

Papuan Features

*Sources and notes for claims made during the video. Efforts to support. Notable quotes.
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Sources

Overview

Patrons asked for a Papuan followup to my video about Niugini "Langriculture"... but with more linguistics! References from [that video's sources doc](#) remain relevant. This time I cast my net in deeper seas to catch sources germane to the typology of Melanesian languages. I had been reading the Routledge guide to *The Oceanic Languages* before finding the paper that sparked the last video, though it becomes more relevant this time. Besides Pawley's "Chequered career..." again, Foley's *The Papuan Languages of New Guinea*, a few of Donohue's papers and a couple by Evans were my warmups for this video. I checked all the features in [WALS](#) for interesting "Papuanisms", then cross-checked the most intriguing animatable hits with other authors. To these I added features not found there but covered by papers that turned up in my reading journeys. This includes notes from Reed's work on the "Sign languages of Western Highlands", narrative discourse patterns from De Vries' "Areal pragmatics of New Guinea" and features covered in more specific studies like "The East Papuan languages" by Dunn, Reesink and Terrill and Klamer's "Papuan-Austronesian language contact: Alorese from an areal perspective". As noted often including in the last video and here, the research is headed by outsider (non-Papuan) linguists, who make up most of the sources here. In keeping with [Indigenous style](#), I will take steps to acknowledge original sources below, including names of peoples and names of individuals when known. The resulting list of features makes up the heart of this video.

The upcoming paragraphs give sources for moment-to-moment claims throughout the finished animation.

Specific claims

Intro

Melanesia on a bed of eleven seas. Not only rich in languages, the region counts more seas than any other where the Indian and Pacific Oceans meet. IMO sea names match the standards [from the IHO](#) 3rd edition (from 1953!) which names seas to the west of New Guinea as the Flores Sea, Savu Sea, Timor Sea, Banda Sea, Seram Sea, Molucca Sea, Halmahera Sea and Arafura Sea. To the east lie the

Bismarck Sea, Solomon Sea and the Coral Sea. A stalled attempt at an updated IHO 4th edition names the same seas (chapters 6 and 8), though it differs minimally in some spellings and maximally when it parts southwestern New Guinea and the Arafura Sea to make room for an "Aru Sea" (chapter 6).

Most languages and linguistic diversity. See the last video's sources doc (link in the overview) for counts of languages. Check [the later paragraph](#) for families and isolates. Comparing the tiny average speaker bases of languages in the region, Lynch, Ross and Crowley remark that "no area of Melanesia can be described as 'typical'" when it comes to linguistic demographics (chapter 1 in *The Oceanic Languages*, 3.1). Later in that chapter they talk territory: "An area of just a few square kilometres may therefore house a number of distinct languages" (4). This sets it apart not only from much of the world but from the Pacific: "Melanesia is quite different from Micronesia and Polynesia... Island Melanesia is typified by many languages per largish island", while Fiji and Hawai'i, with areas "each slightly larger than that of Vanuatu", have 2-3 and 1 precolonial languages respectively (2.3). Next come estimates, not all of which are contradictory. 700 is on the low end and usually attributed to Papua New Guinea, the island of New Guinea, or the residual Papuan bucket – before the start of Foley's old classic, the "Papuan languages" number "over 700 in more than sixty families" (preface), while SIL has PNG at 745 [according to one article](#). Schapper shares the figure 800 for New Guinea (section 2 of "Farming and the Trans-New Guinea family"). Foley has more recently written that "[w]ithin this area are crammed some 1,200 languages" ("Language contact in the New Guinea region"). Levy counts 820 for PNG in "Language research in Papua New Guinea". Pawley roughly estimates that "the New Guinea area contain[s] over 1000 languages" ("Chequered career").

Geography

Language geography of the Papuasphere. Palmer proposes that "[t]he term 'Papuasphere' may be used to refer to the linguistic world" of "these families and isolates" (first chapter in *Languages and Linguistics of the New Guinea Area*, section 1.3). Named locations from comparing various maps, including in the intro to *Oceanic* (maps 1.1 through 1.6) and Tryon's "Buma" article in the same volume. The western islands are less familiar to me; see Klamer's article on Alor, Alor, Pantar and the briefest note on Tambora. I intend "North Maluku" to center Halmahera, Ternate and Tidore. More on Tambora immediately below.

Tambora. The name is pegged as Papuan by an author who shows up a lot in my sources. Donohue's "The Papuan language of Tambora" tells us that the speakers were "lost in a gigantic volcanic eruption, the most cataclysmic in historical times (Oppenheimer 2003)", though Raible and team come in shy of this magnitude, pinpointing Tambora and Rinjani as "sites of the probably two largest eruptions of

the last millennium", not of all written history as is often claimed ("Tambora 1815 as a test case for high impact volcanic eruptions", figure 1).

Ultimate linguistic challenge. Sources and quotes from my previous video share how diverse and poorly researched Papuan languages are, though with a focus on Trans-New Guinea. Though the title escapes me, growing up I remember one atlas or language guide singling out what Klamer & Ewing call "East Nusantara", vaguely labeling it an area around "the Moluccas", and declaring it the least understood language area in the world. That claim fascinated my young self.

Simple colonial and academic story. Donohue's "Towards a Papuan history of languages" challenges "[m]uch thinking" that "prior to the Austronesian linguistic colonization of its range, pre-existing human societies were not highly 'developed'" (start of section 3). The rough path from Southeast Asia through western Indonesia is found in [Bae, Douka and Petraglia](#), "On the origin of modern humans: Asian perspectives", though mapped paths to Melanesia and Australia [vary or are left unclear](#). Two examples of the cultural differences that give a sense of rupture over continuity ("momentum" in Donohue) are crab claw sail outriggers (see "Early Austronesian terms for canoe parts and seafaring" by Pawley & Pawley) and, relatively more recently, writing systems of Austronesian languages to the west. (Written in Kawi derived scripts, though well away from the area, texts in Cham are older.) Though people developed multiple old scripts for peninsular, Indonesian and Philippine languages, Papuan languages retain and refine strong practices of orality before the arrival of missionaries, linguists and missionary linguists. This is also true of all Oceanic languages to their east. Exceptions are languages looped into the historical Indosphere, [like Ternate](#).

Residual, not Austronesian, not Australian. The terminological discussion again leans on "Towards a Papuan history of languages" by Donohue, which characterizes Papuan as an "inherently areal group" whose fatal flaw is its present exclusion of languages that are "not Austronesian (or 'Australian')" (2). Also again (and from the last video), Pawley's "Chequered career" calls it "no more than a convenient name for a residual category", a "basket" for seven to eight hundred languages (2.1).

Phonology

Running acoustic themes. My notes for this section really start to expose my habits: read a bit about Papuan and Oceanic linguistics, poke around WALS, then revisit academic literature for confirmation, refutation and expansion. Read the [overview](#) above for general info about these sources.

One of the few areas with small inventories. For the few consonants and vowels compare Foley's *The Papuan Languages of New Guinea* 1.3 and WALS 1.2. This gives the Papuasphere a low ratio of consonants to vowels like English but for a

very different reason (WALS 3). Compare Australia, which is called "special" for its few vowels (WALS 2.3). Foley characterizes the languages as phonologically simple or small: five vowels, two nasals, infrequent r/l contrast, with Rotokas as an example (1.3 and 3.2).

Rotokas. Robinson writes that "Central Rotokas is famous for possessing one of the world's smallest inventories...: five vowels and six consonants", lacking voicing and nasal contrasts as well as fricatives including /s/ ("Phoneme inventory of the Aita dialect of Rotokas", though see note 6 for Tok Pisin /s/ influence). Of the few sources, [Omniplot](#) presents the alphabet as vowels then consonants, so omitting vowel length it's aeiou gprstv. Still omitting doubled vowels, [SIL](#) gives aegikopr(s)tuv; English Wikipedia agrees but cites the same article by Robinson, who does not describe an alphabet there.

Devoid of common sounds. According to Foley's book, "Papuan languages are generally not rich in fricative phonemes" and "[a] few, like Yimas, can be said to be lacking fricative phonemes entirely" (3.2). WALS finds no voicing contrast in fricatives or fricatives and plosives, with some langs missing either p or g - one both (WALS 4, 5)! WALS gives Una as an example of a language with neither /p/ nor /g/ (5.2), which Louwense's grammar confirms in the stop inventory: /t k b d/ (figure 3). In that same chart Una also has no rhotics, though it distinguishes a plain from palatal lateral and contains the velar nasal. No fricatives are common here after Australia, and it's home to the only language in the WALS sample without velars (18). Languages lacking laterals make up a "significant cluster" in New Guinea after South America, and some of Niugini is even left "with no liquids" (WALS 8.2). Papuan lacks velar nasals "altogether" or initially, unlike surrounding Austronesian and Australian languages (WALS 9.2). For contrast, open the Routledge guide to *Austronesian* and attempt to find a language sketch without a velar nasal in the phonemes table of the phonology section.

Complex labio-velar sounds. Labio-velars like /gb/ "lack non-Oceanic cognates" and may come from "Papuan languages" ("Proto Oceanic" 3.1.1 (d)). WALS pinpoints eastern Niugini as one of two areas with "labial-velars" (19.3). In "Proto Oceanic" within the Routledge guide to *Oceanic*, "labio-velars" are transcribed and most often realized with labialization /p^w b^w m^w/, "but there is evidence to suggest that they did indeed have the double articulations [kp̚], [gb̚] and [ŋm̚] that 'labio-velar' suggests" (chapter 4, 3.1.1).

Complex prenasalized sounds. Foley finds prenasalized voiced stops in a "great many" Papuan languages, though "good number" do plain stops (Foley 3.2). In describing Qaqet, a Papuan language, Tabain et al. summarize the consensus that "Oceanic languages tend to distinguish between voiceless and prenasalized voiced obstruents... In fact, prenasalized voiced obstruents are considered one of the shared innovations that characterize Proto Oceanic" ("Voicing in Qaqet"). The

Papuan contact connection is still being worked out – although Foley hears voiced prenasalized stops as "basic" to Papuan inventories and Stebbins et al. posit "prenasalized allophones" as good examples of regional influence, "there is considerable variability" and for now "such statements are tentative hypotheses" (all quotes from "Voicing in Qaet" 2.1). Also in "Proto Oceanic", when prenasalized voiced stops come from sequences that appeared "word-initially they were the outcome of a pre-POc innovation which is unpredictable and whose cause(s) unknown" (*The Oceanic Languages*, chapter 4, 3.1.1).

Ngmgbw. In the brief writeup accompanying the Pangloss "Archive of audio recordings in the Volow language", François and Vienne list among the phonemic consonants the "letter <ḡ>" which "encodes the prenasalized labiovelar stop /^ḡmbw/" (4.1). The Pangloss archive contains a [story with the sound](#), including at the start of a repeated place name "Ḡayñiñ" (spelled "Bwaïnging" in the parallel French text).

Home Sign

Nucleated sign networks. The work I came across is Lauren Reed's "Sign languages of Western Highlands, Papua New Guinea, and their challenges for sign language typology". The diagram is my version of figure 28, slightly simplified for the short time it's shown. Local homesign languages confound "village"/"rural"/"shared" academic definitions (chapter 3, section 2). Homesign use continues throughout life, something "not at all rare globally" contra Coppola & Newport, shows lexical consistency if signers "have never met" and is transmitted intergenerationally (section 3). The model of a "nucleated sign network" shows "adept" hearing signers radiating from a deaf person (section 5 including figure 28). "In a sign network, deaf/hearing status is largely irrelevant, but signing status is" (intro). The village house pictured is in Enga Province.

Still underresearch[ed]. Out loud I said "under research" though I have this written as "under researched". Reed's video talk about "The 'ecology' of deaf sign languages in PNG" gives reasons for this research gap: (1) "deaf community" sign languages are the best known and often institutionalized at a national level; (2) in "village" languages with "high rates of deafness" most communication is actually deaf-hearing so a "pure form" of village sign is rather rare; (3) "home sign" focuses on one child developing signs and caretakers responding on a "rapid time scale". In a dubbed example it's difficult to tell who is deaf "because they're so good"; it's Kaykul on the left (Reed video 15:53, CW: discussion of violence).

Grammar

Jargony but imagine along. For a taste, the term for this section went from "morphosyntax" in the video outline to just "grammar" in the final readthrough. For time and attention I choose terms carefully during the video, but here in this

document I do not shy away from terminological jargon. Oh, and the what-if-English concept – you don't know it yet, and may never, but here I'm playing with an idea that's been on my mind for years. If the seeds sprout, do you think you'd enjoy watching, like, "What if English worked like Korean?" How about, "What if Arabic worked like a Pama-Nyungan language?" Far fetched? Fun?

Switch reference and other unmentionables. There's a whole list of features I took notes on but cut from the script; Klamer's *The Alor-Pantar Languages* mentions four good examples of proclaimed or potential Papuanisms: "switch reference systems", "[m]arking of gender", "[c]ause-final conjunctions" and "[s]erial verb constructions" (chapter 1, section 5.9 and table 11). (Anticipating the complex contacts at the end of this video, that same short section makes Alor-Pantar out to be an interesting typological case in both directions: "Unlike many other Papuan groups, the AP languages do show clusivity in their pronominal systems, and do have a phonemic r-l distinction.") Of the four features above, I left out gender and switch reference. Gender looked a bit murkier than initially promised (though WALS says of Niugini that "several families show gender, and of widely differing types", it marks much of its Papuan sample as having no gender in map 30A). A discussion of the subtleties of different gender systems throughout *The Languages and Linguistics of the New Guinea Area* (more than just my WALS and bird's eye glances) would make for interesting viewing. As for switch reference, some names I've come to recognize quickly deflated my enthusiasm for this potential Papuanism because "among those languages that belong to core subgroups of TNG, all but a few have some sort of switch-reference system... By contrast, only a minority of non-TNG Papuan languages of New Guinea and hardly any Austronesian languages have switch-reference marking" (Pawley & Hammarström, 2.5.3.2.1).

Papuan word order. I focused on the position of objects and verbs (VO or OV) rather than S, O and V because of the SVO complications explained below for Austronesian, Papuan and Oceanic- vs Papuan-influenced languages. WALS finds that OV order "predominates in New Guinea" with some exceptions; "many of these exceptions are Austronesian" (83.2; compare the striking areal pattern in map 83A). Unlike Oceanic, SV is nearly universal, so much so that "I am aware of only one VS language among all the non-Austronesian ('Papuan') languages" (WALS 82.2). When obliques are included, XOV, OXV and OVX occur frequently in Niugini (WALS 84). When found in Oceanic, "SOV is clearly result of contact with Papuan languages" (*Oceanic*, "Proto Oceanic" 3.4.2 (d)). In "The East Papuan languages", Dunn, Reesink and Terrill analyze most East Papuan languages as verb-final, but on New Britain all are SVO, while on New Ireland Kuot is even VSO (2.1).

Austronesian word order. Proto Austronesian and Proto Malayo-Polynesian are reconstructed with "Philippine type" symmetrical voice, which is tied to VO order even after being altered in "Indonesian-type languages" (Adelaar in *Austronesian* chapter 1, section 4). This alignment is explained in Himmelmann's article on

typological characteristics (*Austronesian* 5.1.2) and followed through to its Oceanic outcomes in the *Oceanic* article on "Proto Oceanic" (4.2.2). Defining the subject position in Austronesian's basic order, whether verb-first (VOS, VSO) or subject-predicate (SVO), is not ideal because the languages enjoy "word order flexibility and more often than not it is unclear whether the so-called basic or unmarked order reflects a syntactic constraint or a pragmatic preference" (*Austronesian* 5.3.5). Ever the exceptions, "[t]he Chamic and Moken-Moklen languages" developed "fairly rigid SVO order" due to "intensive contact with non-Austronesian Southeast Asian mainland languages" (5.1.1).

Papuan word order exceptions. The division between VSO and SOV here is messier than suggested. I acknowledged the Papuan SVO languages in passing, sidestepped the variation within Austronesian, and downplayed the Papuan complications including their vertical and horizontal influence on Oceanic within Melanesia. As quoted above, the "Proto Oceanic" chapter within *The Oceanic Languages* claims that the occurrence of Oceanic "SOV is clearly result of contact with Papuan languages" (3.4.2 (d)). The lone Papuan VSO exception is Kuot, which as Lindström confirms "is unique in the region in being the only Papuan language with such constituent order" (Stebbins, Evans and Terrill, "The Papuan languages of Island Melanesia" 7.3.7 in *The Languages and Linguistics of the New Guinea Area*). Map 1.6 in the first chapter of *The Oceanic Languages* shows off languages of eastern Melanesia that are Austronesian vs Papuan "enclave[s] in a predominantly" Papuan vs Austronesian-speaking area; the marker on New Ireland is for Kuot.

Adpositions. Papuan languages have postpositions (WALS 85.2). Dunn and team find prepositions in the VO languages but postpositions in V-final ones, with Bilua as an exception ("The East Papuan languages" 2.2). The correlation between "OV" and place of adposition is a "bidirectional implicational universal", unlike the correlation between OV/VO and relative clauses before/after nouns (Dryer in WALS 95.3). The interplay between Papuan OV and Austronesian postposition cross-influence makes it one of the notable countertrend areas: "OV order with postpositions is especially common in (i) Asia, except in the Middle East and Southeast Asia; (ii) New Guinea; and (iii) North America" (95.2). In a cut remark I suggested using this for an Austronesian-or-Papuan guessing game – load WALS map 85A [centered around Papua](#); the Maluku, Birds Head and Toricelli are expected exceptions.

Verb marking. WALS counts it among areas with unusually many synthetic categories per verb (chapter and map 22). Indeed, "[I]ack of verbal person marking is particularly rare in North America and New Guinea" (WALS 102). Complex Papuan verbs are often segmentable, though some are unpredictable like Yélî Dnye "portmanteau morphemes" ("The East Papuan languages" 4.1.1). WALS finds that Niugini has strong suffixing preferences, with Austronesian exceptions dotting the map (26). Austronesian languages employ "tense-aspect prefixes" while Papuan languages "overwhelmingly employ suffixing for tense-aspect" (WALS 69.2). Past

tense suffixes show two to three remoteness distinctions (WALS 66 and Nose's "Perfective aspect in the languages of Madang province, New Guinea"). For instance, Amele distinguishes "Today's past", "Yesterday's past", "Remote past" (Nose 3). Future tense is often suffixed (WALS 67). Nose finds that the future is not modal but suffixed (or Austronesian irrealis), such as in Amele where the future tense is "'-an-' or '-en', which can be inflected with person and number in a portmanteau form" (Nose's "A contrastive study of future tenses in the languages of Papua New Guinea", section 3). For suffix order see below; in TNG a "verbal suffix is preferred to express tense distinctions, and these suffixes carry several tense meanings", whereas in PNG Austronesian languages the "irrealis form carries a future meaning and morphologically a prefix or a suffix" (end of 3).

Unmentioned verbal marking. Several interesting points made it into the outline but not the final draft for this project. WALS finds a case of tonal instead of concatenative marking in Iau (20). The "Central Solomon Islands" family (non-family?) is the most varied, depending on different factors in different languages – Lavukaleve and Savosavo "exhibit profoundly un-Oceanic features" in verbal marking ("The East Papuan languages" 4.3). In *A Death in the Rainforest*, Kulick gives an example of a Tayap verb "tapratkingiatikitakana" meaning "She intends to carry him down on her shoulders" (near the end of chapter 3). Yélî Dnye mono/polyfocal system is unusual outside of Niugini ("The East Papuan languages" 3.3). The Papuasphere is also home to "neutral", ergative (a "lesser" hotspot for it) and active alignment but not accusative (WALS 98), and demonstrates that neutral alignment is not only found in low morphology languages but also in morphologically rich languages with a focus on verbal marking (WALS 98.4). Question asking can be marked verbally, with "interrogative verb morphology" absent from the Pacific apart from Papuan (WALS 116). Finally, symmetrical voice, the most discussed Austronesian verbal/syntactic feature, bears no clear relation to Papuan influence and so is dodged here. (Years ago I asked us to save our patience for a later video examining this. Sadly, I do it again here.) Many languages of eastern Indonesia lack the exceptional "Philippine alignment" postulated for Proto Austronesian itself; in these tongues "the absence of symmetrical voice alternations and the presence of person marking on the verb constitute an independent development" (Klamer, Reesink and van Staden, "East Nusantara as a linguistic area", table 1 and paragraph below).

Object prefix, subject suffix. Comparing subject (s) and object (o) markers around verbs, Niugini Papuan marks o-V-s while Oceanic marks s(-)V-o. Using abbreviations for Undergoer and Agent instead of o- and -s, according to Foley this "inflection pattern is the most common among Papuan languages", with Yimas and Marind being noteworthy exceptions (5.3). Papuan verbs tend to mark agents and patients, though enough languages mark just agents (WALS 102). Papuan is often suffixing, often to mark subject, object and tense or mood ("The East Papuan

languages" 4.1.2). Eastern Melanesian Papuan languages do show s-V-o and some even o-V-s ("The East Papuan languages" 4.3). In these tongues subjects are often suffixed (4.2.1), but objects get marked more often than subjects and are always suffixed if marked (4.2.2).

Not pronouns but object and subject markers. This terminology follows typology generally and Papuan classifications specifically. For example, when Pawley's "Chequered career" paper from the last video splits reconstructed Proto-TNG lexical items into classes, "verbal suffixes for marking person-number of subject" are distinct from "independent pronouns" (3.3). The object-verb-future-subject slot order parallels the Kobon example in Nose's "A contrastive study of future tenses in the languages of Papua New Guinea", section 3.

Nominal elements. WALS finds that the Papuasphere lacks noun cases or expresses "monoexponential" case without number (21, 28). Lack of Papuan plurals is very widespread: "complete lack of plural marking is particularly found in New Guinea and Australia" (WALS 34.3). Adjectives follow nouns, which is not uniquely or even thoroughly Papuan, in line with the rest of the world (WALS 87.2). In Roberts' "Amele RRG grammatical sketch", the language "has only two" lexical categories: "verbs and nouns" (6). The latter "are not marked for grammatical gender" and "not marked for number" (6.3). Papuan speakers head mark patients on verbs instead of dependent marking them with noun cases, and double marking is typical here as in Australia and the Americas (WALS 23).

Pronouns with no cases, many numbers, no third person, no clusivity. Foley clarifies that while Papuan languages mark core verbal subjects and objects with a "verb-based system" instead of with noun cases, they do use case affixes for "instrument" and "beneficiary" relations and adpositions for "concrete locational notions" (4.5). Tok Pisin pronouns share much in common with Papuan and especially Austronesian; here I repeat them from Rarrick's "Wanpela, tupela, retpela, blupela" section 2, where they originally come from Smith's *Growing up with Tok Pisin*. There's much variation in these Papuan pronominal trends. Compare Terrill's *A Grammar of Lavukaleve* 8.2.1, where first and second person pronouns have singular, dual and plural forms including inclusives and exclusives. In step with Papuan norms, Lavukaleve lacks third person pronouns and leans more heavily on verbal person marking (8.2.2). Amele speakers are more typologically Papuan in making "no inclusive/exclusive distinction" in pronouns, though less in their use of third person forms (Roberts' "Amele RRG grammatical sketch" 6.4.1). The "minimal-augmented" pronouns in Reefs-Santa Cruz languages are rare and have unknown origins ("The East Papuan languages" 3.2). Austronesian marks overt third persons, whereas zero thirds are common in the Papuasphere (WALS 103.2). More on pronominal number below.

Duals, trials, plurals. WALS pins duals, trials, paucals on Austronesian and northern Australia (39.1.5). Dunn, Reesink and Terrill write in the "The East Papuan languages" that duals are usually found and trials sometimes found in Papuan, such as in Anêm and Touo. Papuan pronouns often have forms for duals but no higher numbers — Amele and TNG generally for example, or check out "Projecting morphology and agreement in Marori" by Wayan Arka. Arka's paper argues that in singular, dual, (trial), (paucal), plural number systems, nonsingular and nonplural use can be separated (3.3.2). Larike pronouns with "true" duals and trials are not derivable from "more basic features" (Arka 4.3). The dual at least may have its origins in the region: "the possibility cannot be precluded that the existence of the dual in Papuan predates Austronesian influence" ("The East Papuan languages" 3.4). The appearance of the "dual in Oceanic is either an innovation of Oceanic as a whole, or of a number of Oceanic subgroups", and the authors wonder if the Oceanic dual "is a result of diffusion or substrate influence from East Papuan" (3.4 again). Amele pronouns only distinguish singular, dual and plural (Roberts, table 6.35). Duals and trials do not have clear origins in Oceanic or Papuan, though perhaps under Papuan influence Oceanic developed the dual suffix -rua ("The East Papuan languages" 3.4). Evans thinks the dual may be a contact feature between unrelated languages in the Fly area ("Even more diverse than we had thought" 5). In a twist, Nen patterns three numbers "by crossing a [s/non-s] with a [dual/non-dual]" (5).

Inclusive/exclusive pronouns. Niugini often lacks the inclusive/exclusive distinction characteristic of Austronesian (WALS 39.2). This is a nearly exceptionless feature of Austronesian generally and Oceanic specifically as explained in Himmelmann's "The Austronesian languages of Asia and Madagascar: typological characteristics" in *Austronesian* (3.7) and the "Typological overview" chapter in *Oceanic* (2.1). When duals and clusivity are shared by Austronesian and Papuan neighbors, there is yet to be shown to be clear influence one way or other ("The East Papuan languages" 3 and 3.1). Basically, dual is nearly everywhere but clusivity is restricted (3.5).

Possession, spirits and stories. Examples aren't far beneath the surface if you've been watching this channel. From the [previous video's sources](#), Pandanus avoidance language and Kulick's earwitnessed sorcery diagnoses involve elements westerners associate with ghost stories. From the Oceanic side, watch my video on Kwaio taboos to learn about the role of deceased *adalo* in conversations among the living.

Possessive word order. Possessor-possessed order is typical in the Papuasphere, which Austronesian reverses (Klamer's article on Alorese 2.3.3; "The East Papuan languages" 5 and 2.3). Polynesian languages have constructions similar to "the yam of grandma", other Oceanic speakers do possessor-possessed order, but in Austronesian languages that retain the original Philippine-type symmetrical voice "the possessor generally follows the possessum, often without any intervening

grammatical marker", for example "Sundanese *imah paman kuring*" (house uncle I) is "my uncle's house" (*Austronesian* chapter 5, 3.11).

Head marked possession. Papuan languages are possessor-marked like with pronominals or possessed-marked like with genitive (WALS 24), and "[t]he only area where the two types overlap appreciably is in New Guinea" (24.3). I cut a quick detour comparing Mesoamerican languages, which I understand better and have more experience with (head marking but possessed-possessor – compare WALS maps 24A and 86A). Klammer's Alorese paper explains both the order and marking and gives an example from Teiwa: "possessors typically precede the possessed, and the person and number features of a possessor are encoded as a prefix on the noun... *Rai ga-yaf* king 3SG-house" (2.3.1).

Possessive classes. WALS writes that in their data "complex systems of ten or more classes are found only around the Pacific Rim" (59.2). Anêm examples show both semantic and lexical distinctions (Thurston's "Sociolinguistic typology and other factors affecting change in north-western New Britain, Papua New Guinea" 3.7). My first formal introduction to the subject came years ago when I read "Whence the Austronesian indirect possessive construction?" by Donohue & Schapper, which made explicit some of what I'd previously intuited from my sloppy Austronesian studies. Possessive classifier examples show that expression of class varies based on allomorphy and possessed semantics, as in Fijian *na ulu-mu*, *na ke-mu dalo*, *na me-mu wai*, *na no-mu vale* (Donohue & Schapper 1) or Amele *ebe-ni*, *mede-mi*, *me-i*, ... (WALS 59.2). The distribution of possessive-class languages suggests a Papuan origin and spread west of Niugini (Donohue & Schapper maps 1 and 2). Possessive classification is tied to pronominal prefixes, versus "conservative" Austronesian genitive noun suffixing (Donohue & Schapper 6). Class constructions (not forms) come from local Malayo-Polynesian language contact with Papuan before Oceanic (7). A word of caution: "alienable" is used for a variety of feature sets that have in common the marking of two possessive classes, conditioned lexically by the possessed noun, with a more limited inalienable class often involving kin terms (WALS 59.3). Elbert & Pukui's *Hawaiian Grammar* contains examples of and compares explanations for this way of talking possession ([9.6.1](#)).

No passive voice. Foley's book was early and absolute in declaring that "[t]rue voice alternations, such as passive verb forms, are unknown" across all of Papuan (1.3). Passives "seem not to occur at all" in Niugini, versus at least a couple languages of Australia (WALS 107.2). The lack of passives in Alorese, an Austronesian language, is taken as a sign of possible Papuan influence (Klammer 2.6).

Negation. Clause-final negative adverbs "must have an old history" in the region ("The East Papuan languages" 5). WALS sees double negation as more frequent here (112, kind of in line with two other chapters, 114 and 144). Asymmetric verbal negation is common in the area (WALS 114). Niugini has neg-SOV, SOV-neg,

SVONeg for which north Niugini is one of the world's pockets (144 including 144.A2). Papuan Oneg order owes its existence to "SVO... along the north coast, SOV order being overwhelmingly dominant elsewhere" (144). Hypothetically we should expect to "find SOVXNeg languages in the same areas of the world in which SVOX is found" (144). Amele is the "sole language" in WALS with "S(Neg)O[V(-Neg)]/SO(Neg)[V(-Neg)]" (144). It's not the only exception:

- only Eipo has "SONegV/SOVNeg" (144 Type 1)
- only Kaki Ae has "SNegOV/SONegV" (144 Type 2)
- though *not* alone, Waskia is an example of "SONegV" (144 Type 7)
- again *not* alone, Abui from Alor has "SOVNeg" (144 Type 8)
- only Duna has "SOVNeg/SO[Neg-V-Neg]" (144 Type 9)
- only Kwomtari has optional triple "SNegO[V(-Neg)](Neg)" (144 Type 10)

After Bantu, Papuan is second in the world for "postverbal negative words", even triple negation (WALS 143.A3). In Ngonyani's "Sentential negation and verb movement in Bantu languages", this matches strategies 4 and 5 of the six negation-marking strategies near the start, and the author mentions Swahili, Zulu, Luvale and Venda as languages with "double marking of negation" (1). Verbal negation is common and some have typologically rare sentence-final negatives, especially Bird's Head ("The East Papuan languages" 2.7). "Post-predicate final negation predominates throughout the region" according to "The Papuan languages of East Nusantara and Bird's Head" by Holton & Klammer, with examples of negations at the end from various languages (5.3.8).

Theme-distribute-link storytelling. Papuan stories have pragmatically unique "thematic and chaining/conjoining parts" (De Vries' "Areal pragmatics of New Guinea", summarized in section 5). Tail-head linkage is not in Yélî Dnye, and if absent from Austronesian may be typically Papuan ("The East Papuan languages" 2.5, 2.6). Thematic material sets up the event line and speaker breaks within event lines, with more complex nominals in thematic parts indicated by deictics or thematic markers (De Vries 5). In my "yams three" example, the numeral follows the noun to [reflect areal trends](#) (WALS map 85A). Then follow distributives with few "nominal phrases per verb" (DV 5). This fits with Papuan syntax outside stories, since linguists don't hear sentences like "those three big pigs" (2.1). Papuan speakers "want" distributives to reflect linear order of events iconically (4). Distributives and thematization are not unique to narratives, but tail-head linkage is "tied very much" to Papuan stories "only", with one linguist arguing it is just shared with some languages of the Americas, and another observing it in Begak (2). Tails and heads continue intonation: tails fall then heads rise and get pronounced slowly (2.3). The same serves a "pause function" for thinking or to signal turn switching in Dani conversations (2.3). Tail-head absence can "announce thematic re-orientation and mark thematic junctures" (5). Section 3 contains examples of how all three get

used together in a narrative. Linguists need to know about these pragmatic strategies to avoid distorting data and descriptions (1).

Numbers and bodies. Surveying data on numeral bases, WALS concludes that "we live in a decimal world" (131.4). Niugini is a clear exception with unusual bases and "extended body-part" systems (WALS 131.2). Craig's "Tally systems of the Upper Sepik and Central New Guinea" extends the work done in Laycock's "Observations on number systems and semantics", surveying body part counting systems in languages from the middle of the island (summary of features in table 1). Laycock finds "vigesimal 'systems'" nowhere in New Guinea but points to "mixed" systems with a unique word for twenty, such as in "quinary/vigesimal" system. Pawley, Bulmer, Kias, Gi, Majnep worked together to build a *Dictionary of Kalam*, which shares that this TNG language has a lexical "base two system" and a body part system that's "base 23 on first round, 22 thereafter" (English-Kalam entries for "numerals"). This lines up with Craig's paper, where the data sometimes indicate "a hybrid of 2-cycle and body-part tally systems" (section 2). Takasugi's page on the "Number systems of the world" repeats Cheetham's research on the Huli quindecimal system: 15 is "nguira", 26 is "nguira-ni bearia" (15 + 11) and 75 is "ngui dau" (15 * 5). One video shows a [speaker of Foe](#) using "body counting".

Rethinking "Papuan"

Scores of families and isolates. Large-scale classification attempts yield very different counts, from 20+ to 90+ separate units (including what Lynch calls "one-member families"; compare Campbell's "Language isolates and their history"). Schapper's farming article from last time counts "between 30 and 60 families and isolates" (start of section 2). A [Glottolog family search](#) with "Top-level unit" selected as the level and "Papunesia" as the macro-area returns 131 results of which over 100 are specific to the area.

Unravel Papuan ingredients. For this section where the simple story falls apart, I was initially inspired by Donohue's "Towards a Papuan history of languages"; most observations that make it into the final draft come from other authors. "The East Papuan languages" shares candidates for Austronesian borrowing (clusivity, S V-o, maybe dual) and residual Papuan features (V final, possessor-possessed order, noun-adjective-numeral-demonstrative, clause-final negation) all in section 5. The terms "Papuanized" and "Papuanization" are sometimes used in the literature, like when Ross calls Motu and Gedaged "papuanised" ("Lexical history in the Northwest Solomonian languages", section 6).

West edge of the Papuasphere. The West Papuan language Ternatan "suppl[ies] much of Taba's *alus* (high speech level) vocabulary" (*Austronesian*, "Taba" 1). Alor, Pantar and Kisar classification was difficult and required dropping labels (*Austronesian*, "A historical perspective" 7.2). Also consider the ongoing example of

intense contact today: Papuan Malay. Klamer's article on Alorese finds a strong Papuan influence on Alorese through Lamaholot, despite that "[n]o written or oral records exist of a history of contact between Lamaholot speakers and speakers of (a) Papuan language(s). Neither do (written or oral) records exist of Papuan languages spoken in east Flores, where Lamaholot is spoken today. However, there is general consensus among linguists that Papuan (non-Austronesian) populations predated the Austronesians, who arrived in the eastern Indonesian region some 3,500 years ago (Pawley 2005, Ross 2005, Donohue & Grimes 2008, Ewing & Klamer 2010)" (2.7).

East edge of the Papuasphere. On the other end, consider how challenging it was to classify the languages of Temotu, Solomon Islands: "The place of the languages of the Eastern Outer Islands in the context of Oceanic subgrouping has been something of an enigma, and there has also been some debate whether three of them (Nendö [Santa Cruz], Nanggu and Äiwo [Reefs]) are Austronesian or Papuan" (Tryon's intro to "Buma" in *The Oceanic Languages*). Ross & Næss and later Lackey & Boerger consider this case closed and locked. Papuan elements were posited in part from lack of recognition of "significant changes to Oceanic consonants" that set RSC languages apart (abstract to "Reexamining the phonological history of Oceanic's Temotu subgroup"). Indeed, Næss now contends that "the hypothesis of a Papuan substrate in Reefs-Santa Cruz ha[s] been abandoned" (last paragraph of "Voice at the crossroads"). Ross also summarizes why the "Pasismanua language chain" was difficult to classify: "A feature of the languages of this chain is that Austronesian etyma have been replaced to such a degree that it is not immediately obvious that these are Oceanic (rather than Papuan) languages" (start of the "Kaulong" article within *The Oceanic Languages*). In "Diagnosing contact processes from their outcomes", the same author hypothesizes about the Pasismanua chain's contact background: "There is no longer a Papuan language nearby, but the presence of scattered Papuan languages on New Britain attests to the probability that the island was occupied by many more Papuan speaking groups before their languages were displaced by Oceanic, and the complications of Kaulong reflect the erstwhile presence of a Papuan language in which the community was once bilingual" (section 4). Blench opens new Papuan views in "Lapita canoes and their multi-ethnic crews". Compare "The language of Lapita: Vanuatu and an early Papuan presence in the Pacific", where Donohue and Denham fuel the fire of Blust's suspicion that the "uniformly Austronesian" languages and archaeological sites of Vanuatu are in reality "aberrant" in interesting - and suspiciously Papuan - ways. Blust responded with "Remote Melanesia: one history or two?"

Torres Strait Islands. Evans' "Even more diverse than we had thought" identifies the languages as "an Australian language (Kala Kawaw Ya / Kala Lagaw Ya) in the Western Torres Strait and a Papuan language of the Eastern Trans-Fly family in the Eastern Torres Strait (Meryam Mir)" (section 6), with the western language

belonging to a "Western Torres Strait" "[d]ialect chain" under Pama-Nyungan (table 2). Evans shares that the roughly adjacent Fly River area is as diverse as anywhere in Niugini except Sepik and North Coast yet remains poorly documented, its geo and bio sharing more in common with Australia ("Even more diverse..." 2 and 6).

Residual vs inclusive. This is areal vs genetic linguistics revisited for this channel; see my older "Maya" vs "Aztec" video. Donohue's "Towards a Papuan history of languages" is full of quotes and criticism on the traditional Austronesian overlay story. Chapter 1 of *The Oceanic Languages* discusses instances of Papuan contact that "have resulted in rather dramatic changes", including OV order and postpositions in Oceanic "Papuan Tip linkage" languages (4.1). In Blench's "Lapita canoes and their multi-ethnic crews", Austronesians and Papuans together spread language and culture rather than overlaying Oceanic settlements atop a prior Papuan layer, since for example in Vanuatu there is "no trace of such early occupation" (introduction).

Network of families. Behind eastern Austronesian languages lies "an Austronesian *network* of contact" that resulted in "relexified 'Papuan' languages", some of which "might be considered 'creoles'" akin to Tok Pisin or Papuan Malay (*Oceanic*, chapter 1, 4.2). Donohue's "Towards a Papuan history of languages" concludes that, due to intense Papuan influence on Melanesian languages, "we need to reconsider what it means to be 'non-Papuan'" (start of 5).

Back to Papuan people. Schapper says there's been a sea change in the assessment of Papuan culture: "The technologically superior, Austronesian-language speaking newcomers are thought to have variously overwhelmed, displaced and assimilated the early populations from the first migratory wave. In between these two significant in-migration events, we now know that far from being a time of stasis, there was a zone of activity around New Guinea, likely fuelled by agricultural innovation" (introduction to "Farming and the Trans-New Guinea family"). Oceanic is characterized by Papuan "contact" (first chapter of *The Oceanic languages*, 4.1). Oceanic owes its distribution to thriving Papuan speakers inland and malaria along the coast (*Oceanic*, "Internal subgrouping", 2). "Austronesianisation" was significant but not a huge transformation ("Towards a Papuan history of languages" 3). Papuans were and are not just hunter-gatherers, but maintained continuous maritime trade, evident from the living island distribution of Papuan tongues (Donohue 3). Facing Melanesian diversity, new methods of typology for historical linguistics may get critiqued but are here to stay (Evans & Klamer intro). In "Narrative Historical Linguistics", Ross agrees that figuring out Papuan also means telling a better story of Oceanic, including investigating canoe and marsupial terms and combining trees, rakes and maps from PMP to Lapita.

Outro

Ending with a deeper point again. My previous video on Papuan "Langriculture" combined linguistics and agriculture to tell a story of TNG farming terms and give a window into the lives and culture of Papuan people today.

Outro voices and patronage. My [Patreon page](#) is open to all who want to show support for these animations. Many of my posts there share updates and ask for nothing in exchange. Before you do that, please consider contributing to actions that matter to the lives of [Papuan people](#). Also join me in continuing to [learn from local voices](#) directly as we engage with other people's stories. Thank you for watching my animation and reading my sources document.

Quotes

(Many of the [quotes from the previous document](#) remain relevant. The ones below struck me as I made my way through the readings mentioned above.)

"The term 'Papuan' is no more than a convenient name for a residual category (Foley 1986). Into the 'Papuan' basket are thrown the 700–800 indigenous languages spoken in Papua New Guinea, Indonesia and the Solomon Islands which are not Austronesian. On present evidence these languages divide into more than 20 families and a dozen or so isolates" (Pawley, "Chequered career..." 2.1)

"Given that the 'Papuan' languages are not assumed to be a genealogical grouping, what excludes the Austronesian languages of 'New Guinea and adjacent islands' from being included? The answer to this question is not simple: why are 'Austronesian' languages not 'Papuan'? Informally, linguists appeal to the non-Melanesian origin of the Austronesian languages... In short, since 'Papuan' is an inherently areal group without genealogical implications, the failure to include the Austronesian languages when attempting to define 'Papuan' is fatal." (Donohue, "Towards a Papuan history of languages", 2)

"The region where Papuan languages are spoken... packs around 20% of the world's languages into less than 1% of its surface area and less than 0.1% of its population" (Evans & Klamer, start of their introduction)

"For the non-Austronesian languages of Melanesia and its surrounds (excluding Australia), the collective name 'Papuan' has been widely used and we continue that practice here. This use, based on definition by exclusion, has hung on for want of a better term long after comparable terms like 'Palaeosiberian' have been abandoned, but includes upwards of forty distinct families and isolates. To get an idea of how distorting a term like this is, consider how unsatisfactory it would be to use a term

like 'Eurasian' for... all the other non-Indo-European languages of Eurasia (where we partition off Indo-European languages only, in the same way that we partition off Austronesian languages).

"Our knowledge of this exuberant linguistic cornucopia lags behind what we know about any other region of the globe. It is likely that the linguist-to-language ratio is lower here than anywhere else, and it is certain that the relative level of language documentation is lower here than anywhere else" (Evans & Klamer, intro again)

"The existence of so many languages and families in such a small area, namely of 4-7 maximal clades (i.e. currently unrelatable phylogenetic units), makes southern New Guinea one of the most diverse parts of Melanesia, outstripped only by the Sepik and the central North Coast" (Evans, "Even more diverse than we had thought", 3)

"Unlike in Nen, there is no evidence in Larike that the system makes use of the opposition of DUAL vs. non DUAL. Dual and trial in Larike were (historically) derived from numeral 'two' and 'three' respectively (Laidig & Laidig 1990). They are true dual and trial forms in the sense that they refer to exact quantities of 'two' and 'three', and never used to refer to vague notion of several as is a paucal or limited plural in other languages" (Arka, 4.3)

"Other discourse practices that occur widely in Papuan discourse (including narratives) are the strong preference for direct speech and the preference for quotative forms in domains like intention, emotion, perception and cognition... Distributive and thematizing tendencies are found in varying degrees in genres other than narratives, but tail-head linkage is tied very much to Papuan narrative texts only" (De Vries, 2)

"I propose that we need a new taxonomic class to capture the type of SL used by Billy, Kagobai, Mohan, Bakaye, Mme Pettikwi and Kakuyl. I propose that this be termed a *nucleated network sign language*... Just as a nucleated settlement is one that is 'clustered around a single point' (nucleated settlement, 2015), a nucleated network is clustered around a single node. In a nucleated network SL, this single node is the deaf individual. While a homesign language like David's is characterised by only weak sign ties to either deaf or hearing people, a nucleated network SL is characterised by both strong and weak sign ties with hearing people" (Reed, 5.2).

"Perhaps the most striking fact that emerges from the preceding is the varied nature of the East Papuan languages... However, we can make some generalizations. Our initial questions had to do with distinguishing Papuan inheritance from Austronesian contact: whether it is possible to trace early pre-Austronesian Papuan features; and, related to this, whether it is possible to point to certain features as typically Papuan, or typical of the Papuan languages of

this area. We are now in a position to make at least some tentative observations about these questions." (Dunn, Reesink and Terrill, section 5)

"However we choose to think about it, it is clear that the Austronesian family does not constitute a language family that coheres, lexically, structurally or typologically, in the same way that a well-established language family like Indo-European does... In some cases we see the spread of language along with language communities; in others it is more parsimonious to think of the dispersal of Austronesian language traits to existing communities, which have acquired 'Austronesianness' to different degrees and in different ways." (Donohue & Denham, "The language of Lapita: Vanuatu and an early Papuan presence in the Pacific", 4)

"We conclude that social admixture was the norm, not the exception, in the dispersal of Austronesian languages across Island Southeast Asia. Rather than a wave of Austronesianisation rolling out over a technologically simple and unsophisticated pre-Austronesian social milieu, an assumption that pervades much of the literature on the 'Austronesian dispersal', an already integrated region saw the appearance of a new and attractive linguistic code, and that code was variously adopted or not adopted by different societies, as they saw fit. As with all social innovations, the spread was not uniform and did not follow uniform pathways." (Donohue & Denham, 5)

"[Meriam Mir] is in fact the one indigenous Australian language that i[s] clearly related to languages outside the country... The evidence I have seen makes me believe that if we are ever able to establish relations between Australian languages and those elsewhere, the most promising area to consider is New Guinea, where regrettably we have quite a varied range of languages to consider. But from what I have seen, this still remains to be done." (Black, "Outside relationships of Australian languages")

"The spread of Trans-New Guinea was probably driven by a transition to taro- and banana-based highland agriculture... The spread of AN over a great swathe of the planet, however, was perhaps triggered by population growth resulting from the domestication of rice, followed by the invention of the ocean-going outrigger canoe... The rest of New Guinea perhaps reflects development *in situ* over tens of millennia, as New Guinea and Australia were settled early in human history, around 50,000 BC... its diversity resulting from numerous small, economically autonomous hunter-gatherer bands" (Ross, "Narrative historical linguistics", 2.1)

"The direct vs. indirect opposition in possessive constructions that is so characteristic of Oceanic languages began in eastern Indonesia, and has its origins in contact with the Papuan languages with which Austronesian speakers came into contact. We do not claim that the forms found in Oceanic are necessarily inherited

from an earlier stage of Austronesian (though the correspondences reflecting *nV appear robust, and the Sawai alienable possessive classifier is similarly promising); rather, the construction itself developed as a result of influence on Malayo-Polynesian languages prior to the formation of Proto-Oceanic, but the forms were lexified more than once in different languages" (Donohue & Schapper, 7)

"The New Guinea-centric distribution of these traits strongly suggests that the appearance of traits related to these in the Oceanic languages should be related to their presence in the Papuan languages west of New Guinea, as earlier suggested by Grimes (1991:292), Ross (2001:138), and others." (Donohue & Schapper, 2)

Media

Images

Globe coastlines based on:

https://commons.wikimedia.org/wiki/File:World_map_blank_without_borders.svg
<https://visibleearth.nasa.gov/images/74218/december-blue-marble-next-generation/742351>

Tambora volcano:

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Pattern references, including for book map border:

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https://commons.wikimedia.org/wiki/File:Ceremonial_water_drum,_Papua_New_Guinea,_Chambri_Lakes_region,_carved_wood,_natural_pigments_and_cowrie_shells.jpg

Old pictures from Dutch expedition:

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https://commons.wikimedia.org/wiki/File:E%C3%A9n_van_de_eilandjes_van_A%C3%A9n,_Nieuw_Guinea_-_Collectie_stichting_Nationaal_Museum_van_Wereldculturen_-_TM-10008116.jpg

Canoes (Acehnese, Māori, Fijian and various *paraw*):

https://commons.wikimedia.org/wiki/File:Prauw_voor_Atjeh.jpg
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Canoe paddles:

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https://commons.wikimedia.org/wiki/File:Ceremonial_canoe_paddle,_Papua_New_Guinea,_Massim_region,_Trobriand_Islands_or_Murua,_Honolulu_Academy_of_Arts.jpg
https://commons.wikimedia.org/wiki/File:Canoe_paddle,_Papua_New_Guinea,_Buka_Island,_North_Solomons_Province,_wood_and_pigment,_Honolulu_Academy_of_Arts.jpg

Paint dish from Lower Ramu:

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Tambunum village men's house:

[https://commons.wikimedia.org/wiki/File:Men%27s_house_in_Tambunum_village,_Sepik_River,_Papua_New_Guinea_\(rear_view\).jpg](https://commons.wikimedia.org/wiki/File:Men%27s_house_in_Tambunum_village,_Sepik_River,_Papua_New_Guinea_(rear_view).jpg)

Cassowary:

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Village house in Enga Province, PNG:

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Megabat primarily based on this reference:

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Beach and sea looking towards Mount Tavurvur:

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New Guinea Creeper vines and flowers:

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Sea snail shell from Dampier Strait:

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Raja Ampat's Piaynemo, Misool and Wayag islands above and below the water:

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https://commons.wikimedia.org/wiki/File:View_of_the_western_most_bay_aken_from_top_of_Mount_Pindito,_Bird%27s_Head_Seascape_-_Wayag_Islands.jpg

https://en.wikipedia.org/wiki/File:Pulau_Piaynemo,_Raja_Ampat.jpg

Inked carving pattern partly inspired by this East Sepik pigment dish:

<https://www.pinterest.com/pin/421649583859001749/>

Bananas:

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Sugarcane:

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Taro:

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https://commons.wikimedia.org/wiki/Category:Colocasia_esculenta_roots

Palm mesh based on:

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Flower:

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Taro leaf:

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Mt Hagen Sing Sing (reference for headwear):

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Mt Hagen Sing-sing:

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Coffee beans:

<https://commons.wikimedia.org/wiki/File:Kafee.jpg>

Music

I reuse sounds and music from the last video, for which credit belongs to the Sawos people of Torembi village as recorded by Dr. John Tyman, and licensed by email correspondence with Dr. Tyman:

<http://www.johntyman.com/sawos/sfx.html>

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Sounds

(Most sound effects are snipped from longer audio recordings on Dr. Tyman's site – see music credits above. The rest are from my longstanding favorites below.)

(from www.soundbible.com and www.pdsounds.org)

Woosh, Mark DiAngelo

Swoosh 1, man

Swooshing, man

Blop, Mark DiAngelo

Mouth pop, Cori Samuel

Wind storm, Mark DiAngelo

Dragon wheeze, Gregory Weir

Dull thud, Gregory Weir

Turning a page, John Rose

Page turn, planish

Books and paper, Stephan, pdsounds.org

Crisp ocean waves, Mike Koenig

Sea waves, Mike Koenig

I recorded the shooshes/hushes and chalk writing sound effects.

(from <http://en.soundeffect-lab.info>)

page1

page2

head-stroke1

magic-cap-write1