hugh-Jones (1979); Stephen Hugh-Jones (1982); Gerardo Reichel-Dolmatoff (1971, 1997); Marc de Civrieux (1980 [1970]); Jean-Paul Dumont (1972); Gary Urton (1981); Anthony Aveni and Gary Urton (eds, 1982); Stephen Michael Fabian (1992); Fernando Santos-Granero (1992); Edmundo Magaña (1986; 2005 [1996]); Fabiola Jara (2005 [1996]); Philippe Descola (1996 [1986]); Peter Roe (2005 [1996]); and Browman and Schwarz (eds, 1979), while Lawrence Sullivan (1988) offers an intriguing (if at times disconcerting) overview of Amerindian shamanic relationships with the stars. Surprisingly, given its centrality to Amerindian ecological knowledges, astronomical research waned in lowland South American anthropology in the 1990s. This was due, at least in part, to the urgency for rights-based and activist anthropologies, and a concomitant shift away from belief and symbolism to political economy, land rights and concerns with the politics of representation. The rise of political economy in Euro-American anthropology in particular had a great deal to do with a resistance

to the Othering that was inevitably associated with culturalist anthropology². Yet the substitute – a political strategy of Saming in much of the anthropology of the 1990s and 2000s that was inspired by the dictum “make familiar the strange, and make strange the familiar” – has been criticised by many Brazilian anthropologists, but perhaps most eloquently by Fausto and Heckenberger: “the risk of taking literally the maxim ‘nothing human is strange to me’ is to turn our common sense into what we share with (any) others” (Fausto and Heckenberger 2007:7).

This research, undertaken between 2000 and 2008 in Palikur villages along the Rio Urucauá in the Área Indígena do Uaçá in Amapá, Brazil, leads us to critique the assumption that the nature made known by Science is the definitive “Nature”³. Taking a lead from the modernity-coloniality-decoloniality debate led by Walter Mignolo (1995) and Arturo Escobar (2008) among others, and in dialogue with work on multiple natures, political ontologies and cosmopolitics (Stengers 2004; Latour 2004, 2007; Blaser 2009, 2010; De la Cadena 2010; Viveiros de Castro 1998, 2003, 2004a, 2004b; Santos-Granero 1992, 2009), this paper suggests that the sidelining of matters astronomical in Amerindian ethnography in the past 20 years has been ill-conceived. In our view, astronomical knowledge is central to Amerindian intellectual heritage, a view that we share with Lux Vidal whose exhibition on Amerindian cosmologies in the Uaçá titled *A*

² This was particularly so in South African anthropology, where politically progressive anthropology took a leading role in questioning the use of the idea of culture by apartheid ideologues (see Sharp and Boonzaier 1988). The contests over the ways in which culture figures in activist anthropology in contemporary South Africa (see Green 2009), and comparative research on activist Brazilian anthropology, offers grounds for a valuable discussion among anthropologists working in the global south.

³ With the benefit of several years' work on the astronomical texts, this project now takes a view that contrasts significantly with that made in an earlier paper on Palikur astronomy by Lesley Green (2008), which takes scientific nature as a singular point of reference. That paper sought to rethink the line between belief and knowledge via pragmatic philosophers' concept of “cognitive efficacy” as a test of tenable epistemology. However, the material presented here in this paper demonstrates that the shamanic relationship with the stars is *not* a causal one in which the shaman calls in the stars: that assertion rested on an early mistranslation. The 2008 paper reflects the translator's world: that of the knowledge economy, which assumes that to understand cause is to be able to use it predictively. Such an approach to knowing has little in common with the astronomies presented here, which do not attend to the capacity to harness the forces of nature to one's purpose. Of greater interest here is the ways in which knowing fosters vitality and ethical relationality. In short, while the 2008 paper is correct to identify partial connections between the sciences of astronomy and ways of knowing the sky in Arukwa, it does not attend to the ways in which the “things” being compared exceed the possibilities of translation into the language of information (cf. Latour 2010).

Presença do Invisível opened at the Museu do Índio in 2007 (Vidal 2008) and to which we were privileged to contribute (Vidal 2007).⁴

In this work, however, we are reluctant to adopt the conventions of describing ethnoastronomy in the language of bounded cultures (see Chamberlain et al 2005). Besides the problems that attend the idea of a bounded culture, the material we present is so similar to material recorded on the same continent that it is clearly not reducible to a singular “Palikur cultural astronomy”. At the same time, given the range of partial connections to ideas in Euro-American astronomy, it is difficult to defend the argument that the astronomical material we present here is wholly Other to that of “the West”. Yet neither is it the same, for it exceeds the possibilities of translation into the conceptual apparatus of formal disciplinary knowledges. If the astronomy presented here can be set out neither as radically Other nor as essentially Same, the task is to try to tease out alternative possibilities for assemblage and translation, and as such this project is an exercise in an anthropology of knowledge and knowing, curation, translation and reassemblage.

This article presents edited extracts of multiple interviews recorded on video by David Green in villages along the Rio Urucauá, between 2000 and 2008, with assistance from Lesley Green in 2000-2003. The recordings were translated by David Green in a four-year project, during which he checked initial translations along the Urucauá in 2008 and recorded additional narratives. Tools for field astronomy have included a laser pointer; star maps in astronomical software, and the elegantly conceived *Photographic Atlas of the Stars* (Arnold et al. 1999).

The argument opens with an overview of the principles of astronomy that are evident in the narratives. Thereafter, we offer a selection of the many narratives that we recorded, organised around the annual star cycle, and illustrated with star maps and wood carvings of the constellations that we commissioned in 2005 after realising that the dominant local representational practice is not drawing but carving.⁵ Throughout, we try to trace references to previously published astronomical anthropology, and note the synergies between our findings and those of Gary Urton in the Andes (Urton 1981).

⁴ For a virtual tour of the exhibition, see http://oiapoque.museudoindio.gov.br/exposicao/tour-virtual/tourvirtual_oiapoque.html

⁵ For some of David Green’s images from that 2005 research trip, including a photograph of Kiyavwiye Uwet’s carving of Kayeb and our early attempt to render the Kayeb constellation as a stick figure diagram, see *Povos Indígenas do Baixo Oiapoque: O encontro das águas, o encruzo dos saberes e a arte de viver* (Vidal 2007).



Figure 1 The carving of Kayeb, the constellation of the first rain. (Image: David Green)

THE RAIN STARS: AN OVERVIEW OF PRINCIPLES OF LOCAL ASTRONOMY

The first principle of astronomy along the Rio Urucauá is that *there are five different rains during the rainy season. Each of these rains is identified with a constellation that rises at dawn at the start of that season.* The horizon, then, offers a key reference point, consonant with Edmundo Magaña's studies of Carib astronomy (2005 [1996]:257). The second principle is that *the major constellations form a seasonal cycle that is the backbone of ecosystemic knowledge, many narratives, the taskscapes of agriculture, hunting, fishing and building as well as, in times past, the calendar of seasonal festivals.* Beginning in late December, the arrival of the first rains coincides with the solstice and the rising of Kayeb, the two-headed anaconda in the region of Scorpius. In February

Tavara the Kingfisher begins to rain, followed by the rains of Uwakti, a man in a house, in March. In April and May, the torrential rains of Kusuvwi the Older Brother and Kusuvwi the Younger Brother, the Pleiades, flood the grasslands and usher in the fishing season in the context of a titanic battle with Awahwi, the three-headed anaconda in Perseus. The softer rains of Wayam, the land tortoise, follow in July-August. The dry season begins around this time and continues until December.

“Heliacal rising”, the movement of stars that are directly ahead of the sun in the dawn sky and which trace its movement in the course of the day, is the third principle of astronomy along the Rio Urucauá. This too is familiar in Amerindian astronomy, and is noted by Fabian (1992), Roe (2005 [1996]), and Levi-Strauss (1969, 1973), among many others. The insight that our work brings to this conversation is that the path of the sun offers a guide as to where the major seasonal constellations will be in the course of the day, allowing one to track the path of the stars that have risen just ahead of dawn. Thus, as Magaña speculates might be the case, the path of the sun provides one aspect of what one might call a grid in the sky (2005 [1996]:256), in which the referents of space are the horizon, and the zenithal passage of the sun.⁶

The fourth principle is that *the December and June solstices provide key moments in the annual astronomical cycle*. These are noted, respectively, in the narratives of the anacondas Kayeb (in the region of Scorpius) and Kusuvwi (in the region of Perseus, the Pleiades and Orion). The arrival point of the sun on the dawn horizon shifts between East North East (azimuth 245 at the 06h30 sunrise on June 21), and East South East (azimuth 293 at the 06h40 sunrise on December 21). The June solstice is marked by a particularly complex narrative (see the discussion on Kusuvwi, below) which people associate with the season for demarcating and cutting new fields.

The fifth principle is that *knowing the constellations is not just knowing their shape (or which dots to join) but knowing the different qualities of their movement at different times of the year*. The arc of the stars changes through the course of the year in much the same way as the arc of the sun will change. Stars closer to the poles appear to move more slowly than stars in the centre of the sky. And, as the earth travels around the sun each year, our window on the particular arm of our galaxy that we know as the Milky Way will twist around: sometimes lying overhead, and sometimes lying low on the horizon.

⁶ Kayeb and Kusuvwi are the most precise, in terms of heliacal risings. Uwet's identification of Wayam is the least accurate (see the Wayam section later in this article) as Wayam rises further toward the south. However, if Sirius and Canopus are seen as the Waratwi [Tucumã] Palms beside Wayam, then Wayam would be much closer to a heliacal rising, and Wayam would be rising in late July as per oral tradition.

Narratives of the sky and underworld demonstrate an understanding of the workings of the cosmos, and can be seen as more than layers of an underworld that is overlain by this world and three upper worlds. Rather, *the movement of the stars is understood as a journey around this world via the underworld to reappear in the dawn sky*. The imaginary framework that undergirds this is not one of two-dimensional flat planes that are unconnected (for example, with a topography overlaid by astronomy), but of a three-dimensional model in which the levels are connected at a range of different channels and portals. The sun and stars travel through the underworld around this world from east, to zenith, to west, and nadir, before reappearing in the east.⁷

Edmundo Magaña (2005 [1996]) conjectures that observers had failed to grasp the underlying structure of Amerindian astronomy.⁸ In this article, we propose a seventh principle: that *the logic for tracking stars in the course of the year derives from the path of the Milky Way, well known as the celestial river in Amerindian astronomy, in relation to the path of the sun*. The importance of the solstices, we suggest, is not simply that the path of the sun changes direction, but that on those two dates the path of the sun crosses the celestial river. The insight has direct relevance to Gary Urton's insights on Andean astronomy, and evidences deep historical ties between highland and lowland South America.

⁷ See Roe's diagram (2005 [1996]:197) of the path of the sun around the world.

⁸ Magaña elsewhere references Gary Urton's masterful *At the Crossroads of the Earth and Sky: An Andean Cosmology* (1981); it is not clear why he did not engage Urton's work in this particular comment.

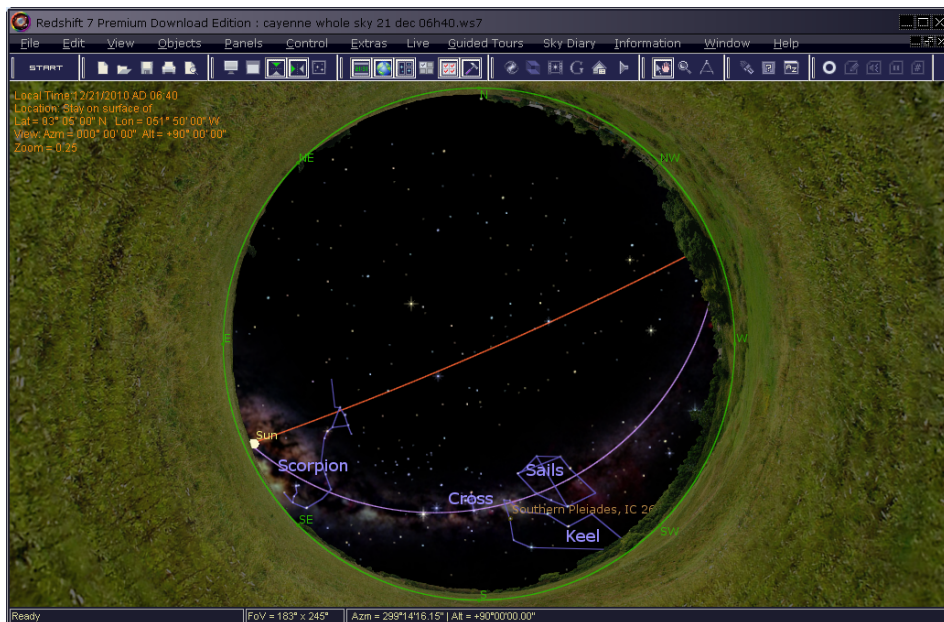


Figure 2: The sky at sunrise in the December solstice showing the Milky Way (the Galactic plane) intersecting with the path of the sun. (Image: RedShift 7)

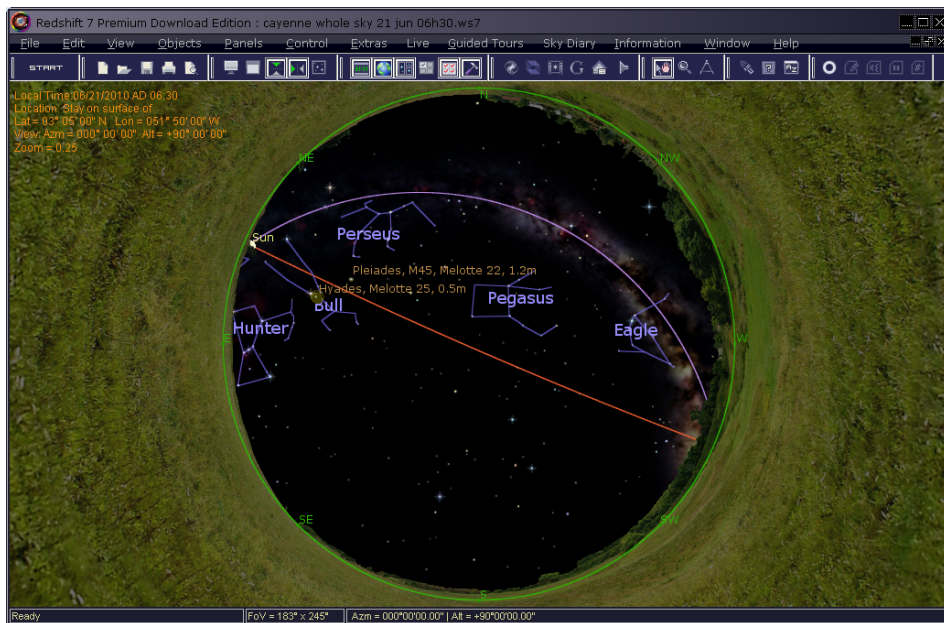


Figure 3: The sky at sunrise in the June solstice showing the Milky Way (the Galactic plane) intersecting with the path of the sun.. (Image: RedShift 7)

THE ANNUAL CYCLE OF STARS AND THEIR STORIES

The First Rain: Kayeb, the Two-Headed Anaconda (December-January)

Kayeb is a two-headed anaconda whose body encompasses the stars constellated elsewhere as Scorpius, the Pointer Stars, the Crux or Southern Cross, and the dark matter of the Milky Way (see Green and Green 2006; Vidal 2007). During the dry season in August, Kayeb's hand – the Crux – touches the ground at dusk and goes underground to get the Wayam, or land tortoise, which brings the August rains. Gradually in the course of that month, all of Kayeb disappears at sunset, and is not visible for several weeks. The reappearance of Kayeb in the dawn sky marks the December solstice, and the beginning of Kayeb's rains. The season of Kayeb ends in February with the rising of Tavara, the Kingfisher-Anaconda.

In the story that follows, recorded in July 2008, former *cacique* Kiyavwiye (“*senhor*”) Emiliano Iaparrá explains the movement of Kayeb to David.

David: Pariye kayeb? Ba ig datka?⁹

Emiliano: Aa! Nuwewkan kayeb datka.

Madikte [nerras] nutuhbe ku pariye wageswiye aytniye han. Ku pariye wayk. Nuwewkan nerras. Uwakti. Tavara. Madikte datkari.

Kusuvwi datka. Uwakti datka. Kayeb datka. Tavara datka. Nerras madikte! Awaku igkis un anag.

Nuwewkan uhokri keh igkis hene.

Heme kama madikte nor awayg amadga hawkri hiyak. Ke un ganag. Nerras tavara. Kayeb. Uwakti. Kawa!

Awaku nah aya ka aynsima nerras nor ku pariye lekkolya amin hawkri. Igkis awna igkis ka hiyak.

Ininewa. Nerrasnewa ku pariye

David: What is Kayeb? Is he an anaconda?

Emiliano: Oh! I think Kayeb is an anaconda.

All those, I think, who circle around, to arrive over here. Who rain. I think those: Uwakti. Tavara. All of them are anacondas.

Kusuvwi is an anaconda. Uwakti is an anaconda. Kayeb is an anaconda. Tavara is an anaconda. All of them! Because they are the Sources [i.e. master spirits] of Water.

I think Uhokri [God] made them, like this.

But not all men in the world know. Like, that they are the Source of Water. Those: Tavara. Kayeb. Uwakti. No!

Because I have asked many times, those who school [study] about the world. They say-they do not know.

That's all. Those who work with stars.

<p>kanivwiye aka warukma. Igkis [unclear: tepew? ikaw?] ku hiyak. Seme igkis kawnata ka hiyak ba kayeb. Ba igkis hiya ba datkam? Igkis ka hiyak.</p>	<p>They explain what they know [or: they appear to know what they are talking about]. But they also do not know if it is Kayeb. They do not know if they are seeing an anaconda or not. They do not know.</p>
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Like the other rain stars, Kayeb is an anaconda and a shaman, and can take many forms. Emiliano notes that Kayeb gets his name from the word “*karewbet*”, which means coiled up, curved, or twisted¹⁰ -- an association also noted by Fabiola Jara in her survey of Arawakan astronomy (Jara 2005[1996]:271).

Across the Rio Urucauá on the island of Mawihgi, Kiyavwiye Uwet explained that Kayeb wears a particular dance headdress, an *iyuwti kamewgane*, which is a circular crown of small breast-feathers, and not a *iyuwti kavanyekhaki*, which is the larger headdress with macaw wing-feathers sticking up and a back plate made of wood or cotton (cf. Jara 2005:271).¹¹ His carving of the constellation (see below) is of a two-headed anaconda with a long hand into the region of the Crux or Southern Cross. The carving demonstrates that the body of the constellation occupies the dark space between the surrounding stars. In the account of Kiyavwiye Sarisri, Kayeb is a healer¹² whose long hand can grab the Master of Sickness from far off, and who carries healing servants.

The idea to try wood carving was a last-ditch effort, in 2005, after the relative failure of our efforts to encourage people to render the constellations with pencil and paper. While some had drawn forms (such as the Hyades) in ways that were recognisable, most attempts to ask people to represent the constellations on paper with stick figures using dots or asterisks for stars were so ambiguous as to be of little use. The success of wood carving in representing the rain stars suggests that our earlier join-the-dot or stick-figure approach to astronomy was based on the wrong principles, since the constellations are not known along the Urucauá as points of light on a two-dimensional blank canvas, but as living beings whose life (or vitality) would be in the benches depicting them (McEwan 2001).

Peter Roe suggests that in Amazonia stars and dark space need to be understood in a figure-ground relationship (2005 [1996]). We would agree, but go further: that the carvings offer more than an indication that a different cognition of space is at play in the fields of the Amazon. The difference between the representational episteme in the stick-figure approach and a relational one implicit in the carvings of the stars as beings, is a point to which we will return later. Much as Roe’s research assistants drew his attention to the importance of the dark sky, particularly the dark patches in the brightest parts of the Milky Way, Kiyavwiye Emiliano uses the dark sky to locate Kayeb in the night sky. Here,

those dark patches reference a story of two jaguars attacking a deer, in which the jaguars are dark patches of the Milky Way and the stinger of the constellation of Scorpius forms the horns (*gituw*) of the deer.



Figure 4: Kiyavwiye Uwet Manuel Antônio dos Santos with his carving of Kayeb, October 2005. *Image: David Green*

A wide range of stories refer to this part of the sky. The elder Kiyavwiye Ishawet who lives far upstream on Yanawa island, about two hours' paddle from the busy villages nearer Kumenê, says he does not know the stars which make up the Deer and the Jaguar, though he has heard of them. He sees Scorpius's stinger as Kayeb's head, and puts Kayeb's body in the dark parts of the Milky Way. In his version, the pointer stars of the Southern Cross – Rigil Kentaurus and Hadar – are Kayeb's two hands, not his two heads. Other narrators on this river recognise these as the two Poling Stars or Takehpene – two brothers poling alongside Kayeb, searching for a wife who has turned into a turtle.¹³ Kiyavuno (“*Senhora*”) Parakwayan, revered grandmother of many on the island of Kwikwit, describes the Takehpene as not the heads of Kayeb but the tracks of a boat that is poling in

the water alongside the boat of Kayeb. In our view, this range of stories suggests that there are many stories told about the night sky. Yet across the collection of tales, the narrative of Kayeb is by far the most prominent, almost certainly because of its links to the rain, and to travellers to the underworld who need a ride home.

David: Ba kadahan estuwa amin Kayeb?¹⁴

Parakwayan: Kadahan Kayeb. Kadahan ta kehpena.

Ku unad ig takahpa.

Ay aviku warik ig kadahan gihmun [gimun?]. Ayhte gimun Kayeb.

Heme ku aysaw unad igkis takahpa. Hawata ke wi[x]wiybe. Aybe.

Takehpene [*unclear*: uwarya? or uwaryan?]. Kadahan estuwa gidahan.

[...]

Nah ka hiyap kuri. Ke minikwakbe. Mmah kadahan ayhte inut? Kadahan kuri aka ini.

David: Is there a story about Kayeb?

Parakwayan: There is Kayeb [the Two-headed Anaconda Constellation].

There is Takehpene [the Poling Stars] When the flood waters are high, he poles [through the flooded grasslands around the sky river]

Here in the river [the Milky Way] he has his boat [or his dwelling]¹⁵. [Up] there far away alongside [present with] Kayeb.

But when [seasonal] flood waters are high, they [pole?]. Like we do. Here [on earth].

[They went hunting the little uwar [*cabeçudo*] water turtle. There is a story about him.

[...]

I cannot see, like long ago. Are they up in the sky now? They are there, now.

Kiyavwiye Uwet Manoel Antônio dos Santos, storyteller extraordinary who lives on the island of Mawihgi across the river from Kumenê, links Kayeb's rains with the jaguars. This interview took place at night, while he pointed at the sky with the laser pointer that David offered him.

Neg Kayeb wayk payak aka givig kawokwine.¹⁶

Neg kawokwine aka neg kawokwine huwit ayeke utivut atan.

Ig wade pakwa ayegbiy ay. Ay yit ay.

Kayeb rains together with his pet jaguars.

That one jaguar with that [other] jaguar bearing down on [the deer] here.

He [the deer] is right in the middle, here. Here, the deer is here. [*Uwet*

Pahavwi kamaxri ayteke giduhyamadga. Pahavwi kamaxri [<i>unclear</i> : gihepkatak?; giharaptak?] ay.	<i>points at it with the laser pointer</i> One [jaguar] has caught him, on his back side. One [jaguar] has caught him from [his face side?: chasing from the other side?], here.
Igkis kanum Kayeb givig.	They call them, Kayeb's pets [familiar spirits].
Neg Kayeb kavigyene inere.	Kayeb has domesticated those [jaguars].
Embe ineki keh kiyavwiyegeben kanum: -Kawokwine Kayeb givig!	Therefore the elders say "The jaguars are Kayeb's pets".

On the island village of Kamuywa ("Sun's Place"), Kiyavwiye Daví Sarisri Espirito Santo's stories tended to reflect the interests of the farmer, and consistently attend to the correlation of dawn stars, seasonal weather, and the ecosystem:

Sarisri: Murok pitatye. Warukma ig pitatye nor Kayeb. ¹⁷	Sarisri: The first rains. The first star is Kayeb.
Kayeb. Kuri ig danuha wot ada ig waykwiye.	Kayeb comes up to us, so that he can start raining [falling to earth].
Nikwe payak aka mayg. Ka aynsima mayg kuwis.	Together with the wind then. There is already lots of wind.
Kayeb wayk. Wayk. Wayk.	Kayeb rains and rains and rains.
Kuri ku ig wayk. Estuwa gidahankis ku ig tivikwe amadgawa ginawiya.	Now when he starts raining. Their [the ancestors'] story says that he journeys on his boat.
Ka aynsima mayg. Ka aynsima muwok.	There is lots of wind. There is lots of rain
Nikwe ig tivik.	Then he departs.
[...]	[...]
Datka ig. Murok gahawkri.	He is an anaconda. The Grandfather of Rains.
Lesley: Aysaw [i.e. Kabet] ig kavusa?	Lesley: When does he begin?
Sarisri: Ig kavusa arimkat kayg 'dezembro' nutuhbe.	Sarisri: He begins around the month of 'December', I believe.
Heneme ka ik un. Aynesa un. Ik ada kariwruyan kan. Ik ada igyan ir	But it is not enough water [to flood the grasslands]. Just a little water. It is

kan. Aynesa un.

enough for the kariwru fish [tamatuatá fish] to spawn. Enough for the young *iyg* fish [traira fish] to lay eggs. Just a little water.

Ariwntak ig maviya kuwis kuri tavana.

When he has passed, then it is Tavana [the kingfisher constellation].

The association of a water boa with Scorpius is iconic in Amerindian astronomies (see for example Jara 2005 [1996]:271; Lévi-Strauss 1969, 1973; C. Hugh Jones 1979; S. Hugh-Jones 1979, 1982; Magaña 1986, 2005, among many others).

The Second Rain: Tavana, the Kingfisher (February)

After Kayeb, comes Tavana, the Kingfisher, marked by the three stars in a row that resemble a kingfisher in flight with wings outstretched. These stars are known elsewhere as Tarazed, Altair and Alshain. They form part of the constellation known in formal astronomy as Aquila the Eagle, and noted by Peter Roe as the King Vulture stars in Shipibo lore (Roe 2005 [1996]:213-214). Fabiola Jara notes the significance of Aquila elsewhere in Arawakan lore, but the associations she recounts are not paralleled in our recordings. Tavana disappears at dusk in mid-December but reappears at dawn in mid-February. Kiyavuno (Senhora) Parakwayan gives this account of Tavana's journey:

Parakwayan: Kuri igme tavana hawata makeknene avit inutwi.¹⁸

Now Tavana himself also follows [the path of Kayeb, and of the sun] up in the sky.

Kuri kabayweke pis hiyavgi ay kuwis.

Now early in the morning, you see him already here.

Ku pase ig wayk. Kayeb wayk. Wayk. Ig arewke

Now he begins to rain. Kayeb rains. [He] rains. He dries up.

Ig inute. Pase ig inut aytwe han.

He [appears] high up. After he is up, he comes this way. [Beckons east to west]

Kuri tavaramé tivik. Inme tavana tivik.

Now Tavana begins to leave. The Tavana leaves.

Lawe ig wayk hawata ig wayk akiw. Pase ig arawka. Inut. Hawata akiw.

When he rains. [He] also rains again. When he has cleared [dried up, or after there has been a short dry spell] he comes up [in the east]. Again.

Kuri arewke inutwi. Barewye arivwi akiw.

Now [he] dries up in the sky above. After a good while [drying] again.

Ig tivik akiw.

He leaves again. [Points to the southwestward]

Tavara appears together with his food, all the little silver “*ikar*” (piaba) fish. Kiyavuno Puhta, who is wife to Kiyavwiye Ishawet, explains it in this way:

Puhta: Ig yagahg! Ig kadahan gimana *ikar*.¹⁹
Heneme ayhte gihmun [*or*: gihmun]. Ayhte inut.
Atanme yuma.
Nah hiyavgi. Nah aki pit. Ig ayhte.
Ig himak ayhte. Tiyegem ig kahayak.
Msanbi kahayak.

[Tavara] is stretched out! He has his food, the piaba fish.
But way up high on his boat [*or*, where he is].
Here there is none. [*ikar* fish]
[If] I see him. I will show it to you. He is way over there.
He sleeps over there. At night, he is visible.
In the dark, he is visible.

Kiyavwiye Sarisri explains what to expect in the season of Tavara's dawn rising.

Lesley: Pariye tavara awahkis?²⁰
Sarisri: Tavara awahkis. Kuri ig awahkis pikiyeste un. Nikwe ka aynsima mewka.
Ka aynsima punamna.
Ka aynsima urag kariymadga.
Hiyeg takah. Igkis kamax ka aynsima im.
Tavara awankis inere.
Ayteke ku tavara mpiya kuwis.
Yuma akiw.
Nikwe kuri uwaktime. Uwakti wayk hawata akiw.

Lesley: What does Tavara send?
Sarisri: Tavara sends [rain]. Now he sends lots more water. Then there are lots of water turtles [tracajá].
There are lots of cayman [jacaré-tinga].
There are lots of urag turtles [cabeçudo].
People pole [through the flooded grasslands]. They catch lots of fish.
That is what Tavara sends.
Afterwards when Tavara has already crossed over. There is no more [rain].
Then it is the time for Uwakti. Uwakti also rains again.

At our request, Kiyavwiye Uwet carved the constellation, and instructed his youngest daughter Dansa dos Santos on how to paint it. Note the details of the bright stars on the wings in the finished carving, as the stars in question are very bright and easy to see.



Figure 5 The carving of Tavera, in progress. (*Image: David Green*)



Figure 6 Tavera, the Kingfisher. (*Image: David Green*)



Figure 7: Tavara (*Image: David Green*)

Uwet: Neg ku kanumka Tavara.
Muwok gahawkri neg.²¹
Neg nopsad ... ka nopsimahad
kuhivrad.

Ig kadahan gihanbiy han. Amin
inere gihanbi.

Inere pahatra gihanbiy inut han.
Sema kote kahayak
kabayhtiwatma.

Ig kadahan ikar han butak sema
kote kahayak.

Awaku hawkri kasayan inut. Pis
hiyak?

Ig kadahan ikar.

Ig kadahan ikar han pitatak.

Ig kadahan ikar ayteke butak.

Neg tavara kiyavwiyegben
kanum muwok gahawkri.

Neg tavara *an* kuhivra. Ka
nopsimahad kuhivrad.

Ig neg. Heme gihanbi.

He is the one who is called Tavara. He is
a Grandfather [Master Spirit] of Rains.
He is big ... such a huge bird!

He has his wings, this way. Regarding
his wings.
That is one of this wing, up, this way.
But it is not yet clearly visible.

He has piaba [fish], this way, behind
him, but they are not yet visible.
Because the weather is hazy, up above.
You understand?

He has piaba fish.

He has piaba fish, this way, in front [of
him].

He has piaba fish, on this side, behind
him

He, Tavara, the elders called him, “the
Grandfather of Rains”.

He, Tavara, is a bird. Such a huge bird!

He is that one. But [those stars are] his
wings.

Ku pi keh Tavara. Pi keh inin. Pi
keh ig. Pi keh ayteke. Ada
gihanbi.

Arakat ku pi keh paha warukma
amadga gihanbi aytekena.
Paha warukma ayteke amadga
inin.

Ig tavara arakat gidahan ada ig
muwok gahawkri.

Neg digisese kariy. Neg digise
madikte kariy.

Muwapuw hiyeg takah
kariymadgew. Neg!

David: Kiyavwiye, ba kadahan
warukma ku pariye igkis kanum
Tavara Akivara?

Uwet: Ya! [Inereninwa wakuw?]
Inerewa Tavara Akivara. Neg!
Inme gihanbiy inere. Neg ayteke
gihanbi.

Igyewa tavara neg.

Inme neg gihanbi.

Inere arakat ... ku pi hiya ku
kayeb pituke kuwis igme ku
waykse muwok.

Ig waykse muwok. Ig digisase
kariy made!

Pahakte kariy!

Made hiyeg takah muwapuw
kariymadgew.

Awaku inin ... neg pi kahwite
giwkis made ay.

Kiyavwiyebe ig awna: -Ig pi
kahwite.

Ig awna: -Ig pi kadahante
wohska giwkis made ay.

Inakni kuri. [Ihamwi giwn?]

Ig kahwi ariw made.

Embe ineki keh ku pi hiya Kayeb
ka kahwiyneku sema tavarama pi

If you are making [identifying the
constellation of] Tavara. You do this.
You make him. You make him, on this
side. [These stars are] for his wings.

It is a sign [symbol] that you make one
star on his wing, on this side.

[Another] one star, on this side, on this.

He, Tavara, shows his [stars?] for he is a
Grandfather of Rain.

He floods the grasslands. He floods all
the grasslands.

People can pole everywhere on the
[flooded] grasslands.

David: Senhor, is there a star called, "the
Master of Tavara"?²²

Uwet: Yes! [that one, in the center?]

That one is the Master of Tavara. Him!

However, that one is his wing. That one
is his wing, on the other side.

That one, is the real Tavara.

However, that one is his wing.

That is a sign ... if you see that Kayeb
has already set, it is [now] he who causes
rain to fall.

He causes rain to fall. He floods all the
grasslands.

Completely [flooding] the grasslands!

All the people pole everywhere through
the flooded grasslands.

Because of this ... he pours out more
than any of them here.

Like the elder [Uwet's grandfather]
would say, "He pours out more."

He said, "He has more manioc beer than
all of them here!"

That is it then. [The shaman's words?]

He pours out more than all of them.

So that is why, if you see Kayeb does not
pour out [much], Tavara instead will

kahwinek
Tavara digisase kariy made.
Kayeb ka digise sema Tavara
digise kariy.

pour it out.
Tavara will flood all the grasslands.
Kayeb does not flood it, only Tavara
floods the grasslands.

Later that evening, Kyavwiye Uwet offered Tavara's song:

Uwet: Ya. Ig tavara ig.
Inakni kuri Maygikwene ig
usakwa sema ariku Maywaka.

Yuma hiyeg hiyekten.
Inin avat kuri. Igkis kanum
Yemaygekwene.
Ig usakwa ariku maygakwa.
Ig tavara usakwa sema
Maygakwa ig usakwa.
Inme ini Kwekwene igkis kanum
Kwekwene awaku kweravimye
ku kiney ig bat amadga gevwi.

Ayhte inurik ig bat amadga
gevwi.
Yuma hiyeg hiyekten sema igwa
ihamwi hiyavri.
Ig ihamwi hiya.
Ig wew ku samah tiviga.
Ig tivik. Ig akumne. Ig hiya
tavara.
Kuri ig usakwa sema arikut
Maywaka.
Ineki keh pakni han:
Uwet: *Yemayhrey, kwehne, tah-
pahy-ra! (x2)*
*Yara, kwehkwehkeyone, tah-
pahy-ra! (x2)*
*Yemayhrey, kwehne, tah-pahy-
ra! (x2)*
*-Ive tavara inut! Ive ku ig ayhte
inut!*

Uwet: Yes. He is a kingfisher.
Now that Maygikwene [Wind being], he
lives in Maywaka [this present sky world
or atmosphere]
No person sees him.
Now, this song. They call it,
Yemaygekwene [The Wind Being Song]
He lives in the winds [air space].
He, the kingfisher, lives only in the
winds.
But this Kwekwene [parrot perch or
squawking place], they call it Kwekwene
because it is Kweravimye, where he sits
on his bench.
Way up in Inurik [the upper world], he
sits on his bench.
No person sees him, only the shaman
himself sees him.
He, the shaman sees.
He walks as he journeys.
He goes. He smokes. He sees the
kingfisher.
Now he lives only in Maywaka [this
present sky world].
That is why it is sung like this:
Uwet: *Yemayhrey, kwehne, tah-pahy-ra!*
(x2)
Yara, kwehkwehkeyone, tah-pahy-ra!
(x2)
Yemayhrey, kwehne, tah-pahy-ra! (x2)
"Look at the kingfisher, up above! Look
how he is way up above!"

Bawa ig usakwa sema arikut Maywaka. Inme giwetrit ku kiney ig bat. Kweravimye. In Kweravimye usakwa wade akigbimne warik. Ineki keh ig ihamwi batak ini avat. Ka ayhsima ihamwi batak inere avat. Ku aysaw ig kayne ig bat akebyi [barevwi?; ba gevwi?]. Ig iwe givig. Ig keh [<i>unclear</i> : akisa barevwi?] Nopsanyo akisa asugrik. Ig batahkis atere. Ig batahkis [imakut?] ada ig paksig. Ig paksig gavan.	But he lives just in Maywaka. However his place where he sits [is] Kweravimye. This Kweravimye is right at the edge of the river. That is why the shaman performs this song. The shaman performs this song, so much! When he is dancing, he sits [on his bench?] He takes his pets [animal spirits, helpers, familiar]. He [<i>unclear</i> : blows on the front of the bench?]. A small [asugrik flute?]. He sits there. He sits [down?] so that he can sing. He sings the song.
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Uwakti, the Third Rain (March-April)

Uwakti is generally understood as an ancestor who ascended into the skies from a point in the Arukwa landscape called Uwaktewni, or Uwakti's Spring. He builds his house – four posts with a central post for the roof – around the same time as Pegasus is rising in the eastern sky ahead of the sun, in late March through to early April. When we asked people to draw Uwakti, the constellation was fairly easily recognisable: the four stars with an off-centre mid-point looked remarkably like the Great Square of Pegasus, with several smaller stars inside the square that mark the presence of the man called Uwakti.



Figure 8: The carving of Uwakti (*Image: David Green*)

Lesley: Aysaw kavusa uwakti?²³

Sarisri: Uwakti kavusaw aharit
no ... março aharit.

Ku pis hiya uwakti wayk
kahyewa aharit março ka
aynsima unad.

Igkis kanum inere
Kahambarewka
awaku eg kahamabar kew ka
aynsima guw.

[...]

Lesley: Uwakti pariye gihivak?

Sarisri: Kaba ig ke warukmabe.
Ig ke waravyube ig uwakti.

Ay ig aka inin kuri. Heneme
kabeyweke ig pese.

Ke ba quatro horas. Kuwewanek
uwakti pese.

Nikwe ig uwakti. Estuwa
gidahan.

Lesley: When does Uwakti begin?

Sarisri: Uwakti begins around ... March.

If you see that Uwakti really rains in
March, there is a lot of water.”

[The Palikur] call this the ‘Tapereba
Fruit Season’
because the tapereba trees bear lots of
fruit.

[...]

Lesley: What does Uwakti look like?

Sarisri: He is almost like a large star
[warukma]. Uwakti is like a small star
[waravyu].

He is here [up in the sky] now. But he
will come out in the early morning.
Around 4 a.m. Later Uwakti will come
out.

So then, this is Uwakti’s story.

Ig kavinene ayhte uwaktewni.

Waxri kewye uwaktewni. Nah ka
hiyak ba pis hiyak Davi? Aynin.

Ayhte kuruvi. Amun
iwevravunin. Ayge.
Ayge pahat mahakwa humaw.
Ig awna ini payt adukwen.

Minikwak kadahan payt ay.
Amekene givin.
Uwakti giw. Nikwe ig tivik. Ig
wagehe inute.
Ku ig ayhte inut kuwis.
Ig awna giwn: Kuri me tivik
inute. Butyevwi ta nuvin akiw
kuri igkis hiyavunek ayhte inute.
Nah awahkis murok yimine
kavanekwa.
Nikwe ig ikise neg mahakwa
ayge.
Payt adukwen. Himekepket
adukwen.
Uwakti ig.
Pitatie yuma uwakti. Yuma
warukma inut.

Heme ig wagehe nikwe humaw.
Ayteke igkis hiyamni hene:
Inyerwa humaw.
Igkis awna: Kabay!
Ig awahkis murok ka aynsima.
Ayteke ig maviya. Msekwe
pahavwi kayg akiw.
Kuri kusuvwi. Kuri kusuvwi
wayk.

He lived way off at Uwaktewni [on
Ukupi Island].

There is land called Uwaktewni [an area
with a lake and a point of land on Ukupi,
called "Uwakti's Spring"]. I do not
know if you know about it, David? It is
close by.

It is near Kuruvi. Among the *iwevra*
bamboo. There.

There a lake was formed.

He said, "This is the traces [tracks; ruins;
remains] of a house."

"Long ago, there was a house here. Our
ancestor's house."

"His name is Uwakti. Then he left. He
climbed up [into the sky]."

"Now he [lives] way up above."

[Uwakti] said, "Now I am leaving for up
above. [If] my descendants go to my
house, now they will only see me way up
above. I will always send you rain."

So he left that lake there.

The house ruins. The ruins of the
sleeping place.

He is Uwakti.

Before there was no Uwakti
[constellation]. There was no *warukma*
star up above.

But he climbed up, then he appeared.

Afterwards they saw this to be true. "He
really appeared!"

They said, "It is a good [sign]!"

"He will send lots of rain."

After [Uwakti] passes by, one more
month ends.

Now it is Kusuvwi [Constellation]. Now
Kusuvwi rains to earth.

Uwakti brings a heavy rain but not the heaviest, perhaps in part explained by his not being directly in the World's River, but between it and the path of the sun.

In between the rains of each rain star, there are said to be short, dry spells. Uwakti's dry spell is the only one given a specific name: it is called *kahem* (in Kheuol) and *aberesvut* (in Palikur) which means the clearing of the skies. *Aberesvut* is also the name of a fruit which matures in March.

Ishawet: Ba uwakti? Ku samah
ig wayk?²⁴

Ig wayk ada pahay paka. Ig
arewke.

Hiyeg ka kamax kiyesradma. Ig
[ka?] ewk unadma.

Pahay paka ig arewke.

Kuri ig inut aytene. Ig wayk
abusku... kawkama pahay paka.

Abusku hawkri ig waykwad. Ig
arewke.

Ishawet: ... how Uwakti rains?

He rains for one week. He clears up [a
dry spell].

People don't catch much. He [doesn't]
bring high waters.

For one week [then?] he clears up.

Now when he is coming up. He rains for
half ... not even a full week.

Half a day he rains. He clears up.

Uwakti is also associated with heavy winds and storms, as this extract from Kiyavwiye Uwet's version of the Masitwak tale suggests:

Uwet: Embe kuri ahwi uwakti
danuh. Ig danuh bute.²⁵

Igkis danuh atere. Igkis ayapkere
ada tivik amadgat.

Ahwi uwakti awna ta git: -

Nukebyi! Ka ik ada ayh awaku
numun aka mayg! Muwok!

Yuma [ayehpep?] amadga

numun. Ku aysaw nah

manukwiye han yuma

[ayehket?]. Sema mayg. Ndahan

ka sama. Hiyawa abet muwok.

Heme ig bakibe ka ik. Amawka

ig wahamni ahwi. Ahwi nemnik.

Me ahwi ayh nek. Neg ahwi

kadahan kiyapyad nawiyad. Me

gahubwad. Inere gidahan yuma

sabapti gimun. Awaku gimun

Uwet: So then, Grandfather [Master
Spirit] Uwakti arrived. He arrived
behind.

They arrived there. They asked to go
onboard [Uwakti's canoe].

Grandfather Uwakti said to him, "My
relative! It is not possible to be
transported because my canoe comes
with wind! Rain! There is no

[transportation for you?] onboard my
canoe. When I cross over, there is no
[hiding place?]. Only wind. For me

[alone], it does not matter. Even in the
rain. But for him, the child, it is not

possible. He must wait for grandfather.

Grandfather is coming. Soon grandfather

will transport you. [This] grandfather

[i.e. Kusuvwi] has a huge ship. Quite

wide. With him, there is no getting wet.

pahowte [pitihvit?]. Muwok ka	Because his canoe is completely sealed.
parak atere. Udahanwa ka	Rain does not enter there. Our [canoe] is
[pitihma nor?]. Udahan he	not sealed. Our [canoe] goes as it is. We
ninewa. Usuh ute muwok	are rained upon, also.”
hawata.	

Pegasus is noted by Fabiola Jara as significant in Arawakan lore, but the associations she recounts are unfamiliar along the Urucauá.

Kusuvwi: Torrents, the Fourth Rain (April-May)

The season of Kusuvwi, or “torrents”, begins in late April, the month in which the water rises and the fish disperse. Food is not plentiful in the early part of the season, but by late June to early July, the little silver *ikar* (piaba in Portuguese or kuahi²⁶ in kheuol) begin to move in great schools upstream, looking not unlike stars as they jump the rapids in great waves. The *kunan* (peacock bass) and *umayan* (piranha) follow, making for a time of plenty in the river.

The Kusuvwi season has many *dramatis personae*, including the familiar two brothers. Kusuvwi Eggutye – literally, Kusuvwi the Older Brother – is a small star cluster similar to the Pleiades that is barely visible because he has been consumed by Awahwi, the three-headed anaconda (in the region of Perseus) who is big enough to swallow worlds, and who must be fought off. Though Kusuvwi Eggutye is small and in the belly of Awahwi, the boat of his younger brother Kusuvwi Isamwitye (Kusuvwi the Younger Brother) follows several weeks later, piloted by the one-legged man who is so very familiar in Amerindian astronomy. His name here is Mahuwkatye (“without a thigh”, or “Thighless”), and he is associated with the region around the three main stars of Orion’s belt plus Orion’s dagger, which is Mahuwkatye’s remaining leg. The other stars of Orion are here the stern of the ship, the Transporting Stars [Rigel] and the children of Mahuwkatye and Kusuvwi.

On board the boat is the bounty of the June-July season, as well as a constellation known as the Seagull (Wanawna), which is Kusuvwi’s small canoe for going ashore.



Figure 9 Kiyavwiye Uwet, carving Kusuviwi. (*Image: David Green*)



Figure 10 The completed carving of Kusuviwi's boat. (*Image: David Green*)

The part of Kusuvwi Isamwitye is played by the Pleiades. He has to shoot the anaconda Awahwi who is about to eat him too. Awahwi dies, but as a spirit-creature he does not rot and remains visible.

The drama is, quite literally, cosmic, involving the sun, the stars and the Milky Way. The account of it marks the northernmost point of the Sun's annual journey across the sky to the point of the June solstice, which will also be the moment at which the sun's path meets the centre of the World's River, or the Milky Way, or what astronomers would call the centre of the galactic plane. The cosmic drama involves turning back, and not allowing this world to be eaten by the anaconda Awahwi.

The scene opens, as it were, when Awahwi (in Perseus) begins to appear in late May on the northern side of the sun's path. On the morning of the solstice on June 21, the sun rises East North East, at azimuth 246 on a sky map with inverted west and east, at exactly the spot where the arm of the Milky Way crosses the solar ecliptic (see Figure 2). The drama, annually played out, integrates the change of direction of the stars, the sun's reversal, and the height of the rainy season. It also involves another actor who is very familiar in Amerindian stories: that of the one-legged man (in Orion) called Mahuwkatye, who plays the role of the pilot of the younger brother's boat. The elder Kiyavwiye Sarisri (Davi), whose flair for the dramatic makes his stories so absorbing, tells the story like this:

Lesley: Nah timap kadahan
kusuvwi. Eggutye. Isamwitye ...²⁷

Sarisri: Ihi. Henewa!
Pitatie igkis pumukna nawi.
Kuri igkis tivikwiyekis
pumuknamte.
Pahamku nawi gegni tivik
pitatie.
Ku ig tivik pitatie kuwis.
Pahavwi datkad. Ka nopsimahad
datkad.
Ig woke gibiy ayesri inin hawkri.

Inin datkad. Awahwad.
Giw awahwi. Ig datkad.

Kuri igme ka hiyaknima

Lesley: I hear that there are Kusuvwi
the Older Brother and [Kusuvwi] the
Younger Brother.

Sarisri: Yes. It is true!
At first, they were in two boats.
Now they journeyed in two boats
together.

The one boat with the older brother
went first.

When he had gone ahead already.
[There was] one large anaconda. A
huge anaconda.

[When] he opens his mouth, it is the
size of this world.

This huge anaconda. Huge Awahwi.
His name is Awahwi. He was a huge
anaconda.

Now [the older brother] did not see
him.

Ig kuwis tivik. Ka amuwa kuwis.	He [the older brother] had already gone [into the anaconda' belly.] He does not shine brightly.
Ig ka wew ig kuwis danuh ayge.	He doesn't go anywhere. He has already arrived there.
Ig ka kahawka havisgi.	He did not have time to shoot him.
Ig taris giyaka. Aa! Kawa! Apa ig kuwis danuh ta gibiyakut.	He pulled back his arrow. "Oh! No!" He had already entered [the anaconda's] mouth!
Nikwe datka dakerevgi.	So the anaconda swallowed him.
Datka dakerevgi nikwe. Gisamwi nemnik bute.	After the anaconda had swallowed him, his younger brother came up from behind.
Kusuvwi gisamwi nemnikbo	Kusuvwi's younger brother was approaching.
Ku ig piyawkad. Ig iveg atere. Ig awna ta git mahuwkatye.	While he was still far away, [the younger brother] looked there. The [younger brother] spoke to Mahuwkatye.
Ig awna: Axtig ayta! Ig dakere negni kuwis. Gimune. Haramnaba piyako! Havisig!	[The younger brother] said, "An Axtig Monster is coming! He has swallowed my brother already! Ready your arrows! Shoot him!"
Ig mahuwkatye avisasew.	Mahuwkatye was terrified.
Ig awna: Higihwa. Ba ayta huwitene nawi. Nahwa! Nahwa atere.	[The younger brother] said, "Get out of the way! Come back and steer the boat! Let me try! I will go in front there!"
Nikwe kusuvwi mpiya.	So then Kusuvwi passed to the front [of the boat].
Kuri aka inin kuri mahuwkatye ayhte abuwik kusuvwi ginawiya.	Even to this present day, Mahuwkatye is way back at the stern of Kusuvwi's boat.
Igme kusuvwi muhuksatak.	Kusuvwi [the younger brother] is at the prow.
Nikwe nor atere ig haviswig.	So then [Awahwi the anaconda] was there.
Pang! Aka yakot!	Kusuvwi [the younger brother] shot him. Twang! With an arrow!
Ta! Arikut giwtyak! Datkad! Ka nopsimahad awahwad.	Thunk! Right in his eye! The big anaconda! The huge Awahwi!
Nikwe ig haviswig. Made ig miya.	So then [kusuvwi] shot him. He

Lesley: Awahwi?	completely died.
Sarisri: Ya. Awahwi ig miya.	Lesley: Awahwi?
Ig miya nikwe kusuvwi mpiya.	Sarisri: Yes. Awahwi died.
	He died, then Kusuvwi [was able to] pass by.
Ineki keh madikte hiyeg hiyak kuri Kusuvwi kabayhtiwa.	That is why everyone can see Kusuvwi [the younger brother] clearly now.
Igme gegni pis hiya henenwa.	Whereas the older brother you can barely see.
Awaku ig ayhte gitunik datka.	Because he is deep inside the anaconda's belly.
	[laughter]
Payak igme. Ku payak akak gikamkayh.	Together with [Mahuwkatye]. Where [Kusuvwi's] children are.
Kadahan kusuvwi gikamkayh wade giwtak mahuwkatye.	Kusuvwi has his children, right near Mahuwkatye.
Igi mahuwkatye ig hiyegiwa minikwak ay amadga inin.	Long ago, he, Mahuwkatye, was a [real] person [living] here on this [earth].
Aynewa ig.	He lived here.
Awaku ig kamaxwa pahavu tino. Gihayo.	Because he married a woman. His wife.

The season is also the source of the abundance in the months to come, and in it the winds associated with Uwakti have largely subsided. Kiyavuno Parakwayan, of Kwikwit, makes this clear in her version of the story:

Parakwayan: Ya ku pimun han nopsehsa pis ka buwisa pase awaku ig parawhokwa. ²⁸	If your canoe is small, you will [still] not sink because he [Kusuvwi] is in the ocean.
Ig ahakwew parawhokwa ig mpiya hawata.	He is in the ocean waters, he is also passing through.
Dik! Gimun. Ginawiyad dik aka hiyeg.	Loaded! His canoe. His large boat is fully loaded with people.
Ig ka muwaka boboh. Ig umehe kamaygviye made.	He does not want waves. He kills all the wind.
David: Pariye hiyeg amadga?	David: Which people are on [the boat]?
Parakwayan: Made ah gatip. Ah ivatyo.	Parakwayan: All the tree spirits. Trees that are mature. [ripe]
Made im. Kunan. Kihiwri.	All fish. Peacock bass [tucunaré]. Pirarucu fish.

Made imbet. Bayag. Ig mpiyasa.	All kinds of fish. Bayag fish. [As] he passed by.
Pase ku ig inut. Embe kuri im wagehe.	When he is up [in the sky]. Now then the fish start to climb [upstream].
Im. Ikar. Ikar.	Fish. Ikar fish [silver piaba].
Kiyavwiye, nukamayh awna: -	Senhor [David], my child said,
Mekavrik ka ayhsima ikar kuwis kavusa wagah.	“Downstream there are many ikar who have started to climb [swim upstream].
Ig awna: Wagehe im. Hawkri kuwis wagahkis.	He said, “The fish are climbing. The season has started.
Kuri ku ig inute kuwis ig padak im.	Now when [Kusuvwi] is up above, he starts to throw fish.
...	...
Ig ayta aka. Ig wagahkis.	He brings them. He causes them to climb [upstream].
Ig amadgatak kuri ig padak im.	He is onboard, now then he throws the fish [down].
Igkis wagah awaku ig nawiy ada im.	[The fish] climb upstream because [Kusuvwi] is the boat for fish.
Ineki keh ig wagahkis.	That is why he causes them to climb [upstream].

The association of this season with fish was noted by Claude Levi-Strauss who, in *From Honey to Ashes*, tells us that “[i]n the Guianese area ... the Pleiades ... forecast a plentiful supply of fish” (Levi-Strauss 1973:263-264), and adds also that “in the Guianese myths ... we have seen ... the connection between the Pleiades and the movement of fish upstream” (Levi-Strauss 1973:266).

Like Parakwayan, Kiyavwiye Uwet describes Kusuvwi as the “*anag*” or the “*gahawkri*” – the source or the master spirit of the trees that will grow in the coming season, and which produce the hallucinogenic sap of the tawni tree and the tobacco-like bark of the tawari tree, as well as tobacco, and fruit-bearing trees. In this version, Kusuvwi also carries on board the predator spirits or axtigs.

Uwet: Nah tiviknene. Nah waxwiw madikte ah gatip. Egu nawiy. ²⁹	Uwet: [Kusuvwi said,] “I’m going on! I’m carrying all the spirits of the forest. The boat herself.
Kadahan sakeg. No gatip akebi udahan ba inin. Mpiya amadgew.	There is Sakeg. The spirit of the Sakeg tree [that produces a bright red paint] which is like our human spirits [or: like who we are]. [Uwet imitates someone painting his lips].

Kadahan tauni gitip ku mpiya
amadgew.

There was the spirit of the Tauni tree on
board.

[This tree's bark is a hallucinogen used
in shamanic initiations; it is also used for
various medicinal purposes.]

Kadahan kawokwine. Ka
aynsima axtig mpiya gimadgew.
Umuh ka nopsimahad sema ka
aynsima axtig.

There were jaguars. There were lots of
axtig monsters on board.

The boat was huge but there were many
monsters.

Kadahan arakembet axtig mpiya
amadgew.

All kinds of axtig monsters were on
board.

In another story told by Kiyavwiye João Felício, he emphasises the healers on
board Kusuvwi, a theme that was repeated in several other stories. Of interest is
that he, as head pastor of the Palikur Assembleia de Deus in Kumenê, speaks here
of shamans in the metaphor of medical doctors:

João: Ig amekene tivik amadgewa
nawiy. Kusuvwi ginawiya.
Ka ayhsima hiyeg ayge!
Ku igkis kanivwiye amadga
nawiy.

João: Our ancestor went on board the
ship. Kusuvwi's ship.

So many people are there!

Those who work onboard the ship.

Ka ayhsima mekseh gumadga!
Ka ayhsima hiyeg kanumka
mekseh. Ka ayhsima gumadga.
Awaku eg ihamwi gihmun.
Ihamwi hiyevune ka garanuhsima
ada piyih hiyeg.

So many *doctors* are onboard her.

So many people called *doctors*. So many
onboard her.

Because she is a shaman's ship.

The shaman seer/one who sees visions
[of what has happened aboard Kusuvwi]
has great wisdom/ability/powers to heal
people.

Ka ayhsima ig keh iveyti ada
hiyeg.

He makes lots of medicine for people.

Ig makniw hiyeg ka ayhsima.

He heals many people.

Kiyavwiye Uwet's version (told in 2008) of the same epic, offers this
section of the story in great detail, indicating also the kinds of fish and plants on
board Kusuvwi's boat. His narrative contains also a seagull constellation, and
emphasises the way in which Kusuvwi circles around, and with him, many of the
master spirits of the resources that will become abundant in the months of June
and July.

Uwet: Ya kuri ig kusuvwi
minehwe atere.³⁰

Ig iwevri nikwene.

Ig katapta ayhte giwntak.

Ig ka muwaka ada ig usakwa han
aburikut.

Awaku aburikut ka kabe axtig!

Kadahan tauni ku ugesni ovre.

Tauni gutip! Ka aynema ah uges.

Gutip ugeswiye ovre.

Palikar gutip ugeswiye ovre.

Waxak gutip ugeswiye ovre.

Nor ... mmahba nor? Wadidka
gutip ugeswiye ovre.

Irimwi gutip ugeswiye ovre.

[Unclear: Ukum] gutip ugeswiye.

Ku pariye ku akak inin.

Gavanvuwwata ah. Made gavan
avewata ah.

Pis hiyak egkis ugeswiye amadga
nor?

Ig waneke ka nopsimahad ahrad.

Ig ugeswiye gumadga.

Ka ayhsima! Arakembet axtig
ugeswe gumadga!

Embe ig hiyakni ig usekwe
ayteke giwntak.

Ig ay. Ig ay gikak. Ig keh ayge
hewke tiyegim.

Ig ayge gimun.

Hewke nikwe. Puwivak.

Hawakanewa ke ininbe.

Ig awna ta git: -Nex! Asa woke

Uwet: And then, he, Kusuvwi, docked
there.

He took him [the boy] then.

He [the boy] climbed aboard, way up
near him.

He did not want him to stay there at the
stern.

Because at the stern, there were so many
axtig [predators]!

There is Tauni [the hallucinogenic tree
spirit] who circles around [there].

Tauni's spirit. It is not the [actual] tree
here, which circles around.

Her spirit circles around.

Palikar's spirit circles around.

Waxak's spirit circles around.

That .. what is that [called]? Wadidka's
spirit circles around.

Irimwi's spirit [the spirit of the Tawari
tree] circles around. [The thin bark of
the tawari tree is used to wrap tobacco to
form a cigar.]

The spirit of the ukum [milk latex, or
sorva tree] tree spirit circles around.

Like the ones which are here in the
present. The leaf-bearing trees. All the
leaves upon the trees.

Do you know that they circle around
onboard [Kusuvwi's ship]?

He ties up, such huge trees. He circles
them around onboard.

So many! All kinds of predatory spirits
circle around onboard her.

So he observed this, he stayed on the
other side, alongside of him [Kusuvwi].

He was here. He was here with him. He
stayed there, all night long.

He was there with him [in his boat].

The next morning then. In the daylight.

In the early morning, like this.

He said to him, "Grandson! Go ahead

udahan nor kiyesrad. Pahow
kiyesrad ay. Nah hiyak ku pi
mativwe. Ka nahme. Nah kote
[mativwe]. Ik ada nah kamax pina
hawkri avit nah ax. Heneme nah
iveg ku pi mativwe.

Ya ig woke eg kiyesrad nikwene.
Ig awna: -Pariye inereya ay?

Giwn: -Nuhiw! Masara! Piyana
kunan ayteke. Iwe piyana kunan
masara.

Ig ewke ta git kusuvwi.

Ig ewke payak aka miyug.

Ig ahegbete gidahan gimana.

Ig ahegbete. Ig iwe garap
nikwene.

Ig ahegbetene gimanakis
kabayhtiwa nikwene.

Ig awna git neg. Ig pituknaw
kunan.

Ig awna git: -Nah ewkne im
aytne.

Ig ewkne im ayteke.

Ig pitukne garayh. Harayh!

Harayh! Harayh!

Ig pitukavye im made.

Wakehte nor gamar usekwe avit
nor garap-

Ig ikevri paha.

Kuri igkis axne nikwe. Pisenwa
gaxwenkis.

Ig awna git: -Nex! Asa padak
wowbi ayhte akigbimne nawi.

Nawiyad kanopsimahad han. Ig
muhuk ayhte waykwit.

Avit eg dax ta ahakwat un.

Ig danuh atere nikwe. Ig padak.

Igwata hiya giwbi. Baw! Ig hiya
tuboh!

Ig hiya kiyapyad kunanad!

and open that trunk. There is one large
trunk here. I know that you are hungry.
[But] not me. I am not yet [hungry]. I
can go two days before I eat [again]. But
I can see that you are hungry."

And he opened the large trunk then.

He said, What is [in] there?"

He said, "Grandson! Roasted [fish]!

Two peacock bass are over there. Take
the two roasted peacock bass!"

He brought them to Kusuvwi.

He brought them on a plate.

He prepared his food for him.

He prepared it. He took out the fish
bones then.

He prepared their food very well, then.

He spoke to him. He gutted the peacock
bass.

He said to him, "I brought the fish to
here."

He brought the fish from over there.

He took out the entrails. Slice! Slice!
Slice!

He gutted all the fish.

Only the skin remained on top of the
fish bones.

He gave him one.

Now they ate then. They finished their
eating.

He said to him, "Grandson! Go ahead
and throw our leftovers away, over at
the prow of the ship!"

The ship was so huge, like this. He
descended far below.

Before it touched the water.

He arrived there then. He threw it.

He, himself, saw the leftovers. Splash!

He saw it splash into the water!

He saw a huge peacock bass!

Ig ivegeyh atere.
Ig awna giwn: -Pariyeke ayge?
Giwn: -Kawa. Nah pakek wowbi
ater. Ya kunanad bayhg! Sigis
han kunanad. Kiyapyad kunanad!

-Ya padak paha.
Ig iwi. Ig padak paha akiw.
- Ku pi hiya hawata akiw embe
boh.
Ig padak giwbi baw atere.
Kabawh! Sigiseyh hawata.
-Ya ba?
-Hawata nah hiyavrap. Embe nor
kunan.
Lawe nah danuh tahan neku. Nah
waxrep ta git papay neku. Pome
neku julye aharit neku ku pis pes
warikmurit ada kadasa atere. Ku
pi hiya pahavwi kunanad.
Kanopsimahad kunanadmine. Pi
havisenek. Pi iwas. Gumin
made wohe! Wohe pahapte aka
miget! Pi hiyak wowbi. Nor
wowbi. Nikwe pi awna git pig. Pi
awna: -Pa! Nah awna pit. Nor
kunan ku pariye wis ax gikak
ahwi kusuvwi. Nah padeke
wowbiy ta unihkwat. Nor ku
kunan. Ig awna nut: -Nor ku
pariye aharit julye pome kadahan.
Nah ka kinetihwa pit amin sema
kuri nah kinetihwa pit amin.
-Mmahbe hene?
-Ya. [Pi ive gimin?] Tepkarad!
Ive! Tepka masara.
Kuri lawe ku igkis danuh atere
nikwene.
Kuri igkis sinap umuh ta iwevri
awaku ig ka minahwa ta ihapkat

He was gazing there.
He said, "What is it there?"
He said, "No. I threw the leftovers there.
And a peacock bass [just appeared] in
plain sight! It [swam away as] a large
peacock bass, in this direction. A huge
peacock bass!"
"And throw [another] one!"
He took it. He threw another one.
"If you see the same thing again, well,
good!"
He threw [his leftovers]. Splash! There!
Ker-splash! It swam away also.
"And what [happened]?"
"I saw it also. So [it turned into] that
peacock bass."
"When I arrive over there. I will take
you to your father. At the beginning of
July, if you go out onto the river to hunt
fish there. If you see one peacock bass.
A huge sized peacock bass. You shoot it.
You look at it. It's body is all burnt! It is
completely burnt [as] with charcoal.
You know it is the leftovers. It is the
leftovers. Then you say to your father.
You say, 'Dad! I say to you. This is the
peacock bass which we were eating with
Grandfather Kusuvwi. I threw the
leftovers into the water. It is this [very
same] peacock bass. He said to me that
those are the [young, blackened] bass
which are [present] at the beginning of
July. I did not tell you [before], but now
I am telling you about it."
"Is that how it is?"
"Yes. Look at its body. It is roasted!
Look! Blackened roast."
Then they arrived there then.

Now, they borrowed a canoe to carry
him, because he [Kusuvwi] could not

awaku kiyapyad nawiyad! Pis
hiyak?

Nor ihapka ka imihadma ada
minahwa ta ihapkat.

Igkis sinap umuh gidahan.

Nor ku pariye Tumeh kinetihwa
amin. Wanawna.

Wanawna ta iwevri. Eg iwevri
atere nikwe.

Ig danuh atere nikwene.

Ig kataptase wanawna. Wanawna
waxri ta git gig.

Kuri ig iwe giyamtig.

Awaku ig wageste kabahte ke
ihamwibe.

Awaku ig msekwe ka ayhsima
ayhte.

Ig ugesbaki kabahte ke ihamwi ig
uges.

Kuri ig iwe giyamtig.

Ig katapse giyamtig ta amadga
wanawna.

Wanawna waxrevri ta git gig.

Ig danuh atere ig sarayhgi ta
ihapkat.

[...]

Ig awna ta git. Ig awna: -Kibeyne
pi waxrene nukamayh atere.

Kuri ig amekene ig awna ta git
wanawna. Ig awna: -Wanawna!

Ka sam pi waxre nukamayh atan.

Nikwe wanawna avim inin

hawkri ig hiyegte ig!

Ka ke kurima. Nikwe ig hiyegte.

[unclear] Gannuh.

Heme kuri aka inin kuri ig
ugeswe kuhivra.

Pitatie ig hiyegiwa ig. Embe
henebaki kiyavwiye.

dock at the shore. Because his ship was
huge! You understand?

The shoreline was too shallow for him to
dock at the shore.

They borrowed a canoe for him. [the
seagull]

That [person] which Tumeh [Ishawet]
spoke about, the wanawna [seagull].

The seagull took him. She took him
there then.

He arrived there then.

He climbed aboard the seagull. The
seagull took him to his father.

Now, he took his shaman's basket.

Because he had almost turned into a
shaman.

Because he had stayed over there, a long
time.

He had transformed [into someone]
almost like a shaman.

Now, he took his shaman's basket.

He climbed onboard with his shaman's
basket onto the wanawna [seagull].

The seagull carried him to his father.

He arrived there. He deposited him on
the shore.

[...]

He spoke to him. He said, "Thank you
for carrying my child there."

Then he, our ancestor, spoke to him, the
seagull. He said, "Seagull! It is okay,
that you brought my child here."

Then, the seagull, at that time, he was a
person!

Not like it is today. Then, he was a
person. He had the ability to do works of
wonder.

But now, at the present time, he has
turned into a bird.

At first, he was actually a person. So it
is, Senhor.

<p>Igwa ihamwi waxri tah amadga gihmun. Nopsehsa gihmun. Ig kadahan barewye gihmunisa. Amadga ini ig iwevri. Ig waxri ta git gig.</p>	<p>He, the shaman himself, was carried over there on his canoe. His canoe was tiny. He had a beautiful little canoe. Upon this, he carried him. He brought him to his father.</p>
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The idea of renewal, or rejuvenation, is also familiar in regional astronomical literature. Kiyavwiye Emiliano's version of the story also emphasizes the movement of Kusuvwi. In this discussion he emphasises the swirling waters of the celestial river in this part of the sky – a theme to which we will return later. Of interest is the idea of a person splashing into the water with Kusuvwi and crossing over to the other side, to find himself young again. Significant too is the way in which he speaks about Kusuvwi anchoring his boat *when he has crossed to the other side*.

The crossings in the annual night sky are several, and to be able to speak of them as predictable events, one must have an overall grasp of the interrelationships in the sky. Annually, nightly and seasonally, there are multiple crossings to know. The sun crosses the sky, overhead and underneath, as does the moon³¹ and planets, and the Milky Way / World's River, which crosses the Sun's path at the solstices (see Figure 2).

The thundering that Kiyavwiye Emiliano mentions as Kusuvwi dragging his anchor is typical of the season, in which very loud thundering occurs quite unpredictably. When the thunder rolls, it is not uncommon for people to look up and comment that "there's Kusuvwi's anchor". For Kiyavwiye Emiliano, there are two kinds of thunderings: the anchor of Kusuvwi's boat, and also the arrival of the season's master spirits at their destinations.

<p>Emiliano: Igkis kinetihwa amin inin estuwa. Ku wis ... ke ininbe wixwiw ay kuri. Wixwiw ku payak aka kiyavunki.³² Heneme ahawkanek ku kusuvwi wageswaneku ku aysaw wis ... ku aysaw neg awna: -Nah wageswiye aka kusuvwi. Embe ig tivik. Kuri aysaw ig danuh ta anavit egu nor tip ku kiney amiyan. Ka aynsima amiyan wageswa ayge.</p>	<p>Emiliano: They speak about this story. That we ... like we who are here now. We who are together with the elder's [ken, or knowledge, or wisdom]. But it is the season for Kusuvwi to circle around. When we ... when he says, "I will circle around with Kusuvwi!" So then, he goes. Now when he arrives under the rock where there are strong currents [or swirling waters]. There are many currents swirling around there.</p>
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Kuri kusuvwi awna git: -Tuboh
kurin!
Ku aysaw ig tuboh ig iyaka ta
pahambakat.
Nikwe ig wagah amadga kusuvwi
ginawiya.
Ig humaw takwaye hiyegad.
Ku aysaw tino eg humaw himano.

Ku aysaw ig aytwe. Ke negbe. Ke
pisbe.
[Ku pis] aytwe danuh atan.
Pivinwat.
Pis tivik msakwa ta pivinwat.

Neg tivik hawata msakwa ta
givinwat.
Neg tivik msakwa ta givinwat.
Neg tivik.

Heneme amekenegben awna
giwnkis: -Ku aysaw kusuvwi
gihiyega wageswiye gikak. Ku
aysaw ig tivikwiye ta givinwat.
Ku ig danuh ta givinwat. Ig tima
digihwa ta givinwate.
Igakis awna: -Kusuvwi gihiyega
kuwis danuh ta givinwat[kis].
Aytohti tiwriktak. Aytohta
uvitkiyavritak. Ariw wahamatak.
Ariw parawhokwatak. Atere ayge
igkis usakwa.

David: Ba inin ku kiney
giyokman?
Emiliano: Kawa! Igwa kusuvwi
ku aysaw ig hamaw.
Igwa kusuvwi ku aysaw ig
humaw.
Ku ig wayk kuwis mataytak.

Now Kusuvwi said to him, Now, splash
into the water!

When he splashed into the water, he
surfaced on the other side.

So then, he climbed up onto Kusuvwi's
boat.

He became a young person again.

Those who were women, they became
young girls.

When he arrives. Like him. Like you.

[If you] come and arrive here, at your
house.

You depart [and then] stay at your
house.

He departs also [and then] remains at
his house.

He departs and remains at his house. He
departs. [points in the cardinal
directions]

But our ancestor's speak these words,
"When Kusuvwi's people circle around
with him. When he goes to his home.
When he arrives at his home. He hears
thunder coming from his house."

They say, Kusuvwi's people have
already arrived at [their] home.

From way upstream [south]. From way
over in the west. From the east. From
the ocean [north]. There, where they
live. [i.e. when you hear the thunder
coming from those directions you know
they have arrived at their homes.]

David: Are you talking about where his
anchor is?

Emiliano: No! That is Kusuvwi,
himself, when he reappears [in the east].
Kusuvwi, himself, when he reappears.

When he has already rained without

Takuwa mataytak. Ahewkemni ig humawhe ta pahambakat. Nikwe igwa isahkis giyokman atere.

Kiyapyad digidgiyad ig keh. Madikte hiyeg awna: -Kuwis kusuvwi minahwa.

Nikwe ku aysaw ig kusuvwi humaw. Ig padak giyokman. Ayteke pisenwa nikwe

David: Ba ik ada pis awna amin giyokman akiw?

Emiliano: Aa! giyokman. Pahat arikna. Pis hiya madikte hiyeg kadahan akebyi nor. Mmahki wis awna arikut parantunka?

David: *Ancora*?

Emiliano: Nor *ancora*.

Nikwe ig kadahan akebyi nor hawata.

Ku aysaw ig humaw pahambakat. Ig padakwa ada kahadmakama nawi msakwa. Kim!

Pahambakatak!

Nikwe ig kiyokmin ginawiya.

Kuri ayteke nikwe ig awna gitkis madikte neras hiyeg ku pariye wageswiye ukak.

Kuri igkis tivik.

Ig awna gitkis: -Tiviknabay pivinwat!

Neg tivik givinwate. Neg tivik givinwate. Ada danuh.

Ku aysaw igkisme amekenegben ay amadga inin maywak Hawata igkis tima digidgiye ayhte tiwrikutak. Nor uvitkiyariktak.

Han mekavrikut. Han wahamarikut.

Amekenegben awna giwn:

stopping.

Tomorrow, without stopping. The next day, he re appears on the other side.

Then, he, himself, drops his anchor there.

He makes huge [loud] thunderings.

All the people say, "Already, Kusuvwi has docked."

So then, when he, Kusuvwi, appears.

He throws his anchor. Afterwards, it is done then.

David: Can you tell me about his anchor again?

Emiliano: Oh! His anchor. One thing.

You see, all people have those [anchors]. What do we call it in Portuguese?

David: *Anchor*?

Emiliano: That *anchor*.

So then, he had one of those also.

When he re-appears on the other side.

He throws [it down] in order for the boat to remain [stationary]. [Fixed!] On the other side.

So then, he anchors his boat.

Now afterwards then, he speaks to all the people who circled around with him.

Then they leave.

He says to them, "Please go home!"

This one goes to his house. That one goes to his house. In order to arrive.

When our ancestors were here on this maywak [earth]. They also heard thunder way upstream. That [thunder] in the west. This way, towards downstream [north]. This way, in the east.

Our ancestors spoke these words,

Kusuvwi kuwis wageswe kuwis.
Kuri hiyegavwu tivikwiyes ada
danuh ta givinwakis.
Inere kuri igkis ihaw.
Humaw digidgiye ayhtohte.
Humaw digidgiye ayteke. Humaw
digidgiye aytekempa.
Awaku igkis wageswiye aka
kusuvwi.
Neras ku pariye wageswiye aka
kusuvwi kuri.
Igkis awna giwn: -Igkis humaw
takwaye akiw. Tino humaw
himano. Awayg kiyaparivwiye.
Amakonukwa. Embe ku avim
inin ig takwaye akiw. Awaku Ig
wageswe aka kusuvwi kuwis.
David: Mmahki inin kiyavwiye?
Emiliano: Nah ka pukuhpa inin.
Nah ka hiyak. Heneme estuwa
gidahankis amekenegben igkis
awna amin inakni.
Ku akak inin kuri ka ik ada nah
kinetihwa pit: -Hanaki. Hanaki.

Kawa! Nah kinetihwa ku samah
igkis kinetihwa amin.
Heneme ku aysaw wixwiw
kinetihwa nawanewa hiyakemniki
amin inere nutuhbe ka tuguh akak
amekenegben gidahankis.
Ininewa estuwa wageska gikak
kusuvwi. Hene amekenegben
kinetihwa amin.

For Kiyavwiye Sarisri, the sound of Kusuvwi's anchor marks the beginning of the season of field-making:

David: Kusuvwi giyokman?³³
Sarisri: Giyokman? Ihi. Kusuvwi
ku ig tivik kuwis

"Kusuvwi has already circled around.
Now his people are departing in order
to arrive at their homes.
Now, that is what they believed.
Thunder sounds way over there.
Thunder sounds on the other side.
Thunder sounds over on this side.
Because they circled around with
Kusuvwi.
Now [about] those who circled around
with Kusuvwi.
They say, "They re-appear young again.
The women become young girls. The
man who yesterday was elderly. Well,
today, he is a young man again.
Because he has already circled around
with Kusuvwi.
David: Why is this, sir?
Emiliano: I do not understand this.
[laughter] I do not know. But our
ancestors' story speaks about this.

At the present time, now, I cannot tell
you, "It was this way. Or it was that
way."

No! I am telling how they spoke about
[Kusuvwi].

But if we speak a different
understanding about this [story]. I think
it will not fall [in line] with our
ancestor's [story].

This is all the story [about] circling
around with Kusuvwi. This is how our
ancestors spoke about it.

David: [And] Kusuvwi's anchor?
Sarisri: His anchor? Yes. When
Kusuvwi has already gone.

Kuri pis tima digidgiye wahamatak. Kuwis ig iki giyokmano	Now you hear thunder coming from the east. He has already put out his anchor.
Giyokman kuwis ayteke. Ig kuwis hamah. Pahambakat.	He has anchored/docked on the other side. He has already [come out in the east]. On the other side.
Nikwe ig digid[giye] hawata. Ig keh digidgiye gihawh.	So [Kusuvwi] also thunders also. He makes powerful thunder [and lightning].
Ba seis horas ig iki hawkanewa. Digidgiye.	Around six o'clock in the morning, he thunders.
Nikwe made hiyeg awna: Kusuvwi kuwis hamah pahambakat. Kuri yuma murok akiw.	So then, all the people say, "Kusuvwi has already come out on the other side. Now there will be no more rain."
Kuri danuh hawkanavrik wasewka.	Now arrives the season of wasewka [field making].
Ya ba ta uwaseswka	"Let us go make our fields."
Nikwe ka aynsima hiyeg ku wasawka kuwis.	So then lots of people begin making their fields already.
Hene igkis kanum inere kusuvwi.	That is what they call that [season] of Kusuvwi.

In order for Kusuwi to pass and then anchor, however, Awahwi the anaconda has to be killed by the Younger Brother, in the Pleiades. The one-legged boat pilot, Mahuwkatye, steers the boat as it turns around – a significant moment in the narrative given that between May and June there is a marked turn in the direction of the Milky Way:

Pupta: Avaneekwa ig huwitene nawiy! ³⁴	Pupta: He is always steering the boat!
Avaneekwa ig wages han.	He always turns around this way.
Pes ayteke atan	He come out here, on the other side.
Adukwnewa ig huwitene aburik nawiy. Ayge ig.	He is always steering at the stern of the boat. He is there.
Lesley: Ke motoristabe?	Lesley: Like a <i>pilot [portuguese]</i> ?
Pupta: Ihi. Kuri pis hiyak. Hene ganivwi.	Pupta: Yes. Now you understand. That was his job.

Mahuwkatye's rather rough life history on the earth is the subject of a detailed narrative that space does not allow for here³⁵, but which is one of the most

widespread narratives in Amazonian anthropology. A short version is told by Ishawet:

<p>Ishawet: [...] nor Mahuwkatye.³⁶</p> <p>Negnewa. Awaku igkis pituke gihuw.</p> <p>Awaku ig wagehpiye han. Kuri ig havise yakot tah.</p> <p>Kuri igkis ganigvig sumuhe gibagwanminat ada putuk inere Neg ku Mahuwkatye biyuke. Kuri ig ay aynte inut giburik Kusuvwi. Giburik Kusuvwi ig msakwa.</p>	<p>Ishawet: [...] about Mahuwkatye [One-Thigh, or The Thighless One, the pilot of Kusuvwi's boat].</p> <p>Only him. Because [his in-laws] pulled off his leg at the thigh.</p> <p>Because [Mahuwkatye] began climbing this way [up to the sky] where he had shot an arrow.³⁷</p> <p>Now his in-laws grabbed on to his leg in order to pull it off.</p> <p>That is [the leg] that Mahuwkatye lost.</p> <p>Now he is way up there at the stern of Kusuvwi's boat. He stays [there] as the servant/slave of Kusuvwi.</p>
---	--

The drama is one of the most familiar in scholarship from the region, even if the actors have different names. Of all the *dramatis personae* in the narratives along the Urucauá, however, it is Awahwi that emerges as a cosmic predator who was overcome, and whose defeat enabled the world to head back to Kayeb as the source of the rain in the December solstice.³⁸ References to the significance of this part of the sky are plentiful in Amerindian literature, though none in *lowland* South America refer to the crossing of the Sun's Path and the World's River – the meeting of the ecliptic and the galactic plane. Gary Urton's (1981) account of this structure of astronomy in the Andes is the closest to this account.

The battle with Awahwi is hinted at in the account given by Levi-Strauss, who notes that “[a]ccording to the Kalina, there were two successive constellations of the Pleiades. The first was swallowed up by a snake. Another snake pursues the second constellation and rises in the east as the constellation is setting in the west. Time will come to an end when the snake catches up with the constellation” (Levi-Strauss 1973:269).³⁹ The stories, then, appear to be regional, and the similarity of Kaliña (Carib) and Palikur (Arawak) accounts indicate that this astronomy is not limited to cultural borderlines.

The point is underscored in this interview with Kiyavwiye Uwet, who talks about the dances performed at this time of year in Galibi-Marworno settlements in the region (Vidal 2007:13). These he learned from his grandfather, Guillaume or Buyomin who was born on the Arukwa river. Kiyavwiye Buyomin was an *ihamwi* (a shaman) who was living on Mawihgi Island when Curt Nimuendajú conducted his research in the early 1920s. Buyomin did, however,

spend some time working in French Guiana. He had strong enough relationships with people from the other rivers to learn the festival songs in kheuol (patoá) and invite their shaman to his house on Mawihgi.

Uwet: Neg ... igkis kanum
Awahwi.⁴⁰

Awaku ig kadahan mpana gitew.
Paha gitew. Paha gitew. Paha
gitew.

Igi Awahwi igkis kanumgi ...
awaku neg datka ... igkis
kanumgi Gahawkri Gahawkri.
Awahwi.

Hawkri Gahawkri.

Neku datka igkis kanum Awahwi.
Igis kanumgi hawata Wakayune.

Wakayune ig. Wakar Gahawkri.

Uwet: They call him Awahwi.

Because he has three heads.
One head. One head. One head.
[pointing to heads on carving]
They call him Awahwi ... because this
anaconda ... they call him the
Grandfather of Grandfathers. Awahwi.

The Grandfather of the Day or World.
[Or: The Source of the Day World].
This anaconda they call him, Awahwi.
They also call him a Wakar [White
Egret] person.

He is a white egret person. The
Grandfather of White Egrets.



Figure 11 Awahwi, as carved by Kiyavwiye Uwet. (Image: David Green)



Figure 12 Detail of Awahwi. (Image: David Green)

Kiyavwiye Uwet's carving of Awahwi was something that gave him much pleasure as he recounted how Buyomin had carved the same three-headed anaconda as a bench for the annual Turé dance. Like the other star anacondas, Awahwi is an amphibious creature that can ingest whole bodies. The encounter with Awahwi, in times past, was a prominent annual festival. David's field notes of July 2008 bear this out:

Kusuvwi eggutye is swallowed by Awahwi. Both constellations are "*avikut warik Avatakni Hawkri*", i.e. in the river [Milky Way] at the joining seam of the world or the end of the world. Awahwi is killed by Kusuvwi Isamwitye, but Awahwi's body does not rot -- one reason it is still visible.

Awahwi is a huge anaconda. *Amekenegben awna* "Awahwi gayeri mataka hawkri": The ancestors say, "Awahwi is the size of the world." A shaman summons Awahwi's spirit by making his image on a wooden bench, "*gahempak epti*", for Awahwi to enter. He says "*Batamnika adahan inereka epti*". "It is the sitting song for that bench."

The minor constellation in the drama of Kusuvwi is that of the Seagull, who plays a small but significant role in several stories. From Kiyavwiye João Felício's

account:

David: Ba wanawna ginawiya?
Mmah hene?⁴¹

João: Ihi. Wanawna eg.
Igwa ihamwi kinetihwa gumin ku
egu nopsehsa umuhminsa.
Ku samah egu tuboh unihkwat.
Tapoh!
Nor gutew pakiwkig. Guhanbi
pakiwkig.

Igkis awna: -Nawiy! Kusuvwi
gixallopa! Kanumka.
Kusuvwi ginawiya nopsehsa inere
ada waxrene hiyeg amadgat ta
ihapka. Egu wanawna.
Kuri ku aka inin nor wanawna ku
amaramne ay.
Ka ayhsima parawhokew aka inin.

David: Ba minikwak kadahan
kayka amin wanawna?
João: Igkis ka kay amin nor. Heme
igkis paksig.

Igkis paksig ku samah wanawna ku
samah eg kusuvwi gimun
nopsehsanye ada waxrene hiyeg ta
ihapkat.
Igkis kanum guw. Igkis paksig.

David: Hawata ku aysaw ig danuh
pis awna ig ka hiya givin. Ku
aysaw ig '*pisou na terra*' ig hiya
ahin.

João: Ya. Ig amekene.
Ku aysaw ig danuh ihapkat ig ka
hiyak givinekut.
Ig aya nerras ku giwaxretni atere.
Amadga wanawna. Nopsehsa

David: Is the seagull his boat? Is it
true?

João: Yes. She, the wanawna [seagull].
The shaman, himself, spoke about her,
that she was a tiny, little canoe.
Because of how she splashes into the
water. Splash!
Her head flattens out. Her wings
flatten out. [João demonstrates as if the
bird is transforming into a canoe.]
They say, "A boat! Kusuvwi's rowboat
[skiff]! It is called."

Kusuvwi's small boat that transports
the people onboard to the shore. She,
the seagull.

Now, at the present time, those
seagulls that fly around here.
So many, are at the ocean, at this
[present time].

David: Long ago, was there a dance
about the seagull?

João: They did not dance about the
[seagull], but they did sing a song
about it.

They sang about how the seagull was
Kusuvwi's little boat that transported
people to the shore.

They called out her name. They sang
it.

David: Also when he arrived, you said,
he did not see his home. That when he
'*stepped on the land*', he saw the path.

João: Yes. He, our ancestor.
When he arrived at the shore, he did
not see his way home.
He asked those who brought him,
there. Onboard the seagull. The tiny,

nawiyesa.	little boat.
-Kineyki nighuh givin ay?	"Where is my father's house, here?"
Ig awna giwn: -Pig givin nor ay.	He spoke, "Your father's house is that one, here." [pointing]
-Mmahni nah ka hiya?	"Why can I not see it?"
Ig awna: -Asa subuk amadga wayk!	He said, "Go ahead and step onto the land!"
[Eg puwah?] ta ihapkat.	[She paddled?] to the shore.
Nopsehsa nawiy. Wanawna nopsehsa.	A little boat. A little seagull.
[Eg danuh] ayhte ihapka.	[She arrived] over at the shore.
-Pasa subuh ta waykwit!	"Go ahead and step onto the land!"
Ig subuhwa. Pahaye ig hiya ahin tarahad.	He stepped down. Suddenly, he saw a path stretching out.
Ig hiya gig givin kenese.	He saw his father's house close-by.

**Wayam, the Land Tortoise:
The Fifth Rain and the beginning of the dry season (July-August)**

Wayam, the land tortoise and the trickster, can be seen under his tucumã palm tree in the dry season. Wayam's rain is light, "because Wayam can only hold a little water", and tends to be accompanied by low rumbles that sound like a land tortoise slowly dragging himself along a path. Ironically, the trickster was the most difficult to identify. In 2005, two men from Amomni Island identified Casseiochia as Wayam. But Casseiochia is visible at dawn in October, on the horizon at the northern end of the Milk Way, but no one else confirmed this as Wayam.

At the time of David's departure at the beginning of the dry season in July 2008, Wayam was not visible in the dawn sky. With much hesitation, Uwet finally identified Wayam while looking at Starry Night Pro on a laptop computer, as a combination of the Constellations Vela and Carina. Yet, Uwet's eyes are not good, and it is always difficult to translate the flat screen into the turning dome of the night sky. If he is correct, Wayam's head is in the space around the stars Omicron Velorum and Delta Velorum, and Wayam's left foot is near Kappa Velorum, and his right foot near the star called Avior. Smaller stars, slightly lower than the two feet, mark the presence of Wayam's body. Near Wayam, there are two stars which represent *waratwi* (tucumã palm trees), whose palm fruit the land

tortoises love to eat. When rising in the southeast, the star above Wayam's head is Suhail al Muhlif and the star below Wayam's body is Miaplacidus.

However, this constellation only rises in the southeast in September and October, a month or two later than traditional oral accounts of Wayam's rising. If indeed Uwet was slightly mistaken in his identifications, it is possible that the bright stars of Sirius and Canopus are the tucumã palms bordering Wayam, thus falling in line with oral tradition and the principles we are proposing for astronomy along the Urucauá.

It would appear that, unlike the Bororo tortoise constellations noted by Fabian in the region of Corvus (Fabian 1992:135), Wayam and his palm tree rise quite far south in the eastern sky. Since they are so far south, they move more slowly than the stars in the centre of the sky. The tortoise and his palm tree mark the path of the Milky Way at a place of the galactic arm when it is not too bright, so they play an important part in marking the course of the World's River at a time when it is turning. They also mark the point in the sky when, in late October, the hand of Kayeb (the Crux or Southern Cross) reappears after going underground to get the tortoise.



Figure 13: Kiyavwiye Uwet's carving of Wayam (*Image: David Green*)

With the observation of Wayam it becomes clear that all the major constellations are on the World's River, with the exception of Uwakti (in Pegasus), although it could be argued that Uwakti marks a mid-point between the World's River and the Sun's Path.

There are dozens of trickster tales about Wayam. Their number is almost certainly bolstered by similar West African tales that have travelled to this region since the earliest African slaves arrived in the region in the early 1600s, and by the few runaway slaves who found a home in Palikur families. Despite the popularity of the Wayam tales – often ribald – there are not many stories about the stellar Wayam. Narrative comments focus mostly on seasonal changes associated with the Wayam, particularly that the Wayam is the last rain of the year.

Ishawet: Egme wayam butitye.⁴²

Wayam ku wasewkaneku.

Ku was made ihukaki. Kuri
wayam metakwa wayk.
Kuri wayk amadga woharit.
Amadga ini avew. Wayam.

Eg yuma muwok akiw.
Amakseviten wayam

Ishawet: She, Wayam [the tortoise], is behind. [last].

Wayam is during the field clearing time.

When the fields are all cut down [cleared]. Now finally Wayam rains. Now it rains while we are getting the fields ready to burn. During this the Wayam is above.

After her there is no more rain. Wayam is the last one.

Emiliano: Wayam eg hawata.⁴³

Wayam hawata wayk aharit
agosto. Wayam wayk.
Heneme ka aritkamnema. Ka
kadahan estuwa gudahan kiyesrad.
Ininewa ku aysaw eg wayk.
Amekenegben awna ku aysaw eg
wayk eg digihwa.
Mmaki eg digihwa ay?
Igkis awna: -Bawkata egu
wayweyh. Inakni: Dara! Dara!
Dara!
Wayam waykno. Wayam digihwa
ka aynsima.
Ininewa estuwa gudahan wayam

Emiliano: Wayam, she also.

Wayam also rains during August.

Wayam rains.

But it is not a big thing. She does not have a [long] sized story.

Just that when she rains.

Our ancestors say that when she rains she thunders.

“Why does she thunder here?”

They say, “Because she is walking along. That [imitating the sound as “dara”]. Rumble! Rumble! Rumble!

The Wayam rains. The Wayam thunders so much!

That is all the story there is about the

inere.

David: Nah tima hawata ku aysaw igkis wages wayam. Ku aysaw pis tima digidgiye. Ba ik ada pis awna amin?

Emiliano: Amekenegben awna giwnkis: -Ku aysaw wayam wayk. Eg ewk muwok hawata. Wayk pahay hawkri. Heme eg ewk digidgiye ka aynsima.

-Mmahki?

Nah aya kiyavwiyegben: -Mmahki eg ewk digidgiye ka aynsima?

Mmah eg digidgiye gahawkri?

-Kawa! Igkis awna: Kawa.

Ku aysaw eg wew. Wew! Wew!

Dara! Dara!

Inere kuri digihwa ka aynsima.

Bawkata eg wayweyh. Eg

tivikwiye ada wageswiye.

Inere estuwa gudahan wayam.

Wayam.

David: I also heard that when they turn [over] the Wayam. That is when you hear thunder. Can you talk about this?

Emiliano: Our ancestor's say, "When Wayam rains, she brings rain also. It rains for one day. But she brings so much thunder!"

"Why?"

I asked the elders, "Why does she bring so much thunder? Is she the Grandmother of All Thunder?"

"No!" They say, "No."

When she walks. Walks! Walks!

Rumble! Rumble!

That then, it thunders so much! But she is walking along. She goes along in order to circle around.

That is the Wayam's story.

Uwet describes Wayam and her thunder.⁴⁴

Aharit 'julho' kuri aytwe wayam.

Wayame. Wayame hiyara.

Wayam kadahan hawata.

Wayam kadahan pikatna waratwi.

Pahat waratwi aytekene. Pahat waratwi butak. Gumana.

Kuri lawe eg wayk. Eg waykse muwok.

Eg hiyara. Eg hiyara ka aynsima.

Eg keh: -Hah. Hah. Hah.

-Nah keh mayg. Kaba [aynsima] mayg nah keh!

-Nah keh digidgiye!

Embe henewa.

Around 'July', then the Wayam [the Land Tortoise arrives.

It is the Wayam's [season]. Wayam laughs.

The Wayam also has [stars].

The Wayam has two waratwi palm trees.

One waratwi palm in front. One waratwi palm behind. Her food.

Now she rains. She brings rain to the earth.

She laughs. She laughs alot.

She goes, "Ha. Ha. Ha."

"I make wind. I make lots of wind."

"I make thunder".

It is true.

Lawe, eg wayk. Eg wayk. Eg wayk.

Eg keh uguhguh [kariy peh]!

Digidgiye. Kiyapyad digidgiyad, Doh!

Nahawkri Buyomin awna: - Wayam [piyukwiyo?].

Ba tima guman?

Gumar. Gumar. Ku samah eg wagesne. Gumar ta avit tip.

Guman gumar avit tip.

Embe nikwe abet inin kayg, eg [kanve?].

Juktah pisenwa was uhukwaki.

Eg kaba mbaya was uhukwat aka muwok.

Atere no waykad made 'setem'.

Amadga 'setem' neku. Aharit 'out' neku

Gudahan arawka. Yuma akiw.

Atere! Barewye estuwa in.

So, she rains. She rains. She rains.

She makes lightning [across the grasslands]!

Thunder. Huge thunder. Boom!

My grandfather Buyomin said, "The Tortoise is [turning over on her back]."

Have you heard her sound?

Her shell. Her shell. When she turns over. Her shell on a rock.

Her sound is her shell on a rock.

So during this month, she [lays eggs].

Until the [manioc] fields have been cut down.

She almost ruins the field clearing time with rain.

She rains all the way until 'September'.

In 'September'. Around 'October'

Her drying up season. There is no more. That is the end [of the story]. It is a beautiful story.

Kiyavwiye Sarisri makes a connection between the stellar Wayam and the terrestrial trickster:

Lesley: Aysaw Wayam?⁴⁵

Sarisri: Wayam kuwewanek aharit nutuhbe ... Julho.

Wayam wayk, wayk arikna.

Arikna ig wayk.

Ik ada hiyeg kaba ka ik ada keh was awaku wayam.

[...]

David: Digidgiye?

Sarisri: Ya. Inyerwa wayam keh hene.

Lesley: When is Wayam [the Land Tortoise]?

Sarisri: Wayam is later, I believe, around July.

Wayam rains. Rains [some water]. [A fair amount of water], he rains.

It is possible ... that people are almost not able to make [manioc] fields because of Wayam.

[...]

David: [And] lightning?

Sarisri: Yes, it is true. Wayam makes it.

Ba pis hiyak digidgiye ku akak
inin?
Wayam ganip.
Mpuse danuh avim inin kayg
julho. Ka aynsima digidgiye. Ka
aynsima murok heme ka iki un.

Kuri ada makere un made.

Ka avayvu. [or: ka aravusima]
Hene wayam gudahan.

Have you seen the lightning, at the
present time?
It is Wayam's [mischievous] doing.
Everytime the month of July arrives,
[there is] lots of lightning. Lots of rain
[which threatens] but it does not give
up its water.
Now [begins the time] that all the water
dries up.
It does not help [flood the grasslands],
[or, "it gets very dry."] That is how the
Wayam [rains are].

The long dry season is characterised by a dark sky at dawn, when the World's River (Milky Way) is not lying in the eastern horizon at dawn, until the rising of Kayeb once again in late December. In that time, Wayam plods across the southern axis of the sky at around the 60° celestial marker, along which Southern Cross (Crux) will reappear in late October.

Uwakti: [Kuwewanek] wages
ayteke.⁴⁶
Pis hiyak mmahni wayam
tivikwiye? Han manuke eg.

Eg keh digidgiye
Keh uguhne. Keh tut arikna.
Muhuke. Tivik.

Eg pes. Eg wages. Kuwis eg
ahegbet ayteke. Eg ta imamna
digiswaki. Eg kahayak kuwis.

Eg keh novena digiswayye

Digis kabay. Eg araw. Nikwene eg
kahayak.

Uwakti: [Later Wayam] comes up on
the other side. [East]
Do you know how the wayam leaves?
She crosses this way. [Uwakti points
west]
She makes thunder.
She makes lightning. She makes all
kinds of these. She crosses. She
leaves.
She comes out. She turns around. She
is already on the other side. She chants
[to call forth] the flooding. She is
visible again.
She makes that flooding. [the last
rains before dry season begins]
It floods well. [or rains well] She dries
up. Then [Wayam] is visible.

Kiyavwiye Uwakti's account here moves to mention yet another constellation, the Macaw, associated with Kayeb, which suggests that many more constellations play a minor role in these kinds of accounts. This would be consonant with the range of constellations noted by Jara (2005), Magaña (2005) and S. Hugh-Jones

(1982).

Kiyavwiye Balaweh's account focuses on the word for "Wayam" in the elder's language of respect, or kiyavunka. Speaking of "Tuwatye" in the following account recorded in Kumenê in 2003, he was teaching a group of women and men the song of Tuwatye, with his characteristic reverent humour. Note that the reference to the constellation is understood as implicit by his audience, who are clearly unfamiliar with the song and the dance.

Balaweh: Ive kuri! Nah pak
pahatuwa avat.⁴⁷
Amadga inin. Gidahan tah
minikwak!
Neg tuwatye!

Ba pis hiyak ku tuwatye yis made
ay?
Pis hiyak ig tuwatye?

Madikte norras hiyak tuwatye

Made ba pis hiyak tuwatye?

Mmah? Pariye? Asa awna. Pis
awna wayam.

Pariye tuwatye?!
Pahavwi awna: -Wayam?
Balaweh: Ihi.
Egu tuwatyo eg usakwa ahavriku.

Egwa usakwa [huwigi?]

Pariye gumana ay? Kuwewa egu
wagesye.
Ihi. Pikatna akebyi. Kahambar
akak waratwi.

Kuwewa wageswe.
Egu kewyo Tuwatyo.
Tuwatavyo eg.

Balaweh: Observe now! I will sing a
song!
On this. [About this]. [Our ancestor's
song] from long ago!
That one, Tuwatye! [the gentle,
humble land tortoise]
Do all of you know who Tuwatye is?

Do you know him, Tuwatye?
[Questioning the men]
All those [women] know Tuwatye.
[pointing towards women]
All of you, do you know who is
Tuwatye? [Questions women again]
What? Go ahead and speak. [laughter]
You should say, Wayam [the land
tortoise]. [gives answer away]
What is Tuwatye?!
One man speaks, "Wayam?"
Balaweh: Yes.
She, Tuwatyo, she lives in the deep
forest. [He switches to the feminine
form.]
She lives [crawling on the forest
floor?].
What is her food? Later, she will
circle around.
Yes. There are two of them. The
taperebá [fruit] and the *tucumã* [palm
fruit]
Later, they will come around.
She is called, Tuwatyo.
She is gentle. [humble].

Kuri neg ukebyi ayepkepkere gavan
ku samah eg wageswe.

Pis timamni? Ba hene?

Pis? Ya pis? Yuma pahatnema?
Pis tima? Yuma kiyavunogben
tima?

Kuri uyay pak payak. Wowhni
payak.

-Nahah po iwah. Nah poh iwah.

*Wayama kaptenayh. Wayama
kaptenayh.*

*Kah ih pah ayhwo. Kah ih pah
ayhwo.. [...]*

Mmah hiya? Ba hiyak ku samah?
Henewa in!

Egu [awna]: *-Nahwane kapten nah!*

-Nah ahavrikutyene nah usakwa

Amekenemni nor mmahba giw nor
[Alifonsmin]. Ig pak inere.

...

Ignes pakne inakni avat.

Minikwak igkis pakni inakni avat.

Ine tinwo awaku amawka wixwiw

... kadni ka biyuk.

Now he, our relative [David], has
requested the song [that is sung] when
she circles around.

You have heard it? Is that true?

[points to men]

You? And you? Not one of you?!

Have you heard it? Have none of you
women heard it?

Now, let us sing all together. [Singing]
our words at the same time.

[in kiyaptunka] *-Nahah po iwah. Nah
poh iwah.*

*I, Wayam, am the Captain. I, Wayam,
am the Captain.*

[in kiyaptunka] *Kah ih pah ayhwo.
Kah ih pah ayhwo.. [...]*

Do you see? Do you [now] know how
it goes? That is it!

She [said], "I, myself, am *captain*!"

"I am the forest dweller [where] I
remain."

Our ancestor ... what is his name?

That [Alifonsmin?]. He sang that
[song].

...

They sang that song.

Long ago, they sang that song.

That is why we are silent

[contemplative?] because we should

... our sorrow has not been forgotten.

Kiyavwiye Balaweh's lesson, given with some sadness, and the great sorrow he expresses at the loss of the dances and the presence of the stars and the elders' language of respect, are an appropriate moment with which to end this curation of extracts from the cycle of constellation stories. Kiyavunka, the language of respect of the elders, and kiyaptunka, the ceremonial language of the shamans, are barely spoken now in Arukwa. For elders like Kiyavwiye Balaweh and Kiyavwiye Ishawet, the time in which they were spoken was a time of beautiful words when the interrelations of people, landforms, waves, stars,

animals and spirit creatures were brought into being. Such a language and a way of speaking that approaches what Bruno Latour describes in his essay that addresses the dualism of knowledge and belief: a language not of *information*, but a language of *transformation*: the language of relationships (Latour 2010). Such an approach offers a path toward thinking about the anthropological translations that make up the field of ethnoastronomy.

PUTTING THE STORIES TOGETHER: THE WORLD'S RIVER, THE RAINSTARS AND THE PATH OF THE SUN

The accounts given here work with four major referents that make up a set of interrelated and moving celestial markers:

1. The circle of the horizon;
2. The arc of the sun from east through zenith to west to nadir, through the upper and underworlds, together with a clear understanding of the shifting angle of that arc;
3. The circular course of the World's River around the earth; and
4. The sequential arrival of the rain star constellations.

Knowing these four, and their interrelatedness, one can predict star positions and rainy seasons fairly accurately. It also begins to explain why the June and December solstices are so significant: it is on these dates that the plane of the ecliptic crosses the galactic plane, giving the appearance of having crossed over. However, that these narratives and their principles can be translated into equivalents in the language of astronomy does not mean that such a translation offers an adequate account of the particular "nature" in this material.

In the following conversation, recorded at night in July 2008, Kiyavwiye Uwet explains to David how the World's River turns in the course of the year. Notice particularly the way in which he uses the word *wages* (pronounced *wuh-GESS*), which means to turn, swirl, or circle. The word *wages* can also mean to change one's bodily form, as in when a shaman's body transforms into a different creature such as a jaguar.

Uwet: Nor warik.

Igkis Kiyavwiyegeben kanum nor
warik hawkri gidahan giwakun.

Hawkri awakun. Nor warik.

Nor warik waxreyene nor Kayeb.

Uwet: That river.

They, the elders, called that world river,
"the world's edge" [*or*: limits; borders;
channel. Could mean "the contained,
passageway of water."] The world's
border [*or* edge or limits]. That river.

That river conveys Kayeb.

Nor warik pitatye usakwa ayteke.
Kuwewa ugestaw. Ugestaw!

Juktah eg kamaxrene Kayeb.
Eg kamaxrene Kayeb nikwene.
Kayeb tivik payak gikak.
Kuri egnewa kamaxrene akiw.
Tavara akiw.
Tavara avikuw nor warik.
Awaku nor warik igkis kanum
warik nor warik.
Ineki keh Kayeb wade gavikuw
awaku ig datka!

Ig usakwa wade avikuw nor
warik.
Ig tavara hawata wade avikuwata
nor warik
Ada ig kamaxne ke ikarbe gimana
ku pariye ig kadahan.
Amekene kanum nor ... ka
hawkrima avatakni. Igkis kanum
nor warik. Warikuwa eg!

Heme nor warik ka aynema
amadgama inin.
Nor warik ku Uhokri keh nor
warik. Ayhte inut.
Gidahan nerras ku pariye ...
gidahan Kayeb.
Gidahan Tavara. Gidahan Uwakti.

Gidahan Kusuvwi egutye.
Gidahan Kusuvwi isamwitye.

Eg waxrene Kayeb han. Ku eg
waxrene Kayeb han kuri nikwe.

Kuri eg waxrene Tavara. Tavara
mekeke bute.
Kuri ku Tavara wade amadga inin

At first, the river is over on this side.
Later, it circles around. It circles
[moves] around!
Until it takes hold of Kayeb.
It holds on to Kayeb then.
Kayeb goes, together, with it.
Then it also holds on to more again.
Tavara again.
Tavara [the Kingfisher] is in the river.
Because that river ... they call that river
a 'river'.
That is why Kayeb is right in the middle
[of the river] because he is an
anaconda!
He remains right in the middle of that
river.
He, Tavara, also is right in the middle
of the same river.
So that he can catch *ikar* fish, which is
his food that he has [eats].
Our ancestors called that ... not the
Edge [or seam] of the World [as
Emiliano called it]. They call it a river.
She is a river.
But that river is not here, in this world.

That river, Uhokri [God] made that
river. Way up above.
It belongs to those who ... it belongs to
Kayeb.
It belongs to Tavara. It belongs to
Uwakti.
It belongs to Kusuvwi the Older
Brother. It belongs to Kusuvwi the
Younger Brother.
She [the World's River] conveys
Kayeb, this way. When she conveys
Kayeb, this way, now then ...
Then she conveys Tavara. Tavara
follows along closely behind.
Now when Tavara is right in the middle

kuwisa. Uwakti inute ayteke.

Eg waxre Uwakti.

Lawe Uwakti wade amadga inin
igta Kusuvwi kahayak.

Lawe Kusuvwi kahayak ayteke
kuwisa kuri made hiyeg hiyakri.
Kuri Kusuvwi inutad kuwis.

Hiyeg awna: -Kuwis Kusuvwi
inutad. Warik kuwis waxrevye.
Iwevri ta inere [Kusuvwi
isamwitye inutak?]

-Mmah hene?

-Ya. Ig ay aviku nor warik.

Ineki keh igkis ka ikise nor warik.

Ineki keh Kayeb aviku nor warik.

Tavara akigbimne warik.

Avikuwata warik.

Kusuvwi avikuwata warik.

Avikuw pahatenwa warik igkis
mpiya!

Lawe igkis ugeswakis igkis
ugeswekis aviku pahatrawa warik.
Kayeb ugeswe. Ig ugeswe han.

Ig pituke. Ig waykse muwok.

Kuri Tavara bute. Gihavu.

Lawe ig ugeswa han. Nor warik
ugeswe gikak han.

Eg tivik akigbimne.

Lawe ig pituke ig waykse muwok.
Ineki keh igkis kanumka: -Nor
warik Tavara giwakunkis. Kayeb
giwakunkis. Kusuvwi iwakun.
Kusuvwi mpiya avikuwata ig
mpiya.

Kusuvwi egutye mpiya ouvrewata
avikwata.

of this, already. Uwakti comes up, over
on that side.

She conveys Uwakti.

When Uwakti is right in the middle of
this, then Kusuvwi is visible.

When Kusuvwi is visible, on that side,
already, then all the people know it.

Now, Kusuvwi is high up above,
already.

The people say, "Kusuvwi is high up
above! The river has already brought
him. Bringing him to that [Kusuvwi the
Younger brother who rises up?]

"Is that so?"

"Yes. He is here, in the river."

That is why they do not leave the river.

That is why Kayeb is in the river.

Tavara is on the edge of the river. Right
in the river.

Kusuvwi is right in the river.

In [the same] one river, they pass by!

When they circle around, they circle
around in the one river.

Kayeb circles around. He circles, this
way.

He sets. He causes rain to fall.

Then Tavara is behind. With him.

When he has circled around, this way.

The river circles around with him, this
way.

It goes along [with him on] the edge [or
bank] of it.

When he sets he causes rain to fall.

That is why they call it, "That river is

Tavara's channel Kayeb's channel.

Kusuvwi's channel.

Kusuvwi passes by in the same [river],
he passes by.

Kusuvwi The Older Brother passes
through the same [river].

Kusuvwi isamwitye mpiya
ouvrewata avikwata.
Juk Wayam butitiye uhawkanek
Wayam mpiya ouvrewata
avikwata.

Egu pahatenwa warik gidahankis.

Gidahankis peheten ahin
gidahankis.

Ineki keh nor Kayeb giwak ...
Takehpene usakwa wade gavikuw
nor warik.

Kayeb usakwa aywata gavikuw.

Tavara usakwa aywata gavikuw.

Awaku pahatuwa giwakunkis.
Igkis mpiya.

Ku ini warik yumate. Tavara kote
inut

Kayeb kote inute.

-Ba yis kote kahayak? Warik
ayhte!

-Eg kote kahayakte.

Ku aysaw eg ugestaw. Eg iwevun
nikwe.

Kuri inute. Kayeb inute avikuhpi.

Tavara inute avikuhpi. Uwakti
inute avikuhpi.

Kusuvwi inute avikuhpi.
Isamwitye inute avikuhpi.

Awaku pahatuwa warik
gidahankis!

Pahatuwa warik!

Ke usuhbe warikmo. Usuh
kadahan pahatuwa warik ada usuh
ta uyapkunka avikuw pahatuwa
warik.

Kusuvwi The Younger Brother passes
through the same [river].
Until Wayam, the last [rainy] season,
Wayam passes through the same [river].

She is the one and only river that they
travel on.

It is one path that belongs to them.

That is why Kayeb's hand ... the Poling
Stars remain right in the middle of the
river.

Kayeb remains, right here, in [the
river].

Tavara remains, right here, in [the
river].

Because there is one channel [for them].
They pass by.

If this river is not here. Tavara will not
yet be up.

Kayeb will not yet be up.

"Do you not see it yet? The river over
there!"

"She is not yet visible."

When she circles around, she will bring
them then.

Now rising up. Kayeb rises up moving
along the middle of it.

Tavara rises up moving along the
middle of it. Uwakti rises up moving
along the middle of it.

Kusuvwi rises moving along the middle
of it. The Younger Brother rises moving
along the middle of it.

Because there is only one river for
them!

One river!

Like us, when we are by [our] river. We
have one river for us to go to Oiapoque,
through one river.

Embe henewa gidahankis ay kuri.	So it is, with theirs, here now.
<i>Xak</i> gidahankis pase danuh	For each one of them, because when
hawkanavrikis neku. Igkis waykse	their seasons arrive, they cause rain to
muwok.	fall.
Kayeb waykse muwok lawe ig	Kayeb causes rain to fall, when he is
pitukwene.	setting.
Uhawka Tavara. Lawe Tavara	[Then] Tavara's season. When Tavara
danuh.	arrives.
Danuh gihawkan neku. Ayhte	His season arrives. Way below, he
waykwit neku ig waykse muwok.	causes rain to fall. So much rain, he
Ka ayhsima muwok ig wayksene.	causes to fall.
Ig pituke. Ig pituke aka muwok.	He sets. He sets with rain.

In the nature that is made and made known by the sciences, the World's River appears so irregular because the Milky Way (or World's River) lies at 60° to the plane of the ecliptic, which is the movement of the earth around the sun. In this model, conceptualising the movement of the Milky Way is not easy given its apparently irregular curves in the course of each year. By contrast, Amerindian cosmologies draw instead on familiar kinds of movement to offer an aide memoire. The idea of a "celestial river" is widely known in regional ethnography, and is well accounted for in the celestial river diagram drawn by a Barasana shaman in dialogue with Stephen Hugh-Jones (S. Hugh-Jones 1982:187). That image depicts the "Star Path" or "Anaconda Path" as having two major twists in it, much as one would see the Milky Way twisting from one side of the sky to the other in the course of the year. Certainly, remembering its movements is quite similar to committing to memory the twists and turns of a river or a shoreline.

Like Barasana astronomy, the major constellations in the Palikur accounts offered here are along the river in the sky. Further similarities with Kiyavwiye Uwet's explanations and Barasana models and ideas are apparent in the work of Christine Hugh-Jones, particularly with the emphasis on an Earth River and its anacondas (C. Hugh-Jones 1979:238). Although social life along the Rio Urucauá has little resemblance to longhouses, her comparison of movable axes such as bodies, anacondas, and wombs with referents fixed in everyday life (respectively, house, longhouse, and universe) is valuable because it demonstrates a means of analysis – the tools with which to think, as it were – that are not the static axes and forms of Archimedean and Platonic solids, but geometries that are applicable to movement. Pathways, flows, tracks, arcs, writhing, swimming, whirling, falling and coursing provide the three-dimensional dynamic conceptual forms that explain this Amerindian night sky. Such forms of dynamic abstraction are very

different to the kinds of plane-based Cartesian geometries that are more familiar in Euro-American disciplines.

In making the Palikur star stories comprehensible to the information society, the risk is that one focuses solely on the information that they contain – and in so doing, the risk is a reduction of a very different cosmos to the kind of nature known in the discipline of astronomy. Taking a lead, again, from Eduardo Viveiros de Castro, the question has to be *what of the untranslatables?*

At risk of taking too great a leap with the material, it seems that Kiyavwiye Balaweh's great sorrow in speaking of matters of the sky in the old language of kiyavunka, too, attends to the untranslatables. He was not alone: not a few of the elders spoke with sorrow, and some with tears, of the loss of matters astronomical in the everyday. One of these was Kiyavwiye Ishawet, who with his wife Kiyavunoh Puhta had wept in singing some of the songs for us in 2003. In a recording made at the foot of Karumna Mountain in Arukwa in 2001, Kiyavwiye Ishawet had broken into what could only be described as an exultant joy as he explained the structure of the cosmos with the levels of the sky, earth and underworld. Significantly, like Kiyavwiye Balaweh, he linked speaking of matters cosmological with the old languages, kiyaptunka and kiyavunka, and lamented the ways in which contemporary everyday speech has lost its attentiveness to relationalities and respectfulness between people, spirit creatures, animals, and landforms.

Ishawet: Minikwak. Pitatye
gidahankis. Nah ka hiyak ku
samah. Sema butyevwiye hiyeg
kuri humaw maywak.⁴⁸

Kadahan maywak. Kadahan
wayhpi. Ayhte anaptak.
Wayhpiyene hiyeg ayhte waykwi.

Udahanwiy amadga inin. Maywak
inin.

Kuri ariwntak inin maywak ...
inurik.
Ariwntak inurik ... nor ... inukri.

Kuri ariwntak inukri ... mayrap.
Amaksevwiy.

Ishawet: Long ago. The first [peoples]
had their own [word for this earth]. I
do not know what it was. But for the
later people now, it has come to be
called Maywak.

There is Maywak [earth]. There is
Wayhpi [the underworld]. Way
underneath. The Wayhpiyene people
[live] under the ground.

Our [place] is on this [earth]. This
Maywak.

Now above Maywak [earth] is ...
Inurik. [first sky layer/ heaven]
Above Inurik is ... Inukri. [second sky
layer; heaven]

Now above Inukri is ... Mayrap.
[That is the] end [limit] of the [sky /
heaven].

Awaku kiyavwiye keh inin madikte
udahan. Hiyeg.
Gikamkayhvuiy. Ka ayhsima
hiyeg.
Mpuse inere iwedrigit.

Ku ka henenme wis msakwa
amadga pahayku
Amadga pahaykunin nikwene ka
pisenwa gidahankis!

Ba ayesri hiyeg.
Ineki ig[kis?] keh mpanabu en
ayhte inut
Paxkabu avuh ini. Avuhpiye ta
waykwit. Wayhpiye.

...
Minikwak ig aynewa ig.

Ineki keh ku amekenegben awna
kiyaptunka.

Igkis awna kiyavunka.

Igkis awna arakembet
Igkis kinetihwa akak wavitye.
Igkis kinetihwa aka puwikne.
Igkis kinetihwa aka made.
Igkis kinetihwa aka motye.
Ba pis hiyak ku pariye motye?
Motye ay. Kadahan parinut.
Kadahan nor asuyagi.
Kadahan kasuwavutne.
Igkis kinetihwa gikak.
Awaku kiyavwiye iki ta gitkis
inetit.
Ee! Wavitye! Kaybune igkis
kinetihwa gikak.

Because Sir [respected one] made all
of this for us. People.
His children. There are lots of people.

There are many different places [levels
of existence].

If it were not so, we would all stay on
one [flat level].

Only on one level, then there would be
no end [to the number] of his
[children].

A [huge] amount of people.
That is why he made three En skies.
Way up above.

[And] four [levels if you include]
underneath this [earth]. Underneath
the ground. Wayhpiye [the
underworld].

...
Long ago He [God] was here [in
Maywak, this earth level].

That is why our ancestors spoke
Kiyaptunka.

[the ceremonial language of respect]

They spoke Kiyavunka.

[the old and commonly-used language
of respect]

They spoke all kinds of things.

They spoke with spirits.

They spoke with animals.

They spoke with everything.

They spoke with wasps.

Do you know what wasps are?

The wasps here. There is Parinut.

There is Asuyagi.

There is Kasuwavutne [stripped wasp]

They spoke with them.

Because [God] gave to the people
words [communication].

Oh! Spirits! Snakes! They spoke with
them.

Datka. Iyakri. Igkis kinetihwa gikak.
Igkis tima giwn.
Kawokwine igkis kinetihwa gikak.
Yuma arikna hiyak asamanakis
Awaku igkis kiyavwiyegeben awna kiyaptunka.

...
In kiyaptunka inyerwa uhokri giwn.

Inerebaki Kiyavwiye. Inakni nah awna. Kinetihwene pit nek.
Nah batek aka inin kiyavunka yuwit.

Iveg usuh. Ba Kiyavwiye Eduar Mmahki kiyavwiye? Usuh kinetihwene kiyaptunka aynesa. Kiyavwiye Leon hawata awna aynesa.

Yuma akiw. Pitana. Mpana. Yuma akiw.

Inme minikwak avanenekwa aka kiyaptunka igkis kinetihwanene. Ka aynsima kiytanikiy. Ka aynsima kiytan bakimnay. Ada bakimnay tinogben. Himanovyo. Kiyavunogben. Takwavye. Bakimnay nopsanyovwiynin.

Ka aynsima kiyavunka yuwit igkis awna.

Inme usuh butye kuri ka humaw hene.

...
Inme kiyavunka barewye in. Kibeyne gihiyakemni.

Igkis kanum ariknebdi madikte [kewhekwiye?]

...
In kiyaptunka. In barewye.

Anacondas! Iyakri snake! They spoke with them.

They understood their language.

Jaguars! They spoke with them.

No creature knew more than they did.

Because our ancestors [the respected old ones] spoke kiyaptunka.

...
This kiyaptunka is truly God's language.

This is how it is, sir. This is what I say. What I am saying to you.

I love the Kiyavunka words.

Look at us. [Including] Senhor Eduar. What is it, sir? We only speak a little Kiyaptunka.

Senhor Leon also spoke a little.

No one else. Two. [Maybe] three. No more.

But long ago, they always spoke with Kiyaptunka.

There was lots of respect. Lots of respect for [of?] children.

For girl children. Young girls.

Women.

Young boys. Little children.

They spoke lots of Kiyavunka words.

But we who have come later, have not been raised in this manner.

...
Kiyavunka is beautiful.

It is a good way of being. [good thinking/ wise/ pure]

They named all things clearly. [purely]

...
This is kiyaptunka. It is beautiful. Sir.

Kiyavuno. Kiyavwiye.

Wis ta ba avitmin nor ... Dano.

Ke ba wis danuhpen.

Aysaw akebyi wis wagah?

Nuviewkan ba takuwanek wis boh

usuh aterenek. Iwasgi.

Kiyavwiyegeben giwn.

...

Ushme kuri: karumna!

Uyay atak karumnad!

Oo! Bakimni yuwit.

Bakimni guw gudahan.

Kiyavwiye, ka aynsima

kiyavwiyegeben giwn.

Nah ka ba makisuwn

kiyavwiyegeben giwn.

"We are going to the top of ...

Dano"[the Kiyavunka word for

Karumna Mountain, meaning female strength or hardness; rock]

If we can arrive there

How [many days before] we climb?

I think maybe tomorrow we will go there. And see it.

This is our ancestor's language.

...

Now we say, "Karumna!"

"Let us go to Karumna!"

Oh! Those are children's words.

That is [what] the children call her.

Senhor, there is so much of [our ancestor's] language.

I will not finish [with telling about]

[our ancestor's] language.

In this conversation, Kiyavwiye Ishawet sets out the elders' version of the three skies (Mayrap, Inurik and Inukri), this world (Maywak) and the underworld (Waynpiye). The elders' language of respect (kiyaptunka and kiyavunka), he tells us, was a language of respectful relationship. No one knew more than the elders did, in their capacity to speak to animals ranging from wasps to jaguars, and landforms like Karumna were among the creatures (or actors) whose relationships made the world. His account of that time as a time when the creator had walked the world converges with his account of a theology in which Jesus, like a shaman, had gone up to the star level. It remains a text that pushes the limits of translatability and refuses a simplistic division of tradition and modernity; knowledge or belief. In this account, as in Kiyavwiye Balaweh's, to know the cosmos is to be transformed, as much as it is to be informed. And it is in this sense that it would be a betrayal to the translated tongue to reduce these accounts of the stars to points of information.

The material presented here demonstrates the presence of a complex astronomical knowledge in everyday practices and narratives along the Rio Urucauá. The texts have extensive resonance across lowland and highland South America, and affirm an argument for a relatively recent history of vast and extensive networks, rather

than isolated indigenous settlements. That local astronomical stories are frequent references in everyday talk yet the longer versions were so hard to record, points to the complex navigations people make in regard to the ontologies and rationalities that govern citizenship of the wider networks in which they participate, including the Brazilian federal state, French Guiana, and church-based networks that were so dominant in Arukwa at the turn of the millenium when this research commenced.

The unease with astronomy that we encountered in 2000-2003 has diminished over the years. The reasons for this are, no doubt, multiple: conversations became easier as our insight into the cosmological stories developed; the opening of the Museu Kuahí, the indigenous-run community museum in the town of Oiapoque and the national exhibition on cosmology in the region served to expand the space for Amerindian ways of seeing the world (Vidal 2007, 2008); and the evangelical millennialism that accompanied the millenium in Arukwa as documented by Artionka Capiberibe (2007) has diminished somewhat, allowing a little more space for the stars. In the astronomical stories accumulated here, there is a frequent narrative element in which a person who goes on a journey through the annual cycle of stars comes back as a healer, because he or she has established a relationship with the master spirits of particular rains, and has insight into the relationalities of stars, rains, winds, plants and fish. Moving respectfully with them, negotiating a passage back, the shaman forms a relationship with the stars who themselves are healers, and who through the journey acquires the capacity to heal. The qualities the shaman acquires in these travels are not those of controlling the rains, but of participating in a web of relationalities through shared journeys with the master spirits of stars. The rains, in these stories, are a gift, from one traveller to another, based on a shared journey through the seasons.

Astronomical stories collected along the Rio Urucauá, far from standing either as monuments of an idealised past or as an ethnological equivalent of the discipline of astronomy, are rich resources for understanding an Amerindian philosophy of life and movement, and for a critique of the calculus of control that predominates in the discourses of modernity, science, development, and citizenships of almost – *almost* – every kind.

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