For my father, Joseph N. Bloyd,

for his guidance and faith in me.

Bo aku nana fina.

A-ngau mon moya da, mai a-ngausu mon betia.

fate has fortuned me between you
Acknowledgements

(Categorically List these People:)

####(Under construction.)####

Introduction to principal consultants, institutions, and their contributions

The descriptions herein reflect my own analyses, however they would not have been possible without the generosity, input, and support of many. Among those who have my heartfelt gratitude are the people of Sula and Ternate who have a vested interest in my research and who welcomed me into their communities with open arms—from the mehi-nana who walked through the jungle to track me down and verify that I had collected particular words they thought I should know, to the piamatua who shared their wisdom and went out of their way to keep me safe and comfortable (and incredibly well fed). Among all who in some way or other contributed to the success of this work, the following people stood out:

Sahril Umagapi: for giving us access to a room to record in MTS Pastina

####(Under construction.)#####

person 1: who did this

person 2: who did this
I also relied heavily on guidance from experienced fieldworkers and from a number of books. Some of the people who shared their valuable experience were: my mentor, Robert Blust, the foremost authority on the Austronesian language family and a walking compendium of world language and historical linguistic knowledge; Gary Holton, a person who achieves more in a year than I will in a lifetime—who in between ultramarathons, circumnavigation of remote pacific islands by kayak, and mountain bike races over Alaskan snow, still makes time to tackle colossal academic projects, conduct fieldwork everywhere, edit volumes in hours where others would take weeks, and have long, challenging advisory meetings over beer. Gary taught me how to sketch a grammar, and—no exaggeration—once ran a 100 mile cross-country marathon and then came in to the university on an untreated broken toe and read over a draft of my work and sent me helpful feedback before seeking medical treatment and returning to teach a seminar by afternoon.

Other important mentors were Lyle Campbell, who shared a wealth of information on world languages and his experiences with fieldwork; Albert Schutz, who more than anyone took a deep interest in my work and academic success, and who shared so much from his decades of experience working in the Pacific; and Katie Drager and Ken Rehg, whose courses on endangered languages and field linguistics provoked many topics I had never considered so that I would not be caught blind.
Foremost among the books I referenced were Describing Morphosyntax: A Guide for Field Linguists by Thomas Edward Payne and Essentials of Language Documentation edited by Jost Gippert, Nikolaus P. Himmelmann, Ulrike Mosel. I do not cite either volume heavily in this dissertation, as I do not reference their specific points, but they were instrumental in enabling me to recognize challenging situations (both linguistically and socially) and provide me with frameworks to make plans accordingly. Hands down though, the most useful volume I had for the early stages of approaching an undocumented language is one that was not specifically written for that purpose: The Syntax Files is a document under perpetual revision and improvement in William O'Grady's endless pursuit of perfection and his passion for pedagogy. The volume is a course book for the second most difficult course I have ever taken\(^1\). This volume is a collection of tests and proofs to identify syntactic patterns in languages, and it is arranged in an order that comprises a logical template for a syntactic grammar. As a beginning linguist with only one year of study under my belt when I first visited Sula, and with no Sula language learning materials to reference, this book and O'Grady's course gave me the skills to break apart the foreign utterances I was hearing, find the units of meaning, and then begin to decode their arrangement.

In short: Robert Blust helped me choose Sula as my research focus, and he gave me the skills to analyze it within its language family. Yuko Otsuka taught me to find its words, and William O'Grady taught me how to figure out how they go together to form sentences. Patricia Donegan taught me the skills to discern how Sula's sounds are grouped, and Victoria Anderson gave me the ability to find those sounds in the first

\(^1\) The most difficult was also taught by William O'Grady.
place. Katie Drager introduced many of the challenges facing endangered language communities and she taught me how to see language variation in terms of society, Ken Rehg made me think a lot about ethical topics surrounding fieldwork, and Gary Holton taught me how to handle fieldwork logistics, how to incorporate my findings into a 'big picture', and how to organize and compile my findings.
# Table of Contents

## Acknowledgements

1. Introduction to principal consultants, institutions, and their contributions

## Table of Contents

### (Under construction.)

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgements</td>
<td>iii</td>
</tr>
<tr>
<td>Introduction to principal consultants, institutions, and their contributions</td>
<td>iii</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>vii</td>
</tr>
<tr>
<td>### (Under construction.) ###</td>
<td>vii</td>
</tr>
<tr>
<td>List of Tables &amp; Figures</td>
<td>xvii</td>
</tr>
<tr>
<td>Glossary of Terms and Abbreviations ### (Under construction.) ###</td>
<td>xx</td>
</tr>
<tr>
<td>Preface</td>
<td>xxv</td>
</tr>
<tr>
<td>I. Opening statement</td>
<td>xxvi</td>
</tr>
<tr>
<td>II. Dissertation context</td>
<td>xxxi</td>
</tr>
<tr>
<td>II.I. Research Overview</td>
<td>xxxiii</td>
</tr>
<tr>
<td>III. Sociopolitical context during the time of research</td>
<td>xxxv</td>
</tr>
<tr>
<td>IV. Research Justification</td>
<td>xxxix</td>
</tr>
<tr>
<td>IV.I. Research Justification. Broad</td>
<td>xxxix</td>
</tr>
<tr>
<td>IV.II. Research Justification. Academic community</td>
<td>xli</td>
</tr>
<tr>
<td>V. Chapter overviews</td>
<td>xlv</td>
</tr>
<tr>
<td>Chapter 1: land and people</td>
<td>45</td>
</tr>
<tr>
<td>1.1 Arrival in Sula</td>
<td>46</td>
</tr>
<tr>
<td>1.2 Language in Context</td>
<td>46</td>
</tr>
<tr>
<td>1.3 The Past</td>
<td>52</td>
</tr>
<tr>
<td>1.3.1 The Past. Pre-Austronesians</td>
<td>54</td>
</tr>
<tr>
<td>1.3.2 The Past. Austronesian expansion</td>
<td>57</td>
</tr>
<tr>
<td>1.3.3 The Past. Sultanate of Ternate to present</td>
<td>60</td>
</tr>
<tr>
<td>1.4 Determining vitality</td>
<td>62</td>
</tr>
<tr>
<td>1.4.1 Determining vitality. Speaker numbers and vitality introduction</td>
<td>62</td>
</tr>
<tr>
<td>1.4.2 Determining vitality. Newcomer communities</td>
<td>65</td>
</tr>
<tr>
<td>1.4.3 Determining vitality. Taliabu island population</td>
<td>68</td>
</tr>
<tr>
<td>1.4.4 Determining vitality. Gathering cellular reach data</td>
<td>69</td>
</tr>
<tr>
<td>1.4.4.1 Determining vitality. Gathering cellular reach data. Method for determining cellular reach</td>
<td>70</td>
</tr>
<tr>
<td>1.4.5 Determining vitality. Evaluative Factors of Language Vitality</td>
<td>71</td>
</tr>
</tbody>
</table>
1.4.5.1 Determining vitality. Determining endangerment level
1.4.5.1.1 Determining vitality. Determining endangerment level. Category 1: speaker base
Overall category 1 (speaker base) score: 2.3
1.4.5.1.2 Determining vitality. Determining endangerment level. Category 2: language pervasiveness trends
Overall category 2 (language pervasiveness trends) score: 1.2
1.4.5.1.3 Determining vitality. Determining endangerment level. Category 3: globalization
Overall Category 3 (Globalization) Score: 1.667
1.4.6 Determining vitality. Conclusion
1.5 Online presence and the effects of globalization
1.6 Chapter conclusion
Chapter 2: dialects. part 1
1.1 Where to begin?
1.2 Geographical and social factors
1.2.1 Sula isoglosses
1.3 Overview
1.4 Previous research
1.5 Methods
1.6 Comparisons
1.6.1 Clusters and diphthongs in Proto–Sanana–Mangon
1.6.2 Changes in Proto–Sula, prior to PSM
1.6.3 Sound changes from PSM to Sanana
1.6.3.1 Consonants
1.6.3.1.1 *l>h/[V_V], [^_]
1.6.3.1.2 *l – l
1.6.3.1.3 *n>n
1.6.3.2 Vowels
1.6.3.2.1 *u>a/oσ_#
1.6.3.2.2 *i,u>Ø
1.6.3.3 Anomalies
1.6.3.3.1. Proto *c became s in 'branch'
1.6.3.3.2. -y- epenthesis occurred in ‘mouth’ 147
1.6.3.3.3. -l- epenthesis occurred in ‘to steal’.
1.6.3.3.4. The numeral prefix ga- was dropped in the morpheme for ‘one’ and all ordinal derivatives. 148
1.6.3.3.5. *g deletion in two words. 149
1.6.3.3.6. *mf to /f/ reduction 149
1.6.3.3.7. Final ñ deletion 150
1.6.3.3.8. PSM *s > h in ‘flesh’ 150
1.6.3.3.9. Proto */v > ? 151
1.6.4 Sound changes from PSM to Mangon 151
1.6.4.1 PSM to Mangon. Consonants 151
1.6.4.1.1 PSM to Mangon. Consonants: *h>Ø 151
1.6.4.1.2 PSM to Mangon. Consonants: */n>/Ø 153
1.6.4.1.3 PSM to Mangon. Consonants: /N-/ prefix 153
1.6.4.2 PSM to Mangon. Vowels 155
1.6.4.2.1 PSM to Mangon. Vowels: *V1V1>V1 156
1.6.4.2.2 PSM to Mangon. Vowels: *ei>e, *ou>o 156
1.6.4.3 Non-generalizable 157
1.6.4.3.1 PSM to Mangon. Non-generalizable: *a lost from *au sequence 157
1.6.4.3.2 PSM to Mangon. Non-generalizable: balfoñi 158
1.6.4.3.3 PSM to Mangon. Non-generalizable: *s > f 158
1.6.4.3.4 PSM to Mangon. Non-generalizable: *ao>o 158
1.6.4.4 PSM to Mangon: PSM in summation 159

Chapter 2: dialects. part 2 161
1 New dialects. Introduction 162
2 New dialects. Dialect Leveling 163
3 New dialects. Dialect forming 168
  3.1 CMD background 171
  3.2 Sula dialect contact 173
  3.3 Accommodation and change 175
4 New dialects. Data examination 177
  4.1 Methods 178
1.3.3.2.3.1 Acoustic evidence 219
1.3.3.2.3.2 Minimal pair evidence 222
  1.3.3.2.3.2.1 b/p 222
  1.3.3.2.3.2.2 d/t 222
  1.3.3.2.3.2.3 g/k 223
1.3.3.2.4 Peculiarities: A more natural, intervocalic voicing process 223
1.4 Syllable stress 225
2 description of orthography 226
  2.1 How words are pronounced 227
3 greetings and introductions 228
  3.1 Exchange type a (when both participants are en route) 229
  3.2 Exchange type a (when only Person 2 is en route) 229
  3.3 Exchange type b (when neither person is en route) 230
  3.4 Exchange type c 230
  3.5 Preempted exchange 233
4 Counting 234
  4.1 Counting Objects 236
  4.2 Ordinals and multiplicatives 236
5 Word order 238
  5.1 Left-dislocation and word order 238
    5.1.1 Transitive verbs 238
    5.1.2 Intransitive verbs 239
  5.2 Double objects (ditransitives) and word order 239
6 verbal indexing 241
  6.1 Example sentences: 243
7 affirmative statements 244
  7.1 Confirmations 244
  7.2 "Seems to be" 247
8 negative statements 247
  8.1 Negating verb phrases 248
9 commands 250
10 directional system and space 251
10.1 Intrinsic frame of reference 253
10.2 Absolute frame of reference 253
10.3 Relative frame of reference 254
10.4 directions of motion 255
10.5 Adpositions & spatial relationships 255
11 question forming 258
11.1 “wh” words 258
11.1.1 hapa ‘what’ 259
11.1.2 bet pila ‘when’ 259
11.1.3 han ‘who’ 259
11.1.4 sahoa ‘where’ 259
11.1.5 bagahoa ‘why’ / ‘how’ 260
11.1.6 ga pila ‘how many/much’ 260
11.1.7 bahoa ‘which’ 260
12 requests and offers 260
12.1 Requests with dad 261
12.1.1 Agree 261
12.1.2 Refuse 261
12.2 Requests with heka 261
12.2.1 Agree 261
12.2.2 Refuse 262
13 modifying 262
13.1 Nominal modification 262
13.2 Verbal modification 262
13.3 Modifier modification 263
14 Expressing time 264
14.1 Telling time 264
14.1.1 Examples 264
14.2 Saying the date 267
14.3 Talking about the past and future 268
14.3.1 Future auxiliary construction 269
14.4 Aspect 269
NOT FOR CITATION: Manuscript for dissertation defense

18.2.4 Third-person singular and plural possessors sometimes require =in 287
18.3 "of" possessive 293
18.4 Possessive questions 293
18.5 gon constructions 295
19 reference switching through pronouns and pronominal prefixes 297
20 Determiners 299
20.1 Demonstrative determiner iki/ika 299
20.2 Demonstrative determiner neka 299
20.3 Determiner word order 300
20.4 Discourse marking 300
21 Passives 300
21.1 Passive construction with 'punish' 300
21.2 Passive with 'punish' & null oblique? 301
22 Morpheme and word classes 301
22.1 verbs & nouns 301
22.2 modifiers 302
22.3 pronouns 303
22.4 demonstratives 304
22.5 locatives 304
22.6 deictic locatives 304
22.7 interrogatives 304
22.8 numerals 305
22.9 numeral classifier (counting word) 305
22.10 causative prefixes 307
22.11 other prefixes (some likely fossilized) 308
22.12 auxiliaries and modality 309
23 Noun phrases 310
23.1 examples basic structure 311
23.2 examples attributive modification 311
23.3 examples descriptive modification 312
23.4 examples verbally modification 312
23.5 examples quantifier modification 312
24 Verbs 313
  24.1 Alignment 313
  24.2 Transitive verbs are marked to agree with human subjects 314
  24.3 Aspectual function of pronominal prefixes 317
25 Causatives 319
  25.1 non-causative construction 321
  25.2 causative construction with bau- 321
  25.3 causative construction with baka- 321
26 Reduplication 322
  26.1 Types of reduplication present in Buru 322
  26.2 Phrasal reduplication 322
  26.3 Reduplication of Verbs 323
  26.4 Reduplication of active verbs 323
  26.5 active intransitive 323
  26.6 active transitive 324
  26.7 Reduplicated modifying, non-active verbs (adverbs of manner) 324
  26.8 Reduplicated non-modifying, non-active main verbs 326
  26.9 Buru intensity 326
  26.10 Additional-Descriptors 327
  26.11 Distributive Noun Reduplication 327
  26.11.1 Distribution effect 328
  26.12 Plural effect? 328
  26.13 Native vs. loan reduplication 328
  26.13.1 Reduplicated loan [reduplicated prior to import] 329
  26.13.2 Reduplicated loan [reduplicated following import] 329
  26.14 Reduplication in sum 329
27 Complex sentences 330
  27.1 relative clauses 331
  27.1.1 non-restrictive, possible RC with pronoun 331
  27.1.2 non-restrictive, possible RC with pronominal prefix 331
  27.1.3 restrictive RC with yang 332
  27.1.4 possible RC with pause 332
List of Tables & Figures

Figure 1. Screenshot of the English Wikipedia entry 48
Figure 2. The Sula Archipelago 51
Figure 3. Migration routes 56
Figure 4. Austronesian family tree as proposed by Blust (1978) 58
Figure 5. Sula language range 67
Figure 6. Political districts 68
Figure 7. Map of cellular and data availability on Sanana 70
Table 1. Augmented Evaluative Factors of Language Vitality 73
Table 2. Estimated population that is ethnically Sula in each region 79
Table 3. Speaker numbers by region 82
Table 4. Scale for cellular voice/SMS signal results 97
Table 5. Cellular data signal results 98
Table 6. Percentage of adults with a smartphone results 99
Table 7. Percentage of adults with a ‘dumbphone’ results 100
Table 8. Factors 17–20 tally 101
Table 9. Values relative to percentage of entire Sula population 102
Figure 8. Sample of Sula language conversation in a digital domain 106
Figure 9. Sula archipelago 115
Figure 10. Sula Isogloss Map 116
Table 10. Sanana–Mangon phoneme correspondences 122
Figure 11. Sula village settlement pattern 125
Figure 12. Relationships between dialects in hypothetical set 127
Table 11. Elicitation sessions by tribe 131
Table 12. Phoneme inventory 134
Table 13. *u > o examples 136
Table 14. *d>r /V_V 138
Table 15. *l>h/[V_V], [#_] 139
Table 16. *l – l strong examples 142
Table 17. *l – l counter examples 143
Table 18. *ŋ>n 143
Table 19. *u>a/oσ_# 145
Table 20. *i,u>Ø 146
Table 21. PSM to Mangon: *h>Ø 152
Table 22. PSM to Mangon: *h>Ø exceptions 152
Table 23. PSM to Mangon: *ʔ > Ø 153
Table 24. PSM to Mangon: /N-/ prefix 154
Table 25. PSM to Mangon: *V1V1>V1 156
Table 26. PSM to Mangon: *ei>e, *ou>o 157
Figure 13. Historical tribal villages & new villages 166
Figure 14. Facei tribe migration to Mangon 166
Figure 15. Genetic relationship of Sula's dialects. 168
Table 27. Loss and retention of final high vowels in Sanana dialects 170
Figure 16. CMD—Mangon—Sanana community and dialect regions 172
Figure 17. Data collection sites on Sanana and Mangon islands 179
Figure 18. Percentage of tokens produced with final /i/ & /u/ in CMD 183
Table 28. Words where final i would be expected in CMD. 184
Table 29. Words with final /u/ target environments. 186
Table 30. Lexemes Borrowed from Mangon 188
Table 31. Lexemes Not Borrowed from Mangon 189
Table 32. Interdialect Forms 191
Table 33. consonants 200
Table 34. Vowels 200
Table 35. Instances of each phoneme 202
Table 36. Possible diphthongs in the Sula language 203
Table 37. Consonant clusters present in Sula words 205
Table 38. Phonotactic environments of each phoneme 206
Table 39. Voicing alternation examples 214
<table>
<thead>
<tr>
<th>Table/Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 40.</td>
<td>Devoicing of numeral prefix</td>
<td>219</td>
</tr>
<tr>
<td>Figure 19.</td>
<td>Spectrogram of voiced segment.</td>
<td>221</td>
</tr>
<tr>
<td>Figure 20.</td>
<td>Spectrogram of voiceless segment.</td>
<td>221</td>
</tr>
<tr>
<td>Table 41.</td>
<td>Sula to Indonesian and English approximate pronunciations</td>
<td>227</td>
</tr>
<tr>
<td>Table 42.</td>
<td>Cardinal Numbers</td>
<td>235</td>
</tr>
<tr>
<td>Table 43.</td>
<td>Ordinal and multiplicative counting</td>
<td>237</td>
</tr>
<tr>
<td>Table 44.</td>
<td>Pronouns</td>
<td>242</td>
</tr>
<tr>
<td>Table 45.</td>
<td>directional terminology</td>
<td>252</td>
</tr>
<tr>
<td>Figure 21.</td>
<td>Absolute directional system</td>
<td>254</td>
</tr>
<tr>
<td>Table 46.</td>
<td>Time telling vocabulary</td>
<td>264</td>
</tr>
<tr>
<td>Table 47.</td>
<td>The Sula/Malay Months</td>
<td>267</td>
</tr>
<tr>
<td>Table 48.</td>
<td>Vocabulary for orienting days</td>
<td>273</td>
</tr>
<tr>
<td>Table 49.</td>
<td>Vocabulary for orienting weeks</td>
<td>273</td>
</tr>
<tr>
<td>Table 50.</td>
<td>Vocabulary for orienting months</td>
<td>274</td>
</tr>
<tr>
<td>Table 51.</td>
<td>Vocabulary for orienting years</td>
<td>274</td>
</tr>
<tr>
<td>Table 52.</td>
<td>Additional time vocabulary</td>
<td>274</td>
</tr>
<tr>
<td>Table 53.</td>
<td>Pronouns &amp; Pronominal prefixes</td>
<td>304</td>
</tr>
<tr>
<td>Table 54.</td>
<td>locational adpositions</td>
<td>306</td>
</tr>
<tr>
<td>Table 55.</td>
<td>conjunctions</td>
<td>306</td>
</tr>
<tr>
<td>Table 56.</td>
<td>particles</td>
<td>307</td>
</tr>
<tr>
<td>Table 57.</td>
<td>clitics</td>
<td>307</td>
</tr>
<tr>
<td>Table 58.</td>
<td>causative prefixes and examples</td>
<td>308</td>
</tr>
<tr>
<td>Table 59.</td>
<td>other verbal prefixes and examples</td>
<td>308</td>
</tr>
<tr>
<td>Table 60.</td>
<td>auxiliary verbs and modals</td>
<td>309</td>
</tr>
<tr>
<td>Table 61.</td>
<td>other, non-modal auxiliary verbs</td>
<td>310</td>
</tr>
<tr>
<td>Table 62.</td>
<td>Subject and agreement markers</td>
<td>314</td>
</tr>
<tr>
<td>Table 63.</td>
<td>Sula conjunctions</td>
<td>334</td>
</tr>
</tbody>
</table>
Glossary of Terms and Abbreviations ###(Under construction.)###

.AGR:
.F:
=: 1PL:
1SG:
2PL:
2SG:
3PL:
3SG:
active verb:
active–stative:
adposition:
agentive verb:
allophone:
alveolar:
ASPECT:
bilabial:
bimoraic:
cardinal number:
CAUS:
CLF:
clause embedding:
COMP:
complement:
complex sentence:
complimentary distribution:
conjunction:
coordinating conjunction:
correlative conjunction:
creolization:
critical period:
degree (words):
deictic:
digital footprints:
diphthong:
direct object:
distribution:
ECXL:
epenthesis:
ergative–absolutive:
EXP:
explicative:
F.PRONOUN:
F.PRONOUN.AGR:
founder population:
genitive:
gloss:
glottal:
idiolect:
INCL:
indexing:
indirect object:
interdialect:
interlinearly glossed:
intransitive verb:
labio dental:
language inertia:
LOC:
locative:
marker:
maximal Onset Principle:
mora/moraic:
morpheme:
morphophonological process:
motivation:
multiplicative:
multiplicative:
naturalness:
NEG:
Neogrammarians:
OBL:
ordinal number:
ordinal:
orthography:
palatal:
paradigm:
paragoge:
penultimate (e.g. penultimate mora):
penultimate stress:
phoneme:
phonetic:
phonological process:
phonotactic:
phrase:
POSS:
possessor:
post alveolar:
post-nominal:
postposition:
prefix:
preposition:
reflexive:
relativization:
sentence:
speech accommodation:
subject-verb-object (SVO):
subordinating conjunction:
superlative:
swamping effects:
syllable:
syntax:
temporal:
transitive verb:
underlying:
underlyingly:
velar:
verbal:
voiced/voiceless:
Preface
I. Opening statement

On March 8, 2002, while living in Osaka, Japan, I streamed an episode of National Public Radio Science Friday hosted by Ira Flatow that featured Steven Bird, Jerold Edmondson, and Lawrence Kaplan in a discussion on the topic of language endangerment. It was a topic that I had been tangentially aware of but never previously given much thought to. As a child and young adult I had a deep interest in language and had dabbled in learning several—usually learning more about languages than developing any reasonable degree of proficiency—but after many years of struggle and a year abroad at the Rheinische Friedrich-Wilhelms-Universität Bonn in Germany, I did eventually attain a respectable degree of German language proficiency and having lived in Japan for nearly a year at that time, I had begun to develop basic Japanese skills as well. Although my successes were matched by a deep frustration about seemingly insurmountable obstacles I sensed in my post critical period language learning attempt. I recounted that as a small child living in a Zen Buddhist monastery outside of Woodstock New York, I had already known quite a bit of Japanese—the exact amount I am uncertain, as it was a process that came to me naturally from my surroundings. And while I have a memory of once being ushered into the prayer room and asked to lead the adults in a mantra, this was no doubt done on a whim to satisfy curiosity or amusement from adults who noticed me as a mischievous little distraction to worship while playing in the surrounding hallway and attic spaces during their prayer activities, and I did not likely understand much of what I was reciting (if it was even Japanese at all).

---

2 The critical period is a hypothesis proposed in 1959 by the neurosurgeon Wilder Penfield (Penfield et al. 1959). In a nutshell, the hypothesis states that neuroplasticity enables children to quickly and effortlessly learn languages whereas it is much more of a labor for adults.
The mantra aside, I was able to speak a fair bit of Japanese, and those decades later I could vividly recall the feeling of having previously understood and spoken a language that I had effortlessly and unintentionally absorbed, yet the singular word I could still produce from my childhood was the 'Buddhist name' I had chosen for myself when the elder priest, Daido, shaved my head, dressed me in a robe, and declared me "the Zen Mountain Monastery's newest and youngest monk." Incidentally, in a characteristic display of humility, I chose for my name a Sanskrit word maha—a word that traces back to Proto-Indo-European *meǵ- meaning 'big, much, great, major, mega-'. To put it a different way, the experience of effortlessly learning a foreign language when I was five was followed by effortlessly forgetting it all the following year when I moved away, and it afforded my adult self no advantage when I started trying to intentionally learn Japanese. Language learning had become a struggle and I realized that no matter how I might try, I would likely never reach a level approaching native proficiency.

The radio conversation evoked a powerful emotional response, making me consider the loneliness of being the last speaker of one's own mother tongue. No matter how I might try, I would likely never reach a level approaching native proficiency that could convey my deepest thoughts and feelings in a way close to representing my actual human experience, and realizing this overwhelmed me with a sense of loneliness at the world's irrevocable loss when a language ceases to exist. In the years following, I often thought about the ongoing issues of language loss and wondered how I could help address the problem. I committed myself to pursuing linguistics, because I did not want to risk unconsciously exacerbating the problem. I set a somewhat arbitrary goal of earning a footnote or citation to mark the moment I would become linguistically ‘carbon
neutral’ and I decided that anything beyond that point would constitute a net social contribution.

Although I wanted badly to help, I knew I was not likely to become a revolutionary theoretical linguist; I was long out of college and did not have a background in the field, and to be honest, the back and forth game of theoretical academics has never brought me satisfaction nor a sense of concrete contribution. I thought academia was probably not the most suitable path for me, but as I studied the topic of language loss, I kept hearing a common refrain from the field's preeminent linguists: languages are dying faster than they can be studied, and there are simply not enough linguists to gather even the most basic information about languages before they are gone. This was often followed by an impassioned plea for people to become linguists and work on an undocumented language. That was a contribution I could see myself making, as it didn’t require expanding the cutting edge of linguistic theory.

Where there is terra incognita, cartographers must first map the landscape before the geologist can know where to find the canyons and arêtes she studies, before the prospector can make an educated guess about where to sink his shovel, and before the ichthyologist can know where to find lakes and rivers. While the cartographer necessarily has a much shallower base of knowledge about each of those topics, and her work is arguably less glamorous than other areas, her initial mapping is vital, as those areas of research fundamentally depend on her groundwork. Likewise, theoretical and experimental linguists of today must rely on rudimentary wordlists and analyses collected by previous fieldworkers in order to expand the base of knowledge. This
dissertation is that contribution to linguistic knowledge: a modest but broad cultural (and sometimes physical) mapping of the landscape regarding Sula: its language, land, and people.

My first introduction to the Sula language came during volunteer work with the Language Documentation Training Center (LDTC) at the University of Hawai‘i at Mānoa. There I was partnered with Erwin Gay, a man originally from the village of Pohea on Sanana whose early life experiences took him to Ternate and eventually led to a university study abroad program in Hawai‘i. Erwin joined the LDTC to share a part of his language and culture with the world, and as I began to work with him and search for information and previous research on the language, it became clear that the Sula language was underrepresented in the academic literature and few of the answers to my questions were available. As someone who does not easily accept his curiosity going unanswered, my initial introduction to the language and culture of Sula ignited an ever-lengthening chain of questions and a (sometimes obsessive) decade-long labor of passion which culminated in this dissertation: a summary of findings on the language and people of the Sula Archipelago. I hope that the information herein will assist with aid and development efforts in the region, facilitate language maintenance and revitalization efforts, kindle future in-depth linguistic and anthropological research, and provide data that could one day help to refine linguistic theories and improve our science's understanding of language mechanics and its interface with the human mind.

This dissertation represents the culmination of my effort to delve deeper into a little-known language in an effort to document and provide information about at least one
more world tongue before it possibly becomes extinct. When I embarked on this study, so little was known about the Sula language in the academic literature that even the most basic question could not be answered: *is Sula a singular language, and if so, is it endangered?* Fieldwork for this dissertation was conducted in the Maluku region of Indonesia, primarily on the islands of Sanana and Mangoli within the Sula Archipelago and also among diaspora communities on Ternate, Surabaya, and Halmahera. Work with one of my most valuable collaborators, Ida Ryberg (née Tabona Umage), was conducted in Gothenburg, Sweden and thereafter via ongoing digital correspondence.

Regardless whether Sula turned out to be endangered, I reasoned that my initial work on Sula would help document a dying language, because even if Sula turned out to be healthy, my work would let other linguists know to divert their energy to other languages in need of more pressing attention. Essentially, even if my work did not itself amount to direct documentation of an endangered or dying language, it would at a minimum help to do so indirectly. So while this dissertation does not attempt to propose any revolutionary theories on human language, it does identify areas where the language challenges accepted linguistic dogma, and in a broad sense, it answers the questions: *Is Sula a single language or multiple languages? Where is Sula spoken and by whom? What is its basic lexicon? How are the sub-dialects (or languages) historically related to one another? How is Sula's basic grammar structured?* (with regard to the core areas of linguistics). Lastly, *What is life like for Sula speakers?* (concerning geographic, demographic, psychosocial factors, ethnographic, and infrastructural information).
Upon commencement of research it was unclear what the most interesting or theoretically poignant aspects of Sula life and language would be, but years of work, significant personal investment, and the thoughtful guidance of my mentors, advisors, and collaborators, has led to the identification of several such areas. This directs experimental and documentary linguists toward important areas for subsequent in-depth studies so they can hit the ground running and tease out valuable answers. It also provides easily accessible, hard data for academics who themselves operate on the cutting edges to tests their theories and to identify further poignant topics that slipped past me.

The classical and modern giants in the field of linguistics established a firm footing for me to operate on, and they provided time-tested conventions and methods for those in my shoes to utilize. So although my work represents only the tip of a much bigger iceberg in understanding Sula (or perhaps 'pumice island' would be a more regionally appropriate metaphor), and while this document certainly contains mistakes and analytical flaws, I can state confidently that the information herein is sound and useful, and that it will lead to meaningful contributions to our field in the years to come.

II. Dissertation context

Globalization has begun to connect Sula to the outside world, and the language community is on the precipice of a profound social restructuring. Sula is endangered by policies that bolster Indonesian Malay to the detriment of indigenous tongues, by the introduction of digital technologies that deliver dominant-language content to previously private domains of communication, and by a depressed local economy that
requires many in the community to seek jobs elsewhere. This dissertation represents nearly a decade of doctoral work geared at helping to curtail threats to language vitality. It includes a Sula language grammar, a Sula–Indonesian–English dictionary, documentation of traditional environmental knowledge, and annotated textual examples of audio-visual materials that capture Sula in culturally relevant discourse domains—especially domains at risk of disappearing. Herein you will learn about the inner mechanics of Sula and its external pressures alike.

The Sula language of Eastern Indonesia is an Austronesian language of the Central-Eastern Malayo-Polynesian sub-family (Eberhard et al. 2020) that is spoken (to varying degrees) by likely upwards of 40,000 people on the islands of Sanana and Mongoli and (to a lesser degree) Taliabu, Buru, Bacan, Ternate, and in Surubaya.

The language has twenty consonants and five vowels. It is a subject-verb-object (SVO) language with position indicated by a prepositional locative morpheme working in concert with meaning-bearing postpositional phrases. The genitive is possessor initial, and modifiers follow the noun—that is, *mon nap nahu* (you hair long) ‘your hair is long’. This is somewhat uncommon typologically, as languages with post-nominal modifiers tend to also have post-nominal possessors (e.g. Comrie 1989). Most Sula words are one or two syllables; however, word stems of up to four syllables are not uncommon, and can be much longer in compound words and words with reduplicated modifier suffixes. Canonical syllables are shaped (C)V in the Mangon dialects of Sula and (C)V(C) in the Sanana dialects—that is, the majority of Proto–Sula words were

---

3 Mangon Island aka: Mangoli, Mangole, Mongoli, Mongon, Xulla Mangola
4 Sanana Island aka: Sula Island, Xulla Bessi, Xullabessi, Sulabes
bisyllabic, but the Sanana dialect has deleted many final vowels that are still present in Mangon. This has resulted in many more monosyllabic words in the Sanana dialects and many syllable codas that are not present in Mangon dialects. Grammatical words tend to be monosyllabic, and disyllabic words carry stress on the penult if the final syllable is light but on the final syllable, if it is heavy (in a moraic analysis, stress could be said to be present on the syllable containing the penultimate mora).

Sula has a rich and complicated pronominal system; pronouns are frequently dropped, and they are indexed on verbs via a set of agreement markers that are also used (by many if not all speakers) to indicate the progressive aspect and reference switching. As in the Buru language (Grimes 1992), deictics are used to indicate definiteness and reference tracking. Sula has a system of split alignment and animacy (at least among many speakers): first-person subjects follow an Active–Stative classification in which transitive verbs and agentive intransitive verbs are marked for subject agreement. Non-first-person, human subjects are marked on verbs along ergative–absolutive lines, and verbs are not marked to agree with non-human subjects. Sula does not have grammatical tense; however, there is a system of post-verbal aspect markers. Sula does not seem to have a very rich system of relativization or clause embedding, and where it is observed, it is unclear if it is native or calqued from Malay.

II.I. Research Overview

This dissertation includes #### thousand Sula lexical items, a grammatical description of the language, a description of the primary dialects, and a historical reconstruction of the proto dialect. The work supports the Sula community’s efforts to
preserve its language and heritage, and it contributes to the body of knowledge about a 
geographically large area that remains nearly unknown to the linguistic and 
anthropological communities.

Research is based on data collected during fieldwork that began in 2010. Language 
vitality is determined using a twenty-factor augmented version of UNESCO’s factors for 
determining language endangerment (Brenzinger et al. 2003). My data include 
grammar and vocabulary elicitations; interviews; and recordings that capture Sula in 
culturally relevant discourse domains—especially domains at risk of disappearing, such 
as: casual conversations, public events, demonstrations of cultural practices, and 
performances of songs and stories that are connected to physical locations in the 
archipelago (Bloyd 2010–2019). The words of the Sula language are collected through 
targeted vocabulary elicitation and examination of conversation samples, and the 
entries are compiled into an online and downloadable Sula–Indonesian–English 
dictionary.

Linguists commonly note that work on Sula is limited by a deficiency of descriptive 
lexical documentation will facilitate historical analysis, the grammatical sketch will 
enable typological and syntactic research into the boundaries of what is possible in 
human language, and the dialect descriptions will make possible sociolinguistic 
variation research. These are lines of inquiry that the paucity of data has rendered thus 
far impossible to conduct.
The research benefits the Sula community, some of whom have become increasingly concerned about the trend of language loss and hope to preserve their language heritage: the language vitality component provides information that will assist planning efforts, and documentation materials will assist language maintenance and revitalization programs and aid with the production of pedagogical materials. This work has already begun to mitigate absolute language loss from the standpoint of documentation, as I have trained three Sula speakers in methods of documentation, and I am in the process of training several more. The Jere Feu project for local ecological knowledge in the modern era that I began with my colleague, Adita Agoes, works to preserve local regional languages through the framework of Jere, the region’s traditional knowledge and conservation system. This project has over fifteen partners including community elders, government officials, educators, and it even boasts support from the prestigious sultanate of Tidore and the late sultan of Ternate.

III. Sociopolitical context during the time of research

I made my first fieldwork trip to Sula in Summer of 2010. It was a time of transition and optimism. Barak Obama had been inaugurated in the United States a year before, and he not only ended a perceived period of hostility toward Muslims worldwide, he had himself lived in Indonesia during a period of his childhood, has Indonesian family, and could at least pay lip service to the the nation’s official language. I enjoyed a good deal of favor by association as I was a researcher from the University of Hawai‘i—Obama’s home state—and a student affiliate of the East West Center academic institution where Obama’s parents had met, and I lived on the third floor of the Hale Mānoa building in a
room where (according to plausible urban legend) Obama's parents lived and he was himself said to be conceived. I must admit that I used that tenuous connection to grease wheels and get myself out of a bind on more than a few occasions.

A characteristic feature of my first summer in Sula was the 2010 World Cup—an event that evoked a strong sense of positivity, hope, and international unity among Moluccans. Indonesia is not known to be a football powerhouse on the world stage, and they were by no means contenders for the competition, but Sanana residents were as ferociously dedicated as any sports fans I have ever observed. Each neighborhood chose a country to support—nations that were foreign in the purest sense, places where few if any of Sanana's residents had ever set foot and whose languages and cultures were largely unknown, yet places many of Sanana's young men would no doubt have taken up arms and given their lives for.  

Several times a day throughout the duration of the competition, large makeshift parades rallied down the main strip supporting the nations set to compete. Participants would wave whatever flags and paraphernalia they could make or acquire, and blast out sound from whatever noise-making devices they could render. During game times, crowds gathered around public outdoor televisions powered by community generators to watch, celebrate, and cheer their adopted nations on.

During the course of my research, the Islamic holy month of Ramadan spanned the (northern hemisphere's) summer months, when my academic and work schedules

---

5 In fact during the competition, at least one death was reported due to a machete fight over a World Cup competition.
permitted most of my field work, and the observance had a significant influence on my research. On the positive side, the observance encourages a general feeling of positivity and love for one's brethren, but on the flip side, the fasting requirement greatly impacted my consultants' ability to focus on work. During the Holy Month, Muslims are encouraged to abstain from eating or drinking from sunup to sundown. The Sula Archipelago is stiflingly humid during that time of year, however, and the resulting dehydration can quickly cause lethargy. Additionally, the Sula population are intensely interested in others' comings and goings, and this led to a number of uncomfortable encounters even while working with consultants who were less severely affected by dehydration: frequently while walking to research appointments, bystanders gathered in public sitting areas would call out to my consultants and assistants with a passive aggressive (but unmistakably judgmental) accusation that they were not observing the fast.

The situation confused me the first time it happened and I asked my assistant whether she knew the bystanders and how they knew whether or not she was fasting. She said that she did not know them but explained to me the logic behind their statement: since people who fast from water during Ramadan tend to become fatigued in the midday heat, most people remain sedentary indoors unless it is absolutely necessary to go out. Because she was out, she said, their assumption was that she must not be observing the fast. This irritated her greatly because she was indeed observing the fast and, as she put it, even if she wasn't, they did not know whether she was menstruating (one of several reasons a person is permitted to skip fasting). She aggressively scolded the men for their intrusion into her business as we walked on.
My male assistants also faced particularly aggressive 'nosiness' regarding comings and goings during Ramadan, but it was more common and far more aggressive when targeting my female assistants. The encounters greatly upset one assistant in particular who hinted that there were additional implications of their accusation, but she did not spell them out, so I can only speculate as to what the implications might have been. When such an encounter occasionally began to grow intense, I learned that I could diffuse the situation with a gentle reminder to the parties involved that it was the Holy Month and we are meant to reject any negative thoughts that enter the mind.

Although my research began during a period of stability and optimism, it is important to note that it was a young stability coming out of tumultuous period marked by religious conflict and political reorganization. I took my first trip to Indonesia in the late 1990's while on a semester break from college. During that trip, I made a series of wrong decisions that resulted in my being lost somewhere in a seemingly evacuated district of Jakarta. There was not a soul to be seen other than groups of soldiers who were perched atop military vehicles at each intersection, intently scowling at me and clenching their rifles as I aimlessly wandered by. I grew nervous the longer I was lost, and then in the distance I saw a large group of protesters waving black signs and banners moving rapidly toward me. All of the US State Department travel advisories and international news stories about Islamic revolutionaries and rioters had me terrified and unsure whether to fall in with the protesters angrily approaching from my front or try to get past the heavily armed soldiers behind and to the sides of me. A healthy aversion toward approaching scowling people clutching weapons made me take my chances with the protesters. When they reached me, rather than attacking me or hurling projectiles or
insults, they rushed toward me with smiling faces asking me to take their photographs. To my surprise, several of them spoke excellent English, and they were eager to help me find my way. I would later learn that such student protests managed to topple a dictatorship and usher in a new era of democracy. Unfortunately though, upsetting the balance of power also led to violent regional flare-ups around the country. One of these flare-ups was a period of religious warfare in Maluku that continued until early 2002 when the Malino II Accord was signed, officially bringing an end to the conflict. Heavily damaged buildings in parts of Maluku bear witness to the strife to this day.

Although the violence was severe in several parts of Maluku, it is unclear to what degree the islands of Sula were involved. News reports from the time mention two Christians on Sanana being burned to death (Mardai 1999), but few details are given about the incident and the sourcing is dubious. Rumors spread with abandon during and following the conflict, and for several years foreign visitors were allowed by permit only, hence international reporters had few means to gather information firsthand. Producing an accurate accounting of the scope of the violence remains no light task. I failed to find firsthand witnesses to the burnings or other related instances of sectarian violence in Sula, but it is safe to say that some degree of conflict happened there, though the situation was not as intense or widespread as in other parts of the region.

IV. Research Justification

IV.I. Research Justification. Broad

This dissertation focuses on a language community nestled within the Austronesian–Papuan contact-region of Eastern Indonesia. It addresses the questions: What
constitutes the Sula language? How is Sula distinct from other languages? How has the Sula language evolved over time to reflect the contexts in which it emerged? and what is Sula’s social and physical environment? The questions are addressed by sketching Sula’s grammar (phonology, morphology, lexical categories, and syntax) and by looking at language typology, dialect variation, and identifying contextual factors that affect linguistic viability, including speaker numbers, intergenerational language transmission, cultural and political pressures, regional economy, community attitudes about the language, and the effects of what Grenoble (2011) identifies as primary factors associated with language shift: urbanization, globalization, and social and cultural dislocation.

This work will benefit the Sula community in a number of ways. The language vitality assessment provides answers about the language community that are badly needed for planning efforts, and the documentation materials within will be of use for language maintenance and revitalization programs and aid with the production of pedagogical materials. The academic community will also benefit from my work, because, as Sula is an undocumented language, linguists have few sources of information.

My research is based on data collected during ongoing fieldwork that began in 2010. The data include elicited vocabulary and grammatical information; recordings of free conversation, songs, stories, interviews, public events, demonstrations of cultural practices with native-language explanations, and performances of songs and stories connected to physical locations in the Archipelago. The words of the Sula language were collected through targeted vocabulary elicitation and examination of conversation
samples, and entries have been compiled into a sizable dictionary in Chapter 4 of the dissertation.

**IV.II. Research Justification. Academic community**

The results of my research represent the largest Sula documentation to date. Few publications discuss the Sula language, and fewer still contain any primary lexical data. Holton 1996 lists eight entries that mention Sula, and of them, only four contain primary lexical data (one of which remains unpublished). These entries are: Collins (1976, 1981) Holle (c. 1900) via Stokhof (1980), and Wallace (1869). Comparative linguists have noted that work on Sula is limited by the deficiency of descriptive data (e.g., Blust 1981, Collins 1981, 1983, Esser 1938, Grimes 1992). Two neighboring languages have been partially described: Fortgens 1921 sketches Soboyo grammar on the neighboring island of Taliabu; and Devin (1989) and Grimes (1992) have described the main indigenous language of Buru island immediately to the south, where there is a sizable community of Sula diaspora in the village of Namlea.

Sula’s precise genetic subgrouping remains unsettled. Based on the material available at the time, Blust (1981) and Collins (1981) argued for an Austronesian subgroup that includes Buru, Sula, and Taliabu. Donohue and Grimes (2008) challenge the Central Eastern subgrouping favored by Blust, and the Blust follow-up (2009) defends the grouping. No new data source was cited either as basis for the challenge or the follow-up. Unsettled matters in Austronesian linguistics such as this underscore the

---

6 Unpublished field notes

7 It is unclear to me to what degree the Sula language is still spoken in this village.
importance of accurate and in-depth descriptive work of the kind presented in this dissertation.

One chapter of my dissertation includes a grammatical sketch that will provide new data to typologists and syntacticians surveying the boundaries of what is possible and what is unattested in human language. Another chapter provides a dialect map of Sula and a description of the phonological characteristics that differentiate each dialect and a reconstruction of Sula’s proto ancestor. The dialect map aids future sociolinguistic research on variation in the Sula language, and the reconstructed Proto–Sula forms aid historical linguists in comparing Sula with its neighbors to refine or verify its proposed placement within the Austronesian language family.

The phonological description includes two phonetically unmotivated sound changes I discovered in Sula that are not known to have ever occurred in another language. The peculiarity of these changes led to their inclusion in a 2018 publication by Robert Blust. These changes pose a problem to the fundamental Neogrammarian hypothesis that sound changes are conditioned only by phonetic factors (e.g. Osthoff and Brugmann 1878, Hock 1991). They also identify a process of intervocalic fortition that is not only synchronically unattested in any other language but one that scholars have asserted to be so unnatural and contrary to universal human language tendencies that it can be assumed not to exist (e.g. Beguš 2015). This documented alternation lends synchronic corroboration to a contested instance of historical devoicing that Robert Blust discovered to have occurred in Kiput and Berawan (Blust 2002, 2005, 2013).

---

8 Schutz (1968) discusses a similar bizarre voicing alternation, but that does not appear to be a productive phonological process.
Although Sula belongs to the Austronesian language family, many of its words have unknown origins. Much of this vocabulary is gathered in the dictionary chapter and made available for comparison to other languages. Such comparisons could reveal ancient connections between civilizations or an updated understanding of human migration patterns—or at least help answer some of the persistent questions about how and when humans settled in the region.

The islands’ remoteness creates a partial buffer to outside forces, and documentation is still an attainable goal. But the buffer is rapidly eroding, and Sula’s uniqueness and unusual historical and geographical circumstance demand it be documented in its current context, as globalization has begun to connect Sula to the outside world, and the language community is on the brink of a profound social restructuring. My research is valuable to the Sula community, and it is a vital addition to the academic literature—both because it concerns an undocumented language and because it challenges some long-held assumptions about what is and what is not possible in human language. Without adequate research, the language could cease to be spoken before it is documented. If the language contains as yet undiscovered cognate words, grammatical patterns, or even folk histories, its disappearance could mean the loss of part of our prehistorical record and, potentially, also loss of some of the keys necessary for unlocking the mechanics of human language and cognition.
V. Chapter overviews

Chapter 1 of this dissertation provides basic sociodemographic information about Sula and continues on to investigate the state of technological infrastructure within the archipelago: specifically the degree of access to Internet-capable digital devices and device hardware/software typology. The information addresses the types of digital services provided in different areas, cell tower locations, areal bandwidth capabilities, and determines the actual and adjusted cost of access to digital communication. These areas of investigation assess the reach of digital communication into the Sula speaking community. Chapter 2 describes the primary branches of the Sula language from a comparative linguistic perspective and it explores the creation of a newer blended dialect. It also describes a controlled series of parallel documentation efforts across many villages in the archipelago that is balanced for age, gender, and tribal affiliation. This documentation will be provided to the academic community and serve as a basis for future projects on dialects and social variation. Chapter 3 provides a grammatical sketch of the language that covers the most fundamental topics within the core areas of linguistics, and Chapter 4 provides the largest known dictionary of the Sula language, containing ### thousand entries, mostly trilingual. The appendix contains supporting materials and resources for others wishing to study the language. Additionally, there is a strong digital component to this dissertation; its most useful form will be its online version that hyperlinks between sections and to hours of supporting audiovisual content.

---

That is: where cellular data is available, and how reliable it is in different locations.
Chapter 1: land and people
1.1 Arrival in Sula

Travel from Hawai‘i to remote areas in Sula is not for the listless, but it is worth each of the five flights, the overnight sea voyage, and the longboat jaunts. The approaching horizon’s white sand and verdurous peaks are enough to mute stabbing rib cramps as the dugout longboat slams over every swell. And the growing aroma of nutmeg, cacao, and cloves drying on straw mats under the sun makes sitting between a cow and a bouquet of live chickens hardly noticeable. Crowds gather on the beach to greet arriving longboats. Villagers hope for news of loved ones who labor in distant parts, while laughing children leap into the sea from thick branches that twist out beyond the surf. Arrival is met with a cup of a freshly brewed drink; it is milky and sweet but also sharp. Coffee grounds, ginger, and chopped kenari nut dance in a medley of the very flavors that gave the Spice Islands their name. Each sip is a sensual history lesson that illustrates why these spices were once valued above gold. This traditional beverage often fuels hours of jungle trekking to come for passengers en route to periphery communities —communities where Sula is spoken as it has been for generations, places that seem to exist out of time and whose inhabitants seem unaware of the global community at its doorstep.

1.2 Language in Context

Sula is a remarkable language with a hidden record of humanity’s distant past woven throughout its vocabulary, and it is a language whose grammar at times challenges current understandings of how language works. Also, while Sula unmistakably belongs to the Austronesian language family, many of the words have unknown origins.
Comparing these words to other languages might reveal connections with civilizations that were previously unknown, and it could result in redrawing part of the map of human migration—or at least help answer some of the persistent questions about how and when humans settled in parts of Oceania. Sula’s phonology is also remarkable in that the sounds show a type of historical change that is not known in any other language; these are sound changes that some of the most widely accepted linguistic theories of the past hundred and fifty years have deemed impossible. This is discussed in Chapter 2: dialects, part 1 and in the phonology section of Chapter 3, phonology).

Sula has neither a formalized orthography nor a print literature, and Indonesian Malay has displaced it from several of its traditional spoken domains and mostly supersedes the language in newer, non-traditional domains such as political meetings and digital communication. I was the only linguist researching Sula during the course of my work, and I am also the first to conduct in-depth research specific to the language. Previously, Sula language data was limited to two short wordlists that are over a century old (Holle c. 1900 via Stokhof 1980, Wallace 1869), a 35-year-old article on genetic grouping (Collins 1981), and a short, unpublished grammatical sketch written as an undergraduate thesis (Umaternate 2013). Even the most basic descriptive materials were lacking, such as a dictionary, grammar, or available texts. Although not 'undocumented' in the sense that no information whatsoever existed, when I began my research, Sula was and it still is unarguably an under-documented language (e.g., Blust 1981, Collins 1981, 1983, Esser 1938, Grimes 1992). From a practical standpoint Sula

---

10 The degree of language displacement varies depending how cosmopolitan a community is (i.e. how distant it is from Sanana city)
was certainly undocumented in the sense that the academic literature did not contain enough basic information to help me begin to learn to speak prior to setting off on my first fieldwork trip, and information was unavailable to answer even the most fundamental questions about the language’s typology, structure, or lexicon. The academic and non-academic literature alike was insufficient to even populate a basic Wikipedia entry for the language, as is shown in Figure 1.

**Figure 1.** Screenshot of the English Wikipedia entry

The French entry for Sula also includes the following list of eight vocabulary items pulled from Collins 1981 (albeit with errors): 'house', 'egg', 'pig', 'hear', 'chicken', 'seven', 'two', and 'burn'.

---

11 Taken 18 April, 2019.

12 Interestingly, no Indonesian language entry exists for Sula as of this writing.
My research has demonstrated that Sula is primarily transmitted orally and that is not represented in the formal education system. As an orally transmitted language, working with Sula presented me with challenges for studying that I had not encountered with any of the languages I had previously studied. I relied heavily on guidance from experienced fieldworkers and from a number of books for planning my fieldwork and anticipating what to expect. Beyond that, I was in a situation with the language where there was very little I could study ahead of time to prepare myself to communicate in the Sula Language, and even if I did speak the language, Sula would—not surprisingly—be an ineffective language for the rest of my tasks in Indonesia, and getting to and from Sula is not always straightforward. While there is an airport (read 'landing strip') on Sanana island, it has been closed due to a land dispute for many years, and even when it was open, it served irregular and unpredictable—terrifying—flights on tiny aircraft to a few other remote islands in Eastern Indonesia. During my first fieldwork trip, I spent a full day in Bali trying to find a travel agent who could both speak English and who was aware that a place called 'Sula' existed in Indonesia. Getting to Sula requires first going to Ambon or Ternate. From there, even when the airport on Sanana was open, it was still more reliable to travel by crowded passenger boat, and that ride takes almost a full day.

On arrival in Sanana, many of the people in the port area are not ethnically Sula and do not speak or understand the language, and since English becomes far less useful after

---

13 Lip service is occasionally paid to local languages throughout the nation when it can be fit in to the two hours each week allocated for 'local studies'. To my knowledge no Sula language curricula are taught in schools, but I have spoken to teachers including #### who reported having taught about the language in geographical terms. ### also mentioned having once made an effort to develop Sula language materials, but that the project would not be brought to fruition.
leaving Bali, I quickly came to realize that it would not be a practical intermediary language for me;\textsuperscript{14} to get anything at all done I would need to learn Bahasa, and fast. Because of this, my first fieldwork experience was a crash course on both languages—luckily I am not shy and I had a lot of motivation to learn since even things that might have distracted me required me to communicate. By the end of my third month when it was time for me to return to Hawai‘i, I was not having any deep philosophical discussions, but I had become functionally proficient in both tongues at a rudimentary level, and I had collected a mountain of data so massive that I have honestly still not finished going through. After returning, I enrolled in my first Indonesian course and began combing through data, decoding Sula, actively spending time participating in the East West Center's large Indonesian community, and frequently embarrassing myself as I learned to differentiate what was Sula, Bahasa, and local Moluccan Malay. While I will never be a great scholar of Bahasa, I did manage to learn enough to find the answers I needed in news articles, government publications, and academic papers. And my subsequent field trips were not without communication challenges, but they were highly productive and they went much smoother.

\textsuperscript{14} There are occasional people in Sanana city with rudimentary English skills, but they have to be sought out, and English speakers are far rarer outside of town.
Figure 2. The Sula Archipelago

The Sula Archipelago is in the Maluku Utara province of Eastern Indonesia. It lies at the boundary of the Molucca Sea (north of Taliabu and Mangon) and the Banda and Ceram seas (to the west and east of Sanana Island).

Sula is an indisputably threatened language; however, the degree of threat is not yet determined. My research has identified the region with the most severe language attrition to be the town of Sanana, where over a quarter of the native Sula population resides. While it is rare in Sanana to hear young people conversing in Sula, in some of the less populous, remote villages throughout the islands, the language is still commonly used. And even in Sanana it is not uncommon to hear the language spoken among older adults. All Sula speakers are also native speakers of Malay, but whereas Malay is a dominant world language with a rich, cross-media literary tradition, written Sula is found almost exclusively in graffiti, on handmade signs, and (occasionally) in political slogans (see Figures ##insert some example photos##). The Sula language is

---

I encountered a few elderly people who self-reported that they did not speak Malay, but this was most likely by choice, as observation led me to believe that they had no trouble understanding the language. In fact, one centenarian woman residing in Capuli village reported to not speak Malay and then took part in a vocabulary elicitation session that used Malay language prompts with no apparent difficulty.
increasingly pushed out of traditional communicative domains in favor of Malay, and it is not chosen as the primary medium of communication in newer domains like text messaging and social media.

1.3 The Past

The Sula Archipelago has been listed among the least studied regions in Indonesia (Collins 1981, 1982). It consists of three main islands: Mangon, Taliabu, and Sanana, located at the geographic center of Maluku, Indonesia. The combined land area is roughly 60% of the Hawaiian Islands, but Sula has less than 10% of Hawaiʻi's population, the largest portion of whom being recent, non-Sula speaking immigrants from Sulawesi. Since prehistory (at least since the arrival of Austronesians), the Sula are reported to have relied primarily on protein from the sea as well as chicken, pigs, cuscus, and deer, and their staple starches have been sa (sago palm starch), nui (coconut), sisa (sugarcane), suk (breadfruit), and fia (various banana varieties). I have seen kat (taro) growing wild around populated areas, but I’ve never seen it consumed, or heard it referred to as part of the local cuisine. When I pointed it out and asked an elderly consultant, Ismael Duila, I was told that ancient people might have eaten it, but that it wasn't eaten anymore. Descendants of a primitive dog breed, as, are also on the islands, but the introduction of Islam complicated people's relationship to the animals. It is unclear whether they were a food source, companions, or both. Today they are useful to farmers for keeping wild animals away from fields, and some might still use

---

16 Reported by a representative of the Sanana Badan Pemberdayaan Masyarakat dan Pemerintahan Desa (BPMPD) office.

17 Being predominantly Muslim community, pig is not commonly eaten today except on Taliabu.
dogs for hunting, as the term dol as ‘to hunt’ exists in the language, and it literally translates to ‘bring/invit + dog’.

The early spice trade opened Indonesian islands to more traffic and trade, and that brought many other animals and plants to the island including goats, cows, buffalo, jackfruit, tea, and durian. The later spice trade and European expansion introduced many New World and African staples such as tomatoes, cassava (yuca), potatoes, chili peppers, peanuts, coffee beans, and maize. Traditional foods remain the staples of today, although imported rice, wheat, and refined sugar have largely taken the place of sago in larger villages.

Since the spice trade began, the economy of the Sula people has been based on tropical forest agriculture: cenke (cloves), kemiri (candlenut), ipa (kenari nut), mina kau (cinnamon),18 paa fat (nutmeg), and paa ful (mace). Even today, that appears to be true for the ethnically Sula population; however, the Bajo (Sama-Bajau) population supplies fish to fishmongers from other areas, and the northern Sula islands has remote mineral mines and logging operations. These are reportedly not locally owned ventures, and they do not primarily employ an ethnically Sula worker base.

Although there is a scarcity of archaeological work on the Maluku region and none at all to my knowledge on Sula specifically, there is a good deal of geographically peripheral data (Spriggs 1998). To that, whoever the inhabitants of Sula may be, it is certain their ancestors had to pass through peripheral regions along the way.

18 It is unclear if the cinnamon of Maluku is true cinnamon, but it is at least very similar.
1.3.1 The Past. Pre-Austronesians

Sula is a Malayo-Polynesian language within the greater Austronesian language family, and the Sula people bear the hallmark features of Austronesian culture. Much has been written on the Austronesian people and their routes of migration, and this dissertation will help to fill in some of the Austronesian picture in and around Sula, but it must be noted that half of the story of Maluku's habitation predates the arrival of Austronesians by tens of thousands of years. And half the story may mean literally half; nearby coastal New Guinean and island populations of Papua New Guinea (PNG) along with other Melanesians have in recent studies been shown to have a 50:50 mixture of identifiable Austronesian and First Sundaland People\textsuperscript{19} genes (Chambers and Edinur 2015). Additionally, Pääbo (2014) finds genetic evidence of nearly 5% Denisova hominin DNA among populations in PNG. Pääbo hypothesizes that this admixture occurred in Indonesia prior to arrival on New Guinea, and this is corroborated by other studies that have found that various modern Melanesian populations (and Aboriginal Australian genomes) also contain a significant percentage of Denisovan DNA (Harmon 2012).

\textsuperscript{19} It has been reported to me that the terms 'Negrito' and 'Papuan' have been known to convey offensive connotations. "First Sundaland People" is a term gaining recent popularity as a replacement for the diminutive term, 'Negrito'. It was coined by Jinam et al. with good intention, though they incorrectly also attribute the term to the Andamanese and other groups that we have no reason to believe reached Sundaland. Out of respect I will attempt to avoid these terms except where they are part of quotes, or where I am referencing source material that does not have sufficient specificity for me to make the substitution (e.g. when an author uses the term 'Negrito' without making it clear whether it encompasses populations that did not inhabit or pass through Sundaland). I will also continue to use the term 'Papuan' in the context of the various languages and language families that predate the arrival of Austronesians and of the speakers of those languages where there is not an apt replacement term. I sincerely apologize if any clunky language results from this or if any usages slipped by me; it is not done out of intentional malice or insensitivity.
Cooper and Stringer (2013) make a strong argument that Denisovan admixture happened east of the Wallace line. The conclusion is based on inability to find Denisovan DNA among the Tianyuan bones recovered in China or other hunter-gatherer (Negrito) groups on peninsular Malaysia or the Andaman Islands. In fact a migration route proposed by Birdsell (1977) has been widely accepted as one of the two likely paths to Sahul that has First Sundaland People crossing the Wallace Line into Sulawesi and then passing directly across Sula (Figure 3) (e.g. Cooper and Stringer 2013, Lourandos 1997). Along this line, Cooper and Stringer state Denisovan admixture first occurred in Eastern Indonesia with genetic signals weakening as they fan out from the region.

The climate of Eastern Indonesia is not optimal to fossil preservation, and even the well-studied, abundant Homo floresiensis remains elusive to DNA extraction. Because of this, we still lack strong evidence as to when Denisovans arrived in Southeast Asia, but it is thought that they and Neanderthals both descend from a group of H. heidelbergensis who left Africa 300,000–400,000 years ago ("Why Am I Denisovan?" 2019). If this is the case, Sula's earliest ancestors might have arrived a very long time ago indeed.

---

20 More recent research by Sankararaman et al. (2016) has found much smaller percentages of Denisovan DNA in the genomes of many populations worldwide west of the Wallace Line, however they point out that their findings represent a smaller, much earlier Denisovan admixture event than the one that took place east of the Wallace line.
Figure 3. Migration routes
The two main hypotheses for the route First Sundaland People took into New Guinea and Australia migration (Lourandos 1997)

At a minimum, humans first inhabited Australia 40,000 years ago (Hiscock 2008), and it is likely that this migration happened earlier: approximately 50,000 to 70,000 years ago during periods when sea levels were especially low, joining islands into larger landmasses and shortening the distances between them. Cane (2013) suggests that the first wave of modern humans to reach Australia could have been 70,000 years ago, and that the migration might have been triggered by the Toba supervolcano eruption.

Although the Sula are unmistakably Austronesian, many of their ancestors were not, and much of the language’s vocabulary does not appear to be Austronesian either.
Though it is mostly speculative, it is fascinating to wonder which words might have entered the language via non-Austronesian ancestors when considering Sula vocabulary, and if Denisovans had spoken language, it boggles the mind to consider whether some of those words could trace back geological ages before modern humans even evolved.\footnote{This is of course entirely speculative, as vocabulary replacement across deep time makes it largely impossible to identify ancient vocabulary from replaced vocabulary.}

\subsection*{1.3.2 The Past. Austronesian expansion}

Much can be speculated but little is known about the nature of habitation in Sula's deepest past. However, a more recent wave of immigration is responsible for most of Sula's languages and culture; and this was of course the Austronesian expansion.

European chronicling of Austronesian languages began as far back as the 1519–1522 Magellan expedition, during which Antonio Pigafetta collected vocabulary from many languages along their circumnavigational route (Fox 2004). Much later, Hadrian Reland\footnote{Hadrian Reland AKA: Adriaan Reland, Relandi, Hadriani, and Relander, Relandus.} (1706–8) put forth a hypothesis for a common 'Malayan' language that ranges from Madagascar through Indonesia and farther east.\footnote{For a discussion of the nature of what Reland(er) claimed, see Campbell and Poser (2008, especially pp. 97-98). This also has a discussion of Bopp’s error in assuming Malayo-Polynesian was IE (pp. 61-66).} Fox also notes that a link between Polynesian language numerals and Indonesian and Malagasy numerals was later identified by a chronicler on Captain Cook's second voyage, but it was Lorenzo Hervas y Panduro in 1784 who first synthesized these observations into a cogent hypothesis for a definable group encompassing all of the Malay and Polynesian languages from Madagascar to Rapanui (Hervas y Panduro 1880). Franz Bopp was first
to use the term "Malayo-Polynesian" to specifically refer to a linguistic grouping, although Humboldt (1836) is generally given credit (Fox 2004).

Fast forward another century for an attempt at a reconstruction of Proto-Austronesian by the Comparative Method. Dempwolff (1934–1938) first accomplished this feat analyzing just eleven Austronesian languages. However, as none were from Formosan branches of Austronesian, it is more appropriate to consider Dempwolff’s work to be a reconstruction of Proto-Malayo-Polynesian rather than of Proto-Austronesian.

Robert Blust (1978) took Dempwolff’s foundation and built an edifice on top of it, ushering in a modern era of Austronesian comparative linguistics. Blust recognized the Formosan languages as primary branches of Austronesian, and he provided the following structure for the Austronesian family tree:

**Figure 4.** Austronesian family tree as proposed by Blust (1978)

![Austronesian Family Tree](image)

---

24 Although as Lyle Campbell points out (p.c. 2019), Bopp mistakenly thought that the languages were related to Indo-European, and that could be why he is not credited for the term.
Blust has identified ten separate primary branches of the Austronesian family; nine of these are Formosan languages found only on Taiwan, while the tenth, the Malayo-Polynesian branch, exists primarily outside of Taiwan (e.g. Blust 1999, Blust 2013). One representative of Malayo-Polynesian is also found in Taiwan, Tao (Yami). It is spoken on Orchid Island and is thought to have been a back migration from the Philippines (###e.g. Blust something###).

Blust used comparative linguistics to demonstrate what has come to be the prevailing theory of Austronesian expansion: the 'Out of Taiwan' model. Around 5,000 years ago, and probably coinciding with the invention of the outrigger canoe, which provided seaworthy stability, a group of Proto-Malayo-Polynesians exited Taiwan and settled the northern Philippines (###e.g. Blust ???####). From there, they settled the rest of the Philippines and continued on to Borneo and the rest of Indonesia and Malaysia as well as in to Micronesia and Melanesia.

The linguistic and genetic evidence points to groups from Melanesia then branching off into Polynesia a few thousand years ago, and linguistic and genetic evidence shows that a group of Austronesians from Borneo sailed all the way to Madagascar, settling the island around 1,500 years ago (e.g. Ricaut et al. 2009). Along the way, Austronesians mixed with pre-Austronesian populations and by the time of European contact in the early 1500's, Austronesians had spread across more than half the planet: from Madagascar to Easter Island. Sandwiched within those macro-level Austronesian migrations, a group of Central-Eastern Malayo-Polynesian moved into Central Maluku.
and some of them were the direct ancestors of the people who now inhabit the islands of Buru, Taliabo, and Sula—where three close sister languages have evolved.

1.3.3 The Past. Sultanate of Ternate to present

The Sultanate of Ternate (Kerajaan Gapi) traces back to 1257 and its first leader, King Baab Masyhur Mulamo. At the time, the region was the world supplier of cloves, and as such, the kingdom of Ternate and the neighboring kingdom of Tidore grew wealthy and powerful. Still today walking through rural areas, you will frequently encounter footpaths lined with woven mats where seeds, nuts and spices lay curing in the sun. Although Ternate and Tidore enjoyed great success, much of their wealth was used to fund ongoing wars between each other. During the mid fifteenth century, King Marhum converted to Islam and changed the royal title to Sultan. The religion spread throughout most of the region. In remote Sula villages, even where there are no established businesses or official buildings, there is almost always a mosque with an electrical generator that broadcasts the call to prayer via cassette recording.

In 1512, Sultan Bayanullah welcomed a convoy of shipwrecked Portuguese sailors under Francisco Serrão, in an attempt to forge strong international ties, yet the alliance never grew strong, and by 1575, then Sultan Baabullah Datu Syah expelled the Portuguese. This period was the height of the sultanate's power at a time when the influence stretched from the southern Philippines to Ambon and from parts of Sulawesi to Papua.
Sula was within the sultanate's jurisdiction, but it is unclear precisely when it was incorporated or what the political situation was at the time. It has been reported to me that Sula's village heads were chosen by the sultanate during this period, and that vestiges of this legacy are still present in the family naming system practiced widely throughout Eastern Indonesia known as fam (referred to as marga outside of Maluku). Many fam in Sula are bimorphemic, beginning with Uma-, and as such, I have been told by two consultants that the fam, Umaternate 'house-Ternate' does not necessarily indicate blood relations between people with that name but rather it represents descendants of any of the sultanate's hand-selected (village leaders).

In 1606, the Spanish captured the Portuguese fort on Ternate. The Spanish were allied with Ternate's rival Tidore Sultanate, and this gave an inroad for the Dutch to ally with Ternate. With Dutch help, the Spanish were pushed out by the 1660's, but Dutch allegiance came at great cost to the Ternate Sultanate, who had to cede control of much of its territory to the Dutch East India Company. By the late seventeenth century, Ternate was in a subordinate position to the Dutch, and in 1914, the territory was officially annexed by the Netherlands—all the while Sula remained under Ternate's administration. This all would change when the Dutch lost Indonesia to Japan during WWII. Following a brief stint under the Imperial Japanese Navy, Ternate was incorporated into Maluku province under a newly independent Indonesia, and in 1999, Maluku was split and the province North Maluku was formed which included Sula and the Moluccan islands to the North. At that time, Ternate was made capital, and Sula

---

25 fam is likely a reduced form of the Dutch loan 'familie'.

26 This claim is plausible, but it is based on folk wisdom.
once again fell under its administration until 2010 when the capital was relocated to Sofifi on Halmahera.\textsuperscript{27}

1.4 Determining vitality

1.4.1 Determining vitality. Speaker numbers and vitality introduction

The annual reference publication, Ethnologue, lists a 1983 estimate of 20,000 native Sula speakers (Eberhard et al. 2020). This estimate is many years out of date, and it is not well explained. In an effort to capture more up-to-date data on language use, in 2014 I conducted a survey to establish a more reliable estimate of the current speaker base, their age ranges, and their geographic distributions. The study considered data from the Badan Pusat Statistik Kabupaten Kepulauan Sula (Central Statistics Agency of Sula Regency) and the results of a questionnaire that was implemented by myself and assistants in sample communities (###see appendix###).

[###Insert description of survey methodology: how I went about collecting the info, choosing respondents, identifying locations and which sites were sampled by whom/how, how long it took, what the limitations were, etc.###]

Results demonstrate a forty-year long period of dramatic communal language attrition, and yet over twice the number of speakers identified by Simons and Fennig. For the Ethnologue figure to have been correct in 1983, there would have to have been a population explosion resulting in hundreds of thousands of additional, ethnically-Sula

\textsuperscript{27} For a brief summary of the Ternate Sultanate’s history, visit this website: https://histori.id/kerajaan-ternate/.
people on the islands today who cannot speak the language. It is my academic opinion that there were many more Sula speakers in 1983—likely over 40,000.

If the population growth rate of Sula mirrors that of Indonesia, the number of ethnically Sula in 1983 would have been 48067—sixty percent what it is today. The rate of Sula speakers over 50 years of age today stands at 75% even in Sanana city (the area with the most attrition). In 1983, this demographic would have represented only about 25% of the total Sula population (mostly children, because Sula have a low average lifespan). Of the group representing those ≥50 years-old today, only 25% do not speak the language. They would have comprised about 6.25% of the population in 1983, and even if we assume that none of these people alive today are siblings and both of their parents also did not speak the language, that would put the maximum non-speaker base of the Sula population in 1983 at 18.75% and the lowest estimate of Sula speakers at 39,054. The Ethnologue data is un-cited, so I cannot comment specifically on what it represents or where it came from, but if it is an accurate figure, I believe it is being listed in the absence of important contextual factors.

Sula language vitality is determined in part using an augmented and modified version of the UNESCO scale of language endangerment (Brenzinger et al. 2003). This augmented scale deviates from the standard UNESCO scale in that it looks further into topics of mass-media communication and access to digital communication. It considers twenty factors correlated with language health to establish a baseline relationship between access to digital communication and loss of native language. This topic is
becoming increasingly relevant as the Internet expands into the developing world, but it has not yet been researched in Sula.

While far from perfect, the findings establish a quantifiable baseline of current Sula language use and the reach of digital communication in the region. Results of this survey cannot be taken as a definitive statement of Sula language vitality though, because the region has begun to undergo significant investments in public infrastructure (both ad-hoc and formally sponsored).

Perhaps the two most significant infrastructure expansions in Sula's history came about within the last few years. They are, first, the creation of a coastal road that now places remote villages that were historically reachable only by longboat within only a couple hours of the town center by public car. The other significant infrastructural development is the proliferation of battery-powered, smart devices, and burgeoning access to cellular broadband Internet. It is too soon to know what effect these changes will have on language vitality, but history as a model gives us cause for concern when factors isolating a bilingual community from an economically privileged, dominant community are suddenly removed. Each development project places the Sula language's rural strongholds in increasing daily contact with non-Sula speakers—both virtually and face-to-face. And remote villages are being opened to migrations from non-Sula populations—groups who already outnumber the Sula population in parts of the archipelago. These changes will have unknowable but likely profound impacts on the language and its future spoken domains.
1.4.2 Determining vitality. Newcomer communities

Malay has been a regional lingua franca for generations, and newcomers to the region by and large have no cause to learn Sula; they speak their native languages with others from their region, and Malay is spoken with people from other populations—including the native Sula population. A historical example of this is seen in the Bajo (Sama–Bajau) community on Northern Sanana island. This group is recognized as 'newcomer' population; however, they have resided in Sula for so many generations that I was unable to even receive a general estimation of their arrival date. The Bajo are surrounded by Sula communities, and they interact with them on a daily basis. Many Bajo children even attend school with Sula children, yet Bajo language is spoken in Bajo village, and most of the Bajo population report to be unable to speak Sula28. Excepting ethnically mixed families, interactions between Sula and Bajo are reportedly conducted in Malay. More recent waves of migrants from Java and Sulawesi are reported (and have been observed) to demonstrate an even lesser degree of Sula language adoption.

Because of the tendency for island newcomers not to adopt the language, it is necessary in estimating the number of Sula speakers to work from population numbers representing only the ethnic Sula population. Most of the census population figures, however, represent the regency's total population (all communities, irrespective of ethnic background). Further complicating the problem, in 2013, Taliabu island was removed from the Sula Island Regency and a new regency was created for it, the Taliabu

28 Although they are perhaps functionally unable to speak Sula, many do seem to possess enough rudimentary Sula language skills to conduct basic transactions and greetings with me before having to switch to Malay. Campbell (p.c. 2019) notes that it has been reported that speakers often are not motivated to learn or switch languages when both are closely related. This does not seem to be the explanation here, as Sula and Sama-Bajau are on separate primary branches of Malayo–Polynesian.
Island Regency. This administrative change presents a complication, because Sula groups have settled several communities along the southern coast of Taliabu, and data representing them was not necessarily available in parallel form from Sula’s statistics office.

To find the limits of the ethnic Sula population's range, I brought a map of the archipelago with me to the regional development office in Sanana and inquired about the ethnic makeup of each village on the islands. Many of the villages were known unambiguously, and some others were determined based on the fam distributions for each village and folk histories. I was unable to personally visit every village to verify the office's determinations; however, their determinations involved a half dozen representatives discussing the topic until they reached consensus. In a few cases where the representatives did not all agree, they would telephone an external person that they identified as more qualified to answer about a disputed area. Once consensus was reached, I referenced census data that I acquired from the regional statistics office and isolated the figures based on Sula population distribution. The resulting determination of the Sula population's range can be seen in Figure 5.
There are limitations with my approach to estimating population. For instance, it does not account for non-Sula residents who have married into the community or Sula residents who have married out of the community. Admittedly, I am making an assumption in concluding that these two figures should roughly cancel each other out, but shy of surveying every village door-to-door, I could not find a way to more accurately estimate this figure. Another limitation with my approach is that I had no way to estimate the numbers in diaspora communities on other islands, most notably the town of Namela on the island of Buru, which is said to be a Sula settlement. It would take a dedicated trip to Buru to determine what percentage of Namela’s population does in fact descend from Sula, and of them, what percentage can indeed still speak Sula. Hence, I am limiting this study to the primary range of Sula speakers, which fall within the sixteen political regions listed in Figure 6.
Figure 6. Political districts
Listed are the political districts within the Sula Island Archipelago where significant Sula populations reside. Mangon is written as “Mangoli” in the following graphic, as the official political division names are written that way. The district names also include directional terms from Bahasa Indonesia (timur ‘east’, barat ‘west’, utara ‘north’, selatan ‘south’, tengah ‘middle’).

Speaker number estimations are limited by census data granularity, which is available for districts but not available village by village (a matter of great frustration to me over the years). The census was conducted village-to-village, door-to-door, so a sub-specified dataset does likely still exist somewhere, and could likely be dug up from storage if I pursued informal means such as providing monetary incentive to key gatekeepers, but as a researcher, this option was neither ethically nor financially viable in exchange for what should technically be publicly available data.

1.4.3 Determining vitality. Taliabu island population
An unspecified but sizable population of Sula people live on Taliabu. They have primarily settled along the southern coast, with very few Sula people living on other parts of the island. I am working under the assumption that this latter group will fall
within the margin of error for the island. My contacts in the local government informed me that the Badan Pusat Statistik Kabupaten Kepulauan Sula (Sula Islands Regency Central Bureau of Statistics) does not tally people by ethnic background. Instead, I was informed, "about half" of the people in the southern part of Taliabu are Sula. Needless to say, this was an unsatisfying response, so I set about to find a more accurate way to come up with the figures. While I could not personally visit each village, I was able to ask a network of civil servants and extended family members off-island to begin qualitatively inquiring with villagers in hard-to-reach regions, and after more than a year, I finally received enough responses from each region to extrapolate figures that I am confident in.

The results of this study, while far from exact, fall within the broad, non-quantifiable margin of error that is inherently present in all language vitality surveys—that is, being that language-shift scenarios include a gradation of language gain, language attrition, and varying proficiency levels across geographical and age ranges, numerical representations of multi-factorial, fluid situations are unreliable by nature. That said, this study creates a more reliable, not to mention updated and novel, determination of Sula's language vitality, by interpreting quantitative and qualitative survey data.

1.4.4 Determining vitality. Gathering cellular reach data

This research includes (1) a rough mapping of the islands' centralized and ad-hoc power grids and (2) a point-sampling of the reach and strength of cellular coverage on the islands (see Figure 7). These findings are primarily intended to help understand the correlation between access to digital communication and language attrition, and
secondary applications of this data include aiding the implementation of language revitalization and maintenance efforts, humanitarian aid, disaster relief, and community development efforts.

**Figure 7.** Map of cellular and data availability on Sanana

Below is a section from a GIS map of cellular and data availability on Sanana island. Cellular readings were made for both of the region's service providers' strength of voice and data signal. These are compared to assessments of linguistic vitality in each region.

1.4.4.1 Determining vitality. Gathering cellular reach data. Method for determining cellular reach

Cellular signal strength was sampled and recorded at all session sites and at various other spots around the islands that I crossed during fieldwork. To gather the data, I used a cellular iPad and an Android phone. Readings were made for both Telkomsel, and Indosat providers (the two carrier networks servicing the area). Readings measured voice and data strength separately, and they were accompanied by textual metadata about reading locations (e.g. reading taken on bridge just north of Pastina)—this was to enable location correction when device's built in GPS readings were in error. To ensure
robust and reliable data (i.e. ensuring readings were not anomalous), consultants at each site were questioned about each area’s access to reliable cellular and digital communication signals and whether the day and time of collection was typical\textsuperscript{29}.

These cellular signal readings were used to answer parts of an augmented UNESCO framework for determining language endangerment (Brenzinger et al. 2003). These measurements correlate language use and transmission with access to digital communication in order to help reveal the effects of rapid digital infrastructure development in endangered language communities.

In addition to using this data to help determine language endangerment, it has been digitally mapped using GIS technology to establish a coverage baseline that can be referenced in the future in measuring the correlation between language vitality and the reach of digital infrastructure. Findings at this point demonstrate (1) a gradation of language attrition that is positively correlated with access to reliable digital communication, (2) that the correlation is stronger on the island of Sanana than on Mangon, and (3) that it is likely affected by increased urbanization and an increased proportion of non-Sula populations in Sanana town.

1.4.5 Determining vitality. Evaluative Factors of Language Vitality

Sula language vitality is determined using a heavily modified and augmented version of the UNESCO guidelines for assessing language endangerment (Brenzinger et al. 2003). The augmented version deviates from the UNESCO original in that it looks

\textsuperscript{29} Outtages and unpredictable variation in signal reach and strength was common during my fieldwork trips.
deeper into the role that access to mass-media and digital communication plays in community language attrition. The framework considers twenty factors correlated with language health among minority language communities to help establish a baseline relationship between language vitality and factors relating to access to digital communication. The factors for the modified framework are explained step-by-step below. Much of the first half is borrowed verbatim from the UNESCO document, and the second half are newly added factors chosen to gauge the reach of mass-media and digital communication. The complete form is found in Appendix A.
### TABLE 1. AUGMENTED EVALUATIVE FACTORS OF LANGUAGE VITALITY

1. Intergenerational Transmission (5 – 0)
2. Absolute number of Speakers
3. Proportion of Speakers within the Total Population (5 – 0)
4. Shifts in Domains of Language Use (5 – 0)
5. Response to New Domains and Media (5 – 0)
6. Availability of Materials for Language Education and Literacy (5 – 0)
7. Governmental and Institutional Language Attitudes and Policies, Including Official Status and Use: (5 – 0)
8. Community Members’ Attitudes towards Their Own Language (5 – 0)
9. Type and Quality of Documentation (5 – 0)
10. Electric. Public utility service area (YES / NO)
11. Electric. Access to electrical power in home (% of community)
12. Electric. Community cooperative generators (or public utility access points) that people can use to charge or power personal electronic devices (e.g. mobile phones, reading lights) (YES / NO)
13. Electric. number of hours of electrical power daily
14. Communication. reach of television broadcast signal (including satellite dish when available) (YES / NO)
15. Communication. Is there a community television (YES / NO)
16. Communication. percentage of community with access to the television (i.e. live close enough to a community television for it to be a practical regular activity)
17. Communication. Scale for cellular voice/SMS signal (0 – 5)
18. Communication. Scale for cellular data signal (0 – 5)
19. Communication. percentage of adults with a smartphone
20. Communication. percentage of adults with a ‘dumbphone’ (SMS)

#### 1.4.5.1 Determining vitality. Determining endangerment level

On-site determinations were established at several fieldwork sites for each factor, and figures were extrapolated based on other known information about communities that were either not visited or that were visited prior to implementation of this survey (these figures are marked with an asterisk). For sites that were not visited, when
possible, values were determined either by questioning members of a target community at another location, by questioning civil servants whose work requires them to visit remote communities, or by questioning government medical workers who were stationed in remote communities (figures determined this way are marked with a double asterisk). A lot of general helpful census data was also found in official government census publications (Indonesia 2016, 2018). It should be noted that much of the survey terminology was borrowed directly from the Brenzinger UNESCO scale, and as such could be misinterpreted if results are quoted out of the context of this study. Within this study, each determination considers a particular factor of the Sula language confined to a particular site sample location and as such, these determinations are not a statement about the Sula language as a whole. This is especially the case with regard to the word ‘safe’. In Factor 1 (Intergenerational Transmission) for example, a location could be marked as #1 safe: The language is used by all ages, from children up, but that determination is not a statement on the Sula language but rather only on that particular factor within a particular subset of the Sula community. It does not necessarily mean a heck of a lot that intergenerational transmission is strong within an impoverished community of 50 that is surrounded by a more affluent community of five million who have abandoned the tongue altogether.

The purpose of this study is to provide more granular information about factors correlated with language vitality, as vitality itself is not the sort of topic that lends itself to meaningful quantification. At its core, determining language vitality is predicting the future, and as on the futures exchange, different analysts can often come to wildly divergent conclusions based on the same dataset depending on how each interprets and
weights the data. Language vitality is a calculation of dissimilar units, and there is thus no straightforward way to perform the calculation that could be generalized to other languages. Take again Factor 1 (Intergenerational Transmission), and imagine a scenario where that factor scores badly but every single other factor in the language scores well, the language would still most likely be quite endangered since young people, for whatever reason, had not learned it. Likewise, even if all other factors were strong—including intergenerational transmission—if the birthrate had plummeted or some external force led to few children in the community, the language would again be quite endangered. At their extremes, many of the factors correlated with vitality can trump all of the other factors and cause language loss. When not at an extreme, each factor exerts itself on a language’s vitality, but this happens in a nonlinear and non-hierarchical relationship between the other factors, tugging back-and-forth at one another and leading each language toward an often difficult to predict outcome.

Considering the relationship among the many correlated factors that were measured as well as the many more that I did not identify or attempt to measure (e.g. the rise of a nationalistic strong-man dictator, a catastrophic crop failure, etc.), it is not likely that I can make a definitive prediction regarding Sula’s future viability, but with that said, I do still attempt a determination about Sula language vitality. However it comes with the caveat that my determination is of slightly less academic utility than my explanation of how I reached the determination, and it is of far less academic utility than the data that the study discovered and compiled about each of the correlated factors that the

---

30 The Catalogue of Endangered Languages’ vitality scale, (Language Endangerment Index) addresses the problem of intergenerational transmission in particular by assigning it double weight over its other three categories (Lee, Nala and John Van Way 2016).
determination is based upon; this data is information that can be meaningfully quantified, and it is thus more likely to benefit other research.

Brenzinger et al. are strong in pointing out that their original scale not be used for a straight quantitative, numerical assessment of vitality, and they rightly note, “Languages cannot be assessed simply by adding the numbers; we therefore suggest such simple addition not be done.” This is absolutely correct, however thoroughly unsatisfying, as it leaves us in the same place that we were prior to the exercise (albeit with an organized set of relevant data). It is necessary then that researchers can look at the relevant data, make a vitality assessment, and explain the grounds for their assessment in a straightforward manner that enables other researchers to improve upon it. Here now, that is what I will attempt.

In reaching this estimate, it is important to tally village results and factor them for the speech community as a whole. Determining the values for each community or region individually and then averaging them together will generate incorrectly-weighted data and a false result. This would happen, because Sula is divided into numerous, sparsely populated communities that the regional government has grouped into 20 regions in the Sula Archipelago with wildly varying populations (16 of which contain significant populations of ethnically Sula). Of the 16, a few have much larger populations than the others, but only one of them, Sanana, could potentially pass the threshold of critically endangered according to the speaker base factor. Even if this were the case and Sanana generated a weight of (3) vital (which it does not), it would be up against 15 communities weighted as (1) critically endangered. Averaged together, this would
generate a score of 1.125 (critically endangered) even though the sum of Sula speakers could theoretically be in the neighborhood of 75,000 individuals—well beyond the threshold of vitality (which again is not the actual case).

Likewise, determining the Proportion of Speakers within the Total Population (factor 3) on a village-by-village basis could result in most of the sub communities generating a weight of (3) vital (even for a language that is clearly critically endangered), if they do not have many non-speakers in each community, yet on the granularity level of the entire community there could be large concentrations of non-speakers that are spread throughout in important locations that serve as hotbeds of daily interaction. With that in mind, I consider the following categories for vitality among the 20 factors that were surveyed:

1.4.5.1.1 Determining vitality. Determining endangerment level. Category 1: speaker base

(assign 1, 2, or 3 by averaging A, B, C below):

(1) critically endangered: if sum of A, B, C below is 1–3
(2) endangered: if sum of A, B, C below is 2–6
(3) vital: if sum of A, B, C below is 7–9

A. absolute Speaker base (assign 1, 2, or 3)

Communities need to have a large enough population base to remain viable against random external threats like plagues and warfare, so I consulted an epidemiologist colleague at the Arizona Bureau of Epidemiology and Disease Control who considered
the topic from an epidemiological point of view and we settled on the following guidelines:  

Factor 2. Absolute number of Speakers:

(1) critically endangered: a population size less than 3,400 (2,500 adults) is possibly unable to bounce back from a single pandemic or population culling episode  

(2) endangered: a population size between 13,400–27,000 (10,000–20,000 adults) is possibly unable to bounce back from two to three pandemics or population culling episodes over three generations (e.g. cholera, warfare, and an earthquake within three generations could reduce the population and social structures so dramatically that the survivors must disband and assimilate into other communities)  

(3) vital: a population size over around 27,000 (20,000 adults) is likely to bounce back from three to four pandemics or population culling episodes over three generations

The absolute number of speakers was determined by starting with the estimated size of the ethnic Sula population in each region:

---

31 This is based on informal, back of the envelope calculations. Actual circumstances are multifactorial and do not lend themselves to generalized numerical values.

32 There are probably some neighborhoods in Sanana city that could be argued to score 1, but none of the larger sample regions scored that low. Data in this section relies on spot sampling since a person-by-person, qualitative census of 100 thousand people would be a prohibitive undertaking.
### Table 2. Estimated Population that is Ethnically Sula in Each Region

<table>
<thead>
<tr>
<th>Community</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mangoli Tengah</td>
<td>6,112</td>
</tr>
<tr>
<td>Mangoli Timur</td>
<td>4,870</td>
</tr>
<tr>
<td>Mangoli Utara Timur</td>
<td>4,311</td>
</tr>
<tr>
<td>Mangoli Barat</td>
<td>401</td>
</tr>
<tr>
<td>Mangoli Utara</td>
<td>11,23</td>
</tr>
<tr>
<td>Mangoli Selatan</td>
<td>5,216</td>
</tr>
<tr>
<td>Taliabu-Barat</td>
<td>3,000</td>
</tr>
<tr>
<td>Taliabu-Selatan</td>
<td>3,000</td>
</tr>
<tr>
<td>Tabona</td>
<td>1,500</td>
</tr>
<tr>
<td>Taliabu-Timur-Selatan</td>
<td>2,000</td>
</tr>
<tr>
<td>Sulabesi Barat</td>
<td>5,364</td>
</tr>
<tr>
<td>Sulabesi Selatan</td>
<td>4,782</td>
</tr>
<tr>
<td>Sanana</td>
<td>23,060</td>
</tr>
<tr>
<td>Sulabesi Tengah</td>
<td>6,317</td>
</tr>
<tr>
<td>Sulabesi Timur</td>
<td>3,522</td>
</tr>
<tr>
<td>Sanana Utara</td>
<td>5,533</td>
</tr>
</tbody>
</table>

Census data from the Badan Pusat Statistik Kabupaten Kepulauan Sula provided a population breakdown of Sula Regency by age for Mangon & Sanana islands (Indonesia 2016, 2018). It is assumed that the breakdown of the ethnically Sula regions of Taliabu would more closely match this data than the data for Taliabu at large, because much of Taliabu’s population have very different lifestyles from the Sula populations. From this

---

33 A particular challenge to language vitality concerns population distribution; villages with vigorous language use are lightly populated, and there is a troubling pattern of language attrition in areas of higher population densities—the areas needed for maintaining a linguistic stronghold.
data it was determined what percentage of the total population corresponded to each age range.34

For Sula, the intergenerational transmission categories: (0) extinct: None speak the language, and (1) critically endangered: Very few speak the language could be excluded offhand. Similarly, it was not difficult to assign an estimated average speaker percentage for the categories of (5) safe: All speak the language (excepting extraordinary exceptions) and (4) unsafe: Nearly all speak the language (albeit with a margin of error). Field surveys and discussion with the regional development office led to the determinations of 95% and 85% respectively. Categories (2) severely endangered: A minority speak the language and (3) definitively endangered: A majority speak the language were a bit trickier to quantify, but percentage estimates were possible based on the survey results from sample sites around the archipelago and observation of speech trends.

For areas that earned an intergenerational transmission score of two, the region’s population is reduced to 23%. This estimation is based on Sula’s age demographics and the following age to speaker ratios:

75% of people aged 50 and older are speakers
25% of people aged 30–49 are speakers35

34 The percentages of adults of particular age ranges who were counted as speakers varies somewhat reflecting increases in the attrition rate affecting different communities at various times. This variation is correlated with urbanization.

35 There is a sharp dropoff between the 50+ group and the 30–49 group. This is mostly explainable, because the group is over twice as large and it skews toward the younger end of the range. Also, something appears to have taken place (particularly in rural areas) sometime around 40 years ago that significantly lowered the rate of language acquisition. When I began researching Sula nearly ten years ago, I often heard, “people under 30 don’t speak the language (which obviously isn’t strictly true, but was indicative of a troubling trend).
15% of people aged 15–29 are speakers
10% of people under 15 years old are speakers

The following calculation resulted in the 23% figure:

\[
\frac{(11,969 \times 0.75) + (25,317 \times 0.25) + (25,557 \times 0.15) + (36,353 \times 0.1)}{99,196} = 23\%
\]

11,969 is the number of people over fifty
25,317 is the number of people thirty to forty-nine
25,557 is the number of people fifteen to twenty-nine
36,353 is the number of people under fifteen
99,196 is the total population

For areas that earned an intergenerational transmission score of three, the region’s population is reduced to 44.6%. This estimation is again based on age demographics, however it is only broken down into three age ranges. This difference is due to the fact that areas marked as three are less urban, and a higher percentage of middle aged people are speakers and the difference in ability to speak among different age ranges of young adults is not as pronounced. Also, many more children are able to speak in these areas, so a granular divide between children and young adults was not necessary. The following age to speaker ratios represent communities marked with an intergenerational transmission rate of three:

<table>
<thead>
<tr>
<th>Age Range</th>
<th>% who are speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;45</td>
<td>95</td>
</tr>
<tr>
<td>20–44</td>
<td>40</td>
</tr>
<tr>
<td>&lt;20</td>
<td>30</td>
</tr>
</tbody>
</table>

The following calculation resulted in the 44.6% figure:

\[
\frac{(16,736 \times 0.95) + (36,304 \times 0.4) + (46,156 \times 0.3)}{99,196} = 44.6\%
\]
16,736 is the number of people over forty-five
36,304 is the number of people twenty to forty-four
46,156 is the number of people under 20
99,196 is the total population

<table>
<thead>
<tr>
<th>Sula Region</th>
<th>Transmission Score</th>
<th>estimate of Sula community population</th>
<th>speaker number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mangoli Tengah</td>
<td>4 (85%)</td>
<td>6,112</td>
<td>5,195</td>
</tr>
<tr>
<td>Mangoli Timur</td>
<td>4 (85%)</td>
<td>4,870</td>
<td>4,140</td>
</tr>
<tr>
<td>Mangoli Utara Timur</td>
<td>5 (95%)</td>
<td>4,311</td>
<td>4,095</td>
</tr>
<tr>
<td>Mangoli Barat</td>
<td>2 (23%)</td>
<td>401</td>
<td>92</td>
</tr>
<tr>
<td>Mangoli Utara</td>
<td>3 (44.6%)</td>
<td>1,123</td>
<td>501</td>
</tr>
<tr>
<td>Mangoli Selatan</td>
<td>4 (85%)</td>
<td>5,216</td>
<td>4,434</td>
</tr>
<tr>
<td>Taliabu-Barat</td>
<td>3 (44.6%)</td>
<td>3,000</td>
<td>1,338</td>
</tr>
<tr>
<td>Taliabu-Selatan</td>
<td>3 (44.6%)</td>
<td>3,000</td>
<td>1,338</td>
</tr>
<tr>
<td>Tabona</td>
<td>4 (85%)</td>
<td>1,500</td>
<td>1,275</td>
</tr>
<tr>
<td>Taliabu-Timir-Selatan</td>
<td>4 (85%)</td>
<td>2,000</td>
<td>1,700</td>
</tr>
<tr>
<td>Sulabesi Barat</td>
<td>3 (44.6%)</td>
<td>5,364</td>
<td>2,392</td>
</tr>
<tr>
<td>Sulabesi Selatan</td>
<td>5 (95%)</td>
<td>4,782</td>
<td>4,543</td>
</tr>
<tr>
<td>Sanana</td>
<td>2 (23%)</td>
<td>23,060</td>
<td>5,304</td>
</tr>
<tr>
<td>Sulabesi Tengah</td>
<td>3 (44.6%)</td>
<td>6,317</td>
<td>2,817</td>
</tr>
<tr>
<td>Sulabesi Timur</td>
<td>4 (85%)</td>
<td>3,522</td>
<td>2,994</td>
</tr>
<tr>
<td>Sanana Utara</td>
<td>4 (85%)</td>
<td>5,533</td>
<td>4,703</td>
</tr>
</tbody>
</table>

Absolute number of Sula speakers in archipelago: 46,861

B. relative speaker base (assign 1, 2, or 3)

It is safest for a language to be the majority language or the only language in its own territory.
Factor 3. Proportion of Speakers within the Total Population

(1) critically endangered: (<2)
(2) endangered: (2-4)
(3) vital: (>4)

The relative speaker base factor considers the number of Sula speakers against the total population in the region (including the non-Sula ethnic groups). To discern this value, locations were surveyed throughout the region, and values from (0) extinct to (5) safe were assigned to each and then generalized to the rest of the region in cases where it was not possible to survey each village within a region. The numbers assigned to each region were then weighed against the region’s percentage of the ethnically Sula population and added together. This resulted in a value of 2.86 on the 0–5 scale, placing the value for the language at large at (2) endangered. This calculation also provided a way to verify the accuracy of the estimates, because the absolute number of residents in the regions under consideration is known from census data (106,385). That means that comparing the estimated absolute number of Sula speakers, 46,861, to the total population, 106,385, should also land on (2) endangered which, luckily, it does. Sula speakers comprise 44% of the total population, making the speech community a minority of the total population, and the UNESCO guidelines indicate that earns a score of (2) severely endangered for the factor: A minority speak the language.

C. transmission:

Vitality requires children learning the language and surviving to adulthood.

Factor 1. Intergenerational Transmission
The method of determining total intergenerational transmission has more or less already been explained: values were determined for each region, weighed against each region’s percentage of the total Sula population, and then added together, resulting in an estimated value for the total Sula ethnic population.\textsuperscript{36} The calculated value for Factor one is 2 endangered.

\textbf{Overall category 1 (speaker base) score: 2.3}

1.4.5.1.2 Determining vitality. Determining endangerment level. Category 2: language pervasiveness trends

(assign 1, 2, or 3 by averaging A, B below):

\begin{itemize}
  \item [(1)] \textit{critically endangered}: (<2)
  \item [(2)] \textit{endangered}: (2-4)
  \item [(3)] \textit{vital}: (>4)
\end{itemize}

A. Domains (assign 1, 2, or 3 by averaging factors 4, 5, 6, 7, 9 below):

It is best that a language is expected in enough domains that it will be used frequently and individual speakers will remain primed to that code and likely to select it during their next communicative interaction. Furthermore, it is vital that speakers use the language enough that the next generation is sufficiently exposed to learn it completely. Average the following five factors to assign 1, 2, or 3 for the Domains subcategory.

Factor 4. Shifts in Domains of Language Use (based on a 0–5 scale)

\textsuperscript{36} Refer to the data tables in the appendix for a complete breakdown.
Domain shifts were determined for each region, weighted, and combined as with previous factors. The resulting value is 2.104, earning a score of (2) endangered for 

Factor 4.

Values for factors five, six, seven and nine did not vary among regions, so no calculations were necessary.

Factor 5. Response to New Domains and Media

(1) critically endangered: (<2)
(2) endangered: (2-4)
(3) vital: (>4)

**Factor 5 score: 1 critically endangered**

Factor 6. Availability of Materials for Language Education and Literacy

(1) critically endangered: (<2)
(2) endangered: (2-4)
(3) vital: (>4)

**Factor 6 score: 1 critically endangered**

Factor 7. Governmental and Institutional Language Attitudes and Policies, Including Official Status and Use

(1) critically endangered: (<2)
(2) endangered: (2-4)
(3) vital: (>4)

**Factor 7 score: 2 endangered**
Factor 9. Type and Quality of Documentation; and inasmuch as they limit spoken domains

(1) critically endangered: (<2)
(2) endangered: (2-4)
(3) vital: (>4)

**Factor 9 score: 1 critically endangered**

**Subcategory A. Domains score: 1.4**

B. Attitudes (1, 2, 3):

It is vital that the next generation actually uses the language, and poor language attitudes drive trends away from that.

Factor 8. Community Members’ Attitudes towards Their Own Language

(1) critically endangered: (<2)
(2) endangered: (2-4)
(3) vital: (>4)

Values were minimally different among regions for Factor 8 and the score was determined in the same manner as previous values.

**Subcategory B score: 1 critically endangered**

**Overall category 2 (language pervasiveness trends) score: 1.2**

1.4.5.1.3 Determining vitality. Determining endangerment level. Category 3: globalization

(assign 1, 2, or 3 by averaging A, B below):

A. Compatibility:
IT brings a flood of content capable of drowning out all but a few well established tongues. It is vital that a language be compatible with new media communication—e.g. if a language needs a special orthography that is not easy to use and universally supported, it will have no chance of establishing a foothold within global IT media. New media compatibility is judged as follows:

1. **critically endangered**: The language is generally unwritten and not easily compatible with an established, dominant language orthography
2. **endangered**: The language is generally unwritten but easily represented by an orthography that the community is already familiar with
3. **vital**: The language has its own, well-attested orthography that is already vigorously used across new media

**Overall category A score: 2**

**B. Access to interactive and non-interactive global media:**

The flood of dominant global language content will not affect communities until it reaches them. The degree to which that content has made its way into communities is determined from factors: 13. Number of hours of electrical power daily; 14. Reach of TV broadcast signal; 15. Community accessible TV; 16. Percentage of community with access to the TV; and 17. Availability of a cellular voice/SMS signal. There are six additional correlated factors that I encountered during fieldwork whose connections to vitality are perhaps somewhat less readily apparent; they are broken down below:

**Public utility service area (10):**

---

37 This category is not indicated among the factors as I wrote them up, because my goal was to create a survey for a complete language, and compatibility is a determination independent from geography.
Public power is cheaper and more reliable than community generated power and this makes people more functionally able to consume and participate in new media.

**Access to electrical power in home (11):**

Whether or not global media extends into the home affects how deeply it can pervade private communicative domains.

**Community public power points (12):**

Power points that community members can use to charge or power personal electronic devices (e.g. mobile phones, reading lights). These may be powered either by cooperative generators or the public utility. Where electricity does not enter the home, having power points in public spaces enables people to charge mobile devices.

**Scale for cellular data signal (18):**

Whereas a basic cellular signal enables community members to make phone calls and send simple text messages, it does not open the door to global media content. For that, a data signal is required.

**Percentage of adults with a smartphone vs ‘dumbphone’ (19 & 20):**

As with the difference between access to cellular vs data signal, smartphones help open the gateways to global media in ways that dumbphones do not.

The sub category of factors associated with *access to interactive and non-interactive global media* is coequal to the category of *compatibility*, but it is pluri-factorial, containing sub-determinative factors. Moreover, in the case of minority versus
dominant languages, the weights of these factors are reversed (i.e. easy access to a flood of new media bolsters English—because that media itself largely represents English. On the other hand, a flood of global media is more likely to suppress minority languages by establishing an important new communicative domain in which the minority languages play no part). The access to interactive and non-interactive global media category is calculated as follows (for minority language communities):

**B1. Access to electricity for media devices**

(scale 0–11 points possible):

1. critically endangered: 9–11
2. endangered: 5–8
3. vital: 1–4

**11a. Percentage of community with access to electrical power in home**

(If not in a public utility service area (10). For communities in a public utility service area, skip to 11b.)

+3 >70%
+2 30–70%
+1 10–29%
+0 <10%

**11b. Percentage of community with access to electrical power in home**

(If in a public utility service area (10)\(^{38}\))

---

\(^{38}\) Access to power is weighted more heavily in a in a public utility service area, because community generators are less reliable and go off when the gasoline runs out.
Factor 11 weighting has a six point spread (0–5). We multiply each regional population estimate and the weight assigned to it and add the results. This will generate an estimate that looks like the number of people who have electricity in home, but it is not. This figure is a normalization of the data measuring the degree of influence in-home electricity has on the community; it must then be converted to the 0-5 scale. In our case, the corrected population estimate is 80,111 (i.e. governmental district population minus population of non-Sula regions), so the values for the scale are this:

+0 (0–13,351)
+1 (13,352–26,703)
+2 (26,704–40,055)
+3 (40,056–53,406)
+4 (53,407–66,758)
+5 (66,759–80,111)

This means that if the normalized data result were 3,024, the scale value assigned would be zero. If it were 18,000, the value would be one. If it were 35,600, the value would be two, and so on. In reality, the normalized data result is 36,167.5, so the factor 11 scale value assigned is two. Because regions surveyed vary in population sizes, it is necessary to weight the data before combining it.
12. Community electricity that people can use to charge or power personal devices

+3 YES
+0 NO

Because YES is assigned a value of three, and NO is given zero, the spread is four (0–3), and the tally of the values of each region will fall on the following scale based on the corrected population estimate of 80,111.

+0 (0–20,027)
+1 (20,028–40,055)
+2 (40,056–60,082)
+3 (60,083–80,111)

The tally of Sula-populated regions marked as YES is 71,018, and that lands the Sula community as a whole at **three on the scale**.

13. average number of hours of electrical power daily

+0 N/A
+1 evening only
+2 evening–night
+3 24 hr

---

39 This factor is not weighted differently depending whether the community access point is in a public utility service area, because: a community can afford to keep a single generator operational more easily than cooperatives between small groups of neighbors for in-home power, and because of that, the power at a community access point is not necessarily less reliable than the public utility (in fact it sometimes seems more so). Also, while the availability of community power points does not cause global media to pervade as deeply into family domains as in-house electricity, but it does cause it to pervade more deeply throughout the community in areas where in-house power is uncommon or unavailable. Because of this it is weighted at 3, just behind the maximum value given to in-home power.
The values for each region’s average daily access to electricity also fall on a four point scale (0–3), and the sum of the weighted values will follow the same scale as above. The tally of the weighted values is 53,689. This results in the Sula language community receiving a normalized value of two for factor 13.

**B1 score**

The total score for B1 is determined by adding the values determined for each factor and comparing that number to the corresponding value on the following scale:

1. critically endangered: 9–11
2. endangered: 5–8
3. vital: 1–4

The sum of values determined for each factor is seven (2 + 3 + 2) and that corresponds to a B1 total score of two.

**B1 score: 2**
B2. Access to passive media (television) (scale 0–5 points possible):40

(1) critically endangered: >4
(2) endangered: 2–4
(3) vital: <2

14. TV broadcast reception (including satellite dish if available)

+1 YES
+0 NO

Because YES is assigned a value of one, and NO is given zero, the spread is two (0–1), and the tally of the values of each region will fall on the following scale based on the corrected population estimate of 80,111.

+0 (0–40055)
+1 (40056–80,111)

The tally of Sula-populated regions marked as YES is 64,302, and that lands the Sula community as a whole at one on the scale.

---

40 The reach of passive media is weighted less than interactive media and electricity (which they both rely on), because pedagogical studies have repeatedly shown passive media to be an ineffective form of language instruction; simply hearing a language does not seem to strongly prompt language production, and for that reason (and in the absence of any empirical studies within endangered language communities), I am hypothesizing that watching passive media will cause a shift in language attitudes and the introduction of some loan words, but it will not catalyze a code shift in and of itself. This hypothesis is supported by my own anecdotal observations of people (particularly children) watching English movies in Japan and Indonesia and sometimes imitating the funny sounds and laughing about them or discussing them in their own language, but I have never observed two Japanese or Indonesians try to converse in English following a movie or TV viewing unless they were already students of the language—in fact, it was often a challenge for me to trigger such conversation in English among students.
15. Is there a community TV?\(^{41}\)

+1 YES
+0 NO

Because YES is assigned a value of one, and NO is given zero, the spread is two (0–1), and the tally of the values of each region will fall on the following scale based on the corrected population estimate of 80,111.

+0 (0–40055)
+1 (40056–80,111)

The tally of Sula-populated regions marked as YES is 69,518, and that lands the Sula community as a whole at one on the scale.

16. percentage of community with access to the TV

+3 >70%
+2 30–70%
+1 10–29%
+0 <10%

\(^{41}\) Reach of TV broadcast signal and presence of community televisions are separate categories, because (a) it is sometimes the case that private individuals have televisions whereas there is not an operational public television, and (b) it is sometimes the case that televisions are present without broadcast reception and they are used to play recorded television shows and films imported to the community.
The scale ranges 0–3, so the weighted tally will fall on the following scale:

+0 (0–20,027)
+1 (20,028–40,055)
+2 (40,056–60,082)
+3 (60,083–80,111)

The weighted tally representing the percentage of the Sula community with access to a community TV is 63,627, and that lands the Sula community as a whole at three on the scale.

**B2 score**

The total score for B2 is determined by adding the values determined for each factor and comparing that number to the corresponding value on the following scale:

(1) critically endangered: >4
(2) endangered: 2–4
(3) vital: <2

The sum of values determined for each factor is five (1 + 1 + 3) and that corresponds to a B2 total score of one.

**B2 score: 1**

**B3. Access to active media (Internet) (scale 1–20 points possible):**

This subcategory is simple to calculate, because all of the units are alike. Values can be tallied for each region and then that total for each region can be weighted against its population before adding those values together to reveal the final B3 value for the Sula
community at large. This value is compared to the following 1–20 scale to find the total score for B3:

(1) **critically endangered**: (13.34–20)
(2) **endangered**: (6.68–13.33)
(3) **vital**: (0–6.67)

17. **Scale for cellular voice/SMS signal**

(0) no access
(1) signal is available in certain locations of the village sometimes
(2) signal is always available in certain locations of the village
(3) signal is available in most locations of the village intermittently
  (asynchronous comm: send now, delivered later)
(4) signal is available in most locations of the village most of the time (semi-synchronous comm)
(5) signal is available in all locations of the village nearly all of the time
  (synchronous comm)
### TABLE 4. SCALE FOR CELLULAR VOICE/SMS SIGNAL RESULTS

<table>
<thead>
<tr>
<th>Region:</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mangoli Tengah</td>
<td>1</td>
</tr>
<tr>
<td>Mangoli Timur</td>
<td>3</td>
</tr>
<tr>
<td>Mangoli Utara Timur</td>
<td>3</td>
</tr>
<tr>
<td>Mangoli Barat</td>
<td>1</td>
</tr>
<tr>
<td>Mangoli Utara</td>
<td>1</td>
</tr>
<tr>
<td>Mangoli Selatan</td>
<td>1</td>
</tr>
<tr>
<td>Taliabu-Barat</td>
<td>3</td>
</tr>
<tr>
<td>Taliabu-Selatan</td>
<td>3</td>
</tr>
<tr>
<td>Tabona</td>
<td>1</td>
</tr>
<tr>
<td>Taliabu-Timur-Selatan</td>
<td>2</td>
</tr>
<tr>
<td>Sulabesi Barat</td>
<td>5</td>
</tr>
<tr>
<td>Sulabesi Selatan</td>
<td>0</td>
</tr>
<tr>
<td>Sanana</td>
<td>5</td>
</tr>
<tr>
<td>Sulabesi Tengah</td>
<td>2</td>
</tr>
<tr>
<td>Sulabesi Timur</td>
<td>0</td>
</tr>
<tr>
<td>Sanana Utara</td>
<td>5</td>
</tr>
</tbody>
</table>

18. **Cellular data signal**

- (0) no access
- (1) signal is available in certain locations of the village sometimes
- (2) signal is always available in certain locations of the village
- (3) signal is available in most locations of the village intermittently (asynchronous comm: send now, delivered later)
- (4) signal is available in most locations of the village most of the time (semi-synchronous comm)
- (5) signal is available in all locations of the village nearly all of the time (synchronous comm)
**TABLE 5. CELLULAR DATA SIGNAL RESULTS**

<table>
<thead>
<tr>
<th>Region</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mangoli Tengah</td>
<td>1</td>
</tr>
<tr>
<td>Mangoli Timur</td>
<td>1</td>
</tr>
<tr>
<td>Mangoli Utara Timur</td>
<td>0</td>
</tr>
<tr>
<td>Mangoli Barat</td>
<td>0</td>
</tr>
<tr>
<td>Mangoli Utara</td>
<td>0</td>
</tr>
<tr>
<td>Mangoli Selatan</td>
<td>0</td>
</tr>
<tr>
<td>Taliabu-Barat</td>
<td>3</td>
</tr>
<tr>
<td>Taliabu-Selatan</td>
<td>0</td>
</tr>
<tr>
<td>Tabona</td>
<td>0</td>
</tr>
<tr>
<td>Taliabu-Timur-Selatan</td>
<td>0</td>
</tr>
<tr>
<td>Sulabesi Barat</td>
<td>4</td>
</tr>
<tr>
<td>Sulabesi Selatan</td>
<td>0</td>
</tr>
<tr>
<td>Sanana</td>
<td>4</td>
</tr>
<tr>
<td>Sulabesi Tengah</td>
<td>1</td>
</tr>
<tr>
<td>Sulabesi Timur</td>
<td>0</td>
</tr>
<tr>
<td>Sanana Utara</td>
<td>3</td>
</tr>
</tbody>
</table>
19. Percentage of adults with a smartphone

+7 >70%
+5 30–70%
+3 10–29%
+1 <10%

TABLE 6. PERCENTAGE OF ADULTS WITH A SMARTPHONE RESULTS

<table>
<thead>
<tr>
<th>Region</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mangoli Tengah</td>
<td>5</td>
</tr>
<tr>
<td>Mangoli Timur</td>
<td>3</td>
</tr>
<tr>
<td>Mangoli Utara Timur</td>
<td>1</td>
</tr>
<tr>
<td>Mangoli Barat</td>
<td>3</td>
</tr>
<tr>
<td>Mangoli Utara</td>
<td>1</td>
</tr>
<tr>
<td>Mangoli Selatan</td>
<td>3</td>
</tr>
<tr>
<td>Taliabu-Barat</td>
<td>5</td>
</tr>
<tr>
<td>Taliabu-Selatan</td>
<td>1</td>
</tr>
<tr>
<td>Tabona</td>
<td>1</td>
</tr>
<tr>
<td>Taliabu-Timur-Selatan</td>
<td>3</td>
</tr>
<tr>
<td>Sulabesi Barat</td>
<td>5</td>
</tr>
<tr>
<td>Sulabesi Selatan</td>
<td>1</td>
</tr>
<tr>
<td>Sanana</td>
<td>5</td>
</tr>
<tr>
<td>Sulabesi Tengah</td>
<td>3</td>
</tr>
<tr>
<td>Sulabesi Timur</td>
<td>1</td>
</tr>
<tr>
<td>Sanana Utara</td>
<td>3</td>
</tr>
</tbody>
</table>

---

42 I hypothesize that broad dissemination of smartphones will cause an enormous bump in community language attrition in the coming decades as children in remote communities grow up. By design, mobile smart devices deliver generations worth of language contact effects to a community in minutes, and I do not believe it alarmist to suspect our jaws will drop a decade and a half from now when studies begin to be published on the young adult populations in remote minority language communities where today’s children have recently been exposed to broadband Internet and digital smart devices (some of which are now available at a cost less than a Starbucks coffee).
20. Percentage of adults with a ‘dumbphone’ (SMS)\textsuperscript{43}

\begin{itemize}
\item[+3] >70%
\item[+2] 30–70%
\item[+1] 10–29%
\item[+0] <10%
\end{itemize}

\textbf{TABLE 7. PERCENTAGE OF ADULTS WITH A ‘DUMBPHONE’ RESULTS}

<table>
<thead>
<tr>
<th>Region</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mangoli Tengah</td>
<td>3</td>
</tr>
<tr>
<td>Mangoli Timur</td>
<td>3</td>
</tr>
<tr>
<td>Mangoli Utara Timur</td>
<td>1</td>
</tr>
<tr>
<td>Mangoli Barat</td>
<td>3</td>
</tr>
<tr>
<td>Mangoli Utara</td>
<td>2</td>
</tr>
<tr>
<td>Mangoli Selatan</td>
<td>3</td>
</tr>
<tr>
<td>Taliabu-Barat</td>
<td>3</td>
</tr>
<tr>
<td>Taliabu-Selatan</td>
<td>2</td>
</tr>
<tr>
<td>Tabona</td>
<td>2</td>
</tr>
<tr>
<td>Taliabu-Timur-Selatan</td>
<td>3</td>
</tr>
<tr>
<td>Sulabesi Barat</td>
<td>3</td>
</tr>
<tr>
<td>Sulabesi Selatan</td>
<td>1</td>
</tr>
<tr>
<td>Sanana</td>
<td>3</td>
</tr>
<tr>
<td>Sulabesi Tengah</td>
<td>3</td>
</tr>
<tr>
<td>Sulabesi Timur</td>
<td>1</td>
</tr>
<tr>
<td>Sanana Utara</td>
<td>3</td>
</tr>
</tbody>
</table>

Adding B3 factors (17–20) for each community results in the following regional tallies:

\textsuperscript{43} Even in the absence of a data signal, the SMS (texting) function on dumbphones will still function, and text message communication is predominately conducted in Malay rather than Sula, because people are habituated to writing in Indonesian since childhood. Because of this, the factor is weighted as contributing to language shift in this category even though it is not a representation of global media strictly speaking.
<table>
<thead>
<tr>
<th>Region</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mangoli Tengah</td>
<td>10</td>
</tr>
<tr>
<td>Mangoli Timur</td>
<td>10</td>
</tr>
<tr>
<td>Mangoli Utara Timur</td>
<td>5</td>
</tr>
<tr>
<td>Mangoli Barat</td>
<td>7</td>
</tr>
<tr>
<td>Mangoli Utara</td>
<td>4</td>
</tr>
<tr>
<td>Mangoli Selatan</td>
<td>7</td>
</tr>
<tr>
<td>Taliabu-Barat</td>
<td>14</td>
</tr>
<tr>
<td>Taliabu-Selatan</td>
<td>6</td>
</tr>
<tr>
<td>Tabona</td>
<td>4</td>
</tr>
<tr>
<td>Taliabu-Timur-Selatan</td>
<td>8</td>
</tr>
<tr>
<td>Sulabesi Barat</td>
<td>17</td>
</tr>
<tr>
<td>Sulabesi Selatan</td>
<td>2</td>
</tr>
<tr>
<td>Sanana</td>
<td>17</td>
</tr>
<tr>
<td>Sulabesi Tengah</td>
<td>9</td>
</tr>
<tr>
<td>Sulabesi Timur</td>
<td>2</td>
</tr>
<tr>
<td>Sanana Utara</td>
<td>14</td>
</tr>
</tbody>
</table>

These values were reduced according to each community’s relative percentage of the entire Sula population as follows:
<table>
<thead>
<tr>
<th>Region:</th>
<th>Totals population</th>
<th>% weighted totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mangoli Tengah</td>
<td>10 x 0.0763</td>
<td>0.7629</td>
</tr>
<tr>
<td>Mangoli Timur</td>
<td>10 x 0.0608</td>
<td>0.6079</td>
</tr>
<tr>
<td>Mangoli Utara Timur</td>
<td>5 x 0.0538</td>
<td>0.2691</td>
</tr>
<tr>
<td>Mangoli Barat</td>
<td>7 x 0.0050</td>
<td>0.0350</td>
</tr>
<tr>
<td>Mangoli Utara</td>
<td>4 x 0.0140</td>
<td>0.0561</td>
</tr>
<tr>
<td>Mangoli Selatan</td>
<td>7 x 0.0651</td>
<td>0.4558</td>
</tr>
<tr>
<td>Taliabu-Barat</td>
<td>14 x 0.0374</td>
<td>0.5243</td>
</tr>
<tr>
<td>Taliabu-Selatan</td>
<td>6 x 0.0374</td>
<td>0.2247</td>
</tr>
<tr>
<td>Tabona</td>
<td>4 x 0.0187</td>
<td>0.0749</td>
</tr>
<tr>
<td>Taliabu-Timur-Selatan</td>
<td>8 x 0.0250</td>
<td>0.1997</td>
</tr>
<tr>
<td>Sulabesi Barat</td>
<td>17 x 0.0670</td>
<td>1.1383</td>
</tr>
<tr>
<td>Sulabesi Selatan</td>
<td>2 x 0.0597</td>
<td>0.1194</td>
</tr>
<tr>
<td>Sanana</td>
<td>17 x 0.2879</td>
<td>4.8935</td>
</tr>
<tr>
<td>Sulabesi Tengah</td>
<td>9 x 0.0789</td>
<td>0.7097</td>
</tr>
<tr>
<td>Sulabesi Timur</td>
<td>2 x 0.0440</td>
<td>0.0879</td>
</tr>
<tr>
<td>Sanana Utara</td>
<td>14 x 0.0691</td>
<td>0.9669</td>
</tr>
</tbody>
</table>

The sum of the weighted totals is 11.126 for Sula as a whole. This results in a B3 value of two when compared to the 1-20 scale:

1. critically endangered: (13.34–20)
2. endangered: (6.68–13.33)
3. vital: (0–6.67)

As with previous determinations, totals for each region were multiplied by the region’s percentage of total Sula population and combined to reach a B3 (Access to active media) score of two for the greater Sula community.
This completes the calculations for section B, resulting in an overall subcategory score for B (global media) of: 1.33 (average of B1, B2, B3). It also completes calculations for the survey of factor correlated with language endangerment, yielding:

**Overall Category 3 (Globalization) Score: 1.667**

(average of A, B) and a determination of Sula's language endangerment:

1.4.6 Determining vitality. Conclusion

**Total Sula Language Endangerment score: 1.73** (average of categories 1, 2, 3)

This value places Sula at the safer end of the critically endangered category, however, that is still not a comforting category to land in. As stated earlier, the modified UNESCO framework has considered twenty factors correlated with language health among minority language communities to help establish a baseline relationship between language vitality and factors relating to access to digital communication. It is my hope that returning to this question at regular intervals over the next ten to fifteen years will reveal determinative relationships between these factors and language health that can be quantified and generalized to provide better forecasting abilities for language vitality in general.

I agree with Brenzinger et al. that the framework should not be used to plug in values and generate a one-size-fits-all determination of viability, and in fact I had a strong suspicion ahead of time what the result would be for Sula. In addition to reasons discussed earlier, the decision to use this modified framework to calculate Sula's level of endangerment was to more clearly explain my reasoning and retroactively quantify what
was at heart a qualitative determination. By modeling my logic this way, I am establishing a level of transparency of thought such that others need not 'take my word for it'. My reasoning can be evaluated and its flaws and the areas for improvement can easily be identified. Moreover, the transparency enables other researchers to restructure the points according to their evaluative criteria.

1.5 Online presence and the effects of globalization

Sula currently has a limited online presence, but I have been involved in an informal project for the past several years to boost its presence, particularly on social media. The goal of our project is to mitigate the language shift that is likely to accompany the coming digital transition, so that Sula's communicative domains are not supplanted by Malay and English. Digital content included in the digital footprint includes instructional videos, education videos, song and story performances, and videos of the location and environment. Going forward, minority-language maintenance models will have to incorporate creation of digital footprints within modern communication domains.

There are two Internet users from the developing world for every one in the developed world, yet four billion people in the developing world still do not have Internet access (ICT Data and Statistics Division 2015). Digital infrastructure development is rapidly underway in Eastern Indonesia though. This is a mixed blessing for Sula, whose communities now find themselves on the precipice of a digital revolution, and this revolution will be a significant one: it could be the death knell for a
language on the verge of becoming moribund or a great democratizer that bolsters linguistic diversity.

Considering the challenges toward building an online Sula-language footprint, two Sula stakeholders have been working with me to deliberately generate Sula discourse online. The first of the stakeholders is Ida Ryberg Umage, who is ethnically Sula but was raised in Surabaya. She now lives in Sweden working with the children of Middle Eastern and African refuges. Ida's two children were raised in Sweden; they do not speak Sula and have never been there. But, Ida is passionate about connecting her children to their Sula heritage from abroad, and she has been instrumental in generating online discussions and helping me translate difficult vocabulary and generate online discussion about Sula related media.

Facebook was chosen by default as the communication platform. Sula is an impoverished region, and Facebook partnerships with Indosat and Telkomsel mobile providers have enabled most anyone in Indonesia to access Facebook content even without purchasing a cellular data plan. The service seems to be available pending unallocated network bandwidth, so it is slow and intermittent, but importantly, it is free and it works. Marlia Banapon, an English instructor and proponent of Sula maintenance and revitalization, is a Facei tribe member living in Sanana. Throttled behind Sanana's low-bandwidth data, Marlia can only generate and upload still image and textual content, however she is able to view and comment on others' content and generate Sula language discussions (Figure 8).
The low number of Sula speakers who have access to broadband Internet connections makes it challenging to generate online Sula-language content. Nine years ago, there were three known Sula speakers with broadband Internet access and a public online presence. Two were university students who have since returned to Maluku. By 2015 there were only Ida in Sweden and her sister, Sanna Tabona in Surabaya—neither of whom are first-language speakers. Other Sula speakers with a known public online presence occasionally popped up online with cellular broadband access when they travelled to major Indonesian cities, and some—particularly diaspora living on Ternate and Ambon—had regular but slow/intermittent non-broadband Internet access. But within the last few years, the number of Sula with broadband access has increased to where I could not count them. These are individuals living or traveling outside of the archipelago to regions whose wireless networks have been upgraded, and that network
upgrade is getting closer to Sula by the day. I will not be surprised if the archipelago achieves reasonable broadband coverage by the time this dissertation goes to print.

So far, the community’s offline status has provided an opportunity to deliberately generate Sula media and discussions in advance of widespread broadband proliferation and the likely de facto establishment of a Malay language norm for digital communication. As of 2015, virtually all Sula residents with Facebook accounts were on each other’s friend lists, and Ida, Marlia, and myself had positioned ourselves centrally within that group to give our content near universal exposure. Today this is no longer the case, and we can only hope that the online Sula language footprint we established prior to broadband Internet arrival will have helped to position the language as modern, relevant, and compatible with new domains of communication so that it can find a footing in the sea of global media. Our project has sets in place a scenario that will, over the course of the coming decades, test the question: can language shift be mitigated by establishing an endangered language footprint that sets a communicative-code inertia prior to the arrival of new information technology?

1.6 Chapter conclusion

The previous pages have established the context of the Sula language, place, and people in terms of history, geography, population numbers and distribution, and the external global pressures facing the community. These are pieces of Sula’s puzzle that are necessary for future research into the language and for establishing strategies to bolster the language against the external pressures that threaten its ability to survive.
Chapter 2: dialects. part 1
1.1 Where to begin?

When I took on the task of documenting Sula, naturally one of the basic questions that came to mind was: how many language varieties are spoken by the Sula people? I set out boldly to answer that question. And I boldly failed.

The original research plan was predicated upon a local-folk-wisdom-derived hypothesis that seemed logical at face value but which was flatly disproven: i.e. there are four dialects of Sula, one for each tribe. This notion is commonly accepted throughout Sula and it may well have been true in the distant past, but it is demonstrably false today. Today there are many more dialects marked by sometimes subtle and other times abrupt isoglosses.

When the dust began to settle, and I had emotional distance from my failure, a far more interesting and complex situation was revealed than anyone I consulted with had anticipated, but it is a situation that I expect is common throughout the region (if not island communities around the entire world). It is, however, a situation that I unfortunately lacked sufficient time and resources to tackle head on.

Although this dissertation is unable to provide a detailed dialect map, my fieldwork did collect the linguistic data necessary to populate such a map, and that data is archived and available for future endeavors. My original research plan fell short in anticipating the scrambled picture that would surface after analyzing my data. The data was carefully collected around the islands, and while I should have anticipated potential problems and should have worked to analyze it during the data collection process, I was victim to hubris and believed the research plan was failsafe and I would be better dedicating my limited time exclusively to gathering dialect data from sites far and wide.
So I utilized nearly all of my time collecting as much as possible, and I saved the majority of the analysis for when I returned home. Home is where it became evident that I had collected more than enough data, and it was useful and well organized, but I had neglected key pieces of necessary non-linguistic information for describing the nonlinear structure of Sula’s complicated dialect continuum: oral histories for the target communities studied. As will be discussed further, a detailed dialect map of Sula is an eminently attainable goal, and I am confident that a single, well organized research project could satisfactorily fill in the remaining blanks and unscramble the puzzle.

Although a granular level dialect map of Sula remains elusive, great strides were made regarding Sula dialects at the macro level, and this chapter demystifies the most important parts of my original question: How many language varieties are spoken by the Sula people?

Broadly speaking, there are two main dialect groups and at least two additional newer dialect groups formed by contact, mixing, and leveling—one of which represents a Sanana population settlement region on Mangon Island that was heavily influenced by Mangon speakers, and the other represents a Mangon population settlement on Sanana that was heavily influenced by Sanana speakers. The new dialects are discussed in Chapter 2: dialects. Part 2.

1.2 Geographical and social factors

As explained in the introduction, Sula is one among a number of under-documented Austronesian and Papuan languages of the Maluku Utara province of Eastern Indonesia. The language is spoken in the Sula Archipelago, which includes the islands of Sanana,
Taliabo, and Mangon. The archipelago has been frequently listed among the least studied regions in Indonesia (Collins 1981, 1982); Most of the work published on the language is built on wordlists collected by early explorers and missionaries (e.g., Wallace 1869, Holle c. 1900 via Stokhof 1980, Fortgens 1921), and the precise number of Sula dialects remains unknown, but field interviews indicate that, as Collins (1981, 1982) suggested, there is only one primary dialect division, and this has also been borne out by lexical comparison. There are many additional subtle but definable dialect divisions spread throughout Sula, but it appears clear that the dialect split described in this chapter (henceforth referred to as Mangon, and Sanana) represents the oldest and most dramatic divergence that is still represented by modern Sula varieties.

The choice to use the names, Mangon and Sanana, is intended to limit ambiguity in this study. Mangon is a Sula endonym for the Mangon tribe and it is also the name of one of the oldest villages on the island and of the island itself. The island is also referred to both in speech and writing by the terms Mangole and Mangoli. Although these terms seemed at first to be exonyms, it is likely that they represent two variations of an early endonym (l later shifted to n and the final vowel was dropped in some dialects and then that pronunciation, Mangon, spread). As the forms, Mangole and Mangoli were already recorded on numerous official records, those terms did not drop from usage entirely, and all three forms are now commonly used. It is unclear if the name Sanana is an exonym or endonym. It refers to the primary administrative town in the region as well.

---

44 These three islands are referred to by numerous alternate names and spellings. They are situated near the following Google Maps searchable coordinates: -2, 125.40.

45 This is evident by Ethnologue’s multiple entries for Sula (ISO szn) and “Mangole” (ISO mqc) (Lewis 2015).
as the island it is situated on. That island is also known by the name Sula/Sua. However “Sula/Sua” is too ambiguous a term to use in this chapter when addressing the dialect, because it is also the name of the entire island group, the ethnicity of the entire speaker population, and the language as a whole. So in this chapter, and without any intended social or political implications, the following definitions apply:

- Sula/Sua: the general name for the language, ethnic group, and island archipelago.
- Mangon: the northeasternmost island; the dialect and tribe that settled this island.
- Sanana: the southernmost island of the Sula archipelago; the city located on that island; the general dialect of the Falahu, Fagudu, Facei tribes that settled there.

While not modern by objective measures, Sanana city does have access to basic services: there are at least two banks, several local shops where food staples can be purchased, schools for all age ranges, numerous mosques, around a half dozen one-room restaurants, administrative agency offices, a governor’s mansion, a police force, a large open-air market, and a primitive hospital staffed by competent medical professionals who are stationed by the Indonesian central government. The city lacks recognizable business franchises and recreational destinations like movie theaters or malls. There is a small city park next to the pier that is in disarray, and several vacant land expanses converted into makeshift soccer fields. The island’s sole ‘tourist attraction’ seems to be ruins of a Dutch era fort where, fittingly, the regional tourism office is located. The tourism office is a bare room with a desk, a guestbook, and a handful of government employees.
During my work in Sula, I stayed for extended periods of time with a number of families in Sanana and in rural satellite communities alike. I observed that the city boasts limited urban infrastructure: including paved roads, and in many neighborhoods, intermittent electric power and cellular coverage with limited data access. But as the most populous area in the region, it also exhibits the most conspicuous language attrition; observed public interactions are usually in Malay, and it is rare to hear youth in particular interacting in Sula even in more private domains. In rural communities, on the other hand, the use of Sula language is more vigorous; however the populations are smaller, and children still frequently speak to each other in Malay. Elderly language consultants often remark that children ‘no longer speak the language well’.

The Sula ethnic group consists of four tribes—Falahu, Fagudu, Facei, and Mangon. According to local lore, the first three originally settled on the island of Sanana, while the fourth, Mangon, settled on Mangon island. The physical separation of the islands is the likely the main reason for the Sanana–Mangon dialect division. Since original settlement, the Mangon tribe has settled two additional areas on Sanana Island: a neighborhood in the region that has become the greater urban area of Sanana (this neighborhood is also confusingly named Mangon), and a village named Malbufa, on the northern part of the island’s west shore. The Malbufa dialect of Sula is significantly different from other Sanana dialect(s); however, the Mangon neighborhood in Sanana seems to have adopted a dialect that is of a typical Sanana variety. Sanana tribes have

---

46 I do not know of any published histories of the region; however the broad demographic and historical information I present here seems to be agreed upon by all Sula groups.

47 My time spent in the village has given me the impression that it originally spoke a dialect of Mangon but it now more closely resembles Sanana dialects.
also settled numerous villages throughout the islands, the oldest of the villages external to Sanana island may be the Facei tribe settlements of Capalulu, Wai U, and Orifola on the island of Mangon, where a contact dialect appears to have developed. Additional Falahu and Fagudu villages were also established on Taliabo Island and along the southern coast of Mangon.\textsuperscript{48}

\textbf{Figure 9.} Sula archipelago

The Mangon tribe settled the northeastern island, and the Falahu, Fagudu, and Facei tribes settled the southern island.

\textsuperscript{48} This was reported to me by a representative at the Sanana Badan Pemberdayaan Masyarakat dan Pemerintahan Desa (BPMPD, Community Empowerment and Village Government Agency).
Figure 10. Sula Isogloss Map
An interactive version of this map is available at the following web address: http://www.arcgis.com/apps/View/index.html?appid=e776186a151c4e1c94ce03bbfece6dd

1. Southwest Mangon Falahu
2. Central Mangon Dialect (CMD)
3. Mangon Island Mangon
4. Southern Mangon Fagudu
5. Southeast Mangon Falahu
6. Northern Fagudu Sanana
7. Western Sanana Mangon
8. West Fagudu Sanana
9. West Facei Sanana
10. Southwest Fagudu Sanana
11. South Facei Sanana
12. Southern Sanana Mixed Tribes Region
13. Southern Falahu Sanana
14. Southern Falahu and Fagudu Blend Sanana
15. Southern Fagudu Sanana
16. Standard Sanana Dialect
17. Bajo Language

1.2.1 Sula isoglosses

As stated previously, I cannot provide a highly granular dialect map and explain all of the variations and innovations unique to each sula community. I can however provide a broad overview that identifies where dialects and languages (in the case of Bajo) are located. From Figure 1.2.1:

Southwest Mangon Falahu (1): This sparsely populated region is settled by Falahu tribe members. It is a mix of primary settlement communities from pioneers who left what is now Falahu village in Sanana city and of newer, second and third generation settlements. There also may be settlements or areas with significant influx of
people from the Southeast Mangon Falahu region. The language here is of the Sanana dialect, but interrelationships between varieties spoken here are not known.

Central Mangon Dialect (CMD) (2): this region consists of three villages, and it was settled long ago by Facei Tribe settlers coming from Facei village, Sanana. In this region, a new dialect has emerged via contact to the more populous Mangon tribe members who speak Mangon dialect. In this region an east–west contact dialect continuum is present where the easternmost village is closest to the Mangon tribe and has taken on more features of Mangon dialect than the neighboring villages to the west.

Mangon Island Mangon (3): This region is the home settlement of the Mangon tribe, and it is where the Standard Mangon dialect is spoken.

Southern Mangon Fagudu (4): Villages here were settled by Fagudu tribe pioneers from Sanana. The area speaks a Sanana dialect of Sula that has also begun taking on several features of Mangon. Further study is be required to determine whether Mangon words and features have spread widely enough for the language to be considered another example of a contact dialect.

Southeast Mangon Falahu (5): This sparsely populated region is settled by Falahu tribe members. It is a mix of primary settlement communities from pioneers who left what is now Falahu village in Sanana city and of newer, second and third generation settlements. There also may be settlements or areas with significant influx of people from the Southwest Mangon Falahu region. The language here is of the Sanana dialect, but interrelationships between varieties spoken here are not known.

Northern Fagudu Sanana (6): Fagudu is the primary tribe in this region. Sula spoken here is of the Sanana dialect type and it is quite similar to the language as
spoken in Sanana city. Individual villages are said to have some unique characteristics, but it is unclear if any are different enough to be dialects in their own right.

Western Sanana Mangon (7): this region centers around the large town of Malbufa and its satellite neighborhoods. It was settled long ago by pioneers from Mangon island (Waitulia, Mangon, and Waitina villages). A new contact dialect has emerged in Malbufa via contact to the more populous Sanana tribe members nearby. This dialect was formed in a near opposite scenario to that of the Central Mangon Dialect on Mangon island. Side-by-side, the two dialects could help shed light on new dialect formation by revealing points of convergence and divergence.

West Fagudu Sanana (8): Fagudu is the primary settler tribe in this region. Sula spoken here is of the Sanana type, but it is recognizably different from the language as spoken in Sanana city. The language has some unique local words and sound innovations. As a Sanana dialect, it shares the innovations that differentiate Sanana dialects from Mangon.

West Facei Sanana (9): Facei is the primary settler tribe in this region. Sula spoken here is of the Sanana type, but it is recognizably different from the language spoken in Sanana city. The language has a number of local words and unique innovations, but as a Sanana dialect, it shares the innovations that differentiate Sanana dialects from Mangon.

Southwest Fagudu Sanana (10): Fagudu is the primary settler tribe in this region. Sula spoken here is of the Sanana type though significantly different from the language spoken in Sanana city. The language has numerous local words and unique innovations, but as a Sanana dialect, it shares the innovations that differentiate Sanana dialects from
Mangon. It is a mix of primary settlement communities from pioneers who left what is now Fagudu village in Sanana city and of newer, second and third generation settlements. There also may be settlements or areas with significant influx of people from the West Fagudu Sanana region. The number of definable dialects and interrelationships between varieties is not known.

South Facei Sanana (11): Facei is the primary settler tribe in this region. Sula spoken here is of the Sanana type though it is recognizably different from the language spoken in Sanana city. The variety spoken in Fatkouyun is perhaps the most divergent among Sanana varieties. There is said to be a significant number of unique lexical items and, by observation, there seem to have either been some vowel substitutions or a modification of the phonetic space assigned to certain vowels. Unfortunately I could only spend an evening in the village and did not have a chance to further explore the topic. Several targeted recordings were made in the village and archived, so the topic can be further explored by a future researcher. The language does appear to share all of the innovations that differentiate Sanana dialects from Mangon.

Southern Sanana Mixed Tribes Region (12): This area encompasses Manaf village and its surrounding areas. Residents report the the settlement to have arisen as a crossroad between the Facei villages to the south, Falahu villages to the north, and Fagudu villages to the west, which are connected by the only navigable route across the island interior. Given my limited interaction in the village, I did not notice remarkable dialectic differences from the variety as spoken to the north, and it is unclear if the area has a distinct language variety, if it is similar to Bega village to the north, or if it is a
hodgepodge of families with different language backgrounds, and I only happened to communicate with individuals who have a Southern Falahu Sanana linguistic heritage.

Southern Falahu Sanana (13): Falahu is the primary settler tribe in this region. Sula spoken here is of the Sanana type and it begins to deviate from the language spoken in Sanana city. The deviation is not strictly linear, indicating some leapfrogging, some counterclockwise settlements, and some additional, later intermediate settlements from Falahu village in Sanana in addition to the expected clockwise settlement expansion. Additionally, lateral borrowing further obfuscate the direction of migration in this region, so while a non-geographically linear dialect continuum likely does exist here, the varieties are quite similar to begin with, and the variations are clouded by lateral borrowings in this highly mobile area. As such, defining the linguistic relationship between dialects here will require a dedicated study that leverages comparative linguistics, historical documents, and oral histories.

Southern Falahu and Fagudu Blend Sanana (14): This is a boundary region between Falahu and Fagudu areas. Sula spoken here is of the Sanana type and it deviates somewhat from the language spoken in Sanana city. The region has some identifiable characteristics, but it shares the innovations that differentiate Sanana dialects from Mangon.

Southern Fagudu Sanana (15): Fagudu is the primary settler tribe here. Sula spoken in this region is quite similar to the standard Sanana variety in Sanana city to the north. Individual villages have unique characteristics, but it is unclear if any of the communities here could be said to have their own dialects.
Standard Sanana Dialect (16): Sanana city formed over the historical home territories of the Fagudu, Falahu, and Facei tribes. The language spoken here is the most generic Sanana variety. That is, Sula as spoken here is seems most difficult for other Sanana speakers to place geographically, as it does not contain innovations that people might pick up on to identify a local variety. That is: all of what is present in Sanana city is also present in a number of other communities, but unique features to those other communities are not found in Sanana city.

Bajo Language (17): this region is a very old Bajo (Sama–Bajau) settlement that is built approximately a third over the coast and two thirds over water on stilt houses connected via a network of boardwalks. Additionally, some percentage of the extended community is aquatic nomads who live aboard ships and migrate between this and other Sama–Bajau communities. The basic vocabulary of this community’s language variety is listed in this dissertation appendix, and recordings are archived along with other dissertation materials. Also archived are several targeted conversation recordings. Unfortunately investigating the community’s language was outside of the purview of my research, but the residents here are warm and welcoming, and I highly encourage a future researcher to live among this community for an extended period.

1.3 Overview

The two main dialect groups have similar but not identical phoneme inventories. Sanana dialects have a phonemic glottal stop and voiceless glottal fricative that are both absent (or rare) in Mangon dialects, while Mangon dialects retain a voiced velar nasal that has been lost in Sanana (ŋ>n). Both dialects have five vowels (i, u, e, o, a), but
Sanana dialects also retain several vowel clusters that have been reduced in Mangon (ei, oa, and ao). Field data provided the present day phoneme inventories, and the Proto–Sanana–Mangon (PSM) inventory was reconstructed using the Comparative Method. While the phoneme inventories are quite similar, not every phoneme corresponds perfectly to its counterpart in the other dialect group. Table 10 lists phoneme correspondences between the dialect groups alongside PSM, the progenitor.

### TABLE 10. SANANA–MANGON PHONEME CORRESPONDENCES

<table>
<thead>
<tr>
<th>Consonants:</th>
<th>Vowels:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanana</td>
<td>Mangon</td>
</tr>
<tr>
<td>p</td>
<td>p</td>
</tr>
<tr>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>t</td>
<td>t</td>
</tr>
<tr>
<td>d</td>
<td>d</td>
</tr>
<tr>
<td>r</td>
<td>d</td>
</tr>
<tr>
<td>(intervocalic)</td>
<td>(if preceding syllable contains o)</td>
</tr>
<tr>
<td>k</td>
<td>k</td>
</tr>
<tr>
<td>g</td>
<td>g</td>
</tr>
<tr>
<td>?</td>
<td>Ø</td>
</tr>
<tr>
<td>m</td>
<td>m</td>
</tr>
<tr>
<td>n</td>
<td>n</td>
</tr>
<tr>
<td>n</td>
<td>η</td>
</tr>
<tr>
<td>r</td>
<td>r</td>
</tr>
<tr>
<td>f</td>
<td>f</td>
</tr>
<tr>
<td>s</td>
<td>s</td>
</tr>
<tr>
<td>h</td>
<td>Ø</td>
</tr>
<tr>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>h</td>
<td>l</td>
</tr>
<tr>
<td>(subset 1)</td>
<td></td>
</tr>
<tr>
<td>l</td>
<td>l</td>
</tr>
<tr>
<td>(subset 2)</td>
<td></td>
</tr>
<tr>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>j</td>
<td>j</td>
</tr>
<tr>
<td>w</td>
<td>w</td>
</tr>
</tbody>
</table>
While this chapter describes the macro-level dialect division in Sula, the topic of dialect differentiation was complicated at the micro-level by an interplay between three factors: time, tribe, and terrain. If asked how many dialects of Sula there are, Sula residents answer without hesitation, “four: Fagudu, Falahu, Facei, and Mangon,” (the four tribes, recited in various orders). That response is so universal that when I designed a geographical study of dialects, I predicated my research plan upon an assumption that while these dialect divisions were no longer evident in Sanana city, they were likely still present in rural settlements. I still believe that is likely the case, but once I began analyzing data, it became clear in short order that the picture was not so simple.

The region’s only city, Sanana, is the ancestral home to three of the four tribes, and while there are widely accepted geographical delineations separating each tribe’s range, no such isoglosses can be drawn. In fact, I begrudgingly came to the conclusion that although there are a handful of deliberate identity-marking word variants used by tribal members, there is truly only one extant dialect that covers all of Sanana city. It does, however, appear that the tribes might have indeed had discernible dialects in the distant past, and that those dialects may yet be reconstructable by comparing modern Sula as spoken in outlying settlements. This is where the factors of time and terrain enter.

Beginning at some point in the distant past, community settlements branched out to distant (primarily) coastal locations around the islands, and many of those settlements then spread to form segments of dialect chains along the coast. But this did not happen in a geographically linear pattern. This fact makes logical sense in the context of an island where groups prefer to settle along the coast. Costal conditions vary in Sula from
swampy, to sandy, to steep cliffs, to large fertile plains, to dense jungle, to arid. The quality and reliability of rivers available to support settlements also varied, and because of all of these varying conditions it seems that it was frequently the case that the most preferable place to establish a new settlement was not necessarily an origin community’s directly neighboring river valley. New settlements were often established numerous rivers down, where superior conditions were present, and subsequently, the space in between was backfilled with new settlements from both directions, and also in a nonlinear manner. This way of settling new villages results in a situation where a grandchild or great-grandchild settlement can be geographically situated beside its grandparent settlement with the intermediate generation of settlements geographically leapfrogging over both on either side.

This geographic incongruity means that while describable dialect continua do exist in Sula, they are nonlinear and nigh impossible to arrange into a linear descent model without historical context for reference. Figure 11 illustrates Sula’s settlement tendency and why historical context is vital to help decode it.
**Figure 11.** Sula village settlement pattern
Illustration of geographically non-linear settlement patterns around the Sula Islands. A, B, and C parallel the original settlements of Sanana’s three tribes, and the sub versions represent generations of communities descended from the original tribes.

Figure 11 shows an example of a dialect continuum that is geographically influenced but not geographically determined. As complex as the figure looks, the actual situation on the ground is far more complex. This is because settlement periods happened at various time depths and in both directions on the islands, and because numerous interspersed settlements were established both from the four original tribes and simultaneously by descendants of the new settlement communities—69—in both directions.

---

69 And sometimes communities were settled by a mixture of original tribal community members and newer community members.
—and the language varieties were also influenced by lateral transfer from neighboring communities of non-corresponding settlement generations. It would therefore be a daunting if not impossible task to describe Sula’s dialect continua using the Comparative Method alone.

Setting foot on the lower half of the island in Figure 11 with no historical background, one would likely expect to find a dialect continuum that descends from left to right or from right to left, but in Sula’s case, a comparison of dialect features would not bear that out. That is, one might expect the Comparative Method to reveal the following settlement pattern (or its clockwise counterpart): A1.2.1 > A1.2 > A1 > A1.1 > A1.1.1 > A1.1.1.1 > A1.1.2.1.1 > A1.1.2.1 > A1.1.2 > A1.1.2.2

Instead, however, the data would seem un-interpretable, because random noise and lateral features overwhelm the signal. The situation would not necessarily be a lost cause though. In Sula, as with most Austronesian communities, there are elders in every community who take on the sacred responsibility of accurately preserving oral histories, and I believe that gathering these histories and applying a comparative historical framework to their details should in most cases provide what is necessary to re-approach each community’s language data, correct it for lateral transfer and noise, and then construct the internal structures of Sula’s dialect continua and reveal the islands’ migration history along with it. In the case of Figure 12, the structure would turn out to be:
As explained, a fair amount of fieldwork time and effort went into collecting data at numerous locations around the islands, and rather than revealing the structure of Sula’s dialect map, subsequent research revealed that the Comparative Method in a vacuum is probably insufficient to unwind the complexity of the situation on the ground. Subsequent inquiries with elders like Ismael Duila, of Waibau, gleaned an intricate pattern of nonlinear settlement trends on the Archipelago and also revealed the degree of detailed knowledge that elders tend to possess about their communities’ histories and the histories of their neighbors. A revisiting of the communities to gather oral histories is needed to reveal Sula’s detailed dialect map, but the broad divisions are unmistakable, and using the Comparative Method, this chapter can accurately and adequately describe Sula’s modern dialect groups, and use them to identify the rules for reconstructing
Sula’s proto ancestor and demonstrate how it transformed into the varieties that are spoken today.

### 1.4 Previous research

As discussed in chapter one, few publications analyze the Sula language directly, and as a result of this lack of descriptive data, comparative linguistic work has been limited (e.g., Blust 1981, Collins 1983). Fortgens (1921) does an impressive job describing Soboyo on the neighboring island of Taliabo having only scant data, and Devin (1989) and Grimes (1992) quite impressively describe the main indigenous language of Buru island immediately to the south. Based on the material available at the time, Blust (1981) and Collins (1981) argued for an Austronesian subgroup of Buru–Sula–Taliabo under Proto–West–Central Maluku.

Blust (1981) also made use of the Soboyo data in Fortgens 1921 to show that PAN *S, which has disappeared in all other known languages of eastern Indonesia, is reflected consistently in Soboyo as h. The paper also argues for the inclusion of Soboyo in a subgroup alongside Sula and Buru. Collins (1989) picked up the analysis of Taliabo and explained that his field research showed the island to contain a single native language spreading over a long dialect continuum. The languages of the B-S-T subgroup were next taken up by Blust (1993), who disputed a claim in Esser 1938 proposing a subgroup containing Taliabo–Sula–Bacan. Blust demonstrates that Esser’s proposal is not based on linguistic reasoning.

At a higher level up the family tree, Mark Donohue and Charles Grimes (2008) challenge the Central Eastern subgrouping favored by Blust, and Blust’s 2009 follow-up
Chapter 2: dialects. part 1

Manuscript

defends the grouping. No new data source was cited either as basis for the challenge or the follow-up.

There have been subsequent challenges to Collins’s and Blust’s early subgrouping proposals, but to my knowledge none of them has included any new primary data, and Collins’s work remains the most complete historical evaluation. In a 1982 publication, Collins (1982:82) was first to suggest that there is one primary dialect division in Sula and that it separates Mangon and Sanana. My research corroborates this hunch. However, Collins’s analysis is mostly limited to consonants, and the data he uses is mainly from the Mangon dialect of Sula. Collins writes (1981:35) that our knowledge about the languages of Sula is in an elementary state, and this limits our ability to analyze the reflexes of PAN vowels.

Collins (1981:41) also notes that the Sanana dialect has “undergone a number of obfuscating innovations.” By comparing Sanana and Mangon dialects, the present chapter identifies these obfuscating innovations, and makes sense of Sula dialects’ vowel correspondences. The research in this chapter augments Collins’ findings and provides a more complete dataset for Austronesianists to use in refining higher-level subgroupings. Prior to these findings, Sula could appear to group more closely at times with Buru and at other times with Taliabo, depending on the Sula dialect that words were pulled from. The findings in this chapter lift that ambiguity by establishing a higher level Proto–Sula that should instead be used for comparative work with neighboring languages—a task I am eager to take on once I or another scholar conducts more thorough fieldwork on
Taliabo and uses the island’s numerous present dialects to similarly reconstruct Proto Taliabo.

This chapter helps to develop the academic literature in an area of Austronesian linguistics where there remains significant debate and little data available, and it provides new, more-comprehensive primary data that should be used to help settle ongoing disputes that have thus far been based on weak foundations.

1.5 Methods

Data used in this study was gathered in North Maluku during three three-month long trips between 2010 and 2015. Language consultants were chosen as described below to help ensure that data would be reliable for comparative work. Elicitations were conducted at seventeen sites on Mangon and Sanana, where the majority of Sula speakers reside. Before choosing sites, I consulted with the regional development office, the bureau of statistics, and community elders. I inquired about the settlement history for each village to learn which tribe settled the area and which of the (then hypothesized) four dialects it was reported to speak. A minimum of ten sessions were conducted for each targeted dialect. Sessions included a series of three videos that were watched by speakers, two at a time, within three age ranges as well as elicitation of a 230-word basic vocabulary list adapted from Greenhill et al.’s (2008) Austronesian Basic Vocabulary Database (see Table 11). Typically, various other data collection and documentation sessions were also conducted. These ranged from ethnographic interviews to performance recordings; demonstrations of traditional medicine and farming/hunting/fishing methods; and topical vocabulary elicitation.
TABLE 11. ELICITATION SESSIONS BY TRIBE

Sessions were conducted to determine whether there is tribe-based variation. To control for geographic variation, research did not cross village boundaries. In addition to the four Sula tribes, the same elicitation materials were used with Sanana’s Bajo community, and also the Facei tribe community settled on Mangon’s southern coast (CMD).

<table>
<thead>
<tr>
<th>Dialect</th>
<th>Video 1</th>
<th>Video 2</th>
<th>Video 3</th>
<th>Swadesh</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18-29</td>
<td>30-49</td>
<td>50+</td>
<td>18-29</td>
</tr>
<tr>
<td>Falahu</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Fagudu</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Facei</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Mangon</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CMD</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Bajo</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

At least two speakers participated in all vocabulary elicitation sessions. This helped to counter code switching effects, because all participants are also fluent Malay speakers, and Malay was the language of elicitation. Sessions had three or more participants in situations when there was a group dynamic that facilitated thoughtful responses. All sessions—vocabulary and video alike—were conducted in the target geographical area. For example, an elicitation session for Facei could not be conducted in a Fagudu village, even if the consultants were native Facei speakers, and the two main

50 Central Mangon Dialect is a dialect found on Mangon island’s southern coast that has undergone significant contact-induced leveling.
participants for each targeted elicitation session were required to have been born and raised in the particular village where the session was being conducted (i.e. they could not come from another village even if that village reported to be of the same tribe or the same dialect). During vocabulary elicitation sessions, dialect-external participants were invited to join as tertiary observer-consultants when available. Their task was to listen and identify when unexpected or interesting dialect differences were encountered. These participants did not tend to contribute a large quantity of material; however, their occasional observations were thought provoking.

Three videos were created and used to elicit conversation controlled for topic. Videos were produced locally to (a) keep discussion from centering on any foreign elements rather than scenes and actions being depicted and (b) contextually prime participants to speak Sula rather than Malay, which is the language that typically accompanies media content depicting the outside world. The videos include a movie with no audio track that shows a hungry young man earning money to buy a bread roll (Video 1) and two compilation videos consisting of various scenes filmed around the island (Video 2 and Video 3). Each video was presented in the same manner to two participants at a time. Videos were filmed and presented in HD 1080 on an iPad with Retina display.

Nine sessions were conducted for each target dialect. During each session, a video was watched and responded to twice by two participants who were: (a) born and raised in the community where the session took place, and (b) within a given age range (either 18–29, 30–49, 50+). It became clear that broad age ranges were needed, because many

---

51 This video is titled “Want To Eat Bread” (VEB)

52 These videos are titled “Various Scenes” (VS) one and two.
participants were unsure of their chronological age. To correct for age uncertainty, a reported age was recorded alongside an age estimate made by the researcher. A small number of elicitation sessions were excluded from the study and repeated with different participants. This happened when either a reported or observed age was outside the target range. The study included men and women; however it was impractical to balance for gender due to population availability.

A video was watched by only one participant during the first viewing. The viewer described what was seen to the second participant, who would ask questions to clarify and gather additional information. Instructions were provided primarily in the Sula language. After the first viewing of video 1, the non-viewer recounted what was remembered from the story. The video was then played a second time when participants watched it together and discussed it freely. Videos were shown in this way to help collect conversational language data from which vocabulary was later extracted and added to Swadesh list terms for analysis with the Comparative Method.

53 The custom of keeping track of age is widespread only among the young.
1.6 Comparisons

**TABLE 12. PHONEME INVENTORY**
The Proto–Sanana–Mangon phoneme inventory consists of 24 phonemes—nineteen consonants and five vowels

<table>
<thead>
<tr>
<th>Consonants</th>
<th>Vowels</th>
</tr>
</thead>
<tbody>
<tr>
<td>p b t d k g ? i u</td>
<td></td>
</tr>
<tr>
<td>c ([tʃ]) j ([dʒ]) m n n̄</td>
<td></td>
</tr>
<tr>
<td>n r</td>
<td></td>
</tr>
<tr>
<td>f s h</td>
<td></td>
</tr>
<tr>
<td>l w y ([j])</td>
<td></td>
</tr>
</tbody>
</table>

1.6.1 Clusters and diphthongs in Proto–Sanana–Mangon

Many Mangon forms seem to have prenasalized word-initial onsets, but it is not clear whether they are Prenasalized consonants or consonant clusters. They do however appear to reflect a fossil morpheme N-. It is uncertain whether they arose in Mangon after the dialect split (likely from the possessive marker -in), or if they reflect an earlier affix and were reduced in Sanana. If the morpheme existed in PSM, the following clusters would have been present word-initially: Ny, Nb, Nl, Nc, Np

Various vowel sequences are also present, but their phonemic status is uncertain. These segments are: ia, ui, ua, ei, eu, oi, ou, ai, au, ae, ao

1.6.2 Changes in Proto–Sula\(^{54}\), prior to PSM

During fieldwork, an unexpected vowel correspondence kept conspicuously popping up between Sula and Malay, the language of elicitation. This marked an interesting finding in reconstructing the Proto–Sanana–Mangon dialect: the process revealed two

---

\(^{54}\)Proto–Sula is a hypothesized stage of the language further back in time than P-S-M.
early synchronic snapshots of the language instead of one. That is, whereas the structure of PSM was reconstructable, it necessitated that at least one important change must have occurred at a level higher than PSM but lower than Buru-Sula-Taliabo, if what we know of the sibling languages is complete enough. I refer to this intermediate stage as Proto–Sula. The change in question is: PAN *uCi,u > oCi,u. Here, *u became o when followed in the next syllable by a high vowel (*u>o/i,uσ#).

Malay cognates containing uCu such as kutu ‘louse’, bulu ‘fur’, and sepuluh ‘ten’, corresponded to oCu in Proto–Sula (oCu in Mangon; oCa in Sanana). This correspondence appeared to reflect a change from PAN *u to Proto–Sula *o in syllables preceding *u. Comparison to other Austronesian language data from the Austronesian Comparative Dictionary (Blust and Trussel, on-going), the Austronesian Basic Vocabulary Database (Greenhill et al. 2008), and personal communication with Robert Blust, revealed this correspondence to be a change to PAN *u in the penult when the ultimate vowel is [+high]. That is, *u became o in the penultimate syllable only where the final vowel was *i or *u. This is corroborated by the fact that uCV[+high] sequences do not violate the phonotactics of either dialect, and also by reconstructed PSM forms like *kuli ‘right’, *duki ‘come’, *jubi ‘shoo’. The modern forms for these words are, kuli (M), kul (S); duki (M), duk (S); and jubi (M), jub (S), but if the change had happened lower than the level of P–S–M, these forms would instead be, koli (M), kol (S); doki (M),

---

55 This oddity highlights the need for a more comprehensive survey of Taliabo languages.

56 This change appears to be connected to a subsequent and equally bizarre *u > a change that occurred to the same lexical items in Sanana (discussed in section ####3.5.2####).

57 The modern forms would reflect as koli in Mangon and kol in Sanana if the change occurred after to P–S–M, but instead they are kuli (M), and kul (S). Of course this in and of itself is not proof, but it does lend corroboration.
dok (S); and jobi (M), job (S). The *u > o change is demonstrated in the following table, and many more examples are found in Appendix #### and in the Chapter 4 vocabulary list.

**Table 13. *u > o Examples**
The following table lists a few typical examples of the u > o change.

*uCi

<table>
<thead>
<tr>
<th>PMP</th>
<th>PSN</th>
<th>Mangon</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*kulit</td>
<td>*koli</td>
<td>koli</td>
<td>kol</td>
<td>’skin’</td>
</tr>
<tr>
<td>*ma-putiq</td>
<td>*boti</td>
<td>boti</td>
<td>bot</td>
<td>‘white’</td>
</tr>
<tr>
<td>*duRi</td>
<td>*loi</td>
<td>loi</td>
<td>hoi</td>
<td>‘thorn’/’bone’</td>
</tr>
</tbody>
</table>

*uCu

<table>
<thead>
<tr>
<th>PMP</th>
<th>PSN</th>
<th>Mangon</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*bubu</td>
<td>*fofu</td>
<td>fofu</td>
<td>fofa</td>
<td>’bamboo fish/eel trap’</td>
</tr>
<tr>
<td>*buku</td>
<td>*foku</td>
<td>foku</td>
<td>foka</td>
<td>‘joint, e.g. finger’</td>
</tr>
<tr>
<td>*bulu</td>
<td>*fou</td>
<td>foː</td>
<td>foa</td>
<td>‘hair, feathers’</td>
</tr>
</tbody>
</table>

Comparing words like ma-tua ‘old’ (people) from *tuqa, uha ‘shrimp, lobster’ from *qudaŋ, uma ‘house’ from *Rumaq, uya ‘rain’ from *quzan, and fua ‘fruit’ from *buaq, we see that *u changed only before high vowels. Furthermore, we can see that the change did not affect other vowels in the same environment by comparing forms like ga-pitu ‘seven’ from *pitu, nihi ‘tooth’ from *ŋisi, nui ‘coconut’ from *niuR (< met.), timu ‘cucumber’ from*qatimun, and winu ‘to drink’ from *inum.

This sound change poses a problem to the Neogrammarian hypothesis that sound change can be conditioned only by phonetic factors (e.g. Osthoff and Brugmann 1878, Hock 1991). Mechanistic change to phonetic factors is postulated to be an unconscious result of speakers slightly missing their targets when attempting to recreate a mental
representation of a sound. These repeated mistakes over time are thought to cause modifications to the underlying mental representation of the sound (Blust ### FIND CITATION); however, there is no identifiable biological reason why repeatedly missing a *u target in the environment of / _Ci,u would move a speaker’s prototypical mental representation of the segment closer to o. As it stands, the data at hand are most in keeping with the Neolinguist assertion that change is possible in the absence of a generalizable underlying phonetic motivation (Bartoli 1925). Blust (### FIND CITATION) further discusses Sula’s PAN *u > o change in an expanded discussion on the theoretical implications of sound changes that are not phonetically conditioned and why they are odd.

1.6.3 Sound changes from PSM to Sanana

To help describe the structure of PSM, the subsequent sections illustrate changes that occurred as the language split and evolved into modern Sanana and Mangon dialects. Let us first chart the path of evolution from PSM to the present-day Sanana dialect group.

1.6.3.1 Consonants

*d>r /V_V. Intervocalic *d became a trill in Sanana (usually produced as a flap)58

Sometimes historical sound changes stand on their own without affecting other phonological processes or sound changes, but often they can only be understood

58 Lyle Campbell (p.c. 2020) suggests that it is more natural for a d to become a flap than a trill. This likely was the route in Sanana as well, however the data do not reveal the specific path this change followed, and either way the end result was the same: intervocalic instances of PSM *d are today included among the trill phoneme.
diachronically as stages in a sequence of processes. The *d>r /V_V sound change is one such instance; we can see that it must have occurred before a final-vowel reduction event that took place in Sanana, otherwise some of Sanana’s modern words would have been different. Take for example tar ‘horn’. If Sanana’s final vowel deletion had not followed the intervocalic *d>r change, the target environment would not have been present, and rather than the modern word having followed the path *tadu > taru > tar, the process of events would have truncated with the final vowel deletion and there would have been no opportunity for *d to change to r. That is, we would expect to see a reflex of tad instead of tar.

**Table 14. *d>r /V_V**

<table>
<thead>
<tr>
<th>PSM</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*badagana</td>
<td>baragana</td>
<td>‘to dream’</td>
</tr>
<tr>
<td>*gad(i,e)ha</td>
<td>gareha</td>
<td>‘four’</td>
</tr>
<tr>
<td>*padomu</td>
<td>paroma</td>
<td>‘knee’</td>
</tr>
<tr>
<td>*tadu</td>
<td>tar</td>
<td>‘horn’</td>
</tr>
</tbody>
</table>

**1.6.3.1.1 *l>h/[V_V], [#_]**

There are many instances of l in Sanana basic vocabulary; however PSM *l became h in intervocalic and onset positions in the words of the following list. This change is apparently sporadic rather than regular; a regular sound change applies across the

---

59 During personal communication, Robert Blust questioned whether ‘horn’ might in fact be a Malay loan, as there are no horned animals native to Maluku. It is noteworthy though that the mammals evolving east of the Wallace line are not the only animals present on Sula—even during early human settlement. Sula was a casual swim’s distance from Sulawesi during the height of the Ice Age, and anoa and Javan rusa (and possibly rhinoceros beetles) all likely made their own way east of the Wallace line along with babi rusa which have upward incisors akin to ‘horns’. Additionally, humans introduced other horned animals to the region like buffalo and goats. Sula’s retention of outrigger technology and close proximity to Sulawesi (only a few hours by sail even at present sea levels) suggest that the population was also never entirely cutoff from communities and animals West of the Wallace line, so tar remains a likely valid form.
board. A sporadic sound change affects only a subset of candidate words in a language, and there is no identifiable regularity determining where a change of this sort will occur (e.g. Campbell 2004:17).

**Table 15.** *(l>*h/[V_\_V], [#_]*)

<table>
<thead>
<tr>
<th>PSM</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*geli</td>
<td>gehi</td>
<td>‘to stand’</td>
</tr>
<tr>
<td>*lai</td>
<td>hai</td>
<td>‘earth/soil’</td>
</tr>
<tr>
<td>*lama</td>
<td>hama</td>
<td>‘eye’</td>
</tr>
<tr>
<td>*lani</td>
<td>-han</td>
<td>‘near’</td>
</tr>
<tr>
<td>*loi</td>
<td>hoi</td>
<td>‘bone’</td>
</tr>
<tr>
<td>*(N-)losa</td>
<td>hosa</td>
<td>‘leaf’</td>
</tr>
</tbody>
</table>

Collins (1981, 1982) speculates that PAN *d/D became *h in Sanana and *l on Mangon. He provides the following evidence:

- **PAN *(dD)uRi ‘thorn’ > loi**
- **PAN *dakep ‘embrace’ > hak\Ykot\Y**
- **PAN *DuSa ‘two’ > guu**
- **PAN *ke(dD)en ‘stand’ > keli**
- **PCM *dama ‘eye’ > lama**

I cannot account for all of Collins’ reconstructions; however the forms themselves are mostly consistent with my data for the Mangon dialect. One difference concerns the form, hak\Ykot\Y ‘embrace’, which he identifies as having a Fagudu origin; his use of \Y represents “an unspecified devoiced vowel” (1981:42). During my fieldwork, I heard closures and geminates rather than devoiced vowels and recorded both hak and hakkot.
‘to hug’ from a Fagudu tribe member in Waibau village. As for the word itself, I am unconvinced that it is in fact a reflex of PAN *dakep: first, neither Collins nor myself collected an l onset variant for Mangon, and furthermore Collins does not account for *p > t /_# in Sula nor *e > o. In fact, other higher level forms listed by Collins containing *e do not become o in Sula. Take for instance, PCM **seget > segi ‘high tide’ and PAN *ke(dD)eŋ > keli ‘to stand’ (Collins 1981:32).

The form, guu from PAN *DuSa is also problematic: Collins (1981:42) analyzes PAN *d and *D merging to **ḍ in B–S–T and then **ḍ subsequently becoming l in Sula but h in “Falahu and Fagudu dialects.” he further states that the loss of l from ḍ is regular in Sula but that there is an unexpected loss of final -a and that there is an unexpected appearance of u for a in the numeral prefix ga-. Presumably the **ḍ > l that Collins describes occurred at the Proto–Sula stage, as I am able to reconstruct the PSM form *gahu ‘two’. In the Mangon dialect, PSM *h is deleted, resulting in *gau and **au is then reduced to u (and lengthened for syllabic weight). Thus:

PSM *gahu >

            gahu (Sanana)

            gaØu > gØØu > guu (Mangon)

---

60 It is twice identified as a change applying only to Buru (pp. 32, 33).

61 About the inability to account for Sula’s vowels, Collins writes, “Given the elementary state of our knowledge of these languages, a thorough consideration of the reflexes of PAN vowels must wait.” (Collins 1981:35)

62 Presumably he means the segment first became l and then subsequently became h in some but not all dialects.

63 My explanation is not optimal, however, as there is no generalized rule for reducing **au is reduced to u.
1.6.3.1.2 *l – l

This is not a sound change but rather, a peculiar and notable example of what appears to be the halting of a sound change across a particular stratum of words. I hypothesize that as a bilingual population, Sula speakers unconsciously interrupted (or perhaps even reversed) a sound change in this part of the lexicon because of the words’ similarity to cognates in Malay—the speakers’ other ‘first language’. In other words: PSM *l > h was a regular change, but bilingualism in Malay either blocked it on some words or put it back.

Whatever the cause, the /l/ phoneme was apparently retained in a number of words. It is not clear that all additional forms I collected with an l–h correspondence reflect PAN *d/D; however, the forms with an l–l correspondence do appear to reflect PSM *l.

One explanation for why some instances of *l did not become h, could be that l was retained in intervocalic and onset position in early loans and forms that are very similar to Malay cognates or false cognates. These forms might have been ‘protected’ from the spread of *l > h. That is, most Sula speakers have been bilingual in Malay for many generations64, and they would thus have frequently produced l in these cognate (and false cognate) forms while conversing in Malay. This fact might logically have halted the spread of *l > h in these particular Sula forms. The subset of vocabulary in question is demonstrated in the following examples.

---

64 This has been reported to me by centenarians whom I worked with in remote villages. Additionally, Dutch annual reports indicate a high degree of interaction, and even the Sula wordlist collected by Wallace’s assistant imply an ability to interact in a lingua franca, as the stay on the island was not long, and the terms collected would have been complicated to gather through only gestures or trial and error.
**TABLE 16. */l – l* STRONG EXAMPLES**

<table>
<thead>
<tr>
<th>PSM</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*bahali</td>
<td>bahal</td>
<td>(cf. Malay <em>malu</em>) ‘shy, ashamed’</td>
</tr>
<tr>
<td>*bet pila</td>
<td>bet pila</td>
<td>(cf. Malay <em>bila</em>) ‘when?’</td>
</tr>
<tr>
<td>*galima</td>
<td>galima</td>
<td>(cf. Malay <em>lima</em>) ‘five’</td>
</tr>
<tr>
<td>*kalo</td>
<td>kalo</td>
<td>(cf. Malay <em>kalau</em>) ‘if’</td>
</tr>
<tr>
<td>*koli</td>
<td>kol</td>
<td>(cf. Malay <em>kulit</em>) ‘skin’</td>
</tr>
<tr>
<td>*la</td>
<td>la</td>
<td>(cf. Malay <em>layang</em>) ‘to float, fly’</td>
</tr>
<tr>
<td>*(manu)telu</td>
<td>(man)tel</td>
<td>(cf. Malay <em>telur</em>) ‘egg’</td>
</tr>
<tr>
<td>*(manu)telu</td>
<td>(man)tel</td>
<td>(cf. Malay <em>telur</em>) ‘egg’</td>
</tr>
<tr>
<td>*tilu</td>
<td>til</td>
<td>(cf. Malay <em>telinga</em>) ‘ear’</td>
</tr>
</tbody>
</table>

The similar-word hypothesis is not fully satisfactory though, because the following forms are not transparently similar to Malay. In these particular words, perhaps a more logical explanation is a usage frequency hypothesis; however, as Lyle Campbell points out, usage frequency has not been adequately shown to be a mechanism for halting the spread of sound change (p.c. 2020).
### Table 17. *l–l Counter Examples
The following words have no obvious, common Malay counterpart with *l.

<table>
<thead>
<tr>
<th>PSM</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*nonu boli</td>
<td>nona bol</td>
<td>(cf. Malay <em>goler</em>)</td>
</tr>
<tr>
<td>*sagila(?at)</td>
<td>sagila?at</td>
<td>(cf. Malay <em>halilintar</em>)</td>
</tr>
<tr>
<td>*dalena</td>
<td>dalena</td>
<td>(cf. Malay <em>lebar</em>)</td>
</tr>
<tr>
<td>*balela</td>
<td>balela</td>
<td>(cf. Malay ?)</td>
</tr>
<tr>
<td>*gatelu</td>
<td>gatel</td>
<td>(cf. Malay ?)</td>
</tr>
<tr>
<td>*kila</td>
<td>kila</td>
<td>(cf. Malay ?)</td>
</tr>
<tr>
<td>*lepa</td>
<td>lepa</td>
<td>(cf. Malay ?)</td>
</tr>
<tr>
<td>*lifi</td>
<td>lif</td>
<td>(cf. Malay ?)</td>
</tr>
</tbody>
</table>

The inability to reconcile the *l–l counter examples underlines the fact that there are multiple sources for Sula *l*: one that descends from PAN *D/d and at least one that is more mysterious. Unfortunately my data do not reveal more about this source, and I can only speculate that the words entered the language subsequent to *l>h/[V_V], [__] and then spread to both dialects.

#### 1.6.3.1.3 *ŋ>n

### Table 18. *ŋ>n
PSM *ŋ became *n in Sanana without exception.

<table>
<thead>
<tr>
<th>PSM</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*baifoŋi</td>
<td>baifon</td>
<td>‘to hide’</td>
</tr>
<tr>
<td>*daufoŋi</td>
<td>daufon</td>
<td>‘to hide’</td>
</tr>
</tbody>
</table>

---

65 Possible loan (possibly by way of an intermediary language) from Arabic *saeica* ‘lightning’ or *shaeila* ‘flame’/‘torch’.

66 Unlikely but possible loan from Arabic *bial’ibtisam* ‘smile’ by way of an intermediary language.

67 Unlikely but possible loan from Arabic *kabad* ‘liver’ by way of an intermediary language.

68 Possible loan from Arabic *lil’iltafaf* ‘to turn’.

143
1.6.3.2 Vowels

1.6.3.2.1 *u>a/oʊ_#

Lowering of *u to a where the preceding syllable contains a mid back vowel is another particularly interesting sound change which has no apparent phonetic motivation, similar to the lowering of PAN *u before high vowels described in the previous section. In an o_less_than_u environment, the tongue raises between the first and second vowel. A change from PSM *o_less_than_u > o_less_than_a requires the tongue to lower between the first and second vowel, so this change not only lacks an obvious phonetic motivation, it appears to behave in opposite manner to phonetic expectation and provide even more sound corroboration the Neolinguists assertion that change is possible in the absence of a generalizable underlying phonetic motivation. As mentioned above, see Blust (### FIND CITATION) for an expanded discussion on the theoretical implications of sound changes that are not phonetically conditioned.
During dissertation review, Lyle Campbell offered the following hypothetical phonetic motivation: the *u from *oCu could have lowered to o (**oCo) being influenced by the lowness of the vowel in the preceding syllable, and afterward the final o might have lowered even further as a form of weakening in an unstressed syllable (p.c. 2020). Whether or not that was the mechanism for this change, it is certainly counterintuitive at face value, and it is remarkable that a parallel to this this chain of events (*uCu > **oCu > oCa) did not take place in any of the Austronesian Language Family’s other 1,200+ languages, where the *u segments diverged with the final *u lowering owing to it being in a less prominent syllable.

This change is also another example of a change within an ordered sequence of changes: it must have occurred prior to a final high vowel deletion that will be discussed. If it had not, forms like ‘to suck’, ‘to burn’, and ‘to hit’ would have ended up as bos, don, and dot instead of bosa, dona, and dota, because the final vowel deletion would have prevented the change occurring in those items.

**Table 19. *u>a/o_#**
Lowering of *u to a where the preceding syllable contains a mid back vowel

<table>
<thead>
<tr>
<th>PSM</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*bagou</td>
<td>bagoa</td>
<td>‘cold’</td>
</tr>
<tr>
<td>*bosu</td>
<td>bosa</td>
<td>‘to suck’</td>
</tr>
<tr>
<td>*donu</td>
<td>dona</td>
<td>‘to burn’</td>
</tr>
<tr>
<td>*dotu</td>
<td>dota</td>
<td>‘to hit’</td>
</tr>
</tbody>
</table>
1.6.3.2.2 *i,u>Ø

*i,u>Ø / [-glottal]  _#

Sanana deleted word final high vowels following non-glottal consonants. Presence of forms like *tapa ‘left’ and *laka ‘walk’ demonstrate that this change occurred only to high vowels (i and u). The vowels remain in words where they follow other vowels and glottal consonants (e.g., *tui ‘snake’, *yau ‘far’, *behi ‘to throw’, *gahu ‘two’). They may also remain following affricates; however there are too few examples to state this conclusively (e.g., *gaji ‘grease’, which could be a loan).

**Table 20.** *i,u>Ø
Word final high vowel deletion following non-glottal consonants.

<table>
<thead>
<tr>
<th>PSM</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*(t,d)ufi</td>
<td>duf</td>
<td>‘to stab’</td>
</tr>
<tr>
<td>*aku</td>
<td>ak</td>
<td>‘1SG’</td>
</tr>
<tr>
<td>*api</td>
<td>ap</td>
<td>‘fire’</td>
</tr>
<tr>
<td>*asu</td>
<td>as</td>
<td>‘dog’</td>
</tr>
<tr>
<td>*bagu</td>
<td>bag</td>
<td>‘thick’</td>
</tr>
<tr>
<td>*bahali</td>
<td>bahal</td>
<td>‘shy’</td>
</tr>
<tr>
<td>*baifoŋi</td>
<td>baifon</td>
<td>‘to hide’</td>
</tr>
<tr>
<td>*bamapu</td>
<td>bmap</td>
<td>‘to cook’</td>
</tr>
</tbody>
</table>

1.6.3.3 Anomalies

In addition to what is described above, there are also a handful of changes that cannot be generalized or adequately accounted for. Pending further data collection, these instances have to be written off as evidence of the inconvenient fact that language is a messy, organic, organism with occasional peculiarities that are hard to characterize, when their explanations have been obfuscated by time.
1.6.3.3.1. Proto *c became s in ‘branch’

PSM *(N-)cəŋa >

səna ‘branch’ (Sanana)

nəcəŋa ‘branch’ (Mangon)

*c is so infrequent that this sound is likely a loan phoneme. Interestingly, the Malay form cabang ‘branch’ also contains the affricate; however these forms are not transparently similar to one another. Lyle Campbell notes that this may only be an apparent difference and that the forms might be the same in reality, because transition between n and s in various other languages frequently causes an “excrecent” [t] in between to ease articulation of the segments. Some examples he provides are the English words prince [prIn(t)s], dance [daen(t)s], and incense [InsEn(t)s]. Thus it may be sufficient to state that (at least for some speakers), /n-s/ is realized as [nts], and these forms do not represent a difference between the two dialects. More investigation is needed to determine whether other analogous forms exist in the language.

1.6.3.3.2. -y- epenthesis occurred in ‘mouth’

PSM *baØoni > **baØon >

bayon ‘mouth’

boni ‘Mangon’

Epenthesis here is a natural change, and there are several examples of it in Sula as an optional pronunciation (e.g. giya how some Mangon speakers transcribe gia
‘one’\(^{69}\), but in this Sanana form it seems to always be present, so it should be listed among the anomalies.

### 1.6.3.3.3. -l- epenthesis occurred in ‘to steal’.

PSM \(^{*}\)bi\(\emptyset\)naka >

bilnaka ‘to steal’ (Sanana)

binaka ‘to steal’ (Mangon)

This \(l\) could not have been present in PSM, or it would still exist in the Mangon dialect. That said, there is also another Sanana variant of this word with a geminate \(n\) (binnaka). These three forms reflect a mysterious history and they are difficult to reconcile.

### 1.6.3.3.4. The numeral prefix \(ga\)- was dropped in the morpheme for ‘one’ and all ordinal derivatives.

While less problematic in that it does not involve sound change, this occurrence is nevertheless interesting, because the prefix is retained in the lexical item, gahia which means ‘alone’. In the Mangon form, the \(h\) was also deleted and reduced from gaia to g\(\emptyset\)ia. No analogous items have been identified. Examples:

PSM \(^{*}\)fatu-ga-hia >

**fat-ga-hia > fat-\(\emptyset\)-hia ‘one unit’ (Sanana)

**fatu-ga-ia > fat-g\(\emptyset\)-ia ‘one unit’ (Mangon)

\(^{69}\) Confusion regarding how to spell the Mangon form for ‘one’ is based on the Mangon form for ‘to eat’, giya, which contains a \(y\) phoneme and which is usually phonetically indistinguishable from gia ‘one’.
Chapter 2: dialects. part 1

PSM *ga-hia >

Ø-hia ‘one’ (Sanana)

**ga-Øia > gØ-ia ‘one’ (Mangon)

PSM *ca-ga-hia >

cacØ-hia ‘one thousand’ (Sanana)

caca-ga-ia > ca-gØ-ia ‘one thousand’ (Mangon)

1.6.3.3.5. *g deletion in two words.

PSM *gami >

**gam > Øam ‘to squeeze’ (Sanana)

gami ‘to squeeze’ (Mangon)

PSM *gifu >

**gif > Øif ‘to open’ / ‘to uncover’ (Sanana)

gifu ‘to open’ / ‘to uncover’ (Mangon)

Proto *g was deleted in two Sanana forms. Problematically, it does exist in
onset position elsewhere in the dialects.

1.6.3.3.6. *mf to /f/ reduction

PSM *mamVfai >

maØfai ‘to swell’ (Sanana)

mamfai ‘to swell’ (Mangon)

If *mf is a consonant cluster, it was reduced to f in ‘to swell’. It may however be a
prenasal segment realized as [m] due to the previous syllable [m], in which case it was
simplified in Sanana along with the other likely prenasal segments. No analogous forms are present.

1.6.3.3.7. Final ŋ deletion

PSM \*rekiŋ (L) >

**reki Ø > rekØØ ‘to count’ (Sanana)

rekiŋ ‘to count’ (Mangon)

Final ŋ was deleted in the Dutch loan meaning ‘to count’. This either occurred prior to final vowel deletion, or Sanana and Mangon each independently borrowed this from Dutch, Sanana in the form of reki and deleted the final i, and as reking in Mangon. While the second scenario is possible, there did not seem to be a lot of direct interaction with Dutch people in Sula during the colonial period. It is more likely that Dutch loans entered by way of intermediary languages: Malay, the regional lingua franca, and Ternate, the administrative tongue.

1.6.3.3.8. PSM *s > h in ‘flesh’

PSM *(N-)isi >

ihi ‘meat/flesh’ (Sanana)

 nisi ‘meat/flesh’ (Mangon)

PSM *s likely became h in the Sanana form for ‘flesh’ as it would be improbable for *h to have become s in Mangon.
1.6.3.3.9. Proto *y > ?

PSM *fayata >

\[ faʔata \] ‘heavy’ (Sanana)

\[ fayata \] ‘heavy’ (Mangon)

Proto *y became a glottal stop in the form meaning ‘heavy’. The reverse is not possible, because the Mangon form would have deleted the segment if the proto form had contained a glottal stop.

1.6.4 Sound changes from PSM to Mangon

This section illustrates changes that occurred as the proto language split and evolved into the modern Mangon dialect group.

1.6.4.1 PSM to Mangon. Consonants

1.6.4.1.1 PSM to Mangon. Consonants: *h>Ø

With few exceptions, PSM *h was lost in Mangon in all positions.
### TABLE 21. PSM TO MANGON: *h>Ø

The following forms demonstrate *h deletion.

<table>
<thead>
<tr>
<th>PSM</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*baha</td>
<td>baː</td>
<td>‘to buy’</td>
</tr>
<tr>
<td>*bahali</td>
<td>bali</td>
<td>‘shy’</td>
</tr>
<tr>
<td>*behi</td>
<td>beː</td>
<td>‘to throw’</td>
</tr>
<tr>
<td>*gad(i,e)ha</td>
<td>gadia</td>
<td>‘four’</td>
</tr>
<tr>
<td>*gahu</td>
<td>guː</td>
<td>‘two’</td>
</tr>
<tr>
<td>*gatahua</td>
<td>gatua</td>
<td>‘eight’</td>
</tr>
<tr>
<td>*han</td>
<td>an</td>
<td>‘who?’</td>
</tr>
<tr>
<td>*kahiku</td>
<td>kaiku^0</td>
<td>‘grass’</td>
</tr>
<tr>
<td>*mahı</td>
<td>mai</td>
<td>‘sea’</td>
</tr>
<tr>
<td>*nahu</td>
<td>nau</td>
<td>‘long’</td>
</tr>
<tr>
<td>*ŋihi</td>
<td>ŋiː</td>
<td>‘tooth’</td>
</tr>
<tr>
<td>*pougahu</td>
<td>pogu(:)</td>
<td>‘twenty’</td>
</tr>
<tr>
<td>*sahafa</td>
<td>fafa</td>
<td>‘rat’</td>
</tr>
<tr>
<td>*samohu</td>
<td>samo</td>
<td>‘needle’</td>
</tr>
<tr>
<td>*tahaga^71</td>
<td>taga</td>
<td>‘lake’</td>
</tr>
<tr>
<td>*tahun</td>
<td>taun</td>
<td>‘year’</td>
</tr>
</tbody>
</table>

**Exceptions:** A few counterexamples have been recorded in which forms are produced optionally with h. All are high frequency words, and all also have variants without h. These forms could either be back borrowings from Sanana, examples of *h retention, or indication that the change has not been fully adopted by all speech communities.

### TABLE 22. PSM TO MANGON: *h>Ø EXCEPTIONS

The following forms are produced optionally with h.

---

^70 This term is difficult to reconcile, as many variants were collected—often within the same community. These variants include: kahik (S), ka’ik (S), kaik (S), hik (S), kahiku (M), ka’iku (M) (c. 1900), kiku (M), kahik (CMD, keku (CMD), kiku (CMD).

^71 This is a Malay/Sanskrit loan, but taga – tahaga show expected sound correspondences, so it is likely that the borrowing occurred prior to the separation of Mangon and Sanana dialects.
1.6.4.1.2 PSM to Mangon. Consonants: *ʔ > Ø

Surface glottal stops are produced in Mangon (e.g., [faʔ.ko] ‘dog’, [saʔ.ka.fi] ‘to hold, as a baby’); however, these do not appear to be phonemic, as no minimal pairs have been found, and hypothetical pronunciations with and without surface glottal stops have been judged equally correct. The following forms demonstrate *ʔ deletion.

<table>
<thead>
<tr>
<th>PSM</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*daʔufonji</td>
<td>daufonji</td>
<td>‘to hide’</td>
</tr>
<tr>
<td>*faʔoki</td>
<td>faoki</td>
<td>‘forest’</td>
</tr>
<tr>
<td>*kiʔi</td>
<td>ki:</td>
<td>3SG</td>
</tr>
<tr>
<td>*maʔana</td>
<td>mana</td>
<td>‘man’</td>
</tr>
</tbody>
</table>

1.6.4.1.3 PSM to Mangon. Consonants: /N-/ prefix

Many Mangon forms have prenasalized word-initial onsets. It is common in Sula to frame nouns in isolation using the morpheme in,72 and this might be related. It is unclear whether the nasal segment in Mangon’s nasal-initial clusters reflect a fossilized morpheme that was lost in Sanana, or whether they arose in Mangon subsequent to the

---

72 in is used to indicate possession, and it also frequently serves an explicative-like function.
dialect split—possibly derived from the *in* morpheme. If the segments in Mangon do derive from *in*, it is not clear by what process. The syllable Maximal Onset Principle often explains similar phenomena, but it would be inadequate here, as Mangon’s apparent prenasal applies also to forms that already have onset consonants.

Whatever the origin, the result is a series of prenasalized consonants or nasal-initial clusters whose phonemic status is debatable, as tends to be the case with prenasals (e.g. Herbert 1975). An odd if not eerie coincidence however is that languages of the subfamily lost prenasalized consonants at an earlier stage (**###FIND MORE ON THIS AND INCLUDE EXAMPLES###**), so it is tempting to speculate that the prenasalized consonants in Mangon could reflect previously lost segments. That does not seem likely though, as it would then require convergent loss of those segments in sibling languages and also the sister Sula dialects. The following forms demonstrate word initial prenasalized clusters present in Mangon but not in Sanana.

**Table 24. PSM to Mangon: /N-/ Prefix**

<table>
<thead>
<tr>
<th>PSM</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*(N-)caŋa</td>
<td>ncaŋa</td>
<td>‘branch’</td>
</tr>
<tr>
<td>*(N-)losa</td>
<td>nlosa</td>
<td>‘leaf’</td>
</tr>
<tr>
<td>*(N-)yai</td>
<td>nyai</td>
<td>‘leg/foot’</td>
</tr>
<tr>
<td>*(N-)boyu</td>
<td>mboyu</td>
<td>‘tail’</td>
</tr>
</tbody>
</table>

There are several exceptional forms as well: *manpani* ‘wing’ contains a prenasalized cluster internally. The form ‘wing’ is also produced as, *npani*. The form *manpani* is a clear contraction of the compound word, *manu-(n)pani* ‘bird wing’. What’s not certain
is whether the \( np \) onset in \( npani \) is original or if the \( u \) was contracted and the \( n \) coda was rebracketed to the onset of \( pani \). The form \( fantui \) ‘star’, which also contains an internal prenasalized consonant, belongs to a class of environment nouns that all include a non-analyzable morpheme, \( fa-/pa- \)\(^73\). Evidence that the nasal segment in these clusters likely derives from a separate morpheme is however seen in the fact that it also occurs on otherwise vocalic syllables such as \( nisi \) ‘meat’.

### 1.6.4.2 PSM to Mangon. Vowels

Many vowel clusters are reduced in Mangon; however, it is difficult to find a single phonetic condition to account for all of the changes. In instances of \( ^*V_1V_1>V_1 \), what happens is the two like vowels are reduced to a single long vowel. The result is phonetically identical to a double vowel in the same syllable, because these reductions land on stressed syllables and stress in Sula is largely realized by vowel length, but Sula does not permit multiple vowels in the same syllable, so in regions where this reduction is far along, the resulting long vowel is not an instance of a double vowel; Sula’s stress pattern already explains the vowel lengthening. It must be noted that there are regions where this change is somewhat ambiguous, and speakers do occasionally accept the word reanalyzed with the long vowel split across syllables (two vowels), but where this change is far along, speakers strictly permit only a long vowel within a single syllable.

With \( ^*ei>e \) and \( ^*ou>o \), the second vowel is deleted, and it is a higher vowel. But in \( ^*ao>o \), the first vowel is deleted, and it is a lower, less back vowel.

\(^73\) Other nouns in this set are \( fasina \) ‘moon’, \( faoki \) ‘forest’, and \( (p,f)aŋara \) ‘cloud’
1.6.4.2.1 PSM to Mangon. Vowels: *V₁V₁>V₁

Sequences of like vowels are reduced to a single vowel with length determined by a minimal word requirement.

**Table 25.** PSM to Mangon: *V₁V₁>V₁
Examples of double vowel reduction.

<table>
<thead>
<tr>
<th>PSM</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*baha&gt;baa&gt;</td>
<td>baː</td>
<td>to buy'</td>
</tr>
<tr>
<td>*bahali&gt;baali&gt;</td>
<td>baːli</td>
<td>‘shy’</td>
</tr>
<tr>
<td>*ki'i&gt;kii&gt;</td>
<td>kiː</td>
<td>‘3SG’</td>
</tr>
<tr>
<td>*maʔana&gt;maana&gt;</td>
<td>maːna</td>
<td>‘man’</td>
</tr>
<tr>
<td>*ŋihi&gt;ŋii&gt;</td>
<td>ŋiː</td>
<td>‘tooth’</td>
</tr>
<tr>
<td>*sahafa&gt;saafa&gt;</td>
<td>faːfa</td>
<td>‘rat’</td>
</tr>
<tr>
<td>*tahaga&gt;taaga&gt;</td>
<td>taːga</td>
<td>‘lake’</td>
</tr>
</tbody>
</table>

1.6.4.2.2 PSM to Mangon. Vowels: *ei>e, *ou,o

Sequences of *ei and *ou were reduced to the vocoid with the most prominence, e and o respectively, and this reduction can leave a mark on the word’s stress pattern. Where a CVCV word typically has a stressed first syllable in Sula, the reduction can result in a bimoraic (heavy) ultimate syllable when the ultimate syllable was previously a stressed penultimate syllable (e.g. [ap'fe.i] > [ap'feː]). These stress marks are indicated in parentheses, because the stress pattern in these words is inconsistent among speakers—perhaps an indication that it is shifting to the more expected penultimate location for...
CVCV words. In this reduction, the vowel that is retained is both first in sequence and lower than the vowel that is deleted.

**Table 26. PSM to Mangon: *ei>e, *ou>o**

Examples of *ei to e reduction.

<table>
<thead>
<tr>
<th>PSM</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*apfei</td>
<td>apfe(ː)</td>
<td>‘smoke’ (fire)</td>
</tr>
<tr>
<td>*bafei</td>
<td>bafe(ː)</td>
<td>‘smoke, fog’ (general)</td>
</tr>
<tr>
<td>*bagou</td>
<td>bago:</td>
<td>‘cold’</td>
</tr>
<tr>
<td>*behi&gt;bei&gt;</td>
<td>be:</td>
<td>‘to throw’</td>
</tr>
<tr>
<td>*fou</td>
<td>fo:</td>
<td>‘hair, feather’</td>
</tr>
<tr>
<td>*ganei</td>
<td>gane(ː)</td>
<td>‘six’</td>
</tr>
<tr>
<td>*pou</td>
<td>po:</td>
<td>‘blood’</td>
</tr>
<tr>
<td>*pou</td>
<td>po:</td>
<td>‘ten’</td>
</tr>
<tr>
<td>*pougahu</td>
<td>pogu:</td>
<td>‘twenty’</td>
</tr>
<tr>
<td>*pougalima</td>
<td>pogalima</td>
<td>‘fifty’</td>
</tr>
<tr>
<td>*samohu&gt;samou&gt;</td>
<td>samo</td>
<td>‘needle’</td>
</tr>
</tbody>
</table>

### 1.6.4.3 Non-generalizable

#### 1.6.4.3.1 PSM to Mangon. Non-generalizable: *a lost from *au sequence

In forms containing the number ‘two’ only, *a from the sequence *au was lost, and the remaining u was lengthened to meet syllabic weight requirements.

PSM *gahu>gaØu>gu: ‘two’

PSM *gatahua>gataØua>gatua ‘eight’ (from ‘minus two’)

---

74 It must also be noted that in spite of the reasons for concluding these vowel sequences are reduced to single segments, they could of course also be analyzed as double vowels. And in fact, for the sake of pronunciation clarity, they are sometimes transcribed as double vowels in other sections of this dissertation.

75 As mentioned in the previous footnote, this form is an example of a word that is written with a double vowel elsewhere in the dissertation to better represent the pronunciation.
PSM *pouga\text{hu}>pouga\text{ou}>pog\text{u}: ‘twenty’

1.6.4.3.2 PSM to Mangon. Non-generalizable: balfon\text{i}

If derived from PSM *baifo\text{n}i, this peculiar word undergoes both -l- epenthesis and a vowel cluster reduction from *ai to /a/. This is not mirrored elsewhere in the lexicon and cannot be explained. It might make more sense to consider the Sanana form baifon and the Mangon form balfon\text{i} as similar but separate forms with the same meaning. If they are in fact both descended from the same PSM form, however, a possible explanation for balfon\text{i} could be that it is a compound of the active auxiliary bal and the abbreviated (or possibly back-formed) variant, fon\text{gi}. If it is indeed directly derived from PSM *baifo\text{n}i, the derivation followed the following path: *baifo\text{n}i>bafon\text{gi}>balfo\text{n}i ‘to hide’

1.6.4.3.3 PSM to Mangon. Non-generalizable: *s > f

In the form fafa ‘rat’, *s became /f/. It is not likely that the proto form was *safafa, because sahafa, saafa, and saf\text{a} all occur in Sanana, where intervocalic h deletion appears to have begun but is still optional and limited mostly to rapid, non-deliberate speech. Example: PSM *sahafa>saØafa>saØØfa>fafa ‘rat’

1.6.4.3.4 PSM to Mangon. Non-generalizable: *ao > o

Two PSM words are present with *ao sequences that were reduced to o. That is, the vowel that was retained is both higher and it is the second in the sequence, whereas in *ou sequences above, the opposite occurs, u was deleted: the retained vowel is lower and it is the first in the sequence. Because of the conflicting phonological motivations, these
similar reduction processes seemingly must be taken as independent instances of change. Examples: PSM *baoni>boni ‘mouth’; PSM *saotu>sotu ‘dry’

1.6.4.4 PSM to Mangon: PSM in summation

In Proto–Sula (before the Sanana–Mangon split), PAN *u was lowered in words where the following syllable contained a high vowel.

In the Sanana dialect:

A. *d became an alveolar trill.
B. *l became h in intervocalic and onset position in native vocabulary, but it appears that a subset of the lexicon with surface similarity to Malay was shielded from this change, and there also appears to be an unidentified source for some other instances of l in the language.
C. *ŋ became n in Sanana in all environments.
D. peculiarly, u was lowered to a where the preceding syllable contains a mid back vowel—a change that seems at face value to display the opposite of phonetic motivation. This is an order dependent scenario where the lowering must have proceeded the following in E.
E. word-final high vowels were deleted following non-glottal consonants but not following vowels and glottals.

In the Mangon dialect:

A. *h was lost in Mangon in all positions (with a few exceptional lexemes).
B. *ʔ was deleted.
C. Initial nasals, which might reflect an early explicative (possibly genitive) marker, were fused to many nouns. These often resulted in either prenasalized segments or nasal-initial consonant clusters (in a dialect that otherwise avoids clusters).

D. Sequences of like vowels were reduced to long vowels.

E. *ei was reduced to e.

F. *ou was reduced to o.

The study of the Sula language is still very much in its infancy; however, this section has built upon the groundbreaking work begun by Robert Blust and James T. Collins nearly four decades ago, and it helps to narrow the academic literature gap. It provides a more complete picture of the inner structure of Sula—especially with regard to the confusing vowel correspondences, and it provides data from which hypotheses about higher branches of the Austronesian language family can be evaluated.

Sula is indeed a single language with a clear primary division between two dialect groups. Speakers across this dialect divide can at times strain for mutual intelligibility, but the patterns of divergence are mostly regular and speakers are able to quickly adapt to the differences. This section has provided an account of the dialect differences that describes correspondences and the sound changes responsible for Sula’s synchronic variation. It can also be read as an algorithmic workflow that can compare a word from both Sula and Mangon and generate the corresponding Proto–Sanana–Mangon form in nearly all cases where cognates are present. The data provided will aid in refining Sula’s position within the Austronesian family as well as helping to understand Sula’s place in its local subfamily of languages.
Chapter 2: dialects. part 2
1 New dialects. Introduction

Long after the four Sula tribes settled the archipelago and their dialects diverged, several villages were established on Mangon by settlers from Sanana Island. In three of these villages; Capalulu, Wai U, and Orifola, a definable mixed dialect region developed beside its larger Mangon speaking neighbors. The new region’s early settlers spoke mutually intelligible Sanana language varieties (primarily of the Facei tribe), but generations of contact and intermarriage resulted in significant leveling and the development of a definable new dialect. The most apparent characteristic that sets apart the new settlement's dialect from Sanana Island dialects is the presence of final epenthetic vowels. This epenthesis results in forms that are superficially similar to the neighboring Mangon-dialect's vowel-final forms, but the new dialect’s word stems also maintain innovations that are unique to Sanana.

Dialect-forming changes were found to include phonological and lexical leveling: a phonological preference against word-final consonants was introduced from Mangon (the prestige dialect), and Mangon words that were phonologically simpler tended to get borrowed. In addition, some innovative lexical items were present, as were some interdialect forms that retain characteristics of both source dialects. Findings in this section expand the new dialect formation literature which is to date overwhelmingly represented by work on European languages. Also of note, this section represents the only published lexical data from the region in question, and it is one of a only a few descriptions of new dialect formation in an endangered language.
2 New dialects. Dialect Leveling

Multiple Sula dialects and sub-dialects are considered in this study. Over the past several generations, Facei76 tribe members from the island of Sanana have established three settlements on the neighboring island of Mangon77: Capalulu, Wai U, and Orifola (see Figure 13). These settlements are roughly at the center of the island's southern shore, just west of its southernmost point and in close proximity to the much more populous Mangon tribe's ancestral homeland. The Facei newcomers still speak a sub-dialect of the Sanana variety of Sula, but it shares surface similarities to the Mangon variety of Sula. That is, generalizable innovations characterizing Sanana are still present in their speech, and importantly, while a number of unique Mangon lexemes have been borrowed, numerous forms are identical to those found on Sanana. A process of dialect

---

76 Facei is the name of a tribe and also a neighborhood of Sanana town on Sanana Island (where the tribe is said to have first settled). Although community members sometimes refer to 'Facei language', they say it is the same as 'Fagudu language' and almost the same as 'Falahu language'. These determinations are based on a few culturally poignant identity marking words: most prominently giya/gaya 'to eat'. It is uncertain but doubtful that a tribe-specific dialect division is still definable among Fagudu, Falahu, and Facei; these tribes are however represented by numerous regional dialects in the various communities they have settled. The Mangon tribe was originally settled on the neighboring island to the north, and while there is minor regional variation within Mangon, the previous section demonstrated that broad generalizable differences between Mangon and the other three tribes can be clearly defined.

77 Mangon is the present day endonym. The island and dialect are also referred to as Mangole and Mangoli, and less commonly Mongole, and Mongoli.
leveling appears to be underway, resulting in a new dialect on the island of Mangon that is distinct from its Sanana progenitor and its Mangon neighbor. For the purposes of this study I refer to the region and dialect as Central Mangon Dialect (CMD). 78

This section analyzes data from basic vocabulary elicitation, and it addresses the questions: Do the new communities speak a Sula variety that is demonstrably different from other regions? and if so, what are the differences, and how did they arise? I argue that the dialect is indeed different and that it resulted from sociolinguistic processes and that a prestige scenario likely led to a regular practice of speech accommodation among the new community’s early settlers. As no previous studies have addressed Sula dialects, it is expected that this study will help our overall understanding of the language and to what degree the processes observed for European languages like English and Norwegian are generalizable to non-European, endangered language scenarios. By developing our understanding of new dialect formation in under-documented and endangered language communities, linguists will be in a better position to prioritize our research when facing populations with dwindling speaker bases.

As discussed earlier, the Sula Archipelago consists of three main islands: Mangon (aka Mangole, Mangoli), Taliabu (Taliabo), and Sanana (Sula) (see Figure 9). The town of Sanana on the island of Sanana is the main population center, but it is also the region with the most pronounced language attrition: all Sanana residents are native speakers of Malay, and it is uncommon to observe young people there communicating in the native

78 I use CMD to reference the region including Orifola, Wai U, and Capalulu towns and also to the dialect spoken in that region.
tongue. However, language use remains vigorous in the less populous villages throughout the islands.

According to local knowledge, Sanana-based Facei tribe members began to establish new settlements roughly at the center of Mangon island’s southern shore beginning around 300 years ago.79 There are numerous additional Fagudu, Falahu, and Facei tribal settlements along the southern coasts of Mangon and Taliabo islands, but they are reported to be more recent and they have not been included in this study.

---

79 These settlements were in addition to the Mangon tribe's several villages already on the island.
Figure 13. Historical tribal villages & new villages
The four Sula tribes are Fagudu, Falahu, Fecei, and Mangon. They traditionally inhabit the Sanana and Mangon islands of the Sula Archipelago (North Maluku, Indonesia). The Mangon tribe originally settled Mangon Island, and it traditionally speaks closely related, "Mangon" dialects. The Fagudu, Falahu, and Fecei tribes originally settled Sanana Island, and they traditionally speak closely related, "Sanana" dialects.

Figure 14. Facei tribe migration to Mangon
Facei tribe settlers first left the Facei village of Sanana village on Sanana Island to establish the CMD region approximately 300 years ago.

It is unclear how many dialects (or even separate languages) might be under the umbrella of what is loosely referred to as Sula; for example Lewis (2015) lists Sanana
and Mangon as separate languages, however Collins (1982) considers them to be dialects of the same language. The main barrier to research has been lack of data from which to paint a more concise portrait of the language. No work to date has addressed Sula's region-to-dialect mappings; the present study addresses this through targeted wordlist elicitation and analysis.

The sub-dialects of Sanana share definable characteristics, but they are yet to be thoroughly described. For the purpose of the comparisons in this section, "Sanana" forms are the forms received by Facei tribe members on the island of Sanana unless otherwise noted. Collins (1982: 83) infers that there might be a dialect division in the geographical region covered in this section. He remarks, "the status of Capalulu and Urifola [sic], also Sula dialects, is not clear." My field research has revealed that CMD Sula is demonstrably different from both Mangon Sula and Sanana Sula, and the present research demonstrates that it genetically groups more closely with varieties of Sanana and has undergone dialect leveling due to contact with Mangon (see Figure 15).

Interviews conducted with Sula speakers in 2010 and 2014 indicated that there are not any additional primary dialect divisions in Sanana, though it is not out of the question that more could be found. As discussed in the previous section, the island's dialect map is complex, and there are certainly a number of additional sub-dialects yet to be defined. One such example is the Sula variety spoken in the town of Malbufa. That town represents an opposite scenario to that described in this section: Malbufa is a Mangon tribe settlement on Sanana Island rather than a Sanana tribe settlement on

---

80 Sanana and Mangon are referred to as "Sula" and "Mangole". They correspond to ISO szn and mqc respectively.
Mangon Island. My short time spent in Malbufa left me with the impression that it too has developed a unique dialect. If that variety is indeed a newly formed dialect, a comparison between Malbufa and CMD could make a significant contribution to our understanding of dialect formation processes in general, particularly since nearly all putative cases of new dialect formation involve European languages (mostly English and Norwegian), and because the contact scenarios are nearly opposite, so a side-by-side comparison could help us differentiate universal tendencies in dialect-leveling from changes that are specific to a given contact scenario.

3 New dialects. Dialect forming

![Figure 15. Genetic relationship of Sula's dialects.](image)

CMD Sula genetically groups within Sanana Sula, but it has undergone dialect leveling due to contact with Mangon Sula.

Dialect-forming processes include phonological leveling that disfavors word-final consonants, and lexical leveling including (a) a tendency for the new dialect to borrow unmarked words that are phonologically simpler, (b) a handful of innovative lexical items, and (c) interdialect forms that are intermediate to the source dialects. The most
readily apparent change found that characterizes the speech of this region is the re-emergence of word-final high vowels, where they were previously lost in Sanana dialects (discussed in Chapter 2: dialects. part 1). That is, Sanana deleted word final high vowels following non-glottal consonants, but they remain following vowels and glottal consonants (e.g. *tui* 'snake', *yau* 'far', *behi* 'to throw', *gahu* 'two') (Table 27). That change and other levelings plus evidence of interdialect formation to be discussed, have set CMD apart from its progenitor.

---

81 Some Sanana~Mangon cognates show final *a* rather than *Ø* due to a change occurring prior to final *u,i* deletion in which final *u>a* if the preceding syllable contained an *o* (*u>a/o_#*). Examples include:

* *sosu>sosa* 'breast'; * *bosu>bosa* 'to suck'; * *nonu>nona* 'to sleep'; * *yotu>yota* 'to hunt'; * *dotu>dota* 'to hit'; * *momu>moma* 'to hit'.

169
Table 27. Loss and Retention of Final High Vowels in Sanana Dialects

$i, u > \emptyset / [-\text{cont}, -\text{glottal}] _#$

These data demonstrate the deletion of word-final high vowels following non-glottal consonants in Sanana dialects, and by comparison, help to demonstrate that CMD is a unique dialect that has undergone contact induced changes.

<table>
<thead>
<tr>
<th>PSM</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*waki dabu&gt; wak dab</td>
<td>'to think'</td>
<td></td>
</tr>
<tr>
<td>*saŋa-petu &gt; sanapet</td>
<td>'thatch/roof'</td>
<td></td>
</tr>
<tr>
<td>*samamu &gt; samam</td>
<td>'to chew'</td>
<td></td>
</tr>
<tr>
<td>*nibu &gt; nib</td>
<td>'to sit'</td>
<td></td>
</tr>
<tr>
<td>*saku &gt; sak</td>
<td>'to pierce'</td>
<td></td>
</tr>
<tr>
<td>*afu-tuka &gt; aftuka</td>
<td>'ash'</td>
<td></td>
</tr>
<tr>
<td>*gasi &gt; gas</td>
<td>'salt'</td>
<td></td>
</tr>
<tr>
<td>*kabaresi &gt; kabares</td>
<td>'evil'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>retention /h,ʔ _#</th>
</tr>
</thead>
<tbody>
<tr>
<td>*sanohi &gt; sanohi</td>
<td>'family'</td>
</tr>
<tr>
<td>*gehi &gt; gehi</td>
<td>'to stand'</td>
</tr>
<tr>
<td>*kiʔi &gt; kiʔi</td>
<td>'3SG'</td>
</tr>
</tbody>
</table>

New dialects can form through leveling processes when speakers of one dialect settle in a region with an established, mutually intelligible dialect, and when a community that is comprised of speakers of mutually intelligible dialects is established in new territory—this being the *New Town* (immigrant) model (e.g. Kerswill 2002, Kerswill and Williams 2005). The case in this study describes the first scenario: Facei tribe members settled communities adjacent to established Mangon communities, and contact-induced changes took place. These changes included both phonological and lexical leveling and
interdialect formation wherein characteristics from both source dialects were retained in the resulting forms (e.g. Britain and Trudgill 2005).\textsuperscript{82}

\subsection*{3.1 CMD background}

Collins (1982) notes that most Sanana settlements on the island of Mangon are quite recent with the exception of those in the CMD dialect region (Figure 16). My own fieldwork consultants in the three CMD communities have self-reported to speaking the same dialect as one another, and this was corroborated by personal observation and observation from a Sanana-speaking assistant. As Collins suspected, the language variety of the CMD region is indeed different from both the Mangon variety and the Sanana varieties. Divergent features are both phonological and lexical, as will be demonstrated.

\footnote{\textsuperscript{82} It must be noted that Trudgill's model has been harshly criticized, and this document is agnostic on the topic. It is only being noted that the CMD situation seems to reflect what Trudgill describes. For more on the criticisms of Trudgill's work, see Elizabeth Gordon et al. (2004).}
Figure 16. CMD—Mangon—Sanana community and dialect regions
This map shows the border between CMD dialect communities and Mangon dialect communities on the island of Mangon. The island of Sanana is home to Sanana communities (including the traditional home of Fagudu, Falahu, and Facei tribes).

CMD is a distinct Sanana dialect separated from other Sanana varieties. All of the generalizable innovations that define the Sanana dialect group are present in CMD (i.e. *ŋ>ŋ; *d>r/V_V; *l>h/[V_V], [_]; u>a/o_#)—including Sanana’s loss of final high vowels following non-glottal consonants (Table 27). This innovation can be observed in variant forms like gas ‘salt’ (< *gasi) and gatel ‘three’ (< *gatelu) as well as in compound words like napÚfoa ‘hair’<sup>83</sup> (< *ŋapufou). That said, ongoing leveling in CMD, results in a dialect that is distinguishable from both sources.

The language change processes appear to be unconscious, as community members indicate a high degree of pride in their Facei heritage and many are under the impression that they speak a typical Sanana dialect, declaring either that they speak li

---

<sup>83</sup> For more on the specific sound changes differentiating the Sanana and Mangon dialects, see Bloyd (in prep).
Sanana 'Sanana language' (the Sanana variety) or li Facei 'Facei tribe language' (which is then clarified as being essentially the same as Fagudu and Falahu). A few linguistically astute consultants reported speaking li campur (mixed language), or li Orifola/Wai U/Capuli (the names of the village they reside in). The vast majority of people questioned self-reported speaking a dialect corresponding to their tribal affiliation. One crucial point to note is that no CMD speakers reported speaking li Mangon 'Mangon dialect', and during sessions, if asked whether particular forms were also acceptable, CMD consultants commonly respond that the forms were only acceptable in li Mangon. In essence, CMD residents know they're not speaking Mangon, and they can perceive a difference between their dialect and what is spoken on Sanana island, yet due to tribal affiliation, they still identify as Sanana speakers.

3.2 Sula dialect contact

A symphony of phonological and social processes work in concert to form new dialects. Some of the social processes pertinent to the data at hand are founder population effects, swamping effects, and to a limited degree, even early stage creolization.

A newly-settled region's founder population is theorized to limit the amount that subsequent waves of immigrants can affect dialectal change (Gordon et al. 2004). On the island of Mangon, the Mangon tribe is the original founder population and has been established in the area since long before recorded history. True to Gordon’s hypothesis, the Facei settlers who began arriving ~300 years ago do not appear to have significantly affected the Mangon dialect. While it does not appear that the introduction of Facei
settlements resulted in significant changes to the Mangon dialect, the reverse did occur: the Facei immigrants Sanana dialect was largely modified by Mangon speakers.

Swamping effects, as discussed in Gordon et al. (2004), have to do with cases where the larger population’s variety overwhelms the minority’s variety. Thus, in the case of Mangon island, either (a) minority CMD forms would be pushed out in favor of majority Mangon forms or (b) Mangon forms could have been pushed out by if the Facei immigrant population had been enormous. Neither of those effects occurred, however: (a) although contact with the Mangon dialect resulted in significant changes, CMD retained many lexical items, and it has retained all of the innovations that define the Sanana dialects as distinct from Mangon. The second form of swamping (b) was not applicable, because the Facei settlers never approached the population numbers of the Mangon tribe.

The changes that took place in CMD, are not indicative of a creolization process, because the source language varieties were closely related. In a traditional view of creolization, a generation of speakers does not receive the previous generation’s languages to competence. Children instead receive a pidgin from multiple source strata and use that as the basis for a new language—the creole (e.g. Bickerton 1976, 1981). Although CMD underwent changes, the two sources were closely related, and the result does not approach new language formation; Mangon and Sanana dialects themselves are by many accounts mutually intelligible (at least among speakers who maintain a modest amount of contact), and CMD is still mutually intelligible with both. Additionally, intergenerational transmission was never interrupted, and modern CMD is
a dialect that shares features with both its Mangon neighbor and also with Sanana dialects.

Dialect leveling occurs when there are two or more original varieties, and at least one of the marked forms is no longer transmitted the original way. This can be associated with highly mobile majority and minority communities settled in a small geographical range where minority forms are replaced (or modified) by their majority counterparts (Kerswill 2003). This scenario can explain the numerous Mangon borrowings present in CMD, and it fits the physical and social layout of the central southern coastal communities of Mangon Island. While the island of Mangon is large and mostly uninhabited, it is reported that the CMD communities have engaged in daily social interaction and trade with their Mangon-speaking neighbors since initial settlement. The communities straddling the CMD–Mangon boundary are less than three km apart (Orifola and Waitulia), and the length between the furthest CMD-speaking community, Capalulu, and the furthest Mangon-speaking community, Waitina, is less than 20 km—a journey that can be covered on foot within a day under most weather conditions.  

3.3 Accommodation and change

Speech accommodation is a probable root of much of the leveling that took place in CMD. This phenomenon is known to happen when mutually intelligible dialects share cooperative communicative intent (Kerswill 2003), and that was the likely early contact scenario between CMD and Mangon. Mangon and Facei tribes consider themselves to be cousins within the Sula ethnic community, and the groups do not have a history of

---

84 A follow-up study will address the question of whether the village of Orifola shows a higher degree of leveling than Capalulu due to Orifola’s closer proximity to Mangon speakers.
hostility or warfare. The island of Mangon is still mostly uninhabited today, and it is rich in resources, so competition was not necessary. Sula language consultants do indicate a level of prestige assigned to Mangon though, and it is likely that CMD speakers accommodate to Mangon speakers because of this and because Mangon is a much larger population group.

Perhaps in accommodating to Mangon speakers, CMD speakers developed a preference against word-final consonants to match Mangon’s near prohibition. This is in contrast to typical Sanana dialects where final vowels after non-glottal consonants were deleted. But since Mangon and Sanana each have unique lexical items, and since even the cognate forms often have differences beyond the word-final segment, CMD could not simply borrow the word-final vowel from Mangon. Instead a process of vowel epenthesis seems to be in place to fill the gap. This final consonant prohibition—likely rooted in early hypercorrection—was overgeneralized and applied to some final liquids and nasals, even where they are not prohibited in Mangon dialects.

Hypercorrection tends to coincide with a prestige imbalance between two varieties of a language, and it has also been demonstrated between a first and second language when an L2 speaker is aware of a partial mismatch between a phonological constraint or grammatical rule, but s/he over applies a correction to contexts where there is no mismatch (e.g. Eckman et al. 2013, Carey 2005). Corroborating evidence for a phonological dispreference is seen with CMD words whose primary semantic form is non-cognate to the Mangon counterpart: e.g. tilu ‘ear’ (where til is found in Sanana but talinga is found in Mangon). These examples show that they were not simply borrowing
Mangon forms into their dialect but instead perceiving a gap and applying epenthesis to fill that gap—even when the epenthesis does not actually result in a match to the Mangon form.

4 New dialects. Data examination

This section examines elicitation data to answer the questions:

1. Do CMD speakers speak a Sula variety that is demonstrably different from others?

2. What are the differences, and how did they arise?

Epenthesis of final [i] and [u] on CMD forms was considered, because there is a near complete correspondence between word-final high vowels following non-glottal consonants in Mangon and final consonants in Sanana. CMD speech displays many instances of final [i] and [u], and that is unexpected considering that the innovations (to be described) genetically group the CMD dialect with Sanana dialects.

The paragogic high vowels given to words with final consonants appears to satisfy the previously postulated phonological preference against word-final consonants introduced from Mangon. In the analysis of CMD, presence or absence of final vowels was determined through target elicitation and sessions were recorded to ensure transcription accuracy. In the Mangon dialect, final [i] and [u] is determined by historical retention. In CMD, the presence of final [i] and [u] usually matches the final

---

85 This is similar to the El Spanish O trope of English speakers mock-speaking Spanish for comic effect or out of desperation by over applying the Spanish masculine o on non-cognate English forms, several comical examples of which are listed on the All The Tropes website article, ("El Spanish-O" 16)
vowel in Mangon on cognate pairs, but there is no identifiable phonological condition determining how [i] or [u] is selected in CMD forms that do not share a Mangon cognate. This topic should be further explored in future studies.

4.1 Methods

The CMD data in this study were gathered during a two-week lexical documentation project conducted during the summer of 2014 and during a two week followup during summer 2015. Comparison data were collected on the islands of Sanana and Mangon during three three-month stays in Indonesia and several shorter duration trips. A total of 17 Sula-speaking sites were sampled on Sanana and Mangon islands for this project (Figure 17). Data were collected for the three dialects being compared at 11 Sanana sites, 3 Mangon sites, and 3 CMD sites.

86 Not counting Malbufa, which was excluded, because as noted previously, it is a Mangon-based, new dialect on Sanana island.
As with other studies carried out during my doctoral research, sites were chosen after consulting with the regional development office, the bureau of statistics, and community elders to find out, (1) which tribe settled each of the islands' villages, and (2) which tribe's dialect each village was reported to speak. A 230-word basic vocabulary list was elicited for each proposed tribal dialect. The list was adapted from the Austronesian Basic Vocabulary Database (Greenhill et al. 2008). Recordings were made on a Zoom H4n solid state recorder at 24bit/96kHz in WAV format. Recordings will be archived in Kaipuleohone, the University of Hawai‘i Digital Ethnographic Archive. Each elicitation session had a minimum of two speakers (often 3–4) to help keep participants primed in Sula and to counteract interference that could arise due to Malay as the elicitation language. Sessions occurred onsite in the village whose dialect was being elicited to
further maintain production of local word forms. The two primary speakers of each session were also born and raised in the village, but whenever possible, an additional speaker from another dialect was invited to sit in during word-list elicitation and interject where they could provide comparative observations that might otherwise go unnoticed. The CMD participants consisted of three women and three men ranging in age from early 40's to mid-late 50's.

After fieldwork data collection, CMD data were compared side-by-side in spreadsheet format to Sula data representing Falahu, Fagudu, and Facei tribe speakers on Sanana island and to Mangon tribe speakers on Mangon island. Forty-one words from the 230 item elicitation list were identified as containing an environment for word-final /i/ or /u/ epenthesis (Appendix ###), and the tokens produced by each CMD participant were tallied both with and without the variant. Additionally, all of the items found to be non-Sanana vocabulary on the Mangon-dialect elicitation list (i.e. Mangon forms) were identified and compared to the CMD data to discover which had been borrowed by CMD and whether anything is generalizable about them. Speakers did not produce every word, nor did they each produce the same number of tokens, so there is insufficient data to determine which if any of the words might behave differently or what conditions might explain intra-speaker variation. Those topics should be explored followup studies.

\(^{87}\) Having an external dialect representative present could lead to well-known speech accommodation (e.g. Giles et al. 1991) and audience design (Bell, 1984) effects. This should be explored in followup studies.
5 New dialects. Results

Data comparison revealed CMD to be significantly different from the other speech varieties. The historical loss of word-final vowels in Sanana resulted in final consonants that are prohibited in Mangon, which allows only [+sonorant] consonants word finally (liquid and nasal), yet Mangon’s prohibition against word-final consonants has mostly transferred to CMD where it is in some cases even overgeneralized (resulting in epenthesis on some [+sonorant] final consonants), but the prohibition has not been borrowed completely, and forms with final consonants are sometimes produced without any identified condition triggering production or absence of the segments.

5.1 Phonological leveling

Forty-nine words were identified as containing a target environment for word-final /i/ or /u/ epenthesis. These include both (a) words that are cognate with Sanana forms ending in non-glottal consonants and (b) words corresponding to Mangon forms that end in CV[+high] (including liquid and nasals which are not always followed by vowels). Nine of the 49 forms were not produced with a final vowel. Seven of the nine end in liquid or nasal consonants, and two have a final /t/. A total of 183 tokens were present in session recordings and tallied by speaker. An additional 46 tokens were identified in which a target environment was only present in the first word of a compound, but these were excluded in the analysis because CMD retains Sanana’s deletion of high-vowels in that environment.89

---

88 I anticipate the followup study will reveal final-vowel variants of these forms.

89 This is evidence for CMD diverging from Sanana subsequent to final high vowel deletion.
The average of all speakers' final /i/ and /u/ production across lexical items was 75% of produced tokens representing words that are consonant final in the Sanana dialect. Percentages varied from speaker to speaker, ranging from 60% (Man 2) to 85% (Man 3). Figure 18 displays the frequency with which each speaker produced a token with a final vowel (either /i/ or /u/). Vocalic paragoge appears to be a change in progress, as there is intra-speaker variation without discernible conditioning: i.e. no other factors (e.g. word or phonological) were found to correlate with the variation. It appears the change is regular and unconditioned but still incomplete; however, followup studies should specifically test more factors.

Final epenthesis has progressed further with /i/ than /u/: all speakers but one produced a final /i/ a majority of the time, and none did so less than half the time. At least one final /i/ token was produced for all but three of the 22 forms where it was expected, and the remaining three forms all end in [+sonorant] consonants (Table 28)—which are not prohibited by Mangon dialect even though those particular Mangon cognates do happen to have final vowels. That is: the Mangon forms nonu boli 'to lie down', koli 'skin' and kafini 'mosquito' end in a final vowel, and the CMD counterpart was not produced with one; however, Mangon does not entirely forbid [+sonorant] consonants, so the preference against final consonants that was borrowed from Mangon might not phonologically prevent CMD from retaining the sonorant-final Sanana forms, bol, kol, and kafin. A followup study should examine whether final /i/ variants exist for these forms that were not produced during data collection.
Figure 18. Percentage of tokens produced with final /i/ & /u/ in CMD
Total number of tokens produced by each speaker indicated in parentheses.
<table>
<thead>
<tr>
<th>Sanana</th>
<th>CMD</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ul</td>
<td>uli</td>
<td>mankawai</td>
<td>'worm'</td>
</tr>
<tr>
<td>am</td>
<td>ami</td>
<td>gami</td>
<td>'to squeeze'</td>
</tr>
<tr>
<td>duk</td>
<td>duki</td>
<td>duki</td>
<td>'to come'</td>
</tr>
<tr>
<td>lif</td>
<td>lifi</td>
<td>lifi</td>
<td>'to turn'</td>
</tr>
<tr>
<td>kag</td>
<td>kagi</td>
<td>kagi</td>
<td>'to fear'</td>
</tr>
<tr>
<td>ek</td>
<td>eki</td>
<td>eki</td>
<td>'neck'</td>
</tr>
<tr>
<td>mak</td>
<td>maki</td>
<td>maki</td>
<td>'tongue'</td>
</tr>
<tr>
<td>banap</td>
<td>banapi</td>
<td>banapi</td>
<td>'to shoot with a gun'</td>
</tr>
<tr>
<td>jub</td>
<td>jubi</td>
<td>jubi</td>
<td>'to shoot with bow'</td>
</tr>
<tr>
<td>det</td>
<td>deti</td>
<td>deti</td>
<td>'to cut/hack'</td>
</tr>
<tr>
<td>basil</td>
<td>baseli</td>
<td>batani</td>
<td>'to plant'</td>
</tr>
<tr>
<td>pan</td>
<td>pani</td>
<td>pani</td>
<td>'wing'</td>
</tr>
<tr>
<td>manip</td>
<td>manipi</td>
<td>manipi</td>
<td>'thin'</td>
</tr>
<tr>
<td>dagat</td>
<td>dagati</td>
<td>dagati</td>
<td>'narrow'</td>
</tr>
<tr>
<td>bal</td>
<td>bali</td>
<td>baali</td>
<td>'shy'</td>
</tr>
<tr>
<td>bot</td>
<td>boti</td>
<td>boti</td>
<td>'white'</td>
</tr>
<tr>
<td>mit</td>
<td>miti</td>
<td>miti</td>
<td>'black'</td>
</tr>
<tr>
<td>gas</td>
<td>gasi</td>
<td>gasi</td>
<td>'salt'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sanana</th>
<th>CMD</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>nona bol</td>
<td>nona bol</td>
<td>nonu boli</td>
<td>'to lie down'</td>
</tr>
<tr>
<td>lan</td>
<td>lan^{90}</td>
<td>laŋi</td>
<td>'sky'</td>
</tr>
<tr>
<td>kol</td>
<td>kol</td>
<td>koli</td>
<td>'skin'</td>
</tr>
<tr>
<td>kafin</td>
<td>kafin</td>
<td>kafini</td>
<td>'mosquito'</td>
</tr>
</tbody>
</table>

^{90} The final vowel variant laŋi, is also present in the dialect—it is probable that other forms similarly have additional variants.
Final /u/ paragoge is also frequent in CMD. All but one speaker produced a final /u/ variant in the majority of instances, and the speaker who did not was underrepresented in the sample, producing only four tokens, so it is inconclusive whether his speech actually deviates from the norm. It is however worth noting that he produced a low percentage for /i/ as well.

Altogether, the final vowel variants were produced for thirteen of nineteen candidate forms where final /u/ was expected (Table 29). Of the six forms that were not produced with final /u/ variants, four end in a liquid or nasal, which as explained above, is not prohibited in the Mangon dialect. The remaining two forms, gapit ‘seven’ and sanapet ‘roof thatch’ were more problematic, but follow-up research showed a preference for vowel-final forms, gapitu and sanapetu in the village closest to Mangon speakers, and that preference fades moving westward away from Mangon speakers (reference data in Appendix ##).
TABLE 29. WORDS WITH FINAL /u/ TARGET ENVIRONMENTS.
Final /u/ epenthesis attested in the data

<table>
<thead>
<tr>
<th>Sanana</th>
<th>CMD</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>nib</td>
<td>nibu</td>
<td>nibu</td>
<td>'to sit'</td>
</tr>
<tr>
<td>bamap</td>
<td>baumapu</td>
<td>bamapu</td>
<td>'to cook'</td>
</tr>
<tr>
<td>fat</td>
<td>fatu</td>
<td>fatu</td>
<td>'stone'</td>
</tr>
<tr>
<td>bag</td>
<td>bagu</td>
<td>bagu</td>
<td>'thick'</td>
</tr>
<tr>
<td>til</td>
<td>tiltu</td>
<td>talinga</td>
<td>'ear'</td>
</tr>
<tr>
<td>nan</td>
<td>nanu</td>
<td>naŋu</td>
<td>'bathe'</td>
</tr>
<tr>
<td>nap</td>
<td>napu</td>
<td>naŋapu</td>
<td>'head'</td>
</tr>
<tr>
<td>as</td>
<td>asu</td>
<td>fako:</td>
<td>'dog'</td>
</tr>
<tr>
<td>nib</td>
<td>nibu</td>
<td>nibu</td>
<td>'sit'</td>
</tr>
<tr>
<td>sak</td>
<td>saku</td>
<td>saku</td>
<td>'to pierce'</td>
</tr>
<tr>
<td>ak</td>
<td>aku</td>
<td>aku</td>
<td>'1SG'</td>
</tr>
</tbody>
</table>

No final /u/ epenthesis attested

<table>
<thead>
<tr>
<th>Sanana</th>
<th>CMD</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>samam</td>
<td>samam</td>
<td>samamu</td>
<td>'to chew'</td>
</tr>
<tr>
<td>win</td>
<td>win⁹¹</td>
<td>winu</td>
<td>'to drink'</td>
</tr>
<tr>
<td>mantel</td>
<td>mantel</td>
<td>man(u)telu</td>
<td>'egg'</td>
</tr>
<tr>
<td>gatel</td>
<td>gatel</td>
<td>gatelu</td>
<td>'three'</td>
</tr>
<tr>
<td>gapit</td>
<td>gapit</td>
<td>gapitu</td>
<td>'seven'</td>
</tr>
<tr>
<td>sanapet</td>
<td>sanapet</td>
<td>saŋapetu</td>
<td>'roof thatch'</td>
</tr>
</tbody>
</table>

5.2 Lexical leveling

Although CMD has borrowed several lexical items from Mangon, most words remain
from the Sanana dialect. Forty forms in the elicitation data were found to be unique to
the Mangon dialect⁹² (i.e. not produced by speakers on Sanana island), and ten of these
forms were also present in CMD, indicating borrowing. Kerswill and Williams (2000)

---

⁹¹ The Sanana form for 'to eat' was also maintained, so it is not surprising that 'drink' would remain stable;
they frequently co-occur as a set phrase like 'eat and drink'.

⁹² Unique forms refer to lexemes whose shapes are markedly different from their Sanana counterparts,
regardless of cognition.
propose that geographically and socially marked forms tend to be lost. However, Britain and Trudgill (2005) describe lexical simplification as a process that might help shed light on why some of the 40 were borrowed while others were not. That is, it is claimed that where there are competing dialects, simpler forms win out (e.g. Trudgill 1986:104, Britain and Trudgill 2005:184). In this situation, the minority CMD forms that were retained tend to be linguistically simpler than the majority Mangon counterparts. It is unclear to me precisely how Britain and Trudgill define the term simplification, but in the context of this study, it refers to forms containing fewer segments and/or lacking consonant clusters.

Tables ### and ### show all forms on the 230-word elicitation list where Mangon speakers produced a variant that is was not present on Sanana island. Some of these are borrowed into CMD while others are not. Campbell (p.c. 2015) proposed that ordinary dialect borrowing without regard to simplification might be able to account for the Mangon forms in CMD, and this should be further investigated in a followup study. However, given the available data, it would seem remarkable that such a strong pattern is present: only two of the non-borrowed forms are simpler than their Sanana counterparts. Conversely, of the ten Mangon forms that were borrowed, six are simpler than the minority counterpart (Table ###).

---

93 Lyle Campbell (p.c. 2020) points out that this claim did not hold up in New Zealand English. Refer to Gordon et al. (2004) for more.

94 It should be noted that there is not universal consensus on Trudgill's view that simplification should favor the retention of any minority forms. Some of the challenges for Trudgill's model to address are touched upon in Chapter 7 of New Zealand English: Its Origins and Evolution— particularly with regard to the determination of markedness and unmarkedness (Gordon et al., 2004).
TABLE 30. LEXEMES BORROWED FROM MANGON

Simplification principles favor borrowing of the majority word (Mangon) rather than retention of the minority word (Sanana):

<table>
<thead>
<tr>
<th>Sanana</th>
<th>CMD</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>baked</td>
<td>gena</td>
<td>gena</td>
<td>'to hear'</td>
</tr>
<tr>
<td>makariu</td>
<td>bama</td>
<td>bama</td>
<td>'to split'</td>
</tr>
<tr>
<td>behifon</td>
<td>kila</td>
<td>kila</td>
<td>'liver'</td>
</tr>
<tr>
<td>bisloi</td>
<td>lika</td>
<td>lika</td>
<td>'to choose'</td>
</tr>
<tr>
<td>sagilaʔat</td>
<td>sagila</td>
<td>sagila</td>
<td>'lightning'</td>
</tr>
<tr>
<td>tahun95</td>
<td>taun</td>
<td>taun</td>
<td>'year'</td>
</tr>
</tbody>
</table>

Equal complexity:

<table>
<thead>
<tr>
<th>Sanana</th>
<th>CMD</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>gahu</td>
<td>gama</td>
<td>gama</td>
<td>'to scratch'</td>
</tr>
</tbody>
</table>

Simplification would favor retaining the minority word (Sanana) rather than borrowing the majority word (Mangon):

<table>
<thead>
<tr>
<th>Sanana</th>
<th>CMD</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>gada96</td>
<td>sakeu</td>
<td>sakeu</td>
<td>'to scratch an itch'</td>
</tr>
<tr>
<td>kaf</td>
<td>manakem</td>
<td>manakem</td>
<td>'to hold'</td>
</tr>
<tr>
<td>sana</td>
<td>daeti</td>
<td>badaeti</td>
<td>'branch'</td>
</tr>
</tbody>
</table>

Thirty Mangon forms were not borrowed. However in 28 instances, the Sanana forms that were retained are either simpler or of equal complexity to the Mangon counterparts. Followup research will probe deeper to determine to what degree the items (listed on Table ###) might indicate simple data gaps—that is, instances where both the Sanana and Mangon form exist in CMD but only the Sanana form was recorded.

95 This may be a later Malay borrowing into the Sanana island dialect rather than an instance of CMD borrowing from Mangon.

96 *gama* is also sometimes recorded in Sanana, but so far not by Facei tribe members.
Table 31. Lexemes Not Borrowed from Mangon

Forms where simplification would favor the minority form (Sanana):

<table>
<thead>
<tr>
<th>Sanana</th>
<th>CMD</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ihi</td>
<td>ihi</td>
<td>nisi</td>
<td>'flesh'</td>
</tr>
<tr>
<td>suba</td>
<td>suba</td>
<td>patfo</td>
<td>'rotten'</td>
</tr>
<tr>
<td>fua</td>
<td>fua</td>
<td>nceli</td>
<td>'fruit'</td>
</tr>
<tr>
<td>kakon</td>
<td>kakon</td>
<td>maŋkuni</td>
<td>'yellow'</td>
</tr>
<tr>
<td>aya</td>
<td>aya</td>
<td>fanini</td>
<td>'big'</td>
</tr>
<tr>
<td>lal</td>
<td>lal</td>
<td>tuka</td>
<td>'in'</td>
</tr>
<tr>
<td>neʔu</td>
<td>neʔu</td>
<td>bulela</td>
<td>'below'</td>
</tr>
<tr>
<td>ota</td>
<td>ota</td>
<td>saka</td>
<td>'hundred'</td>
</tr>
<tr>
<td>neʔi</td>
<td>neʔe(^{97})</td>
<td>ncumi</td>
<td>'nose'</td>
</tr>
<tr>
<td>ana-(nana)</td>
<td>ana-(nana)</td>
<td>gama-(nana)(^{98})</td>
<td>'child'</td>
</tr>
<tr>
<td>yai</td>
<td>yai</td>
<td>sanafa</td>
<td>'road/path'</td>
</tr>
<tr>
<td>putar</td>
<td>putar</td>
<td>dagalili</td>
<td>'to turn'</td>
</tr>
<tr>
<td>hoi</td>
<td>hoi</td>
<td>gifu</td>
<td>'to open'</td>
</tr>
<tr>
<td>uka</td>
<td>uka</td>
<td>ŋasi</td>
<td>'to bite'</td>
</tr>
<tr>
<td>as</td>
<td>asu</td>
<td>fako:</td>
<td>'dog'</td>
</tr>
<tr>
<td>tena (kau)</td>
<td>tena (kau)(^{99})</td>
<td>takau</td>
<td>'belly'</td>
</tr>
<tr>
<td>til</td>
<td>tilu</td>
<td>taliŋa</td>
<td>'ear'</td>
</tr>
<tr>
<td>ul</td>
<td>uli</td>
<td>mankawai(^{100})</td>
<td>'worm'</td>
</tr>
</tbody>
</table>

Forms where Sanana and Mangon forms are of equal complexity:

<table>
<thead>
<tr>
<th>Sanana</th>
<th>CMD</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>hia</td>
<td>hia</td>
<td>gia</td>
<td>'one'</td>
</tr>
</tbody>
</table>

\(^{97}\) While neʔi was recorded for Facei and Fagudu in Sanana, ne: (perhaps, nee) was recorded for Falahu. The phonemic status of ? seems to vary across speakers, but its presence often reflects an h deletion (as in so’a ~ sahoa ‘where’). The proto Sanana form for ‘nose’ was likely neh(i,e). It therefore appears the consonant deletion is furthest advanced in Falahu, but it is uncertain whether Falahu and CMD converged on e# or Fagudu and Sanana Facei converged on i#.

\(^{98}\) PSM *nana is still visible in this compound but replaced by male in the general lexicon.

\(^{99}\) kau is optionally produced in this form, and tena is CVCV compared to CVCVV for takau.

\(^{100}\) Although it was not collected from my consultants, Mangon might also possess uli. On Sanana there are two forms, ul and maka(h)or, indicating ‘small worm’ and ‘large worm’ respectively.
<table>
<thead>
<tr>
<th>Sanana</th>
<th>CMD</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>buakeu</td>
<td>buakeu</td>
<td>safe</td>
<td>'to spit'</td>
</tr>
<tr>
<td>gahu</td>
<td>gahu</td>
<td>gai</td>
<td>'to dig'</td>
</tr>
</tbody>
</table>

### 5.3 Other lexical leveling

In addition to borrowings from Mangon, there are a handful of forms in CMD that appear to be unique among Sula dialects in that they are not found in Sanana or Mangon. Some examples are CMD nuba\(^{103}\) 'mouth' for Sanana bayon and Mangon boni; CMD haku 'to cook (rice)' for which Sanana and Mangon did not report to have a special form;\(^{104}\) CMD buhi 'night' for Sanana bauhi and Mangon bedi; and CMD so 'where' for

\(^{101}\) Presence of gaya 'eat' is highly indicative that CMD is experiencing change below the level of consciousness. The giya / gaya contrast is probably the strongest identity marker in the Sula lexicon. It has become a shorthand dialect identifier; e.g. asked What dialect is spoken here? One might answer, We're a giya town. If CMD speakers were consciously attempting to adopt the Mangon dialect, giya would likely have been among the first changes. Some additional identity marking, 'special' words include, bit/mau 'to want', and s(ah)oa/so/sibo 'where'.

\(^{102}\) Although this form has an additional segment as compared to the Mangon counterpart, they are of equal complexity after final vowel epenthesis.

\(^{103}\) Interestingly, the Holle lists (c. 1900) via Stokhof (1980) include the form lubayon 'mouth'. This suggests a possible regional change of l>n that did not spread far (perhaps somehow connected to the mysterious l in the form bilnaka which has also been recorded with a geminate nn (discussed in Chapter 2: dialects. part 1). If nuba is cognate with bayon, that would mean the correct PSM form should be either *nubaon or *lubaoni.

\(^{104}\) In other dialects, haku means 'to pound rice', so this might be an error on the part of the consultant.
Sanana s(ah)oa and Mangon sibo. Some possible sources of these differences could be spontaneous changes, borrowing from unknown source languages, retentions that were subsequently lost in other dialects, and taboo word replacement. Collins (1989) identifies replacement of taboo vocabulary among Taliabo speakers on the neighboring island, and my consultants have reported that a similar system previously existed in Sula but has fallen out of use.

5.4 Other dialect-forming processes

Interdialect formation can cause forms to change in ways that are intermediate between the minority and majority parent forms (Britain and Trudgill 2005). CMD displays a number of such examples, such as those in Table ###. One possibility suggested by Campbell (p.c. 2015) is that CMD underwent its own normal sound changes that caused these words to appear halfway between Sanana and Mangon. This seems unlikely though, because the changes are not generalizable on phonological environment. For instance, if CMD were to have undergone a vowel paragoge process independently, we would expect a conditioned distribution between /i/ and /u/. Instead we see instances of both, for example: ami 'to squeeze' with a high front vowel following a nasal but nanu 'to swim' with a high back vowel following a nasal; uli 'worm' with /i/ following a liquid but also tilu 'ear' with /u/ following a liquid.

**Table 32. Interdialect Forms**

Words with Sanana bases and epenthetic final vowels matching Mangon's preference against word-final consonants:
### Glottal Stop Reduced in CMD, but Vowel Length (which is not a phonotactic violation in Mangon) is Retained:

<table>
<thead>
<tr>
<th>Sanana</th>
<th>CMD</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>maʔana</td>
<td>maana</td>
<td>mana</td>
<td>‘man’</td>
</tr>
</tbody>
</table>

### Words whose Sanana Bases Differ Markedly from their Mangon Counterparts but Take Epenthetic Final Vowels in CMD to Match Mangon’s Preference Against Word-final Consonants:

<table>
<thead>
<tr>
<th>Sanana</th>
<th>CMD</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>as</td>
<td>asu</td>
<td>fako:</td>
<td>‘dog’</td>
</tr>
<tr>
<td>saik</td>
<td>siku</td>
<td>isuka</td>
<td>‘here’</td>
</tr>
<tr>
<td>til</td>
<td>tilu</td>
<td>talinga</td>
<td>‘ear’</td>
</tr>
<tr>
<td>ul</td>
<td>uli</td>
<td>mankawai</td>
<td>‘worm’</td>
</tr>
</tbody>
</table>

Interdialect forms are a result of sound change and not a mechanism of sound change. Some of the forms in table #.#.# are also in the previous tables demonstrating paragomic epenthesis, if the epenthesis they underwent resulted in interdialect forms rather than a form that matches the Mangon counterpart. The forms found on both lists are additional evidence that words with final high vowels in CMD result from epenthesis.

---

105 *baseli* shares the *basel* base and the final /i/ from *batani.*

106 Some of these forms could have Mangon cognates yet to be collected.
rather than lexical borrowing (i.e. they result from dialect formation rather than dialect shift). These forms help make CMD recognizable as a distinct dialect.

Weak constraints in CMD—for instance constraints avoiding matching vowels or for lexical distinctiveness—could also be mechanisms responsible for forms like these, however there is no evidence for this in the data. These possibilities should be investigated in followup studies. Regardless of the mechanism(s) behind the changes, the result is 12 forms that are intermediate between the two input dialects, and these forms help to distinguish CMD as a dialect in its own right.

6 New dialects. Future work

Some of the findings presented in this section were not recognized at the time of the data collection and were not tested during the course of fieldwork. Moreover, the number of participants was small and not adequately balanced, and the data available is insufficient for making solid conclusions. Nevertheless, tendencies surfaced during analysis of field data corroborating that changes in the CDM region have caused it to become a recognizable dialect that is distinct from both Mangon and Sanana. The shortcomings will be addressed in future research.

7 New dialects. Conclusion

It is clear that CMD has undergone considerable language change in the generations since the community departed from Sanana to settle on Mangon, and ample evidence is presented indicating that CMD has developed into a distinct Sula dialect. However, the
evidence is insufficient for making conclusive declarations about some of the specific mechanisms for these changes.

This research has found that (1) dialect leveling has occurred and may still be underway in CMD, (2) that dialect leveling was largely in the form of borrowing simpler lexical forms from Mangon and of borrowing Mangon’s phonological preference against word-final consonants, and (3) that the changes in CMD likely occurred due to a regular practice among early settlers of accommodating to Mangon speakers, who were more numerous and more established (both in terms of physical infrastructure and human resources/skilled labor).

The most apparent characteristic setting CMD apart from other Sanana dialects is its final epenthetic vowels. These final vowels resulted in forms that resemble their Mangon neighbors; however, Sanana-specific innovations are still visible within word stems, so it can be shown that these forms are not borrowings from Mangon but rather Sanana derived items that were subsequently modified because of final consonant disfavoring. Evidence for this is (a) that epenthesis is also applied to the Sanana forms (making them unique to CMD), and (b) that the process was overgeneralized to include some words with final [+sonorant] consonants (which are not prohibited in Mangon).

Forty forms were found in the elicitation data that were unique to the Mangon dialect. Ten of those forms appear to have been borrowed into CMD. Of the 30 for which borrowing was not found, all but two were of equal or greater complexity to the minority Sanana forms. In other words, of 40 available Mangon forms, only two of those not borrowed are simpler than the Sanana counterparts. The other 38 are either borrowed
or simplification would not necessarily predict them to be. Additionally, a number of lexical items are found to be unique to CMD, further positioning it as separate from both its Mangon and Sanana cousins.

Lastly, this study also presents several interdialect forms that contain components from both of the source dialects. Any of the observations presented in this study might be speculated to result from numerous causes; however, when considered together, they are indicative of CMD as a distinct new Sula dialect that is likely still undergoing leveling processes.
Chapter 3: grammar
This grammatical sketch gives an introduction to the Sula language. While this sketch contains ample interlinearly glossed example sentences and, in several places, statements written to the linguist, I have done my best to write these pages in a way that they will also be accessible to the non-linguist language learner. I am writing this document in the process of earning my PhD in linguistics, but it is my sincere hope that it will not take a PhD in linguistics to understand and make use of it; with luck, even the lowly aerospace engineer or intellectually impoverished neuroscientist will be equipped to divine meaning from these pages. I also hope that these pages might be accessible enough assist Sula community members with establishing language programs as the tongue is increasingly threatened by external pressures.

By and large language learners should feel free to skip past theoretical discussions and focus on the descriptions of what each structure means in practice and the examples demonstrating how to use the structures. When possible, I try to briefly explain important linguistic terminology and concepts inline, and in case you trip up on a bit of terminology, the dissertation’s glossary includes definitions for most if not all of the grammatical jargon used throughout. While this sketch does not pretend to be a pedagogical grammar, it is my hope that by writing it as accessible as possible, it may be of use for aid workers, language planners, and other researchers and interested individuals who may no have formal linguistic backgrounds.
1. Phonology

Every spoken language is built from sounds, but languages all differ in which sounds they use and which sounds are treated as unique versus sounds belonging to a group that share the same function. That is: phonemes are the smallest sounds in a language that can alter the meaning of a word, and many of a language’s phonemes will be grouped into subconscious categories that the speaker population consider to be in some sense ‘the same’ as one another. The different sounds in these groups are known as allophones.

This section describes the basic sounds of the Sula language and how they are grouped. If you are reading this as a non-linguist Sula language learner, it might be helpful to only briefly skim it, as this section necessitates using the International Phonetic Alphabet to differentiate similar sounds, whereas subsequent sections use the Roman alphabet with pronunciations based on the Indonesian practical orthography. Also, as a language leaner, it is probably easiest to absorb much of a language’s phonology at a subconscious level through speech interaction, as it is quite a lot to try to memorize a language’s phonological rules and structures.
1.1 identification of phonemes and allophones

**TABLE 33. CONSONANTS**

<table>
<thead>
<tr>
<th>bilabial</th>
<th>labio alveolar</th>
<th>alveolar</th>
<th>post alveolar</th>
<th>palatal</th>
<th>velar</th>
<th>glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>p, b</td>
<td>t, d</td>
<td>k, g</td>
<td>?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>s</td>
<td>(ʃ)</td>
<td>h</td>
<td></td>
<td>j</td>
<td></td>
</tr>
</tbody>
</table>

1.1.1 Approximant and affricates

/\w/ (voiced, labial velar, approximant)

/\tʃ/ (voiceless dental palato-alveolar affricate)

/\dʒ/ (voiced dental palato-alveolar affricate)

**TABLE 34. VOWELS**

<table>
<thead>
<tr>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>u</td>
<td>high</td>
</tr>
<tr>
<td>e</td>
<td>o</td>
<td>mid</td>
</tr>
<tr>
<td>a</td>
<td></td>
<td>low</td>
</tr>
</tbody>
</table>

Sula has a five vowel system like many other Austronesian languages, but /o/ in Sula was introduced independently during a process described in the previous chapter in which words that had two /u/ vowels separated by a consonant or a /u/ and a subsequent /i/ separated by a consonant, the first /u/ became an /o/. Introduction of /o/ paved the way for other instances of the vowel to be borrowed into Sula from other
languages. The word “Oreo” for example—now a perfectly acceptable Sula word—was borrowed as is without needing to delete the /o/ sounds or substitute a native Sula phoneme in their place.

In languages with small vowel inventories, there is often a broad range of pronunciation variations that still count as the same vowel, and this is also true of Sula’s five vowels. That is: the language’s five phonemic vowels each cover a broad phonetic area. That said, four of the five vowels, i, u, o, ɑ, are usually fairly easily identified. The fifth vowel could be argued as e, or ε, but 'e' was chosen in the subsequent sections of this sketch simply for the sake of orthographical simplicity. Similarly, /ɑ/ will be written as 'a' in subsequent sections.

1.2 Phonemic tally

To determine the approximate frequency of each phoneme across the lexicon, a phonemic tally was conducted on a sample of 1711 unique word instances. Words represent natural Sula language as spoken today on Sanana—this includes loan words from Indonesian. This sampling excluded repeated word instances (e.g. those found in compound words). In the sample, 8,040 total phoneme instances were found, and they break down as follows:

---

107 Vowel totals would be higher on Mangon island where word-final vowels are retained.
### TABLE 35. Instances of Each Phoneme
Out of 8,040 total phoneme instances found in 1,711 word sample.

<table>
<thead>
<tr>
<th>Phoneme</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>2001</td>
</tr>
<tr>
<td>i</td>
<td>731</td>
</tr>
<tr>
<td>u</td>
<td>465</td>
</tr>
<tr>
<td>n</td>
<td>434</td>
</tr>
<tr>
<td>o</td>
<td>403</td>
</tr>
<tr>
<td>b</td>
<td>377</td>
</tr>
<tr>
<td>k</td>
<td>373</td>
</tr>
<tr>
<td>m</td>
<td>370</td>
</tr>
<tr>
<td>t̪</td>
<td>355</td>
</tr>
<tr>
<td>s</td>
<td>307</td>
</tr>
<tr>
<td>e</td>
<td>295</td>
</tr>
<tr>
<td>l</td>
<td>287</td>
</tr>
<tr>
<td>p</td>
<td>250</td>
</tr>
<tr>
<td>h</td>
<td>215</td>
</tr>
<tr>
<td>d̪ʒ</td>
<td>30</td>
</tr>
<tr>
<td>f̩</td>
<td>120</td>
</tr>
<tr>
<td>j</td>
<td>113</td>
</tr>
<tr>
<td>?̩</td>
<td>92</td>
</tr>
<tr>
<td>w</td>
<td>83</td>
</tr>
<tr>
<td>t̪ʃ</td>
<td>38</td>
</tr>
<tr>
<td>œ̝</td>
<td>30</td>
</tr>
<tr>
<td>f̩</td>
<td>2</td>
</tr>
</tbody>
</table>

1.2.1 Diphthongs/vowel clusters

As sula has a five vowel phoneme inventory, there are twenty possible two-vowel combinations: ae, ai, ao, au, ea, ei, eo, eu, ia, ie, io, iu, oa, oe, oi, ou, ua, ue, ui, uo. A 1,994 item list of non-duplicated entries was referenced in searching for these possible combinations. The instances found were then corrected so that only one instance would be represented for each unique morpheme. This was necessary as some frequently occurring morphemes contained otherwise rare vowel combinations.

Of the twenty possible combinations, ie, oe, ue, and uo were not found to occur at all, while the combinations, ae, ao, eo, io, iu, and ou were found to occur only four, nine, one, two, eight, and two times respectively. Of those, eo was only found in the word baeo ‘bad’ which is a sporadic version of baeu that was only produced by a handful of speakers, and they were together in the same room.
Only ten of the possible combinations were found to occur at least ten unique times across the vocabulary set. These are: ai (50), au (30), ea (14), ei (11), eu (14), ia (47), oa (17), oi (26), ua (35), and ui (12).

**Table 36. Possible Diphthongs in the Sula Language**

Asterisks indicate combinations with fewer than ten occurrences.

<table>
<thead>
<tr>
<th></th>
<th>Front</th>
<th>Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>ia, io*,</td>
<td>ua, ui</td>
</tr>
<tr>
<td>Mid</td>
<td>ea, ei, eo*</td>
<td>oa, oi, ou*</td>
</tr>
<tr>
<td>Low</td>
<td>ae*, ai, ao*</td>
<td>au</td>
</tr>
</tbody>
</table>

Because of pronunciation variation among speakers (and sometimes even within the same speaker), it is difficult to determine which if any of the double vowels are phonemic. Further complicating the issue is the fact that many of the vowel combinations are the result of historical and ongoing deletion of intermediate consonants; these deletions are not uniform across all geographic regions or speaker demographics. Essentially, the above table is a *best guess*, about possible diphthongs across the Sula language community, but if the language does indeed possess phonemic diphthongs, it is extremely unlikely that any speaker’s idiolect would represent all of them. An accurate determination regarding the diphthong status of Sula’s vowel clusters and their distribution will require a focused, study that takes geographical and sociolinguistic variation into consideration.
1.3 Possible consonant clusters

Sula phonology does not permit consonant clusters except (1) in borrowings, (2) at compound-word or reduplication boundaries, (3) in cases of possible prenasalization, and (4) at morpheme boundaries following the prefixes *man-*, *mat-*, *bis-*, *bal-*, and *mak-*. This is especially the case in the Sanana dialect, where many final vowels were deleted.
<table>
<thead>
<tr>
<th>cluster</th>
<th>no. of instances</th>
<th>Sula example</th>
<th>loan</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>dy</td>
<td>(1)</td>
<td>pad-yaŋa</td>
<td>‘attic’ (under the roof)</td>
<td></td>
</tr>
<tr>
<td>fm</td>
<td>(1)</td>
<td>af-mai</td>
<td>‘ashes’</td>
<td></td>
</tr>
<tr>
<td>ft</td>
<td>(1)</td>
<td>af-tuka</td>
<td>‘ashes’</td>
<td></td>
</tr>
<tr>
<td>gl</td>
<td>(3)</td>
<td>sug-lela</td>
<td>‘play’</td>
<td></td>
</tr>
<tr>
<td>gy</td>
<td>(1)</td>
<td>yog-yog</td>
<td>‘almost’</td>
<td></td>
</tr>
<tr>
<td>hn</td>
<td>(1)</td>
<td>basahn</td>
<td>‘angry’ (general)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(This form was received from only one speaker)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kh</td>
<td>(1)</td>
<td>dak-han</td>
<td>‘to paddle’</td>
<td></td>
</tr>
<tr>
<td>kdʒ</td>
<td>(1)</td>
<td>[mak-ŋad bakai]</td>
<td>‘betrothal’</td>
<td></td>
</tr>
<tr>
<td>kk</td>
<td>(1)</td>
<td>hakkot</td>
<td>‘hug’</td>
<td></td>
</tr>
<tr>
<td>kl</td>
<td>(1)</td>
<td>soklat</td>
<td>(L) ‘brown’, ‘chocolate’</td>
<td></td>
</tr>
<tr>
<td>kr</td>
<td>(1)</td>
<td>kramat</td>
<td>(L) ‘holy place’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(the original Indonesian form contains an /e/, so it is a safe bet that there is a whispered vowel in this form, as it would be the only instance of /kr/ in Sula)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ks</td>
<td>(1)</td>
<td>saksi</td>
<td>(L) ‘witness’</td>
<td></td>
</tr>
<tr>
<td>kt</td>
<td>(2)</td>
<td>pak-tatoto</td>
<td>‘pounder’</td>
<td></td>
</tr>
<tr>
<td>lb</td>
<td>(3)</td>
<td>pamas si kakolbi</td>
<td>(L?) ‘harvested rice’</td>
<td></td>
</tr>
<tr>
<td>lf</td>
<td>(2)</td>
<td>bau bal-faa</td>
<td>‘produce’ (make)</td>
<td></td>
</tr>
<tr>
<td>lm</td>
<td>(1)</td>
<td>almanak</td>
<td>(L) ‘calendar’</td>
<td></td>
</tr>
<tr>
<td>ln</td>
<td>(1)</td>
<td>bilmaka</td>
<td>‘steal’</td>
<td></td>
</tr>
<tr>
<td>mb</td>
<td>(14)</td>
<td>mboya</td>
<td>‘tail’ (prosthetic /m/)</td>
<td></td>
</tr>
<tr>
<td>mtʃ</td>
<td>(1)</td>
<td>[pohi limtʃui] (partial loan?)</td>
<td>‘lemon’</td>
<td></td>
</tr>
<tr>
<td>mf</td>
<td>(1)</td>
<td>mam-fuwa</td>
<td>‘young’</td>
<td></td>
</tr>
<tr>
<td>mp</td>
<td>(15)</td>
<td>mam-pai</td>
<td>‘bitter’</td>
<td></td>
</tr>
<tr>
<td>mpr</td>
<td>(1)</td>
<td>pampres</td>
<td>(L) ‘diaper’ (‘nappy’)</td>
<td></td>
</tr>
<tr>
<td>ms</td>
<td>(1)</td>
<td>samsi beu</td>
<td>(L?) ‘headcloth’ (for men)</td>
<td></td>
</tr>
<tr>
<td>nb</td>
<td>(3)</td>
<td>wai nboni tuka</td>
<td>‘saliva’ (prosthetic /n/)</td>
<td></td>
</tr>
<tr>
<td>ntʃ</td>
<td>(8)</td>
<td>[tʃin-tʃin]</td>
<td>‘a small parakeet’</td>
<td></td>
</tr>
<tr>
<td>nd</td>
<td>(19)</td>
<td>ponda</td>
<td>(L?) ‘pandanus’</td>
<td></td>
</tr>
<tr>
<td>nf</td>
<td>(5)</td>
<td>nfat</td>
<td>‘stone’ (prosthetic /n/)</td>
<td></td>
</tr>
</tbody>
</table>
Table 38. Phonotactic Environments of Each Phoneme

<table>
<thead>
<tr>
<th>phoneme</th>
<th>examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>nh</td>
<td>kau nhal</td>
</tr>
<tr>
<td>ndʒ</td>
<td>(berndʒi) (L)</td>
</tr>
<tr>
<td>nk</td>
<td>man-kau</td>
</tr>
<tr>
<td>nl</td>
<td>genli</td>
</tr>
<tr>
<td>nn</td>
<td>binnaka</td>
</tr>
<tr>
<td>np</td>
<td>man-parika</td>
</tr>
<tr>
<td>ns</td>
<td>sinsara</td>
</tr>
<tr>
<td>nnt</td>
<td>baku bantu</td>
</tr>
<tr>
<td>nj</td>
<td>[menjanji]</td>
</tr>
<tr>
<td>ŋg</td>
<td>[jingo]</td>
</tr>
<tr>
<td>ŋk</td>
<td>[ŋkoli]</td>
</tr>
<tr>
<td>ŋl</td>
<td>[panlulu]</td>
</tr>
<tr>
<td>ŋm</td>
<td>[noŋmarur]</td>
</tr>
<tr>
<td>ŋs</td>
<td>[baŋsa]</td>
</tr>
<tr>
<td>pf</td>
<td>ap-fe</td>
</tr>
<tr>
<td>rb</td>
<td>arbab</td>
</tr>
<tr>
<td>rtʃ</td>
<td>[pertʃaya faa basah]</td>
</tr>
<tr>
<td>rg</td>
<td>sorga</td>
</tr>
<tr>
<td>rdʒ</td>
<td>e.g.[hardʒa]</td>
</tr>
<tr>
<td>rk</td>
<td>laka berkema</td>
</tr>
<tr>
<td>rl</td>
<td>perlu</td>
</tr>
<tr>
<td>rp</td>
<td>harp</td>
</tr>
<tr>
<td>rt</td>
<td>martel</td>
</tr>
<tr>
<td>sl</td>
<td>bis-loi</td>
</tr>
<tr>
<td>sn</td>
<td>bis-nau</td>
</tr>
<tr>
<td>sp</td>
<td>despat</td>
</tr>
<tr>
<td>st</td>
<td>pastina</td>
</tr>
<tr>
<td>tf</td>
<td>bit-fua keu</td>
</tr>
<tr>
<td>tn</td>
<td>mat-nana</td>
</tr>
<tr>
<td>tr</td>
<td>trus</td>
</tr>
<tr>
<td>tʔ</td>
<td>[putʔana]</td>
</tr>
</tbody>
</table>
/p/

Initial: ['poa] 'blood'


/b/

Final: ['nib] 'to sit'

Intervocalic (syllable initial or final): ['ba.ba] 'father', ['so.ba] 'wing'

/t/

Final: [fat] 'stone', ['bet] 'day', [ʔi'Star.ʔat] 'road'

Intervocalic (syllable initial or final): [ma.ta'pia] 'person', ['fa.ta] 'wife' ['jo.ta.hai,wan] 'to hunt' ['bau,ma.ta] 'to kill'

/d/

Initial: [da'gat] 'narrow', [da'lɛ.na] 'wide'
Final: [ba'kɛd] 'to hear'

Intervocalic (syllable initial or final): [hi'dup] 'to live'

/k/

Initial: ['kul] 'right', ['kol] 'skin', ['kag] 'to fear'
Final: [ʔɛk] 'neck', ['mak] 'tongue', ['sak] 'to pierce'

Intervocalic (syllable initial or final): ['buaˌkɛu] 'to spit', [ʔuka] 'to bite', [ba'kɛd] 'to hear', [ba.ka.faʔo.ja] 'to yawn', ['la.ka] 'to walk'

/g/

Final: ['bag] 'thick',


108 the Sula t is always dental, but for simplicity it shall be transcribed as simply t

\[Final: X\]

\[Intervocalic (syllable initial or final): [ba.ka.faʔo.ja] 'to yawn', [maʔa.na] 'man', ['man,kau 'go.gaʔin,foa] 'feather'\]

/m/


\[Final: [ˈɛm] 'to hold', [sa'mam] 'to chew '

\[Intervocalic (syllable initial or final): [ˈha.ma] 'eye', [sa'mam] 'to chew', [ˈwa.ma] 'to breathe'\]

/n/

\[Initial: [ˈna.na] 'child', [ˈna.hu] 'long'


/ŋ/  \[\(\text{\textsuperscript{110}}\)\]

\[Initial: [ŋan] 'to boil'

\[Final: [ba.ka'ɬɛn] 'to lie down', [ˈtoŋ.ka] 'stick', [da'ɡin] 'meat'

\[Intervocalic (syllable initial or final): [faŋ?ara] 'cloud'\]

/r/

\[Initial: [rasa] 'emotional', [rek] 'to count'

\[Final: [bɛ.hi'fɔr] 'lungs', [ba.pi'kɪr] 'to think', [ma.ka'hor] 'worm'

\[Intervocalic (syllable initial or final): [faŋ?ara] ['mo.ra] 'cloud', [baˈra.sa], 'thin', ['bau.mu,na.ra] 'to work', [ʔi.'sta.ɾa] 'road'\]

/ʃ/  \[\(\text{\textsuperscript{111}}\)\]

\[\(\text{\textsuperscript{109}}\) written as ' in subsequent sections

\[\(\text{\textsuperscript{110}}\) written as ng in subsequent sections

\[\(\text{\textsuperscript{111}}\) Intervocalic [r] is flapped.\]
Final: [kof] 'coffee', [ba'tif] 'steep' (e.g. a hill)


/s/

Final: ['gas] 'salt'

**Intervocalic (syllable initial or final):** ['kau,sa.na] 'branch', ['ho.sa] 'leaf', [ka.sa'fo.hi] 'grass', [ba'ra.sa] 'thin'

/h/

Final: [besah] 'off' (Also: [basah]. e.g. spoiled food), [be'dah] 'powder'


/j/112

Initial: ['jo.ta] 'short', ['ja.na] 'to see' ['jo.ta.hai,wan] 'to hunt'
Final (non-intervocalic): X


Cluster: ['nja.ja] 'mother'

/l/


---

112 voiced palatal approximant, written as y in subsequent sections
Sula


/w/


/tʃ/ 114

An nearly exhaustive list of Sula words found to contain the phoneme is: /limu tʃui/ 'lemon' (/limu/ is the general term for citrus fruit), /man tʃamo/ 'heron', /montʃa/ 'type of beete', /ntʃ(e,i)li/ 'fruit' (Mangon dialect), /ntʃumi/ 'nose' (Mangon dialect), /rtʃa/ 'chili pepper' (L?), /tʃahana/ 'pants', /tʃapalong/ 'top', /tʃato/ 'a gift', /gotʃifa/ 'raft', /kariʃa/ 'parakeet', /onatʃe/ 'to braid', /pantʃona/ 'torch', /potʃi/ 'pot/container' (L?). 115

/s/

Just two instances of this phoneme were encountered, and both were within the same, reduplicated word: nish-nish which is a synonym of yota-yota 'piece'. This is unexplained, likely onomatopoeia or a borrowing.

/dʒ/

113 Syllable-final /ʃ/ is velarized following mid and high vowels

114 This phoneme is extremely rare in the language. All instances found are either proper nouns, or loan words. Many are place names in non-Sula-speaking parts of the country, but some likely native Sula instances of the phoneme are the name of the Facei clan, [fa'tʃei]. The numeral for 'thousand', /tʃa/ and for 'half', /entʃe/.

115 Interestingly, Sula speakers tend to substitute /tʃ/ in place of interdental fricatives when saying English words.
Like /ʃ/, this phoneme is incredibly rare except in words that are clearly loans. A near exhaustive list is: /dʒəʊ/ ‘god’ and /dʒɔh/ ‘god’ (from Hebrew, /Yahweh/ or Ternate /dʒou/ 'high-ranking person'?), /manabaðʒa/ ‘to chat up’, /oðʒo/ ‘scramble/mix’, /harðʒa/ ‘to knit’ (interestingly, the Indonesian form, *merajut*, also contains /dʒ/), /ðʒahi/ ‘curtain’ (possibly a Ternate loan), /ðʒer(e,i)/ ‘sacred place’ (likely a Ternate loan), /ðʒub/ ‘bow and arrow’, /makðʒad bakai/ ‘betrothal’.

### 1.3.1 Phonological Processes

Aside from an apparently unnatural morphophonological intervocalic devoicing rule, Sula’s phonological processes are for the most part quite straightforward. That said, I suspect there could yet be interesting processes of prothesis, epenthesis, and paragoge to be discovered, but these must await future, targeted research efforts. Following is a list of processes so far encountered:

#### 1.3.1.1 Final Devoicing

Syllable final plosives are often devoiced. This is process varies among speakers.

[-continuant] → [-voice] / _# 

1. [ba.kɛʒ] 'to hear' (in isolation)
   compare: [ba'ked.ha'bar] 'to hear the news'

2. [kagɔ] 'to fear' (in isolation)
   compare: ['ʔak ‘kag a ‘ʔas.ne.ka] 'I fear that dog'

3. [nib̥] 'to sit' (in isolation)
   compare: ['ʔak 'nib a 'kau.sa.na ‘ʔik.ki] 'I sit on this branch.'
1.3.1.2 Morphophonologically conditioned intervocalic fortition

The subject of naturalness is widely discussed in the field of phonology, but the term does not yet have a consensus for a definition. Herein I use the term in the manner of the Neogrammarians, i.e. that language change is an unconscious process that results from speakers falling short of their target when trying to reproduce a sound. An analogy to the Neogrammarian view on naturalness is a child learning to throw a ball. The child sees a ball thrown and attempts to reproduce the throw. The child likely won’t be successful at first, but the result of the child’s attempts will be natural in that they are a logical result of the physical motions of attempting the throw. It would be natural for the ball to go straight ahead but not far enough. It would be natural for it to go far enough but a bit to the left or the right. It would be natural for the ball to go too far ahead. But, it would be unnatural for a ball to go directly backwards or straight to the left or right, because those directions of motion don’t result from the body motion to make a typical ball throw.

Similarly with language, your tongue, lips, jaw, palate, and vocal folds all move in particular directions and sequences when we say words. Sometimes we move these parts too much, too little, or in a mixed up sequence, and when that happens, the word pronunciation changes in a natural way. An example of this could be a word with an /n/ after a long vowel. The /n/ sound requires opening the passageway to the nose and sinus, but the vowel sound requires keeping it closed. When speakers mix up the order and open the nasal passageway while still saying the vowels, a different vowel sound is made, and over time this new vowel sound can become a second accepted version of that vowel. So a hypothetical word, [aon] could become [ãõn] and then the phonemes, [a]
and [o] would each add an allophone and become [a, ā] and [o, ō]. This sort of change would be very natural, but it would be totally unnatural for the word [aon] to change into [abn], because there is nothing about the speech movements needed for [aon] that could even accidentally end up as a [b] sound.

Many linguists debate whether unnatural sound changes or phonological processes exist, and how and why they would come to pass if so. When apparent examples of unnatural changes and processes are found, they tend to be of particular interest.

There is a strange and apparently unmotivated morphophonological process present in all dialects of Sula: b, d, g in onset position optionally become voiceless when morphology puts them in intervocalic position—i.e. following prefixation, serialization, or compounding (initial b,d,g > [-voice] / V_V). This alternation is productive in all documented dialects of Sula, and it is verified by acoustic phonetic analysis. An important note in reading this grammatical sketch: this is a phonetic alternation whereas the working orthography is phonemic. Outside of this section, the alternation is not usually discernible in the example glosses, because speakers don't typically perceive the segments as voiceless even when they are produced that way.

1.3.1.2.1 Observed conditions

Voicing alternation occurs only to plosives that are underlyingly voiced
### Table 39. Voicing Alternation Examples

<table>
<thead>
<tr>
<th>Underlying</th>
<th>Alternation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>b/p</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td>basel</td>
<td><em>basel fia-kau neka</em> ‘plant that tree’</td>
</tr>
<tr>
<td></td>
<td>‘to plant’</td>
<td><em>i-pasel fia-kau neka</em> ‘3SG plants that tree’</td>
</tr>
<tr>
<td>(5)</td>
<td>pia</td>
<td><em>pia makata bau munara</em> ‘the doctor is working’</td>
</tr>
<tr>
<td></td>
<td>‘live/person’</td>
<td><em>i-pia moya</em> ‘3SG is not alive’</td>
</tr>
<tr>
<td><strong>d/t</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6)</td>
<td>det</td>
<td><em>det moya kau neka</em> ‘don’t cut that tree’</td>
</tr>
<tr>
<td></td>
<td>‘to cut’</td>
<td><em>a-tet kau neka</em> ‘I cut that tree’</td>
</tr>
<tr>
<td>(7)</td>
<td>ted</td>
<td><em>ted lepa nui fat hia</em> ‘lift one coconut’</td>
</tr>
<tr>
<td></td>
<td>‘to hold’</td>
<td><em>ak dad a-ted mua-mua</em> ‘I can hold all of them’</td>
</tr>
<tr>
<td><strong>k/g</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(8)</td>
<td>gaya</td>
<td><em>gaya moya pel</em> ‘don’t eat anymore’</td>
</tr>
<tr>
<td></td>
<td>‘to eat’</td>
<td><em>a-kaya</em> ‘I eat’</td>
</tr>
<tr>
<td>(9)</td>
<td>kag</td>
<td><em>kag moya pel</em> ‘don’t be afraid anymore’</td>
</tr>
<tr>
<td></td>
<td>‘to fear’</td>
<td><em>a-kag moya</em> ‘I’m not afraid’</td>
</tr>
<tr>
<td><strong>b ~ p</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(10)</td>
<td><em>baked</em> ‘to hear’:</td>
<td><em>a-paked</em> ‘I hear’</td>
</tr>
<tr>
<td>(11)</td>
<td><em>bama</em> ‘to split’:</td>
<td><em>a-pama</em> ‘I split’</td>
</tr>
<tr>
<td>(12)</td>
<td><em>basel</em> ‘to plant’:</td>
<td><em>a-pasel</em> ‘I plant’</td>
</tr>
<tr>
<td>(13)</td>
<td><em>bis</em> ‘full, satisfied’:</td>
<td><em>ak a-kaya moya, sebab a-pis pel</em> ‘I don’t want to eat because I’m full’</td>
</tr>
<tr>
<td>(14)</td>
<td><em>bisloi</em> ‘look for’:</td>
<td><em>a-pisloi</em> ‘I look for’</td>
</tr>
<tr>
<td>(15)</td>
<td><em>bisnau</em> ‘to sew’:</td>
<td><em>a-pisnau</em> ‘I sew’</td>
</tr>
<tr>
<td>(16)</td>
<td><em>bisnoya</em> ‘to talk’:</td>
<td><em>ta-pisnoya</em> ‘1PL.INCL.AGR says’</td>
</tr>
<tr>
<td><strong>d ~ t</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(17)</td>
<td><em>det</em> ‘to cut’:</td>
<td><em>a-tet</em> ‘I cut’</td>
</tr>
<tr>
<td>(18)</td>
<td><em>donu</em> ‘to burn’:</td>
<td><em>ba-tonu</em> ‘to ignite’ (Mangon)</td>
</tr>
<tr>
<td>(19)</td>
<td><em>duf</em> ‘hole’:</td>
<td><em>bau-tuf</em> ‘make a hole’</td>
</tr>
<tr>
<td>(20)</td>
<td><em>dona</em> ‘to burn’:</td>
<td><em>ba-tona</em> ‘to ignite’ (Sanana)</td>
</tr>
</tbody>
</table>

1.3.1.2.1.1 dona ~ tona in conversation
A young female speaker produced morpheme-initial /d/ as [d] even in a V_V environment (i.e. she does not always produce the devoicing):

(21) ba-dona. kit kata soya ba-dona bo ak bahasa
    CAUS-burn 2PL word say CAUS-burn in 1SG language
    “Ignite’. In my language, we say ‘ignite’.

An older male speaker seems to always devoice morpheme-initial b, d, g when it is put in a V_V environment:

(22) dona, dona, ba-tona, a a ba-tona...
    burn, burn CAUS-burn, yeah yeah CAUS-bur

1.3.1.2.1.2 g ~ k

(23) gahu ‘to scratch’: ak a-kahu mon 'I scratch you'

(24) geka ‘ill, sick, sore, hurt’ (compounds):
    a. kalea-keka
       ‘kidney disease’
    b. nap-geka
       ‘headache’

(25) gem ‘to hold’: mana-kem ‘to hold (in the manner of firmly grasping another’s arm)’

(26) gaya ‘to eat’: a-kaya ‘I eat’

1.3.1.2.1.2.1 gaya ~ kaya in conversation

A young female speaker produces both [g] and [k] variants in an identical phonetic environment in adjacent sentences
(27) ak bit a- gaya fia-sinaŋa hia
   I want 1SG.AGR eat banana-fried one
   ‘I want to eat a fried banana.’

(28) ak a- kaya fia-sinanga hia
   I 1SG.AGR eat banana-fried one
   ‘I eat a fried banana.’

1.3.1.2.2 Devoicing examples

1.3.3.2.2.1 Devoicing in compound words

The word *geka* ‘ill, injured’ becomes [keka] when compounding places the initial segment in intervocalic position. That is, *kalea* 'kidney' plus *geka* 'ill' is often if not typically produced as, *kalea-keka* 'kidney disease'. Compare this to the Sanana dialect form of the compound word meaning 'headache'. In this form, the initial segment of the same word, *geka*, is placed in non-intervocalic position. In this case the resulting form is *nap-geka* 'headache', and it is seldom if ever produced with a voiceless segment. The Mangon dialect of Sula still retains many final vowels that were dropped in Sanana, including a final u on the form *napu* 'head'. This gives corroborating evidence of the alternation, because the Mangon variant of the same compound causes an intervocalic environment, and expectedly, the resulting form is devoiced, *napu-keka* 'headache'.

1.3.3.2.2.2 Devoicing with pronominal prefixes

Verbs that begin with a *b, d,* or *g* undergo the same alternation due to agreement morphology. The alternation has been observed with several of the pronominal prefixes, but there may be differences in the frequency of occurrence across the different markers. Complete paradigms will be needed to fully explain the phenomenon, and that
will require a well-planned study of numerous speakers that considers speaker
demographics, speech context, and broader phonetic environment considerations.

1.3.3.2.2.2.1 1st person singular:

*det* ‘to cut’: *(ak)* a-tet ‘I cut’.

Compare this example to *ted* ‘to hold, carry’ which begins with a voiceless segment and
which shows no alternation following prefixation: *(ak)* a-*ted* Sua ‘I carry Sula’.

1.3.3.2.2.2 1st person plural:

bisonoya ‘to say, talk’: *(kit)* ta-pisnoya ‘(we) 1PL.INCL-say’

Compare this example to *pahu* ‘to appear’ which begins with a voiceless segment and
which shows no alternation following prefixation: *(kit)* ta-*pahu* gan gatel para bo uma
*bet ik* ‘we seem to be just three at home today’.

1.3.3.2.2.3 3rd person singular:

basel ‘to plant’: *i-pasel* fia-kau neka ‘3SG-plant that tree’

Compare this example to *pia* ‘to live’ which begins with a voiceless segment and which
shows no alternation following prefixation: *i-pia* moya ‘s/he is not alive’.

1.3.3.2.2.3 Devoicing with verbal prefixes

Verbal prefixes can also result in intervocalic environments that trigger the alternation.

(29) *baked* ‘to hear’: *baka-paked* ‘to message’ (direct digital messaging or conveying a
message on another’s behalf)

(30) *ban* ‘intercourse’: *mana-pan* ‘to initiate sex'
(31)  *donu* ‘to burn’: *ba-tonu* ‘to ignite’ (Mangon)

(32)  *duf* ‘hole’: *bau-tuf* ‘make a hole’

(33)  *gem* ‘to hold’: *mana-kem* ‘to grab’

(34)  *gehi* ‘to stand’: *baka-kehi* ‘to erect, construct’

Compare these forms to forms made with the prefix, *mat-*, which does not result in an intervocalic environment. The *mat-* prefix therefore does not trigger a voicing alternation: for example, *mak-bobai* ‘dating (courtship)’ and *mak-dahi* ‘to meet’.

1.3.3.2.2.4 Devoicing in serial verb (auxiliary verb?) constructions

It is unclear whether Sula’s *laka* constructions should be called auxiliary or serial constructions, but regardless, they trigger the voicing alternation as do the more clearcut instances of serialization.

(35)  *gaya* ‘to eat’: *laka kaya* ‘go eat’

(36)  *basel* ‘to plant’: *laka pasel* ‘to go planting’

(37)  *bisloi* ‘look for’: *laka pisloi* ‘to go searching’

(38)  *gega* ‘to awaken’: *nona-kega* ‘the routine of going to bed and getting up’

1.3.3.2.2.5 Devoicing in reduplicated forms

Although it doesn’t seem to be as frequent as with other triggers, the alternation can also be triggered by reduplication.

(39)  *dota* ‘to hit’: *dota-tota* ‘keep hitting’
compare the underlyingly voiceless \textit{p} in \textit{pia} 'safe': \textit{pia-pia} 'safe' (with emphasis)

### 1.3.3.2.6 Devoicing in numeral prefixes?

This is the only instance of the voicing alternation that appears to be mandatory rather than optional. This is intriguing in that the forms have been shown to trace back to Proto-Austronesian (ref. Blust and Trussel ongoing). This might be coincidental, but the pattern matches perfectly with the other, still productive, alternations present in the language. In concert with the historical changes Blust (2005) identified in Kiput and Berawan, and the reconstructable PAN numeral prefixes, Sula’s still-productive alternation suggests a complex historical voicing problem in the fabric of the Austronesian language family.

#### Table 40. Devoicing of numeral prefix

<table>
<thead>
<tr>
<th>\textit{ga-}</th>
<th>&gt;</th>
<th>\textit{ka-}</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textit{ga-} ‘cardinal prefix’</td>
<td>\textit{ga-hu} 'two'</td>
<td>\textit{pa-ka} ‘ordinal prefix’</td>
</tr>
<tr>
<td>\textit{ga-hu} 'two'</td>
<td>\textit{ga-tel} 'three'</td>
<td>\textit{pa-ka-hu} ‘second’</td>
</tr>
<tr>
<td>\textit{ga-tel} 'three'</td>
<td>\textit{ga-reha} 'four'</td>
<td>\textit{pa-ka-tel} ‘third’</td>
</tr>
<tr>
<td>\textit{ga-reha} 'four'</td>
<td>\textit{ga-lima} 'five'</td>
<td>\textit{pa-ka-reha} ‘fourth’</td>
</tr>
<tr>
<td>\textit{ga-lima} 'five'</td>
<td></td>
<td>\textit{pa-ka-lima} ‘fifth’</td>
</tr>
</tbody>
</table>

#### 1.3.3.2.3 Evidence

#### 1.3.3.2.3.1 Acoustic evidence

Spectrograms often show quite clearly that the \textit{b}, \textit{d}, \textit{g} variants are completely voiced and the devoiced variants are completely voiceless, but the difference is not always binary; often the intervocalic segments are just less voiced. This suggests either a sound change
in progress and/or a tug-of-war between the intervocalic devoicing process and the more natural, universal tendency to voice intervocalic segments. The following spectra illustrate the most clear difference between voiced and voiceless variants:
Figure 19. Spectrogram of voiced segment.
A young, female speaker in Capuli village did not produce the alternation in the word dona following prefixation.
   ba-dona

Figure 20. Spectrogram of voiceless segment.
An older, male speaker in Capuli village did produce the alternation in the same word following prefixation.
   ba-tona
### 1.3.3.2.3.2 Minimal pair evidence

A voicing contrast in the language prevents analysis of the alternating segments as underlyingly voiceless. If a phonological voicing process were in place that caused initial voiceless segments to become voiced in citation form, Sula would not have other words that begin with p, t, k; but there are many. For example, words like kag ‘to fear’ would be *[gag]* when no prefix is applied, but they are not: (1) *a-kag* 'I'm afraid' (2) *kag moya pel* ‘don’t be afraid again/anymore’

#### 1.3.3.2.3.2.1 b/p

(41)  
a. *bas* a ‘bad’
   b. *pasa* ‘before’

(42)  
 a. *bahu* ‘quick’
   b. *pahu* ‘to appear’

(43)  
 a. *bia* ‘from’
   b. *pia* ‘life’

(44)  
 a. *baka* ‘CAUS’
   b. *paka* ‘ORDINAL’

(45)  
 a. *bo* ‘LOC’
   b. *po* ‘ten’

#### 1.3.3.2.3.2.2 d/t

(46)  
 a. *dena* ‘aboard’
   b. *tena* ‘stomach’

(47)  
 a. *dad* ‘can’
   b. *tadu* ‘horn’\(^{116}\)

---

116 near minimal pair
(48)  a. *da* ‘bye’  
     b. *ta* 1PL.INCL  

(49)  a. *dua* ‘to push’  
     b. *tua* ‘old’  

(50)  a. *duk* ‘to come’  
     b. *tuka* ‘intestines’  

1.3.3.2.3.2.3 g/k  

(51)  a. *goi* ‘buttocks’  
     b. *koi* ‘don’t’  

(52)  a. *gena* ‘to hear’  
     b. *kena* ‘fish’  

(53)  a. *gan* ‘in the manner of’  
     b. *kan* ‘injury’  

(54)  a. *gaya* ‘to eat’  
     b. *kaya* ‘wealthy’  

(55)  a. *gau* ‘two’  
     b. *kau* ‘tree’  

1.3.3.2.4 Peculiarities: A more natural, intervocalic voicing process  

Some speakers frequently voice word-final stops when the following segment is +voiced or +continuant. This is never mandatory and it is certainly much more natural than the previously discussed alternation. For example, *ak* ‘I’ is frequently produced as [ag] when followed by a voiced or continuant segment. Examples:
1.3.3.2.5 An exception?

duf ‘hole’ seems to sometimes be produced with [t] even when not V_V, e.g. sak (d,t)uf til ‘pierce ear’ (It could be that the one of the phonemic forms is actually /tuf/ or /saku/)

Incomplete, pronoun-specific inflection systems that are superficially similar have been proposed for some Central Maluku languages (e.g., the neighboring Soboyo; Fortgens 1921:20-22). A similar analysis could not explain the Sula data for several reasons. (1) The proposed systems do not describe alternations in intervocalic position that are exclusively limited to voicing. (2) The hypothetically inflected forms do not occur in pro-drop constructions (where V_V is not present). (3) The alternation is also sometimes present in affixed forms and intervocalic environments in compound words
independent of person-inflection. (4) The alternation appears to be exceptionless in Sula; initial-segment devoicing is available to all verbs beginning with voiced stops when a target environment is present, and not, as inflection proposals describe, a system which affects only some words.

An intervocalic environment is the only apparent condition that is consistent in all situations, and this makes an active phonological process the most likely explanation for the alternation. The data show a process occurring in all dialects of Sula I have worked with so far, and this universal distribution suggests the process has been productive for several generations at least.

1.4 Syllable stress

Where words have light final syllables, Sula has penultimate stress (e.g. ['gɛ.hi] 'back'). Stress is final in words with heavy final syllables (e.g. [ba.pi'kir] 'to think'). A moraic analysis fits the Sula data well (where closed syllables and open syllables with a diphthong or long vowel are bimoraic). Under such an analysis, stress would predictably fall on whichever syllable contains the penultimate mora.

(61) [ba.'jon] 'mouth'
(62) [sa.'mam] 'to chew'
(63) [ba.ka.'lɛŋ] 'to lie down'
(64) [da.'gis] 'pain'

In compound words, primary stress is located on the stressed syllable of the first word, and secondary stress occurs on the stressed syllables of the following words.
This section provides a description of the Sula orthography and the phonetic value of the characters used in this grammatical sketch.

Virtually all Sula speakers are bilingual Malay speakers, and most are already literate in Malay. Because of this, it makes most sense to stick with what people already know and use rather than inventing a new orthography that is completely foreign to speakers. The Sula language can be represented well with Indonesian orthographical conventions and with only a few small differences from standard Bahasa; these differences are shown below.
## 2.1 How words are pronounced

<table>
<thead>
<tr>
<th>Sula letter</th>
<th>Indonesian Example</th>
<th>English Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>p [p]</td>
<td>apa</td>
<td>apple</td>
</tr>
<tr>
<td>b [b]</td>
<td>lebih</td>
<td>scuba</td>
</tr>
<tr>
<td>m [m]</td>
<td>umur</td>
<td>name</td>
</tr>
<tr>
<td>f [f]</td>
<td>–</td>
<td>wifi</td>
</tr>
<tr>
<td>t [t]</td>
<td>utara</td>
<td>town</td>
</tr>
<tr>
<td>s [s]</td>
<td>rasa</td>
<td>dense</td>
</tr>
<tr>
<td>d [d]</td>
<td>padat</td>
<td>trade</td>
</tr>
<tr>
<td>n [n]</td>
<td>makanan</td>
<td>manage</td>
</tr>
<tr>
<td>r [r, r]</td>
<td>dari</td>
<td>dari</td>
</tr>
<tr>
<td>l [ɻ]</td>
<td>–</td>
<td>ball</td>
</tr>
<tr>
<td>k [k]</td>
<td>makanan</td>
<td>flaky</td>
</tr>
<tr>
<td>y [j]</td>
<td>yang</td>
<td>year</td>
</tr>
<tr>
<td>ɡ [ɡ]</td>
<td>keluarga</td>
<td>omega</td>
</tr>
<tr>
<td>ng [ŋ]</td>
<td>dingin</td>
<td>swinging</td>
</tr>
<tr>
<td>‘ [ʔ]</td>
<td>tidak</td>
<td>‘apple’</td>
</tr>
<tr>
<td>h [h]</td>
<td>bahan</td>
<td>aha</td>
</tr>
<tr>
<td>w [w]</td>
<td>awalnya</td>
<td>towing</td>
</tr>
<tr>
<td>c [ʧ]</td>
<td>coklat (some dialects)</td>
<td>choose’</td>
</tr>
<tr>
<td>j [ʤ]</td>
<td>juta</td>
<td>jump’</td>
</tr>
<tr>
<td>i [i]</td>
<td>itu</td>
<td>fleece</td>
</tr>
<tr>
<td>e [e]</td>
<td>oleh</td>
<td>dress</td>
</tr>
<tr>
<td>a [ɑ]</td>
<td>dan</td>
<td>lot</td>
</tr>
</tbody>
</table>

---

117 English vowels are represented using the Wells Standard Lexical Sets for UK and US English.

118 Similar to the t in Indonesian and English but with the tip of the tongue just behind the teeth.

119 This sound is usually present in English prior to all words that begin with a vowel. English speakers do not tend to think about this sound, since there is no letter for it in the alphabet, but if you say the word, `apple` and pay attention to your throat, this sound is the small burst of air and motion you feel just as the word begins.

120 Similar to the “ch” in `choose` but beginning with the tip of the tongue just behind the teeth.

121 Similar to the “j” in `jump` but beginning with the tip of the tongue just behind the teeth.
3 greetings and introductions

As is common in the region, Sula speakers tend to call out greetings to any unexpected passerby. At first, I assumed this to be the curiosity of a few bored strangers, but to my surprise, it turned out to be a widespread and surprisingly nuanced greeting formality.

Sula greetings are structured around (a) where one is going, and (b) what one is doing. One is generally expected to omit locational details except when they contradict what would otherwise be assumed, and this holds for greetings as well (see section 9, directional system and space). Unfortunately for outsiders, there is no general assumption about one’s actions or destination, so there is an expectation of specificity, and this can make an otherwise ten minute walk turn into an all-day affair if specific, detailed answers are given to each bystander while walking through town.

Out of fatigue and a need to get from point A to point B within a reasonable amount of time, I started experimenting with ways to interrupt the expected pattern of greeting. Doing so began to reveal an intricate etiquette that parallels the specificity defaults in the language’s positional grammar. There are two basic greeting formats for situations in which there is an implicit assumption as to the other’s goings on. One exchange (a) is used when two people meet and at least one of them is en route to a destination. The other (b) is used when people meet who are not en route to a destination.
3.1 Exchange type a (when both participants are en route)

(67) Person 1:
  
  *laka*  
  
  *s(a(h))oa*  
  
  * (neka)  
  
  *walk*  
  
  *where*  
  
  *(that)*  
  
  ‘where are you going?’ (‘where is it you’re going?’)

(68) Person 2:
  
  *laka*  
  
  *s(a(h))oa*  
  
  * (neka)  
  
  *walk*  
  
  *where*  
  
  *(that)*  
  
  ‘where are you going?’ (‘where is it you’re going?’)

In this exchange, neither participant need answer the question. This is much like the English greeting exchange of *Hiya doin’?* answered with *Hiya doin’?* in that neither question is interpreted as a literal request for information. However, like in English, it is perfectly acceptable for the Sula speaker to answer the question literally if s/he desires to engage in conversation.

3.2 Exchange type a (when only Person 2 is en route)

(69) Person 1:
  
  *laka*  
  
  *s(a(h))oa*  
  
  * (neka)  
  
  *walk*  
  
  *where*  
  
  *(that)*  
  
  ‘where are you going?’ (‘where is it you’re going?’)

(70) Person 2:
  
  *a-*  
  
  *laka*  
  
  *(direction)*  
  
  *1SG.AGR walk*  
  
  *(direction)*  
  
  ‘I’m going that way’

In this exchange, person 2 does not respond by repeating *Where are you going?* back to Person 1, since s/he is not en route anywhere. In this case, the most common response is for Person 2 to reply in the most general terms by stating the direction toward which s/
he is walking. Again though, it is perfectly acceptable for Speaker 2 to answer the question more specifically if s/he desires to engage in a conversation.

### 3.3 Exchange type b (when neither person is en route)

(71) Person 1:

\[ bau \quad hapa \quad (neka) \]

*do* what *(that)*

‘what are you doing?’

(72) Person 2:

\[ bau \quad hapa \]

*do* what

‘what are you doing?’

Like in exchange type (a) above, in this exchange, neither participant need answer the question, but it is perfectly acceptable to do so if a speaker desires to engage in conversation.

There is also a secondary greeting (c) which translates roughly to ‘how are you’. Like exchange type (b) this tends to be directed at a person who is not en route to a destination.

### 3.4 Exchange type c

(73) Person 1:

\[ baug(a(h))oa \quad (neka) \]

*do* how *(that)*

‘how are you’

Replies to this question vary more, but a common reply is:
The greeting etiquette’s complexity begins to surface when one of the participants is unexpected at the location or time of the exchange. In these situations, there is an ongoing back-and-forth between information requests and evasion strategies—ways to vaguely answer while remaining within discourse boundaries.

My assistant, Marlia, was often aggravated at people’s nosiness as we walked back and forth to our various consultants’ houses. At first I suggested she just ignore people and walk on, but that was not an option for her, because ignoring greetings from bystanders is itself a rude and aggressive action. Marlia had a clever (if somewhat passive aggressive) strategy of dealing with unwelcome greeting questions.

The basic discourse expectation for a greeting is one round of exchange. If that exchange begins with a ‘where are you going’, the reply, ‘where are you going’ is only available if the first asker is also en route. However many people in Sula spend significant portions of every day sitting in front of homes or on public sitting platforms. And that means that for passers by, they cannot simply respond back with, ‘where are you going’; I have made that mistake numerus times, and it leads the conversation initiators to look at me as though I am either mentally deficient or incredibly discourteous before replying in a stern, deliberate tone: *ak nib. laka sahoa?* ‘I’m sitting. Where are you going?’

When prompted, ‘where are you going’, by a person who is not in motion, the generally expected answer is, ‘I’m going *that way*’, where “that way” is substituted for
one of Sula’s four directions (*tema* ‘inland’, *fai* ‘seaward’, *lepa* ‘up’, *neu* ‘down’). If the answerer desires, s/he can instead respond with a general statement of intention, e.g. *a-laka bihu* ‘I’m returning’. More specific answers are sometimes provided when the action or destination is already obvious. For example, someone walking toward a water source carrying a wash basin and soap might say *a-laka nan* ‘I’m going to bathe’, or someone walking toward their home might answer *a-laka bo uma* ‘I’m going home’. Although such replies might seem passive-aggressively evasive, they suffice the discourse expectation. However, for outsiders and even insiders in unexpected situations (e.g. someone walking in the heat of the day during Ramadan, someone dressed funny, or someone carrying a bizarre item as they walk by), the expectation is that they provide a specific answer, and a reply of ‘I’m going (that way)’ will generally be met with a repeat of ‘where are you going’ in an assertive tone.

As walking with me, an outsider, was inherently an unexpected action of my assistant, Marlia began to preempt the question in order to avoid having to explain our goings on to everyone we passed. This proved tricky though, because the sitters and the passers by see each other from far away, and if one speaks while there is still too much distance, the other party can ignore the question as though it were not heard and then proceed to reinitiate the discourse when they get closer. When Marlia timed it right (i.e. before the other spoke but close enough that the other couldn’t feign not hearing her question), the sitters would be locked into a greeting exchange initiated by Marlia, and the bystander would not be able as easily able to then ask us where we were on our way to, since the discourse parameters defaulted to just one round of greeting exchange. This
often caused unmistakable frustration on the faces of bystanders as we passed by. Such an exchange tends to go as follows:

3.5 Preempted exchange

(75) Marlia:
    bau hapa neka?
    do what there
    ‘what are you doing?’

(76) bystander:
    nib-nib (para)
    sit-sit (just)
    ‘I’m (just) sitting.’

The single-round discourse expectation is evident both by the frustration on the faces of bystander who were unable to inquire as to our destination and also by Marlia’s reaction to the occasional brash individual who would follow up the exchange with, laka sahoa? ‘where are you going’. In those circumstances, the ever-polite Marlia would begrudgingly answer the question, and then turn to me red faced as we walked on and proclaim, “he is so rude!”

To further nuance the art of greeting in Sula, all of the above interactions can be substituted with anticipated answers. For example, as one walks inland, a bystander might call out, laka tema? ‘walking inland?’ which is the expected answer to laka sahoa? To this question, the passer by can either repeat, laka tema. ‘walking inland.’ or answer, iyo. nib-nib para? ‘Yeah. Just sitting?’ at which point the bystander can either say ‘yes’ or let the conversation fade. Likewise, this entire transaction could be reversed with the passerby first inquiring, nib-nib? ‘are you sitting’.
And to condense the interaction even further, either party can preemptively declare what the other is doing with declarative intonation. For instance, when passing by, Marlia frequently called out to bystanders, *nib-nib.* ‘sitting’ in declarative intonation. This effectively cancelled the entire discourse and answered for the bystander what s/he is doing. To this, the polite options are (a) for the sitting party to say, ’yes’, (b) to say, ’walking.’ (as in, ‘you are walking’) or, (c) say, ‘Yes. Walking.’ (as in, ‘Yes I am, and you are walking’).

Sula’s greeting formalities might seem like a lot to remember, but they are quite logical and straightforward in their own right. While it could take awhile to fully master the etiquette, one can learn to function politely in a short amount of time.

4 Counting

The language of everyday trade and commerce in the Sanana markets is a mix. People coming from the remote villages tend to speak Sula when communicating with other Sula trade partners. Those who are from Sanana city proper are fully able to understand basic transactional Sula, but they are more likely to code switch and reply in a mix of Sula and local Malay. Those from Sanana city are much more likely to count in Malay (even though most are able to count in Sula), while many older people from the villages will tend to count in Sula. Financial transactions and money counting on the other hand are almost exclusively in Malay. It seems as though the currency bill denominations are *named* by their Malay numerical values, and they are spoken of more than *counted* as
such. In small villages there are no markets as such, but Sula is much more likely to be spoken throughout trade and financial interactions there than in the city.

### Table 42. Cardinal Numbers

<table>
<thead>
<tr>
<th>Sanana</th>
<th>Mangon</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>hia</td>
<td>gia</td>
<td>‘one’</td>
</tr>
<tr>
<td>gahu, ga’u, g’u, gu</td>
<td>guu</td>
<td>‘two’</td>
</tr>
<tr>
<td>gatel</td>
<td>gatelu</td>
<td>‘three’</td>
</tr>
<tr>
<td>gareha</td>
<td>gadia</td>
<td>‘four’</td>
</tr>
<tr>
<td>galima</td>
<td>galima</td>
<td>‘five’</td>
</tr>
<tr>
<td>gane</td>
<td>ganei</td>
<td>‘six’</td>
</tr>
<tr>
<td>gapit</td>
<td>gapitu</td>
<td>‘seven’</td>
</tr>
<tr>
<td>gatahua</td>
<td>gaatua</td>
<td>‘eight’</td>
</tr>
<tr>
<td>gatsia</td>
<td>gatasi</td>
<td>‘nine’</td>
</tr>
<tr>
<td>poa</td>
<td>po</td>
<td>‘ten’</td>
</tr>
<tr>
<td>poa(dohia)</td>
<td>podigia</td>
<td>‘eleven’</td>
</tr>
<tr>
<td>poa(doga’u)</td>
<td>podiguu</td>
<td>‘twelve’</td>
</tr>
<tr>
<td>poa(dogatel)</td>
<td>podigatel</td>
<td>‘thirteen’</td>
</tr>
<tr>
<td>po(a)ga’u</td>
<td>poguu</td>
<td>‘twenty’</td>
</tr>
<tr>
<td>po(a)gatel</td>
<td>pogatelu</td>
<td>‘thirty’</td>
</tr>
<tr>
<td>po(a)gatel do hia</td>
<td>pogatelu di gia</td>
<td>‘thirty-one’</td>
</tr>
<tr>
<td>po(a)gatel do gahu</td>
<td>pogatelu di guu</td>
<td>‘thirty-two’</td>
</tr>
<tr>
<td>po(a)gatel do gatel</td>
<td>pogatelu di gatelu</td>
<td>‘thirty-three’</td>
</tr>
<tr>
<td>po(a)galima</td>
<td>pogalima</td>
<td>‘fifty’</td>
</tr>
<tr>
<td>ota</td>
<td>saka</td>
<td>‘hundred’</td>
</tr>
<tr>
<td>ca</td>
<td>ca</td>
<td>‘thousand’</td>
</tr>
<tr>
<td>cahia</td>
<td>cagia</td>
<td>‘one thousand’</td>
</tr>
<tr>
<td>caga’u</td>
<td>caguu</td>
<td>‘two thousand’</td>
</tr>
</tbody>
</table>

122 For instance I have rarely seen counting out of change aloud. Most items are inexpensive, and shoppers usually shop with small denomination bills. Big ticket items are purchased from shops near the dock or off island, and these transactions take place in Malay language.

123 I have often witnessed fishermen paddle to shore and count out fish as they lay them on the beach for prospective traders. Likewise I have witnessed similar scenarios with farmers bundling spices for transport off island.
4.1 Counting Objects

Sula has a common, general classifier (counting word), *fat* (*fatu* in Mangon), which has a meaning similar to ‘pieces’ in its numeral sense. *fat* also means ‘stone’ when not used in counting. The following pattern is used to count objects: *fat hia, fat gahu, fat gatel* (‘one piece’, ‘two pieces’, ‘three pieces’). *fat* is also used to state numbers of items. For example:

(77) *ana-mehi-fina dok ana-mehi-maana weuw fat gatel*

child-small-female give child-small-male mango CLF three

‘The girl gave the boy 3 mangoes’

4.2 Ordinals and multiplicatives

When items are numbered in order, numerical instances are formed with the multiplicative and ordinal prefix *pa*. The *ka* on the word *pakahia* ‘first’/‘once’ indicates that the *ga*- cardinal number prefix may indeed still be an active prefix rather than a fossil from Proto–Buru–Sula–Taliabo as is speculated in Collins (1981). Evidence for this is found in the Sanana word *hia* ‘one’—on cardinal numbers two through nine, *ga*- is present, but *hia* lacks this prefix. The form *gahia* does, however, exist meaning ‘alone’. Because the ordinal and multiplicative form for the number one is not *pa-hia*, and because the form for two is not *paka-ga-hu* (and likewise for three–nine), it seems likely that *pa*- is the ordinal and multiplicative prefix, and *ga*- is the still somewhat productive cardinal prefix—a prefix whose *g* is devoiced to *k* due to the language’s bizarre process of intervocalic fortition discussed in the phonology section. It must be noted for historical linguists, that *paka*- corresponds exactly to a similar prefix that marked multiplicative numerals in Proto-Malayo-Polynesian and in several other
Austronesian languages. It is likely that pa- and ka-/ga- in Sula are derived directly from *paka- but that the syllables were either reanalyzed as separate morphemes in Sula or that Sula preserves an earlier ordinal/multiplicative prefix relationship that was lost in other Austronesian languages who reanalyzed their cardinal prefix as part of their multiplicative prefix.

<table>
<thead>
<tr>
<th>Sanana</th>
<th>ordinal</th>
<th>multiplicative</th>
</tr>
</thead>
<tbody>
<tr>
<td>pa-ka-hia</td>
<td>'first'</td>
<td>once</td>
</tr>
<tr>
<td>pa-ka-hu</td>
<td>'second'</td>
<td>twice</td>
</tr>
<tr>
<td>pa-ka-tel</td>
<td>'third'</td>
<td>thrice</td>
</tr>
<tr>
<td>pa-ka-reha</td>
<td>'fourth'</td>
<td>four times</td>
</tr>
<tr>
<td>pa-ka-lima</td>
<td>'fifth'</td>
<td>five times</td>
</tr>
<tr>
<td>pa-ka-ne</td>
<td>'sixth'</td>
<td>six times</td>
</tr>
<tr>
<td>pa-ka-pit</td>
<td>'seventh'</td>
<td>seven times</td>
</tr>
<tr>
<td>pa-ka-tahua</td>
<td>'eighth'</td>
<td>eight times</td>
</tr>
<tr>
<td>pa-ka-tsia</td>
<td>'ninth'</td>
<td>nine times</td>
</tr>
<tr>
<td>pa-ka-poa</td>
<td>'tenth'</td>
<td>ten times</td>
</tr>
<tr>
<td>pa-ka-poadohia</td>
<td>'eleventh'</td>
<td>eleven times</td>
</tr>
<tr>
<td>pa-ka-poadoga’u</td>
<td>'twelfth'</td>
<td>twelve times</td>
</tr>
<tr>
<td>pa-ka-poadogatel</td>
<td>'thirteenth'</td>
<td>thirteen times</td>
</tr>
<tr>
<td>pa-ka-poga’u</td>
<td>'twentieth'</td>
<td>twenty times</td>
</tr>
<tr>
<td>pa-ka-pogatel</td>
<td>'thirtieth'</td>
<td>thirty times</td>
</tr>
<tr>
<td>pa-ka-pogatel do hia</td>
<td>'thirty-first'</td>
<td>thirty-one times</td>
</tr>
<tr>
<td>pa-ka-pogatel do gahu</td>
<td>'thirty-second'</td>
<td>thirty-two times</td>
</tr>
<tr>
<td>pa-ka-pogatel do gatel</td>
<td>'thirty-third'</td>
<td>thirty-three times</td>
</tr>
<tr>
<td>pa-ka-pogalima</td>
<td>'fiftieth'</td>
<td>fifty times</td>
</tr>
<tr>
<td>pa-ka-ota</td>
<td>'hundredth'</td>
<td>hundred times</td>
</tr>
<tr>
<td>pa-ka-cahia</td>
<td>'one thousandth'</td>
<td>one thousand times</td>
</tr>
<tr>
<td>pa-ka-caga’u</td>
<td>'two thousandth'</td>
<td>two thousand times</td>
</tr>
</tbody>
</table>

---

\(^{124}\) PMP *maka- would not be a likely source.
(78) **ordinal:**

\[ \text{paka-hia} \quad \text{son} \]

ordinal-one more

‘one more time’

(79) **multiplicative:**

\[ \text{paka-} \quad \text{pila} \quad \text{pel} \quad \text{gu-} \quad \text{duk} \quad \text{bo} \quad \text{Sua?} \]

ordinal-how many already 2SG.AGR come LOC Sula

‘How many times have you visited Sula?’

## 5 Word order

A limited number of discourse strategies like topicalization can produce sentences with non-Subject-Verb-Object word order, but Sula is for the most part an SVO language. The language’s optional pronominal prefixes help to limit ambiguity—allowing noun phrases to be reordered—but this occurs infrequently during non-elicited speech.

### 5.1 Left-dislocation and word order

#### 5.1.1 Transitive verbs

(80) **Non-topicalized transitive**

\[ \text{ak} \quad \text{a-} \quad \text{dota} \quad \text{mon} \]

1SG 1SG.AGR-strike you

'I punched you.'

(81) **Topicalized transitive with pronoun**

\[ \text{mon, ak a-} \quad \text{dota} \]

you, 1SG 1SG.AGR-strike

'It's you I punched.'

(82) **Topicalized transitive without pronoun**

\[ \text{mon, a-} \quad \text{dota} \]

you, 1SG.AGR-strike

'It's you I punched.'
5.1.2 Intransitive verbs

(83) *Non-topicalized unergative verbs*

\[ \text{ak a- laka bo Waitebi} \]

1SG 1SG.AGR- walk LOC Waitebi

'I go to Waitebi.'

(84) *Topicalized unergative verbs*

\[ \text{bo Waitebi, ak a- laka} \]

LOC Waitebi, 1SG 1SG.AGR- walk

'To Waitebi I go.'

(85) *Non-topicalized unaccusative verbs*

\[ \text{ak nib bo Waitebi} \]

1SG sit LOC Waitebi

'I live in Waitebi.'

(86) *Topicalized unaccusative verbs*

\[ \text{bo Waitebi ak nib} \]

LOC Waitebi 1SG sit

'In Waitebi I live.'

5.2 Double objects (ditransitives) and word order

Sula permits optional double-object constructions. In non-double-object constructions, the oblique NP and the direct object can be optionally reordered. In double-object constructions; however, the NP order is obligatorily.

(87) *Non-double-object construction with ‘give’. The indirect object is linked by a locative rather than word order or pronominal prefix.*

\[ \text{Ikbal i- dok bunga bo Fatima} \]

Ikbal 3SG.AGR- give flower OBL Fatima

'Ikbal gave a flower to Fatima.'
(88) **Non-double-object construction with 'give' and reordered NPs**

\[
\begin{align*}
\text{ki'i i-} & \quad \text{dok bo ak kastela} \\
3SG & \quad 3SG.AGR- \quad \text{give OBL 1SG potato}
\end{align*}
\]

'He gave to me kastela.'

(89) **Double-object construction with 'give': DO1, DO2**

\[
\begin{align*}
\text{Ikbal i-} & \quad \text{dok Fatima bunga} \\
\text{Ikbal} & \quad 3SG.AGR- \quad \text{give Fatima flower}
\end{align*}
\]

'Ikbal gave Fatima a flower.'

(90) * **Double-object construction with 'give': DO2, DO1**

\[
\begin{align*}
*\text{Ikbal i-} & \quad \text{dok bunga Fatima} \\
\text{Ikbal} & \quad 3SG.AGR- \quad \text{give flower Fatima}
\end{align*}
\]

'Ikbal gave a Fatima a flower.'

Sula permits alternate word orders to some degree, but it is apparently forbidden in double-object constructions.

(91) **Non-double-object construction with 'show'**

\[
\begin{align*}
\text{a-} & \quad \text{bakatoya ak handfon bo mon} \\
1SG.AGR- & \quad \text{show 1SG phone LOC you}
\end{align*}
\]

'I showed you my mobile.'

(92) **Non-double-object construction with 'show'**

\[
\begin{align*}
\text{a-} & \quad \text{bakatoya mon ak handfon} \\
1SG.AGR- & \quad \text{show you 1SG mobile}
\end{align*}
\]

'I showed you my mobile.'

(93) **Non-double-object construction with 'show'**
a- bakatoya bo mon ak handfon
1SG.AGR- show LOC you 1SG mobile
'I showed you my mobile.' (increased emphasis compared to (f))

(94) *Double-object construction with 'show' *

*a- bakatoya ak mon handfon
1SG.AGR- show 1SG you mobile
'I showed you my mobile.'

6 verbal indexing

Sula possesses a pronominal indexing system in which persons may be optionally indexed on the verb via a prefix. There is optional dropping of pronouns and pronominal prefixes—and even both simultaneously. The conditions on pronominal indexing are not well understood, but may include (a) increased signal robustness or emphasis (when both pronoun and pronominal prefixes are used), (b) indicate reference disambiguation and reference switching, (c) indicating aspectual information. These topics are discussed further in Section ### word order and Section ### verbs.

The overlapping functions of the pronominal prefixes along with intra-speaker variation and disagreement regarding grammatical judgment tests make it difficult to decipher the system with a great deal of specificity, and indeed scholars working on nearby languages have even described similar systems as, “incomplete verbal agreement systems” (##CITATION##). It could take an entire dissertation to begin to reveal the nuances of these systems, but some broad generalities can be made and are presented in the aforementioned sections.

The high frequency of pronoun omission and pronominal prefix omission make coming up with a full paradigm very difficult to get from one speaker, so this section will
present the pronominal indexing syntax as it was agreed upon and presented to me by a
group of around a half dozen, middle-aged Sanana speakers (a mix of men and women)
from the Fagudu and Falahu tribes who worked with me for about an hour in Pasar
Bamboo to come up with a paradigm they could all agree on. It is important to note that
there is a lot of geographical variation even among Sanana speakers regarding the
pronunciation of pronouns and pronominal prefixes, but none of the variants
encountered were different enough to obscure meaning, so the following paradigm
should suffice for a beginning Sula learner hoping to communicate anywhere on the
island of Sanana.

**Table 44. Pronouns**

<table>
<thead>
<tr>
<th>Pronoun</th>
<th>Pronominal prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-person singular</td>
<td><em>ak</em></td>
</tr>
<tr>
<td>Second-person singular</td>
<td><em>mon</em></td>
</tr>
<tr>
<td>Third singular (human)</td>
<td><em>ki'i</em></td>
</tr>
<tr>
<td>Third singular (nonhuman)</td>
<td><em>name of thing</em></td>
</tr>
<tr>
<td>First plural (exclusive)</td>
<td><em>kam</em></td>
</tr>
<tr>
<td>First plural (inclusive)</td>
<td><em>kit</em></td>
</tr>
<tr>
<td>Second-person plural</td>
<td><em>kim</em></td>
</tr>
<tr>
<td>Third-person plural</td>
<td><em>ihi</em></td>
</tr>
<tr>
<td>Formal</td>
<td><em>kim</em></td>
</tr>
</tbody>
</table>

---

125 I suspect the first-person plural exclusive to be an Indonesian calque, as I have seldom encountered it in unprompted speech.

126 It is difficult to reach consensus on the second-person plural pronominal prefix, and it seems to typically be omitted in speech.

127 There is speaker variation concerning whether the formal pronoun is used only for the second person, for the second and third person, or for all persons.
6.1 Example sentences:

(95) First-person singular
\[ ak \quad a- \quad dota \quad Bob. \]
1SG 1SG.AGR strike Bob
‘I struck Bob.’

(96) Second-person singular
\[ mon \quad gu- \quad dota \quad Bob. \]
2SG 2SG.AGR strike Bob
‘You struck Bob.’

(97) Third singular (human)
\[ ki'\i \quad i- \quad dota \quad Bob. \]
3SG 3SG.AGR strike Bob
‘S/he struck Bob.’

(98) Third singular (nonhuman)
\[ as \quad neka \quad i- \quad dota \quad Bob. \]
dog that 3SG.AGR strike Bob
‘That dog struck Bob.’

(99) First plural (exclusive)
\[ kam \quad ka- \quad dota \quad Bob. \]
1PL.EXC 1PL.EXC.AGR strike Bob
‘We (without you) struck Bob.’

(100) First plural (inclusive)
\[ kit \quad ta- \quad dota \quad Bob. \]
1PL.INC 1PL.INC.AGR strike Bob
‘We (including you) struck Bob.’

(101) Second-person plural
\[ kim \quad gu- \quad dota \quad Bob. \]
2PL 2PL.AGR strike Bob
‘Y’all struck Bob.’
(102) Third-person plural
  ihi   i-   dota   Bob.
  3PL   3PL.AGR strike Bob
  ‘They struck Bob.’

(103) Formal
  kim   gi-    dota   Bob.
  F.PRONOUN  F.PRONOUN.AGR strike Bob
  ‘You struck Bob.’ / ‘s/he struck Bob.’

7 affirmative statements

7.1 Confirmations

Confirmation statements in Sula can be formed with the particle, iyo ‘yes’. If questioned, for example:

(104) kena   neka   mon   gon   te?
  fish   that   2SG.INF   belong   or
  ‘Does that fish belong to you?’

One might answer:

(105) iyo,   (kena)   neka   ak   gon
  yes   (fish)   that   1SG   belong
  ‘yes, that (fish) is mine’,

(106) iyo,   ak   gon
  yes   1SG   belong
  ‘yes, mine’

---

128 Some speakers use the formal pronoun as a Second-person singular and plural pronoun, while others additionally use it as a third-person singular and plural pronoun when referring to their elders.
Or commonly, people simply answer: *iyo* ‘yes’ or *ak gon* ‘mine’. The following examples demonstrate an additional question and confirmation variation.

(107) *neka* *kim* *kena* *te?*  
that you.F fish Q?  
‘Is that your fish?’

(108) Person 2 confirmation variations

a. *iyo, (neka) ak -gon.*  
yes (that) 1SG belong  
‘Yes, (that) belongs to me.’

b. *iyo, neka ak kena.*  
yes that 1SG fish  
‘Yes, that’s my fish.’

c. *iyo, ak kena.*  
yes 1SG fish  
‘Yes, my fish.’

d. *iyo*  
yes  
‘Yes.’

e. *ak kena*  
1SG fish  
‘My fish.’

f. *ak -gon*  
1SG belong  
‘Mine.’

Yes/no questions with verbs are answered similarly.
(109) Person 1

\[
gu- \quad \text{laka} \quad \text{bo} \quad \text{uma} \quad \text{te}?
\]

2SG.AGR walk LOC home Q?

‘Are you going home?’

(110) Person 2 (a)

\[
iyo \quad \text{laka} \quad \text{bo} \quad \text{uma}.
\]

yes walk LOC home

‘Yes, I’m walking home’

Person 2 (b)

\[
laka \quad \text{bo} \quad \text{uma}.
\]

walk LOC home

‘Walking home’

Person 2 (c)

\[
iyo.
\]

yes

‘Yes.’

(111) Person 1

\[
\text{mon} \quad \text{gu-} \quad \text{nan} \quad \text{bet-ik} \quad \text{te}?
\]

2SG 2SG.AGR bathe now Q?

‘Are you bathing now?’

(112) Person 2 (a)

\[
iyo \ a- \quad \text{nona}.
\]

yes 1SG.AGR bathe

‘Yes, I’m bathing’

Person 2 (b)

\[
iyo \text{ nona}.
\]

yes bathing

‘Yes, bathing.’

Person 2 (c)
nona.
bathing
‘Bathing.’

Person 2 (d)
iyo.
yes
‘Yes.’

7.2 "Seems to be"

Affirmative statements with less certainty use the pahu gan construction. These statements have a meaning similar to it seems in English.

(113) pahu gan gateł
appear with three
‘there seem to be three’

(114) pahu gan baba duk moya bet’ik
appear with father come NEG today
‘It seems that father will not come home today.’

(115) bet’ik pahu gan baba duk moya
today appear with father come NEG
‘It seems that father will not come home today.’

8 negative statements

Non-imperative negative statements are formed with the word moya ‘no’/‘not’.

(116) dad dad moya
‘can’ ‘can not’

129 Negation of imperatives is discussed in the following section on commands.
8.1 Negating verb phrases

moya must come after the entire verb phrase in order to negate the action's occurrence.

(118) \textit{a- laka bihu}.  \\
1SG.AGR walk return  \\
‘I’m returning’

(119) \textit{a- laka bihu moya}.  \\
1SG.AGR walk return NEG  \\
‘I’m not returning’

(120) \textit{a- laka moya bihu (a- bena sapeda)}.  \\
1SG.AGR walk NEG return 1SG.AGR climb bicycle  \\
‘I’m not returning on foot (I’m riding a bicycle)’

(121) Yanto bah\textit{a kena damet (neka)}.  \\
Yanto buy fish yesterday (that)  \\
‘Yanto bought a fish yesterday.’

(122) Yanto baha kena \textit{moya damet (neka)}.  \\
Yanto buy fish NEG yesterday (that)  \\
‘Yanto did not buy a fish yesterday.’

(123) *Yanto bah\textit{a moya kena damet (neka)}.  \\
Yanto buy NEG fish yesterday (that)  \\
‘Yanto did not buy a fish yesterday.’

(124) *Yanto bah\textit{a kena damet moya (neka)}.  \\
Yanto buy fish yesterday NEG (that)  \\
‘Yanto did not buy a fish yesterday.’
The first asterisked example above is indeed a grammatical sentence, but it has a different meaning than expected. Placing *moya* immediately after the verb negates the verb alone. So in this case, it would mean, 'It was not PURCHASING that Yanto did with a fish yesterday' (e.g. 'he CAUGHT one'). Likewise, the second asterisked example is grammatical, but here *moya* negates the time word immediately preceding it. This sentence means 'YESTERDAY is not when Yanto bought the fish' (e.g. 'he bought it TODAY').

*Moya* directly follows the sentence element to be negated, so negating preferences is just like negating active verbs.

\[(125)\] \(ak\) \(lal-\) \(suka\) *moya* \(suglela\) \(bal\).
\(1SG\) \(inner\) \(like\) \(NEG\) \(play\) \(ball\)

'I don’t like to play ball.'

Placing *moya* between *suglela* and *bal* negates only the verb, *suglela*, rather than the entire verb phrase.

\[(127)\] \(ak\) \(lal-\) \(suka\) \(moya\) \(suglela\) \(bal\).
\(1SG\) \(inner\) \(like\) \(NEG\) \(play\) \(ball\)

'It is not playing that I like to do with balls.'

To negate a noun, *moya* occurs directly after the noun being negated, so by placing *moya* after *bal*, the example sentence becomes, *It’s not ball that I like to play.*
In predicate nominatives, the noun is negated that is on the same side of the equation as *moya*.

**9 commands**

As in English, imperative constructions in Sula have an implied subject.

*Imperative with null subject*

(129) Ø gaya muamua
you eat everything
'Eat everything'

(130) Ø gu- gaya muamua
you 2SG.AGR-eat everything
'Eat everything' (the “gu” emphasizes “you”)

(131) Ø gaya choklat muamua
you eat chocolate everything
'Eat all the chocolate'

Imperatives do not *typically* cooccur with pronominal prefixation on verbs in the affirmative. Negative commands can mark progressive with pronominal prefixation though.

*Negative imperative with null subject and null pronominal prefix*
(132) Ø koi gaya muamua
    you NEG eat everything
    'Don't eat everything.'

*Negative imperative with null subject and pronominal prefix*

(133) Ø koi gu- gaya muamua
    you NEG 2SG.AGR- eat everything
    'Stop eating everything.'

Additionally, Sula permits a null direct object in double-object constructions.

*Imperative with double object*

(134) Ø dok ak pip
    you give me money
    'Give me money.'

*Imperative with null subject and null DO₁*

(135) Ø dok Ø pip
    you give me money
    'Give me money.'

*Imperative with null subject and null DO₂*

(136) Ø dok ak Ø
    you give me it
    'Give it to me.'

10 directional system and space

As in English, Sula speakers make use of multiple frames of reference. Intrinsic and relative descriptions pull from the following vocabulary:
 TABLE 45. DIRECTIONAL TERMINOLOGY

<table>
<thead>
<tr>
<th>Sula</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>tapa</td>
<td>‘left’</td>
</tr>
<tr>
<td>kul</td>
<td>‘right’</td>
</tr>
<tr>
<td>samana</td>
<td>‘there (near addressee)’</td>
</tr>
<tr>
<td>saik / isuna / isuka</td>
<td>‘here’</td>
</tr>
<tr>
<td>bangana</td>
<td>‘there (distant)’</td>
</tr>
<tr>
<td>(mak) han, (baka)han</td>
<td>‘by’ / ‘near’</td>
</tr>
<tr>
<td>yau</td>
<td>‘far’</td>
</tr>
<tr>
<td>bo</td>
<td>‘at’</td>
</tr>
<tr>
<td>goga</td>
<td>‘on’</td>
</tr>
<tr>
<td>tina</td>
<td>‘on’</td>
</tr>
<tr>
<td>lepa</td>
<td>‘on’ / ‘over’</td>
</tr>
<tr>
<td>heha</td>
<td>‘under’</td>
</tr>
<tr>
<td>lal(^{130})</td>
<td>‘in’</td>
</tr>
<tr>
<td>mena</td>
<td>‘front’</td>
</tr>
<tr>
<td>lug</td>
<td>‘face’ (in front)</td>
</tr>
<tr>
<td>gabalil</td>
<td>‘around’</td>
</tr>
<tr>
<td>lug de lug</td>
<td>‘opposite’ (face to face)</td>
</tr>
<tr>
<td>gehi</td>
<td>‘back’ (behind)</td>
</tr>
<tr>
<td>bo leha</td>
<td>‘in that place’</td>
</tr>
<tr>
<td>manehaneha</td>
<td>‘together’</td>
</tr>
</tbody>
</table>

Additionally, there are two words *hifa* and *hafa/hata* that function as directions, but seem to be un-mapable to any constant bearing or direction. They seem to function similarly to the English terms *to and fro* and, similarly, they seem to occur only in figurative or poetic speech, such as in the folk song, *Hai Sua*:

\(^{130}\) This is a peculiar word which functions as an adverbial intensifier and an adposition. Unlike other adverbs, modifiers, it comes preverbal when modifying a verb (e.g. lal suka ‘inner like’), but it comes post nominal like other adpositions when functioning as an adposition (e.g. bo piga lal ‘in the bowl’)

252
(137) \( l\text{i}f \quad (h\text{i}fa \ h\text{a}ta) \quad m\text{a}i \ -a \quad p\text{i}l \quad h\text{i}a \quad m\text{oya} \quad e \)

\( \text{turn} \quad (t\text{o} \text{and} \ t\text{ro}) \quad \text{but} \quad 1\text{SG.AGR} \text{ see} \quad 1\text{SG} \quad \text{NEG} \quad \text{emphasis} \)

'I look both directions, but I'm unable to see anybody'

10.1 Intrinsic frame of reference

Object location can be described in relation to a part of another object. Intrinsic frames of reference can be used to locate objects in relation to other objects perceived as having intrinsic sides.

(138) \( k\text{i}i\text{i} \quad b\text{o} \quad u\text{ma} \quad l\text{ug} \)

\( 3\text{SG} \quad \text{LOC house} \quad \text{front} \)

'He is in front of the house.'

(139) \( k\text{o}m\text{o}d\text{o} \quad b\text{o} \quad m\text{o}n \quad g\text{e}h\text{i} \)

\( \text{monitor lizard} \quad \text{LOC} \quad 2\text{SG} \quad \text{back} \)

'The monitor lizard is behind you.'

10.2 Absolute frame of reference


The words \textit{lepa} ‘up' and \textit{neu} ‘down’ also have horizontal directional associations, however the cardinal direction mapped to 'up' and 'down' varies depending where on the islands one is discussing. On the island of Sanana, \textit{laka neu} corresponds to walking counterclockwise around the island, and \textit{laka lepa} corresponds to walking clockwise around the island. This means that in the town of Sanana on the Eastern coast, heading \textit{neu} is north whereas the opposite of this is true across the island in the town of Malbufa. However, along the inhabited southern coast of Mangon island to the north, \textit{laka lepa}
corresponds to walking counterclockwise around the island while *laka neu* corresponds to walking clockwise around the island, and the cardinal directions they map to are east and west respectively. Unlike in some languages where these would function as relative directions based on the orientation of the speaker while talking, *lepa*, and *neu* are fixed cardinal directions in Sula, but the meaning of the directions is opposite depending whether one is talking about locations on Mangon or Sanana.

**Figure 21. Absolute directional system**

10.3 Relative frame of reference

Relative frames of reference can be used for any situation (even with objects that are perceived as having intrinsic sides).
(140) kii bo kau lug
   3SG LOC tree front
   ‘He is in front of the tree.’

(141) mankau neka la bo lida lepa
   bird that fly LOC mountain over
   ‘The bird flies over the mountain.’

10.4 directions of motion

sai maneha neha / laka terus ‘go straight ahead’

lif (ila) tapa ‘turn left’

lif (ila) kul ‘turn right’

lif gehi ‘turn around’

sai gabalil ‘go around’ (‘circumnavigate’)

sai lepa ‘go up’ (e.g. a an inclined road)

bena lepa ‘climb up’ (e.g. a ladder)

sai neu ‘go down’ (e.g. a an inclined road)

bua neu ‘fall down’ (e.g. from a tree)

10.5 Adpositions & spatial relationships

Positional information is structured parallel to Mandarin: locative particle + location NP + adposition. Unlike in Mandarin however, Sula drops position words—adpositions are typically only present for emphasis, in situations where the location contradicts situational expectation, and in situations where there is no corresponding expectation. For example, to express that a pair of shoes is by the door, the statement
would be *shoes* LOC *door* \(\emptyset\), while in the less-common scenario that a pair of shoes were atop a door (e.g. hanging by the laces to dry), the construction would be, *shoes* LOC *door* *on*, and in a scenario where, say a new organism was found living on the bottom surface of leaves, an adposition following the NP would also be required, because there would be no prior expectation of the organism's location. Typically, the locative particle in Sula is situated to the left of the noun phrase and positional information is situated to the right.

The most common positional word is the locative particle *bo*. It is used to mean roughly *at, to, on, or in* when there is no inherent ambiguity in the sentence's meaning; *bo* is always situated before the NP.

(142) *tasoya* ‘banana’ *bo* *basa* *Sua*

say banana (Eng.) in language Sula

‘How do you say “banana” in Sula?’

(143) *Bahasa* *hapa* yang gu- *pak* *bo* *hai* *Mangon*

Language what REL 2SG speak on island Mangoli

‘Which languages are spoken on Mangole island?’

(144) *da’i* *kof* *bo* *meja*

exist coffee on table

‘There is a coffee on the table.’

(145) *kastela* deha *bo* *piga* *lal* *bo* *meja*

potato stay LOC bowl in LOC table

‘There are potatoes in the bowl on the table.’

(146) *piga* *deha* *bo* *meja*

bowl stay LOC table

‘There is a bowl on the table.’
Sula has very few prepositions, but the lexeme, bia may be one. It serves an ablative function similar to ‘from’ in English, and it is situated before the NP.

(148) bia sahoa
from where
Where (are you) from?

(149) a- laka bia uma
1SG- go from home
I'm coming from home. (e.g. presently)

(150) koi bihu bia Waibao
don't return from Waibao
Don't come back from Waibao.

Where there is no contextually-expected location for an object or where the object’s actual location differs from expectation, the spatial information is provided after the noun phrase. In the following examples, he is in front of me, and he is behind me are both logically plausible, and there is no default expectation as to the location. As such, the post nominal position morpheme is necessary.

(151) ki'i bo ak lug
He LOC 1SG front
‘He is in front of me.’

(152) ki'i bo ak gehi
He LOC 1SG back
‘He is behind me.’
Complicating Sula locational system is at least one positional morpheme which can occur in the absence of bo and which interestingly, can come either pre or post nominally. Fittingly, this all-around morpheme means 'around'.

(153)  
ak a- laka hai Sua gabalil  
I 1SG.AGR- walk island Sula around  
'I walk around Sanana Island.'

(154)  
ak a- laka gabalil hai Sua  
I 1SG.ARG- walk around island Sula  
I walk around Sanana Island.

### 11 question forming

Yes/no questions are formed using the sentence-final question particle te. te also functions as the conjunction, ‘or’, and when functioning as a question particle, it is an abbreviation of the phrase, te moya ‘or not’.

(155)  
mon gu- laka bo Wai Ipa te-moya  
You 2SG.AGR walk LOC Wai Ipa or-not  
'Will you go to Wai Ipa or not?

(156)  
mon gu- laka bo Wai Ipa te  
You 2SG.AGR walk LOC Wai Ipa or  
'Are you going to Wai Ipa?

### 11.1 “wh” words

Generally “wh” question words are in situ, that is they are left in the place of the word being substituted. For example, instead of what are you eating? as English speakers

---

131 there is some indication of a slight preference for the pre nominal position
say, Sula speakers say, *You are eating what?* which parallels the statement, *You are eating (bananas).*

As in English, the question word can sometimes change places to alternate focus. e.g.: *hapa neka* ‘whats that’ vs *neka hapa* ‘that’s WHAT’

11.1.1 *hapa* ‘what’

(157) *gaya hapa*
    eat what
‘What are you eating?’

11.1.2 *bet pila* ‘when’

(158) *bet-pila gu laka nan*
    time-how.much 2SG.AGR walk bathe
‘When will you bathe?’

(159) *gu laka nan bet-pila*
    2SG.AGR walk bathe time-how.much
‘You will bathe when?’

11.1.3 *han* ‘who’

(160) *han matnana fina neka*
    who elder/spouse woman that
‘Whose mother is that?’

11.1.4 *sahoa* ‘where’

Also, *saoa, soa,* and *sibo* (Mangon)

---

132 At its most literal, *matnana* means ‘elder’, but it has also come to mean ‘husband’ or, when modified by *fina,* ‘wife’. This is analogous to ‘my old man/old lady’ in English. Like in Bahasa Indonesia where all women are honored as *ibu* ‘mother’ because they are in theory *somebody’s* mother even if not the speaker’s own mother, this Sula speaker is honoring the mother as ‘somebody’s wife’.
(161) *laka sahoa neka*

walk where that

‘Where is it that you are going?’

11.1.5 *baghoa* ‘why’ / ‘how’

Also *bagaoa*, *bagoa*, *goa bal*, and *ganoa* and *ganoki* in Mangon.

(162) *bagahoagu- bau- munara bet-ik*

why 2SG.ARG CAUS work today

‘Why/how are you working today?’

11.1.6 *ga pila* ‘how many/much’

Also *eb gahoa*, *eb gaoa*, and *eb goa*.

(163) *matapia ga-pila nib bo mon uma*

people how many sit LOC 2SG home

‘How many people live in your home?’

11.1.7 *bahoa* ‘which’

Also, *baoa*, *boa*, (*hia baoa* ‘which one’).

(164) *es bahoa lal-suka neka*

cold drink which inside-like that

‘Which cold drink is it that you like?’

12 requests and offers

Most commonly, requests are made as imperatives (commands) where the request is implied though not explicitly stated. For example, *dok pip* ‘give money’ is received as, ‘Can I have some money?’ More polite requests can be formed with *dad* ‘can’ / ‘may’ and
heka which means ‘to want’ in the context of requests (bit and mau are the common forms of ‘to want’ in other contexts).

12.1 Requests with dad

(165)  a- pinjam kim pip dad te
1SG.AGR borrow 2SG.F money can Q
‘Can I borrow your money?’

12.1.1 Agree

(166)  iyo, dad
yes, can
‘Yes, you can.’

12.1.2 Refuse

(167)  dad moya
can NEG
‘No, you can’t.’

note: pinjam is a Malay loan, a Sula native term is pak pai, but this is less commonly used, at least among speakers in and around Sanana city.

12.2 Requests with heka

(168)  Kim gi- heka bit laka do ak
2SG.F 2SG.F.AGR want AUX walk with 1SG
‘Would you like to walk with me?’

12.2.1 Agree

(169)  iyo, a- heka
yes, 1SG.AGR want
‘Yes, I’d like to.’
12.2.2 Refuse

(170) \( a- \) heka moya
1SG.AGR want NEG
‘No, thank you.’

13 modifying

Sula modifiers occur after the word being modified. They can modify nouns, verbs, and other modifiers. And, complementation is attributive and does not make use of a copula— that is, speakers say, you tall rather than having to say, you ARE tall.

13.1 Nominal modification

(171) ak suka kof mit
1SG like coffee black
‘I like black coffee’

(172) ak suka kof mit mota
1SG like coffee black hot
‘I like hot black coffee’

13.2 Verbal modification

(173) nau neka sena lepayau
cat that jump high
‘That cat jumps high.’

(174) nau neka sena lepayau bahu-bahu
cat that jump high quick-quick
‘That cat jumps high quickly.’
3.3 Modifier modification

(175) \( ki'i \ =in \ nap \ nahu \ kadiga \)
\( 3SG \ =POSS \ head \ long \ strong \)
‘His/her hair is very long.’\(^{133}\)

(176) \( ak \ baba \ kag \ hebat \)
\( 1SG \ father \ fear \ serious \)
‘My father is seriously scary.’

note: there are phrase structuring constraints regarding the ordering of modifiers. One such example can be seen in the following:

(177) \( ak \ bit \ win \ kof \ mit \ mota \)
\( 1SG \ want \ drink \ coffee \ black \ hot \)
‘I want to drink hot black coffee.’

(178) *\( ak \ bit \ win \ kof \ mota \ mit \)
\( 1SG \ want \ drink \ coffee \ hot \ black \)
‘I want to drink hot black coffee.’

(179) \( matapia \ aya \ baeo \)
\( person \ big \ bad \)
‘big bad person’

(180) *\( matapia \ baeo \ aya \)
\( person \ bad \ big \)
‘big bad person’

(181) \( matapia \ bakatai \ aya \ baeo \)
\( person \ dirty \ big \ bad \)
‘big bad dirty person’

\(^{133}\) Most commonly people say nap 'head' instead of nap foa 'head hair'. It is typical for the name of the more important body part to represent the less important body part. Other examples of this are yai 'leg' for paroma/padomu 'knee', lima 'hand' for wana/wanga 'finger'.

263
14 Expressing time

14.1 Telling time

Most Sula speakers tell time in Malay, or at least a mixture of Sula and Malay. This is likely because clocks and the concept of a 24-hour day were borrowed from external sources. That said, when elicited, there is a straightforward system of telling time that multiple people have independently produced for me. Sula people use both 12-hour and 24-hour time, and as in English, 12-hour time is ambiguous as to the time of day unless a qualifying word accompanies the time.

<table>
<thead>
<tr>
<th>Table 46. Time telling vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sula</td>
</tr>
<tr>
<td>befa</td>
</tr>
<tr>
<td>menit</td>
</tr>
<tr>
<td>dunnis, donnis</td>
</tr>
<tr>
<td>subur</td>
</tr>
<tr>
<td>lea neu</td>
</tr>
<tr>
<td>ba'uhi</td>
</tr>
<tr>
<td>sabatena</td>
</tr>
</tbody>
</table>

14.1.1 Examples

Swapping lea neu / subur flips the time of day.

1:00 (a.m. or p.m.)
(183) **befa**  hia
     o'clock  one
 'one o'clock'

1:30 (a.m. or p.m.)

(184) **befa**  hia  dunnis
     o'clock  one  half
 'one thirty'

4:00 (a.m.)

(185) **befa**  gareha  subur
     o'clock  four  morning
 'four a.m.'

4:00 (p.m.)

(186) **befa**  gareha  lea (neu)
     o'clock  four  sun down
 'four p.m.'

4:01 (p.m.)

(187) **befa**  gareha  do  menit  pakahia  lea (neu)
     o'clock  four  and minute  first  sun down
 'a minute past four p.m.'

4:15 (p.m.)

(188) **befa**  gareha  do  menit  pakapoa  do  galima  lea (neu)
     o'clock  four  and minute  tenth  and five  sun down
 'fifteen minutes past four p.m.'

4:30 (p.m.)
befa gareha do menit pakapoa gatel lea neu
o'clock four and minute tenth three sun down
'thirty minutes past four p.m.'

befa gareha dunnis lea neu
o'clock four half sun down
'four thirty p.m.'

4:45 (p.m.)

befa gareha do menit pakapoa
o'clock four and minute tenth

gareha do galima lea neu
four and five sun down
'four forty-five p.m.'

befa galima kurang menit pakapoa
o'clock five minus minute tenth

do galima lea neu
and five sun down
'fifteen to five p.m.'

4:54 (p.m.)

befa gareha do menit pakapoa
o'clock four and minute tenth

galima do gareha lea neu
five and four sun down
'four fifty-four p.m.'

befa galima kurang menit ganei lea neu
o'clock five minus minute six sun down
'six minutes to five p.m.'
14.2 Saying the date

Sula borrowed the Malay names for the twelve months, but Sula uses its words for 'moon', *fashina*, and 'day', *bet*, to mean, 'month' and 'day'. A prototypical date statement is formed, 'day' + NUMBER + 'month' + MONTH-NAME.

(195)  
\[ \text{bet \ gapit fashina \ Juni} \]  
\[ \text{day \ seven \ moon \ June} \]  
'June seventh'

In practice the above structure comes across as terribly specific, so people normally just say: *gapit Juni* 'June seventh'.

**Table 47. The Sula/Malay Months**

<table>
<thead>
<tr>
<th>Sula/Malay</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Januari</em></td>
<td>January</td>
</tr>
<tr>
<td><em>Februari</em></td>
<td>February</td>
</tr>
<tr>
<td><em>Maret</em></td>
<td>March</td>
</tr>
<tr>
<td><em>April</em></td>
<td>April</td>
</tr>
<tr>
<td><em>Mei</em></td>
<td>May</td>
</tr>
<tr>
<td><em>Juni</em></td>
<td>June</td>
</tr>
<tr>
<td><em>Juli</em></td>
<td>July</td>
</tr>
<tr>
<td><em>Agustus</em></td>
<td>August</td>
</tr>
<tr>
<td><em>September</em></td>
<td>September</td>
</tr>
<tr>
<td><em>Oktober</em></td>
<td>October</td>
</tr>
<tr>
<td><em>November</em></td>
<td>November</td>
</tr>
<tr>
<td><em>Desember</em></td>
<td>December</td>
</tr>
</tbody>
</table>
14.3 Talking about the past and future

Sula does not obligatorily mark past or future tense. A simple sentence like, *a-laka bo uma* (1SG.AGR-walk LOC house) ‘I walk home’ is ambiguous with respect to tense; it can mean 'I walked home', 'I walk home', or 'I will walk home'. This is not as confusing as it might seem though, since context almost always makes it clear when an action takes place, and for the occasions where context does not make it clear, Sula speakers just add the necessary information to the sentence to clear up the ambiguity. For instance, if it is not evident from context that the walking home happened yesterday, a speaker will say, *a-laka bo uma dab*et 'I walked home yesterday'.

The temporal word can occur at the beginning or end of the phrase as in the following example.

(196) *(dabet) [ak]*\textsuperscript{134} *(dabet) [[a- dok] [in hal]]*
(yesterday) 1SG (yesterday) 1SG.AGR give POSS flower
S V OBJ

*(dabet) [bo [ak nyaya]] (dabet)*
(yesterday) to 1SG mother (yesterday)
OBL

'I gave a flower to my mother yesterday.'

When used as a modifier, a temporal word can go almost anywhere within the phrase as long as it does not split a compound word, an affix, or break up a sub-phrase, such as the negation phrase in the following example.

(197) *(dabet) [lab (dabet) sama]*
(yesterday) [shirt (yesterday) [same

\textsuperscript{134} it is likely that the subject is topicalized, if a temporal word is inserted between it and the verb
14.3.1 Future auxiliary construction

English speakers use the auxiliary verb, *will*, to talk about events in the future. Like in English, Sula can also use an auxiliary to talk about events in the future without specifying precisely when they happen. Sula's future auxiliary is a secondary function of the verb 'to want', *bit* (or *mau* in Mangon dialects). Being a close parallel to English, this is a simple construction to learn. However unlike in English, only context can differentiate whether a sentence is a future auxiliary construction and means something *will* happen or whether the speaker is wanting something.

(198) ak    bit   a-    laka    bo sekolah
      1SG AUX/want  1SG.AGR  walk    to school
      'I want to go to school.' / 'I will go to school.'

(199) mit  gamam  bit/mau  uya
      black    dark  AUX     rain
      'It has gotten dark, and it is going to rain.'

14.4 Aspect

Sula uses aspectual particles to describe how an event or state is carried out over time. Aspect is similar to tense except instead of describing *when* something happened, it specifies the *completeness* of an action or the speakers temporal view of a situation. Aspect places focus on the endpoint of an action, on the carrying out of an action, on the beginning of an action, or on the event as a whole. For example, in English there is an
aspect difference between the following sentences even though they are all in the present tense:

Present tense (no aspect): *You go.*

Present tense (progressive aspect): *You are going.*

Present tense (perfect aspect): *You have gone.*

Present tense (perfect & progressive aspect): *I have been eating.*

Although it can take a bit to wrap one's head around the theoretical differences between aspect and tense, the good news is that it is not necessary to completely understand the difference, because aspect in Sula is easy to master. The speaker just needs to put an aspect word at the end of a sentence clause with a verb.

### 14.4.1 Examples (with *pel* 'already' / ‘finished’)

(200)  
\[
\begin{array}{ccc}
  a- & laka & pel \\
  1SG.AGR & walk & finished \\
\end{array}
\]
'I finished walking.'

(201)  
\[
\begin{array}{cccc}
  a- & laka & pel & dabet \\
  1SG.AGR & walk & finished & yesterday \\
\end{array}
\]
'I finished walking yesterday.'

(202)  
\[
\begin{array}{cccc}
  a- & laka & pel & dawika \\
  1SG.AGR & walk & finished & tomorrow \\
\end{array}
\]
'I will finish walking tomorrow.'

(203)  
\[
\begin{array}{ccc}
  gaya & mua & pel \\
  eat & all & finished \\
\end{array}
\]
'eat it all up'
14.4.2 Sula's most common aspect words

14.4.2.1 (completive aspect/perfect aspect) **pel** 'already' / 'finished'

(205) \( ak \quad win \quad pel \)
     1SG   drink   finished
     'I'm finished drinking.' / 'I have drunk.'

14.4.2.2 (inceptive aspect, commonly directed toward oneself) **pai** 'from now'

(206) \( ak \quad win \quad pai \)
     1SG   drink   from.now
     'I'll start drinking.'

14.4.2.3 (inceptive aspect, commonly directed toward others) **ol** 'from now'

(207) \( mon \quad win \quad ol \)
     2SG   drink   from.now
     'Start drinking.' / 'Drink already.'

14.4.2.4 (habitual inceptive aspect) **son, bihu/pihu** 'again from now'

(208) \( gaya \quad son \)
     eat   again.from.now
     'Start eating.'

(209) \( a- \quad laka \quad pihu \)
     1SG.AGR   walk   return.from.now
     'I shall return now'
14.4.2.5 (habitual completive aspect) *bihu/pihu pel* ‘completed again’

(210)  
\[
\begin{array}{llll}
\text{a-} & \text{laka} & \text{pihu} & \text{pel} \\
1\text{SG.AGR} & \text{walk} & \text{return.from.now} & \text{finished}
\end{array}
\]

‘I have returned already’

14.5 Time situating words

Sula also has non-aspect words that help situate events in time.

14.5.1 'never' *pernah moya*

(211) (declarative)

\[
\begin{array}{llllll}
\text{ak} & \text{a-} & \text{gaya} & \text{faf} & \text{ihi} & \text{pernah} & \text{moya} \\
1\text{SG} & 1\text{SG.AGR} & \text{eat} & \text{pig meat} & \text{ever} & \text{not}
\end{array}
\]

'I never eat pork’

(212) (imperative)

\[
\begin{array}{llll}
\text{pernah moya} & \text{gaya} & \text{faf} & \text{ihi} \\
\text{ever} & \text{not} & \text{eat} & \text{pig meat}
\end{array}
\]

'Never eat pork’

14.5.2 ‘not yet’ *moya da*

(213)  
\[
\begin{array}{llllll}
\text{ak} & \text{ana-mehi-nana} & \text{sai} & \text{bo} & \text{Ternate} & \text{moya da} \\
1\text{SG} & \text{baby} & \text{go} & \text{LOC Ternate} & \text{never}
\end{array}
\]

'My baby hasn't been to Ternate yet.’

\[^{35}\text{Negation structures imply that a preferred word order would be: ak (ana-mehi-nana) sai (moya da) bo Ternate. More data is necessary to either verify this or discern that moya da behaves differently than moya alone.}\]
**14.5.3 ‘after’ sonlulu**

(214) sonlulu jam hia, Telkomsel Internet dad
after hour one Telkomsel Internet can

“In an hour, Telkomsel Internet will work.”

sonlulu pai ‘later’ (Adding the aspect marker, pai to sonlulu forms a phrase meaning ‘later’.)

(215) ak baba i- duk bihu sonlulu pai
1SG father 3.SG.AGR come return later

‘My father will return later.’

<table>
<thead>
<tr>
<th><strong>Table 48. Vocabulary for Orienting Days</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sula</td>
</tr>
<tr>
<td>bet</td>
</tr>
<tr>
<td>bet‘ik</td>
</tr>
<tr>
<td>dawika</td>
</tr>
<tr>
<td>dabet / damet</td>
</tr>
<tr>
<td>dabet hia tuna</td>
</tr>
<tr>
<td>banai</td>
</tr>
<tr>
<td>sonlulu bet gatel</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Table 49. Vocabulary for Orienting Weeks</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sula</td>
</tr>
<tr>
<td>ahat</td>
</tr>
<tr>
<td>ahat‘ik</td>
</tr>
<tr>
<td>ahat dawika</td>
</tr>
<tr>
<td>ahat banai/ ahat pihu</td>
</tr>
<tr>
<td>ahat gatel (‘week three’)</td>
</tr>
<tr>
<td>da ahat</td>
</tr>
<tr>
<td>(da ahat) hia tuna (‘last week) one before’</td>
</tr>
</tbody>
</table>
**TABLE 50. VOCABULARY FOR ORIENTING MONTHS**

<table>
<thead>
<tr>
<th>Sula</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>fasina</td>
<td>'month'</td>
</tr>
<tr>
<td>fasina'ik</td>
<td>'this month'</td>
</tr>
<tr>
<td>fasina pihu</td>
<td>'next month'</td>
</tr>
<tr>
<td>fasina gatel</td>
<td>'three months from now'</td>
</tr>
<tr>
<td>da fasina</td>
<td>'last month'</td>
</tr>
<tr>
<td>fasina hia tuna</td>
<td>'the month before last'</td>
</tr>
</tbody>
</table>

**TABLE 51. VOCABULARY FOR ORIENTING YEARS**

<table>
<thead>
<tr>
<th>Sula</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>taun</td>
<td>'year'</td>
</tr>
<tr>
<td>tahun'ik</td>
<td>'this year'</td>
</tr>
<tr>
<td>tahun pihu</td>
<td>'next year'</td>
</tr>
<tr>
<td>tahun dabet</td>
<td>'last year'</td>
</tr>
</tbody>
</table>

**TABLE 52. ADDITIONAL TIME VOCABULARY**

<table>
<thead>
<tr>
<th>Sula</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>befa</td>
<td>'time'</td>
</tr>
<tr>
<td>befa ga pila(^{36})</td>
<td>'at what time?'</td>
</tr>
<tr>
<td>dawika(^{37})</td>
<td>'future'</td>
</tr>
<tr>
<td>pasa</td>
<td>'past'</td>
</tr>
<tr>
<td>sering</td>
<td>'often'</td>
</tr>
<tr>
<td>manen manen</td>
<td>'seldom'</td>
</tr>
<tr>
<td>tahun paka-poа(^{38})</td>
<td>'decade'</td>
</tr>
</tbody>
</table>

---

136 lit. 'time + how much'.

137 Lit. 'daylight', this also means 'tomorrow' (as does hai dewika lit. 'land + tomorrow') and often 'future' in a general sense.

138 lit. 'year + tenth'.
15 reflexives

Reflexive constructions describe someone or something doing an action to themselves. For example, *Bob hits Bill*, is not reflexive, because Bob is doing something to another person. *Bob hits himself* is a reflexive sentence though, because the action reflects back to Bob. Reflexive constructions in Sula are made using a reflexive pronoun, *dit*. There is also an auxiliary verb, *bal*, that is often included. The precise function of the auxiliary is still unknown, but it seems to only be present in active sentences and carry no semantic content.

(216) \[\begin{array}{lllll} 
ki'i & (bal) & i- & dota & dit \\
3SG & AUX & 3SG.AGR & hit & self \\
\end{array}\]

'He hit himself'

(217) \[\begin{array}{llllll} 
ki'i & (bal) & i- & dota & ki'i & dit \\
3SG & AUX & 3SG.AGR & hit & 3SG & self \\
\end{array}\]

'He hit himself'

As shown in (b) above, the pronoun can be repeated, but some speakers claim it must come immediately prior to the reflexive pronoun. In conversation, I have recorded instances of the reverse, but it is unclear if that was speech error, or a strategy such as topicalization that the speakers who reported it as ungrammatical did not have in mind.

(218) (grammatical)

\[\begin{array}{llllll} 
ak & (bal) & a- & dota & dit \\
1SG & AUX & 1SG.AGR & hit & self \\
\end{array}\]

'I hit myself.'

---

139 The reflexive pronoun might be *ta* in some dialects.
Like in most (if not all) languages, it is not grammatical for a pronoun to come before an antecedent. That is, you can say, *he hit himself* but not *himself* hit *he*.
When there is another direct object, it must come before the reflexive pronoun.

(225) (grammatical)

ak *(bal) a- gut ak nap foa (ak) dit
1SG (AUX) 1SG.AGR scissors 1SG head fur (1SG) self
'I cut my hair myself.'

(226) (grammaticality unclear)

*ak *(bal) a- gut (ak) dit ak nap foa
1SG (AUX) 1SG.AGR scissors (1SG) self 1SG head fur
'I cut my hair myself.'

Alternatively, the reflexive pronoun can come directly after the subject to emphasize that an action was done alone.

(227) Yanto bau fotá (ki’i) (in) cahana yota
Yanto CAUS tear (3SG) (POSS) pants short
'Yanto tore his shorts'

(228) Yanto dit bau fotá (ki’i) (in) cahana yota
Yanto self CAUS tear (3SG) (POSS) pants short
'Yanto himself tore his shorts'

(229) *ki’i *(dit) bau fotá (Yanto) (in) cahana yota
3SG self CAUS tear (Yanto) (POSS) pants short
'He himself tore Yanto’s shorts' 140

140 This is a grammatical sentence, but it would mean that a person other than Yanto tore Yanto’s shorts.
16 comparative constructions and degree

Degree words or phrases are what we use to rate things in relation to other things. A comparative construction is a phrase that measures the similarity or dissimilarity between (usually) two things. A superlative construction identifies the thing that is at the greatest extreme between multiple things. For example, I might say that tap water is colder than tea (comparative), but ice water is the coldest (superlative).

16.1 The same / similar

sama gan

(230) Goriorio cap biskuit sama
     Goriorio brand cookie same

     gan Oreo cap biskuit
     with Oreo brand cookie

'Goriorio brand cookies are the same as Oreo brand cookies.'

sama do

(231) ak nyaya sama do ki'i in nyaya
     1SG mother same with 3SG POSS mother

'My mother is the same as her/his mother.'

16.2 Comparisons

foloi~bia:

(232) pang ik foloi aya bia pang neka
     pot this much big of pot that

'This pot is bigger than that pot.'

\[\text{sama gan} \text{ is very likely a borrowing from Indonesian, 'sama dengen'}\]
16.3 Preferences (more)

**(pasa)~bia:**

(233) ak la l suka (pasa) kof bia teh
1SG inside like (pasa) coffee of tea

'I prefer coffee to tea.'

16.4 Preferences (less)

**(pasa)~kurang bia:**

(234) ak la l suka (pasa) teh kurang bia kof
1SG inside like (pasa) tea less of coffee

'I like tea less than coffee.'

16.5 Degree / amount

Sula uses several degree words to make degree statements. Some of these like *eb, foloi,* and *totoya* which mean, 'much' / 'many', are adverbial words. They are different from verbs, because they cannot take the subject prefixes, and they are different from adjectives in their meaning. Whereas adjectives describe properties of nouns, these words only identify the *amount* of a noun, verb, or adjective. There is no distinction between countable and mass nouns in Sula, so these words have a meaning including both 'much' and 'many'.
16.5.1 eb

(235) dahii\textsuperscript{142} pip eb
   explicative money much
   'Look there, it's a lot of money.'

(236) dahi nui eb
   exist coconuts much
   'There are a lot of coconuts.'

Additionally, there are words like \textit{kadiga} 'strong' which can function as adjectives, or adverbs.

16.5.2 adjectival function of \textit{kadiga}

(237) as neka \textit{kadiga}
   dog that strong
   'That dog is strong!'

16.5.3 adverbial function of \textit{kadiga}

(238) as neka lewa \textit{kadiga}
   dog that run strong
   'That dog sure runs!'

16.5.4 sequential adverbial and adjectival function of \textit{kadiga}

(239) as neka \textit{kadiga} \textit{kadiga}
   dog that ADJ ADV
   'That dog is very strong!'

\footnote{\textsuperscript{142}This is a hard word to gloss. With stress on the second syllable, \textit{dahii}, it functions as a syntactic explicative like 'there is', but used when commenting on something unexpected or discovered. When the stress is on the first syllable though, \textit{dahi}, it is used for existential sentenced. So while, \textit{dahii pip}, means something like, 'I found money', \textit{dahi pip}, means more like, 'money exists' / 'I have money.'}
Sometimes reduplication also indicates degree, but this does not seem to be grammatically predictable, and the words that are reduplicated and their manner of reduplication must be learned on a word-for-word basis.

(240) *baha* 'spicy' (hot)

(241) *baha-ha* 'spicy' (more hot)

(242) *baha-ha* *kadiga*

  hot   strong

  'very hot'

For added emphasis, the reduplicated adjective can be used with one or more degree words. (See the section on reduplication for more.)

(243) *baha-ha* *foloi*

  hot   much

  'very hot'

(244) *baha-ha* *eb*

  hot   very

  'very hot'

(245) *baha-ha* *eb* *kadiga*

  hot   very strong

  'very very hot'

Even degree words can be reduplicated for emphasis.

(246) *baha-ha* *kadiga-diga*

  hot-hot strong-strong

  'very very very hot'
(247) *baha-ha eb-eb
hot-hot very-very
'very very very hot'

(248) baha-ha eb kadiga-diga
hot-hot very strong-strong
'very very very very hot'

(249) baha-haeb-eb kadiga
hot-hot very-very strong
'very very very very hot'

Speakers reported it to be ungrammatical to reduplicate both degree words.

(250) *baha-ha eb-eb kadiga-diga
hot-hot very-very strong-strong
'very very very very very hot'

Although eb before kadiga is acceptable, kadiga before eb is not.\textsuperscript{143}

(251) *baha-ha kadiga eb
hot strong very
'very very hot'

16.6 None, all

(252) (ak) a- gaya biskuit moya
(1SG) 1SG.AGR eat cookies NEG
'I did not eat the cookies.'

(253) (ak) a- gaya biskuit gapila (para)
(1SG) 1SG.AGR eat cookies some (just)
'I ate some of the cookies.'

\textsuperscript{143} kadiga eb is acceptable where kadiga is used to literally mean 'strong', e.g. the person is very strong.
Manuscript

Chapter 3: grammar

(254) (ak) a- gaya biskuit mua-mua (pel)
(1SG) 1SG.AGR eat cookies all-all (ASPECT)
‘I ate all the cookies.’

17 listing: events, directions, instructions

Listing is typically expressed with a pitch raise, vowel lengthening, and a pause between items. The last item in the list takes a lowered intonation, indicating it is the final item. If however a speaker wants to imply that the list is ongoing, s/he will not lower intonation on the final item.

17.1 complete list

(255) ak lal suka fua gatel
1SG inner like fruit three

para: weuw↑ fia↑ dahia↓
only mango banana durian
‘I only like three fruits: mangoes, bananas, and durian.’

17.2 truncated list

(256) ak lal suka fua mua-mua:
1SG inner like fruit every

weuw↑ apel↑ fia↑ dahia↑
mango apple banana durian
‘I like all fruit: mangoes, apples, bananas, durian (etc.)’

It is grammatical to insert do ‘and’ between any or all of the list items, but this is not typically done.
18 Indicating possession

18.1 Word order determined

Although Sula does have a possessive marker, it is hard to come up with a rule for how and when to use it. Most of the time, possession is indicated by word order: the possessor comes before the object of possession. This is also the primary pattern for English but the opposite of the Indonesian pattern. In fact, English and Sula are both somewhat atypical in this regard, because it is more common for languages whose verbs (V) come before noun phrases (NP) to have possessors (P) come after the possessed noun phrase (e.g. Comrie 1989).

verbs come before objects:

(Sula)

(257) \textit{Ak a- sepa kau}

\begin{tabular}{ccc}
S & V & NP \\
I kicked the tree.
\end{tabular}

(Indonesian)

(258) \textit{Aku menendang pohon}

\begin{tabular}{ccc}
1SG & kick & tree \\
S & V & NP \\
I kicked the tree.
\end{tabular}

(English)

---

144 Sula, like many Austronesian languages of Maluku, has likely borrowed the preposed possessor construction from non-AN langs.
I kicked the tree.

possessed objects come after possessors:

(Sula)

(260) ak baba
P NP
my father

(Indonesian)

(261) bapak saya
NP P
my father

(English)

(262) my father
P NP
my father

18.2 Possessive marker in

Sula has a linker, =in,\textsuperscript{145} which often functions to indicate possession. The rules determining when this marker is or is not used have been difficult to pin down and will require more data. I have been able to determine from various consultants’ contributions that the =in marker is used primarily (or exclusively) with third-person possessors.

\textsuperscript{145} language learners: ignore the equal sign, that just means it is a special kind of form called a clitic—a fact that is only of interest to linguists.
18.2.1 First-person possessors do not permit =in

(263) (good)
   \[ \text{ak} \quad \text{nyaya} \]
   1SG     mother
   'my mother'

(264) (ungrammatical)
   *\[ \text{ak} =\text{in} \quad \text{nyaya} \]
   1SG =POSS mother
   'my mother'

18.2.2 Second-person possessors do not permit =in

(265) (good)
   \[ \text{mon} \quad \text{nyaya} \]
   2SG     mother
   'your mother'

(266) (ungrammatical)
   *\[ \text{mon} =\text{in} \quad \text{nyaya} \]
   2SG =POSS mother
   'your mother'

18.2.3 Formal pronoun second-person possessors probably do not permit =in\textsuperscript{146}

(267) (good)
   \[ \text{kim} \quad \text{nyaya} \]
   2SG.F    mother
   'your mother'

(268) (ungrammatical)
   *?\[ \text{kim} =\text{in} \quad \text{nyaya} \]

\textsuperscript{146} It is unknown if speakers who also use \textit{kim} as a third-person pronoun would permit =\textit{in}. This might be the reason not all speakers agree that \textit{Kim in nyaya} is ungrammatical.
18.2.4 Third-person singular and plural possessors sometimes require \textit{=in}

\textbf{singular}

(269) (ungrammatical)
\begin{itemize}
\item[*] \textit{ki'i nyaya}
\item[3SG] mother
\end{itemize}
\textquoteleft her/his mother\textquoteright

(270) (good)
\begin{itemize}
\item[\textit{ki'i =in nyaya}]
\item[3SG =POSS mother]
\end{itemize}
\textquoteleft her/his mother\textquoteright

\textbf{name}

(271) (ungrammatical)
\begin{itemize}
\item[*] \textit{Mustafa nyaya}
\item[Mustafa mother]
\end{itemize}
\textquoteleft Mustafa\textquoteright s mother\textquoteright

(272) (good)
\begin{itemize}
\item[\textit{Mustafa =in nyaya}]
\item[Mustafa =POSS mother]
\end{itemize}
\textquoteleft Mustafa\textquoteright s mother\textquoteright

\textbf{object}

(273) (ungrammatical)
\begin{itemize}
\item[*] \textit{meja yai}
\item[table leg]
\end{itemize}
\textquoteleft table leg\textquoteright
(274) (good)
  meja =in yai
table =POSS leg
‘table leg’

plural

(275) (ungrammatical)
  *ihi nyaya
  they mother
  ‘their mother’

(276) (good)
  ihi =in nyaya
  they =POSS mother

It also appears that second-person plural possessors probably do not permit =in, but some speakers do not determine it ungrammatical.

exclusive\textsuperscript{147}

(277) (good) kam nyaya

(278) (ungrammatical) *?kam =in nyaya

inclusive

(279) (good) kit nyaya

(280) (ungrammatical) *?kit =in nyaya

Many related languages have an alienability contrast in their possessive grammar, where items (such as body parts and family members) are indicated differently from

\textsuperscript{147} Whether an inclusivity contrast is still productive in modern Sula is questionable. Examples can be found in song lyrics, however.
items whose possession can be easily transferred. Some degree of an alienability contrast is likely present in Sula too, but it has been elusive if so, because speakers vary with regard to the boundary between alienable and inalienable. The following examples show that distribution of $=\mathit{in}$ probably does not relate to alienability.

(281)  
\[
\text{ak} \quad \text{pip} \\
\text{1SG} \quad \text{money} \\
'\text{my money}'
\]

(282)  
\[
\text{*ak}=\mathit{in} \quad \text{pip} \\
\text{1SG} \quad =\mathit{POSS} \quad \text{money} \\
'\text{my money}'
\]

(283)  
\[
\text{ak} \quad \text{a-} \quad \text{gawai} \quad \text{ak} \quad \text{tena} \quad \text{bag} \\
\text{1SG} \quad \text{1SG.AGR scratch} \quad \text{1SG stomach thick} \\
'I \text{ scratch my fat stomach.'}
\]

(284)  
\[
\text{*ak} \quad \text{a-} \quad \text{gawai} \quad \text{ak} \quad =\mathit{in} \quad \text{tena} \quad \text{bag} \\
\text{1SG} \quad \text{1SG.AGR scratch} \quad \text{1SG} \quad =\mathit{POSS} \quad \text{stomach thick} \\
'I \text{ scratch my fat stomach.'}
\]

(285)  
\[
\text{a-} \quad \text{laka} \quad \text{do} \quad \text{ak} \quad \text{yai} \quad \text{bal} \quad \text{bit} \quad \text{laka} \\
\text{1SG.AGR walk and 1SG leg AUX want walk} \\
'I \text{ go where my legs take me.'}
\]

(286)  
\[
\text{*a-} \quad \text{laka} \quad \text{do} \quad \text{ak} \quad =\mathit{in} \quad \text{yai} \quad \text{bal} \quad \text{bit} \quad \text{laka} \\
\text{1SG.AGR walk and 1SG} \quad =\mathit{POSS} \quad \text{leg AUX want walk} \\
'I \text{ go where my legs take me.'}
\]

(287)  
\[
\text{mon} \quad \text{pip} \\
\text{2SG} \quad \text{money} \\
'\text{your money}'
\]
Possession in general is seldom used figuratively (i.e. with non-concrete possessors).

These same concepts are instead expressed without possessive constructions.

The concept can also be expressed using the non-concrete possessor as a modifier.
Some consultants indicate that in is acceptable between 'yesterday' and 'shirt' in example (9), but they explain that in does not indicate 'belonging' in this situation. Rather, it seems to be functioning in its other role—as a syntactic explicative prefix (EXP) that is empty in meaning but sets focus in the sentence.

Likewise, the same explicative function of in- is occasionally used in possessive constructions with non-third-person possessors, but these sentences are judged as less correct, and they usually include a pause before in-.

**first person**

(297) (best) ak pat
1SG smell
'my smell'

(298) (less correct) ak... in- pat
1SG EXP smell
'mine, the smell'

**third person**

(299) (less correct) ki'i pat
3SG smell
'his smell'
It seems likely that the =in marker is a vestige from a genitive system that had been present at an earlier time (perhaps in Proto Central Maluku). In present day Sula its possessive use seems to have disappeared from the language for all but third-person possessors. In other words, Sula only sometimes allows the =in marker, and it is only when the possessor is he/she/it and concrete rather than abstract. In such cases, =in marks a possessor.

=\text{in} \text{ cannot be used to mark an agent.} \\

=\text{in} \text{ cannot be used to mark a theme.} \\

=\text{in} \text{ cannot be used to mark a time.}
For the above examples, Sula instead uses simple sentences:

(306) *dabet =in uya
    yesterday =POSS rain
    ‘yesterday’s rain’

(307) fina neka bal mata ‘that woman dies’

18.3 "of" possessive

There is a possessive in both Sula and English that makes use of the word, of. Think of the sentence, you are not the boss of me. As compared to my boss, the possessor has been demoted to an oblique phrase. Whereas some find the periphrastic passive nonstandard in English, this construction is accepted in Sula.

(309) [[ana-mehi neka] [bia ak]]
    child-small that of 1SG
    OBL
    ‘That child is mine.’

18.4 Possessive questions

Possessive questions can be formed three ways: with rising intonation; by substituting han 'who' in place of a human possessor; or by adding the question phrase, te (moya) 'or (not)' at the end of the sentence.

(310) kim pena↑?
    2SG.F pen
    'Is it your pen?' (formal)
(311) **han** pena?
who pen
'Whose pen is it?'

(312) **Alif** =in pena te *(moya)*?
Alif =POSS pen or (NEG)
'Is it Alif's pen?'

To form a question, **han** can be substituted in place of any human possessor in a statement—both subject and object alike.

**non-question, first person**

(313) [ak [a- gawai [ak tena]].]
1SG 1SG.AGR scratch 1SG stomach
S V OBJ
'I scratched my stomach.'

**non-question, third person**

(314) [ki'i [i- gawai [ki'i =in tena]].]
[1SG [1SG.AGR scratch [1SG =POSS stomach]]]
S V OBJ
's/he scratched her/his stomach.'

**question, subject** (null prefix)

(315) [han [Ø- gawai [ki'i =in tena]]?]
[who [ scratch [1SG =POSS stomach]]]
'Who scratched her/his stomach?'

**question, object** (null possessive marker)
(316) \[ak [a- gawai [han =Ø tena]]]? 
\[1SG [1SG.AGR scratch [who stomach]]]\]
'I scratched whose stomach?'

**question, subject and object** (null prefix and possessive markers)

(317) \[han [Ø- gawai [han =Ø tena]]]? 
\[who 1SG.AGR scratch who stomach\]
'Who scratched whose stomach?'

### 18.5 gon constructions

Sula speakers can also express possession with statements of belonging. These are formed with a word meaning 'belong' that has to forms, \(=\text{gon}\) and \(=\text{non}\). \(=\text{gon}\) is used with first-person possessors, and \(=\text{non}\) is used with all others. \(=\text{non}\) is probably cognate with the Buru possessive forms, \(\text{nang} / \text{nan} / \text{nam}\), but Sula lacks the complex pattern of inflection found in Buru.

(318) \(ak \ tonka \ neka\) 
\(1SG \ stick \ that\)
'That is my stick.'

(319) \(ak =\text{gon}, \ tonka \ neka\) 
\(1SG =\text{belong} \ stick \ that\)
'It is my belonging, that stick.'

(320) \(tonka \ neka \ ak =\text{gon}\) 
\(stick \ that \ 1SG =\text{belong}\)
'That stick belongs to me.'

(321) \(dok \ ak \ patu\) 
give \(1SG \ hoe\)
'Give me my hoe.'
When forming questions, *han* precedes *=gon/=non*. Either *=gon* or *=non* is reportedly grammatical, but, *=non* always seems to be produced in questions. This is likely because from a logical standpoint, asking with *=gon* would be answering the question within the question (i.e. I cannot be asking who something belongs to, if I am identifying the notion of belonging with a word that assigns the object to myself).
19 reference switching through pronouns and pronominal prefixes

Sula does not have a full switch-reference system, but verbal prefixes are used to disambiguate and switch reference. The mechanics of reference switching are not yet fully understood, but it is clear that a pronominal prefix in the absence of a pronoun can indicate a change in subject.

There are two basic structures for transitive sentences. The prototypical citation form is SUBJECT + PREFIX + VERB + OBJECT

\[(329)\]  
\[ki'i\] \[i-\] \[dota\] \[ak\]  
3SG 3SG.AGR- strike 1SG  
SUBJECT PREFIX VERB OBJECT  
'He hits me.'

\[(330)\]  
\[ak\] \[a-\] \[dota\] \[ki'i\]  
1SG 1SG.AGR- strike 3SG  
SUBJECT PREFIX VERB OBJECT  
'I hit him.'

In the first structure, the subject is overt, and the verb is marked to agree with the subject. This prototypical structure is typically chosen to introduce or transition between subjects. Thereafter, pronoun drop is common, as in the following examples.

\[(331)\]  
\[Ø\] \[i-\] \[gaya\] \[fia\]  
Ø 3SG.AGR- eat banana  
SUBJECT PREFIX VERB OBJECT  
'He eats banana.'
Since the pronominal prefix inherently carries subject information, switching pronominal prefixes indicates a change in subject even without restating an overt subject (proper noun or pronoun). In the following sentence, the third person's verbal prefix, i- is present in the absence of the third-person pronoun. This indicates a switch to a third-person subject. This sentence would take place in a conversation where the third person was previously overtly identified (i.e. "he" had already been named).

(333) ak  pusı\textsuperscript{48}  mai  moya  i-  mata  \\
1SG  headache  COMP  NEG  3SG.AGR- die  \\
'It doesn’t concern me that he died.'

Similarly in the following example, the first-person' verbal prefix, a- is present in the absence of the first-person pronoun, indicating a shift to a first-person subject.

(334) ki'i  i-  mata  mai  a-  pusı  moya  \\
3SG  3SG.AGR die  COMP  1SG.AGR headache  NEG  \\
'That he died, doesn’t concern me.'

In the following example, the subject alternates from third person to first person and back to third person, and switching is indicated by marking first-person or third-person pronouns on verbs.

\textsuperscript{48} pusı is a borrowing from, Indonesian, pusing ‘headache’. The Sula form, nap geka also works in the sentence.
(335) Yanto nau, bahwa a- duk, tapi
Yanto know COMP 1SG.AGR come but
'Yanto knows, that I’m coming, but

  a- nau moya, (bahwa)
 1SG.AGR know NEG (COMP)
I don’t know whether

  i- duk atau moya
3SG.AGR come or NEG
he will come or not.'

20 Determiners

Sula possesses the demonstrative determiners iki/ika and neka which are roughly equivalent to 'this' and 'that' respectively. Determiners come to the right of NPs.

20.1 Demonstrative determiner iki/ika

(336) ki’i i- gaya man ika
3SG 3SG.AGR eat chicken this
'He is eating this chicken.'

20.2 Demonstrative determiner neka

(337) Ikbal i- gaya man moya neka
Ikbal 3SG.AGR eat chicken not that
'Ikbal won't eat that chicken.'

---

149 bahwa is Indonesian borrowing interchangeable with mai
150 atau is an Indonesian borrowing interchangeable with te
20.3 **Determiner word order**

(338)  
Ikbal  i- gaya  man  ika  
Ikbal  3SG.AGR eat  chicken  this  
'Ikbal is eating this chicken.'  

(339) *Ikbal  i- gayaika  man  
Ikbal  3SG.AGR eat  this  chicken  
'Ikbal is eating this chicken.'  

Additionally, *iki/ika* and *neka* have a discourse-marking function. In these constructions, the words bear little to no semantic weight but rather serve to bind a statement contextually. Instances of discourse deixis are syntactically optional.

20.4 **Discourse marking**

(340)  
Yanto  baha  kena  moya  damet  (neka).  
Yanto  buy  fish  NEG  yesterday  (that).  
‘Yanto did not buy a fish yesterday (is what it is).’

21 **Passives**

Sula appears to make use of a paraphrastic passive construction in which the subject is demoted to oblique and the direct object becomes the new subject. However while oblique agents can often be omitted, they appear to be mandatory in Sula.

21.1 **Passive construction with 'punish'**

(341)  
Yanto  =in  baba  naha  ki'i  
Yanto  =POSS  father  punish  him  
‘Yanto’s father punished him.’
Chapter 3: grammar

(342) (passive)
Yanto dahi naha bia =in baba
Yanto receive punish OBL =POSS father
'Yanto was punished by his father.'

21.2 Passive with 'punish' & null oblique?\(^{151}\)

(343) *?Yanto dahi naha Ø
Yanto receive punish Ø
'Yanto was punished.' (by his father)

22 Morpheme and word classes

22.1 verbs & nouns

While there are generally clear semantic differences between verbal and nominal words, there is no good evidence that a grammatical distinction exists defining separate classes for each.

Any word can be a verb, if it makes logical sense. For example in the section on reflexives, we had an example that used the 'scissors' as a verb. \textit{gut} 'scissors' is semantically nominal (most likely a loan from the Indonesian noun, \textit{gunting}). However, when functioning as a verb, it can take the pronominal prefixes.

(344) \textit{ak a- gut} ak nap foa dit
\begin{tabular}{lllll}
1SG & 1SG.AGR & scissors & 1SG head & fur self \\
\end{tabular}
'I cut my hair myself.'

Likewise, words that are semantically verbal can function seamlessly as nouns without any derivational morphology.

\(^{151}\) I received conflicting grammaticality judgments for this structure
The ease by which semantically nominal and verbal words can function in either role challenges the usefulness of analyzing nouns and verbs as independent word classes. Syntactically speaking, these words are not inherently nominal or verbal, but they can function in either role. As stated regarding adjectival modifiers in section 12: they are their own thing, and do not fit neatly into pre-existing categories.

22.2 modifiers

Sula has both adjectival modifiers and adverbial modifiers. Adverbial modifiers are distinct from adjectival modifiers in that they cannot take pronominal prefixes. (see section "15 comparative constructions and degree" for a description)
22.3 pronouns

Pronouns are surprisingly difficult to nail down in Sula. There seems to be some pronoun, but it is unclear if this is due to community variation or individuals overthinking elicitation questions and confusing themselves. The precise meaning and usage of the formal pronoun *kim* is especially tricky as some speakers claim it to be only a second-person singular or plural pronoun, some claim it to be used for second and third-person singular or plural, and others claim it to be person independent—i.e. available for second and third-person pronouns, singular and plural, and, in the case of one consultant, even first-person plural pronouns as long as the group includes a member older than the speaker. As a practical matter, I did not observe the pronoun used in this way, but the possibility exists that (at least for some speakers), this is the case. There is also significant variation in pronoun pronunciation, particularly with the third-person singular pronoun *ki'i*.

It is also difficult to independently elicit an identical paradigm from any two people. That said, I elicited the pronouns and agreement markers from numerous people, compared the lists, and used trial and error during targeted elicitations. Of course I also carefully observed natural conversation samples to parse the paradigm that (as mentioned earlier) I used as the basis for a fairly intensive elicitation and grammaticality judgment session with a group of consultants who evaluated my determinations. There is likely more to the story, but I am fairly confident that the following table represents the pronouns and their verbal prefixes as they are most widely used on Sanana.

---

303
### Table 53. Pronouns & Pronominal Prefixes

<table>
<thead>
<tr>
<th></th>
<th>pronouns</th>
<th>Pronominal prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-person singular</td>
<td>ak</td>
<td>a-</td>
</tr>
<tr>
<td>Second-person singular</td>
<td>mon</td>
<td>gu-</td>
</tr>
<tr>
<td>Third singular (human)</td>
<td>ki'i</td>
<td>i-</td>
</tr>
<tr>
<td>First plural (exclusive)</td>
<td>kam</td>
<td>ka-</td>
</tr>
<tr>
<td>First plural (inclusive)</td>
<td>kit</td>
<td>ta-</td>
</tr>
<tr>
<td>Second-person plural</td>
<td>kim</td>
<td>gu-</td>
</tr>
<tr>
<td>Third-person plural</td>
<td>ihi</td>
<td>i-</td>
</tr>
<tr>
<td>Formal</td>
<td>kim</td>
<td>gi-</td>
</tr>
</tbody>
</table>

#### 22.4 Demonstratives

- *ik, iki, ika* ‘this’
- *neka* ‘that’
- *ikina, nika* ‘yonder’

#### 22.5 Locatives

- *bia* ablative
- *bo* dative

#### 22.6 Deictic Locatives

- *isuka, isuna, saiki, saik* ‘here’
- *bangana, neka* ‘there (near addressee)’
- *samana* ‘over yonder’

#### 22.7 Interrogatives

- *han, ani* ‘who’

hapa, opa  'what'
sahoa, sa’oa, soa, subo  'where'

bagahoa, bahoa, 
 baga’oa, bagoa, bagano  'why' / 'how'

bit pila, betu pila,  
 bet pila, bet pila hoa  'when'

tiba, hia bahoa,  
 hia baoa, hia boa  'which'

22.8 numerals

(see section 3 counting)

22.9 numeral classifier (counting word)

Sula seems to have just one counting word, fat(u), which derived from the word 'stone'. As there is just one, it would be incorrect to call this word a classifier, but grammatically it functions similar to a classifier in other languages. fat is used whenever a quantity of objects is stated unless it can be replaced with a more specific term. For instance, one cannot say (a) one cooked rice, but one can say, (b) one fat of cooked rice, or (c) one plate of cooked rice. Although plate replaces fat in the third option, it is not a counting word; the word plate itself must be counted using fat (d).

(349)  *bird   hia
  rice  one
    'one cooked rice'
(350) *bira*  **fat**  *hia*  
    rice  CLF one  
    'one portion of cooked rice'

(351) *bira*  **piga**  *hia*  
    rice  plate  one  
    'one plate of cooked rice'

(352) **piga**  **fat**  *hia*  
    plae  CLF one  
    'one plate'

**Table 54.** Locational Adpositions

<table>
<thead>
<tr>
<th>Sula</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>gehi</em></td>
<td>'behind'</td>
</tr>
<tr>
<td><em>goga</em></td>
<td>'on (e.g. a tree)'</td>
</tr>
<tr>
<td><em>tina</em></td>
<td>'on (e.g. the floor)'</td>
</tr>
<tr>
<td><em>lepa</em></td>
<td>'over' / 'up'</td>
</tr>
<tr>
<td><em>neu</em></td>
<td>'down'</td>
</tr>
<tr>
<td><em>heha</em></td>
<td>'under'</td>
</tr>
<tr>
<td><em>lal</em></td>
<td>'in'</td>
</tr>
<tr>
<td><em>tuka</em></td>
<td>'in'</td>
</tr>
<tr>
<td><em>muka</em></td>
<td>'in front of'</td>
</tr>
<tr>
<td><em>lug</em></td>
<td>'across from' / 'opposite'</td>
</tr>
<tr>
<td><em>do</em></td>
<td>'with' / 'near'</td>
</tr>
</tbody>
</table>

**Table 55.** Conjunctions

<table>
<thead>
<tr>
<th>Sula</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>do</em></td>
<td>'and'</td>
</tr>
<tr>
<td><em>te</em></td>
<td>'or'</td>
</tr>
<tr>
<td><em>mai</em></td>
<td>'but'</td>
</tr>
<tr>
<td><em>tapi</em></td>
<td>'but'</td>
</tr>
<tr>
<td><em>son</em></td>
<td>'because'</td>
</tr>
</tbody>
</table>
Table 56. Particles

<table>
<thead>
<tr>
<th>Sula</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>pel</td>
<td>'already' / 'finished'</td>
</tr>
<tr>
<td>pai</td>
<td>'from now' (said about oneself)</td>
</tr>
<tr>
<td>ol</td>
<td>'from now' (said about others)</td>
</tr>
</tbody>
</table>

Table 57. Clitics

<table>
<thead>
<tr>
<th>Sula</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>=in</td>
<td>POSSESSIVE</td>
</tr>
<tr>
<td>=gon</td>
<td>'belongs to' (first-person possessors)</td>
</tr>
<tr>
<td>=non</td>
<td>'belongs to' (non-first-person possessors)</td>
</tr>
</tbody>
</table>

22.10 Causative Prefixes

Sula has three common causative prefixes. While they are in complimentary distribution, I have been unable to identify any rule to describe the conditions for when one prefix is chosen over the others.
TABLE 58. CAUSATIVE PREFIXES AND EXAMPLES

<table>
<thead>
<tr>
<th>prefix</th>
<th>example word</th>
<th>gloss</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>bau-</td>
<td>bau-mata</td>
<td>make-die</td>
<td>to kill</td>
</tr>
<tr>
<td></td>
<td>bau-munara</td>
<td>make-labor</td>
<td>to work</td>
</tr>
<tr>
<td></td>
<td>bau-pia</td>
<td>make-safe</td>
<td>to make peace</td>
</tr>
<tr>
<td>baka-</td>
<td>baka-nau</td>
<td>make-know</td>
<td>to message</td>
</tr>
<tr>
<td></td>
<td>baka-baret</td>
<td>make-stop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>baka-toya</td>
<td>make-tell</td>
<td>to point, to show</td>
</tr>
<tr>
<td>mak-</td>
<td>mak-dahi</td>
<td>make-exist</td>
<td>to meet</td>
</tr>
<tr>
<td></td>
<td>mak-bobai</td>
<td>make-significant other</td>
<td>to date</td>
</tr>
</tbody>
</table>

22.11 other prefixes (some likely fossilized)

As with the causative prefixes, I have been unable to discover any semantic or phonological conditions that explain the difference in how Sula’s prefixes are used. Whereas I suspect some of the causative prefixes could be fossilized onto their forms, I am inclined to believe interesting but elusive grammatical processes are at play among the other prefixes. This topic should be a high priority for future study.

TABLE 59. OTHER VERBAL PREFIXES AND EXAMPLES

<table>
<thead>
<tr>
<th>prefix</th>
<th>example word</th>
<th>gloss</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>ba-</td>
<td>ba-lea dit</td>
<td>?-dry self</td>
<td>to dry oneself</td>
</tr>
<tr>
<td></td>
<td>ba-map</td>
<td>?-?</td>
<td>to cook</td>
</tr>
<tr>
<td></td>
<td>ba-lela</td>
<td>?-?</td>
<td>to laugh</td>
</tr>
</tbody>
</table>

---

152 I am not highly confident that baka- is a causative prefix, as some baka- forms cannot be glossed as independent morphemes (e.g. baka-go ‘dumb’, baka-han ‘nearby’).

153 To send a message either electronic or face-to-face via an intermediary person.

154 I am also not highly confident that mak- is a causative prefix. There are not many mak- words in the lexican, and some do not easily gloss as causatives (e.g. mak-han ‘nearby’, mak-sud ‘destination’). At any rate, baka- and mak- often seem to be interchangeable, so it is likely that both prefixes have a synonymous semantic function.
### 22.12 auxiliaries and modality

Auxiliary verbs in Sula can occur independently as verbs in their own right, and they can work in concert with other verbs to help indicate the amount that an action is certain, permitted, or desired. Additionally, modality helps to differentiate statements of conviction from measured claims (e.g. Cameron 2007). Further research will likely reveal more specific syntactic classifications for the words in the following table. But at this early stage in Sula language research, it suffices to simply treat these words as auxiliaries.

<table>
<thead>
<tr>
<th>Sula</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>awa</td>
<td>still</td>
</tr>
<tr>
<td>bal</td>
<td>must</td>
</tr>
<tr>
<td>bit</td>
<td>want, shall, will, should</td>
</tr>
<tr>
<td>dad</td>
<td>can</td>
</tr>
<tr>
<td>lela</td>
<td>enjoy</td>
</tr>
</tbody>
</table>

---

155 There is a high likelihood that this *ta-* is in fact just the first-person plural subject agreement marker. This question needs further investigation.

156 This is a confusing form, as the meaning is not semantically verbal (e.g. *awa pamasi* ‘rice field’). I would write it off as incidental similarity if *masi* did not appear to be either cognate with or borrowed from *nasi* (ID), thus indicating *pa-* is indeed a prefix on this form.
TABLE 61. OTHER, NON-MODAL AUXILIARY VERBS

<table>
<thead>
<tr>
<th>Sula</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>bit</td>
<td>future AUX (Sanana)</td>
</tr>
<tr>
<td>mau</td>
<td>future AUX (Mangon)</td>
</tr>
<tr>
<td>dahi</td>
<td>existential verb or AUX</td>
</tr>
<tr>
<td>bal</td>
<td>active sentence AUX</td>
</tr>
<tr>
<td>mat</td>
<td>possible active sentence AUX</td>
</tr>
<tr>
<td></td>
<td>(also a contraction of matua 'old' as in matnana 'elder')</td>
</tr>
<tr>
<td>paka /</td>
<td></td>
</tr>
<tr>
<td>pake /</td>
<td></td>
</tr>
<tr>
<td>pakai</td>
<td>AUX meaning ‘to use’</td>
</tr>
</tbody>
</table>

23 Noun phrases

As was shown in section 2.1.1, modifiers follow the head noun in Sula. This is the expected pattern in SVO languages. One way to differentiate noun modification from compound words, is that the order of stems (conjuncts) in compounds is the opposite of this order. For example, a Sula speaker would describe a tree as large with the phrase, *kau aya* (‘tree big’), but the word for banana tree is, *fia kau* (‘banana tree’) rather than *kau fia*. Likewise, one would describe long fur as, *foa nahu* (‘fur long’), but the word for a person’s hair is, *nap foa* (‘head hair’) rather than *foa nap*.

157 Likely loan from Dutch *moest* ‘must’. 
Noun phrases can be grouped into *attributively modified* nouns, *descriptively modified* nouns, *verbally modified* nouns, *quantifier modified* nouns. Attributively modified nouns are modified by words that are semantically adjectival (these words can take pronominal prefixation morphology). Descriptively modified nouns are modified by words that are semantically nominal (these words do not take pronominal prefixation morphology). Verbally modified nouns are followed by a verb without pronominal prefixation morphology. Quantifier modified nouns are followed by a degree word or a quantifier.

### 23.1 examples basic structure

(353) *matapia* gatel nib bo sahoa

[person three] sit LOC there

‘Three people are sitting over there.’

(354) ak bau mata ak sap aya bet-ik

1SG make dead 1SG [cow large] today

‘I’ll kill my large cow today.’

### 23.2 examples attributive modification

(355) *maana* birahi

man handsome

‘handsome man’

(356) *teh mota*

tea hot

‘hot tea’
23.3 examples descriptive modification

(357) *maana* Sua
man Sula
‘Sula man’

(358) *teh* Cina
TeaChina
‘Chinese tea’

23.4 examples verbally modification

(359) *matapia-bau-awa*
person-make-field
‘farmer’

(360) *teh ngan*
tea boil
‘boiled tea’

23.5 examples quantifier modification

(361) *ki’i* i- *patana* mataia gapit
3SG 3SG.AGR pay person seven
‘he paid seven people’

(362) *ak* bit *win* teh eb
1SG want drink tea much
‘I want to drink a lot of tea’

(363) (generalized quantifier)
nui galima para
coconut five only
‘only five coconuts’
24 Verbs

24.1 Alignment

There is significant intra-speaker variation, and it will require a targeted study to confidently and comprehensively determine the rules governing verbal alignment in Sula. For the purpose of this section, I primarily analyzed the speech of an individual consultant, Ismael Duila, of Waibau village. The analysis is based primarily on Mithun (2008), O’Grady (2010), and also referenced for areal comparisons was Holton (2008).

The data show Sula to have a split pronominal prefixation system: first-person subjects follow an Active–Stative classification like that proposed by Dixon (1979), but intransitive verbal marking is split along agentive lines rather than strictly along unergative/unaccusative lines. non-first-person, human arguments follow an Ergative–absolutive system, and non-first-person, non-human arguments trigger no pronominal prefixation. Evidence of this split is revealed in the presence/non-presence of pronominal prefixes.

In its basic, non-aspect-marked form, the first-person subject's verbal marker is present in all transitive constructions. Its presence or non-presence in intransitive constructions however depends whether the verb takes an agentive subject (one that is volitional); stative verbs are not marked. Precisely pinpointing how the system works, is complicated because Sula's pronominal prefixes serve alternative functions as well: along with indexing pronouns on verbs, the markers can indicate progressive aspect as well as disambiguating and changing of reference.

The consultant produces a consistent pattern of alignment, and it seems to conform with the patterns of many other Sula speakers. Whether this pattern represents
the language as a whole is an open question. The pattern shows a system of split alignment and animacy, where first-person subjects follow an Active–Stative classification in which transitive verbs and agentive intransitive verbs are marked for pronominal prefixation. non-first-person, human subjects are marked along ergative–absolutive lines, and verbs are not marked to agree with non-human subjects.

**Table 62. Subject and Agreement Markers**

<table>
<thead>
<tr>
<th>Basic Alignment, with no aspectual or reference functions(^{158})</th>
<th>1(^{st})</th>
<th>2(^{nd})</th>
<th>3(^{rd})</th>
<th>Non-Human</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject of transitive verb</td>
<td>a-</td>
<td>gu-</td>
<td>i-</td>
<td>Ø-</td>
</tr>
<tr>
<td>Subject of agentive intransitive verb</td>
<td>a-</td>
<td>Ø-</td>
<td>Ø-</td>
<td>Ø-</td>
</tr>
<tr>
<td>Subject of non-agentive intransitive verb</td>
<td>Ø-</td>
<td>Ø-</td>
<td>Ø-</td>
<td>Ø-</td>
</tr>
<tr>
<td>Direct Object</td>
<td>Ø-</td>
<td>Ø-</td>
<td>Ø-</td>
<td>Ø-</td>
</tr>
</tbody>
</table>

**24.2 Transitive verbs are marked to agree with human subjects**

In basic, non-aspect-marked form, the **first-person** subject's verbal marker is present in transitive constructions. Its presence or non-presence in intransitive constructions depends on whether the verb takes an agentive subject; stative verbs are not marked for prefixation. Precisely pinpointing how the system works is complicated because Sula's pronominal prefixes serve alternative functions: markers are used both to indicate progressive aspect and to disambiguate reference.

**First person**

(364)  **ak a-**  **dota**  **mon**  
I 1SG.AGR- strike you
'I hit you.'

\(^{158}\) As will be demonstrated below, prefixes can sometimes be used for aspectual or reference functions.
Non-first person

(365) mon gu- dota Ak
You 2SG.AGR-strike I
'You strike me.'

Non-human

(366) as uka Yanto
dog bite Yanto
'The dog bites Yanto.'

Intransitive verbs are marked to agree with agentive first-person subjects but not with non-first-person subjects (except when indicating progressive aspect or disambiguating reference in discourse when an overt pronoun is not present)

First person

(367) ak a- laka-nan bo wai-ewa
I 1SG.AGR-walk-bathe to water-flow
'I go to the river to bathe.'

Non-first person

(368) mon laka-nan bo wai-ewa
You walk-bathe to water-flow
'You go to the river to bathe.'

Non-human

\[^{159}\,\text{gu-laka nan} \] would be acceptable in discourse to reinforce or disambiguate reference, but \textit{mon gu-laka nan} would be quite rare.
(369) as lewa bo wai-ewa
    dogrun to river
    'The dog runs to the river.'

Intransitive verbs are typically not marked to agree with non-agentive subjects.

**First person**

(370) ak bua bia kau
    I fall LOC tree
    'I fall from the tree.'

**Non-first person**

(371) mon bua bia kau
    You fall LOC tree
    'You fall from the tree.'

**Non-human**

(372) as bua bia kau
    dog fall LOC tree
    'The dog falls from the tree.'

Objects are grammatically linked by word order; there is no object marking on verbs.

**First person**

(373) mon gu- dota ak
    You 2SG.AGR- strike me
    'You hit me.'

**Non-first person**

---

160 i-lewa bo wai-ewa is reportedly never accepted with non-human subjects. It is possibly permitted with anthropomorphized non-human subjects—I observed children use it while watching a cartoon on my iPad—but the correctness of this was not verified with adult speakers.
**Chapter 3: grammar**

(374)  
\[ \text{ak} \ a- \ dota \  \text{mon} \]
I 1SG.AGR- strike you
'I hit you.'

_Non-human_

(375)  
\[ \text{mon} \ gu- \ dota \  \text{as} \]
You 2SG.AGR- strike dog
'You hit the dog.'

### 24.3 Aspectual function of pronominal prefixes

As discussed in section 13 _Expressing time_, Sula has aspect markers that indicate the completeness of an action.

**unmarked**

(376)  
\[ \text{ki'i} \ i- \ bamap \ kena \]
3SG 3SG.AGR cook fish
'He cooks fish.'

**completive**

(377)  
\[ \text{ki'i} \ i- \ bamap \ kena \  \text{pel} \]
3SG 3SG.AGR cook fish ASPECT
'He finished cooking the fish.'

In addition to marking aspect with overt aspect markers, progressive aspect can be conveyed with a secondary function of the language's subject prefixes. This aspectual function of pronominal prefixation complicates deciphering Sula’s alignment system, because when marking progressive aspect, non-first-person subjects are also marked on intransitive verbs. This occurs across verb classes.
Transitive verbs with overt objects are reportedly most grammatical with pronominal prefixes:

**Direct object, pronominal prefix:**

(378) *Ikbal i-* gaya man ika
Ikbal *3SG.AGR-* eat chicken this
'Ikbal eats this chicken.'/'Ikbal is eating this chicken.'

Pronominal prefixes are optional when direct objects are not overt. In these sentences, subject-marked verbs convey progressive aspect:

**Without prefixes, no aspectual information is conveyed:**

(379) *Ikbal gaya*
Ikbal eat
'Ikbal eats.'

**With prefixes, progressive aspectual information is conveyed:**

(380) *Ikbal i-* gaya
Ikbal *3SG.AGR-* eat
'Ikbal is eating.'

Intransitive, unergative verbs with non-first-person subjects:

**Without prefixes, no aspectual information is conveyed:**

Yanto nona (tetapi) matapia-basa baumunara.
Yanto sleep (but) people-other work
'Yanto sleeps while others work.'

**With prefixes, progressive aspectual information is conveyed:**
Intransitive, unaccusative verbs with non-first-person subjects:

**Without prefixes, no aspectual information is conveyed:**

(382) **mon bua neu bia kau**  
You fall down LOC tree  
'You fall down from the tree.'

**With prefixes, progressive aspectual information is conveyed:**

(383) **mon gu- bua neu bia kau**  
You 2SG.AGR fall down LOC tree  
'You are falling down from the tree.'

### 25 Causatives

Causatives are formed with the prefixes bau-, baka-, and mak- (see also section 22.10). There is no predictable difference in distribution between the prefixes, and in fact sometimes multiple prefixes can be chosen to form words with different meanings. No subtle semantic differences have thus far been identified, but there are definite word-specific differences in distribution. bau- is found in the most forms and seems to be most productive:

(384) **bau-mata 'kill, murder' (lit. 'make dead')**

(385) ***baka-mata 'kill, murder' (lit. 'make dead')**

(386) ***mak-mata 'kill, murder' (lit. 'make dead')**
(387) *bau-munara 'to work'

(388) *baka-munara 'to work'

(389) *mak-munara 'to work'

(390) baka-toya 'point, show'

(391) *bau-toya 'point, show'

(392) *mak-toya 'point, show'

Some words are able accept multiple prefixes to affect the same meaning:

(393) *bau-gehi 'construction' (lit. 'make standing')

(394) baka-gehi 'construction' (lit. 'make standing')

(395) *mak-gehi 'construction' (lit. 'make standing')

Some words are able accept multiple prefixes to affect the different meanings:

(396) baka-nau 'to message' (direct digital messaging or conveying a message on another's behalf) (lit. 'make known')

(397) *bau-nau 'to message' (direct digital messaging or conveying a message on another's behalf) (lit. 'make known')

(398) mak-nau 'to introduce' (lit. 'make known')

Causative constructions are straightforward, simple sentences with a causative prefix on the verb where subject prefixes would otherwise go.
25.1 non-causative construction

(399) ana-mehi-nana  mena
        child-small-small  cry
   ‘The baby cried.’

25.2 causative construction with bau-

(400) nyaya  bau-  mena  ana-mehi-nana
        mother  make  cry  child-small-small
   ‘The mother made the baby cry.’

(401) Yanto  bau-  nona  ana-mehi-nana
        Yanto  make  sleep  child-small-small
   ‘Yanto made the baby sleep.’

25.3 causative construction with baka-

(402) nyaya  baka-  mena  ana-mehi-nana
        mother  make  cry  child-small-small
   ‘The mother made the baby cry.’

(403) Yanto  baka-  nona  ana-mehi-nana
        Yanto  make  sleep  child-small-small
   ‘Yanto made the baby sleep.’

There are also semantic causatives—constructions whose verb is inherently causative and thus do not require a causative prefix.

(404) Yanto  soya  ana-mehi-maana  moma  as
        Yanto  tell  child-small-male  hit  dog
   ‘Yanto told the boy to hit the dog.’

(405) Yanto  soya  ana-mehi-maana  i-  moma  as
        Yanto  tell  child-small-male  3SG.AGR  hit  dog
   ‘Yanto told that the boy hit the dog.’
26 Reduplication

This section is a preliminary investigation into Sula’s system of reduplication. Reduplication is a process in which a word or part of a word is repeated in succession. While this section is not comprehensive or conclusive, it provides groundwork for future studies into the topic at greater depth. I was unable to conduct a detailed survey of the language's reduplication patterns, but by comparing field notes against Charles Grimes's (1992) thorough analysis of the related Buru language, it was still possible to identify several patterns in Sula and their likely functions.

26.1 Types of reduplication present in Buru

Grimes (1992) identifies the following reduplication types in Buru: (1) phrasal duplication, (2) multiple repetition, (3) full reduplication of stem, (4) reduplication of root, (5) reduplication of first CVC, (6) reduplication of the first CV, (7) reduplication of the first C. Grimes also states that phrasal question words become indefinite when reduplicated. (Grimes 1992: p. 130)

26.2 Phrasal reduplication

Although a handful of instances were identified where a phrase is successively repeated, there is no evidence as to the grammatical affect in Sula.

(406) nona-gega nona-gega wakdab hia para
       sleep-wake  sleep-wake,  miss  one  just
         ‘I sleep and wake and sleep and wake; I just miss someone.’
26.3 Reduplication of Verbs

Grimes draws a distinction between active and non-active verbs in his analysis of Buru. The active category includes verbs capable of taking an actor subject, whereas the non-active category includes verbs that take only one core argument, and whose subjects must be in the role of undergoer. Active verbs are further split into transitive and intransitive, the intransitive of which have only one core argument and can optionally take an undergoer subject.

The transitive active verbs have two core arguments, the subject of which being restricted to the actor role. According to Grimes, Buru has no canonical adjectives, and all attributive modifiers are derived of verbs. Although this grammatical sketch does not analyze Sula verbs the same way, for the purposes of making a parallel comparison, this section follows Grimes’s analysis.

26.4 Reduplication of active verbs

As for multiple repetition: Grimes (1992) describes reduplication of active verbs as producing an iterative aspect wherein the duration of the aspectual quality is contextually based. Though far from conclusive, this analysis appears to apply to reduplicated active verbs in Sula as well.

26.5 active intransitive

(407) i- laka
   3SG.AGR walk
   ’S/he walks.’
(408) \[ i- \text{laka-laka} \]
\[ 3\text{SG.AGR} \text{ walk-walk} \]
'S/he keeps walking.' ('S/he is on a journey.')

(409) \[ i- \text{noi} \]
\[ 3\text{SG.AGR} \text{ ask} \]
'S/he asks.'

(410) \[ i- \text{noi-noi} \]
\[ 3\text{SG.AGR} \text{ ask-ask} \]
'S/he keeps asking.' ('S/he is a beggar.')

26.6 active transitive

(411) \[ \text{mon gu-} \text{ dota ak bib} \]
\[ 2\text{SG} \text{ 2SG.AGR strike 1SG goat} \]
'You hit my goat.'

(412) \[ \text{mon gu-} \text{ dota-dota ak bib} \]
\[ 2\text{SG} \text{ 2SG.AGR strike-strike 1SG goat} \]
'You keep hitting my goat.'

26.7 Reduplicated modifying, non-active verbs (adverbs of manner)

Grimes analyzes Buru adverbs as derivational products of underlyingly non-active verbs. Sula does not have derivational morphology for adverbs, but Sula adverbs can be reduplicated, as shown below in the modification: verb2 → verb example. The following example might represent an instance of verbal modification by a reduplicated noun, but this is uncertain. \text{lea-lea} has been translated as 'slowly'/'leisurely'/'calmly', but the non-reduplicated form, \text{lea} is translated as a nominal 'sun' and 'place' (in dialects that have dropped the intervocalic \text{h} in \text{leha}). It is unknown whether \text{lea-lea} is derived from either noun or if it is an independent lexeme. The modification: noun2 → verb example below
represents verbal modification by a reduplicated base that seems to already function as a modifier prior to reduplication, and which seems unable to function as a main sentence verb (further data collection will be necessary to verify these observations).

**[modification: verb2 → verb]:**

(413) mon bena pia-pia para
2SG ride safe-safe just
'Ride safely.'

**[modification: noun2 → verb]:**

(414) wai ewa lea-lea
water flow placid\(^{161}\)
'The water flows slowly.'

**modification:**

**[modifier → verb]**

(415) koi bisnoya bahu
NEG.IMP talk fast
'Don't talk quickly.'

**[modifier2 → verb]**

(416) koi bisnoya bahu-bahu
NEG.IMP talk fast-fast
'Don't talk so quickly.'

**[without verb]**

\(^{161}\) lea-lea (reduplicated) means ‘placid’, especially of water, but lea (non-reduplicated) means ‘sun’. It is unclear if lea-lea is indeed a reduplicated form of lea or incidentally similar.
26.8 Reduplicated non-modifying, non-active main verbs

According to Grimes, when non-active verbs are not modifying another verb but are themselves the main sentence verb, a reduplication process "indicates intensity." When the reduplicated word is the sentence's main verb, the intensity is intrinsic, whereas the intensity is transferred to the main verb when the reduplicated word is in modifier rather than primary-verbal position. (following ex. re-glossed from 129: Grimes, p. 76)

26.9 Buru intensity

(418)  *koi  bahu
NEG.IMP  fast
'Don't be quick.'

(419)  em-pei=em-pei 'really sick (sick-sick)'

(420)  gaya sa mota-mota do dab-dab baha-ha
eat sagu hot-hot with chili.sauce spicy-spicy
'Eat hot sagu-palm starch with chili sauce that's quite-spicy.'
The following example represents the type of sentences needing grammaticality judgements and accurate translations to determine how to correctly parse reduplicated modifiers and reveal their syntactic implications (e.g. description-transfer hierarchies, and/or stacking-limitations on reduplicated modifiers). In the example, *bahu-bahu* has been introduced to modify *gaya*, resulting in: 'very-quickly eat,' however after this point, it is unclear how to proceed in mapping the sentence's descriptive features. Is the [[very-white sagu] very-hot], or is the [sagu very, very [white-hot]]? *ponoida-ponoida* indicates that more than one 'friend' (perhaps 'each friend') is present, but if 'friends' are modified by *dabu-dabu*, the result would be: [quite-spicy [very-drunk friends]], but if *bahaha* modifies *dabu-dabu*, the result will be [[very-spicy 'chili-sauce'] friends] (which is rather nonsensical). At present, insufficient fieldwork has been conducted to determine how to parse reduplicated modifiers that have been stacked.

### 26.10 Additional-Descriptors

(421) *?gaya bahu-bahu sa bot-bot mota-mota do eat fast-fast sagu white-white hot-hot with

*ponoida-ponoida* *dab-dab* *baha-ha*
friend-friend spicychili.sauce spicy-

```
...
```

### 26.11 Distributive Noun Reduplication

Of the reduplication types described in Buru, the distributive nominal is the most readily observable in Sula. However, while this process in Buru results in a semantic value close to 'each noun' rather than 'nouns', the process seems to result in a value closer to plurality in Sula.
In the next example, *everyone* is derived from the lexeme *mua* ('complete'/'all'). However while *sanohi-sanohi* logically represents more than one individual in the following example, my data provide no indication that the reduplicated form references all members distributed across the category of 'family'; that is, it seems more likely that the speaker plans to buy *coto Makassar* for some plurality of family members rather than for everyone who is in the speaker's family (the category of 'family' in Sula encompasses a great many individuals).

### 26.11.1 Distribution effect

(422) *sai yau bia hai Sua bakareha yaya do baba*  
go far from land Sula separate mother and father  
'I went far from Sanana island and was separated from my mother and father,

*sanohi ponoida bubai do mua-mua bo hai Sua*  
family friend darling and everyone LOC land Sua  
'my family and friends, my darling, and everyone else on Sula.'

### 26.12 Plural effect?

(423) *bo Falahu ak baha gaya coto*  
LOC Falahu 1SG buy eat stew  

*Makassar buat sanohi-sanohi*  
Makassar for family-family  
'I buy Makassar-style stew in Falahu for my family.'

### 26.13 Native vs. loan reduplication

Two patterns emerge among reduplicated loanwords. Following the pattern of native Sula vocabulary, we would expect *uang-uang* ('money-money') in the next example to
mean either 'monetary bills' or 'each monetary bill', but in the following example, we see that it instead means 'money' just as in the source language.

### 26.13.1 Reduplicated loan [reduplicated prior to import]

(424) **uang-uang** duk saik ak  
  money-money come here 1SG  
  bit bihu bo Sua pai  
  want return LOC Sula ASPECT  
  'Money, come my way! I want to return to Sula.'

On the other hand, **sedikit-sedikit** in Indonesian means 'a little bit', whereas in the next example it intensifies the smallness of **pip** ('money'), resulting in 'very little money'. This raises an interesting possibility that loanwords introduced in reduplicated form import the semantic effect of reduplication in the source language with them, while loanwords that are reduplicated after introduction follow the native-Sula model. Though this is a logical hypothesis, a much broader survey of the phenomenon is needed.

### 26.13.2 Reduplicated loan [reduplicated following import]

(425) ak bit faa moya sebab  
  1SG want buy NEG because  
  ak pip dahi sedikit-sedikit  
  1SG money exist little-little  
  'I don't want to go shopping, because I have very little money.'

### 26.14 Reduplication in sum

Comparing Sula reduplication to Grimes's (1992) Buru description, it is clear that while there are some similarities, significant differences exist between the two languages
regarding principle reduplication classes and their syntactic and semantic functions. With regard to the principal classes of reduplication and the corresponding syntactic and semantic functions; unambiguous examples were found of Sula reduplication for three of the structures identified in Buru: (1) full reduplication of stem, (2) reduplication of root, and (3) reduplication of the first CV. There is also a possible additional structure in Sula: reduplication of final CV (e.g. baha 'spicy' ➔ baha-ha 'quite spicy').

Sula and Buru share properties associated with reduplication of active verbs and non-active, modifying verbs (adverbs of manner). Likewise, Sula shares the intensity transfer associated with reduplicated non-active main verbs in Buru, but this may extend beyond the verbal category in Sula. Lastly, Sula was found to share the distributive-noun reduplication process of Buru.

Regarding native versus loan reduplicated forms, there is some indication that loanwords can optionally enter Sula in their matrix form or in an already reduplicated form—in which case the reduplicated forms retain the semantic functions associated with reduplication in the source language. Based on this information, it is likely direct transference of Indonesian reduplications is permitted because modern Sula speakers are raised bilingual Indonesian speakers, and because Indonesian is the dominant language of most day-to-day speech domains.

27 Complex sentences

It is hard to come upon a definition of sentence that satisfies all linguists, but for the purposes of sketching this grammar, I am working with the following definition: a sentence is the basic verbal unit representing a complete thought. A sentence is a
structural element that, in practice, usually includes (or at least implies) a subject and a verb and often direct or indirect objects and other complements.

27.1 relative clauses

Sula relative clauses mirror noun modification. That is, the head noun is followed by the clause that modifies it. Typically either a pronoun, pronominal prefix, or the borrowed Indonesian relativizer, *yang* is employed, but the same effect can also be achieved with a pause in speech. Because restrictive relative clauses seem to be formed only with *yang*, it is likely that Sula did not possess a native relative clause construction.

27.1.1 non-restrictive, possible RC with pronoun

(426)  
\begin{tabular}{llll}
                              & 1SG  & like & NEG & village-head  \\
\textit{ak} & \textit{suka} & \textit{moya} & \textit{kapala-desa}  \\
\textit{ik} & \textit{ki’i} & \textit{babua} & \textit{kadiga}  \\
\end{tabular}

‘don't like the village leader, who is totally nuts.’

27.1.2 non-restrictive, possible RC with pronominal prefix

(427)  
\begin{tabular}{llllll}
                              & child & female & LOC & island & Mangon & Mangon  \\
\textit{ana} & \textit{fina} & \textit{bo} & \textit{hai} & \textit{i-}  \\
\textit{laka} & \textit{nan} & \textit{bo} & \textit{Wai-tebi}  \\
\end{tabular}

‘the girl from Mangoli Island, who goes to bathe in the Waitebi river.’
27.1.3 restrictive RC with yang

(428) kau neka kau yang aya te?
      tree    that tree which big   Q
‘Is that the tree which is big?’

27.1.4 possible RC with pause

(429) a- bamap sa (pause) bot do mina
     1SG cook sagu (pause) white and tasty
‘I cook the sagu paste that’s white and tasty.’

27.2 Complements

Sula complements can be formed without an overt complementizer or with the
borrowed Indonesian complementizer, bahwa.

27.2.1 Examples without overt complementizer

(430) ak nap-geka mai moya i- mata
     1SG headache but NEG 3SG.AGR- die
‘It doesn’t surprise me that he died.’

(431) ki’i i- mata mai a- pusi moya
     He 3SG.AGR- die but 1SG.AGR- headache NEG
‘That he died, doesn’t surprise me.’
27.2.2 Examples with overt complementizer

(432) Yanto nau bahwa a- duk,
   Yanto know COMP 1SG.AGR-come

   tapi a- nau moya
   but 1SG.AGR-know NEG

   bahwa i- duk atau moya
   COMP 3SG.AGR-come or NEG

   'Yanto knows that I’m coming, but I don’t know whether Yanto will come or not.'

27.3 Conjunctions

Conjunctions in Sula closely mirror English: words, phrases, and clauses can all be conjoined; coordinating conjunctions (when present) are situated between connected parts of a sentence; subordinating conjunctions introduce the subordinate clause; and when there is a dependent and independent clause, the independent clause comes first in a prototypical subordinately conjoined sentence.

The three most common conjunctions are do 'and', te 'or', and mai 'but'.

27.3.1 do 'and'

(433) ak lal suka fia do nui
   1SG inside like banana and coconut

   'I like bananas AND coconut.'

27.3.2 te 'or'

(434) mon lal eya fia te wew?
   2SG inside ? banana or mango

   'Do you want banana or mango?'

333
27.3.3 *mai* 'but'

(435)\begin{verbatim}
ak lal suka wew moya mai
\end{verbatim}
\begin{tabular}{llllll}
1SG & inside & like & mango & NEG & but \\
\end{tabular}

\begin{verbatim}
ak lal suka fia
\end{verbatim}
\begin{tabular}{llllll}
1SG & inside & like & banana & \\
\end{tabular}

'I don’t much like mangoes, but I like bananas a lot.'

The following lists includes additional common conjunctions (including synonymous conjunctions borrowed from Indonesian):

**Table 63. Sula conjunctions**

<table>
<thead>
<tr>
<th>Sula</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>do</td>
<td>'and'</td>
</tr>
<tr>
<td>te</td>
<td>'or'</td>
</tr>
<tr>
<td>mai</td>
<td>'but'</td>
</tr>
<tr>
<td>dan</td>
<td>'and'</td>
</tr>
<tr>
<td>atau</td>
<td>'or'</td>
</tr>
<tr>
<td>tapi</td>
<td>'but'</td>
</tr>
<tr>
<td>tetap</td>
<td>'but'</td>
</tr>
<tr>
<td>tetapi</td>
<td>'but'</td>
</tr>
<tr>
<td>kalo</td>
<td>'if'</td>
</tr>
<tr>
<td>son</td>
<td>'because'</td>
</tr>
</tbody>
</table>
| bia    | 'of' / 'more than'

**Non-conjoined sentences**

*Two simple, non-conjoined sentences:*

(436)\begin{verbatim}
ak lal suka kof. ak lal suka teh.
\end{verbatim}
\begin{tabular}{llllllll}
1SG & inside & like & coffee & 1SG & inside & like & tea & \\
\end{tabular}

'I really like coffee. I really like tea.'
27.3.4 coordinating conjunctions

te

(437) laka  te  moya?
    walk  or  not
    'to go or not?'

(438) (mon)  (gu-) laka  te  moya?
    You  (2SG.AGR-) walk  or  not
    'Will you go or not?'

(439) kim  bit  (gi)- win
    2SG.F want  (2SG.F.AGR)- drink

    kof  te  (gi)- win  teh?
    coffee  or  (2SG.F.AGR)- drink  tea
    'Do you want to drink coffee or to drink tea?'

do

(440) ak  lal  suka  kof  do  teh
    1SG  inside  like  coffee  and  tea
    'I really like coffee and tea.'

(441) ak  lal  suka  kof  do  lal  suka  teh
    1SG  inside  like  coffee  and  inside  like  tea
    'I really like coffee and really like tea.'

(442) ak  lal  suka  kof  do  ak
    1SG  inside  like  coffee  and  1SG

    lal  suka  teh  moya
    inside  like  tea  not
    'I really like coffee and I don't really like tea.'

mai, (te)tap(i)
'That he died, doesn’t surprise me.' (doesn’t cause me headache)

'I will go to dinner with you, but I don’t want to eat fish.'

'Yanto slept, but the others worked.'

'I really like coffee but I don’t really like tea.'

27.3.5 Subordinating conjunctions

son, sebab

'Don’t sit under a coconut tree, because a coconut will fall on you.'
**sebab** a- bis pel
because 1SG.AGR satisfied ASP
'I don’t want to eat, because I’m full.’

(449) koi laka kaka-hoi **sebab** uya
NEG.IMP walk outside because rain
'Don’t go outside, because it’s raining.’

**kalo, kalau**

(450) a- laka **yota** haiwan
1SG.AGR walk hunt animal

bo awa **kalo** faf uka kasbi
LOC field if pig bite cassava
'I go hunting in the fields, if pigs eat the cassava.

(451) a- **baha** fa’a moya
1SG.AGR buy thing NEG

**kalau** ak pip dahi moya
if 1SG money exist NEG
'I don’t buy things, if I have no money.’

27.3.6 Correlative conjunctions

Sula does not seem to have correlative conjunctions that consist of conjunction pairs joining alternative phrases together—for example either... or in I’d like **either** coffee or tea. Sula speakers form similar statements using a single conjunction.

(452) ak bit win kof te teh
1SG want drink coffee or teh
'I’d like to drink coffee or tea.’
(453)  ak   lal   suka   kof   bia   teh  
1SG  inside  like  coffee  of  tea
'I like coffee more than tea.'

28 Sula language sentences and texts

(Still compiling. To be added prior to defense)

29 Conclusion

While far from comprehensive, the previous pages have identified many basic grammatical structures in the previously undocumented Sula language. It is my hope that these pages will be of use to future researchers and aid workers desiring to learn the language's fundamentals in advance of their projects. It will be an added bonus if these pages also provide answers to other linguists and a foundation for future exploration and documentation of the language.
Chapter 4: lexicon
The following dictionary includes many of the words I have collected during my research into the Sula language. It is by no means exhaustive, but it has ample basic vocabulary for a beginning Sula learner to hit the ground running. Where possible, entries record the location and year that items were collected. All items (except where noted otherwise) were provided or verified by more than one speaker. In some cases my first source of a vocabulary item is noted, but in other cases that was not possible, because I either neglected to note the source or there were simply too many sources for a source notation to be meaningful.

This dictionary cannot always be used to indicate correct dialect forms, unfortunately, because it includes data from elicitations that began prior to my ability to differentiate Sula dialects. Throughout most of the course of my work, time constraints and logistical constraints also prevented setting up the controls that would be necessary to gather data that could be cleanly attributed to various dialects—for instance, my elicitation sessions were often carried out in Sula, where I would speak a mishmash of the language including words learned in various locations and from various speaker demographics. When this was not the case, I spoke a mixed form of Indonesian that blended Basa Malayu (regional Malay) with standard Bahasa, and I often worked with assistants from villages other than the one where I was eliciting. As such, my consultants were not always primed to first produce their own dialect's preferred forms.

An exception to this are the wordlists and dialogue samples that I compiled for comparative sociolinguistic research. These lists were rigorously balanced by age, gender, and location, and always with multiple speakers of the same dialect involved to keep consultants primed in their respective dialects. These word lists can and should be
used for Sula dialectology (reference dissertation section or archive entry).

Most of the dictionary entries also include the name of the island it was collected on (Sanana or Mangon), and this usually (but not always) indicates whether a form is of Sanana or Mangon type. The exception to this is words from mixed dialect regions where settlers from one island established a new community on the other island. Please also refer to chapter two for a description of the language's main dialect division. Information in that chapter will in most cases provide enough information to discern how dictionary terms should be altered to form the other dialect's version.

This wordlist pulls from various elicitations conducted over the past ten years. The primary elicitation sources were Swadesh lists for basic vocabulary; the Holle list vocabulary set via Stokhof (1980) for expanded basic vocabulary items, and for referencing language change over the past century; and the lonely Planet Indonesian edition's glossary, for more practical, modern travel language; and various topicalized word lists. Except where otherwise noted, each entry was produced independently by at least two speakers or produced by one speaker and independently verified by at least one more. The list is probably overly inclusive for lexicographic standards, but since there are so few sources of Sula vocabulary available, I determined it better to be overly inclusive than to omit potentially useful words. Notations are often made to indicate suspect items.
**abu** 'dust' | collected on: Mangon | source: numerous | 2010 | note: loan from Bahasa Indonesia.

**abu tuka** 'bush' | collected on: Mangon | source: entry from Holle List; unable to verify | note: this entry is present in the Holle list, but I was unable to independently verify it. I suspect it results from a misunderstanding, as *tuka* is the Mangon term for *lal* 'inside', and I cannot guess what *abu* could mean for that to be logical. I suspect the interviewer pointed at a bush, and the informant understood the question to be the location of the bush rather than the general word for 'bush'.

**adat** 'ritual' / 'custom' / 'ceremony' | Bahasa Indonesia: upacara, adat | collected on: Sanana | source: numerous | 2010 | note: loan from Bahasa Indonesia.

**aduk** 'to arrive' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | note: this entry is a common error from the Holle lists. Rather than 'to arrive', the informant responded 'I arrive'. It is common in Sula to frame responses this way rather than provide root forms of words. In this case, *duk* is the base form for 'come' and 'arrive'. Interestingly, the Holle list collected *aduk* on Mangon, where a final vowel would be expected. Since *aduki* was also gathered in Mangon, I suspect an informant either provided an additional form based on knowledge of other dialects, or the informant was a Sanana transplant.

**aduki** 'to arrive' | collected on: Mangon | source: numerous | note: as above, this form glosses as 'I come', and it is the expected form of the word for Mangon.

**afan** 'to work' | collected on: Sanana | source: two to three consultants | note: verified from Holle as an archaic synonym of *baumunara*

**afmai** 'ashes' | collected on: Mangon | source: numerous | 2010-2019

**aftuka** 'ash' / 'inner fire' | Bahasa Indonesia: *abu* | collected on: Sanana | source: numerous | 2010–2019


**ahad mua** 'weekend' | Bahasa Indonesia: akhir minggu | collected on: Sanana | source: numerous | 2010–2019 | note: *ahad* is a loan from Bahasa Indonesia.

**aheka moya** 'to refuse' | Bahasa Indonesia: menolak [tolak] | collected on: Sanana | source: numerous | 2010–2019
aji mat 'talisman' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: the term was understood but said to be archaic

ak fa 'my things' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

ak gahia ak 'I myself' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: This Holle list item is likely the result of a miscommunication. The phrase translates as 'I alone I'. Although semantically similar, it is not grammatically reflexive. The reflexive form is ak dit 'I myself'

ak ngausu mon 'I love you' | Bahasa Indonesia: Aku cinta kamu | collected on: Sanana, Malbufa village | source: numerous | 2019 | note: it is more common to proclaim strong 'like' than 'love'


akafoi 'drink (bowl)' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: archaic

aku / ak 'I' | (1st person singular pronoun) | Bahasa Indonesia: saya | collected on: Mangon, Sanana | source: numerous | note: a- is the corresponding agreement marker.

aku nungga aku 'I myself' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: I was unable to verify this Holle list form, It could be dialect

alam 'universe' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I received this form as 'the world'. It is likely a loan from Bahasa Indonesia meaning 'nature', 'realm', 'world'

alasan 'reason, for' | Bahasa Indonesia: alasan, untuk (Loan) | collected on: Sanana | source: numerous | 2010–2019

almanak 'calendar' | Bahasa Indonesia: kalendar (Loan) | collected on: Sanana | source: numerous | 2010–2019

am / ami 'to squeeze' / 'pinch' | Bahasa Indonesia: memeras | collected on: Sanana, Mangon | source: numerous | 2010–2019 | note: this form is abbreviation of gami / gam 'squeeze'

amande 'almond' | Bahasa Indonesia: amandel (Loan) | collected on: Sanana | source: numerous | 2010–2019
an samali, an samoli 'last (temporal)' | collected on: Mangon | source: single consultant | 2014 | note: Holle lists both forms, and they do both exist as alternate pronunciations, but I’m not convinced it is dialectic. I have heard the same speakers alternate between a and o in several words, and while it could be an ēther/either situation, I suspect there might be an elusive phonological process at work

ana 'child' / 'youngest child' | Bahasa Indonesia: anak | collected on: Sanana | source: numerous | 2014

ana fina 'daughter' / 'girl' (preteen and up) | Bahasa Indonesia: anak perempuan / cewek | collected on: Sanana | source: numerous | 2010–2019 | note: 'child' + 'female'

ana fina me ihi 'girl' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I was completely unable to verify this Holle list form. ana fina is indeed 'girl' but it is unclear what me ihi means. ihi alone means 'flesh'/ 'meat'

ana fina nana 'girl' | collected on: Mangon | source: numerous | 2010-2019

ana fini 'daughter' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: all of my contacts produced fina regardless of location

ana koha 'child' / 'youngest child' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: koha/koa also indicates virginity

ana ma'ana 'son' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I can easily imagine this Holle list form used to indicate one’s son, but at its most basic, it simply means 'a man'

ana ma'ana me'ihi 'boy' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: this form is understandable and said to be perfectly acceptable, but my consultants consistently produced ana mehi maana (disregard presence of glottal stops)

ana ma'uwa 'stepdaughter' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

ana maana 'son' | Bahasa Indonesia: anak laki-laki | collected on: Sanana | source: numerous | 2010–2019 | note: 'child' + 'male'

ana mahua 'stepdaughter' | collected on: Sanana | source: numerous | 2010-2019

ana mana nana 'boy' | collected on: Mangon | source: numerous | 2010-2019
**ana mehi** 'child' / 'children' | Bahasa Indonesia: anak-anak | collected on: Sanana | source: numerous | 2010–2019 | note: it is unclear what the /mehi/ morpheme glosses to

**ana mehi fîna** 'girls' | Bahasa Indonesia: anak perempuan | collected on: Sanana | source: numerous | 2010–2019

**ana mehi maana** 'boy' | Bahasa Indonesia: anak laki-laki | collected on: Sanana | source: numerous | 2010

**ana mehi nana** 'small child' | Bahasa Indonesia: bayi | collected on: Sanana | source: numerous | 2010 | note: usually used for toddler-aged children (it is unclear what the /mehi/ morpheme glosses to)

**ana nana** 'baby' | Bahasa Indonesia: bayi | collected on: Sanana | source: numerous | 2010–2019 | note: 'child' + 'small' When not used figuratively, this is limited to infants

**ana nopa** 'grandchild' | collected on: Sanana | source: numerous | 2010–2019

**ana opu** 'grandchild' | collected on: Mangon | source: three to five consultants | 2010–2019

**ana piara** 'adopted child' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**ana sil** 'adopted child' | collected on: Sanana | source: numerous | 2010–2019

**ana tiba** 'child' / 'oldest child' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**angi** 'wind' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: likely loan from Bahasa Indonesia.

**ani** 'who' | Bahasa Indonesia: siapa | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**ap / 'ap** 'fire' / 'light' | Bahasa Indonesia: api / lampu / cahaya | collected on: Sanana | source: numerous | 2010 | note: ranges from 'light' in general to modern electric lighting

**ap dawika** 'light' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: the form is correct, but it better translates to 'daylight'

**apakid** 'to hear' | Bahasa Indonesia: mendengar | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: this Holle list entry is poorly translated, as it misses the
The consultant’s framing of the term. What the consultant actually said was *a-paked* ‘I hear’ (*a-* + *baked* with intervocalic fortition)

**apel** 'apple' | Bahasa Indonesia: apel (Loan) | collected on: Sanana | source: numerous | 2010–2019

**apfei / apfe** 'smoke' | Bahasa Indonesia: asap | collected on: Sanana | source: numerous | 2010

**api** 'fire' | Bahasa Indonesia: api | collected on: Mangon | source: numerous | 2010

Note: loan from Bahasa Indonesia.

**apifei** 'smoke' | Bahasa Indonesia: asap | collected on: Mangon | source: three to five consultants | 2010

**apleha** 'ashtray' | collected on: Sanana | source: numerous | 2010 | Note: literally 'fire location'.

**arbab** 'violin' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | Note: I am skeptical of this Holle list item. *arab* does also mean Arab in Sula, so it seems likely that the consultant was shown a picture of a violin and responded *arab* meaning, 'that’s something the Arabs have'. At that time, and to a degree now, Arabs were considered worldly travelers.

**as** 'dog' | Bahasa Indonesia: anjing | collected on: Sanana | source: numerous | 2010 | Note: see also *fako*.

**as li** 'to bark' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | Note: lit. dog' + 'speech'

**asli** 'original' / 'indigenous' | Bahasa Indonesia: asli | collected on: Sanana | source: numerous | 2010–2019 | Note: loan from Bahasa Indonesia.

**at** 'tongs' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**ata bau** 'grasshopper' | collected on: Sanana | source: numerous | 2010

**atabau (eb)** 'locust' / 'swarm' / 'infestation' | collected on: Sanana | source: numerous | 2010

**atuf akfa** 'to ransom' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**aturan** 'rule' / 'law' | collected on: Sanana | source: numerous | 2010

**au** 'bamboo' | collected on: Sanana | source: numerous | 2010

**au foku** 'joint in bamboo' | Bahasa Indonesia: sambungan bambu | collected on: Mangon, Waitulia village | source: numerous | 2014
au lewa  'bamboo sections between joints' | Bahasa Indonesia: bagian bambu di antara sendi | collected on: Mangon, Waitulia village | source: two to three consultants | 2014

au ponta  'bamboo' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: I was unable to verify this form, It could be dialect or a part of the bamboo plant

au sanga  'bamboo branch' | Bahasa Indonesia: cabang bambu | collected on: Mangon, Waitulia village | source: two to three consultants | 2014

awa  'still (yet)' | Bahasa Indonesia: masih | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

awa  'farm, field, garden' | Bahasa Indonesia: kebun, ladang | collected on: Sanana | source: numerous | 2010–2019

awa bira  'rice-field (dry)' | collected on: Sanana | source: numerous | 2010

awa pamasi  'rice-field (dry)' | collected on: Mangon | source: three to five consultants | 2010

awan  'cloud' | collected on: Mangon | source: three to five consultants | 2010

aya  'great' / 'large' | Bahasa Indonesia: besar | collected on: Sanana | source: numerous | 2010–2019

aya kadiga  'bigger' / 'huge' | Bahasa Indonesia: lebih besar / sangat besar | collected on: Sanana | source: numerous | 2010–2019

aya kadigadiga  'biggest' | Bahasa Indonesia: terbessar | collected on: Sanana | source: numerous (Fagudu Tribe Pohea village) | 2010–2019

ba  'follower' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

ba gahowa  'why' / 'how' | Bahasa Indonesia: kenapa, bagaimana | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

ba ne'ru  'underneath' | Bahasa Indonesia: di bawah | collected on: Mangon, Capuli village | source: three to five consultants | 2015 | note: there is significant phonetic overlap between o and a in Sula. Many words are produced with one or the other depending on the speaker (regional variation), but all dialects do seem to maintain both o and a as distinct phonemes. Compounding the difficulty in explaining their overlap, some speakers seem to alternate within the same word with no clear contextual trigger. For example a Capuli speaker provided bo heha 'underneath' and ba neu 'underneath'. She did not have a
reason for the alternation, but said that they had to be that way (other speakers I worked with did not all agree with her). I suspect an elusive phonological condition exists that causes phonetic vowels to overlap or be substituted, but much regional and speaker variation renders the condition unclear. It will take a long-term, onsite study of the language to sufficiently explain the phenomenon.

**ba'aaha** 'warm (things)'
-collected on: Sanana
-source: entry from Holle List; unable to verify
-c. 1900

**ba'ata** 'tightly fitted'
-collected on: Sanana
-source: numerous
-2010–2019

**ba'iopi mboni** 'to smile'
-collected on: Mangon
-source: entry from Holle List; unable to verify
-c. 1900
-note: boni/mboni is mouth in Mangon dialect, but I could not confirm the meaning of the Holle list entry, *ba'ipi*. For 'smile' I have only ever collected *balela*, *bara em*, and the Indonesian loan, *senyum*.

**ba'itu** 'to flatulate'
-collected on: Mangon
-source: entry from Holle List; unable to verify
-c. 1900

**ba'sa (pel)** 'broken'
-collected on: Sanana
-source: numerous
-2010

**ba'tuh kadiga** 'explode strong'
-collected on: Sanana
-source: numerous
-2010

**ba'uba** 'warm (things)'
-collected on: Sanana
-source: numerous
-2010–2019

**baba** 'father'
-Bahasa Indonesia: bapak
-source: numerous
-2010–2019

**baba ema** 'funny (for men)'
-Bahasa Indonesia: lucu
-collected on: Sanana
-source: Duwila; Fagudu Tribe, Waibao village
-2010–2019

**baba kaka** 'uncle FBv'
-collected on: Sanana
-source: entry from Holle List; unable to verify
-c. 1900
-note: this Holle list entry simply translates to 'father's sibling'. It contains no relative age distinction.

**baba ma'uwua** 'stepparents'
-collected on: Mangon
-source: three to five consultants
-2010–2019

**baba mahua** 'stepfather'
-collected on: Sanana
-source: numerous
-2010–2019

**baba tam** 'father-in-law'
-Bahasa Indonesia: bapak mertua
-collected on: Sanana
-source: numerous
-2010–2019

**baba tina** 'mute' / 'uncle FBv'
-collected on: Sanana
-source: entry from Holle List; unable to verify
-c. 1900
-note: this Holle list entry is confusing. As I understand these morphemes, this should mean 'father hear/listen'

**baba tinga, baba koko** 'uncle MB'
-collected on: Mangon
-source: entry from Holle List
-unable to verify
-c. 1900

**babahu** 'uncle'
-collected on: Sanana
-source: numerous
-2010
**baben** 'turtle' | Bahasa Indonesia: penyu | collected on: Sanana, Malbufa village | source: single consultant | 2019

**babenu** 'tortoise' | Bahasa Indonesia: kura-kura darat | collected on: Mangon, Waitulia village | source: numerous | 2014

**babiku** 'big' / 'fat' | Bahasa Indonesia: gemuk | collected on: Mangon | source: three to five consultants | 2010

**babinu** 'tortoise' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**babir** 'blue' | Bahasa Indonesia: biru | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

**babisa** 'poison' / 'poisonous' | Bahasa Indonesia: beracun | collected on: Sanana | source: numerous | 2010–2019

**babua** 'to bear fruit' | Bahasa Indonesia: berbuah | collected on: Sanana | source: numerous | 2010–2019 | note: bua is a loan from Bahasa Indonesia. This form is a calque of berbua

**babua** 'crazy' / 'delirious' | Bahasa Indonesia: gila | collected on: Sanana | source: numerous | 2010–2019

**babuk** 'bent' / 'crooked' | collected on: Sanana | source: numerous | 2010–2019

**babunu** 'langsat fruit' | collected on: Mangon | source: three to five consultants | 2010–2019

**bacarita** 'story' | collected on: Sanana | source: numerous | 2010–2019 | note: likely Sula morphology on a Bahasa Indonesia loan, cerita

**badafu** 'straight' | collected on: Mangon | source: three to five consultants | 2010–2019

**badagana** 'to dream' | Bahasa Indonesia: bermimpi | collected on: Mangon, Ulfoa village | source: numerous | 2014

**badasa** 'thin' / 'skinny' | collected on: Mangon | source: three to five consultants | 2010–2019

**badium** 'calm' | Bahasa Indonesia: tenang | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

**badu** 'jacket (for men)' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**baeha** 'to wash' | (especially laundry) | Bahasa Indonesia: cucian, mencuci | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019
**baeo / baeu** 'bad (not good)' | Bahasa Indonesia: jelek | collected on: Sanana | source: numerous | 2010–2019

**bafa** 'to carry on the shoulder or back' | Bahasa Indonesia: memikul | collected on: Sanana | source: numerous | 2010–2019

**bafai** 'to sneeze' | Bahasa Indonesia: bersin | collected on: Mangon, Ulfoa village | source: numerous | 2015

**bafe** sleek unicornfish (naso hexacanthus) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**bafe / bafei** 'smoke', 'fog', 'storm', 'grey' | Bahasa Indonesia: asap, abu-abu | collected on: Sanana | source: numerous | 2010–2019

**bafeii** 'green' | Bahasa Indonesia: hijau | collected on: Mangon, Wai U village | source: single consultant | 2014 | note: likely uncommon usage.

**bafoi pa** 'old' / 'a long time' | Bahasa Indonesia: sudah lama | collected on: Mangon, Waitulia village | source: numerous | 2014

**bag** 'thick' | Bahasa Indonesia: tebal | collected on: Sanana | source: numerous | 2010–2019


**bagamai** 'salty' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**bagano** ‘why’ / ‘how’ | Bahasa Indonesia: kenapa, bagaimana | collected on: Mangon | source: three to five consultants | 2014

**bagau** 'lie (not tell truth), impossible (thing)’ | Bahasa Indonesia: bohong | collected on: Sanana | source: numerous | 2010–2019

**bagawagi** 'fat' | Bahasa Indonesia: gemuk | collected on: Mangon | source: three to five consultants | 2010

**bagila** 'pure' / 'perfect' / 'clean' | e.g. bagila gan in lal 'pure as her/his soul’ | Bahasa Indonesia: bersih | collected on: Sanana | source: numerous | 2010–2019

**bagoa** 'cold (temp)’ / 'the cool season’ / 'fresh’ | Bahasa Indonesia: dingin, musim dingin | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

**bagu** 'thick’ | Bahasa Indonesia: tebal | collected on: Mangon | source: three to five consultants | 2010–2019
**bagu lia** 'shy' / 'timid' | Bahasa Indonesia: malu | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**baha** 'to blow' | e.g. the wind | collected on: Mangon, Capuli village | source: numerous | 2015

**baha**/**ba** 'to buy' / 'to purchase' / 'to shop' | Bahasa Indonesia: membeli, belanja | collected on: Sanana | source: numerous | 2010

**baha(ha)**/**ba'a(ha)** 'spicy (hot food)' | Bahasa Indonesia: pedas | collected on: Sanana | source: numerous | 2010

**baha**/**ba** 'to buy' / 'to purchase' / 'to shop' | Bahasa Indonesia: membeli, belanja | collected on: Sanana | source: numerous | 2010

**bahaka** 'to give birth' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**bahakur** 'morinda atrocarpus' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I think this is jackfruit

**bahal** 'to blossom' | e.g. **kau bahal** 'blossoming tree' | Bahasa Indonesia: mekar | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: see also **hal**

**bahal** 'embarrassed' / 'shy' | Bahasa Indonesia: malu | collected on: Sanana | source: numerous | 2010–2019 | note: possibly reddening in the face is a metaphor for blossoming (also **bahal**)  

**bahas** 'to cheat' | Bahasa Indonesia: menipu | collected on: Sanana | source: numerous | 2010–2019 | note: see also **tipu**

**baheha** 'to wash' | (especially to launder clothes) | Bahasa Indonesia: cucian | collected on: Sanana | source: numerous | 2010 | note: see also **baeha**. Variation in words with intervocalic /h/ indicate different stages of a language change across various dialect communities

**bahiu** 'blue' | collected on: Sanana | source: numerous | 2010

**bahoa** 'which' | e.g. **hia baoa** 'which one' | collected on: Sanana | source: numerous | 2010

**bahu** 'early' | Bahasa Indonesia: lekas | collected on: Sanana | source: numerous | 2010–2019

**bahu bahu** 'fast, quick, in a hurry, soon, urgent' | Bahasa Indonesia: cepat, tergesa-gesa, segera | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

**bahu pama** 'fragile (easy break)' | Bahasa Indonesia: gampang pecah | collected on: Sanana | source: numerous | 2010–2019 | note: 'quick' + 'break'

**bahuol** 'quick / fast' | collected on: Sanana | source: numerous | 2010
baifon  'to hide' | (hide oneself) | Bahasa Indonesia: sembunyi | collected on: Sanana | source: numerous | 2010 | note: see also fongi, dori fon, dau fon
baina  'share', 'part' | Bahasa Indonesia: bagi, bagian | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019
baka  'to give birth' | Bahasa Indonesia: penyu | collected on: Sanana, Malbufa village | source: single consultant | 2019 | note: likely euphemism
baka baret  'stop' / 'prevent' / 'lay off' / 'fire' | Bahasa Indonesia: menghentikan | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019
baka han han  'several' | Bahasa Indonesia: beberapa orang | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019
baka kehi  'construction' | Bahasa Indonesia: pembangunan | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019
baka kili yai  'sit (with the knees bent to one side)' | collected on: Mangon | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019
baka nau  'message' / 'to translate' | (direct digital messaging or conveying a message on another's behalf) | Bahasa Indonesia: pesan / menerjemahkan / terjemahkan | collected on: Sanana | source: numerous | 2010–2019 | note: 'make' + 'known' (see also baka paked 'make' + 'heard')
baka paked  'message' | (direct digital messaging or conveying a message on another's behalf) | Bahasa Indonesia: pesan | collected on: Sanana | source: numerous | 2010–2019 | note: 'make' + 'known' (see also /baka nau/ 'make' + 'known')
baka pihu  'return something' | e.g. mon saf baka pihu 'return your drinking bowl' | collected on: Sanana | source: three to five consultants | 2010 | note: the p from pihu is an example of intervocalic fortition
baka tab  'muddy ground' | collected on: Sanana | source: numerous | 2010
baka tin tui / baka tini / baka tui  'to point' | Bahasa Indonesia: menunjuk | collected on: Mangon, Waitulia village | source: numerous | 2014
baka wak  'warn' / 'remind' | Bahasa Indonesia: memperingatkan [ingatkan] | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019
**baka yea** 'delayed' | Bahasa Indonesia: tertunda | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

**bakadigapa** 'freeze' | collected on: Mangon | source: single consultant | 2010 | note: *kadiga* 'strong' + *pa* intervocalic fortition from the first syllable of *bamoda* 'cold'

**bakafa** 'to yawn' | Bahasa Indonesia: menguap | collected on: Mangon, Ulfoa village | source: numerous | 2014

**bakafaaya** 'to yawn' | Bahasa Indonesia: menguap | collected on: Sanana | source: numerous | 2010–2019

**bakagi** 'to fall' | Bahasa Indonesia: jatuh | collected on: Mangon, Waitulia village | source: two to three consultants | 2014 | note: see also *bua*.

**bakago** 'dumb' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**bakahan** 'near' | Bahasa Indonesia: dekat | collected on: Sanana | source: numerous | 2010

**bakahan maha / bakahan mahus** 'rare' | e.g. a steak | Bahasa Indonesia: setengah masak | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019 | note: this translation is uncertain, he might have been saying what to do with undercooked meat rather than translating

**bakahan-han** 'prepared' | collected on: Sanana | source: numerous | 2010

**bakahas** 'to touch' | Bahasa Indonesia: menyentuh / sentuh | collected on: Sanana | source: numerous | 2010–2019

**bakai** 'to marry' | collected on: Sanana, Mangon | source: numerous | 2010

**bakaleng** 'lie down' | Bahasa Indonesia: berbaring | collected on: Sanana | source: numerous | 2010–2019

**bakanau** 'to introduce' / 'to message' | (direct digital messaging or conveying a message on another's behalf) | collected on: Sanana | source: numerous | 2010 | note: 'make' + 'know'

**bakaneu** 'to offer' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**bakaran** 'purple' | Bahasa Indonesia: ungu | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

**bakatai** 'dirty' / 'disgusting' | Bahasa Indonesia: kotor | collected on: Sanana | source: numerous | 2010–2019
**bakan** 'to show' / 'to point' / 'convey' / 'teach' | e.g. baka'toya bo bahasa Sua

**bakan** 'teach' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**bakatoya bayata** 'to stutter' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**bakatoya pakasi** 'to mumble' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**bakawosa** 'fill' | Bahasa Indonesia: mengisi [isi] | collected on: Sanana | source: numerous | 2010–2019 | note: I am unsure the phonemic status of this intervocalic w

**bakawosa** 'fill' | Bahasa Indonesia: mengisi [isi] | collected on: Sanana | source: numerous | 2010–2019 | note: I am unsure the phonemic status of this intervocalic w

**bake** 'build' | Bahasa Indonesia: membangun | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

**baked** 'hear' / 'listen' / 'loud' | Bahasa Indonesia: mendengar / keras | collected on: Mangon | source: numerous | 2010–2019

**bakef** 'cough' / 'cold (illness)' | Bahasa Indonesia: batuk / pilek | collected on: Sanana | source: numerous | 2010–2019 | note: likely antiquated. See also sangihi, sanihi


**bakiru** 'blue' | Bahasa Indonesia: biru | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**bakosa** 'big' / 'fat' | Bahasa Indonesia: gemuk | collected on: Sanana | source: numerous | 2010–2019

**bakosa bag** 'fat' / 'grease' | Bahasa Indonesia: lemak | collected on: Sanana | source: numerous | 2010–2019

**baku** 'to flatulate' | Bahasa Indonesia: kentut | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**baku bantu** 'to help' | Bahasa Indonesia: menolong / bantu | collected on: Sanana | source: numerous | 2010–2019 | note: likely loan from Bahasa Indonesia. See also mungkuriu.


**bal** 'hit' | Bahasa Indonesia: memukul | collected on: Sanana | source: numerous | 2010
bal 'must' | Bahasa Indonesia: harus | collected on: Sanana | source: single consultant | 2014
bal TOPICALIZER | Bahasa Indonesia: membantu | collected on: Sanana | source: single speaker (definition), numerous (word) | 2014 | note: in this function bal often replaces verbal agreement marker when pronoun is also present
bala 'freeman' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
balahai 'worm eggs' | Bahasa Indonesia: telur cacing | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I could not verify this Holle list item, but the morphemes are likely 'ball' + 'dirt'
balea 'to dry' / 'to hang' | e.g. clothes | Bahasa Indonesia: jemur | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'do sun'
balea dit 'to bask' / 'dry oneself' | Bahasa Indonesia: berjemur | collected on: Sanana | source: numerous | 2010–2019
baleha 'village' / 'community location' | Bahasa Indonesia: kampung | collected on: Sanana,Umahoya village | Source: Fagudu tribe | 2014 | note: in some communities, minimal pair with balela 'laugh'
balela / baheha 'laugh' / 'smile' | Bahasa Indonesia: tertawa / senyum | collected on: Sanana | source: numerous | 2010–2019 | note: in some communities, minimal pair with baleha 'village'
baleleyan 'celebration' | Bahasa Indonesia: perayaan | collected on: Sanana | source: numerous | 2010–2019
baleu 'deep (dish)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: This is likely the result of a miscommunication in the Holle list, as I gathered the form to simply mean 'within'
baleu 'within' / 'inside' | Bahasa Indonesia: dalam | collected on: Sanana | source: numerous | 2010–2019
bali 'ring' | e.g. a phone | Bahasa Indonesia: membunyikan / bunyi | collected on: Sanana | source: numerous | 2010–2019
bali 'shy' / 'timid' | Bahasa Indonesia: malu | collected on: Mangon, Wai U village | source: numerous | 2014
bali'ap 'to make a fire' | collected on: Mangon | source: three to five consultants | 2010–2019
baliu 'hatchet' / 'axe' / 'pickaxe' | Bahasa Indonesia: beliung | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019
**bama** 'operation' | (medical) | Bahasa Indonesia: pembedahan | collected on: Sanana | 
  source: numerous | 2010–2019

**bama** 'to split' / 'to chop' | Bahasa Indonesia: membelah, memotong | collected on: 
  Mangon | source: numerous | 2010, 2014

**bamaha / bama** 'to sell' | collected on: Sanana | source: numerous | 2010

**bamap / bamapu** 'cook' | Bahasa Indonesia: masak | collected on: Sanana, Mangon | 
  source: numerous | 2010–2019

**bamata** 'cramp' / 'gone to sleep' | (limbs) | collected on: Sanana | source: entry from 
  Holle List; unable to verify | c. 1900

**bamata** 'raw' | e.g. *soklat bamata* 'raw chocolate' | Bahasa Indonesia: mentah | 
  collected on: Mangon, Capuli village | source: numerous | 2015

**bamin** 'a cold' / 'flu' | Bahasa Indonesia: flu / punya pilek | collected on: Sanana | 
  source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

**bamoda** 'cold (things)' | collected on: Mangon | source: three to five consultants | 
  2010–2019

**bamok leha** 'sacred place' | Bahasa Indonesia: (tempat) keramat | collected on: 
  Sanana | source: numerous | 2010–2019

**bamu** 'tame' | collected on: Sanana | source: Verified from Holle list by two or more 
  speakers unless otherwise noted | c. 1900

**ban** 'fornicate' (vulgar) | Bahasa Indonesia: Bersetubuh, bercinta | collected on: 
  Mangon, Ulfoa village | source: numerous | 2015 | note: be careful with this 
  word. Using it incorrectly can easily instigate violence.

**ban makata sigadu pia** 'cured' | collected on: Mangon | source: entry from Holle 
  List; unable to verify | c. 1900

**ban mapai ap** 'to extinguish a fire' | collected on: Sanana | source: Verified from 
  Holle list by two or more speakers unless otherwise noted | c. 1900

**bana** 'war' | collected on: Sanana | source: Verified from Holle list by two or more 
  speakers unless otherwise noted | c. 1900 | note: when asked, a consultant said 
  the form sounds old fashioned. *mana pau* and *mana fau* are the common forms 
  today. Other b–m correspondences between Holle list words and modern 
  vocabulary should be considered for a sound change in progress

**bana au** flathead grey mullet (mugil cephalus) | collected on: Mangon, Waitulia village 
  | source: Waitulia fishermen | 2014

**bana kanoufo** 'bag (made from rope)' | collected on: Mangon | source: three to five 
  consultants | 2010–2019
banahi 'to love' | collected on: Sanana | source: numerous | 2010–2019

banai 'day after tomorrow' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

banap 'to shoot' / 'hunt' | e.g. shoot a gun | Bahasa Indonesia: tembak | collected on: Sanana | source: numerous | 2010 | note: Sanana form. See also banapi

banapi 'to shoot' / 'hunt' | e.g. especially shoot with a gun | Bahasa Indonesia: menembak | collected on: Mangon | source: numerous | 2010 | note: Mangon form. See also banap

bangal 'maybe' | collected on: Sanana | source: two to three consultants | note: this seems to by mostly replaced by barankali and munkin from Bahasa Indonesia

bangana, isuna 'there (near addressee)' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

bangsa 'tribe' / 'people' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

banoi 'prayer' / 'blessing' | Bahasa Indonesia: doa | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

banta 'argue' | Bahasa Indonesia: membantah | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

bao bot 'garlic' | collected on: Sanana | source: numerous | 2010

bao repot 'inconvenient' | collected on: Sanana | source: numerous | 2010

baoa 'which' (hia baoa ‘which one’) | collected on: Sanana | source: numerous | 2010

bapana 'to shoot' | e.g. especially an arrow | Bahasa Indonesia: menembak | collected on: Sanana | source: numerous | 2010


bara em 'smile' | collected on: Sanana | source: numerous | 2010

baran 'brave' | Bahasa Indonesia: berani (Loan) | collected on: Sanana | source: numerous | 2010–2019


barasa 'thin' / 'skinny' | e.g. a thin person | collected on: Sanana | source: numerous | 2010

barasa 'sexually aroused' | Bahasa Indonesia: terangsang | collected on: Sanana | source: numerous | 2010–2019
baret 'quit' / 'stop' | (cease) e.g. ba'ret sui tabak 'to quit smoking' | Bahasa Indonesia: berhenti | collected on: Sanana | source: numerous | 2010–2019 | note: see also beret
baroa 'weak' | Bahasa Indonesia: lemah | collected on: Sanana | source: numerous | 2010–2019
baru 'warrior' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan
barua 'a case for fabric' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan
bas a 'language' | collected on: Sanana | source: numerous | 2010 | note: reduced loan from Bahasa Indonesia Bahasa
bas a 'another' / 'other' | Bahasa Indonesia: yang lain | collected on: Sanana | source: numerous | 2010–2019
bas a 'broken down' / 'damaged' / 'ugly' / 'bad' | Bahasa Indonesia: rusak, jelek | collected on: Sanana | source: numerous | 2010–2019
bas a 'breast' / 'milk' | collected on: Sanana | source: three to five consultants | 2010 | note: uncommon. See susa / sosa
bas a 'ungi 'to love' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
bas a kadiga 'terrible' | Bahasa Indonesia: buruk sekali | collected on: Sanana | source: numerous | 2010–2019
bas a nohi 'related' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
bas a/patfai 'moldy' / 'stale' / 'old' / 'stagnant' / 'still' | (milk, water) | collected on: Sanana, Mangon | source: numerous | 2010
bas a 'spoiled (food)' | Bahasa Indonesia: busuk | collected on: Sanana | source: numerous | 2010–2019
basana 'to answer' | collected on: Sanana | source: numerous | 2010–2019
basanasi 'related' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
basehu 'to weave' | collected on: Sanana | source: numerous | 2010–2019
basel / baseli 'to plant' / 'a plant' | Bahasa Indonesia: menanam | collected on: Sanana, Mangon | source: numerous | 2014 | note: see also sel / sil
**baso soso** 'to nurse at the breast' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**bata** 'wait' / 'later' / 'shortly' | e.g. wait a moment | Bahasa Indonesia: menunggu, nanti | collected on: Sanana | source: numerous | 2010–2019

**bata mila** 'stupid' / 'idiot' | Bahasa Indonesia: bodoh | collected on: Sanana | source: numerous | 2010–2019

**batanding** 'game (sport)' | Bahasa Indonesia: pertandingan (Loan) | collected on: Sanana | source: numerous | 2010–2019

**batar** 'bet' | Bahasa Indonesia: teruhan | collected on: Sanana | source: numerous | 2010–2019

**bate** 'to shatter' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**batif** 'steep' | (hill) | Bahasa Indonesia: curam | collected on: Sanana | source: numerous | 2010–2019

**batina** 'shallow' | collected on: Sanana | source: numerous | 2010-2019

**batu** 'thunder' | Bahasa Indonesia: guntur | collected on: Mangon, Wai U village | source: single consultant | 2014 | note: this is a questionable entry.

**batuka** 'empty' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: I suspect this Holle list entry is due to an informant misunderstanding

**batuka** 'bay' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**batuka** 'inside' / 'in' | Bahasa Indonesia: di | collected on: Mangon | source: three to five consultants | 2010–2019

**batutu** 'to grow plants' / 'to pound/unhusk rice' | Bahasa Indonesia: tumbuh, menumbuk | collected on: Mangon, Ulfoa village | source: numerous | 2014 | note: I find it somewhat implausible that this form means both 'to grow (nonspecific) plants' and also 'to pound rice', stranger things in language have happened, but error seems more likely. Oddly **batutu** was given for both **tumbuh** and **menumbuk** by the same group of people just seven words apart on an elicitation sheet. This needs to be investigated further.

**bau** 'do' / 'make' | Bahasa Indonesia: melakukan/lakukan, buat | collected on: Sanana | source: numerous | 2010–2019 | note: causative morpheme
**bau** 'to hit' / 'to strike' | collected on: Sanana | source: numerous | 2010 | note: I am doubtful that *bau* itself can mean 'hit'. It is more likely that it acts as a causative morpheme and speakers drop the complement when the meaning is contextually clear.

**bau** 'back' (body) | Bahasa Indonesia: punggung | collected on: Mangon, Ulfoa village | source: numerous | 2014 | note: see also *sanapahu*.

**bau balfaa** 'produce' (make) | Bahasa Indonesia: memproduksi | collected on: Sanana | source: numerous | 2010–2019

**bau bena** 'rising tide' | (Bahasa Indonesia: 'arus naik' ID) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014 | note: literally 'make go up'. In Waitulia, rising tides are said to be accompanied by a strong, fast eastward current. The reverse for falling tides.

**bau faa sel** 'to grow' | collected on: Sanana | source: numerous | 2010

**bau gahoa / bau gaoa / bau goa** 'why' / 'how' | Bahasa Indonesia: bagaimana | collected on: Sanana | source: numerous | 2010

**bau gamiha paka** 'clean' | Bahasa Indonesia: membersihkan | collected on: Sanana | source: numerous | 2010–2019

**bau lal suka (dit)** 'to enjoy (oneself)' | Bahasa Indonesia: menikmati | collected on: Sanana | source: numerous | 2010–2019

**bau lela** 'have fun, humorous, fun, joke' | Bahasa Indonesia: bersenang-senang, lelucon | collected on: Sanana | source: numerous | 2010–2019

**bau leu** 'to dig' | collected on: Sanana | source: numerous | 2010 | note: see also *geka*, *gika*, *gahu*.

**bau ma’i (kena) / ba ma’i (kena)** 'to fish' | collected on: Sanana | source: numerous | 2010

**bau makata bihu pia** 'cured' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: these morphemes are 'make' + 'medicine' + 'return' + 'safe/good/person'

**bau maneha** 'true, right (correct)' / 'repair' | Bahasa Indonesia: benar | collected on: Sanana | source: numerous | 2010–2019

**bau mata** 'kill, murder' | Bahasa Indonesia: membunuh [bunhu] | collected on: Sanana, Mangon | source: numerous | 2010–2019

**bau mata ap(i)** 'to turn off' / 'to extinguish' | e.g. to kill the lights | collected on: Mangon | source: numerous | 2010 | note: lit. kill' + 'fire'
**bau meneha** 'recognise' / 'prepare' | Bahasa Indonesia: mengenal | collected on: Sanana | source: numerous | 2010–2019

**bau meneha hal** 'recommend' | Bahasa Indonesia: rekomendasikan | collected on: Sanana | source: numerous | 2010–2019

**bau mua** 'to finish' | collected on: Sanana | source: numerous | 2010–2019 | note: intransitive


**bau munara** 'to work' | Bahasa Indonesia: bekerja, kerja | collected on: Sanana | source: numerous | 2010–2019

**bau neu** 'falling tide' | (Bahasa Indonesia: 'arus kurun' ID) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014 | note: literally 'make go down'. In Waitulia, falling tides are said to be accompanied by a strong, fast westward current. The reverse for rising tides.

**bau nomor** 'score' | Bahasa Indonesia: membuat angka | collected on: Sanana | source: numerous | 2010–2019

**bau pai ap** 'to turn off a light' | collected on: Sanana | source: numerous | note: literally 'make' + 'finished' + 'fire'


**bau pelajar** 'study' | ID: belajar | collected on: Sanana | source: numerous | 2010 | note: loan from Bahasa Indonesia.

**bau perinta joh** 'worship' | Bahasa Indonesia: ibadat (Loan?) | collected on: Sanana | source: single consultant | 2010–2019 | note: see also sabeya, sabia

**bau pia** 'peace' | collected on: Sanana | source: numerous | 2010

**bau sala** 'fault (guilt) / 'mistake' | **bau sala fa** 'feel guilty about something' | Bahasa Indonesia: salah | collected on: Sanana | source: numerous | 2010–2019

**bau salam** 'reserve' | Bahasa Indonesia: memesan [pesan] (Loan) | collected on: Sanana | source: numerous | 2010–2019

**bau senang senang** 'have fun, humorous, fun' | Bahasa Indonesia: bersenang-senang (Loan) | collected on: Sanana | source: numerous | 2010–2019 | note: loan from Bahasa Indonesia.

**bau sin** 'to get revenge' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**bau-mata** 'kill' | collected on: Sanana | source: numerous | 2010
baubagila 'rub' | collected on: Mangon | source: three to five consultants | 2010
bauhi 'late evening' / 'night' | Bahasa Indonesia: malam | collected on: Sanana | source: numerous | 2010–2019 | note: see also buhi, bo uhi
bauhi yau 'midnight' | Bahasa Indonesia: tengah malam | collected on: Sanana | source: numerous | 2010–2019
bauhi'ik 'tonight' | Bahasa Indonesia: malam ini | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'night this'
baumanara 'job' | collected on: Sanana | source: numerous | 2010
baumata 'to murder' | Bahasa Indonesia: membunuh / bunuh | collected on: Sanana | source: numerous | 2010–2019
bawa 'onion' / 'shallot' / 'garlic' | collected on: Mangon | source: three to five consultants | 2010
bawamia 'red onion/shallot' | collected on: Sanana | source: single consultant | 2010 | note: calque from Bahasa Indonesia bawang merah
bawel 'to climb' | Bahasa Indonesia: naik | collected on: Sanana | source: numerous | 2010
bawiti 'fishing with a line & pole' | collected on: Mangon, Waitulia village | source: two to three consultants | 2014
bawowu 'to shout' | Bahasa Indonesia: berteriak [teriak] | collected on: Sanana | source: single consultant | 2010–2019 | note: I am unsure the phonemic status of the intervocalic w's
bayata 'tightly fitted' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
bayon 'mouth' | Bahasa Indonesia: mulut | collected on: Sanana | source: numerous | 2010–2019
bayon kol 'lips' | Bahasa Indonesia: bibir | collected on: Sanana | source: numerous | 2010–2019
bayu 'hungry' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: see boya The Holle form has implications on the phonetically unmotivated sound change in Proto-Sula described in chapter 2
be 'throw' | collected on: Mangon | source: three to five consultants | 2010
be' 'day' | Bahasa Indonesia: hari | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
be'ina waris 'to inherit' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
be'u 'tie' | Bahasa Indonesia: mengikat | collected on: Sanana | source: numerous | 2010
bea 'tax' | Bahasa Indonesia: pajak | collected on: Sanana | source: numerous | 2010–2019
beb 'duck' | Bahasa Indonesia: bebek | collected on: Sanana | source: numerous | 2010–2019
beda 'different' | Bahasa Indonesia: berbeda | collected on: Sanana | source: numerous | 2010–2019
bedagang 'to trade' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
bedah 'powder' | Bahasa Indonesia: pupur | collected on: Sanana | source: numerous | 2010–2019
bega 'tuna' | e.g. kena beka 'tuna fish' | collected on: Mangon | source: three to five consultants | 2010
behetan 'breast' / 'chest' | Bahasa Indonesia: dada | collected on: Sanana | source: numerous | 2010–2019
behi 'to throw' / 'toss' | Bahasa Indonesia: melemparkan | collected on: Sanana, Mangon | source: numerous | 2010
behi dagati 'hard to breath' | collected on: Sanana | source: numerous | 2010
behifor 'lungs' | collected on: Sanana | source: numerous | 2010–2019
behitan 'chest (body)' | Bahasa Indonesia: dada | collected on: Sanana | source: numerous | 2010–2019
ben ben 'wall' | (inside or outside wall) | Bahasa Indonesia: dinding, tembok | collected on: Sanana | source: numerous | 2010–2019
bena 'climb' | e.g. stairs, ladder, or mountain | Bahasa Indonesia: naik | collected on: Sanana | source: numerous | 2010–2019 | note: once recorded as ben in Fatkouyun village.
bena 'ride a vehicle or an animal' | (e.g. bike or horse) | Bahasa Indonesia: naik | collected on: Sanana | source: numerous | 2010–2019
bena 'to board a vehicle' | e.g. bea lota 'to board a boat' | Bahasa Indonesia: naik | collected on: Sanana | source: numerous | 2010–2019
benai 'day after tomorrow' | Bahasa Indonesia: lusa | collected on: Sanana | source: numerous | 2010–2019
bend 'band' | Bahasa Indonesia: band | collected on: Sanana | source: numerous |
2010–2019
benteng 'fortification' | collected on: Sanana | source: single consultant | 2010–2019 |
note: loan from Bahasa Indonesia.
ber baris 'queue' / 'line' | Bahasa Indonesia: antri | collected on: Sanana | source: numerous | 2010–2019 |
note: loan from Bahasa Indonesia.
ber beda 'other' | Bahasa Indonesia: lain | collected on: Sanana | source: numerous |
ber sukur 'grateful' | e.g. sukur eb-eb 'thanks very much' | Bahasa Indonesia:
beran 'daring' / 'brave' | collected on: Sanana | source: two to three consultants | note:
possible loan from Bahasa Indonesia. See also baran
berbeda 'other' | Bahasa Indonesia: lain | collected on: Sanana | source: numerous |
2010
berbisa berbahaya 'danger poisonous' | collected on: Sanana | source: numerous |
2010 | note: loan from Bahasa Indonesia.
beret / bret 'stop' / 'prevent' | e.g. (1) bret pai 'stop a moment' (2) bret saik pai 'stop here a moment' | Bahasa Indonesia: berhenti | collected on: Sanana | source:
Duwila; Fagudu Tribe, Waibao village | 2010–2019 | note: see also baret
berjanji 'promise' | e.g. a-berjanji 'I promise' | Bahasa Indonesia: berjanji [janji] |
berua 'case for cloth' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
beruwi 'to burn' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
besa 'ugly (things)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
besah 'off (spoiled)' | Bahasa Indonesia: busuk | collected on: Sanana | source: numerous | 2010–2019
bet / betu 'day' / 'time' | Bahasa Indonesia: hari, waktu | collected on: Sanana |
source: numerous | 2010–2019
bet genei pihu 'in (six) days' | Bahasa Indonesia: dalam (enam) hari lagi | collected on: Sanana | source: numerous | 2010–2019
bet hia bet hia 'per day, everyday' | Bahasa Indonesia: per hari, setiap hari | collected on: Sanana | source: numerous | 2010–2019

bet ik 'now' / 'present (temporal)' | Bahasa Indonesia: sekarang | collected on: Sanana | source: numerous | 2010–2019 | note: CMD dialect has bet iku, an interdialect form between Sanana and Mangon

bet ik 'today' | Bahasa Indonesia: hari | collected on: Sanana | source: numerous | 2010–2019 | note: CMD dialect has bet iku, an interdialect form between Sanana and Mangon


bet pila / bet pi / betu pila / bet pila (hoa) 'when' | Bahasa Indonesia: waktu, kapan | collected on: Mangon, Sanana | source: numerous | 2010 | note: see also bit pila.

betia 'daily' / 'always' | Bahasa Indonesia: harian, selalu | collected on: Sanana | source: numerous | 2010–2019

beu 'tight, fast' / 'to fasten' / 'to tie up' | e.g. a tight knot | Bahasa Indonesia: sempit | collected on: Sanana | source: numerous | 2010–2019

beya 'tax' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

bi 'comb' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

bi-naka 'steal' | Bahasa Indonesia: mencuri | collected on: Mangon | Collins | 1981 | note: see also bilnaka

bia 'since' | (temporal) | Bahasa Indonesia: sejak | collected on: Sanana | source: numerous | 2010–2019

bia 'from' | Bahasa Indonesia: dari | collected on: Sanana | source: numerous | 2010–2019

bia neka 'recently' | Bahasa Indonesia: baru-baru | collected on: Sanana | source: numerous | 2010–2019


bib 'goat' | Bahasa Indonesia: kambing | collected on: Sanana | source: numerous | 2010

bib gamei 'to bleat' / 'moo' | (goat & cow sounds) | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I was unable to verify
this Holle list entry, but I can confidently say it does not mean 'cow sounds' as bib means goat. My consultants provided bib li 'bleat'. I suspect gamei is an onomatopoeia, and that bib gamei glosses as 'goat's gamei'.

**bicara** 'to say' | Bahasa Indonesia: berkata | collected on: Mangon, Ulfoa village | source: numerous | 2014

**biha lubayon** 'to smile' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: lubayon is likely an archaic longer form of bayon 'mouth'. The word lu can also mean 'few in number', but it is hard to imagine how that would help to form a term for 'smile'. biha is a mystery, none of my guesses regarding possible abbreviations, contractions, and possible compounding seem logical for 'smile'. It is of course possible that the form is a result of miscommunication and that it would make sense in context.

**bihai** 'until' / 'in' (time) | Bahasa Indonesia: sampai | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I was unable to verify this term. The common word for 'until' is bis, and there is no indication that it was a recently introduced word. There are also no known compound words or phrases retaining bihai. It is a possible dialect form, and there is a distant possibility that it could have been a since-lost cousin form to bis that has since dropped from the language (e.g. *bisai > bihai in one dialect and *bisai > bis in other dialects). Instances of s>h are found in Sula, but it would be a stretch to conclude this from a single, century-old form without knowing more about the speaker, region, or the speaker's other word pronunciations—and unfortunately the Holle lists do not provide any of this. It is unfortunately even unclear how many speakers were consulted for each list.

**bihi** 'scissors' | Bahasa Indonesia: gunting | collected on: Sanana | source: numerous | 2010–2019

**bihifor** 'heart' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I am quite confident that this Holle list item is an error caused by misunderstanding when pointing to the chest, as I have collected behifor countless times for 'lungs', and this is corroborated in phrases like behi dagati 'hard to breathe' (literally 'lung narrow').

**bihu** 'to return' / 'embarking on a return' | Bahasa Indonesia: pulang | collected on: Sanana | source: numerous | 2010–2019 | note: see also pihu, gaf

**bii** 'scissors' | Bahasa Indonesia: gunting | collected on: Sanana | source: numerous | 2010–2019
**bilnaka / binnaka** 'steal' / 'rob' | e.g. (1) *bin’naka fa a hia* 'steal something' (2) *pip binnaka* 'stolen money' | Bahasa Indonesia: mencuri [curi], dicuri, merampok | collected on: Sanana | source: numerous | 2010–2019

**binabo lida** 'to climb' | Bahasa Indonesia: naik | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this Holle list entry is almost certainly a valid form, but it means 'climb on a mountain' rather than 'climb'. In modern sula (or correctly transcribed Sula) the phrase is *bena bo lida* ('climb LOC mountain')


**bira** 'rice' | (cooked and uncooked, husked and unhusked) | Bahasa Indonesia: beras, nasi | collected on: Sanana | source: numerous | 2010–2019

**bira ka kol** 'harvested rice' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I do not think this Holle list form has a harvest distinction unless perhaps *ka kol* is *ke kol* 'to skin/chaff', in which case the phrase would be 'rice to chaff' and perhaps it was a description of what people were doing rather than a general term for harvested rice as opposed to unharvested rice. In general, Sula does not seem to have many if any examples of change of state words for food products.

**bira kan** 'rice stalk' | collected on: Sanana | source: numerous | 2010–2019

**bira kol** 'rice skin' / 'chaff' | collected on: Sanana | source: numerous | 2010–2019

**bira pin** 'ear of corn' / 'tuft of rice' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this term only means 'tuft of rice'. Ear of corn is *gar pin*.

**bira'ihi** 'rice' | (prepared rice for eating) | collected on: Sanana | source: numerous | 2010 | note: literally 'rice flesh'

**birahi** 'beautiful' / 'cute' / 'interesting' / also (rarely) 'delicious' | (scenery, thing, person) | Bahasa Indonesia: cantik, indah, bagus | collected on: Sanana | source: numerous | 2010–2019 | note: loan or cognate with Indonesian *berahi* 'lust'?

**birahi bisa** 'quite handsome' / 'quite beautiful' | collected on: Sanana | source: numerous | 2010 | note: literally 'attractive good'

**birahi kadiga** 'very handsome' / 'very beautiful' | collected on: Sanana | source: numerous | 2010 | note: literally 'strong attractive'
**bis** 'full (satisfied)’ | Bahasa Indonesia: kenyang | collected on: Sanana | source: numerous | 2010–2019

**bis loi** 'search’ | (to search for something) | Bahasa Indonesia: mencari [cari] | collected on: Sanana | source: numerous | 2010–2019

**bis loi senang senang** 'go out in search of a good time’ | Bahasa Indonesia: mencari [cari] hiburan | collected on: Sanana | source: numerous | 2010–2019

**bis noya / bisnoya** 'story’ / 'to speak’ / 'talk’ / 'say’ | Bahasa Indonesia: cerita | collected on: Sanana | source: numerous | 2010–2019 | note: the action of talking. Use pak instead when indicating speech ability e.g. to speak a language. See also pisnoya.

**bis noya ba’ata** 'to stutter' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**bis pel** 'full’ / 'satisfied’ | collected on: Sanana | source: numerous | 2010

**bisa** 'beautiful’ | (scenery, thing, person) | Bahasa Indonesia: cantik, indah | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'good' but frequently used to mean 'beautiful'

**bisa** 'good’ | (general term) | Bahasa Indonesia: bagus, baik | collected on: Sanana | source: numerous | 2010–2019

**bisa kadiga** 'wonderful’ / 'best’ | Bahasa Indonesia: bagus sekali | collected on: Sanana | source: numerous | 2010–2019

**bisa moya** 'ugly’ | Bahasa Indonesia: jelek | collected on: Sanana | source: numerous | 2010–2019 | note: 'not good’ but frequently used to mean 'ugly’. see also: bisa

**bisa moya** 'bad’ | (not good) | Bahasa Indonesia: jelek | collected on: Sanana | source: numerous | 2010–2019


**bisnau** 'to sew’ | Bahasa Indonesia: menjahit | collected on: Sanana | source: numerous | 2010

**bisnoya toka hau** 'to mumble’ | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**bit / bet** 'want’ | Bahasa Indonesia: mau | collected on: Sanana | source: numerous | 2010–2019 | note: in practice, *lal suka* 'like very much’ is often used instead of *bit* to indicate a desire. e.g. *ak lal suka sui tabak* 'I’d like to smoke’. (pronunciation *bet* is found in CMD region of Mangon)
<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
<th>Source</th>
<th>Collection Dates</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>bit iki</td>
<td>'today'</td>
<td>entry from Holle List; unable to verify</td>
<td>c. 1900</td>
<td>note: see also bet ik</td>
</tr>
<tr>
<td>bit pila</td>
<td>'when'</td>
<td>two to three consultants</td>
<td>2014</td>
<td>note: see also bet bila</td>
</tr>
<tr>
<td>bita</td>
<td>'night fishing with a lamp'</td>
<td>two to three consultants</td>
<td>2014</td>
<td></td>
</tr>
<tr>
<td>bitfua keu</td>
<td>'to spit'</td>
<td>numerous</td>
<td>2014</td>
<td>note: see also sape'i keu</td>
</tr>
<tr>
<td>bitu</td>
<td>'day'</td>
<td>entry from Holle List; unable to verify</td>
<td>c. 1900</td>
<td>note: see also bet, betu</td>
</tr>
<tr>
<td>bitu ika</td>
<td>'today'</td>
<td>single consultant</td>
<td>2014</td>
<td>note: see also betu ika</td>
</tr>
<tr>
<td>bo</td>
<td>'with'</td>
<td>entry from Holle List; unable to verify</td>
<td>c. 1900</td>
<td>note: I do not recall encountering a meaning of 'with'. I suspect this Holle list entry was a transcription error for do 'and' / 'with'.</td>
</tr>
<tr>
<td>bo</td>
<td>'at' / 'on' / 'in'</td>
<td>Bahasa Indonesia: di</td>
<td>numerous</td>
<td>2010–2019</td>
</tr>
<tr>
<td>bo (mina)</td>
<td>'formerly'</td>
<td>entry from Holle List; unable to verify</td>
<td>c. 1900</td>
<td></td>
</tr>
<tr>
<td>bo fai</td>
<td>'seaward' / 'to go downstream'</td>
<td>entry from Holle List; unable to verify</td>
<td>c. 1900</td>
<td>note: directions: lepa 'up' and neu 'down' correspond to clockwise and counterclockwise depending on the village. Directions: tema 'inland' and fai 'seaward' are universal in Sula.</td>
</tr>
<tr>
<td>bo gehe</td>
<td>'back (body)'</td>
<td>Bahasa Indonesia: punggung</td>
<td>numerous</td>
<td>2010–2019</td>
</tr>
<tr>
<td>bo gehi</td>
<td>'behind' / 'back (body)'</td>
<td>Bahasa Indonesia: di belakang</td>
<td>numerous</td>
<td>2010–2019</td>
</tr>
<tr>
<td>bo heha</td>
<td>'underneath'</td>
<td>Bahasa Indonesia: di bawah</td>
<td>numerous</td>
<td>2015</td>
</tr>
</tbody>
</table>
heha ‘underneath’ and ba neu ‘underneath’. She did not have a reason for the alternation, but said that they had to be that way (other speakers I worked with did not all agree with her). I suspect an elusive phonological condition exists that causes phonetic vowels to overlap or be substituted, but much regional and speaker variation renders the condition unclear. It will take a long-term, onsite study of the language to sufficiently explain the phenomenon.


bo mena  ‘next (temporal)’ | Bahasa Indonesia: depan | collected on: Sanana | source: numerous | 2010–2019 | note: see also bumena for discussion or spacial representation of time.


bo mina  ‘ago’ / ‘before (temporal)’ | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I gathered the opposite meaning. Either there has been a semantic change, dialect variation, or one of us is in error.

bo uhi  ‘night’ | Bahasa Indonesia: malam | collected on: Sanana | source: numerous | 2010–2019 | note: see also buhi, bauhi


boa  ‘which’ (hia baoa ‘which one’) | collected on: Sanana | source: numerous | 2010

bob  ‘spoon’ | collected on: Sanana | source: numerous | 2010


bobai fina  ‘girlfriend’ | Bahasa Indonesia: pacar perempuan | collected on: Sanana | source: numerous | 2010–2019


bobo  ‘roof’ | collected on: Mangon | Collins | 1981

370
**bobos** 'taboo' / 'forbidden' | collected on: Sanana | source: numerous | 2014 | note: definite loan from Ternate *boboso*

**bobosu** 'taboo' / 'forbidden' | collected on: Mangon | source: numerous | 2014 | note: definite loan from Ternate *boboso*

**bobus fat** 'lazy' | collected on: Sanana | source: numerous | 2014

**bodi** 'boat' | collected on: Sanana | source: numerous | 2010 | note: possible loan from 'boat'. See also *lota, jonson*.

**bole** 'permission' / 'permit' | Bahasa Indonesia: ijin | collected on: Sanana | source: numerous | 2010–2019

**boli** 'blow' | collected on: Mangon | source: three to five consultants | 2010

**bomena** 'in front of' | Bahasa Indonesia: didapan | collected on: Sanana | source: numerous | 2010–2019

**bon gihi fat** 'to carry (on the back)' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: archaic

**bon lal** 'within' | Bahasa Indonesia: dalam | collected on: Sanana | source: numerous | 2010–2019

**bona** 'stab' | Bahasa Indonesia: menusuk | collected on: Mangon, Ulfoa village | source: three to five consultants | 2015 | note: this is an overhead stab 'Psycho' type stab.

**boni** 'mouth' | collected on: Mangon | source: three to five consultants | 2010

**borat** 'west' | Bahasa Indonesia: barat | collected on: Sanana, Waibau village | source: numerous | 2015 | note: lack of native words suggests ancient Sula had a non-cardinal direction system

**bosa** 'to suck' | e.g. *bosa sosa* 'to nurse at the breast' | collected on: Sanana | source: numerous | 2014

**bosu** 'to suck' | e.g. *bosu sosu* 'to nurse at the breast' | collected on: Mangon | source: three to five consultants | 2014

**bosu** 'heart' | collected on: Mangon | source: three to five consultants | 2010

**bosu tabaku** 'smoke' | Bahasa Indonesia: merokok | collected on: Mangon, Waitina village | source: Mangon tribe | 2014

**bot / boti** 'white' | Bahasa Indonesia: putih | collected on: Sanana, Mangon | source: numerous | 2010–2019

**bota** 'cut' / 'chop' / 'slice' / 'hack' | Bahasa Indonesia: memotong [potong], iris | collected on: Sanana | source: numerous | 2010–2019
**botol** 'device for measuring liquids' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: possible loan from 'bottle'

**botol** 'bottle' | Bahasa Indonesia: botol | collected on: Sanana | source: numerous | 2010–2019 | note: loan

**botu** 'cut' | collected on: Mangon | source: three to five consultants | 2010

**botu peda** 'fishing with a machete' | collected on: Mangon, Waitulia village | source: two to three consultants | 2014

**bowai nap** 'to go upstream' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this literally means 'toward the head of the water'

**bowel** 'to call' | (e.g. call someone over) | collected on: Sanana | source: numerous | 2010

**boya** 'tail' | (animal) | Bahasa Indonesia: ekor | collected on: Sanana | source: numerous | 2010–2019 | note: compare also (Mangon) mboyu, nboyu, boyu, collected on: Sanana mboya, nboya.

**boya** 'hungry' | Bahasa Indonesia: lapar | collected on: Sanana | source: numerous | 2010–2019

**boya nahu** 'long tail' | Bahasa Indonesia: ekor panjang | collected on: Sanana | source: numerous | 2010 | note: compare also (Mangon) mboyu, nboyu, boyu, collected on: Sanana mboya, nboya, boya

**boya yota** 'short tail' | Bahasa Indonesia: ekor pendek | collected on: Sanana | source: numerous | 2010 | note: compare also (Mangon) mboyu, nboyu, boyu, collected on: Sanana mboya, nboya, boya

**bu** 'to defecate' | Bahasa Indonesia: kotoran | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: onomatopoeia?

**bu muka** 'ahead' | Bahasa Indonesia: di depan | collected on: Sanana | source: numerous | 2010–2019

**bua** 'to fall' | Bahasa Indonesia: jatuh | collected on: Sanana | source: numerous | 2010–2019 | note: see also bakagi.

**bua** 'fruit' | Bahasa Indonesia: buah | collected on: Mangon | source: numerous | 2010 | note: loan from Bahasa Indonesia. buah

**bua keu** 'to spit' | collected on: Sanana | source: numerous | 2010 | note: literally 'fall saliva'. See also bitfua keu, sape'i keu
bubai 'lover' / 'darling' | (my dear) | Bahasa Indonesia: berpacaran, kekasih | collected on: Sanana | source: two to three consultants | 2010–2019 | note: see also bobai

bubai fina 'girlfriend' | Bahasa Indonesia: pacar perempuan | collected on: Sanana | source: numerous | 2010–2019

bubara a fish that is either the same as or similar to the an island jack (carangoides orthogrammus) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

bubir 'green' | e.g. kau hosa bubir 'the tree leaves are green' | Bahasa Indonesia: hijau | collected on: Sanana | source: numerous | 2010–2019 | note: possible loan from Bahasa Indonesia biru 'blue'.

buha 'wind' / 'to blow' | Bahasa Indonesia: angin, bertiup, meniup | collected on: Mangon, Wai U village | source: numerous | 2014

buhi 'late evening' / 'night' | Bahasa Indonesia: malam | collected on: Mangon, Ulfoa village | source: numerous | 2015 | note: see also bauhi, bo uhi

bui 'jail' | Bahasa Indonesia: penjara | collected on: Sanana | source: numerous | 2010–2019

buk 'magic book' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I am unsure the meaning of 'magic book', so this Holle list item was too difficult to verify. Certainly books are a relatively recent introduction to Sula. At its most basic, buk does not literally mean 'magic book'. It means 'book'

bul 'squeeze' / 'wind' / 'rol' | (to wring, as with wet laundry; to wind, as with a rope; to squeeze, as with a lemon) | collected on: Sanana | source: numerous | 2010

bumanga short-nosed unicornfish/paletail unicornfish (naso brevirostris) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

bumena 'in front of' | Bahasa Indonesia: didapan | collected on: Sanana | source: numerous | 2010–2019

bumena 'past' / 'past events' | Bahasa Indonesia: masa lalu | collected on: Sanana | source: two to three consultants | 2010–2019 | note: the overlap between 'in front of' and 'past', implies that Sula (at least historically) had a conception of time similar to the ancient Greeks, where the future is behind us where we cannot see it, and the past is in front of us where we can see it. Altering this conception could also explain a process of semantic reversal seen in bo mena (which is essentially just another pronunciation of the same term)

bumohi '(fall) behind' | e.g. walking | collected on: Sanana | source: numerous | 2010
bun  'brow' | collected on: Sanana | source: numerous | 2010

bun taka’u fata  'to carry (on the back)' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: archaic

bunfoa  'eyebrow' | collected on: Sanana | source: numerous | 2014


busu  'break down' | Bahasa Indonesia: rusak | collected on: Sanana | source: numerous | 2010–2019

busufat  'lazy' | collected on: Mangon | source: numerous | 2014 | note: see also pamalas

butu  'market' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: Holle postulates this as a loan

caca  'thousand' | Bahasa Indonesia: ribu | collected on: Sanana | source: numerous | 2014

ca ga(h)iya  'one thousand' | Bahasa Indonesia: seribu | collected on: Mangon | source: three to five consultants | 2010

capa / capoa  'ten thousand' | Bahasa Indonesia: sepuluh ribu | source: numerous | 2014 | note: capa is the Mangon form, capoa is the Sanana form

cahan  'trousers' | Bahasa Indonesia: celana (Loan?) | collected on: Sanana | source: numerous | 2014 | note: see also cahana

cahana  'pants (trousers)' | e.g. (1) ca’hana nahu  'long pants' (2) ca’hana yota  'shorts' | Bahasa Indonesia: celana (Loan?) | collected on: Sanana | source: numerous | 2010–2019

cangkul  'hoe' | collected on: Sanana | source: numerous | 2014

cap tiku  'palm wine moonshine' | Bahasa Indonesia: cap tiku (regional word) | collected on: Sanana, Mangon, Ternate, Halmahera | source: numerous | 2015

capalong  'top' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

Capuli  'Capalulu Village' | Bahasa Indonesia: Kampung Capalulu | collected on: Mangon, Capuli village | source: numerous | 2015

cato  'a gift' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: traditionally a gift from the sultan

cerita  'history' | Bahasa Indonesia: sejarah (Loan) | collected on: Sanana | source: numerous | 2010–2019
cilaka 'accident' | Bahasa Indonesia: kecelakaan (Loan) | collected on: Sanana | source: numerous | 2010–2019

cincin 'a small parakeet' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

coba 'try (attempt)' | Bahasa Indonesia: mencoba [coba] (Loan) | collected on: Sanana | source: numerous | 2010–2019

cunci 'lock' | Bahasa Indonesia: mengunci (Loan) | collected on: Sanana | source: numerous | 2010–2019

da 'chest (body)' | Bahasa Indonesia: dada | collected on: Mangon, Ulfoa village | source: numerous | 2014 | note: likely abbreviated loan from Bahasa Indonesia, dada. See also behitan.
da bol 'sick' / 'sickness' | Bahasa Indonesia: penyakit | collected on: Sanana | source: numerous | 2010–2019
da sawana 'rib (body)' | Bahasa Indonesia: tulang rusuk | collected on: Sanana | source: numerous | 2010–2019
da'i 'to urinate' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this form puts into question whether dayu 'to urinate' is correct or rather whether it should be daiu

da'ofa 'broad' / 'wide' | collected on: Mangon | source: three to five consultants | 2014
da'hi dota 'fighting' | collected on: Sanana | source: numerous | 2010 | note: literally 'there's punching'
da(h)i moya 'shortage' | Bahasa Indonesia: kekurangan | collected on: Sanana | source: numerous | 2010–2019

dab 'drunk' | (intoxicated) | collected on: Sanana | source: numerous | 2010

dab-dab 'sauce' | collected on: Sanana | source: numerous | 2010

dabet 'yesterday' | Bahasa Indonesia: kemarin | collected on: Sanana | source: numerous | 2010–2019

dabet hia tuna 'day before yesterday' | collected on: Sanana | source: numerous | 2014

dabol 'faint' | Bahasa Indonesia: pingsan | collected on: Sanana | source: numerous | 2010–2019

dabol 'sprain' | Bahasa Indonesia: keseleo | collected on: Sanana | source: numerous | 2010–2019

dad 'can' (ability) / 'can' (permission) | e.g. dad nan 'can swim' | Bahasa Indonesia: bisa, boleh | collected on: Sanana | source: numerous | 2010–2019
**dad bal pai** 'useful' | Bahasa Indonesia: berguna | collected on: Sanana | source: numerous | 2010–2019

**dad fahia moya** 'never mind' / 'no worries' | e.g. *dau sala mai dad fahia moya* 'don't worry about putting it in the wrong place' | Bahasa Indonesia: lupakan | collected on: Sanana, Waibau village | source: numerous | 2014

**dad ine** 'can' (permission) | Bahasa Indonesia: boleh | collected on: Mangon, Mangon village | source: single consultant | 2014 | note: this entry was only received once, and I suspect it has a more specific meaning or that *ine* is an emphatic particle.

**dad moya** 'cancel' | Bahasa Indonesia: membatalkan | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'can not'

**dad pel** 'enough' / 'already' | Bahasa Indonesia: cukup, sudah | collected on: Sanana | source: numerous | 2010–2019

**dadab** 'only' | Bahasa Indonesia: hanya | location: unknown | source: Umaternate | 2013

**daduba** 'to float' / 'fishing float' | Bahasa Indonesia: pengapung | collected on: Sanana | source: numerous | 2010

**daduba** 'to sink' | e.g. a boat | collected on: Mangon, Ulfoa village | source: numerous | 2015

**daeta (yeba)** 'mince' / 'ground meat' | Bahasa Indonesia: daging cincang | collected on: Sanana | source: numerous | 2010–2019

**daeti** 'branch' | Bahasa Indonesia: cabang | collected on: Mangon, Ulfoa village | source: numerous | 2015 | note: branch on the ground. See also *sanapet*

**dafai** 'to sneeze' | Bahasa Indonesia: bersin | collected on: Sanana | source: numerous | 2014

**dafoma** 'provisions' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**dagalil** 'around' / 'surrounding' | collected on: Mangon | source: three to five consultants | 2014

**dagama** 'dream' | Bahasa Indonesia: mimpi | collected on: Sanana | source: numerous | 2010–2019

**dagana** 'dream' | collected on: Sanana | source: entry from Holle List; unable to verify | 2014 | note: see also *dagama*

**dagat / dagati** 'tight' / 'narrow' | Bahasa Indonesia: sempit | collected on: Sanana, Mangon | source: numerous | 2010
Chapter 4: lexicon

**dagigi** 'dig' | collected on: Mangon | source: three to five consultants | 2010


**dagis** 'painful / sick' / 'fever' | collected on: Sanana | source: numerous | 2010

**dahi** 'to exist' | e.g. *dahi te dahi moya, dahi panika ik* 'to be or not to be, that is the question' | Bahasa Indonesia: menjadi | collected on: Sanana | source: numerous | 2010–2019 | note: this existential morpheme is similar in function to a 'be' verb

**dahi / da'i** 'correct' / 'true' / 'get' / 'to find' / 'to be able to' / 'to touch' / 'to hit' | Bahasa Indonesia: benar, dapat, mencari, boleh, menyentuh | collected on: Sanana, Mangon | source: numerous | 2010–2019 | note: at its most basic, *dahi* is an existential verb, but it is used to cover a broad semantic range. The *da'i* pronunciation was recorded in Wai U village (CMD region of Mangon). See also *pita*.

**dahi aya** 'cannon' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**dahi ban** 'rape' | Bahasa Indonesia: perkosaan | collected on: Sanana | source: numerous | 2010–2019

**dahia** 'durian' | collected on: Sanana | source: numerous | 2010

**dahina** 'moment ago, a' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**dahoi** 'loosely fitting' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**dai** 'there is/there are' | Bahasa Indonesia: ada | collected on: Sanana | source: numerous | 2010–2019

**dai moya** 'nothing' | Bahasa Indonesia: tidak ada | collected on: Sanana | source: numerous | 2010–2019

**dakhan** 'to paddle' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**daki mayu** 'to refuse' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**dakoku** a fish that is either the same as or similar to the flame anglefish (*loriculus*) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014
dakoku a fish that is either the same as or similar to the blackspot sergeant (abudeful sordidus) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

daku lanu 'to paddle' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

dalena 'wide' / 'loose' | Bahasa Indonesia: lebar, longgar | collected on: Sanana | source: numerous | 2010

dalina 'wide' | collected on: Sanana | source: numerous | 2014 | note: see also dalena

damera 'jaw' | Bahasa Indonesia: rahang | collected on: Sanana | source: numerous | 2010–2019

damit 'yesterday' | collected on: Sanana | source: two to three consultants | 2014 | note: see also damet

damitu 'day before yesterday' | collected on: Mangon | source: three to five consultants | 2014

damu 'and' | Bahasa Indonesia: dan | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

dan sohangi 'to pawn' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

dana 'to pay' / 'a fine' | Bahasa Indonesia: membayar [bayar] | collected on: Sanana | source: numerous | 2010–2019 | note: like in German where 'lend' and 'borrow' are the same word, dana covers both a fine and the action of paying the fine.

dana 'to drip' | Bahasa Indonesia: menetes | collected on: Mangon, Waitulia village | source: numerous | 2014

dana muamua 'cash' | Bahasa Indonesia: kontan | collected on: Sanana | source: numerous | 2010–2019

dana pakiki 'cash' | Bahasa Indonesia: kontan | collected on: Sanana | source: numerous | 2010–2019

danamatapia 'bribe' | Bahasa Indonesia: menyogok | collected on: Sanana | source: numerous | 2010–2019

danas 'pineapple' | Bahasa Indonesia: nanas | collected on: Sanana, Waibau village | source: numerous | 2015 | note: loan. See also nanas.


dang 'rice-kettle (copper)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan
**danika**  'ask (a ques)' / 'to question' | Bahasa Indonesia: bertanya [tanya] | collected on: Sanana | source: numerous | 2010–2019

**danu bu api uki**  'to roast (in the coals)' | collected on: Mangon | source: two to three consultants | 2014 | note: Mangon form. For Sanana form, see also *dona bo ap ok*  

**dapuya**  'less' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900  

**dasa wana**  'rib' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900  

**dasoi**  'loosely fitting' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900  

**dau**  'put' / 'place' / 'set' | e.g. domino on table | Bahasa Indonesia: taru, simpan | collected on: Sanana | source: numerous | 2010–2019 | note: minimal pair with nau.  

**dau fon / da’ufon**  'to hide' | (hide an item) | Bahasa Indonesia: sembunyi | collected on: Sanana, Malbufa village; Mangon, Wai U village | source: numerous | 2014, 2015 | note: see also baifon, fongi, dori fon  


**dau sala**  'to put something in the wrong place' | Bahasa Indonesia: untuk meletakkan sesuatu di tempat yang salah | collected on: Sanana, Waibau village | source: single consultant | 2014  

**daupa**  'blocked' | Bahasa Indonesia: diblokir | collected on: Sanana | source: numerous | 2010–2019  

**dawika**  'sunny' | Bahasa Indonesia: cerah | collected on: Sanana | source: numerous | 2010–2019  

**dayas**  'broad' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900  

**dayu**  'boat paddle' | collected on: Sanana | source: numerous | 2010–2019  

**dayu**  'to row' / 'to pull' | collected on: Sanana | source: numerous | 2014  

**dayu**  'to urinate' | e.g. kera i-dayu pita yai 'the monkey peed on (your) leg' | Bahasa Indonesia: kencing | collected on: Mangon, Waitulia village | source: numerous | 2014  

**degis**  'fever' | Bahasa Indonesia: demam | collected on: Sanana | source: numerous | 2010–2019
**deha** 'leave' / 'left' | Bahasa Indonesia: ketinggalan | collected on: Sanana | source: numerous | 2010–2019

**deha** 'live (somewhere)'/ 'stay (remain)' | Bahasa Indonesia: tinggal | collected on: Sanana | source: numerous | 2010–2019

**deha sahoa / deha so** 'where' | Bahasa Indonesia: dimana | collected on: Mangon, Ulfoa village; Mangon, Wai U village | source: numerous | 2014 | note: see also sahoa, sa’oa, soa.

**deha saik** 'here' | Bahasa Indonesia: di sini | collected on: Mangon, Ulfoa village | source: numerous | 2014 | note: see also siku, isuka, saik, saiaki, saiya, sit iki.

**dehaat** 'forgotten' | collected on: Sanana | source: numerous | 2010–2019

**demet** 'before' | Bahasa Indonesia: sebelum | collected on: Sanana | source: numerous | 2010–2019

**dena** 'aboard' | e.g. *dena bo lota lal* 'aboard a ship' | Bahasa Indonesia: atas | collected on: Sanana | source: numerous | 2010–2019

**dena / ewa** 'flow' | Bahasa Indonesia: mengalir | collected on: Mangon, Sanana | source: numerous | 2010–2019

**deneka** 'fair' | Bahasa Indonesia: wajar | collected on: Sanana | source: numerous | 2010–2019

**deneka moya** 'unfair' | Bahasa Indonesia: tidak wajar | collected on: Sanana | source: numerous | 2010–2019

**despat** 'break (bone)' | Bahasa Indonesia: patah | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

**det / deti** 'to cut' / 'to hack' / 'karate chop' | Bahasa Indonesia: memotong | collected on: Sanana, Mangon | source: numerous | 2010, 2014

**dewika** 'tomorrow' | collected on: Sanana | source: numerous | 2014 | note: see also hai dewika, hai dawika

**di hiya moya** 'none' | Bahasa Indonesia: tidak satu pun | collected on: Sanana | source: numerous | 2010–2019

**di moya pel** 'end' | Bahasa Indonesia: akhir | collected on: Sanana | source: numerous | 2010–2019

**diangku** 'beard' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**dinga** 'moment ago, a' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
**dini fa** 'wealthy' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**dit** 'self' | collected on: Sanana | source: numerous | 2010–2019

**dit** 'real' / 'actual' | e.g. **baba dit** 'real father' | Bahasa Indonesia: nyata | collected on: Sanana, Waibau village | source: numerous | 2015

**do** 'Sleepy' | collected on: Sanana | source: numerous | 2010

**do** 'and' / 'also' / 'with' / 'between' | Bahasa Indonesia: antara, juga, dan | collected on: Sanana | source: numerous | 2010–2019

**do.a** 'Sleepy' | collected on: Sanana | source: numerous | 2010

**dodok** 'bridge' | Bahasa Indonesia: jembatan | collected on: Sanana | source: numerous | 2010–2019

**dodoku / dodok** 'bridge' | collected on: Sanana | source: numerous | 2014

**dof** 'floor' | e.g. **dof tina** 'upon the floor' | Bahasa Indonesia: lantai | collected on: Sanana | source: numerous | 2010–2019

**dog** 'couch' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: sofas are uncommon in most parts of Sula today. It is difficult to imagine they were common enough to have a term a hundred years ago when the Holle list was compiled

**dog / dogi** 'to grow' | Bahasa Indonesia: tumbuh | collected on: Sanana, Mangon | source: numerous | 2010–2019

**dohi nana** 'cannon' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**dok** 'gift' / 'to give' | Bahasa Indonesia: hadiah, kasih | collected on: Sanana | source: numerous | 2010–2019

**dok basa** 'complimentary (free)' | Bahasa Indonesia: gratis | collected on: Sanana | source: numerous | 2010–2019

**dok bihu** 'lend' | Bahasa Indonesia: beri / kasih pulang | collected on: Sanana | source: numerous | 2010–2019

**dok moya** 'to refuse' | (refuse to take something) | Bahasa Indonesia: menolak | collected on: Sanana | source: numerous | 2014

**dok tea maha** 'feed' | Bahasa Indonesia: memberi makanan | collected on: Sanana | source: numerous | 2010–2019

**dok wai** 'to fetch water' | collected on: Sanana | source: numerous | 2014 | note: literally 'bring water'

**doki** 'to give' | collected on: Sanana | source: numerous | 2010 | note: see also **dok**
dokter 'doctor' | (modern medicine) | collected on: Sanana | source: numerous | 2010 | note: loan

dol 'bring' / 'deliver' | Bahasa Indonesia: membawa | collected on: Sanana | source: numerous | 2010–2019

dol 'invite' | Bahasa Indonesia: ajak | location: unknown | source: Umaternate | 2013

doma a fish that is either the same as or similar to the Heller's barracuda (sphyraena helleri) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

don falihi / don fa / donin falihi 'valuable' / 'wealthy' / 'quality' | Bahasa Indonesia: berharga | collected on: Sanana | source: numerous | 2010–2019

dona 'burn' / 'burnt' | Bahasa Indonesia: membakar | collected on: Sanana | source: numerous | 2010–2019 | note: intransitive. Possibly cognate with dена 'torch' from Hindi. See also donu, sara

don banke 'cremation' | Bahasa Indonesia: pembakaran mayat | collected on: Sanana | source: numerous | 2010–2019

don bo ap ok 'to roast (in the coals)' | collected on: Sanana | source: two to three consultants | 2014 | note: Sanana form. For Mangon form, see also danu bu api uki

donga 'muscle' | Bahasa Indonesia: otot | collected on: Sanana | source: numerous | 2010–2019

donis 'half' | source: numerous | 2014

donu 'burn' | collected on: Mangon | source: numerous | 2010 | note: intransitive. Possibly cognate with dена 'torch' from Hindi. See also dona, sara

dor 'cockroach' | Bahasa Indonesia: kecoa | collected on: Sanana | source: numerous | 2010–2019

dori fon 'to hide' | (something) | Bahasa Indonesia: sembunyi | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: likely archaic. It is currently reported as daufon and baifon. See also baifon, fongi, daufon

dos 'box' / 'container' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

dosa [fa='a besa] 'sin' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

dota / dotu 'hit' / 'fight' / 'pound' / 'to punch' | Bahasa Indonesia: memukul, memalu | collected on: Sanana, Mangon | source: numerous | 2010-2019
**Chapter 4: lexicon**

**dotu** 'pound/hit' | collected on: Mangon | source: numerous | 2010 | note: see also *dota*

**down nonu** 'lie' | collected on: Mangon | source: three to five consultants | 2010

**du, di** 'and' | Bahasa Indonesia: dan | collected on: Sanana, Mangon | source: numerous | 2010–2019 | note: see also *do*

**dua** 'smithy' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan


**dua** 'again' | Bahasa Indonesia: lagi | location: unknown | source: Umaternate | 2013


**dud (tabak)** 'roll' / 'fold' | collected on: Sanana | source: numerous | 2010

**dud tabak** 'roll a cigarette' | collected on: Sanana | source: numerous | 2010

**duf** 'hole' | e.g. *duf til* 'pierced ear' (lit. 'ear hole') | collected on: Mangon, Ulfoa village | source: numerous | 2015 | note: see also *tuf*

**dunia** 'earth (globe) / nature / land' | Bahasa Indonesia: dunia, alam | collected on: Mangon | source: numerous | 2010 | note: loan from Bahasa Indonesia.

**dunis** 'half' | source: numerous | 2014

**dunya tiamat** 'natural disaster' | collected on: Sanana | source: numerous | 2010

**dur bo nap** 'to carry (on the head)' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: see also Sanana form *dundu bongapu*
**dutu** 'to cover something' | (e.g. a container) | Bahasa Indonesia: menutupi | collected on: Mangon, Waitulia village | source: single consultant | 2014 | note: this entry is uncertain. It might not be Sula.

**e** 'that' (e.g. gaika e 'like that') | Bahasa Indonesia: itu | location: unknown | source: Umaternate | 2013

**ea mata sup** 'exit' | Bahasa Indonesia: pintu keluar | collected on: Sanana | source: numerous | 2010–2019

**eamata** 'door' | Bahasa Indonesia: pintu | collected on: Sanana | source: numerous | 2010–2019

**eb** 'very' / 'many' / 'much' / 'a lot' | Bahasa Indonesia: sangat, banyak | collected on: Sanana | source: numerous | 2010–2019

**eb gahoa** 'how many/much' | collected on: Sanana | source: numerous | 2010

**eb gaoa** 'how many/much' | collected on: Sanana | source: numerous | 2010

**eb gaoa** 'how many/much' | collected on: Sanana | source: numerous | 2010

**eb talal** 'an extraordinary amount' | Bahasa Indonesia: banyak sekali | collected on: Sanana, Malbufa village | source: numerous | 2015 | note: see also eb, ib, ibu, foloi, kadiga, ta lal

**ebat** 'great (fantastic)' | Bahasa Indonesia: jago | collected on: Sanana | source: numerous | 2010–2019

**ebu** 'many' | collected on: Mangon | source: three to five consultants | 2010

**ek / eki** 'neck' | Bahasa Indonesia: leher | collected on: Sanana, Mangon | source: numerous | 2010–2019

**eka** 'garbage' | Bahasa Indonesia: sampah | collected on: Sanana | source: numerous | 2010–2019

**ekilawa** 'neck' | collected on: Mangon | source: three to five consultants | 2010

**el** 'areca catechu Linn.' | collected on: Sanana | source: numerous | 2014 | note: Sanana form. For Mangon form, see also elu

**elu** 'areca catechu Linn.' | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form, see also el

**em** 'chicken coop' | Bahasa Indonesia: kandang ayam | collected on: Sanana | source: single consultant | 2014

**en'em** 'nest' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
ena ena 'oyster' | Bahasa Indonesia: tiram | collected on: Sanana | source: numerous | 2010–2019
ence 'half, a' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
ence piu 'quarter, a' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
enci 'half, a' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
enci piu 'quarter, a' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
engka 'grass' | Bahasa Indonesia: rumput | collected on: Mangon, Waitulia village | source: numerous | 2014
er 'to shake' | Bahasa Indonesia: mengguncang | collected on: Sanana | source: single consultant | 2014
es 'to rub' | Bahasa Indonesia: menggosok | collected on: Sanana | source: single consultant | 2014
es 'ice' | collected on: Mangon | source: three to five consultants | 2010
ewa 'flow' / 'river' | Bahasa Indonesia: sungai | collected on: Sanana | source: numerous | 2010–2019
eya mata 'door' | collected on: Sanana | source: numerous | 2014
fa bama 'merchandise' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
fa bau maneha 'tool' | collected on: Sanana | source: numerous | 2010 | note: 'thing' + 'repair'
fa damoha 'next' | Bahasa Indonesia: yang berikutnya | collected on: Sanana | source: numerous | 2010–2019
fa kau 'wall (inside)' | Bahasa Indonesia: dinding | collected on: Sanana | source: numerous | 2010–2019
fa munara sam 'weft' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
fa pamaha 'items for sale' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
fa pasia ban doa 'incantation' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
fa'a / fa'a mehi 'goods' / 'things' | Bahasa Indonesia: barang | collected on: Mangon, Ulfoa village | source: numerous | 2015 | note: see also tuf

fa'a bumen' 'a relic' | Bahasa Indonesia: peninggalan | collected on: Sanana | source: two to three consultants | 2010–2019 | note: literally 'past thing'

fa'a sil 'plant' / 'vegetation' | collected on: Sanana | source: single consultant | 2014 | note: see also fasel

fa'a tani 'vegetation' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: this Holle entry could be an error as the morphemes mean 'farmer thing' and farmer is an Indonesian loan

fa'a fa 'mouse' | collected on: Mangon | source: three to five consultants | 2010

fa'a agapu 'mask' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: I think this Holle form was an elicitation misunderstanding. It literally means 'head thing' and is not exclusive to masks

fa'aapia 'virtue' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this Holle form could be an error as the morphemes can mean 'something about a person', indicating that the consultant might not have understood what concept was being described.

fa'oi 'price' | collected on: Mangon | source: two to three consultants | 2010 | note: see also falihi

fa'ata 'heavy' | Bahasa Indonesia: berat | collected on: Sanana | source: numerous | 2010 | note: see also fayata.

faa 'shop' | Bahasa Indonesia: belanja | collected on: Sanana | source: numerous | 2010–2019

faa hia 'something' | Bahasa Indonesia: sesuatu | collected on: Sanana | source: numerous | 2010–2019

faa makaa 'jewellery' | Bahasa Indonesia: perhiasan | collected on: Sanana | source: numerous | 2010–2019

faa manil 'vinegar' | Bahasa Indonesia: cuka | collected on: Sanana | source: numerous | 2010–2019

faa mehi 'tool' | Bahasa Indonesia: alat | collected on: Sanana | source: numerous | 2010–2019

faa ok / fa'a oki 'forest' | Bahasa Indonesia: hutan | collected on: Sanana; Mangon, Waitina village | source: numerous | 2010–2019

faadab 'dangerous' | Bahasa Indonesia: berbahaya | collected on: Sanana | source: numerous | 2010–2019

386
<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
<th>Transliteration</th>
<th>Source</th>
<th>Collection Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>faadit</td>
<td>'private'</td>
<td>pribadi</td>
<td>numerous</td>
<td>2010–2019</td>
</tr>
<tr>
<td>faata</td>
<td>'heavy (weight)'</td>
<td>berat</td>
<td>numerous</td>
<td>2010–2019</td>
</tr>
<tr>
<td>fabumena mena</td>
<td>'relic' / 'ancient thing'</td>
<td>kuno</td>
<td>Sanana</td>
<td>numerous</td>
</tr>
<tr>
<td>faf</td>
<td>'pig'</td>
<td>(wild or domesticated)</td>
<td>babi</td>
<td>Sanana</td>
</tr>
<tr>
<td>fafi</td>
<td>'pork'</td>
<td>collected on: Mangon</td>
<td>source: numerous</td>
<td>2010–2019</td>
</tr>
<tr>
<td>fafoi</td>
<td>'dress' / 'fabric'</td>
<td>baju, kain</td>
<td>Sanana</td>
<td>numerous</td>
</tr>
<tr>
<td>fah mua mua</td>
<td>'everything'</td>
<td>segala sesuatu</td>
<td>Sanana</td>
<td>numerous</td>
</tr>
<tr>
<td>Fahahu / Fahu</td>
<td>'Falahu tribe'</td>
<td>Suku Falahu</td>
<td>Sanana, Umahoya village</td>
<td>Source: Source: Fagudu tribe</td>
</tr>
<tr>
<td>fahapa (para)</td>
<td>'anything'</td>
<td>apa saja</td>
<td>Sanana</td>
<td>numerous</td>
</tr>
<tr>
<td>fahira</td>
<td>'lost'</td>
<td>(object)</td>
<td>kehilangan</td>
<td>Sanana</td>
</tr>
<tr>
<td>fai</td>
<td>'seaward direction'</td>
<td>the direction toward the sea/seacoast when standing inland</td>
<td>Sanana</td>
<td>numerous</td>
</tr>
<tr>
<td>faiao fat</td>
<td>'stomach'</td>
<td>collected on: Sanana</td>
<td>source: entry from Holle List; unable to verify</td>
<td>c. 1900</td>
</tr>
<tr>
<td>fakea</td>
<td>'lime (fruit)'</td>
<td>kapur</td>
<td>Sanana</td>
<td>numerous</td>
</tr>
<tr>
<td>fakeya</td>
<td>'lime'</td>
<td>collected on: Sanana</td>
<td>source: numerous</td>
<td>2014</td>
</tr>
<tr>
<td>fakia</td>
<td>'lime'</td>
<td>collected on: Mangon</td>
<td>source: two to three consultants</td>
<td>2014</td>
</tr>
</tbody>
</table>
**fako** 'dog' | Bahasa Indonesia: anjing | collected on: Mangon | source: numerous | 2010–2019 | note: see also as

**fako sipa** 'to bark' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: see also as li

**fal** 'rainbow' | collected on: Sanana | source: numerous | 2010

**falai** 'drunk' | (intoxicated) | collected on: Sanana | source: numerous | 2010

**falihi** 'cost (thing)'/ 'price (goods)'/ e.g. *falihi eb goa* 'how much does it cost'? CMD dialect | Bahasa Indonesia: harga | collected on: Sanana | source: numerous | 2010–2019

**falihi mura** 'cheap (price)'/ collected on: Sanana | source: numerous | 2010

**faloi** 'more'/ 'too'/ 'most' | Bahasa Indonesia: lebih, terlalu | collected on: Sanana | source: numerous | 2010–2019

**falom** 'slave' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**famaka** 'gold' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: see also mas

**famehi / fame** 'tools'/ 'implements'/ 'cutlery' | Bahasa Indonesia: alat-alat | collected on: Sanana | source: numerous | 2010–2019

**famehi bumena mena** 'old cutlery' | Bahasa Indonesia: kuno | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019 | note: I elicited for 'ancient', but this seems to mean 'old cutlery'. I think the consultant was saying that the cutlery on the table was old. See also *fabumena mena* 'relic'

**fanana** 'small child' | Bahasa Indonesia: anak kecil | collected on: Sanana, Waibau village | source: three to five consultants | 2014

**fangara** 'cloud'/ 'fog'/ 'foggy' | Bahasa Indonesia: awan, berkabut | collected on: Sanana | source: numerous | 2010–2019 | note: see also *fengara*

**fanini** 'big'/ 'fat' | Bahasa Indonesia: gemuk | collected on: Mangon | source: three to five consultants | 2010

**faok / faoki** 'forest' | source: numerous | 2010–2019

**fapa sia** 'spirit' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**fasel** 'plant' | Bahasa Indonesia: tumbuhan | collected on: Sanana | source: numerous | 2010–2019

**fasina** 'moon'/ 'month' | Bahasa Indonesia: bulan | collected on: Sanana | source: numerous | 2010
fasina bena  'rising moon' | Bahasa Indonesia: bulan terbit | collected on: Mangon, Waitina village | source: Mangon tribe | 2014

fat  'rock' / 'stone' / 'pit' / 'stone of fruit' / 'seed' | Bahasa Indonesia: batu | collected on: Sanana | source: numerous | 2010 | note: see also fatu

fata  'wife' / 'homemaker' | Bahasa Indonesia: isteri, ibu rumah tangga | collected on: Sanana | source: numerous | 2010–2019

fatel  'testicals' | collected on: Sanana | source: numerous | 2010

fatu  'rock' / 'stone' / 'pit' / 'stone of fruit' / 'seed' | Bahasa Indonesia: batu | collected on: Mangon | source: three to five consultants | 2010 | note: see also fat

fatuf  'cave' | Bahasa Indonesia: gua | collected on: Sanana | source: numerous | 2010–2019

fatui  'star' | Bahasa Indonesia: bintang | collected on: Sanana, Mangon | source: numerous | 2010–2019 | note: see also fentui

fatui  'star, planet' | Bahasa Indonesia: bintang | collected on: Sanana | source: numerous | 2010–2019

fatui dai  'shooting starr' | collected on: Sanana | source: numerous | 2010

fau  'hit' | collected on: Mangon | source: three to five consultants | 2010

faumata  'kill' | collected on: Mangon | source: three to five consultants | 2010

fayata  'heavy' | Bahasa Indonesia: berat | collected on: Mangon | source: two to three consultants | 2010 | note: see also fa'ata.

fea  'gum (mouth)' | Bahasa Indonesia: gusi | collected on: Sanana | source: numerous | 2010–2019

fei  'smoke' | Bahasa Indonesia: asap | collected on: Sanana | source: numerous | 2010

felbok  'cliff' | Bahasa Indonesia: tebing | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

fengara  'cloud' / 'fog' / 'foggy' | Bahasa Indonesia: awan, berkabut | collected on: Sanana | source: numerous | 2010–2019 | note: see also fangara

fengara fengara  'cloudy' | Bahasa Indonesia: berawan | collected on: Sanana | source: numerous | 2010–2019

fenin  'large' | Bahasa Indonesia: besar | collected on: Sanana | source: two to three consultants | note: this word was encountered in Malbufa

fentui  'star' | Bahasa Indonesia: bintang | collected on: Mangon | source: numerous | 2010 | note: see also fatui

feta  'sister' | collected on: Mangon | Collins | 1981
feu 'first (in time)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: the ordinal form for the number one is pakahia. I suspect this Holle list entry is erroneous

feu 'new' / 'just (recently)' / 'to begin' | Bahasa Indonesia: baru | collected on: Sanana | source: numerous | 2010

fia 'banana' | collected on: Mangon | source: three to five consultants | 2010

fia hosa 'banana leaf' | Bahasa Indonesia: daun pisang | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015

fia ihi 'banana meat' | collected on: Sanana | source: numerous | 2010

fia jarum 'small banana cultivar' | collected on: Mangon, Capuli village | source: two to three consultants | 2015

fia kaeda 'large banana cultivar' | collected on: Mangon, Capuli village | source: two to three consultants | 2015

fia kau 'banana tree' | collected on: Sanana | source: numerous | 2010

fia manafu 'kind of banana' | collected on: Sanana | source: numerous | 2014

fia po 'banana inflorescence' | Bahasa Indonesia: jantung pisang | collected on: Mangon, Waitulia village | source: numerous | 2014

fia poha 'banana inflorescence' | Bahasa Indonesia: jantung pisang | collected on: Mangon, Capuli village | source: numerous | 2015

fia pohu 'banana inflorescence' | Bahasa Indonesia: jantung pisang | collected on: Mangon | source: numerous | 2015

fia raja 'large banana cultivar' | collected on: Mangon, Capuli village | source: two to three consultants | 2015

fia wata 'kind of banana' | collected on: Sanana | source: numerous | 2014

fif 'boil' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: see also ngan

filut [u] 'flute' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: loan from Dutch 'fluit'?

fin 'seed' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

fina 'woman' / 'female' | (human or animal) | Bahasa Indonesia: perempuan | collected on: Sanana | source: numerous | 2010

fina koa / fina ko 'virginity' / 'girl' / 'single woman' | collected on: Sanana | source: numerous | 2014
fina muya / finga muya 'fly (insect)' | Bahasa Indonesia: lalat | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019 | note: The Sanana form is fina muya and finga muya is the Mangon form

fínôt 'shrew' | collected on: Sanana | source: numerous | 2014

fo 'hair' / 'feather' | collected on: Mangon | source: numerous | 2010 | note: this is an abbreviated form of foa, the nonspecific form for 'hair', 'fur', and 'feathers'. See also manfoa

fo'aha yai 'anklet' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

fo'loi 'more' | e.g. (1) yao fo'loi 'longer', (2) mina fo'loi 'sweeter' | collected on: Sanana | source: numerous | 2010 | note: comparative morpheme.

fo'oha 'fruit' | Bahasa Indonesia: buah | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: see also fua

foa 'body hair' / 'feather' | collected on: Sanana, Mangon | source: numerous | 2010 | note: this is the nonspecific form for 'hair', 'fur', and 'feathers'. See also manfoa, fo.

fofa 'bamboo basket' | (for catching fish) | Bahasa Indonesia: keranjang memancing bambu | collected on: Sanana, Mangon | source: numerous | 2014 | note: see also fofu.

fofu ‘bamboo basket’ (for fishing) | Bahasa Indonesia: keranjang memancing bambu | collected on: Mangon, Waitulia village | source: numerous | 2014 | note: see also fofa.

foka 'corner' | Bahasa Indonesia: sudut | collected on: Sanana | source: numerous | 2010–2019

foka nana 'hill' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: this Holle entry is likely correct, but the meaning of foka is unclear. It is also in the term for 'skull' nap foka ('head' + '?'). Alone foka is also given as 'corner'

foku 'ankle' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: I suspect this is erroneous, as foku is a general term for 'joint'

foku 'mountain' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: this Holle list entry is almost certainly false. It is possible that someone was pointing at a mountain pass between peaks and that might be referred to as a 'joint', foku, between 'mountains', lida
**foku / foka** 'joint' | (general term covering body joints and other joints such as the connection between bamboo segments) | collected on: Mangon, Sanana | source: numerous | 2010–2019 | note: foku is the Mangon form. The Sanana form is foka.

**foloi** 'pass (go by)’ / ‘very much’ | Bahasa Indonesia: melewatkan [lewat], sangat | collected on: Sanana | source: numerous | 2010–2019

**fongi** 'to hide' | Bahasa Indonesia: sembunyi | collected on: Mangon | source: numerous | 2010–2014 | note: see also baifon, dori fon, dau fon

**fonu, pin sanisi** 'turtle' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**for** 'fork' | collected on: Sanana | source: numerous | 2010

**foro** 'bracelet' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**fota** 'decide' | Bahasa Indonesia: memutus | collected on: Sanana | source: numerous | 2010–2019

**foya** 'crocodile' | collected on: Mangon | source: three to five consultants | 2014

**fua** 'fruit' | Bahasa Indonesia: buah | collected on: Sanana | source: numerous | 2010–2019

**fua kol / fuang kol** 'rind' / 'peel' / 'skin' | collected on: Sanana | source: numerous | 2010 | note: Sanana forms. For Mangon form, see also ncei ngkoli. (fuang kol is archaic)

**fua yakis / bua yakis / boyakis** 'cashew fruit’ | Bahasa Indonesia: jambu menteh | collected on: Mangon, Capuli village and Sanana, Malbufa village | source: numerous | 2015 | note: bua yakis was recorded in Malbufa. boyakis was recorded on Eastern Sanana. For cashew nut meat, see also yakis ihi. image 2199

**fuaya** 'crocodile' | collected on: Sanana | source: numerous | 2014

**fuk** 'younger sibling’ | Bahasa Indonesia: adik perempuan | collected on: Sanana | source: numerous | 2010–2019

**fuk fina** 'younger sister' | Bahasa Indonesia: adik perempuan | collected on: Sanana | source: numerous | 2010–2019

**fuk maana** 'younger brother’ | collected on: Sanana | source: numerous | 2010–2019

**fuki** 'younger sibling' | collected on: Mangon | source: numerous | 2014 | note: Holle incorrectly lists this form as 'younger sister'
**ga io** 'a few' / 'some' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**ga pila** 'how many/much' | collected on: Sanana | source: numerous | 2010

**ga yai** 'to shout' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**ga' iya** 'one' | Bahasa Indonesia: satu | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: it would be interesting if this is an accurate transcription and not just logical extension of a pattern. If this is correct, it would mean that, on Mangon, the contraction of ga-hia to giya completed only within the past century.

**ga'u** 'cardinal number two' | Bahasa Indonesia: dua | collected on: Sanana | source: numerous | 2010

**gabalil** 'around' / 'surrounding' | collected on: Sanana | source: numerous | 2014

**gabat** 'break' / 'broken' / 'cracked' / 'to shatter' | (object or bone fracture) | Bahasa Indonesia: patah, retak | collected on: Sanana | source: numerous | 2010–2019

**gadia** 'cardinal number four' | Bahasa Indonesia: empat | collected on: Mangon | source: numerous | 2010 | note: Mangon form. See also gareha

**gaf** 'to return' / 'embarking on a return' | Bahasa Indonesia: pulang | collected on: Sanana, Malbufa village | source: single consultant | 2015 | note: see also bihu, pihu

**gahia** 'single, alone' | Bahasa Indonesia: bujuang, dirian | collected on: Sanana | source: numerous | 2010–2019

**gahiya moyu / gahiya moya** 'none (not one)' | Bahasa Indonesia: tak satupun, tidak ada | source: numerous | 2010–2019

**gahoa / gaoa / goa** 'why' / 'how' | Bahasa Indonesia: bagaimana | collected on: Sanana | source: numerous | 2010

**gahu** 'two' | Bahasa Indonesia: dua | collected on: Sanana | source: numerous | 2010 | note: Sanana form. See also guu

**gahu** 'to dig' | Bahasa Indonesia: menggali | collected on: Mangon, Ulfoa village | source: numerous | 2014 | note: see also geka, gika, bau leu.

**gaika** 'as' / 'like' | Bahasa Indonesia: seperti | location: unknown | source: Umatermate | 2013

**galas(i)** 'glass' / 'cup' | Bahasa Indonesia: gelas | collected on: Sanana | source: numerous | 2010 | note: loan.
**Galema**  a fish that is either the same as or similar to the spotted eagle ray (*aetobatus narinari*) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**Galima**  'cardinal number five' | Bahasa Indonesia: lima | collected on: Sanana | source: numerous | 2010-2019

**Gam**  'betel leaf' | Bahasa Indonesia: daun sirih | collected on: Sanana | source: numerous | 2010

**Gama**  'to scratch/injure' | Bahasa Indonesia: mencakar | collected on: Mangon, Ulfoa village | source: numerous | 2014

**Gama**  'child' | Bahasa Indonesia: anak | collected on: Mangon | source: three to five consultants | 2010

**Gamahi**  'salty' | Bahasa Indonesia: asin | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**Gamana**  'onward' / 'forward' | Bahasa Indonesia: kedepan | collected on: Sanana, Pastina village | source: single consultant | 2014

**Gambir**  'uncaria gambir' | Bahasa Indonesia: gambir | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: likely loan

**Gami**  'squeeze' | Bahasa Indonesia: memeras | collected on: Mangon | source: three to five consultants | 2010

**Gami / Gam**  'to squeeze' / 'pinch' | Bahasa Indonesia: memeras | collected on: Mangon, Sanana | source: numerous | 2014 | note: see also ami / am.

**Gamiha**  'pure, clean, smooth' | e.g. a clean room | Bahasa Indonesia: bersih | collected on: Sanana | source: numerous | 2010–2019


**Gamuda**  'to grunt' | Bahasa Indonesia: mendengus | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**Gamuli**  pinktail triggerfish (*Melichthys vidua*) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**Gan**  'as' e.g. 'such as' | Bahasa Indonesia: seperti | location: unknown | source: Umaternate | 2013
ganao 'what' | Bahasa Indonesia: apa | collected on: Mangon | source: numerous | 2010 | note: see also hapa, opa.
gandu 'corn (maize)' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
gane 'cardinal number six' | Bahasa Indonesia: enam | collected on: Sanana | source: numerous | 2010
ganei 'cardinal number six' | Bahasa Indonesia: enam | collected on: Mangon | source: three to five consultants | 2010
ganeka 'oh, I see' | Bahasa Indonesia: Oh begitu | collected on: Mangon, Ulfoa village | source: numerous | 2015
ganika, ga’iki 'like (in the manner of)' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
ganoa ‘why’ / ‘how’ | Bahasa Indonesia: kenapa, bagaimana | collected on: Mangon | source: three to five consultants | 2010
ganoki ‘why’ / ‘how’ | Bahasa Indonesia: kenapa, bagaimana | collected on: Mangon | source: three to five consultants | 2010
gapila 'how many/much' | Bahasa Indonesia: berapa | collected on: Sanana | source: numerous | 2010–2019
gapila gapila 'some' | Bahasa Indonesia: beberapa | collected on: Sanana | source: numerous | 2010–2019
gapilaapa 'some' | Bahasa Indonesia: beberapa | collected on: Mangon | source: three to five consultants | 2010
gapit 'cardinal number seven' | Bahasa Indonesia: tujuh | collected on: Sanana | source: numerous | 2010 | note: Sanana form. See also gapitu
gapit / gapitu 'cardinal number seven' | Bahasa Indonesia: tujuh | collected on: Mangon | source: three to five consultants | 2014
gar 'corn' | (maize) | Bahasa Indonesia: jagung | collected on: Sanana | source: numerous | 2010–2019
gareha 'cardinal number four' | Bahasa Indonesia: empat | collected on: Sanana | source: numerous | 2010
garum 'shade' / 'shadow' | Bahasa Indonesia: bayangan, teduh | collected on: Sanana | source: numerous | 2010–2019
gasu  'ebb' | (tidal movement) | Bahasa Indonesia: surut | collected on: Mangon | source: numerous | 2010 | note: see also it

gat  'to choke' | Bahasa Indonesia: tersedak | collected on: Sanana | source: two to three consultants | note: Sanana form. See also gati

gata  'tongs' | Bahasa Indonesia: penjepit | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

gatahua / gata'ua / gatauwa / gatua  'cardinal number eight' | Bahasa Indonesia: delapan | collected on: Sanana | source: numerous | 2010 | note: literally 'minus two' (from ten)

gatasi / gatasiya  'cardinal number nine' | Bahasa Indonesia: sembilan | collected on: Sanana | source: numerous | 2010 | note: literally 'minus one' (from ten)

gatel  'cardinal number three' | Bahasa Indonesia: tiga | collected on: Sanana | source: numerous | note: Sanana form. See also gatelu

gatelu / gatilu  'cardinal number three' | Bahasa Indonesia: tiga | collected on: Mangon | source: numerous | 2010 | note: Mangon form. See also gatel

gati  'to choke' | Bahasa Indonesia: tersedak | collected on: Mangon | source: numerous | 2010–2019 | note: Mangon form. See also gat

gatsia  'cardinal number nine' | Bahasa Indonesia: sembilan | collected on: Sanana | source: numerous | 2010

gatua  'cardinal number eight' | Bahasa Indonesia: delapan | collected on: Mangon | source: three to five consultants | 2010

gawai  'scratch' | Bahasa Indonesia: menggaruk | collected on: Sanana | source: numerous | 2010–2019

gaya  'win' / 'score points' | Bahasa Indonesia: mendapat angka | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'consume' (points)

gaya  'to eat' / 'food' | Bahasa Indonesia: makan | collected on: Sanana | source: numerous | 2010–2019 | note: See also giya. The distribution and selection of gaya / giya could practically be a dissertation in its own right. This term has come to embody a social identity marker for the Sula tribes. When asked what dialect is spoken, it is common to respond, 'we're a giya (or gaya) village'.

gaya hok  'breakfast' | Bahasa Indonesia: sarapan | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

gaya tulunga  'credit bondsman' | Bahasa Indonesia: bondman kredit | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
gayai 'to yell' | (a happy or neutral yell) | Bahasa Indonesia: berteriak | collected on: Sanana | source: numerous | 2010
ge 'rear (location)' | Bahasa Indonesia: belakang | collected on: Sanana | source: numerous | 2010–2019
gega (ol) 'to awaken' | Bahasa Indonesia: bangun | collected on: Sanana | source: numerous | 2010–2019
gehi 'to stand' | Bahasa Indonesia: berdiri | collected on: Sanana | source: numerous | 2010–2019 | note: see also geli
geki 'striped squirrel' | Bahasa Indonesia: tupai | collected on: Mangon, Capuli village | source: numerous | 2015 | note: see also gek
gehi 'back' | (back part of body or object) | Bahasa Indonesia: belakang | collected on: Sanana | source: numerous | 2010–2019
geka 'dig' | Bahasa Indonesia: menggali | collected on: Sanana | source: numerous | 2010–2019
geka 'pain' / 'painful' / 'ill' / 'sick' / 'sore' / 'hurt' | Bahasa Indonesia: perasaan, sakit | collected on: Sanana | source: numerous | 2010–2019
geka dahi bakatai 'period pain (menstrual)' | Bahasa Indonesia: sakit menstruasi | collected on: Sanana | source: numerous | 2010–2019
geka 'striped squirrel' | Bahasa Indonesia: tupai | collected on: Mangon, Capuli village | source: numerous | 2015 | note: see also gek
geli 'stand' | Bahasa Indonesia: berdiri | collected on: Mangon | source: numerous | 2010 | note: see also gehi
gem 'to hold' | Bahasa Indonesia: menggenggam | collected on: Sanana | source: numerous | 2010–2019
gem lima 'to shake hands' / 'to hold hands' | Bahasa Indonesia: berjabat, bersalaman | collected on: Sanana | source: numerous | 2010
gemiha 'cleaning' | Bahasa Indonesia: pembersihan | collected on: Sanana | source: numerous | 2010–2019
gemu 'hold' | Bahasa Indonesia: menggenggam | collected on: Mangon | source: three to five consultants | 2010
gen 'echo' | Bahasa Indonesia: gema | collected on: Mangon, Waitulia village | source: numerous consultants during same session | 2014 | note: I was skeptical of this translation, as gema means 'echo' in Indonesian, and gena also means simply 'to hear' in Sula, but the consultants reassured that they understood what I was asking
**gena** 'hear' | collected on: Mangon | source: three to five consultants | 2010

**genli** 'like' / 'in the manner of' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**gi** 'they (male)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this is almost certainly in error. *gi-* is a pre-verbal pronominal agreement marker

**gia** 'cardinal number one' | Bahasa Indonesia: satu | collected on: Mangon | source: numerous | 2010 | note: Mangon form. See also *hia*

**gia / giya** 'to eat' / 'food' | collected on: Sanana | source: numerous | 2010 | note: See also *gaya*. The distribution and selection of gaya / giya could practically be a dissertation in its own right. This term has come to embody a social identity marker for the Sula tribes. When asked what dialect is spoken, it is common to respond, 'we're a giya (or gaya) village'.

**gid** 'pull' | Bahasa Indonesia: menarik | collected on: Sanana | source: numerous | 2010–2019

**gigi** 'to carry something that hangs from the hand' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**gihi fat** 'back' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | 2014

**gika** 'to dig' | collected on: Sanana | source: single consultant | 2014 | note: see also geka, gahu, bau leu.

**gili / gihi** 'to stand' | collected on: Mangon | source: two to three consultants | 2014 | note: see also gehi, geli

**gim barin** 'to carry in the hand' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**gin ba dini** 'to carry in the hand' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**gina** 'to hear' | collected on: Mangon | source: two to three consultants | 2014 | note: variant of *gena*

**gingga matua** 'brown' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**ginggi** 'to carry something that hangs from the hand' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Source</th>
<th>Collection Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>goa bal</strong></td>
<td>'why' / 'how'</td>
<td>Bahasa Indonesia: kenapa, bagaimana</td>
<td>Sanana</td>
<td>2010</td>
</tr>
<tr>
<td><strong>gocifa</strong></td>
<td>'raft'</td>
<td>Sanana</td>
<td>Unable to verify</td>
<td>c. 1900</td>
</tr>
<tr>
<td><strong>gofata</strong></td>
<td>'wife'</td>
<td>Mangon</td>
<td>Unable to verify</td>
<td>c. 1900</td>
</tr>
<tr>
<td><strong>goha</strong></td>
<td>'sacred place'</td>
<td>Sanana</td>
<td>Numerous</td>
<td>2010–2019</td>
</tr>
<tr>
<td><strong>goha</strong></td>
<td>'noisy'</td>
<td>Bahasa Indonesia: ribut</td>
<td>Sanana</td>
<td>Numerous</td>
</tr>
<tr>
<td><strong>goi</strong></td>
<td>'bottom (posterior)'</td>
<td>Bahasa Indonesia: pantat</td>
<td>Sanana, Mangon</td>
<td>Numerous</td>
</tr>
<tr>
<td><strong>goi foka</strong></td>
<td>'posterior' / 'buttock'</td>
<td>Sanana</td>
<td>Numerous</td>
<td>2010</td>
</tr>
<tr>
<td><strong>goi fur</strong></td>
<td>'tail bone'</td>
<td>Sanana</td>
<td>Entry from Holle List; unable to verify</td>
<td>c. 1900</td>
</tr>
<tr>
<td><strong>goiyon</strong></td>
<td>'bottom (posterior)'</td>
<td>Bahasa Indonesia: pantat</td>
<td>Sanana</td>
<td>Numerous</td>
</tr>
<tr>
<td><strong>gon</strong></td>
<td>'belongs to'</td>
<td>E.g. <em>neka ak gon</em> 'that dog is mine'</td>
<td>Sanana, Mangon</td>
<td>Numerous</td>
</tr>
<tr>
<td><strong>gora</strong></td>
<td>'Malay apple' / 'mountain apple' / 'rose apple' / 'syzygium malaccense'</td>
<td>Bahasa Indonesia: jambu bol</td>
<td>Sanana, Waibau village, Mangon, Capuli village</td>
<td>Numerous</td>
</tr>
<tr>
<td><strong>got</strong></td>
<td>'to pinch'</td>
<td>Bahasa Indonesia: mencubit</td>
<td>Sanana</td>
<td>Mangon Tribe, Mangon village on Sanana</td>
</tr>
<tr>
<td><strong>gu</strong></td>
<td>'cardinal number two'</td>
<td>Bahasa Indonesia: dua</td>
<td>Mangon</td>
<td>Numerous</td>
</tr>
<tr>
<td><strong>gua</strong></td>
<td>'sugar' / 'syrup'</td>
<td>Sanana</td>
<td>Numerous</td>
<td>2010</td>
</tr>
<tr>
<td><strong>gua mia</strong></td>
<td>'palm sugar'</td>
<td>Bahasa Indonesia: gula aren</td>
<td>Sanana</td>
<td>Duwila; Fagudu Tribe, Waibao village</td>
</tr>
<tr>
<td><strong>gub</strong></td>
<td>'full'</td>
<td>(Both location full of people and container full of a substance)</td>
<td>Bahasa Indonesia: penuh, ramai</td>
<td>Sanana</td>
</tr>
</tbody>
</table>
guifa  'sister-in-law WBW' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

gul  'porridge' | collected on: Sanana | source: numerous | 2010 | note: note: possibly borrowed from a cognate of 'gruel'? Sanana form. See also guli

guli  'porridge' | collected on: Mangon | source: numerous | 2010 | note: possibly borrowed from a cognate of 'gruel'? Mangon form. See also gul

gumamoro  'daughter-in-law' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

gunana mata mihi  'son-in-law' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

guntami mama  'respective parents of the married couple' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

guntua  'husband' | collected on: Mangon | source: three to five consultants | 2014

gut  'cut' / 'scissors' | e.g. cutting hair | Bahasa Indonesia: luka, gunting | collected on: Sanana | source: numerous | 2010–2019

guti nap  'barber' | Bahasa Indonesia: tukang cukur | collected on: Sanana | source: numerous | 2010–2019

hafa  'north' | Bahasa Indonesia: utara | collected on: Sanana, Waibau village | source: single consultant | 2015 | note: it is likely that hifa and hafa originally meant something akin to north and south, but only one consultant provided this definition. For most speakers the terms have come to represent non-specific opposing directions like 'to and fro'. They are often translated as 'left and right' (kiri/kanan) but when asked which is kiri or which is kanan, the answer is 'neither'.

hai  'Earth' / 'island' / 'land' / 'country' / 'soil' | e.g. (country) (1) Hai Africa, (2) Hai Sua, (3) Hai Europa | Bahasa Indonesia: bumi, pulau, tanah, negara | collected on: Sanana | source: numerous | 2010–2019

hai bopa  'dust cloud' / 'plume' | (e.g. drop something onto dusty soil) | collected on: Sanana | source: numerous | 2010

hai dewika / hai dawika  'Tomorrow' | collected on: Sanana | source: numerous | 2010

hai duika  'tomorrow' | Bahasa Indonesia: besok | collected on: Sanana | source: numerous | 2010–2019

hai lib  'plain' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
hai mai 'dust' | Bahasa Indonesia: debu | collected on: Mangon, Ulfoa village | source: numerous | 2014

hai Mangon / hai Mangoni 'Mangole Island' | Bahasa Indonesia: Pulau Mangole / Pulau Mangoli / Pulau Mongole / Pulau Mongoli | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: also, less commonly, lai Mangon

hai mota 'forest fire' | collected on: Sanana | source: numerous | 2010 | note: literally 'island hot'

hai Sua 'the Sula Islands' / 'Sanana Island' / 'Sula lands' | Bahasa Indonesia: Sula, kepulauan Sula, Xulla Bessi, Pulau Sula | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: also, less commonly, lai Sua

hai Taliab / hai Taliabu 'Taliabu Island' | Bahasa Indonesia: Pulau Taliabu | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: also, less commonly, lai Taliabu

hai yon 'countryside' | Bahasa Indonesia: daerah luar kota | collected on: Sanana | source: numerous | 2010–2019


hak 'owner' | Bahasa Indonesia: pemilik | collected on: Sanana | source: numerous | 2010–2019

haka 'to grill' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

hakim 'judge' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

hakkot 'hug' / 'embrace' | Bahasa Indonesia: memeluk [peluk] | collected on: Sanana | source: numerous | 2010–2019

haku (bira) 'to cook' / 'boil' | (particularly rice) | Bahasa Indonesia: menanak | collected on: Mangon, Ulfoa village | source: numerous | 2014

hal 'to blossom' | e.g. kau bahal 'blossoming tree' | Bahasa Indonesia: mekar | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: see also bahal

hal 'problem' | e.g. hal eb 'big problem' | Bahasa Indonesia: masalah | collected on: Sanana | source: numerous | 2010–2019

hama 'color' | Bahasa Indonesia: warna | collected on: Sanana | source: numerous | 2010–2019
**hama** 'eye' | Bahasa Indonesia: mata | collected on: Sanana | source: numerous | 2010–2019

**hama ba sagil** 'squinting' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**hama ka'ok** 'visually impaired' | Bahasa Indonesia: gangguan penglihatan permanen | collected on: Sanana | source: numerous | 2010–2019

**hama kaok** 'blind' | e.g. *hama ka'ok* 'eyes blind' | Bahasa Indonesia: buta | collected on: Sanana | source: numerous | 2010–2019 | note: Sanana form. For Mangon form, see also *(lama) ka'oki*

**hama wai** 'tears' | collected on: Sanana | source: numerous | 2010–2019

**hamadoa** 'sleepy' | Bahasa Indonesia: mengantuk | collected on: Sanana | source: numerous | 2010–2019

**han** 'near' / 'almost' | Bahasa Indonesia: dekat | collected on: Sanana | source: numerous | 2010–2019

**han** 'who' | Bahasa Indonesia: siapa | collected on: Sanana | source: numerous | 2010–2019

**han han** 'close' | Bahasa Indonesia: berdekatan | collected on: Sanana | source: numerous | 2010–2019

**hana** 'angry' | collected on: Sanana | source: numerous | 2010

**hapa** 'what' | Bahasa Indonesia: apa | collected on: Sanana | source: numerous | 2014 | note: see also *ganao, opa*.

**hapa da** 'what else' | Bahasa Indonesia: apa lagi | collected on: Mangon, Ulfoa village | source: numerous | 2015

**haram** 'forbidden' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: loan from Arabic

**harja** 'to knit' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**harp** 'to want (something)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**hasi** 'to tell a lie' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan

**hasoya** 'answer' | Bahasa Indonesia: menjawab | collected on: Sanana | source: numerous | 2010–2019

**hebat** 'serious' | Bahasa Indonesia: serius | collected on: Sanana | source: numerous | 2010–2019

402
**hebat** 'special' / 'unusual' | Bahasa Indonesia: ahli, luar | collected on: Sanana | source: numerous | 2010–2019

**hebat pel** 'special' | Bahasa Indonesia: istimewa | collected on: Sanana | source: numerous | 2010–2019

**hebat totoya** 'very serious' | collected on: Sanana | source: numerous | 2010–2019

**heka** 'want' | collected on: Sanana | source: numerous | 2010

**hen** 'to carry' | (when carrying something in a basket that is worn as a backpack) | collected on: Sanana, Umahoya village | Source: Fagudu tribe | 2014

**hi** 'main posts' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I don't understand the Holle gloss.

**hia** 'a few' / 'some' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this is almost certainly erroneous.

**hia** 'cardinal number one' | Bahasa Indonesia: satu | collected on: Sanana | source: numerous | 2010 | note: Sanana form. See also **gia**

**hia bahoa** 'which' | Bahasa Indonesia: yang mana | collected on: Sanana | source: numerous | 2010–2019

**hia baoa** 'which' | Bahasa Indonesia: yang mana | collected on: Sanana | source: numerous | 2010–2019

**hia da** 'once again' / 'once more' | Bahasa Indonesia: satu lagi | collected on: Mangon, Ulfoa village | source: numerous | 2015

**hia moya** 'none' / 'no one' | collected on: Sanana | source: numerous | 2010

**hidup** 'live' | collected on: Mangon | source: three to five consultants | 2010

**hidup susa** 'miserable life' | collected on: Sanana | source: two to three consultants | 2010 | note: literally 'impoverished life'

**hifa** 'south' | e.g. **hifa hafa** 'to and fro' | Bahasa Indonesia: selatan | collected on: Sanana, Waibau village | source: single consultant | 2015 | note: it is likely that hifa and hafa originally meant something akin to north and south, but only one consultant provided this definition. For most speakers the terms have come to represent non-specific opposing directions like 'to and fro'. They are often translated as 'left and right' (kiri/kanan) but when asked which is kiri or which is kanan, the answer is 'neither'.

**hika** 'to confess' | collected on: Sanana | source: single consultant | 2014 | note: see also **niki**

**hira** 'lose' | Bahasa Indonesia: menghilangkan | collected on: Sanana | source: numerous | 2010–2019

403
**hisa** 'fence' / 'hedge' | Bahasa Indonesia: pagar | collected on: Sanana | source: two to three consultants | 2010–2019 | note: Holle postulates this as a Ternate loan

**hit** 'fire place' / 'hearth' | collected on: Sanana | source: numerous | 2014

**hitu** 'fire place' / 'hearth' | collected on: Mangon | source: three to five consultants | 2014

**ho'i / hoi** 'bone' | collected on: Mangon, Sanana | source: numerous | 2010–2019 | note: glottal stop depends on speaker and village

**hoba** 'sprout' / 'shoot' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**hoi** 'to open' | (e.g. container or business) | Bahasa Indonesia: membuka, buka | collected on: Sanana | source: numerous | note: Holle postulates this as a Ternate loan

**hoi min** 'hankerchief' | collected on: Sanana | source: numerous | 2010

**hosa** 'leaf' | Bahasa Indonesia: daun | collected on: Sanana | source: numerous | 2010–2019

**hosa babir** 'decorative plant commonly found in front of Sula homes' | collected on: Mangon, Capuli village | source: numerous | 2015 | note: image 2197

**hua** 'vein' | Bahasa Indonesia: urat darah | collected on: Sanana | source: numerous | 2010–2019 | note: see also **ua**

**hui** 'to scrape' | e.g. scrape young coconut flesh from shell | collected on: Mangon, Capuli village | source: numerous | 2015

**hukuman** 'to punish' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**huruf** 'letter' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**hut ap** 'to make a fire' | collected on: Sanana | source: numerous | 2014

**i** 'yes' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: see also **io**

**i / 'i** 'this' | Bahasa Indonesia: ini | collected on: Sanana | source: numerous | 2010 | note: possible abbreviation of **iki**.

**ia** 'Street' | collected on: Sanana | source: numerous | 2010

**ia fai** 'country' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**ia fai aya** 'town (capital)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
ia fai lal  'population' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
ianga kau, tanu  'to spy' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
iayu  'a type of grass' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
ib  'much' / 'many' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: unclear if this represents a sound change or just different vowel perception in the interviewer. The modern form is eb
ibu  'much' / 'many' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: unclear if this represents a sound change or just different vowel perception in the interviewer. The modern form is ebu
ihi  'they' | Bahasa Indonesia: mereka | collected on: Sanana | source: numerous | 2010–2019 | note: third-person plural pronoun. Takes preverbal agreement marker i-
ihi  'meat' / 'flesh' | Bahasa Indonesia: daging | collected on: Sanana | source: numerous | 2010–2019
ihi  'dried meat' | collected on: Sanana | source: numerous | 2014
ihi domba  'mutton' | Bahasa Indonesia: daging domba (Loan) | collected on: Sanana | source: numerous | 2010–2019
ihi fata  'body' | collected on: Sanana | source: numerous | 2014
iju  'green' | Bahasa Indonesia: hijau | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: likely loan from Bahasa Indonesia hijau.
ik  'now' | Bahasa Indonesia: sekarang | collected on: Sanana | source: numerous | 2010–2019 | note: There are multiple Sanana and Mangon forms. See also ika, iki
ik  'here' / 'this' / 'it' | Bahasa Indonesia: ini, di sini | collected on: Sanana | source: numerous | 2010–2019 | note: There are multiple Sanana and Mangon forms. See also ika, iki, isuka, saik, saiki, saiya, sit iki, deha saik, siku.
iki  'neck' | collected on: Sanana | source: numerous | 2010–2019
ika  'now' | Bahasa Indonesia: sekarang | collected on: Mangon | source: numerous | 2010–2019 | note: There are multiple Sanana and Mangon forms. See also ik, iki
ika 'here' / 'this' / 'it' | Bahasa Indonesia: ini, di sini | collected on: Sanana | source: numerous | 2010–2019 | note: There are multiple Sanana and Mangon forms. See also ik, iki, isuka, saik, saiki, saiya, sit iki, deha saik, siku.

iki 'now' | Bahasa Indonesia: sekarang | collected on: Sanana | source: numerous | 2010–2019 | note: There are multiple Sanana and Mangon forms. See also ika, ik

iki 'here' / 'this' / 'it' | Bahasa Indonesia: ini, di sini | collected on: Sanana | source: numerous | 2010–2019 | note: There are multiple Sanana and Mangon forms. See also ika, ik

iki wai 'neck' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

ikina 'that (far-away)' | collected on: Mangon | source: three to five consultants | 2014

ikinfa 'their things' | Bahasa Indonesia: barangnya | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: The Holle entry is in error. This term means 'this thing' / 'these things'

iku 'here' / 'this' / 'it' | Bahasa Indonesia: ini, di sini | collected on: Mangon, Ulfoa village | source: numerous | 2014 | note: CMD form. In accommodating to Mangon speakers, CMD speakers (especially in Ulfoa village) would re-add final vowels that were dropped in Sanana. The chosen vowel did not always match the Mangon target though. This is not unlike speakers of British dialects that have dropped initial h re-adding it to words beginning with vowels when talking to English speakers of other dialects (I'll ave an happle please). See also isuka, saik, saiki, saiya, sit iki, deha saik, siku.

ila 'beside' / 'side' | (e.g. side of street) | Bahasa Indonesia: di samping, pinggir | collected on: Sanana | source: numerous | 2010–2019

ila hia 'next to, across' | Bahasa Indonesia: di samping, seberang | collected on: Sanana | source: numerous | 2010–2019

ila kul / ila kuli 'right side' | Bahasa Indonesia: kanan | collected on: Sanana | source: single consultant | 2010–2019 | note: is ila a synonym of lima (perhaps metathesis?)

ila tapa 'left side' | Bahasa Indonesia: kiri | collected on: Sanana | source: single consultant | 2010–2019 | note: is ila a synonym of lima (perhaps metathesis?)

ilahia selatan 'south' | Bahasa Indonesia: selatan (Loan) | collected on: Sanana | source: numerous | 2010–2019
ili 's/he' | collected on: Mangon | source: two to three consultants | note: third-person human pronoun (antiquated). See also ki’i

ilinifa 'their things' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan.

ima 'eel' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

imut 'cute' | Bahasa Indonesia: imut | collected on: Mangon, Capuli village | source: three to five consultants | 2015 | note: loan from Bahasa Indonesia.

in pahu gan 'type' | Bahasa Indonesia: macam | collected on: Sanana | source: numerous | 2010–2019

ing kina 'like' / 'in the manner of' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

io 'yes' | Bahasa Indonesia: ya | collected on: Sanana | source: numerous | 2010–2019

ipa 'kenari nut' (canarium) | Bahasa Indonesia: kenari | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: see also kam

ipa fua 'kenari fruit' (canarium) | Bahasa Indonesia: buah kenari | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: see also kam

ipa hal 'kenari blossom' (canarium) | Bahasa Indonesia: mekar kenari | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: see also kam

ipa kau 'kenari tree' (canarium) | Bahasa Indonesia: pohon kenari | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: see also kam

iru oka 'ladle' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

iru ongku 'ladle' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

isa 'brush' | Bahasa Indonesia: sikat | collected on: Sanana | source: numerous | 2010–2019

istarat 'straights' | e.g. between islands | collected on: Sanana | source: numerous | 2010–2019

isuka 'here' | Bahasa Indonesia: ini, di sini | collected on: Mangon | source: numerous | 2010 | note: see also saik, saiki, saiya, sit iki, deha saik, siku.

isuna 'there' | collected on: Mangon | source: numerous | 2010 | note: see also semana.
it 'border' / 'boundary' | collected on: Sanana | source: numerous | 2010
it / 'it' 'ebb tide' | Bahasa Indonesia: air surut | collected on: Sanana | source: numerous | 2010 | note: see also gasu
it wama 'to breath' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
iti 'border' / 'boundary' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
iya 'this' | Bahasa Indonesia: ini | location: unknown | source: Umaternate | 2013
iya fai tuka 'population' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
ja soma 'net' | collected on: Sanana | source: numerous | 2010
jaga 'to watch' / 'to guard' | collected on: Sanana | source: numerous | 2010–2019 | note: see also kapita
jahi 'curtain' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan
jangela 'window' | Bahasa Indonesia: jendela (Loan) | collected on: Sanana | source: numerous | 2010–2019
jao 'god (no particular god)' | Bahasa Indonesia: dewa | collected on: Sanana | source: numerous | 2010–2019
jao 'a god' | (nonspecific) | collected on: Sanana | source: two to three consultants | 2014 | note: Holle postulates this as a Ternate loan
japat tatoya 'speed (velocity), rapid' | Bahasa Indonesia: kecepatan | collected on: Sanana | source: numerous | 2010–2019
jara 'horse' | collected on: Sanana | source: numerous | 2014 | note: possible loan from Bahasa Jawa
jara ban li 'to neigh (horse sound)' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
jawab 'answer' | Bahasa Indonesia: jawaban (Loan) | collected on: Sanana | source: two to three consultants | 2010–2019
jengela 'window' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

408
jepat pama 'fragile (easy break)' | Bahasa Indonesia: gampang pecah | collected on: Sanana | source: numerous | 2010–2019
jere 'sacred place' | Bahasa Indonesia: (tempat) keramat (Loan?) | collected on: Sanana | source: numerous | 2010–2019 | note: This is likely a loan from Ternate
jeri 'sacred place' | Bahasa Indonesia: (tempat) keramat (Loan?) | collected on: Sanana | source: numerous | 2010–2019 | note: This was likely borrowed as /jere/ from Ternate
jinggo 'beard' | collected on: Sanana | source: numerous | 2010–2019
jo 'The God (specific)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan. See also jao
jonson 'dugout canoe with a motor attached' | collected on: Sanana, Umahoya village | Source: Fagudu tribe | 2014 | note: loan from defunct 'Johnson Brothers Motor Company' maker of outboard boat motors beginning in the early 1900s. See also lota, budi.
jub 'quiver' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this term means 'bow' not 'quiver'
jubi 'shooting a bow and arrow' / 'fishing with a spear gun' | Bahasa Indonesia: memanah | collected on: Mangon, Waitulia village | source: numerous | 2014
ka'ik 'grass' / 'weeds' | Bahasa Indonesia: rumput | collected on: Sanana | source: numerous | 2010–2019 | note: Sanana form. See also Mangon forms kahiku and ka'iku
ka'iku 'grass' / 'weeds' | Bahasa Indonesia: rumput | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | 2014 | note: antiquated Mangon form. This was accepted by Mangon speakers when prompted, but it was never recorded produced with a glottal stop. See also Sanana forms kahik, and ka'ik
ka'ipa 'steps' / 'stairs' | Bahasa Indonesia: tangga | collected on: Sanana | source: numerous | 2014 | note: see also kahepa

ka'odi 'nail' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

ka'oki 'blind' | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form, see also (hama) kaok

ka'opa 'octopus' | Bahasa Indonesia: gurita | collected on: Ternate | source: Mangon tribe member living on Ternate

ka'or 'nail' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

kabares 'evil' | Bahasa Indonesia: jahat | collected on: Mangon, Wai U village | source: numerous | 2014

kabosan pel 'boring' | Bahasa Indonesia: membosankan (Loan) | collected on: Sanana | source: numerous | 2010–2019

kabu lagoon triggerfish/humuhumunukunukuapua'a (rhinecanthus aculeatus) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

kabut 'fog' | collected on: Mangon | source: three to five consultants | 2010

kachan ihi 'peanut meat' | collected on: Sanana | source: numerous | 2010

kadaan 'weather' | e.g. hai dewika kadaan bisa/birahi 'tomorrow will be good/pretty weather' | Bahasa Indonesia: cuaca | collected on: Sanana | source: numerous | 2010–2019


kadiga 'stale' / 'hard' | e.g. stale bread | Bahasa Indonesia: keras | collected on: Sanana | source: numerous | 2010

Kadiga 'strong' / 'extremely' | Bahasa Indonesia: kuat, sekali | collected on: Sanana | source: numerous | 2010

kafi / kaf 'to carry in front of oneself' | collected on: Mangon, Sanana | source: numerous | 2010–2019

kafida 'humid' | Bahasa Indonesia: lembab | collected on: Sanana | source: numerous | 2010–2019

kafin 'mosquito' | Bahasa Indonesia: nyamuk | collected on: Sanana | source: numerous | 2010–2019

kafui 'chickpea' | Bahasa Indonesia: kacang panjang | collected on: Sanana | source: numerous | 2010–2019
**kag**  'awful' | Bahasa Indonesia: mengerikan | collected on: Sanana | source: numerous | 2010–2019

**kag / kagi**  'afraid, fear' | e.g. (1) *kag moya pel* 'don't be afraid anymore' (2) *kag kadiga* 'extreme fear' | Bahasa Indonesia: takut | collected on: Sanana, Mangon | source: numerous | 2010–2019 | note: see also Mangon form *kagi*

**kagi**  'fear' | collected on: Mangon | source: numerous | 2010 | note: see also Sanana form *kag*

**kaha**  'rafter' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**kahepa**  'stairs' / 'ladder' | e.g. (1) *bena lepa do kahepa* 'climb up with the ladder' (2) *bena do kahepa lepa* 'climb with the ladder up' (3) *yawa neu do kahepa* 'go down with the ladder' | Bahasa Indonesia: tangga | collected on: Sanana | source: numerous | 2010–2019

**kahik / kahiku**  'grass' | Bahasa Indonesia: rumput | collected on: Sanana, Mangon | source: numerous | 2010-2019 | note: see also *ka’ik*, *ka’iku*

**kahor**  'claw' / 'tallon' / 'fingernail' | Bahasa Indonesia: kuku, cakar | collected on: Sanana | source: numerous | 2010-2019 | note: see also *kodi* for Mangon form.

**kai fa’oii**  'bride price' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**kai falihi**  'bride price' | collected on: Sanana | source: numerous | 2014

**kai iti**  'sap' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**kaihi**  'fishing hook' / 'fishing lure' | Bahasa Indonesia: kail, umpan | collected on: Sanana | source: numerous | 2010–2019

**kailupa / kai lupa**  'kapok tree' | Bahasa Indonesia: kapok | collected on: Sanana, Malbufa village and East Sanana | source: numerous | note: this is a very large tree, closely related to but somewhat smaller than the kapok tree of south America and West Africa. The silk from its seed pods is used as stuffing for pillows and mattresses. It is also highly flammable and used for fire tinder.

**kak / kaka**  'older sibling' | collected on: Sanana | source: numerous | 2010–2019 | note: see also *fuk*

**kak fina / kaka fina**  'older sister' | Bahasa Indonesia: kakak perempuan | collected on: Sanana | source: numerous | 2010–2019 | note: see also *fuk fina*
**kak maana / kaka maana** 'older brother' | Bahasa Indonesia: kakak laki-laki | collected on: Sanana | source: numerous | 2010–2019 | note: see also fuk maana

**kaka'al** 'attic (under the roof)' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**kakahoi** 'outside' | Bahasa Indonesia: luar | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019

**kakatua** 'parrot' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**kaki** 'older sibling' | collected on: Mangon | source: three to five consultants | 2010

**kakon** 'yellow' | Bahasa Indonesia: kuning | collected on: Sanana | source: numerous | 2010–2019 | note: also used by some for 'pink', but I'm not sure this is standard

**kakui** 'insect' | Bahasa Indonesia: serangga | collected on: Sanana | source: numerous | 2010–2019

**kakui bina** 'ant' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**kal** 'woven basket backpack' | collected on: Mangon, Capuli village | source: two to three consultants | 2015 | note: see also saloi. image 2201

**kalea** 'kidney' / 'waist' | e.g. **kalea geka** 'kidney disease' | Bahasa Indonesia: ginjal, pinggang | collected on: Sanana | source: numerous | 2010–2019

**kalebasa** 'gourd' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**kaleo** a fish that is either the same as or similar to the soldierfish (myripristis) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014

**kaleofua** a fish that is either the same as or similar to the bigeye (heteropriacanthus cruentatus) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**kaleu** a fish that is either the same as or similar to the blotcye soldierfish (myripristis berndti) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**kalibas** 'gourd' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**kalo** 'if' | Bahasa Indonesia: kalau | collected on: Sanana | source: numerous | 2010–2019
**kam** 'we (inclusive)’ | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I am not sure this Holle entry is erroneous, because there is significant semantic drift among pronouns in various remote locations. Interestingly, this does not seem to cause problems. The pronouns as I present them include *kam* as exclusive, and that also agrees with Collins, 1981. My pronoun presentation *seems* to be the most widespread usage, although this is harder to quantify than it might seem, as people tend to use pronouns a certain way but then get confused when they are asked to think about and report how they are using them. Also compounding the confusion: an exclusivity contrast does not commonly exist in practice, and that adds confusion when asking speakers to report correct usage. This phenomenon is similar to asking most English speakers to explain correct usage of *thou*, *thee*, and *thine* (or even *whom* for that matter).

**kam** 'large type of kenari nut/canarium' | Bahasa Indonesia: kacang kenari | collected on: Mangon, Ulfoa village | source: two to three consultants | 2015 | note: see also *ipa*

**kam / kami** 'we’ | (exclusive) | collected on: Sanana | source: numerous | 2010–2019

**kami tina** 'beach’ | collected on: Mangon | source: three to five consultants | 2014

**kamia mayoki** 'sandbank' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**kaminca** a fish that is either the same as or similar to the threadfin butterflyfish (chaetodon auriga) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**kamiya** 'sand’ | collected on: Mangon | source: three to five consultants | 2010

**kamiya miti** 'black sand’ | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: the contemporary form is *kuma wai miti*


**kamu kau** 'loin cloth’ | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: this has likely fallen out of the language

**kan** 'wound, injury’ | Bahasa Indonesia: luka | collected on: Sanana | source: numerous | 2010–2019

**kan hosa** 'leaf' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: *kan* is archaic. *kau* is more common
kan hut 'fire wood' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: see also kau tona
kan leha 'rash (general)' | Bahasa Indonesia: ruam | collected on: Sanana | source: numerous | 2010–2019
kan liha 'scar' | collected on: Sanana | source: two to three consultants | 2010 | note: Sanana form. For Mangon form, see also kani lia
kan mafai 'bruise' | Bahasa Indonesia: luka memar | collected on: Sanana | source: numerous | 2010–2019
kana 'jar' | Bahasa Indonesia: kendi | collected on: Sanana | source: numerous | 2010–2019
kani lia 'scar' | collected on: Mangon | source: two to three consultants | 2010 | note: Sanana form. For Mangon form, see also kan liha
kanou 'sugar palm' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
kanum 'dibble' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
kao 'tree' | collected on: Mangon | source: three to five consultants | 2010
kapa oba 'to close' | Bahasa Indonesia: menutup [tutup] | collected on: Sanana | source: numerous | 2010–2019
kapahaba au 'wall (bamboo)' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
kapal 'ship' | Bahasa Indonesia: kapal (Loan) | collected on: Sanana | source: numerous | 2010–2019 | note: used for larger ships than lota
kapal ap 'steamboat' | collected on: Sanana | source: numerous | 2014 | note: loan from Bahasa Indonesia.
kapal udara 'airplane' | collected on: Sanana | source: numerous | 2010
kapala desa 'chief' | Bahasa Indonesia: pemimpin (Loan) | collected on: Sanana | source: numerous | 2010–2019
kapamid 'bait' | Bahasa Indonesia: umpan | collected on: Sanana | source: numerous | 2010–2019
kapamid kau 'fishing rod' | Bahasa Indonesia: tangkai pancing | collected on: Sanana | source: numerous | 2010–2019
kapatut 'mortar (culinary)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
**kapatut nana** 'pounder' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this would mean 'little pounder'

**kapita** 'guard' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**karabu** 'ear-clip' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**karan** 'kite bird' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**karica** 'parakeet' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**kartas** 'paper' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**kasa** 'sprout' / 'shoot' | collected on: Mangon | source: three to five consultants | 2014

**kasafohi / kasafoi** 'grass' / 'ground' / 'floor' | Bahasa Indonesia: rumput | collected on: Sanana; Mangon, Wai U village | source: numerous | 2010–2019 | note: 'grass' is the literal meaning. 'floor' and 'ground' are metonymy.

**kasawari** 'cassowary' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**kasbi** 'casava' | collected on: Sanana | source: numerous | 2010

**kasbi ihi** 'casava meat' | collected on: Sanana | source: numerous | 2010

**kastela** 'cassava' | Bahasa Indonesia: singkong | collected on: Sanana | source: numerous | 2014

**kastela** 'sweet potato' | Bahasa Indonesia: ubi jalar | collected on: Sanana, Malbufa village | source: two to three consultants | 2015 | note: this term only means cassava outside of Malbufa

**kasur** 'mattress' | Bahasa Indonesia: kasur (Loan) | collected on: Sanana | source: numerous | 2010–2019

**kat** 'taro' | Bahasa Indonesia: talas | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015

**kata** 'word' / 'say' | collected on: Sanana | source: numerous | 2010

**kata** 'different' | collected on: Sanana | source: two to three consultants | 2010 | note: uncommonly used

**kata niga** 'ceiling beams' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
**Katageya** 'addiction' | Bahasa Indonesia: kecanduan | collected on: Sanana | source: numerous | 2010–2019

**Katefa** 'blister' | Bahasa Indonesia: lepuh | collected on: Sanana | source: numerous | 2010–2019

**Kati** 'device for weighing and measuring a malleable substance' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**Katinggu** 'crow' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**Kau** 'tree' / 'tree stalk' / 'wood' | Bahasa Indonesia: pohon, kayu | collected on: Sanana | source: numerous | 2010–2019

**Kau ap** 'firewood' | Bahasa Indonesia: kayu bakar | collected on: Sanana | source: numerous | 2010–2019

**Kau bakunu** 'morinda atrocarpus' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**Kau in hosa** 'leaf' | Bahasa Indonesia: daun | collected on: Sanana | source: numerous | 2010–2019

**Kau kol** 'bark' | collected on: Sanana | source: numerous | 2014 | note: Snana form. For Mangon form see kau koli / kau kuli

**Kau koli / Kau kuli** 'bark' | collected on: Mangon | source: numerous | 2010 | note: Mangon form. For Sanana form see kau kol

**Kau ladu** 'heart of the tree' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**Kau losa** 'leaf' | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form see also kau hosa

**Kau losa** 'leaf' | collected on: Mangon | source: three to five consultants | 2010

**Kau mai** 'the dust left from mui insects after eating wood' | collected on: Mangon, Waitulia village | source: numerous | 2014

**Kau nfat** 'heart of the tree' | collected on: Sanana | source: numerous | 2014

**Kau nhal** 'flower' | collected on: Sanana | source: numerous | 2014

**Kau ni’it** 'sap' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**Kau nona** 'banyan tree' | Bahasa Indonesia: pohon beringin | collected on: Sanana | source: single consultant | 2014

**Kau patsuba** 'medicinal plant used to treat cuts and scrapes' | collected on: Mangon, Capuli village | source: numerous | 2015 | note: image 2196
**kau sana** 'twig' / 'branch' | Bahasa Indonesia: cabang | collected on: Sanana | source: numerous | 2010-2019

**kau sumba** 'flower' | collected on: Mangon | source: three to five consultants | 2014

**kau tafi** 'base of tree' | collected on: Mangon, Waitulia village | source: numerous | 2014

**kau tonu** 'fire wood' | collected on: Mangon | source: numerous | 2014 | note: *dona* becomes *tona* due to Sula's intervocalic fortition

**kau tubi / kau ntubi** 'tree seedling' | collected on: Sanana | source: numerous | 2014

**kau waka** 'tree root' | Bahasa Indonesia: akar | collected on: Sanana | source: numerous | 2014

**kau yon** 'tree' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: *kau* alone means 'tree', and *yon* is a mysterious morpheme. It is recorded as 'corner' in isolation, but it also appears in final position in various terms that have no apparent relationship to one another. Some examples are: *bayon* 'mouth' (*ba* alone is from the form *nuba* 'mouth'), *goiyon* 'buttocks' (*goi* alone means 'buttocks'), *haiyon* 'countryside' (*hai* alone means 'land*'). The morpheme appears to serve a syntactic function that has eluded both Holle and myself.

**kaufua saota** 'dried fruit' | Bahasa Indonesia: buahan kering | collected on: Sanana | source: numerous | 2010–2019

**kauumi** 'dibble' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**kauwana** 'steak (food)' | Bahasa Indonesia: bistik | collected on: Sanana | source: numerous | 2010–2019

**kawaileha** 'bladder' | Bahasa Indonesia: kandung kemih | collected on: Sanana | source: numerous | 2010–2019

**kawana** 'stick' | collected on: Sanana | source: numerous | 2010–2019

**ke adahan mora** 'temperature (weather)' | Bahasa Indonesia: suhu udara | collected on: Sanana | source: numerous | 2010–2019

**kebal** 'Lizard' | collected on: Sanana | source: numerous | 2010–2019


**kelambur** 'bed curtain' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
**keli** 'stand' | collected on: Mangon | Collins | 1981 | note: See also **geli**. Collins lists this form as k, but I am certain it was produced that way due to Sula’s bizarre intervocalic fortition process (discussed in chapter 3). Sula consultants frequently frame their responses with a verbal agreement marker, so it is likely that a consultant responded a-**keli** 'I stand' and Collins omitted the a-, as he understood it to be a pronominal agreement marker.

**kena** 'fish' | Bahasa Indonesia: ikan | collected on: Sanana | source: numerous | 2010

**kena bega** 'tuna' | Bahasa Indonesia: ikan cakalang | collected on: Sanana | source: numerous | 2010–2019

**kena bubara** a fish that is either the same as or similar to the giant trevally (caranx ignobilis) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014

**kena fia bega** a fish that is either the same as or similar to the spotted puffer (ariothron meleagris) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014

**kena gamuli** a fish that is either the same as or similar to the surge wrasse (thalassoma purpureum) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014

**kena gawan** 'whale' | collected on: Sanana | source: numerous | 2010

**kena gurara** a fish that is either the same as or similar to the bluestripe snapper (lutjanus kasmira) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014

**kena kaleo fua** a fish that is either the same as or similar to the bigeye fish (heteropriacanthus) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014

**kena katip sai** a fish that is either the same as or similar to the scrawled filefish (aluterus scriptus) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014

**kena kawahi** 'dried small whole fish' | collected on: Sanana | source: numerous | 2010

**kena kombo** 'type of edible fish similar to skipjack' | collected on: Sanana, Pastina village | source: Falahu tribe farmers | 2014

**kena langpama** a fish that is either the same as or similar to the convict tang (acanthurus triostegus) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014
kena maki 'small edible silver fish' | Bahasa Indonesia: ikan kira (maybe local dialect) | collected on: Mangon, Wai U village | source: numerous | 2015

kena mami a fish that is either the same as or similar to the parrotfish (scarinae) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014

kena pali a fish that is either the same as or similar to the surgeonfish (acanthurus) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014

kena Saguu a fish that is either the same as or similar to the goatfish (parupeneus) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014

kena salem 'salmon' | Bahasa Indonesia: ikan salem | collected on: Sanana | source: numerous | 2010–2019

kena Sambali a fish that is either the same as or similar to the great baracuda | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014

kena songu a fish that is either the same as or similar to the pinktail triggerfish (Melichthys vidua) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014

kena tubi a fish that is either the same as or similar to the blackside razor wrasse (iniistius umbrilatus) | collected on: Mangon, Mangon village | source: Mangon tribal members who are (non-fishermen) | 2014

kera 'monkey' | collected on: Mangon, Capuli village | source: two to three consultants | 2015

kertas 'paper' | collected on: Sanana | source: numerous | 2010

ketimu 'cucumber' | collected on: Mangon | source: numerous | 2014 | note: loan from Bahasa Indonesia. See also tim

keu 'phlegm' / 'saliva' / 'spit' | collected on: Sanana | source: numerous | 2010

ki'i 's/he' | Bahasa Indonesia: dia | collected on: Sanana | source: numerous | 2010 | note: third-person singular (human) pronoun. Preverbal agreement marker: i-

kiku 'grass' | collected on: Mangon | source: three to five consultants | 2010

kila 'liver' | Bahasa Indonesia: hati | collected on: Sanana | source: numerous | 2010–2019

kim 'you' | (informal plural) | collected on: Sanana | source: numerous | 2014 | note: second-person plural pronoun. Preverbal agreement marker: gu-
kim 'you' | (formal, singular and plural) | collected on: Sanana | source: numerous | 2014 | note: second-person singular and plural formal pronoun. Preverbal agreement marker: gi- (interestingly, some report that this also functions as a third-person plural formal pronoun)

kim fa 'your things' | (used with plural and formal) | Bahasa Indonesia: barang anda | collected on: Sanana | source: numerous | 2014

kima 'shell' | Bahasa Indonesia: tempurung | collected on: Sanana | source: numerous | 2010


kipa 'thigh' | Bahasa Indonesia: paha | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

kipu 'smith' | Bahasa Indonesia: pndai besi | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

kira-kira ga(h)oa 'suggestion' | Bahasa Indonesia: saran | collected on: Sanana | source: numerous | 2010

kit badan 'body' | Bahasa Indonesia: badan | collected on: Sanana | source: numerous | 2010–2019

kitab 'book' | Bahasa Indonesia: buku | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

koa 'wire' | Bahasa Indonesia: kawat | collected on: Sanana | source: numerous | 2010–2019

kob 'knife' | Bahasa Indonesia: pisau | collected on: Sanana | source: numerous | 2010–2019

kob(i) 'knife' | Bahasa Indonesia: pisau | collected on: Sanana | source: numerous | 2010

kodi 'claw' / 'tallon' / 'fingernail' | Bahasa Indonesia: kuku, cakar | collected on: Mangon | source: numerous | 2010–2019 | note: see also kahor for Sanana form.

kof 'coffee' | Bahasa Indonesia: kopi | collected on: Sanana | source: numerous | 2010 | note: usually said with a long [f] sound. Unclear if this is an affectation or something phonemic

kofi 'coffee' | Bahasa Indonesia: kopi | collected on: Sanana | source: numerous | 2014
koha 'shade' / 'shadow' | Bahasa Indonesia: teduh, bayangan | collected on: Sanana | source: numerous | 2010–2019
koi 'no' / 'don't' | Bahasa Indonesia: jangan | collected on: Sanana | source: numerous | 2010 | note: used in commands.
koisui tabak 'nonsmoking' | Bahasa Indonesia: dilarang merokok | collected on: Sanana | source: numerous | 2010–2019
kokon 'yellow' | Bahasa Indonesia: kuning | collected on: Sanana | source: two to three consultants | 2010 | note: see also kakon
kol 'body' | Bahasa Indonesia: kulit | collected on: Sanana | source: numerous | 2010–2019 | note: likely metonymy of 'skin' to 'body'
kol 'skin' / 'leather' / 'peel' / 'chaff' | Bahasa Indonesia: kulit | collected on: Sanana | source: numerous | 2010–2019
kolsanang 'comfortable' | e.g. comfortable temperature | Bahasa Indonesia: nyaman | collected on: Mangon, Capuli village | source: numerous | 2015 | note: literally 'skin' + 'happy'
kolyaha 'tired' | Bahasa Indonesia: cape | collected on: Sanana, Malbufa, East Sanana | source: numerous | 2010 | note: literally 'skin' + 'tired'. See also yaha
kol'an 'king' (Malay?) | Bahasa Indonesia: raja | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
kolanoo 'king' | Bahasa Indonesia: raja | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
koli 'skin' | Bahasa Indonesia: kulit | collected on: Mangon | source: three to five consultants | 2010
koma 'loin cloth' | Bahasa Indonesia: cawat | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this has likely fallen out of the language
kon 'curcuma domestica' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
kop 'cup' | Bahasa Indonesia: mangkuk | collected on: Sanana | source: numerous | 2014
kota 'flea, louse' | Bahasa Indonesia: kutu | collected on: Sanana | source: numerous | 2010–2019
kota til 'nit' | Bahasa Indonesia: telur kutu | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
kotu 'flea, louse' | Bahasa Indonesia: kutu | collected on: Mangon | source: three to five consultants | 2010
kuasa 'power' | Bahasa Indonesia: kuasa | collected on: Sanana | source: numerous | 2010–2019
kub 'gather together' / 'arrange' | e.g. da’u kub fa’a mehi 'pack a bag with things' | Bahasa Indonesia: berkumpul | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015
kub 'grave' | Bahasa Indonesia: kuburan | collected on: Sanana | source: numerous | 2010–2019
kuda 'trowel (a small trowel)' | Bahasa Indonesia: sekop | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan
kukusan liha 'rice-kettle (earthenware)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
kul 'right (direction)' | Bahasa Indonesia: kanan | collected on: Sanana | source: numerous | 2010–2019
kuli 'skin' | Bahasa Indonesia: kulit | collected on: Sanana | source: numerous | 2010 | note: possible loan from Bahasa Indonesia kulit.
kumawai 'sandbank' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
kumawai tina 'beach' | collected on: Sanana | source: numerous | 2014
kumpulan 'tribe' / 'clan' | collected on: Sanana | source: numerous | 2010
kuni 'curcuma domestica' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
kunong 'firefly' | collected on: Sanana | source: numerous | 2010
kutig 'crow' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
kuwa 'device for weighing and measuring rice' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

la 'so that' | Bahasa Indonesia: agar | location: unknown | source: Umaternate | 2013

la 'fly' | collected on: Mangon | source: three to five consultants | 2010

la dad moya 'impossible, untrue, bluff, untrue' | Bahasa Indonesia: tidak mungkin | collected on: Sanana | source: numerous | 2010–2019

la eya 'midday' / 'noon' | Bahasa Indonesia: siang | collected on: Mangon, Ulofa village | source: numerous | 2015 | note: see also mum

la'oka 'to give birth' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

laa 'to fly' | Bahasa Indonesia: terbang | collected on: Sanana | source: numerous | 2010–2019

lab 'dress' / 'shirt' / 'jacket' / 'clothing' | Bahasa Indonesia: baju, kemeja, pakaian | collected on: Sanana | source: numerous | 2010–2019

labahu 'to become' | Bahasa Indonesia: menjadi | collected on: Mangon, Mangon village | source: two to three consultants | 2014

ladu 'to weave' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

lagu 'song' | collected on: Sanana | source: numerous | 2014

lai 'cotton' / 'thread' | collected on: Sanana | source: numerous | 2014

lai 'land' | collected on: Mangon | Verified from Collins | 1981 | note: lai is perfectly acceptable in some dialects, but hai appears to be the common standard. There are many words with l~h variation

laka 'to walk' / 'go' | Bahasa Indonesia: jalan, pergi | collected on: Sanana | source: numerous | 2010–2019

laka berkema 'go camping' | Bahasa Indonesia: berkemah (Loan) | collected on: Sanana | source: numerous | 2010–2019

laka hibar-hibar 'stroll along looking for a good time' | Bahasa Indonesia: pergi hiburan | collected on: Mangon, Waitulia village | source: single consultant | 2014

laka laka 'travel' / 'rambling' | Bahasa Indonesia: jalan-jalan | collected on: Sanana | source: numerous | 2010–2019

laka maneha neha 'straight ahead' | Bahasa Indonesia: terus | collected on: Sanana | source: numerous | 2010–2019
**laka mot** 'follow, join' | e.g. laka mot do ak 'go with me' | collected on: Sanana | source: numerous | 2010

**laka tima bo wai ngapu** 'to go upstream' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: this literally means 'walk inland toward the head of the water'

**laka yai** 'walk' | Bahasa Indonesia: jalan kaki | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'walk leg'

**lakafa** 'to yawn' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: this form is likely an alternate pronunciation of 'breathe' / 'inhale' bakafa. See also bakafa aya

**lal** 'inside' / 'heart' / 'intestines' | ('heart' in the symbolic sense and perhaps the literal sense as well depending on village.) | Bahasa Indonesia: dalam, jantung, usus | collected on: Sanana | source: numerous | 2010–2019 | note: see also tuka.

**lal basah** 'angry' | collected on: Sanana | source: numerous | 2010 | note: literally 'inside anger'

**lal basahn** 'angry' (general) | Bahasa Indonesia: marah | collected on: Sanana | source: three to five consultants | 2010–2019 | note: there is quite likely a whispered /a/ breaking apart the /hn/ cluster, as hana is another form for 'angry'

**lal bena** 'jealous anger' | e.g. ak lal bena 'I'm filled with jealousy' | Bahasa Indonesia: iri hati | collected on: Sanana | source: numerous | 2010–2019

**lal eya** 'selfish' | Bahasa Indonesia: egois | collected on: Sanana | source: numerous | 2010–2019

**lal fuk maana** 'brother (younger)' | Bahasa Indonesia: adik laki-laki | collected on: Sanana | source: numerous | 2010–2019

**lal gika** 'jealous' | collected on: Sanana | source: numerous | 2014

**lal kangela** 'sad' / 'heart break' / 'emotional' | Bahasa Indonesia: emosionil | collected on: Sanana | source: numerous | 2010

**lal masusa** 'sad' / 'heart break' | collected on: Sanana | source: numerous | 2010

**lal senang** 'happy' / 'comfortable' | collected on: Sanana | source: numerous | 2010

**lal suka** 'glad' / 'like' / 'happy' / 'celebrate' / 'surprise' | Bahasa Indonesia: senang, suka | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'inner like'

**lal sukasuka** 'Favorite' | collected on: Sanana | source: numerous | 2010
**lal wak kampung** 'homesick' | Bahasa Indonesia: rindu kampung | collected on: Sanana | source: numerous | 2010–2019

**lali** 'liver' | collected on: Mangon | source: three to five consultants | 2010

**lama** 'eye' | collected on: Mangon | source: numerous | 2014 | note: see also **hama**

**lama ka'oki** 'blind' | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form, see also (hama) kaok

**lama pasang gili** 'squinting' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**lama tina** 'forehead' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**lamatuka** 'face' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: see also **lug**

**lamida lila** 'chin' | collected on: Mangon | source: three to five consultants | 2014

**lamper** 'lamp' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: loan from Bahasa Indonesia.

**lamua** 'so' / 'in order to' | Bahasa Indonesia: untuk | collected on: Mangon, Mangon village | source: two to three consultants | 2014

**lan / lang / langi** 'sky' | Bahasa Indonesia: langit | collected on: Sanana | source: numerous | 2010–2019

**langpama** Moorish idol (zanclus cornutus) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**lani** 'almost' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**lap** 'slap' | Bahasa Indonesia: tempeleng | collected on: Mangon, Ulfoa village | source: two to three consultants | 2015 | note: see also **sapa**.

**lapa lapa / la'apa** 'butterfly' | Bahasa Indonesia: kupu-kupu | collected on: Mangon, Sanana, Malbufa village | source: three to five consultants | 2010–2019

**lapi (lapi-lapi)** parrotfish (scaridae) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**las ot / las oti** 'foreskin' (vulgar) | Bahasa Indonesia: kulup | collected on: Sanana, Mangon | source: numerous | 2015 | note: be careful with this word. Directing it at a person is a severe insult, and can easily instigate violence.

**lasa** 'langsat fruit' (lansium parasiticum) | collected on: Sanana | source: numerous | 2010
*lat pel* 'late' (late for an event) | Bahasa Indonesia: terlambat | collected on: Sanana | source: numerous | 2010–2019


*lawa* 'spider' | Bahasa Indonesia: laba-laba | collected on: Sanana | source: numerous | 2010–2019

*lawai* 'throat' | Bahasa Indonesia: tenggorokan | collected on: Sanana | source: numerous | 2010–2019

*lawai saota* 'thirsty' | collected on: Sanana | source: numerous | 2010 | note: literally 'throat' + 'dry'

*lawi* 'cotton' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

*lawoi sa'ota* 'thirsty' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: see also *saota, lawai saota*

*lay tuka gika* 'rheumatism' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

*layu* scorpionfish (scorpaenidae) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

*le* 'diving' | Bahasa Indonesia: selam | collected on: Sanana | source: single consultant | 2014

*lea / leha* 'main road' / 'local' / 'location' / 'place' / 'spot' | Bahasa Indonesia: jalan raya, lokal, lokasi | collected on: Sanana | source: numerous | 2010–2019

*lea* 'sun' | Bahasa Indonesia: matahari | collected on: Sanana | source: numerous | 2010–2019

*lea / lea lea* 'calmly' / 'placid' | e.g. *wai ewa lea lea* 'the water flows gently' | Bahasa Indonesia: pelan, pelan-pelan | collected on: Sanana | source: numerous | 2010–2019

*lea bana bal katim* 'sunburn' | Bahasa Indonesia: terbakar sinar matahari | collected on: Sanana | source: numerous | 2010–2019

*lea bena* 'sunrise' | Bahasa Indonesia: matahari terbit | collected on: Sanana | source: numerous | 2010–2019 | note: *lea pefa bo timur do seb bo barat* 'the sun rises to the east and sets to the west'. See also *lea pefa*

*lea kadiga* 'drought' / 'summer' / 'heatwave' | collected on: Sanana | source: numerous | 2010 | note: literally 'strong sun'
**Chapter 4: lexicon**


**lea ngada** 'door' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: see also eamata

**lea nonu** 'sleeping place' | collected on: Mangon | source: numerous | 2014 | note: see also (Mangon) liha nonu, leha nonu collected on: Sanana lea nona, leha nona

**lea pefa** 'sunrise' | Bahasa Indonesia: matahari terbit | collected on: Sanana | source: numerous | 2010–2019 | note: lea pefa bo timur do seb bo barat 'the sun rises to the east and sets to the west'. See also lea bena

**leakau** 'steps' / 'stairs' | Bahasa Indonesia: tangga | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: this is certainly false. This term means 'wood place' and is in no way specific to stairs.

**leaneu / lea neu** 'afternoon' | e.g. hai dewika lea neu 'tomorrow afternoon/early evening' | Bahasa Indonesia: sore | collected on: Sanana | source: numerous | 2010–2019

**leasa geka** 'venereal disease' | Bahasa Indonesia: penyakit kelamin | collected on: Sanana | source: numerous | 2010–2019

**leb** 'valley' | Bahasa Indonesia: lembah | collected on: Sanana | source: numerous | 2010–2019

**leba** 'to carry' | (when carrying an item that is tied to a stick over your shoulder) | collected on: Sanana, Umahoya village | Source: Fagudu tribe | 2014

**lef** 'to write' | Bahasa Indonesia: tulis | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015

**leha** 'place', 'space', 'without' / 'local' / 'location' / 'place' | e.g. an open space | Bahasa Indonesia: tempat, tanpa | collected on: Sanana | source: numerous | 2010–2019

**leha bamap** 'kitchen' | Bahasa Indonesia: pohon dapur | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: Mango form is likely lea bamapu

**leha gaya** 'dining place' | Bahasa Indonesia: ruang makan | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: change to giya in for villages that do not use gaya. Change to lea for Mangon.

**leha nan** 'bathroom' | Bahasa Indonesia: kamar mandi | collected on: Sanana | source: numerous | 2010–2019
leha nib 'accommodation' / 'chair' | Bahasa Indonesia: tempat menginap | collected on: Sanana | source: numerous | 2010 | note: nib means both 'to sit' and 'to reside'
leha nib bo sahoa 'address' | Bahasa Indonesia: alamat | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'place reside at where'
leha nona 'bedroom, bed, sleeping birth' | Bahasa Indonesia: kamar tidur, tempat tidur | collected on: Sanana | source: numerous | 2010–2019
leha perenta 'region' | Bahasa Indonesia: wilayah (Loan) | collected on: Sanana | source: numerous | 2010–2019
lei 'to swim' | collected on: Sanana | source: numerous | 2010
lela fatu 'back' | collected on: Mangon | source: three to five consultants | 2010
lepa DIRECTION either clockwise or counterclockwise around island depending on village | Bahasa Indonesia: di atas | collected on: Sanana | source: numerous | 2010–2019 | note: directions: lepa 'up' and neu 'down' correspond to clockwise and counterclockwise depending on the village. Directions: tema 'inland' and fai 'seaward' are universal in Sula.
lepa 'above, on top of' | Bahasa Indonesia: di atas | collected on: Sanana | source: numerous | 2010–2019
lepa 'owe' | Bahasa Indonesia: berhutang | collected on: Sanana | source: numerous | 2010–2019
lepayau 'high' / 'hight' / 'tall' | Bahasa Indonesia: tinggi | collected on: Sanana, Pastina village | source: numerous | 2010–2019
leu 'hole' | collected on: Sanana | source: numerous | 2010
lewa 'run' | Bahasa Indonesia: lari | collected on: Sanana | source: numerous | 2010–2019
leya bira pit 'suneclipse' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
li 'voice' / 'word' / 'sound' | Bahasa Indonesia: suara, kata | collected on: Sanana | source: numerous | 2010–2019
li sei 'hoarse' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
li'i / lii / li 'language' | collected on: Sanana | source: numerous | 2010
lia 'sun' | collected on: Mangon | source: three to five consultants | 2010
liangada 'to knock' (consecutive strikes) | e.g. knock at the door | Bahasa Indonesia: mengetuk | collected on: Mangon, Waitulia village | source: single consultant | 2014

lida 'mountain' / 'hill' | Bahasa Indonesia: gunung, bukit | collected on: Sanana | source: numerous | 2010

lida duku 'volcano' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: see also lida ap

lida lepayau 'plateau' | Bahasa Indonesia: dataran tinggi | collected on: Sanana | source: two to three consultants | 2010–2019 | note: literally 'mountain up far'

lida ma'ihii 'hill' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

lida'ap 'volcano' | Bahasa Indonesia: gunung api | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'mountain fire'

lif 'writing' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan

lif 'back' | (position) | Bahasa Indonesia: kembali | collected on: Sanana | source: numerous | 2010–2019

lif 'turn' | e.g. (1) lif hifa 'turn to' (2) lif hafa 'turn from' | Bahasa Indonesia: belok | collected on: Sanana | source: numerous | 2010–2019

liha nona 'sleeping place' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: see also (Mangon) lea nonu, leha nonu

lika 'to choose' | Bahasa Indonesia: memilih [pilih] | collected on: Sanana | source: numerous | 2010

lil 'to weave' / 'to braid' | Bahasa Indonesia: tenuhan | collected on: Sanana | source: numerous | 2010–2019

lila tembaga 'cannon' | Bahasa Indonesia: meriam | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

lili siyo 'to weave' / 'to braid' | Bahasa Indonesia: menenun | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

lima 'hand' | Bahasa Indonesia: tangan | collected on: Sanana | source: numerous | 2010

lima al 'palm of the hand' | Bahasa Indonesia: telapak tangan | collected on: Sanana | source: numerous | 2010
**lima foku / lima foka** 'knuckle' | Bahasa Indonesia: buku | collected on: Mangon, Sanana | source: numerous | 2010–2019 | note: lima foku is the Mangon form. The Sanana form is lima foka.

**lima kaku wanga / lima wanga / lima koku** 'finger' | Bahasa Indonesia: jari | collected on: Mangon | source: three to five consultants | 2014

**lima kaku wango nini** 'thumb' | Bahasa Indonesia: ibu jari | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: Mangon form. For Sanana form, see also lima koka wana aya

**lima kau** 'arm' | Bahasa Indonesia: lengan | collected on: Sanana | source: numerous | 2014

**lima koka wana / lima wana** 'finger' | Bahasa Indonesia: jari | collected on: Sanana | source: numerous | 2014

**lima koka wana aya** 'thumb' | Bahasa Indonesia: ibu jari | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Sanana form. For Mangon form, see also lima kaku wango nini

**lima koka wana istinja** 'ring finger' | Bahasa Indonesia: jari manis | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I collected 'ring finger' as limawana mina

**lima lafa** 'hand' | Bahasa Indonesia: tangan | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**lima tuka** 'palm of the hand' | Bahasa Indonesia: telapak tangan | collected on: Mangon | source: three to five consultants | 2010

**lima wana** 'finger' | Bahasa Indonesia: jari | collected on: Sanana | source: numerous | 2010–2019

**lima wana** 'finger' | Bahasa Indonesia: jari | collected on: Sanana | source: numerous | 2010

**lima wana meihi** 'little finger' | Bahasa Indonesia: jari kecil | collected on: Sanana | source: numerous | 2014

**lima wana patub** 'index finger' | Bahasa Indonesia: jari telunjuk | collected on: Sanana | source: numerous | 2014

**lima wana tena / lima wanga tenga** 'middle finger' | Bahasa Indonesia: jari tengah | collected on: Sanana, Mangon | source: numerous | 2010

**lima wango nana** 'little finger' | Bahasa Indonesia: jari kecil | collected on: Mangon | source: three to five consultants | 2014
**Chapter 4: lexicon**

---

**limpa** 'debt' | Bahasa Indonesia: hutang | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**limu cui** 'lemon' | Bahasa Indonesia: lemon | collected on: Mangon | source: three to five consultants | 2014

**limu kia** 'grapefruit' | Bahasa Indonesia: jeruk bali | collected on: Mangon | source: three to five consultants | 2014

**lin** 'flare up' / 'inflammation' | Bahasa Indonesia: peradangan | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**ling** 'slant' / 'slope' | Bahasa Indonesia: miring, lereng | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**lima** 'debt' | Bahasa Indonesia: hutang | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**lima** 'above' / 'upper' | Bahasa Indonesia: di atas | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: archaic. See also lepa

**lima yau** 'high' | Bahasa Indonesia: tinggi | collected on: Sanana | source: numerous | 2014

**liya bakampu** 'suneclipse' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**loda** 'to scatter seeds' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**lofi** 'to grill' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**lohi** 'to commit adultery' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**loi** 'bone' | collected on: Mangon | source: numerous | 2014 | note: see also hoi

**loi** 'earth (ground)' | Bahasa Indonesia: tanah | collected on: Mangon | source: three to five consultants | 2014

---

431
 loi  triggerfish spine | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014 | note: loi/hoi means 'bone', so I'm uncertain if this is also a specific term for a triggerfish spine
 loi  'bone' | collected on: Mangon | source: three to five consultants | 2010
 loleu  'harbor' | collected on: Sanana | source: two to three consultants | 2014 | note: Holle postulates this as a Ternate loan
 lopa  'to gather' | collected on: Sanana | source: numerous | 2014 | note: Sanana form. For Mangon form, see also lopu
 lopa  'crop' | Bahasa Indonesia: panen | collected on: Sanana | source: numerous | 2010–2019
 lopu  'to gather' | collected on: Mangon | source: two to three consultants | 2014 | note: Mangon form. For Sanana form, see also lopa
 losi-losi / los-los  'few' / 'little (quantity)' | collected on: Mangon, Sanana | source: numerous | 2010
 lota  'boat' | e.g. (1) lota (don) soba 'sailboat' (2) lota aya 'large boat' | Bahasa Indonesia: perahu layar | collected on: Sanana | source: numerous | 2010–2019 | note: see also bodi, jonson.
 lu  'a little' / 'few' | collected on: Sanana | source: numerous | 2014
 lu-lu  'half' | Bahasa Indonesia: setengah | collected on: Sanana | source: numerous | 2010–2019
 lu’u  'few' | collected on: Sanana | source: numerous | 2010
 lua  'to vomit' / 'to throw up' | collected on: Sanana | source: numerous | 2010
 lua / luah  'vomit' | Bahasa Indonesia: muntah | collected on: Mangon | source: three to five consultants | 2010
 luar  'abroad' | Bahasa Indonesia: luar negeri (Loan) | collected on: Sanana | source: numerous | 2010–2019
 luba  'spill' | collected on: Sanana | source: numerous | 2010
 lubayon  'mouth' | collected on: Sanana | source: numerous | 2010
 lubayon foa  'mustache' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
 lug  'face' | Bahasa Indonesia: muka | collected on: Sanana | source: numerous | 2010–2019
 lulu  'few' / 'little (quantity)' | Bahasa Indonesia: sedikit | collected on: Sanana | source: numerous | 2010–2019
lulu para 'simple' | Bahasa Indonesia: sederhana | collected on: Sanana | source: numerous | 2010–2019
lut foya 'smallpox' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: thanks to vaccines, this word is no longer necessary
lutifoya 'smallpox' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: thanks to vaccines, this word is no longer necessary
ma ga'a 'relax' | Bahasa Indonesia: bersantai | collected on: Sanana, Fatkouyun village | Facei tribe | 2014
ma lia 'to swallow' | collected on: Sanana | source: two to three consultants | 2014 | note: abbreviated form of man sumbulia
ma'af 'excuse me (ice breaker)' | collected on: Sanana | source: numerous | 2010 | note: loan from Bahasa Indonesia.
ma'ana / maana / mana 'man' | (human and animal) | Bahasa Indonesia: pria, laki-laki | collected on: Mangon | source: three to five consultants | 2010
ma'angu 'drunk' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
ma'apa 'butterfly' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
ma'oma 'weak' | collected on: Sanana | source: single consultant | 2014 | note: see also ma'uta
ma'untu 'ripe' | collected on: Mangon | source: three to five consultants | 2010
ma'uta 'paralyzed' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
maab 'obsolete' / 'worn out' | Bahasa Indonesia: lapuk | location: unknown | source: Umaternate | 2013
maaf 'forgive' | Bahasa Indonesia: memaafkan | collected on: Sanana | source: numerous | 2010–2019
macan 'tiger' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
maciam 'example' | Bahasa Indonesia: contoh | collected on: Sanana | source: numerous | 2010–2019
mada 'to be awake' | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form, see also mara. Holle postulates this as a Ternate loan
maenang 'necklace' | Bahasa Indonesia: kalung | collected on: Sanana | source: numerous | 2010–2019
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Collected On</th>
<th>Source</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>mafai</td>
<td>'to swell' / 'inflammation'</td>
<td>Sanana; Mangon, Ulfoa village</td>
<td>numerous</td>
<td>2010–2019</td>
</tr>
<tr>
<td>magaa</td>
<td>'until'</td>
<td>e.g. (1) maga.a aduk pihu 'until I come back again' (2) uya maga bauhi 'it will rain until night'</td>
<td>Sanana</td>
<td>numerous</td>
</tr>
<tr>
<td>magaa</td>
<td>'silent'</td>
<td>Sanana</td>
<td>single consultant</td>
<td>2014</td>
</tr>
<tr>
<td>maha</td>
<td>'ripe'</td>
<td>Sanana</td>
<td>numerous</td>
<td>2010–2019</td>
</tr>
<tr>
<td>maha'aya</td>
<td>'light'</td>
<td>Sanana</td>
<td>entry from Holle List; unable to verify</td>
<td>c. 1900</td>
</tr>
<tr>
<td>mahak</td>
<td>'sick'</td>
<td>Sanana</td>
<td>Duwila; Fagudu Tribe, Waibao village</td>
<td>2015</td>
</tr>
<tr>
<td>mahal</td>
<td>'expensive'</td>
<td>Sanana</td>
<td>numerous</td>
<td>2010</td>
</tr>
<tr>
<td>mahana</td>
<td>'allergic' / 'itch' / 'itchy'</td>
<td>Sanana</td>
<td>numerous</td>
<td>2010–2019</td>
</tr>
<tr>
<td>mahara</td>
<td>'to scream' / 'to hate'</td>
<td>Sanana</td>
<td>two to three consultants</td>
<td>2010</td>
</tr>
<tr>
<td>mahi</td>
<td>'soup broth'</td>
<td>Sanana, Mangon</td>
<td>numerous</td>
<td>2010–2019</td>
</tr>
<tr>
<td>mahi (bo) lal</td>
<td>'bay'</td>
<td>Sanana</td>
<td>Verified from Holle list by two or more speakers unless otherwise noted</td>
<td>c. 1900</td>
</tr>
<tr>
<td>mahi / ma'i / mai</td>
<td>'ocean' / 'sea'</td>
<td>Sanana</td>
<td>numerous</td>
<td>2010</td>
</tr>
<tr>
<td>mahi bena</td>
<td>'tsunami'</td>
<td>Sanana</td>
<td>numerous</td>
<td>2010</td>
</tr>
<tr>
<td>mahi dab</td>
<td>'seasick'</td>
<td>Sanana</td>
<td>Numerous</td>
<td>2010–2019</td>
</tr>
<tr>
<td>mahi ila</td>
<td>'coast'</td>
<td>Sanana</td>
<td>Numerous</td>
<td>2010–2019</td>
</tr>
<tr>
<td>mahi pon</td>
<td>'coast'</td>
<td>Sanana</td>
<td>Numerous</td>
<td>2010–2019</td>
</tr>
</tbody>
</table>
mahisa 'chili pepper' | collected on: Sanana | source: single consultant | 2010 | note: see also rica
mahoka 'dull' | collected on: Sanana | source: numerous | 2010
mahuba 'hurricane/typhoon' | collected on: Sanana | source: numerous | 2010
mahubo 'storm' | collected on: Sanana | source: numerous | 2014 | note: Mangon form. For Sanana form, see also mahuba
mahus 'raw' | Bahasa Indonesia: mentah (sp?) | collected on: Sanana | source: numerous | 2010–2019
mai 'side-dish' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
mai 'but' | Bahasa Indonesia: tetapi | collected on: Sanana | source: numerous | 2010–2019
mai 'let's' | e.g. (1) mai ol 'let's begin' (2) mai bosu tabaku 'let's smoke' | Bahasa Indonesia: mari | collected on: Sanana, Mangon | source: numerous | 2010–2019
mai 'even' | Bahasa Indonesia: pun | location: unknown | source: Umaternate | 2013
mai ol / mai dad ol 'let's start' | collected on: Sanana, Umahoya village | Source: Fagudu tribe | 2014
maiha 'ruins' | Bahasa Indonesia: runtuhan | collected on: Sanana | source: numerous | 2010–2019
maisa 'chili pepper' | Bahasa Indonesia: cabai | collected on: Mangon, Capuli village | source: single consultant | 2015 | note: Mangon dialect as reported by Ulfoa speaker
mak 'tongue' | Bahasa Indonesia: lidah | collected on: Sanana | source: numerous | 2010–2019
mak dahi 'to meet up' | Bahasa Indonesia: bertemu | collected on: Sanana | source: numerous | 2010–2019
mak han 'nearby, nearest' | Bahasa Indonesia: berdakatan, terdekat | collected on: Sanana | source: numerous | 2010–2019
mak nau 'to introduce' | Bahasa Indonesia: kenalkan | collected on: Sanana | source: numerous | 2010–2019
mak sud 'destination' | Bahasa Indonesia: tujuan | collected on: Sanana | source: numerous | 2010–2019
maka aya  'light (weight)' | Bahasa Indonesia: ringan | collected on: Sanana | source: numerous | 2010–2019
maka aya para  'easy' | Bahasa Indonesia: gampang | collected on: Sanana | source: numerous | 2010–2019
maka boa  'tired' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: see also maroya, makaba, makabo
maka didi  'fever' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: see also dagis, degis
maka'ita  'to be wrecked' | e.g. shipwreck | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
makaba  'tired' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: see also maroya, makabo, makabo
makabo  'tired' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: see also maroya, makabo, makabo
makadidi  'cold (illness)' | collected on: Mangon | Collins | 1981
makahor  'earthworm' / 'intestinal worms' | Bahasa Indonesia: cacing | collected on: Sanana | source: numerous | 2010–2019
makan  'wound' / 'injury' / 'cut' / 'infection' / 'pain' | Bahasa Indonesia: infeksi, berluka, luka | collected on: Sanana | source: numerous | 2010–2019
makata  'medicine' / 'herbs' / 'magic' | Bahasa Indonesia: jamu | collected on: Sanana | source: numerous | 2010–2019
makata geka dahi bakai  'menstrual pain medicine' | collected on: Sanana | source: numerous | 2010–2019
maki  'tongue' | Bahasa Indonesia: lidah | collected on: Mangon | source: numerous | 2010–2019 | note: Mangon form. For Sanana form, see also mak
maki dahi  'to meet' | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form, see also mak dahi
makjad bakai  'betrothal' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
makoha  'cool (temp)' | Bahasa Indonesia: sejuk | collected on: Sanana | source: numerous | 2010–2019
makosa  'big' | collected on: Sanana | source: numerous | 2010
maku 'wave' | collected on: Mangon | source: three to five consultants | 2014 | note: see also mok
maku lawa 'enemy' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
malawanan 'defeat' | e.g. Jerman malawan Spanyol 'Germany beat Spain' | Bahasa Indonesia: kekalahan | collected on: Sanana | source: numerous | 2010–2019
male 'small' | Bahasa Indonesia: kecil | collected on: Mangon | source: three to five consultants | 2010
maleb 'flat' | Bahasa Indonesia: datar | collected on: Sanana | source: numerous | 2010–2019
malel 'empty' | Bahasa Indonesia: kosong | collected on: Sanana | source: numerous | 2010–2019
malel pel (less common) 'after' | Bahasa Indonesia: sesudah | collected on: Sanana | source: numerous | 2010–2019
malil 'empty' | collected on: Sanana | source: numerous | 2014
mama 'mother' | Bahasa Indonesia: ibu | collected on: Sanana | source: numerous | 2010–2019
mama kaka 'uncle' / 'mother's older brother' | collected on: Sanana | source: numerous | 2014
mama tiba 'MBo' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
mamanto 'cramp' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
mamei 'shy' / 'ashamed' | Bahasa Indonesia: 'malu' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: see also mahal
mamfuwa 'young' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
mamihi 'shy' / 'ashamed' | Bahasa Indonesia: 'malu' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan. See also mahal
mampai 'bitter' | collected on: Mangon | source: numerous | 2014 | note: see also mpai
mamu 'iron' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
mamui 'laugh' | collected on: Mangon | source: three to five consultants | 2010
man  'bird' / 'chicken' | Bahasa Indonesia: burung, ayam | collected on: Sanana | source: numerous | note: Sanana form. See also manu for Mangon form

man camo  'heron' | collected on: Mangon | source: two to three consultants | 2014 | note: see also tayoya

man fina  'hen' | collected on: Sanana | source: numerous | 2014 | note: literally 'female chicken'

man in yai koku  'bird's foot' | Bahasa Indonesia: kaki burung | collected on: Mangon, Waitulia village | source: single consultant | 2014

man kau (goga)  'bird' (other than chicken) | Bahasa Indonesia: burung | collected on: Sanana | source: numerous | 2010–2019

man kau (goga) in foa  'feather' | Bahasa Indonesia: bulu | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'bird tree on POSS feather'

man ma'ana  'rooster' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: this isn't so much a word for rooster as an explanation 'male chicken'. The consultant likely translated the interviewer's description directly.

man nana tahai  'chicken' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

man sumbulia  'to swallow' | collected on: Mangon | source: single consultant | 2014 | note: see also ma lia

man'ei  'ray' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

mana  'sharp' | Bahasa Indonesia: tajam | collected on: Sanana | source: numerous | 2010

mana  'toward' | e.g. laka mana 'walk toward' | Bahasa Indonesia: menuju | collected on: Sanana | source: numerous | 2010–2019

mana  'allergic' | Bahasa Indonesia: alergi | collected on: Sanana | source: numerous | 2010–2019

mana  'man' | collected on: Mangon | source: three to five consultants | 2010

mana afaya  'centipede' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

mana dok  'trade' | collected on: Sanana | source: numerous | 2010 | note: due to Sula's bizarre intervocalic fortition process, the d in dok sounds like t
mana fau / mana pau 'assault' / 'fight' / 'war' / 'beat with a stick' / 'hit a drum with a stick' | Bahasa Indonesia: serangan, perang, memukul | collected on: Sanana | source: numerous | 2010–2019
mana yop 'kiss' | Bahasa Indonesia: ciuman | collected on: Sanana | source: numerous | 2010–2019
manabaja 'hit on' / 'chat up' | Bahasa Indonesia: merayu | collected on: Sanana | source: numerous | 2010–2019
manakem 'to hold' | Bahasa Indonesia: menggenggam | collected on: Mangon, Ulfoa village | source: numerous | 2014 | note: see also gem.
manamumi 'sniff' / 'smell' | Bahasa Indonesia: mencium | collected on: Mangon, Ulfoa village | source: two to three consultants | 2014
manapan 'sex' | Bahasa Indonesia: seks | collected on: Sanana | source: numerous | 2010–2019
manapareha 'separate' | Bahasa Indonesia: terpisah | collected on: Sanana | source: two to three consultants | 2010–2019 | note: manapareha is mana + bareha. The b becomes p due to Sula's intervocalic fortition process described in chapter two
manara 'job' | Bahasa Indonesia: pekerjaan | collected on: Sanana | source: numerous | 2010–2019
manat 'prostitute' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this Holle list form might be correct as a euphemism, or it might simply be a near-miss concept explanation, as the basic meaning of manat is 'sensual'
manat 'sensual' | Bahasa Indonesia: berhawa-nafsu | collected on: Sanana | source: numerous | 2010–2019
manatota 'fight' | Bahasa Indonesia: pertengkaran | collected on: Sanana | source: numerous | 2010–2019
manau 'occasionally' / 'sometimes' | collected on: Mangon | source: three to five consultants | 2010 | note: see also paka hia hia
mandi  a fish that is either the same as or similar to the spotted puffer (guentheridia formosa) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

mandia doki 'hicups' | collected on: Mangon | source: two to three consultants | 2014 | note: manga is 'sharp'. Mangon form. For Sanana form see also mari’a doki

mandokahu 'predawn morning' / 'when the rooster crows' | collected on: Sanana | source: single consultant | 2010–2019 | note: lit. chicken + and + onomatopoeia

maneha 'ready' | e.g. maneha pel 'already ready' | Bahasa Indonesia: siap | collected on: Sanana | source: numerous | 2010–2019

maneha neha 'straight (line)' | Bahasa Indonesia: lurus | collected on: Sanana | source: numerous | 2010–2019

maneha neha 'together' | Bahasa Indonesia: bersama | collected on: Sanana | source: numerous | 2010–2019

manen 'long (temporal), old (object)' | Bahasa Indonesia: lama | collected on: Sanana | source: numerous | 2010–2019

manen-manen 'rare (uncommon)' | Bahasa Indonesia: jarang | collected on: Sanana | source: numerous | 2010–2019

manfoa 'feather' | Bahasa Indonesia: bulu | collected on: Mangon, Ulfoa village | source: numerous | 2014 | note: see also man kau (goga) in foa.

manga 'sharp' | collected on: Mangon | source: numerous | 2014 | note: see also mana, monga, wa, waha

mangafau 'fight' | collected on: Mangon | source: three to five consultants | 2010

mangapadila 'to divorce' | collected on: Mangon | source: two to three consultants | 2014 | note: manga is 'sharp'. Mangon form. For Sanana form see also mapareha (regular correspondences)

mangati 'prostitute' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: see also mahat

mangilu 'sour' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: archaic. See also manil

mangis 'mangostene' | Bahasa Indonesia: mongustan | collected on: Sanana, Pastina village | source: Falahu tribe farmers | 2014

mangkayo 'light' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
**mangkuni** 'yellow' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: loan from Bahasa Indonesia. See also *kakon*, and *kokon*

**manil** 'sour' | Bahasa Indonesia: asam | collected on: Sanana | source: numerous | 2010–2019

**manin** 'occasionally' / 'sometimes' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this Holle list entry is unverified, and seems dubious

**manin** 'long time' | collected on: Sanana | source: numerous | 2010–2019

**manin moya** 'short time' | collected on: Sanana | source: numerous | 2010

**manip / manipi** 'thin' | (e.g. a thin book) | Bahasa Indonesia: tipis | collected on: Sanana, Mangon | source: numerous | 2010 | note: not synonymous with *dagati* 'narrow'

**manjanga ihi** 'venison' | collected on: Sanana | source: numerous | 2010

**mankau** 'bird' | (term for all birds) | Bahasa Indonesia: burung | collected on: Sanana | source: numerous | 2010–2019

**mankina** a fish that is either the same as or similar to the achilles tang (acanthurus achilles) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**manparika** 'to divorce' | collected on: Sanana | source: single consultant | 2014 | note: see also *mapareha*

**manta manu** 'to have forgotten (something)'' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**mantel ngan** 'boiled egg' | Bahasa Indonesia: telur direbus | collected on: Sanana | source: numerous | 2010–2019

**mantelu / mantel** 'egg' | Bahasa Indonesia: telur | collected on: Mangon, Sanana | source: numerous | 2010–2019

**mantina** 'male (n&a) (person)' | Bahasa Indonesia: laki-laki | collected on: Sanana | source: numerous | 2010–2019

**mantua** 'male (n&a) (animal)' | Bahasa Indonesia: jantan | collected on: Sanana | source: numerous | 2010–2019

**manu** 'fighting cock' | Bahasa Indonesia: ayam | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: this Holle entry is an error. *manu* is a general term for 'chicken' and 'bird'. See also *man*

**manu kaupetuw** 'bird' | Bahasa Indonesia: burung | collected on: Mangon | source: three to five consultants | 2010
manutelu  'egg' | collected on: Mangon | source: three to five consultants | 2010
manyanyi  'sing' | collected on: Mangon | source: three to five consultants | 2010
maoma  'charming' | Bahasa Indonesia: luwes | collected on: Sanana | source: numerous | 2010–2019
map(a)reha  'divorce' | Bahasa Indonesia: cerai | collected on: Sanana | source: numerous | 2010–2019
mapa  'sweat' | collected on: Sanana | source: numerous | 2010–2019
mapai  'bitter' | Bahasa Indonesia: pahit | collected on: Sanana | source: numerous | 2010–2019
mapana  'warm' | Bahasa Indonesia: hangat | collected on: Mangon, Capuli village | source: numerous | 2015
mapo  'sweat' | collected on: Sanana | source: numerous | 2014
mara  'stairs' | Bahasa Indonesia: tangga | collected on: Sanana | source: single consultant | 2014
mara / mara-mara  'awake' | collected on: Sanana | source: numerous | 2010–2019 | note: Sanana form. For Mangon form, see also mada. Holle postulates this as a Ternate loan
mari'a  'belch' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
mari'a doki  'hiccups' | collected on: Sanana | source: numerous | 2014 | note: Sanana form. For Mangon form, see also mandia doki
mariu  'aid' / 'assistance' / 'assist' | Bahasa Indonesia: bantuan, membantu [bantu] | collected on: Sanana | source: numerous | 2010–2019
mariu  'to help' | Bahasa Indonesia: membantu | collected on: Sanana | source: single speaker (Falahu tribe) | 2014
mariu matapia  'care for, look after' | e.g. mariu matapia  'care for someone' | Bahasa Indonesia: memelihara | collected on: Sanana | source: numerous | 2010–2019
mariyu  'ally' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
marofa  'straight' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
maroya  'paralysed' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I am skeptical of this Holle list form. maroya means 'tired', and so it is easy to imagine a miscommunication when acting out paralysis
maroya 'tired' | Bahasa Indonesia: capek | collected on: Sanana | source: two to three consultants | 2010–2019 | note: see also makaba, makabo, maka boa

martel 'hammer' | Bahasa Indonesia: palu | collected on: Sanana | source: single consultant | 2010–2019 | note: I hope this is not a Dutch loan from 'torture'. See also martil

martil 'hammer' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I hope this is not a Dutch loan from 'torture'. See also martel

marui 'live' / 'to be alive' / 'on' (as with a lightbulb) | Bahasa Indonesia: hidup (give example) | collected on: Sanana | source: numerous | 2010–2019

mas 'gold' | Bahasa Indonesia: emas | collected on: Sanana | source: numerous | 2010–2019

masa duk 'future' | Bahasa Indonesia: masa depan | collected on: Sanana | source: numerous | 2010–2019

masusa 'unfortunate' / 'poor' | collected on: Sanana | source: numerous | 2010

mat nana fina 'older woman' | collected on: Sanana | source: numerous | 2010

mata 'death' / 'dead' / 'off (as with a lightbulb)' / 'to die' / 'to be dead' | Bahasa Indonesia: kematian | collected on: Sanana | source: numerous | 2010–2019

mata feu 'single man' | collected on: Sanana | source: numerous | 2010–2019

mata lin 'to forget' | collected on: Sanana | source: numerous | 2014

mata pia / matapia 'human being' / 'mankind' / 'society' | Bahasa Indonesia: orang | collected on: Sanana | source: numerous | 2014

mata pia basa 'guest' / 'stranger' | collected on: Mangon | source: three to five consultants | 2014

mata pia bau awa 'farmer' | Bahasa Indonesia: petani | collected on: Sanana | source: numerous | 2014 | note: literally 'person who does farm field'

mata pia buwa mata pia 'kidnapper' | Bahasa Indonesia: penculik | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

mata pia duduku 'midwife' | Bahasa Indonesia: bidan | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this literally means 'person who comes'

mata pia duki, mata pia hai bosu 'guest' / 'stranger' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

mata pia fa pasia 'sorcerer' | Bahasa Indonesia: tukang sihir | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
mata pia fina 'woman' | Bahasa Indonesia: wanita | collected on: Sanana | source: numerous | 2014
mata pia matua nkol 'dwarf' | Bahasa Indonesia: kerdil | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
mata pia nau makata 'traditional medicine practitioner' | Bahasa Indonesia: dukun | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: this entry from Holle is not in fact a lexical item. It is no doubt a phrasal translation of the elicitor's description. This phrase simply states 'person who knows medicine'
mata pia perumpa 'pirate' | Bahasa Indonesia: bajak laut | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
mata pia sosa 'criminal' | Bahasa Indonesia: pidana | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
matalin 'to forget' | Bahasa Indonesia: lupa | collected on: Sanana | source: numerous | 2010
matapia 'human' / 'person' / 'society' | Bahasa Indonesia: masyarakat | collected on: Sanana | source: numerous | 2010–2019
matapia awa 'farmer' | Bahasa Indonesia: petani | collected on: Sanana | source: numerous | 2010–2019
matapia babota 'butcher' | Bahasa Indonesia: tukang daging | collected on: Sanana | source: numerous | 2010–2019
matapia bamaha 'merchant' | collected on: Sanana | source: numerous | 2010
matapia basa 'stranger' | Bahasa Indonesia: orang tidak dikenal | collected on: Sanana | source: numerous | 2010–2019
matapia baumaneha hal 'problem solver' | (person of conflict resolution, counselor) | collected on: Sanana | source: numerous | 2010
matapia binaka 'corrupt' | Bahasa Indonesia: korup | collected on: Sanana | source: numerous | 2010–2019
matapia bumeha 'lost (person)' | Bahasa Indonesia: tersisat | collected on: Sanana | source: numerous | 2010–2019
matapia bumohi 'lost (person)' | Bahasa Indonesia: tersisat | collected on: Sanana | source: numerous | 2010–2019
matapia duki 'guest' | Bahasa Indonesia: tamu | collected on: Sanana | source: numerous | 2010–2019
matapia hia  'someone' | Bahasa Indonesia: seseorang | collected on: Sanana | source: numerous | 2010–2019
matapia makata 'doctor' | (traditional medicine) | collected on: Sanana | source: numerous | 2010 | note: literally 'person medicine'
matapia mana / matapia ma'ana 'man' | collected on: Mangon | source: three to five consultants | 2014
matapia mua-mua 'everybody' | Bahasa Indonesia: semua orang | collected on: Sanana | source: numerous | 2010–2019
matapia tukang bahasa 'interpreter' | Bahasa Indonesia: juru bahasa | collected on: Sanana | source: numerous | 2010–2019
matilali 'confusing' | Bahasa Indonesia: membingungkan | collected on: Mangon, Waitulia village | source: single consultant | 2014
matnana 'my man'/husband' informal | source: Ida collected on: Sanana | source: numerous | 2010–2019
mato 'crash' | Bahasa Indonesia: tabrakan | collected on: Sanana | source: numerous | 2010–2019
matopa 'circle' | collected on: Sanana | source: numerous | 2014 | note: see also matupa (Mangon)
matpebi 'tail' | collected on: Mangon | source: three to five consultants | 2010
matua 'leader' / 'elder' / 'old' / 'ripe' | ('old' people and objects) | Bahasa Indonesia: pemimpin | collected on: Sanana | source: numerous | 2010–2019 | note: matua kampung (village elders)
matupa 'circle' | collected on: Mangon | source: two to three consultants | 2014 | note: see also matuopa collected on: Sanana
mau 'to wish' | Bahasa Indonesia: ingin | collected on: Sanana | source: numerous | 2010–2019
mau 'useful' | Bahasa Indonesia: berguna | collected on: Sanana | source: numerous | 2010–2019
maufai 'to swell' | Bahasa Indonesia: membengkak | collected on: Mangon, Ulfoa village | source: numerous | 2014 | note: see also mafai.
mawita 'bright (color)' | Bahasa Indonesia: terang | collected on: Sanana | source: numerous | 2010–2019
**mbaso** 'heart' | collected on: Mangon | source: single consultant | 2014 | note: see also *lal, tuka*

**mboli** 'to roll' | Bahasa Indonesia: menggulung | collected on: Mangon, Waitulia village | source: numerous | 2014 | note: possible loan Dutch, *bal*, probably by way of Indonesian *bola*. The prenasal is likely an explicative prefix.

**mboni** 'mouth' | collected on: Mangon | source: three to five consultants | 2010

**mboni foro** 'moustache' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**mboni koli** 'lips' | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form, see also *nbayon kol*

**mboya** 'tail' | collected on: Sanana | source: numerous | 2014 | note: compare *(Mangon) mboyu, nboyu, boyu, collected on: Sanana nboya, boyu*

**me'u / meu** 'rope' / 'string' | Bahasa Indonesia: tali | collected on: Sanana | source: numerous | 2010–2019

**mehi** 'small' | Bahasa Indonesia: kecil | collected on: Sanana | source: numerous | 2014 | note: see also *mehi*

**mehi** 'again' | Bahasa Indonesia: lagi | location: unknown | source: Umaternate | 2013

**meihi** 'small' | Bahasa Indonesia: kecil | collected on: Sanana | source: numerous | 2014 | note: see also *mehi*

**meikap** 'cosmetics' | Bahasa Indonesia: bahan kecantikan | collected on: Sanana | source: single consultant | 2010–2019 | note: loan from 'make up'.

**meja** 'table' | collected on: Sanana | source: numerous | 2010

**memaha** 'to sell' | Bahasa Indonesia: menjual [jual] | collected on: Sanana | source: numerous | 2010–2019

**memang** 'still' / 'yet' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**memanta** 'unripe' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: likely loan from Bahasa Indonesia 'matang'

**mena** 'sad' / 'to cry' / 'to weep' | Bahasa Indonesia: menangis, sedih | collected on: Sanana | source: numerous | 2010–2019 | note: see also *minga, mina*

**mengaku moya** 'to deny' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**menganja** 'deer' | collected on: Sanana | source: numerous | 2014

**menganja** 'deer' | Bahasa Indonesia: rusa | collected on: Mangon, Capuli village | source: numerous | 2015


meta 'wet' | Bahasa Indonesia: basa | collected on: Sanana | source: numerous | 2010–2019

meu bolila 'from above' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

meu kapayapa 'clothesline' | Bahasa Indonesia: tali jemuran | collected on: Sanana | source: numerous | 2010–2019

meu sepatu 'shoelace' | Bahasa Indonesia: tali sepatu | collected on: Sanana | source: numerous | 2010–2019

mewa 'bamboo basket' | (for catching crabs) | collected on: Sanana, Wai Ipa beach | source: numerous | 2014

mi'u 'rope' | collected on: Sanana | source: single consultant | 2010 | note: see also meu

mia 'monkey' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan

mia / mi'a 'red' | Bahasa Indonesia: merah | collected on: Sanana | source: numerous | 2010 | note: mi'a is CMD from Wai U village.

mia tahai 'pink' | Bahasa Indonesia: merah jambu | collected on: Mangon, Ulfoa village | source: single consultant | 2015

miha 'sister-in-law WBW' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

miki 'evil spirit' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

min 'mucus' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this Holle list entry is plausible, but it was not verified. the informant likely misunderstood when pointing toward the nose, as the basic meaning of min is 'nose'. This could be a case of metonymy.

min 'nose' | Bahasa Indonesia: hidung | collected on: Sanana | source: numerous | 2010

min ewa 'runny nose' | Bahasa Indonesia: hidung berair | collected on: Sanana | source: numerous | 2010–2019

mina 'to weep' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: see also mena, minga
**mina** 'before (temporal)' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**mina** 'sweet' / 'delicious' | collected on: Sanana | source: numerous | 2010

**mina moya** 'uncomfortable' | Bahasa Indonesia: tidak enak | collected on: Sanana | source: numerous | 2010–2019

**minga** 'to weep' | collected on: Mangon | source: two to three consultants | 2014 | note: see also *mena, mina*

**mingu** 'mucus' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**misa** 'chili pepper' | Bahasa Indonesia: cabai | collected on: Mangon, Capuli village | source: single consultant | 2015

**mit / miti** 'dark' / 'black' | Bahasa Indonesia: gelap, hitam | collected on: Sanana, Mangon | source: numerous | 2010–2019

**mit gab** 'fog' | Bahasa Indonesia: kabut | collected on: Mangon, Wai U village | source: numerous | 2014 | note: see also *fangara*.

**mita** 'wet' | Bahasa Indonesia: basa | collected on: Sanana | source: numerous | 2014 | note: see also *meta*

**mo** COMMAND WORD | collected on: Mangon, Wai U village | source: single consultant | 2015 | note: in Wai U village (but apparently not universally), mo is a phrase-initial particle that signals a command. There is no English equivalent. *mo laka bo uma* 'Go home!'

**moa** 'sinkers, sink' | Bahasa Indonesia: penenggelam | collected on: Sanana | source: numerous | 2010–2019

**mofakat** 'to negotiate' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**moi** 'not yet' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: I am skeptical of this form. I suspect it is *moya*

**mok** 'wave' | collected on: Sanana | source: numerous | 2014 | note: Holle postulates this as a Ternate loan

**mok mok** 'surf' / 'wave' | Bahasa Indonesia: ombak | collected on: Sanana | source: numerous | 2010–2019

**mok pisa** 'surf' / 'waves' | collected on: Sanana | source: single consultant | 2014 | note: Holle postulates this as a Ternate loan. I think it is native Sula

**moka** 'dull' / 'blunt' | Bahasa Indonesia: tumpul | collected on: Mangon, Ulfoa village | source: numerous | 2014
**mokayat** 'evil spirit' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**molai** 'main' | Bahasa Indonesia: utama | collected on: Sanana | source: numerous | 2010–2019

**moma** 'to hit' / 'to slap' / 'hit with a stick' / 'lash' | collected on: Sanana | source: numerous | 2010


Preverbal agreement marker: gu-

**monara** 'sailor' | Bahasa Indonesia: pelaut | collected on: Sanana | source: numerous | 2010–2019

**monca** 'piper betel' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**monca** a fish that is either the same as or similar to the green jobfish (aprion virescens) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**moncalefa** lizardfish (synodus) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**monga** 'sharp' | collected on: Mangon | source: single consultant | 2014 | note: see also mana, manga, wa, waha

**mora** 'air' / 'wind' | Bahasa Indonesia: udara, angin | collected on: Sanana | source: numerous | 2010–2019

**mora ‘ot** 'tornado’ | Bahasa Indonesia: angin topan | collected on: Sanana | source: numerous | 2010

**mora kadiga** 'strong wind’ | Bahasa Indonesia: angin kencang | collected on: Sanana | source: numerous | 2010

**mot** 'follow' / ‘join’ | e.g. a-mot sekola feu, I joined the new school | Bahasa Indonesia: ikut | collected on: Sanana | source: numerous | 2010–2019

**mot mot faa pia** 'vegetarian (person)' | Bahasa Indonesia: pengikut aliran vegetarian | collected on: Sanana | source: single consultant | 2010–2019 | note: I am skeptical of this entry.

**mota** 'warm' / 'hot' / 'burn' | Bahasa Indonesia: panas | collected on: Sanana | source: numerous | 2010

**mota kadiga** ‘heat wave’ | Bahasa Indonesia: gelombang panas | collected on: Sanana | source: numerous | 2010 | note: literally ‘heat strong’
motu  'old fruit' / 'mature fruit' | e.g. nui motu 'mature coconut' (vs. young green coconut) | collected on: Mangon, Waitulia village | source: numerous | 2014
moya  'not' / 'no' | Bahasa Indonesia: tidak | collected on: Sanana | source: numerous | 2010–2019 | note: see also moyu for Mangon form.
moya da  'last (previous)' | Bahasa Indonesia: sebelumnya | collected on: Sanana | source: numerous | 2010–2019
moya daa  'not yet' | Bahasa Indonesia: belum | collected on: Sanana | source: numerous | 2010–2019
moya dai  'there isn't/there aren't' | Bahasa Indonesia: tidak ada | collected on: Sanana | source: numerous | 2010–2019
moya ta  'never' | Bahasa Indonesia: tidak pernah | collected on: Sanana | source: numerous | 2010–2019
moyu  'not' / 'no' | Bahasa Indonesia: tidak | collected on: Mangon | source: numerous | 2010 | note: Mangon form. See also moyu for Sanana form.
mpani  'wing' | Bahasa Indonesia: sayap | collected on: Mangon, Ulfoa village | source: numerous | 2014 | note: prenasal is explicative. See also pani, npani.
mping  'ear of corn' / 'tuft of rice' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
mua  'all' | Bahasa Indonesia: semua | collected on: Sanana | source: numerous | 2014
mua pel  'finish' / 'after' / 'last' / 'final' | Bahasa Indonesia: akhir, sesudah, terakhir | collected on: Sanana | source: numerous | 2010–2019
muamua  'all' / 'everything' | Bahasa Indonesia: semua | collected on: Sanana | source: numerous | 2010–2019
mudi  'eugenia' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
muhi  'to smell' | collected on: Sanana | source: numerous | 2010 | note: see also sumi.
mui  'type of bug that eats wood' | collected on: Mangon, Waitulia village | source: numerous | 2014 | note: probably 'termite'. Possibly 'weevil'
mulai  'start' | Bahasa Indonesia: awal | collected on: Sanana | source: numerous | 2010–2019
mulu bebe  'small banana cultivar' | collected on: Mangon, Capuli village | source: single consultant | 2015
mum  'to sniff' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
**mum** 'midday' / 'noon' | Bahasa Indonesia: siang | collected on: Sanana | source: numerous | 2010–2019 | note: see also *la eya*

**mum** 'iron' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**mumam** 'small food' / 'snack' / 'cake' | collected on: Sanana | source: numerous | 2010

**mumpon** 'anvil' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**munara** 'occupation' | Bahasa Indonesia: pekerjaan | collected on: Sanana | source: numerous | 2010–2019

**mungkuriu** 'to help' | Bahasa Indonesia: menolong / bantu | collected on: Mangon, Waitulia village | source: numerous | 2014 | note: see also *baku bantu*.

**mura** 'cheap' | collected on: Sanana | source: numerous | 2014 | note: loan from Bahasa Indonesia.

**mus lea bana** 'summer' | collected on: Sanana | source: numerous | 2010

**musa** 'navel' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**musawai** 'umbilical cord' | Bahasa Indonesia: tali pusar | collected on: Sanana, Malbufa village | source: two to three consultants | 2019

**musu** 'opposite' | Bahasa Indonesia: lawan | collected on: Sanana | source: numerous | 2010–2019

**musun** 'monsoon' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**na** 'name' | Bahasa Indonesia: nama | collected on: Sanana | source: numerous | 2010

**na pertama** 'first name' | Bahasa Indonesia: pranama (Loan) | collected on: Sanana | source: two to three consultants | 2010–2019 | note: *pertama* is a loan from Bahasa Indonesia.

**na'u** 'long (temporal)' | collected on: Mangon | source: numerous | 2014 | note: see also *nau, nahu*

**nafa iya** 'tomorrow' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: I do not know how to understand this Holle entry other than as 'one road'. It could be something metaphorical like 'one day on the road of life', but that is a stretch.

**nafakau** 'way' / 'road' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
**nag** 'type of edible fish' | e.g. *kena nag sinanga* 'fried nag fish' | collected on: Sanana, Malbufa village | source: single consultant | 2015

**naha** 'to scream' | collected on: Sanana | source: numerous | 2010

**naha tina** 'palate' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**nahi era** 'twins' | Bahasa Indonesia: kembar | collected on: Sanana | source: numerous | 2010–2019

**nahu** 'long' / 'length' | Bahasa Indonesia: panjang, panjangnya | collected on: Sanana | source: numerous | 2010–2019

**nai** 'brother' | collected on: Mangon | Collins | 1981

**nak** 'to know someone' | *a-nak mon* 'I know you' | Bahasa Indonesia: kenal | collected on: Sanana | source: numerous | 2010–2019

**naka** 'jack fuirt' | collected on: Sanana | source: numerous | 2014

**nale'i, mana'u** 'small' | Bahasa Indonesia: kecil | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**nan** 'swim' | (action of swimming) | Bahasa Indonesia: berenang [renang] | collected on: Sanana | source: numerous | 2010–2019 | note: Sanana form. See also *nangu* for Mangon form

**nan** 'bath' / 'wash (oneself)' | Bahasa Indonesia: mandi, dus | collected on: Sanana | source: numerous | 2010–2019 | note: Sanana form. See also *nangu* for Mangon form

**nan hawa** 'swim' | (swimming as locomotion toward a destination) | Bahasa Indonesia: berenang [renang] | collected on: Sanana | source: numerous | 2010–2019

**nana** 'little' / 'small' / 'child' | Bahasa Indonesia: kecil | collected on: Sanana | source: numerous | 2010

**nana fina** 'daughter' | collected on: Sanana | source: numerous | 2010

**nana nana (para)** 'few' / 'little' | (quantity, amount) | Bahasa Indonesia: sedikit | collected on: Sanana | source: numerous | 2010–2019

**nana pahaka** 'nephew' | collected on: Sanana | source: numerous | 2010

**nana-nana (para)** 'few' | collected on: Sanana | source: numerous | 2010

**nanas** 'pineapple' | Bahasa Indonesia: nanas | collected on: Sanana, Waibau village | source: numerous | 2015 | note: loan. See also *danas.*

**nangu** 'to swim' / 'to bathe' | collected on: Mangon | source: numerous | 2010 | note: Mangon form. See also *nan* for Sanana form
form. See also nangu for Mangon form

nap  'head' / 'hair' | collected on: Sanana | source: numerous | 2014 | note: metonymy.
See also foa 'hair'

nap buhu  'brain' | collected on: Sanana | source: numerous | 2010

nap fat  'brain' | Bahasa Indonesia: otak | collected on: Sanana | source: numerous | 2010–2019

nap fat hai  'skull' | collected on: Sanana | source: numerous | 2014

nap foa  'hair' | collected on: Sanana | source: numerous | 2014

nap foka  'skull' | Bahasa Indonesia: tengkorak | collected on: Sanana | source: numerous | 2010–2019

nap geka  'dizzy, headache' | Bahasa Indonesia: pusing, sakit kepala | collected on: Sanana | source: numerous | 2010–2019

nap gika  'headache' | collected on: Sanana | source: single consultant | 2014 | note: see also ngapu gika, nap geka, ngapu geka

nap kol  'scalp' | Bahasa Indonesia: kulit kepala | collected on: Sanana | source: numerous | 2010–2019

napa fini  'grandmother' | collected on: Mangon | source: three to five consultants | 2014

napa nana  'grandfather' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

napa nohi  'ancestors' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

napfatgeka  'smart' | collected on: Sanana | source: numerous | 2010

napfoa  'hair' | collected on: Sanana | source: numerous | 2010

napufoa  'hair' | Bahasa Indonesia: rambut | collected on: Mangon, Capuli village | source: numerous | 2015 | note: see also nap foa / ngapu foa

naraka  'underworld' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | 2014 | note: loan neraka

nas  'bite' | Bahasa Indonesia: gigitan | collected on: Sanana, Umahoya village | Source: Fagudu tribe | 2014 | note: see also ngasi, uka.

nasehat  'advice' | collected on: Sanana | source: two to three consultants | 2010 | note: loan
**nau** 'to understand' / 'to know' / 'to be knowledgeable' | Bahasa Indonesia: mengerti, tahu | collected on: Sanana | source: numerous | 2010 | note: minimal pair with **dau**.

**nau** 'long' | collected on: Mangon | source: numerous | 2010 | note: Minimal pair with **dau**. See also **nahu**.

**nau** 'cat' | Bahasa Indonesia: kucing | collected on: Sanana | source: numerous | 2010–2019 | note: Sanana form. Minimal pair with **dau**. See also **ngau** for Mangon form.

**nau fa** 'smart' | Bahasa Indonesia: pintar | collected on: Mangon, Capuli village | source: two to three consultants | 2015 | note: literally 'know' + 'things'

**nau li** 'a meow' | collected on: Sanana | source: numerous | note: lit. 'cat' + 'speech'

**nawa nui** 'sugar palm' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: This Holle list item is likely the result of a miscommunication. The morphemes present are **n**- which is an explicative discussed in the grammar chapter of this volume followed by **awa** 'farm field' and **nui** 'coconut'. I suspect the interviewer attempted to describe a sugar palm by pointing out a coconut palm and comparing what he meant to that and then indicated they are farmed in orchards, and the informant misunderstood him to be asking the term for a coconut orchard, which is extremely common in Sula. See also **pe'i** 'sugar palm' and **kanou**, also from Holle.

**nayo hiha** 'chin' | collected on: Sanana | source: numerous | 2014

**nbayon kol** 'lips' | collected on: Sanana | source: numerous | 2014 | note: Mangon form. For Sanana form, see also **mboni koli**

**nboyu** 'tail' | collected on: Mangon | source: numerous | 2014 | note: compare (Mangon) **mboyu**, **boyu**, collected on: Sanana **mboya**, **nboya**, **boya**

**nbungi foro** 'eyebrow' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**nceli ngkoli** 'rind' / 'peel' | collected on: Mangon | source: numerous | 2010 | note: Mangon form. For Sanana form, see also **fua kol**

**ncili** 'fruit' | Bahasa Indonesia: buah | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: see also **nceli**

**ncumi** 'nose' | Bahasa Indonesia: hidung | collected on: Mangon | source: numerous | 2010 | note: Mangon form. For Sanana form, see also **ne**
ndalia 'durian' | collected on: Mangon | source: two to three consultants | 2014 | note: see also dahia

ndani 'to plant' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

ndasa wonga 'rib' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

ndili 'jack fruit' | collected on: Mangon | source: three to five consultants | 2014

ndong dui 'embers' / 'coals' / 'glowing' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

ne 'nose' | Bahasa Indonesia: hidung | collected on: Sanana | source: numerous | 2010 | note: Sanana form. For Mangon form, see also ncumi.

ne 'that' | Bahasa Indonesia: itu | collected on: Mangon, Ulfoa village | source: two to three consultants | 2014 | note: abbreviation of neka.

nee 'to point' | Bahasa Indonesia: menunjuk | collected on: Mangon, Ulfoa village | source: numerous | 2015

nee / ne'e 'nose' | Bahasa Indonesia: hidung | collected on: Sanana | source: numerous | 2010–2019 | note: see also ne

neka 'that' | Bahasa Indonesia: itu | collected on: Sanana | source: numerous | 2010–2019

nen 'earthquake' | Bahasa Indonesia: gempa bumi | collected on: Sanana | source: numerous | 2010–2019

nepu a fish that is either the same as or similar to the redbarred hawkfish (cirrhitops fasciatus) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

neu / ne'u DIRECTION either clockwise or counterclockwise around island depending on village | Bahasa Indonesia: di bawa | collected on: Sanana, Mangon | source: numerous | 2010–2019 | note: directions: lepa 'up' and neu 'down' correspond to clockwise and counterclockwise depending on the village. Directions: tema 'inland' and fai 'seaward' are universal in Sula.

neu / ne'u 'below' / 'bottom (position)' | Bahasa Indonesia: di bawa | collected on: Sanana | source: numerous | 2010–2019

neu bia foku 'to descend' | e.g. from a ladder | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: I suspect this means 'come down from a mountain pass' (foku 'joint')
nfo 'feather' | Bahasa Indonesia: bulu | collected on: Mangon | source: numerous | 2014 | note: if parsed as an explicative prenasal, this is an abbreviated form of the general word for 'hair'/ 'feather' (see also fo, foa). Otherwise, the initial n is part of the contracted compound man + foa.

nforo 'body hair (animal)' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: archaic. several Mangon forms on the Holle list suggest possible loss of intervocalic r. See also foa

nga 'name' | collected on: Mangon | source: numerous | 2010 | note: see also na

nga 'name' | collected on: Mangon | source: three to five consultants | 2010

ngan 'boil' / 'boiled' | Bahasa Indonesia: merebus, rebus | collected on: Sanana | source: numerous | 2010–2019

ngan mantel 'boiled egg' | Bahasa Indonesia: telur rebus | collected on: Sanana | source: numerous | 2010–2019

ngan wai 'boiled water' | Bahasa Indonesia: air matang | collected on: Sanana | source: numerous | 2010–2019

nganti nganti 'earrings' | Bahasa Indonesia: anting-anting | collected on: Sanana | source: numerous | 2010–2019

nganting 'earring' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: Holle postulates this as a Ternate loan

ngapu 'head' | collected on: Mangon | source: numerous | 2014 | note: see also nap

ngapu 'head' | collected on: Mangon | source: three to five consultants | 2010

ngapu fatu loi 'skull' | collected on: Mangon | source: three to five consultants | 2014

ngapu gika 'headache' | collected on: Mangon | source: single consultant | 2014 | note: see also nap gika, nap geka, ngapu geka

ngapu tuka gika 'cold, a' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: this probably means 'headache' rather than 'a cold'. Literally it is 'sick inside head'. Usually bakef 'cough' is doubles as 'a cold'

ngapufo 'hair' | collected on: Mangon | source: three to five consultants | 2010

ngapuforo 'hair' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: if correct, this Holle form implies intervocalic r deletion within the past century. See also ngapufo

ngasi 'bite' | Bahasa Indonesia: gigitan | collected on: Mangon | source: numerous | 2010 | note: see also nas, uka.
**ngatina** 'palate' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**ngau** 'cat' | collected on: Mangon | source: three to five consultants | 2014

**nge** 'nose' | collected on: Mangon | source: three to five consultants | 2010

**ngi** 'tooth' | collected on: Mangon | source: three to five consultants | 2010

**ngoi foku** 'posterior' / 'buttock' | collected on: Mangon | source: numerous | 2010 | note: Mangon form. For Sanana form, see also **goi foka**

**ngyaya** 'mother' | Bahasa Indonesia: ibu | collected on: Mangon, Ulfoa village | source: numerous | 2014

**ni'i fafi** 'molar' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: lit. tooth' + 'pig'

**ni'i mata** 'gums' | collected on: Mangon | source: three to five consultants | 2014

**nib** 'sit' | Bahasa Indonesia: duduk | collected on: Sanana | source: numerous | 2010–2019

**nib baka kihi yai** 'sit (with the knees bent to one side)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**nib paha tiga** 'to squat' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**nib puku tiga** 'to squat' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900


**nibu** 'sit' | collected on: Mangon | source: three to five consultants | 2010

**nihi** 'flesh' | collected on: Sanana | source: numerous | 2010–2019 | note: n is an explicative prefix

**nihi** 'tooth' | collected on: Sanana | source: numerous | 2010

**nihi** 'teeth' | Bahasa Indonesia: gigi | collected on: Sanana | source: numerous | 2010–2019

**nihi faf** 'molar' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**nihi mata** 'gums' | collected on: Sanana | source: numerous | 2014

**nika** 'to ask' | collected on: Sanana | source: numerous | 2014

**nika** 'that (far-away)' | collected on: Sanana | source: single consultant | 2014 | note: see also **neka**
niki 'to confess' | collected on: Mangon | source: single consultant | 2014 | note: see also hika
nin 'earthquake' | collected on: Sanana | source: numerous | 2014
nini 'great' / 'large' | collected on: Mangon | source: numerous | 2014 | note: see also fanini
nipa 'nipa palm' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
nis 'half' | collected on: Sanana | source: numerous | 2014
 nisi 'flesh' | collected on: Mangon | source: numerous | 2014 | note: see also ihi
 nisi fata 'body' | collected on: Mangon | source: three to five consultants | 2014
 nkol matabol nahu 'slim' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: literally 'narrow skin'
nli 'to say' / 'to answer' | collected on: Mangon | source: numerous | 2014 | note: explicative n-. See also li
noi 'request, ask' | e.g. noi tabak 'ask for a cigarette' | Bahasa Indonesia: minta | collected on: Sanana | source: numerous | 2010–2019
noi 'lend to' | collected on: Sanana | source: numerous | 2014
noi limpa 'to beg' / 'to pester with requests' | collected on: Mangon | source: two to three consultants | 2014 | note: Mangon form. For Sanana form, see also noi lipa
noi lipa 'to beg' / 'to pester with requests' | collected on: Sanana | source: three to five consultants | 2014 | note: Mangon form. For Sanana form, see also noi limpa
noi ma'af / noi maaf 'apologize' (formal) | e.g. ak a-noi ma'af 'please forgive me' | Bahasa Indonesia: permintaan maaf | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: literally 'beg' + 'apology'
noi nika 'to ask for' | collected on: Sanana | source: numerous | 2014
noinoi 'beggar' | Bahasa Indonesia: pengemis | collected on: Sanana | source: numerous | 2010–2019
non 'belongs to' | e.g. ik bob ak non 'this is my spoon' | Bahasa Indonesia: milik | collected on: Mangon, Capuli village | source: numerous | 2015 | note: Possessive morpheme. See also gon
nona 'sleep' / 'to lie down' | Bahasa Indonesia: tidur | collected on: Sanana | source: numerous | 2010–2019
**nona (bol bol)** 'lie down' | Bahasa Indonesia: baring | collected on: Sanana | source: numerous | 2010–2019

**nona bal naha** 'to lie on back' | collected on: Sanana | source: numerous | 2014 | note: Sanana form. For Mangon form, see also nonu palinga

**nona bal pif** 'to lie on belly' | collected on: Sanana | source: numerous | 2014 | note: Sanana form. For Mangon form, see also nonu pal tutu

**nonako** 'omen' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**nong** 'charcoal' | collected on: Sanana | source: numerous | 2014

**nongmarur** 'embers' / 'coals' / 'glowing' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**nonu** 'to sleep' | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form, see also nona

**nonu** 'sleep' | collected on: Mangon | source: three to five consultants | 2010

**nonu pal tutu** 'to lie on belly' | collected on: Mangon | source: two to three consultants | 2014 | note: Mangon form. For Sanana form, see also nona bal pif

**nonu palinga** 'to lie on back' | collected on: Mangon | source: two to three consultants | 2014 | note: Mangon form. For Sanana form, see also nona bal naha

**nopa fina** 'grandmother' | collected on: Sanana | source: numerous | 2014

**nopa nahi** 'ancestors' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**nora** 'pillow' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**npani** 'wing' | Bahasa Indonesia: sayap | collected on: Mangon | source: numerous | 2014 | note: explicative n-. See also pani, mpani.

**npeu** 'bile' | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form, see also peu

**nsoba** 'wing' | collected on: Sanana | source: numerous | 2014 | note: explicative n-. See also soba

**ntakali so'ofu** 'thirsty' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: see also saota, lawai saota

**ntuka giki** 'jealous' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
nuba 'mouth' | Bahasa Indonesia: mulut | collected on: Mangon | source: three to five consultants | 2010–2019

nui 'coconut' | collected on: Sanana | source: numerous | 2010

nui kau 'coconut tree' | Bahasa Indonesia: pohon kelapa | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015

nui wai 'coconut water' | collected on: Sanana | source: numerous | 2010

nui wai ihi 'coconut meat' | collected on: Sanana | source: numerous | 2010 | note: literally 'coconut water meat'

nuki 'coral reef' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

nya 'mother' | collected on: Mangon | source: three to five consultants | 2010

nyanyi 'poem' | collected on: Sanana | source: numerous | 2010

nyawa 'soul' / 'spirit' / 'ghost' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

nyaya 'mother' | Bahasa Indonesia: ibu | collected on: Sanana | source: numerous | 2010–2019

nyaya mahua 'stepmother' | collected on: Sanana | source: numerous | 2014

o 'The God (specific)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan

oba 'to shut' | Bahasa Indonesia: tutup | collected on: Sanana | source: numerous | 2010–2019

obat 'gun powder' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: loan from Bahasa Indonesia.

obor 'torch' | Bahasa Indonesia: obor | collected on: Mangon, Waitulia village | source: numerous | 2014 | note: likely loan from Bahasa Indonesia. see also pancona, padamara.

ofa 'pour' | collected on: Sanana | source: numerous | 2010

ofi 'species of tuber' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

og 'to be silent' | collected on: Sanana | source: two to three consultants | 2014 | note: Sanana form. For Mangon form, see also ogu. Holle postulates this as a Ternate loan

og og 'calm' | Bahasa Indonesia: tenang | collected on: Sanana | source: numerous | 2010–2019
Chapter 4: lexicon

og og para 'emergency' | Bahasa Indonesia: darurat | collected on: Sanana | source: numerous | 2010–2019

ogu 'to be silent' | collected on: Mangon | source: two to three consultants | 2014 |
  note: Mangon form. For Sanana form, see also og. Holle postulates this as a Ternate loan

ogu 'to be silent' | collected on: Mangon | source: two to three consultants | 2014 |
  note: Mangon form. For Sanana form, see also og. Holle postulates this as a Ternate loan

ojo 'scramble' / 'shuffle' / 'mix' | (e.g. beat an egg, shuffle dominos) | Bahasa Indonesia: aduk, campur | collected on: Sanana | source: numerous | 2010–2019

ok 'in' | Bahasa Indonesia: dalam | location: unknown | source: Umaternate | 2013

ok ok 'quiet, whisper' | Bahasa Indonesia: sepsi | collected on: Sanana | source: numerous | 2010–2019

ol INCEPTIVE ASPECT MARKER | Bahasa Indonesia: ~sudah | collected on: Sanana, Mangon | source: numerous | 2010–2019 | note: commonly directed toward others

ong ko foi 'drinking bowl' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: this Holle term has likely dropped out of the language. People use cups and glasses now

onkos 'price (service)' | Bahasa Indonesia: ongkos (Loan) | collected on: Sanana | source: numerous | 2010–2019

opa 'what' | Bahasa Indonesia: apa | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: I suspect this is a Holle List error. The consultant likely repeated the Indonesian prompt, apa, with a Sula accent. The o and a vowel spaces frequently overlap, and this can make transcription difficult even after years of experience. See also hapa, ganao.

oras goa para 'anytime' | Bahasa Indonesia: kapan saja | collected on: Sanana | source: numerous | 2010–2019

oras lea 'dry season' | Bahasa Indonesia: musim kemarau | collected on: Sanana | source: numerous | 2010–2019

oros moya 'dust cloud' / 'plume' | (e.g. drop something onto dusty soil) | collected on: Sanana | source: numerous | 2010

ot / oti 'penis' | Bahasa Indonesia: zakar | collected on: Sanana, Mangon | source: numerous | 2010–2019

oya 'to throw' | collected on: Sanana | source: numerous | 2010

oya 'made of' | Bahasa Indonesia: dibuat (dari) | collected on: Sanana | source: numerous | 2010–2019
oyu 'crab' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: see also yo ya, u ha

pa 'only' | collected on: Mangon | source: numerous | 2010 | note: abbreviated form of para

pa cagi geriha 'square' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

paa fat 'whole nutmeg' | Bahasa Indonesia: pala | collected on: Sanana, Malbufa village | source: numerous | 2015 | note: possible loan from Bahasa Indonesia pala. Also possible that pala is a loan from Sula or another local language, as nutmeg is native to Maluku.

paa fua 'nutmeg fruit' | Bahasa Indonesia: buah pala | collected on: Sanana, Malbufa village | source: numerous | 2015

paa ful 'mace spice' | collected on: Sanana, Malbufa village | source: numerous | 2015 | note: the red flesh surrounding whole nutmeg. dried and used in cooking and traditional medicine.

paa kol 'nutmeg shell' | Bahasa Indonesia: kulit pala | collected on: Sanana, Malbufa village | source: numerous | 2015

pabamap 'cook' | Bahasa Indonesia: tukang masak | collected on: Sanana | source: numerous | 2010–2019

paca 'wipe' | collected on: Mangon | source: three to five consultants | 2010

pacar 'darling (my dear)' | Bahasa Indonesia: pacar (Loan) | collected on: Sanana | source: numerous | 2010–2019

pacul 'hoe' | Bahasa Indonesia: pacul (Loan) | collected on: Sanana | source: numerous | 2010–2019

pada 'imperata cylindria' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

padad 'creation' | collected on: Sanana | source: numerous | 2010

padamara 'torch' | Bahasa Indonesia: obor | collected on: Sanana, Malbufa village | source: numerous | 2014 | note: see also pancona, obor.

padomu 'knee' | collected on: Mangon | source: numerous | 2010 | note: see also paroma collected on: Sanana

padyanga 'attic (under the roof)' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

pahu baka han-han 'similar' | Bahasa Indonesia: mirip | collected on: Sanana | source: numerous | 2010–2019

462
**pahu gan** 'shape' | Bahasa Indonesia: bentuk | collected on: Sanana | source: numerous | 2010–2019

**pahugan** 'exactly' | Bahasa Indonesia: persis | collected on: Sanana | source: numerous | 2010–2019

**pai** 'ray' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**pai** INCEPTIVE ASPECT MARKER | 'from now' | Bahasa Indonesia: dulu | collected on: Sanana, Mangon | source: numerous | 2010–2019 | note: usually used when referring to oneself

**pai tina** 'temple (body) (my addition: on head)' | Bahasa Indonesia: pelipis | collected on: Sanana | source: numerous | 2010–2019

**paia** 'papaya' | e.g. (1) *paia* kau 'papaya tree' (2) *paia* fua 'papaya fruit' (3) *paia* hal 'papaya blossom' | Bahasa Indonesia: pepaya | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: loan from Carib via Spanish, Portuguese, Malay

**paitina** 'forehead' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**pak** 'to use' / 'to speak' | (to speak a language) | collected on: Sanana | source: numerous | 2010

**pak** 'wear' | e.g. *pak* kemeja 'wear a shirt' | Bahasa Indonesia: memakai [pakai] | collected on: Sanana | source: numerous | 2010–2019

**pak li Sua** 'speak Sula' | collected on: Sanana | source: numerous | 2010

**pak pai** 'borrow' | e.g. *ta-pak* pai ak *lota* 's/he borrows my boat' | Bahasa Indonesia: meminjam [pinjam] | collected on: Sanana | source: numerous | 2010–2019

**paka hia** 'once' | collected on: Mangon | source: three to five consultants | 2010

**paka hia-hia** 'sometimes' | Bahasa Indonesia: kedang-kedang | collected on: Sanana | source: numerous | 2010–2019

**paka'aba** 'wall (bamboo)' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**pakahia** 'once' | Bahasa Indonesia: sekali | collected on: Sanana | source: numerous | 2010–2019

**pakahia** 'whole' | Bahasa Indonesia: seluruh | collected on: Sanana | source: numerous | 2010–2019

**pakai** 'wedding' | Bahasa Indonesia: perkawinan | collected on: Sanana | source: numerous | 2010–2019
pake 'use' / 'wear' | collected on: Sanana | source: numerous | 2010
paktatoto 'pounder' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: onomatopoeia?
pal sek 'to flip' | e.g. (1) a boat (2) an egg | collected on: Mangon, Ulfoa village | source: single consultant | 2015
palaka 'ride a vehicle' / 'trek' / 'take a trip' / 'journey' | Bahasa Indonesia: perjalanan | collected on: Sanana | source: numerous | 2010–2019
pamasi 'rice' | collected on: Mangon | source: numerous | 2010 | note: see also bira
pamasi kakolbi 'harvested rice' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: I believe this Holle form actually means 'de-hulled rice'
pampres 'diaper' / 'nappy' | Bahasa Indonesia: popok | collected on: Sanana | source: numerous | 2010–2019
pana nawur 'to twine a rope' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
panau 'funeral' | Bahasa Indonesia: pemakaman | collected on: Sanana | source: numerous | 2010–2019
pancona 'torch' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this does not have the feel of a native Sula word. I suspect this is a loan, but the source is unclear, a possibility is penerang 'torch' from Indonesian
pandei 'clever' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
pang 'pot (cooking)' | Bahasa Indonesia: panci | collected on: Sanana | source: numerous | 2010–2019
pangara 'cloud' | collected on: Sanana | source: numerous | 2014 | note: see also fangara
pange 'shield' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
panglu 'bullet' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
**pani** 'wing' | Bahasa Indonesia: sayap | collected on: Mangon, Ulfoa village | source: numerous | 2014 | note: see also *mpani, npani.*

**panika** 'question' | Bahasa Indonesia: pertanyaan | collected on: Sanana | source: numerous | 2010–2019

**paniki** 'bat' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**pantun** 'poetry' | Bahasa Indonesia: puisi | collected on: Sanana | source: numerous | 2010–2019

**panu** 'wing' | collected on: Mangon | source: three to five consultants | 2010

**panyak** 'disease' | Bahasa Indonesia: penyakit | collected on: Sanana | source: numerous | 2010–2019

**papa hoi** 'cheek' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**papa'oi** 'cheek' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**par hia** 'pair' | Bahasa Indonesia: sepasang | collected on: Sanana | source: numerous | 2010–2019

**para** 'only' / 'just' | Bahasa Indonesia: hanya, saja | collected on: Sanana | source: numerous | 2010–2019

**para** 'cogon grass' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: I'm very dubious of this Holle list translation. My consultant accepted it, but did not produce it.

**parek** 'size' | Bahasa Indonesia: ukuran | collected on: Sanana | source: numerous | 2010–2019

**pari** 'bitter mellon' | collected on: Sanana | source: numerous | 2010

**paroma** 'knee' | Bahasa Indonesia: lutut | collected on: Sanana | source: numerous | 2010–2019

**parut sa** 'sago palm ground to sawdust powder' | collected on: Mangon, Capuli village | source: two to three consultants | 2015

**pas** 'island' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**pas** 'just right' | Bahasa Indonesia: pas | collected on: Sanana | source: numerous | 2010–2019 | note: likely loan from Bahasa Indonesia

**pas waktu** 'on time' | Bahasa Indonesia: tepat waktu | collected on: Sanana | source: numerous | 2010–2019
**pasa** 'market' | collected on: Sanana | source: numerous | 2014 | note: loan from Bahasa Indonesia.

**pasa** 'ago' | e.g. (1) *taun pasa ik* 'one year ago' (2) *tua fat tiga yang pasa ak lal senang kadiga* 'three husbands ago, I was very happy.' | Bahasa Indonesia: lalu | collected on: Sanana, Waibau village | source: numerous | 2014

**pasar** 'market' | Bahasa Indonesia: pasar | collected on: Sanana | source: numerous | 2010–2019

**pastina** 'coral reef' | collected on: Mangon | source: three to five consultants | 2010

**pat** 'smell' | e.g. (1) *pat mon* 'good smell' (2) *pat suba* 'bad smell' | Bahasa Indonesia: bau | collected on: Sanana | source: numerous | 2010–2019 | note: see also *suba, pati foro*

**pata** 'corpse' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**pata** *bit* 'funeral ceremony' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**patana** 'payment' | Bahasa Indonesia: bayaran | collected on: Sanana | source: numerous | 2010–2019

**inati foro** 'to stink' / 'smell' | collected on: Mangon | source: numerous | 2014 | note: see also *pat, suba*

**patii** 'owl' | Bahasa Indonesia: burung hantu | collected on: Mangon, Waitulia village | source: numerous | 2015

**pata** 'present (gift)' | Bahasa Indonesia: hadiah | collected on: Sanana | source: numerous | 2010–2019

**pata** 'help' | Bahasa Indonesia: bantuan | collected on: Sanana | source: numerous | 2010–2019

**pata** 'habit' | Bahasa Indonesia: kebisaan | collected on: Sanana | source: numerous | 2010–2019

**patsuba** 'rotten' / 'decay' | collected on: Sanana | source: numerous | 2010 | note: with emphasis on the smell of decay rather than sight or texture

**patu** 'hoe' | collected on: Mangon | source: three to five consultants | 2014

**pe** COMPLETIVE AND PERFECT ASPECT WORD | Bahasa Indonesia: sudah~ | collected on: Mangon, Waitulia village | source: numerous | 2014 | note: abbreviated form of *pel.*

**pe'i** 'sugar palm' | Bahasa Indonesia: aren | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015
**peda** 'chopper' / 'machete' | Bahasa Indonesia: golok | collected on: Sanana, Mangon | source: numerous | 2010-2019

**pedahi** 'opinion' | e.g. mon-pe’da.hi 'your opinion' | Bahasa Indonesia: pendapat | collected on: Sanana | source: numerous | 2010–2019

**pedi** 'machetti' | collected on: Sanana | source: numerous | 2010

**pefa** 'explode' | collected on: Sanana | source: numerous | 2010

**pei mapai** / **pe’i** 'palm wine (fermented)' | collected on: Sanana, Waibau village | source: numerous | 2015

**pei mina** 'palm juice (unfermented)' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**pel** COMPLETIVE AND PERFECT ASPECT WORD | Bahasa Indonesia: sudah~ | collected on: Sanana, Mangon | source: numerous | 2010–2019

**pen** 'points (in a game)' | Bahasa Indonesia: poin | collected on: Sanana | source: numerous | 2010–2019

**pen / pin** 'a bunch' | e.g. (1) flower bunch (2) fia pen 'cluster/ hand of bananas' | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015

**peng habisan** 'end' | Bahasa Indonesia: akhir | collected on: Sanana | source: numerous | 2010–2019

**penga bisan** 'last' | (final) | Bahasa Indonesia: terakhir | collected on: Sanana | source: numerous | 2010–2019

**pengi** 'a bunch' | e.g. (1) flower bunch (2) fia pengi 'cluster/ hand of bananas' | collected on: Mangon, Waitulia village | source: numerous | 2014


**pepe** 'vagina' / 'vulva' | Bahasa Indonesia: vagina | collected on: Mangon, Waitulia village | source: numerous | 2014 | note: child language term—less rude, but still taboo. Mangon form. See also pok, poki

**perasa** 'feeling' | Bahasa Indonesia: perasaan | collected on: Sanana | source: numerous | 2010–2019

**percaya faa basah** 'superstition' | Bahasa Indonesia: takhyul | collected on: Sanana | source: numerous | 2010–2019 | note: loan

**percobaan** 'harassment' | Bahasa Indonesia: gangguan (Loan) | collected on: Sanana | source: numerous | 2010–2019
peresaan 'emotional' | Bahasa Indonesia: emosionil | collected on: Sanana | source: numerous | 2010–2019

perlu 'to need' / 'to want' | Bahasa Indonesia: perlu (Loan) | collected on: Sanana | source: numerous | 2010–2019 | note: /a-perlu faahia/ 'I want/need something'

persis 'same' | collected on: Sanana | source: numerous | 2010

pesawat la 'information' | Bahasa Indonesia: keterangan | collected on: Sanana | source: numerous | 2010–2019

peta 'lucky' | Bahasa Indonesia: beruntung | collected on: Sanana | source: numerous | 2010–2019

petama-tama 'first' | Bahasa Indonesia: pertama (Loan) | collected on: Sanana | source: numerous | 2010–2019

peu 'bile' | collected on: Sanana | source: single consultant | 2014 | note: Sanana form.

For Mangon form, see also npeu

pia 'to be alive' / 'good' / 'safe' / 'life' / 'honest' / 'beautiful' / 'in good, healthy condition' | e.g. matapia pia 'a good person' | Bahasa Indonesia: hidup, baik, hidup, jujur | collected on: Sanana | source: numerous | 2010–2019

pia (tuka) bamap 'chef' | Bahasa Indonesia: koki | collected on: Sanana | source: numerous | 2010–2019

pia aya 'adult' | Bahasa Indonesia: dewasa | collected on: Sanana | source: numerous | 2010–2019

pia eha 'adult' | Bahasa Indonesia: dewasa | collected on: Sanana | source: numerous | 2010–2019

pia jaga ana 'babysitter' | Bahasa Indonesia: pengasu anak | collected on: Sanana | source: numerous | 2010–2019

pia kaya 'wealthy' | Bahasa Indonesia: kaya | collected on: Sanana | source: numerous | 2010–2019

pia makata 'doctor' | (traditional medicine) | collected on: Sanana | source: numerous | 2010 | note: literally 'person medicine'

pia matua 'parents' / 'older people' | Bahasa Indonesia: orang tua | collected on: Sanana | source: numerous | 2010–2019

pia moya 'strange' / 'unsafe' | Bahasa Indonesia: aneh | collected on: Sanana | source: numerous | 2010–2019

pia-pia (para) 'safe' / 'just right' | Bahasa Indonesia: aman | collected on: Sanana | source: numerous | 2010–2019
pian 'other' | Bahasa Indonesia: lain | collected on: Sanana | source: numerous | 2010
pidatu 'welcome' | Bahasa Indonesia: sambutan | collected on: Sanana | source: numerous | 2010–2019
piga 'dish' | collected on: Sanana | source: numerous | 2010
piga lisa 'saucer' (small plate) | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
pihu 'again' / 'return' | e.g. oje pihu 'shuffle again' | Bahasa Indonesia: lagi | collected on: Sanana | source: numerous | 2010–2019 | note: alternate pronunciation of bihu. As an aspect marker, it is nearly synonymous with son. It indicates a commencing a recurring activity. e.g. gaya son/pihu 'eat again from now'
pikir 'to think' | collected on: Mangon | source: three to five consultants | 2010
pikir pikir 'think' | Bahasa Indonesia: berpikir [pikir] (Loan) | collected on: Sanana | source: numerous | 2010–2019
pil 'already' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: archaic. See also pel
pila 'how many' | collected on: Mangon | source: three to five consultants | 2010
pinaka 'thief' | Bahasa Indonesia: pencuri | collected on: Sanana | source: numerous | 2010–2019
pinding 'belt (clothing)' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: archaic. See also pel
pip / pipi 'Money' | collected on: Sanana, Mangon | source: numerous | 2010–2019
pip nana 'change (coins)' | Bahasa Indonesia: uang kecil | collected on: Sanana | source: numerous | 2010–2019
pip seng 'coin' | Bahasa Indonesia: uang logam | collected on: Sanana | source: numerous | 2010–2019
pis noya / pisnoya 'speak (talk)' | Bahasa Indonesia: berbicara [bicara] | collected on: Sanana | source: numerous | 2010–2019 | note: see also bisnoya
pita 'to exist' / 'to be' | Bahasa Indonesia: menjadi | collected on: Mangon, Waitulia village | source: numerous | 2014 | note: see also dahi.
po 'cardinal number ten' | Bahasa Indonesia: sepuluh | collected on: Mangon | source: numerous | note: see also poa.
po 'blood' | collected on: Mangon | source: numerous | 2010 | note: see also poa.
**po laka** 'flowing blood' | Bahasa Indonesia: darah mengalir | collected on: Sanana | source: numerous | 2010–2019

**po suk** 'bleed' | Bahasa Indonesia: mengeluarkan darah | collected on: Sanana | source: numerous | 2010–2019

**poa** 'cardinal number ten' | Bahasa Indonesia: sepuluh | collected on: Sanana | source: numerous | 2010 | note: see also po.

**poa** 'blood' | collected on: Sanana | source: numerous | 2010–2019 | note: see also po.

**poa bai** 'to be born' / 'to give birth' | collected on: Sanana | source: numerous | 2010

**poa gatel** 'thirty' | collected on: Sanana | source: numerous | 2014

**poa laka** 'flowing blood' | Bahasa Indonesia: darah mengalir | collected on: Sanana | source: numerous | 2010–2019

**poa suk** 'bleed' | Bahasa Indonesia: mengeluarkan darah | collected on: Sanana | source: numerous | 2010–2019 | note: see also po.

**poci** 'pot' / 'jar' | collected on: Sanana | source: numerous | 2010–2019

**podogata hua / poadogata hua** 'eighteen' | collected on: Sanana | source: numerous | 2014

**podohia / poadohia / poaduhia** 'eleven' | collected on: Sanana | source: numerous | 2014

**pohi** 'lemon-like fruit' / 'orange-like fruit' / 'juice' | Bahasa Indonesia: jeruk asam, jus | collected on: Sanana | source: numerous | 2010–2019

**pohi kaya** 'grapefruit' | collected on: Sanana | source: numerous | 2014

**pohi limcui** 'lemon' | collected on: Sanana | source: numerous | 2014

**pok** 'vagina' / 'vulva' | collected on: Sanana | source: numerous | 2014 | note: Sanana form. See also pepe, poki

**pok lal** 'vagina' | Bahasa Indonesia: liang peranakan | collected on: Sanana | source: numerous | 2010–2019

**poki** 'vagina' / 'vulva' | collected on: Sanana | source: numerous | 2014 | note: Mangon form. See also pepe, pok


**pon hia** 'group' | Bahasa Indonesia: kelompok | collected on: Sanana | source: numerous | 2010–2019

**ponda** 'pandanus' | collected on: Mangon | source: three to five consultants | 2010

**ponda** 'sleeping mat' | collected on: Mangon | source: three to five consultants | 2014
ponoida / panoida 'companion, friend, guide' | Bahasa Indonesia: rekan, pemandu |
collected on: Sanana | source: numerous | 2010–2019 | note: panoida
pronunciation recorded in Wai U village. Everywhere else offered ponoida.

popa 'grandfather' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

poro 'blood' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: several Mangon forms on the Holle list suggest possible loss of intervocalic r. See also po, poa

pu 'faeces' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: loan?

pu hi 'navel' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

puas pel 'bored' | Bahasa Indonesia: bosan | collected on: Sanana | source: numerous | 2010–2019

puhi 'centre, stomach' | e.g. town | Bahasa Indonesia: pusat | collected on: Sanana | source: numerous | 2010–2019

puhi wai 'umbilical cord' | Bahasa Indonesia: tali pusar | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

put'ana 'ghost' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900


rabana 'tambourine' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: loan from Bahasa Indonesia.

rairai 'to guess' | collected on: Sanana | source: two to three consultants | 2010 | note: likely loan from an unknown source, as there are few if any native Sula words beginning with r.


ranta aya; ranta me’ihi 'basket (all sorts of)' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c.
1900 | note: likely loan from an unknown source, as there are few if any native Sula words beginning with r. Possible metathesis of rattan?

**ranta nini, ranta make’i** 'basket (all sorts of)' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: likely loan from an unknown source, as there are few if any native Sula words beginning with r. Possible metathesis of rattan?


**rasa lua** 'nausea' | Bahasa Indonesia: mual | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'feeling' + 'vomit'.


**rica** 'black pepper' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I am skeptical of this gloss. The word rica means 'chili pepper'

**rica** 'red pepper' | collected on: Mangon | source: three to five consultants | 2010 | note: likely loan from an unknown source, as there are few if any native Sula words beginning with r.

**ronggi** 'to dance' | collected on: Sanana | source: two to three consultants | 2014 | note: see also baronggeng


**rugi** 'loss' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: loan from Bahasa Indonesia.

**ruwi** 'mango' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: I am highly doubtful of this entry, as there are few if any native Sula words beginning with r.

**sa / sa’a** 'sago' | collected on: Sanana | source: numerous | 2010 | note: pronunciation sa’a is found in CMD region of Mangon

**sa, napi** 'sago tree' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: sa is verified as 'sago'. I repeatedly collected sa kau as 'sago tree'. It is unclear what napi means here. I have only collected it with a verbal prefix ba- meaning 'to shoot'.

472
sa'afa, saafa, safa  'rat' | Bahasa Indonesia: tikus | collected on: Sanana | source: numerous | 2010
sa'aka  'silver' | collected on: Sanana | source: numerous | 2014
sa'apon  'sago tree' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I collected this term as sa kau. The Holle entry looks like a partial loan from Bahasa Indonesia pohon
sa'ilu  'to slurp' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
sa'oa  'where' | Bahasa Indonesia: dimana | collected on: Sanana | source: numerous | 2014 | note: see also sahoa, soa
sa'ota  'to be wrecked' | e.g. shipwreck | collected on: Sanana | source: numerous | 2014 | note: Sanana form. For Mangon form, see sa'otu
sa'otu  'dry' | collected on: Sanana | source: numerous | 2014 | note: see also sa'ota, saotu (Mangon)
sa'otu  'to be wrecked' | e.g. shipwreck | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form, see sa'ota
sa'otu  'dry' | collected on: Mangon | source: numerous | 2014 | note: see also sa'ota, saota collected on: Sanana
sa'wehi  'seashell' | collected on: Sanana | source: numerous | 2010
saafa  'rat' | collected on: Sanana | source: numerous | 2010–2019
saba 'koka  'ring' | collected on: Sanana | source: numerous | 2010

sabai  'slap' | Bahasa Indonesia: tendangen | collected on: Mangon, Ulfoa village | source: single consultant | 2015
sabakoka  'ring' | collected on: Sanana | source: numerous | 2010 | note: Sanana form. Sabakoka form, see also sabakoku
sabakoku  'ring' | collected on: Mangon | source: two to three consultants | 2010 | note: manga is 'sharp'. Mangon form. For Sanana form see also sabakoka
sabata  'rug' / 'mat' / 'pandanus leaf' / 'sleeping mat' | Bahasa Indonesia: permadani, tikar | collected on: Sanana, Mangon | source: numerous | 2010–2019
sabeya  'to worship' | Bahasa Indonesia: sembahyang | collected on: Sanana | source: single consultant | 2010–2019 | note: see also sabia, bau perinta joh
sabia  'to worship' | collected on: Sanana | source: single consultant | 2014 | note: Holle postulates this as a Ternate loan. See also sabeya, bau perinta joh
sabil 'sabre' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
sabota 'sleeping mat' | collected on: Sanana | source: numerous | 2014
sabu 'to close' | collected on: Mangon | source: numerous | 2014 | note: see also oba
sabua 'tent' / 'hut' / 'shelter' | Bahasa Indonesia: tenda | collected on: Sanana | source: numerous | 2010–2019
saf 'bowl' | Bahasa Indonesia: mangkuk | collected on: Sanana | source: numerous | 2010–2019
safak 'shield' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I have never seen a shield in Sula. I've thrown a spear at a wild boar, but not seen a shield.
safila 'Lightning' | Bahasa Indonesia: kilat | collected on: Sanana | source: Fagudu speaker | 2010 | note: Possible Arabic loan: saeïqa 'lightning' shaeila 'flame'/'torch'. See also *sagila* at
sagat 'to carry on the hip' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: see also saggate, sanggati
sagig lal 'to carry under the arm' | collected on: Sanana | source: numerous | 2014 | note: Sanana form. For Mangon form, see also *sagigi tuka*
sagig lal 'armpit' | collected on: Sanana | source: numerous | 2014
sagigi tuka 'to carry under the arm' | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form, see also *sagig lal*
sagigituka 'armpit' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
sagila (at) 'Lightning' | Bahasa Indonesia: kilat | collected on: Sanana; Mangon, Wai U village | source: numerous | 2010, 2014 | note: Possible Arabic loan: saeïqa 'lightning' shaeila 'flame'/'torch'. See also *safila*
sagu a fish that is either the same as or similar to the blue goatfish (parupeneus cyclostomus) and manybar goatfish (parupeneus multifasciatus) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014
sahoa / sa'oa / saoa 'where' | Bahasa Indonesia: dimana | collected on: Sanana | source: numerous | 2010–2019 | note: in some communities, minimal pair with saloa 'advice'
sahosa 'roof' | Bahasa Indonesia: atap | collected on: Sanana | source: numerous | 2010–2019
sai 'oar(s)’ / 'to row' | Bahasa Indonesia: dayung | collected on: Sanana | source: numerous | 2010–2019
sai 'to go’ | Bahasa Indonesia: pergi | collected on: Sanana | source: numerous | 2010–2019
sai 'floor’ | (made from wood) | collected on: Sanana | source: numerous | 2010-2019
sai pon 'shoulderblade’ | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: see also sanapau
sai/laka 'depart’ | Bahasa Indonesia: berangkat | collected on: Sanana | source: numerous | 2010–2019
saik 'here’ | Bahasa Indonesia: di sini | collected on: Sanana | source: Fagudu speaker | 2010 | note: see also isuka, saiki, saiya, sit iki, deha saik, siku.
saiki 'here’ | Bahasa Indonesia: di sini | collected on: Mangon | received from a Mangon speaker | 2010 | note: see also isuka, saik, saiya, sit iki, deha saik, siku.
saiya / sa'ia 'here’ | Bahasa Indonesia: di sini | collected on: Sanana | source: numerous | 2010–2019 | note: see also isuka, saik, saiya, sit iki, deha saik, siku.
sak 'pocket’ | Bahasa Indonesia: kantung | collected on: Sanana | source: numerous | 2010–2019
sak 'pocket’ / 'stab’ / 'to pierce’ | Bahasa Indonesia: menembus | collected on: Sanana | source: numerous | 2010–2019
sak / saku 'stab’ / 'poker’ | e.g. sak tuf tilu 'pierce ear’ (CMD dialect, Ulfoa village) | Bahasa Indonesia: menusuk | collected on: Sanana, Mangon | source: numerous | 2010 | note: this is an overhead stab 'Psycho' type stab.
sakaf bon tinakan 'to carry (to the front of the body)’ | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
sakafi bun takau 'to carry (to the front of the body)’ | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
sakawa a fish that is either the same as or similar to the bigeye emperor/humpnose big-eye bream (monotaxis grandoculis) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014
sakeu 'scratch’ | Bahasa Indonesia: menggaruk | collected on: Mangon | source: three to five consultants | 2010
sakohi 'to grunt' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
saksi 'witness' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
sala moya 'innocent' | Bahasa Indonesia: tidak bersalah | collected on: Sanana | source: numerous | 2010–2019
salama 'for (duration)' | Bahasa Indonesia: selama, selalu | collected on: Sanana | source: numerous | 2010–2019
salama lama pel 'forever' | Bahasa Indonesia: selama, selalu | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'until time finish'
salena 'to fry without oil | e.g. toasting seeds | collected on: Sanana | source: numerous | 2010
salju 'snow' | collected on: Mangon | source: three to five consultants | 2010
saloa 'advice' | Bahasa Indonesia: nasihat | collected on: Sanana, Umahoya village | Source: Fagudu tribe | 2014 | note: in some communities, minimal pair with sahoa 'where'
saloi 'woven basket backpack' | collected on: Mangon, Capuli village | source: numerous | 2015 | note: see also kal. image 2201
sam 'bedding' / 'clothing' / 'bandage' / 'blanket' / 'sarong' | Bahasa Indonesia: kain tempat tidur, pakaian, pembalut, selimut | collected on: Sanana | source: numerous | 2010–2019
sama 'rat' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: see sahafa
sama 'same' | e.g. sama para 'just the same' | collected on: Sanana | source: numerous | 2010 | note: loan from Bahasa Indonesia.
sama sehu; sam iropa / sami ladu, sami eropa 'cotton fabric (local, European)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
samam 'chew' | Bahasa Indonesia: mengunyah | collected on: Sanana | source: numerous | 2010–2019
samamo  'other' | Bahasa Indonesia: lain | collected on: Mangon | source: three to five consultants | 2010
samana  'there' / 'yonder' | (distant, near addressee) | collected on: Sanana | source: numerous | 2010–2019 | note: see also isuna.
same  'count' | Bahasa Indonesia: menghitung | collected on: Sanana | source: numerous | 2010
same  'fall' | collected on: Sanana | source: numerous | 2010
sami  'sarong' | collected on: Sanana | source: numerous | 2010–2019
samoha / samo  'needle' | (both sewing and syringe types) | Bahasa Indonesia: jarum | collected on: Sanana | source: numerous | 2010–2019
samohi  'last (temporal)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: see hia tuna and da
samsi beu  'headcloth (for men)' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
sana pau  'shoulders' | Bahasa Indonesia: bahu | collected on: Sanana | source: numerous | 2010–2019
sana pit  'roofing: bamboo lath' | collected on: Sanana | source: numerous | 2010
sanaf  'spinach' | Bahasa Indonesia: bayam | collected on: Sanana | source: numerous | 2010–2019
sanang  'comfortable' | e.g. bau sanang and baka sanang 'get comfortable' | Bahasa Indonesia: menyenangkan | collected on: Sanana | source: numerous | 2010–2019
sanapahu / sanapa'u / sanapau  'shoulder' | collected on: Sanana, Mangon | source: numerous | 2010–2019
sanapet / sana  'branch' / 'roofing thatch' | Bahasa Indonesia: cabang, atap | collected on: Mangon, Ulfoa village | source: numerous | 2015 | note: branch still in the tree. See also daeti
sanas  'familial relationship' | Bahasa Indonesia: keluarga | collected on: Sanana, Malbufa village | source: two to three consultants | 2015 | note: sanas is a relationship unit. It can represent a nuclear family relationship, a clan relationship, a tribe relationship, or the Sula ethnic relationship. This form shows a sound change in process across the region. See also basanasi, sanohi
sanasi  'familial relationship' | Bahasa Indonesia: keluarga | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: sanasi is a relationship unit. It can represent a nuclear family relationship, a clan relationship, a tribe relationship, or the Sula ethnic relationship. Possibly archaic but likely still present in some Mangon villages. This form shows a sound change in process across the region. See also basanasi, sanas, sanohi

sanasi fini  'sister' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: archaic. See sanohi

sandal  'sandal' | Bahasa Indonesia: sandal | collected on: Sanana | source: numerous | 2010–2019

sanga  'branch' | Bahasa Indonesia: cabang | collected on: Mangon, Waitulia village | source: numerous | 2014

sangapitu  'roofing: bamboo lath' | collected on: Mangon | source: three to five consultants | 2010

sanggate  'to carry on the hip' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: see also sagat, sanggati

sanggati  'to carry on the hip' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: see also sanggate, sagat

sangihi  'to cough' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: likely antiquated. See also bakef, sanihi

sanihi  'to cough' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: likely antiquated. See also bakef, sangihi

sanisi  'comb' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

sanka  'think'/'assume'/'suspect' | e.g. a-sanka 'I think' | Bahasa Indonesia: kira | collected on: Mangon, Ulfoa village | source: numerous | 2015

sanohi  'family' / 'brother' / 'friend' / 'comrade' | e.g. sanohi gareha bo hai Sula 'there are four tribes on the Sula Islands' | Bahasa Indonesia: keluarga | collected on: Sanana | source: numerous | 2010–2019 | note: sanohi is a relationship unit. It can represent a nuclear family relationship, a clan relationship, a tribe relationship, or the Sula ethnic relationship. This form shows a sound change in process across the region. See also basanasi, sanas, sanasi
sanohi  'connection (things/ideas)' | Bahasa Indonesia: hubungan | collected on: Sanana | source: numerous | 2010–2019

sanohi duki  'guest' | Bahasa Indonesia: tamu | collected on: Sanana | source: numerous | 2010–2019 | note: -i is optional on duk(i). Literally 'familial relationship' + 'come'

sanohi fina  'sister' | collected on: Sanana | source: numerous | 2010 | note: literally 'family female'

sanohi ma'ana / sanohi maana  'brother' | collected on: Sanana | source: numerous | 2010 | note: literally 'family male'

saoa  'thunder' | Bahasa Indonesia: guntur | collected on: Sanana | source: numerous | 2010–2019 | note: see also telapat.

saoa  'where' | Bahasa Indonesia: dimana | collected on: Sanana | source: numerous | 2010 | note: see sahoa and sa'oa

saoa para  'anywhere' | Bahasa Indonesia: di mana saja | collected on: Sanana | source: numerous | 2010–2019

saota  'dried' / 'dry' | Bahasa Indonesia: kering | collected on: Sanana | source: numerous | 2010–2019

saota (lawai) saota  'thirsty' | Bahasa Indonesia: haus | collected on: Sanana | source: numerous | 2010–2019

sap  'cow' | Bahasa Indonesia: sapi | collected on: Sanana | source: numerous | 2010–2019

sap  'cow' | collected on: Sanana | source: numerous | 2014

sap ihi  'beef' | Bahasa Indonesia: daging sapi | collected on: Sanana | source: numerous | 2010–2019

sap lal  'rack above the fireplace' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this is an intriguing term, because it is unclear where the initial s comes from. Regardless, though, the English is almost certainly false. ap lal / api lal means 'in fire'. My best guess is the interviewer pointed at a roasting spit and asked what it was, to which the answer was sap lal / sapi tuka 'it goes in the cow' (sap/sapi 'cow' + lal/tuka 'inside')

sap li  'to moo (as of a cow)' | collected on: Sanana | source: numerous | 2014 | note: lit. cow' + 'speech'

sap ma'ana  'bull' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: literally 'male bovine'
sapa 'slap' | Bahasa Indonesia: tempeleng | collected on: Mangon, Waitulia village | source: numerous | 2014 | note: see also lap.
sape'i keu 'to spit' | Bahasa Indonesia: meludah | collected on: Mangon | source: two to three consultants | 2014 | note: see also bitfua keu, bua keu
sapeda 'bicycle' | Bahasa Indonesia: sepeda | collected on: Sanana | source: numerous | 2010–2019 | note: Does se become sa in loan words?
sapituka 'rack above the fireplace' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: this is an intriguing term, because it is unclear where the initial s comes from. Regardless, though, the English is almost certainly false. ap lal / api lal means 'in fire'. My best guess is the interviewer pointed at a roasting spit and asked what it was, to which the answer was sap lal / sapi tuka 'it goes in the cow' (sap/sapi 'cow' + lal/tuka 'inside')
sar 'to row' / 'to pull' | collected on: Sanana | source: numerous | 2014
sara 'burn' | Bahasa Indonesia: bakar | collected on: Sanana | source: numerous | 2010–2019
sara ap dawika 'to turn on (a light)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan
sara’ap sanana 'to turn on (a light)' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: sara ap is to turn on a light (lit. 'burn fire'). It is unclear what sanana means here. This form might hint at the historical meaning of the name Sanana. Perhaps it is named with regard to light, similar to 日本
sarag 'gong' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan
sarampa dahi 'measles' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
sarong 'sheath' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: loan from Bahasa Indonesia.
sasua 'fishing with a throwing spear' | collected on: Mangon, Waitulia village | source: single consultant | 2014
sau 'sew' | Bahasa Indonesia: jahit | collected on: Sanana | source: numerous | 2010–2019 | note: possible loan
sau 'glue' | collected on: Sanana | source: numerous | 2010
sau / sa'u / sanu 'brother-in-law' | source: numerous | 2014
sau, ma'idi  'resin' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

saudagar mata pia bedagang  'merchant' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

saup  'to sip' / 'slurp' | collected on: Sanana | source: single consultant | 2014 | note: onomatopoeia


sawehi  'mussel' | Bahasa Indonesia: remis | collected on: Sanana | source: numerous | 2010–2019

saya  'grammar' | collected on: Sanana | source: numerous | 2010

sayowa  a fish that is either the same as or similar to the small-toothed jobfish/forktail snapper (aphareus furca) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

seb / lea seb  'sunset' | Bahasa Indonesia: matahari terbenam | collected on: Sanana | source: numerous | 2010–2019

seba-seba  'diarrhea' | Bahasa Indonesia: mencret | collected on: Sanana | source: numerous | 2010–2019


seg  'flood tide' | Bahasa Indonesia: air pasang | collected on: Sanana | source: numerous | 2010–2019 | note: see also it


sekoci  'rowboat' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I'm not sure I ever saw a rowboat. Sula still uses primarily canoes and outrigger canoes.

sekola lepayau  'university' | collected on: Sanana | source: numerous | 2010

sel  'to plant' / 'a plant' | Bahasa Indonesia: tumbuhan | collected on: Sanana | source: numerous | 2010–2019

sel nui  'coconut crop' | Bahasa Indonesia: tanam kalapa | collected on: Sanana, Pastina village | source: Falahu tribe farmers | 2014
**selalu** 'often' | Bahasa Indonesia: sering | collected on: Sanana | source: numerous | 2010–2019

**selu** needlefish (belonidae) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**selumpoyu** dark colored triggerfish (balistidae) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**sempit (ID)** 'narrow' | collected on: Mangon | source: three to five consultants | 2010

**sena** 'to jump' | collected on: Sanana | source: numerous | 2010

**senang** 'fresh' | Bahasa Indonesia: segar | collected on: Sanana | source: numerous | 2010–2019

**senapan** 'rifle' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**senin** 'Week' | collected on: Sanana | source: numerous | 2010

**sepa** 'kick' | Bahasa Indonesia: menyepak | collected on: Sanana | source: numerous | 2010–2019

**sepa** 'kick' | Bahasa Indonesia: tendangen | collected on: Mangon, Ulfoa village | source: numerous | 2015

**sepatu lepayau** 'boot (shoe)' | Bahasa Indonesia: sepatu tinggi | collected on: Sanana | source: numerous | 2010–2019

**sesa** 'locust' | collected on: Mangon, Capuli village | source: two to three consultants | 2015

**sia-sia** 'pail' / 'bucket' | Bahasa Indonesia: ember | collected on: Mangon, Waitulia village | source: three to five consultants | 2014

**siap-siap** 'prepared' | collected on: Sanana | source: numerous | 2010 | note: loan from Bahasa Indonesia.

**siba** 'to defecate' | collected on: Sanana | source: two to three consultants | 2014 | note: see also *geka*

**sibo** 'where' | Bahasa Indonesia: dimana | collected on: Mangon | source: three to five consultants | 2010

**sidag** 'diarrhea' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan. See also *seba seba*

**sidenga** 'strait(s)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan

**sig** 'flood tide' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
**sihir** 'magic' | collected on: Sanana | source: two to three consultants | 2010 | note: loan

**siku** 'here' | Bahasa Indonesia: di sini | collected on: Mangon, Ulfoa village | source: numerous | 2014 | note: *siku* is a contraction of *saiku*. In accommodating to Mangon speakers, CMD speakers (especially in Ulfoa village) would re-add final vowels that were dropped in Sanana. The chosen vowel did not always match the Mangon target though. This is not unlike speakers of British dialects that have dropped initial h re-adding it to words beginning with vowels when talking to English speakers of other dialects (*I'll ave an happle please*). See also *isuka, saik, saiki, saiya, sit iki, deha saik*.

**siku papa** 'seat' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: *siku* is a contraction of *saiku*. This word was likely collected in a CMD area.

**sil** 'to plant' / 'a plant' | collected on: Sanana | source: two to three consultants | 2014 | note: variant of *sel / basel*

**silfoka** 'elbow' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**siliboi** 'sweat' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**silifoku** 'elbow' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**sina** 'moon' | Bahasa Indonesia: bulan | collected on: Sanana | source: numerous | 2010–2019

**sinang-sinang** 'relax, rest' | Bahasa Indonesia: istirahat | collected on: Sanana | source: numerous | 2010–2019

**sinanga** 'to fry' / 'grill' / 'bake' / 'burn' | collected on: Sanana | source: numerous | note: Holle postulates this as a Ternate loan

**sindu pamasi** 'chaff' | collected on: Mangon | source: two to three consultants | 2014 | note: see also *kol*

**sinot kau** 'carpenter' | Bahasa Indonesia: tukang kayu | collected on: Sanana | source: numerous | 2010–2019

**sinsara** 'hard (difficult)' | Bahasa Indonesia: susah | collected on: Sanana | source: numerous | 2010–2019
**sisa** 'chop away at something' | e.g. *sisa noi* 'to hack back coconut husk' | Bahasa Indonesia: tanam memotong | collected on: Sanana, Bega village | source: Falahu tribe | 2014

**sisa** 'sugarcane' | collected on: Mangon | source: three to five consultants | 2014

**sisum koli** definition unclear but term used in describing shaved old coconut | collected on: Mangon, Waitina village | source: Mangon tribe | 2014 | note: *koli* is 'skin', but *sisum* is unknown

**sit iki** 'here' | Bahasa Indonesia: di sini | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: see also *isuka, saik, saiki, saiya, deha saik, siku.*

**slendang** 'shawl' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**so'asa** 'bronze' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**soa** 'where' | Bahasa Indonesia: dimana | collected on: Sanana | source: numerous | 2010–2019 | note: see also *sa'oa* and *sahoa*

**soa** 'family name' / 'division of society' | Bahasa Indonesia: fam | collected on: Sanana, Mangon | source: numerous | 2010–2019

**soba** 'to depart' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this Holle form is translated incorrectly. It means 'to depart by boat'/'to sail off'. Literally, *soba* is 'wing'/'sail'

**soba** 'sail' / 'to sail' | Bahasa Indonesia: layar | collected on: Sanana | source: numerous | 2010–2019

**soba** 'wing' | Bahasa Indonesia: sayap | collected on: Sanana | source: numerous | 2010–2019

**soba kan** 'sailboat mast' | collected on: Sanana | source: numerous | 2014

**sof** 'chop away at something' | e.g. chopping husk off coconut with machete | Bahasa Indonesia: tanam memotong | collected on: Sanana, Pastina village | source: Falahu tribe farmers | 2014

**sofa** 'snail (land snail)' | Bahasa Indonesia: keong | collected on: Sanana | source: numerous | 2010–2019

**soi** 'to open' | collected on: Mangon | source: two to three consultants | 2014 | note: variant of *hoi*
soklat 'brown' | Bahasa Indonesia: coklat (Loan) | collected on: Sanana | source: numerous | 2010–2019 | note: [tÊʃ]oklat would be expected if there were a native /tÊʃ/ in Sula

soklat bamata 'raw chocolate' | Bahasa Indonesia: coklat mentah | collected on: Mangon, Capuli village | source: numerous | 2015

solbi 'tail bone' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

soli 'kite bird' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

soli 'eagle' | Bahasa Indonesia: elang | collected on: Sanana, Waibau village | source: numerous | 2015 | note: they are known to snatch chickens and small dogs

some 'to sniff' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

son 'again' | Bahasa Indonesia: lagi | collected on: Sanana | source: numerous | 2010–2019 | note: see pihu

songu general term for triggerfish (balistidae) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

sorga 'the upperworld' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: definitely a borrowing from Bahasa Indonesia

sosa 'milk' | collected on: Sanana | source: numerous | 2014 | note: see also sosu (Mangon)

sosa 'breast'/milk' | collected on: Sanana | source: numerous | 2010

sosa pea 'nipple' | collected on: Sanana | source: numerous | 2010

sosa wai 'breast milk' | collected on: Sanana | source: numerous | 2014

sosavita 'mushroom' | Bahasa Indonesia: jamur | collected on: Sanana | source: numerous | 2010–2019

soso 'breasts (female)' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: this archaic form, if correct, has implications on the Proto–Sula high vowel sound change. It would imply that *susu > soso > sosu in Mangon and simultaneously *susu > soso > sosu in Sanana, as sosu and soso were both recorded on the holla list. It should be said though that Sula vowels encroach on each other (especially o, a, and to an extent u), and they are hard to pin down even to the experienced ear, so it is probable that many of the unexpected vowels in the Holle list are simply transcription differences.

soso nga 'nipple' | collected on: Mangon | source: three to five consultants | 2010
soso wai  'breast milk' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

sosu  'milk' | collected on: Mangon | source: numerous | 2014 | note: likely borrowing from Bahasa Indonesia suzu after the introduction of canned and powdered milk. See also sos navigation

sosu  'breast' | collected on: Mangon | source: three to five consultants | 2010

soya  'say' | Bahasa Indonesia: bilang | collected on: Sanana | source: numerous | 2010–2019

soya du(a)lu  'to advise' / 'to tell' | Bahasa Indonesia: saran | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2010–2019 | note: /a-soya dualu/ 'I’ll tell/advise you'

soya kuiki’i  'to guess' | collected on: Sanana | source: numerous | 2010

strat  'Strait' | (between islands) | collected on: Sanana | source: numerous | 2010

su’isa  'drum' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

Sua  'Sula' | (language, land, and people) | Bahasa Indonesia: Sula, Xulla | collected on: Sanana, Mangon | source: numerous | 2010–2019

sub  'lamp wick' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

suba  'to stink' / 'smell' / 'rotten' | Bahasa Indonesia: bau, busuk | collected on: Sanana | source: numerous | 2014 | note: see also pat, pati foro, suma

subo  'where' | Bahasa Indonesia: dimana | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: see also sibo

subur  'morning' | Bahasa Indonesia: pagi | collected on: Sanana, Mangon | source: numerous | 2010–2019

sug  'shy' / 'timid' | Bahasa Indonesia: malu | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

suglela  'play' | (e.g. game, sport, or music) | Bahasa Indonesia: bermain [main], olahraga | collected on: Sanana | source: numerous | 2010–2019

suglik  'riddle' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

suglila  'to play' | collected on: Sanana | source: two to three consultants | 2014 | note: variant of suglela

sugu liku  'riddle' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
suha 'sharpened bamboo pole planted into the ground at an angle along a perimeter fence as a barrier to keep wild pigs out of gardens.' | collected on: Sanana, Umahoya village | Source: Fagudu tribe | 2014

suha 'spike' | Bahasa Indonesia: paku | collected on: Mangon, Ulfoa village | source: numerous | 2015

sui 'to inhale' / 'to smoke' | e.g. sui tabak 'to smoke cigarettes' | collected on: Sanana | source: numerous | 2015

sui tabak 'smoke' | Bahasa Indonesia: merokok | collected on: Sanana | source: numerous | 2010–2019

suk 'breadfruit' | e.g. suk ihi 'breadfruit meat' | Bahasa Indonesia: sukun | collected on: Sanana | source: numerous | 2010

suk hal 'breadfruit blossom' | Bahasa Indonesia: mekar sukun | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015

suk ihi 'breadfruit meat' | Bahasa Indonesia: buah sukun | collected on: Sanana | source: numerous | 2010

suk kau 'breadfruit tree' | Bahasa Indonesia: pohon sukun | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015

suka 'always' | Bahasa Indonesia: selalu | collected on: Sanana | source: numerous | 2010–2019

suka 'to like' / 'to want' | collected on: Sanana | source: numerous | 2014

suma 'to smell' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: this form is recorded as 'nose blowing'. See also pat, pati foro, suba

suma 'to blow one’s nose' | collected on: Mangon | source: numerous | 2014 | note: see also pat, pati foro, suba

sumi 'smell' | collected on: Mangon | source: numerous | 2010 | note: see also muhi.

sumpi 'blowpipe' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

sungea 'a large bird similar to a parrot' | collected on: Mangon, Wai U village | source: single consultant | 2015 | note: image 2325

sungga 'spike' | Bahasa Indonesia: paku | collected on: Mangon, Ulfoa village | source: numerous | 2015

sup papa 'seat' | collected on: Sanana | source: numerous | 2010-2019

suremu  a fish that is either the same as or similar to the yellowfin goatfish
      (mulloidichthys vanicolensis) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014
susa  'poverty' | Bahasa Indonesia: kemiskinan (sp?) | collected on: Sanana | source: numerous | 2010–2019
sutera  'silk' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900
ta lal  'a lot' / 'much' / 'many' | Bahasa Indonesia: banyak | collected on: Sanana, Malbufa village | source: numerous | 2015 | note: see also eb, ib, ibu, foloi, kadiga
tab  'mud' | collected on: Sanana | source: numerous | 2010
tabak  'tobacco' | collected on: Sanana | source: numerous | 2014 | note: Sanana form. For Mangon form, see also tabaku, tabaki
      tabaku / tabaki  'tobacco' | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form, see also tabak
tabe  'excuse me' | Bahasa Indonesia: permisi | collected on: Mangon, Ulfoa village | source: numerous | 2015
tabi  'mud' | collected on: Mangon | source: three to five consultants | 2010
tabicara  'speak (language)' | Bahasa Indonesia: berbahasa (Loan) | collected on: Sanana | source: numerous | 2010–2019
taboi  'hatchet' / 'axe' | collected on: Mangon | source: three to five consultants | 2014
tabuna hai  'pot (earthenware)' | collected on: Sanana | source: two to three consultants | 2010 | note: Sanana form. For Mangon form, see also tabuna lai
      tabuna lai  'pot (earthenware)' | collected on: Mangon | source: single consultant | 2010 | note: Mangon form. For Sanana form, see also tabuna hai
      tabuna mam  'pot (iron)' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
      tabuna mum  'pot (iron)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
tadu (tar in Sula)  'horn' | collected on: Mangon | source: three to five consultants | 2010
taf  'filtered' | Bahasa Indonesia: saring | collected on: Sanana | source: numerous | 2010–2019
tagi  'short (temporal)' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
taha 'provisions' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

tahaga 'lake' | Bahasa Indonesia: danau | collected on: Sanana | source: numerous | 2010–2019

tahai 'young' / 'unripe' | Bahasa Indonesia: muda | collected on: Sanana | source: numerous | 2010–2019

tahan 'arrest' | Bahasa Indonesia: menangkap (Loan) | collected on: Sanana | source: numerous | 2010–2019 | note: possible loan from ID tahan 'take', 'hold up'

tahi 'put' / 'throw' 'pour' | e.g. (1) put something somewhere / throw it over there / pour it in there (2) tahi cenke bo karung 'put cloves in the bag' (3) tahi wai bo galas 'pour water in the glass' | collected on: Sanana, Waibau village | source: numerous | 2010, 2015

tai 'faeces' | collected on: Sanana | source: numerous | 2014

tai wai / tawai 'urine' / 'to urinate' | collected on: Sanana | source: numerous | 2010–2019

taka er 'frog' | Bahasa Indonesia: kodok | collected on: Sanana | source: numerous | 2010–2019

taka er yai 'fin' / 'flippers (swimming)' | Bahasa Indonesia: kaki katak | collected on: Sanana | source: numerous | 2010–2019

taka'idu 'frog' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: Holle postulates this as a Ternate loan. See also taka er, wak

taka'u fatu 'back' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | 2014

takalia wai 'throat' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

takau 'stomach' | collected on: Mangon | source: numerous | 2014 | note: Mangon form. Contraction of tena kau

takau 'belly' | collected on: Mangon | source: three to five consultants | 2010

takau gika 'stomachache' | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form, see also tena geka


talan 'copper sauce' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
talanga yai 'anklet' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

tali 'main posts' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: I don’t understand the Holle gloss.

tali kidi 'waist belt/band' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: tali 'rope'

tali nga 'ear' | collected on: Mangon | Collins | 1981 | note: Collins lists this as two words. There might be a morphological basis for that, however phonologically it is one word with a predictable stress pattern. See also talinga

talina bin 'deaf' | collected on: Sanana | source: numerous | 2014

talinga 'ear' | collected on: Mangon | source: numerous | 2014 | note: see also til, telina

talinga bombingi 'deaf' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

tam 'parents-in-law' | collected on: Sanana | source: numerous | 2010


tam ma'ana 'father-in-law' | collected on: Sanana | source: numerous | 2014

tamba'u 'grasshopper' | collected on: Mangon | source: three to five consultants | 2014

tambaebu 'to swell' | collected on: Mangon | source: three to five consultants | 2010

tamil 'beans' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

tamilu 'beans' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

tampayan 'earthen water barrel' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

tampayang 'pot (ceramic)' | Bahasa Indonesia: guci | collected on: Sanana | source: numerous | 2010–2019

tamua 'lead' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: loan from Bahasa Indonesia.

tamua boti 'tin' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

tana 'centipede' | collected on: Mangon | source: three to five consultants | 2014

tania hoi 'shin' | collected on: Sanana | source: two to three consultants | 2014 | note: see yai tia loi. tania hoi is probably metathesis of yai tia loi / yai tia hoi 'shin'
which breaks down as *yai* 'leg' *tia* ? *loi* 'bone' (*l>*-*h* is a sound change in process. Some communities retain *l* where others have gone to *h*, others yet have converted *h* to a glottal and still others have dropped the segment entirely. The difficulty of traversing between communities up until a couple years ago allows us a snapshot of various stages of sound change in process. Most of these differences are likely to level off in the next few years because of new coastal roads.)

**tanumba** 'ceiling beams' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**tap** 'anchor' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan

**tapa** 'left (direction)' | Bahasa Indonesia: kiri | collected on: Sanana | source: numerous | 2010–2019

**tapaya** 'papaya' | Bahasa Indonesia: pepaya | collected on: Sanana, Pastina village | source: Pastina farmers | 2014 | note: loan from Carib via Spanish, Portuguese, Malay

**tar** 'horn' | collected on: Sanana | source: numerous | 2010

**tara tib** 'sit (with the legs crossed)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**tas** 'bag' | Bahasa Indonesia: tas | collected on: Sanana | source: numerous | 2010–2019

**tatabahasa** 'grammar' | collected on: Sanana | source: numerous | 2010 | note: loan from Bahasa Indonesia.

**tatabuang** 'xylophone' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan

**tatoya** 'truth' | Bahasa Indonesia: benar, kebenaran | collected on: Sanana | source: numerous | 2010–2019

**taun** 'year' | Bahasa Indonesia: tahun | collected on: Sanana | source: numerous | 2010–2019

**tayoya** 'heron' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: see also *man camo*

**te** 'or' | Bahasa Indonesia: atau | collected on: Sanana | source: numerous | 2010–2019

**te moya** 'or not' | e.g. *gu-laka bo uma te moya* 'are you going home or not' | Bahasa Indonesia: apakah | collected on: Sanana, Mangon | source: numerous | 2010–2019
tea 'type of small bamboo' | Bahasa Indonesia: bambu kecil | collected on: Sanana | source: numerous | 2010–2019

tea maha 'meal' | Bahasa Indonesia: makanan | collected on: Sanana | source: numerous | 2010–2019

teamaha 'food ingredient' | Bahasa Indonesia: bahan | collected on: Sanana | source: numerous | 2010

ted 'to hold' / 'carry' | (this to seems to be more 'hold' than 'carry'. It can be used for items that are either on the front or back) | collected on: Sanana, Umahoya village | Source: Fagudu tribe | 2014


telama 'meal' | Bahasa Indonesia: makanan | collected on: Mangon, Waitina village | source: Mangon tribe | 2014

telapat / telapati 'thunder' | Bahasa Indonesia: guntur | collected on: Sanana, Mangon | source: numerous | 2010 | note: Sanana form. For Mangon form, see also saoa, telopati.

telina 'ear' | collected on: Sanana | source: numerous | 2014 | note: see also til, talinga
telopati 'thunder' | Bahasa Indonesia: guntur | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: antiquated. See telapat collected on: Sanana, telapati (Mangon)
tema 'direction of the island interior ' | collected on: Sanana | source: numerous | 2010–2019 | note: directions: lepa 'up' and neu 'down' correspond to clockwise and counterclockwise depending on the village. Directions: tema 'inland' and fai 'seaward' are universal in Sula.
tembaga 'copper' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900
tena 'belly' / 'stomach' | Bahasa Indonesia: perut | collected on: Sanana | source: numerous | 2010–2019
tena 'belly' | collected on: Sanana | source: numerous | 2010

tena aya 'pregnant' | Bahasa Indonesia: hamil | collected on: Sanana | source: numerous | 2010–2019 | note: said to be the Fagudu pronunciation
tena eya 'pregnant' | Bahasa Indonesia: hamil | collected on: Sanana | source: numerous | 2010–2019 | note: said to be the Falahu pronunciation
tena kau 'belly' | Bahasa Indonesia: perut | collected on: Mangon, Ulfoa village | source: numerous | 2014 | note: see also takau.
tena lal 'intestines' / 'guts' | collected on: Sanana | source: numerous | 2010–2019

tenalal geka 'indigestion' | Bahasa Indonesia: salah cerna | collected on: Sanana |
source: numerous | 2010–2019

tendau 'rainbow' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: see also fal

tentu 'certainly' / 'sure' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

ter seraha bomon 'sensible' | Bahasa Indonesia: bijaksana | collected on: Sanana |
source: numerous | 2010–2019

terigu 'flour' | Bahasa Indonesia: tepung | collected on: Sanana | source: numerous | 2010–2019

terlalu 'very' | Bahasa Indonesia: sangat | collected on: Sanana | source: numerous | 2010–2019

terompit 'horn' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

tetapa 'sieve for rice' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

tetapi 'but' | collected on: Sanana | source: numerous | 2014 | note: loan from Bahasa Indonesia. See also tapi,

ti ad 'to exchange' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: Holle postulates this as a Ternate loan

tia 'type of small bamboo' | Bahasa Indonesia: bambu kecil | collected on: Mangon, Waitulia village | source: single consultant | 2014

tiado 'change (money?)' | Bahasa Indonesia: menukar | collected on: Sanana |
source: numerous | 2010–2019

tiade 'cash (eg check)' | Bahasa Indonesia: menukar [tukar] | collected on: Sanana |
source: numerous | 2010–2019

tiap-tiap 'each' / 'every' | Bahasa Indonesia: setiap | collected on: Sanana | source: numerous | 2010–2019

tiba 'which' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

tibas boya 'a type of grass' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

tifa 'drum' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

til (ben) 'deaf' | Bahasa Indonesia: tuli | collected on: Sanana | source: numerous | 2010–2019

tilaka ‘dangerous situation’ / ‘natural disaster’ | collected on: Sanana | source: numerous | 2010

tilapat 'thunder' | Bahasa Indonesia: guntur | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: antiquated. See telapat collected on: Sanana, telapati (Mangon)

tilopate 'thunder' | Bahasa Indonesia: guntur | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: antiquated. See telapat collected on: Sanana, telapati (Mangon)

tilu 'ear' | collected on: Mangon | source: numerous | 2010 | note: see also til.

tim 'cucumber' | collected on: Sanana | source: numerous | 2010

tima 'land' | collected on: Sanana | source: single consultant | 2014 | note: loan from Bahasa Indonesia. tanah?

timbun 'float' | collected on: Mangon | source: three to five consultants | 2010

timu 'east' | collected on: Sanana | source: numerous | 2014

timu 'dew' | collected on: Mangon | source: three to five consultants | 2014

timur 'east' | Bahasa Indonesia: timur | collected on: Sanana, Waibau village | source: numerous | 2010–2019 | note: lack of native words suggests ancient Sula had a non-cardinal direction system

tin 'dew' | collected on: Sanana | source: numerous | 2014

tina 'on top of' | collected on: Sanana | source: numerous | 2010–2019

tina gika 'stomachache' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: archaic. See also tena geka

tipis (ID) 'thin' | collected on: Mangon | source: three to five consultants | 2010
	tipu 'to cheat' / 'trick' | collected on: Sanana | source: two to three consultants | 2014 | note: see also bahas

tiyadi 'to exchange' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

to 'to cut' / 'to hack' | Bahasa Indonesia: menetak | collected on: Mangon, Ulfoa village | source: numerous | 2014
to 'bop' / 'to strike weakly' / 'small punch' | (playful hit e.g. after telling a joke) | Bahasa Indonesia: pukulan lemah | collected on: Mangon, Waitulia village | source: numerous | 2014
tobu 'keris' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
togi 'short' | collected on: Mangon | source: three to five consultants | 2010
tok tok 'cow bell' | Bahasa Indonesia: lonceng sapi | collected on: Mangon, Ulfoa village | source: single consultant | 2015 | note: onomatopoeia?
toko 'shop' | collected on: Sanana | source: numerous | 2014 | note: onomatopoeia?
toking toling 'cow bell' | Bahasa Indonesia: lonceng sapi | collected on: Mangon, Ulfoa village | source: single consultant | 2015 | note: onomatopoeia?
tom 'indigo (dye)' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I could not verify this Holle list item, but it is possibly derived from the cherry-like tom tom fruit
tom tom 'a cherry-like tree fruit' | collected on: Sanana, Malbufa village | source: numerous | 2015
tomati 'tomato' | collected on: Sanana | source: numerous | 2010
tongka 'walking stick' | collected on: Sanana | source: numerous | 2010–2019
tongki iata 'lizard' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900
tora 'fence' | Bahasa Indonesia: pagar | location: unknown | source: Umatermate | 2013
totoya 'very' | collected on: Sanana | source: numerous | 2010
totu a fish that is either the same as or similar to the long-spine porcupinefish (diodon holocanthus) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014
trus 'continue' / 'straight on' | Bahasa Indonesia: jurusan | collected on: Sanana | source: numerous | 2010–2019
trus trus pel 'for (duration), forever' | Bahasa Indonesia: selama, selalu | collected on: Sanana | source: numerous | 2010–2019
tu saji 'container cover' / 'lid' | Bahasa Indonesia: penutup | collected on: Mangon, Waitulia village | source: single consultant | 2014
tua 'husband' | Bahasa Indonesia: suami | collected on: Sanana | source: numerous | 2014

tubi a fish that is either the same as or similar to the belted wrasse (stethojulis balteata) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

tud 'to overnight' | Bahasa Indonesia: menginap | collected on: Sanana | source: numerous | 2010–2019

tuf 'hole' | e.g. sak tuf til 'to pierce an ear' (lit. 'pierce ear hole') | collected on: Mangon, Ulfoa village | source: numerous | 2015 | note: see also duf

tufi 'to drip' | Bahasa Indonesia: menetes | collected on: Mangon, Waitulia village | source: numerous | 2014

tugar 'remainder' / 'change' | (as in change during a monetary transaction) | collected on: Sanana | source: numerous | 2010 | note: loan from Bahasa Indonesia.

tui 'snake' | Bahasa Indonesia: ular | collected on: Sanana | source: numerous | 2010–2019

tui gaya fasina 'mooneclipse' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: I really hope this Holle entry is correct, because the literal translation is 'the snake ate the moon'

tui patola 'a type of colorful snake' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

tuka 'inside' / 'heart' / 'intestines' | ('heart' in the symbolic sense and perhaps the literal sense as well depending on village.) | Bahasa Indonesia: dalam, jantung, usus | collected on: Mangon | source: numerous | 2010–2019 | note: see also lal.

tukang 'builder' | Bahasa Indonesia: tukang bangunan (Malay) | collected on: Sanana | source: numerous | 2010–2019

tukang awa 'gardner' | Bahasa Indonesia: tukang kebun | collected on: Sanana | source: numerous | 2010–2019

tukang bahasa 'linguist' | Bahasa Indonesia: ahli bahasa | collected on: Sanana | source: numerous | 2010–2019


tuma 'flea' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

tumba 'spear' | collected on: Sanana | source: numerous | 2014
**tumba** 'stab' | Bahasa Indonesia: menusuk | collected on: Mangon, Ulfoa village | 
source: three to five consultants | 2015 | note: this is an overhead stab 'Psycho' type stab.


**tut** 'to grind' | collected on: Sanana | source: numerous | 2014

**u** 'Southeast Asian macalas' (game) | Bahasa Indonesia: congklak | collected on: Sanana, Malbufa village | source: numerous | 2015

**ua** 'vein' / 'tendon' | collected on: Mangon | source: numerous | 2010-2019

**ua lima** 'wash the hands' | Bahasa Indonesia: cuci tangan | collected on: Sanana, Malbufa village | source: numerous | 2015

**uha** 'lobster' / 'shrimp' | Bahasa Indonesia: udang | collected on: Sanana | source: numerous | 2010–2019

**uka** 'bite from animal' | (e.g. dog or insect) | Bahasa Indonesia: gigitan, menggigit | [gigit] | collected on: Sanana | source: numerous | 2010–2019

**ukur besa** 'unhappiness' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**ukur pia** 'happiness' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**ul** 'caterpillar' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this Holle entry is possibly wrong, as *ul* means 'worm'

**ul lai ngai** 'worm' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: *ul lai* is 'worm earth' but it is unclear what *ngai* means

**ulat** 'worm' | collected on: Mangon | source: three to five consultants | 2010

**ulat** 'worm' | collected on: Mangon | source: three to five consultants | 2010

**ule** 'worm' | collected on: Mangon | Collins | 1981 | note: see also *ul, uli, makahor*

**Ulfoa** 'Urifola village' / 'Orifola village' | Bahasa Indonesia: Kampung Orifola | collected on: Mangon, Ulfoa village | source: numerous | 2015

**uli** 'bug' | Bahasa Indonesia: hama | collected on: Sanana | source: numerous | 2010–2019

**uma** 'house' | Bahasa Indonesia: rumah | collected on: Sanana | source: numerous | 2010–2019

**uma bira** 'rice-barn' | collected on: Sanana | source: numerous | 2010 | note: literally 'rice house'. See also uma pamasi
**uma boba** 'ridge of roof' | collected on: Sanana | source: two to three consultants | 2010 | note: Sanana form. For Mangon form, see also *uma bobu*

**uma bobu** 'ridge of roof' | collected on: Mangon | source: numerous | 2010 | note: Mangon form. For Sanana form, see also *uma boba*

**uma fuloni** 'space under the house' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

**uma galiha** 'crawl space beneath stilt house' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**uma nana** 'sitting platform on farm land' | Bahasa Indonesia: peron | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'small house'

**uma pamasi** 'rice-barn' | collected on: Mangon | source: numerous | 2010 | note: literally 'rice house'. See also *uma bira*

**Umahoya / Umaoya** 'Umaloya village' | Bahasa Indonesia: Kampung Umaloya | collected on: Sanana, Umahoya village | Source: Fagudu tribe | 2014 | note: $l > h > θ$ is an advanced sound change in Umaloya. Only the $h$ is optionally deleted in *uma(h)oya* but entire $ha$ syllable can be dropped in *fa(ha)hu*. To contrast: 'Sula' is only *Sua* and never, *Suha*. Could this be because there is a lexical item, *suha* blocking it? Also, *kalau* is only *kalo* and never *kaho, kao*, or *ka*. Is this because it is a loan word, or because it is not a medial syllable? See also *Fahahu, kalo, Sua, Saloa, Sahoo*.

**una** 'crown' | collected on: Sanana | source: numerous | 2014

**uni** 'crown' | collected on: Mangon | source: three to five consultants | 2014

**untung** 'victory' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: loan from Bahasa Indonesia.

**untung** 'profit' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**urara** bluestripe snapper (lutjanus kasmira) | collected on: Mangon, Waitulia village | source: Waitulia fishermen | 2014

**uru** 'masseure' / 'masseuse' | Bahasa Indonesia: tukang pijat | collected on: Sanana | source: numerous | 2010–2019

**usus** 'guts' | Bahasa Indonesia: usus | collected on: Mangon | source: numerous | 2010 | note: loan from Bahasa Indonesia. See also *tuka*.

**uta** 'vegetables' | collected on: Sanana | source: numerous | 2014
uta fua 'eggplant' / 'aubergine' | Bahasa Indonesia: terung | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'vegetable fruit'. See also utufua, utufua miti.

uta mahi 'seaweed' | collected on: Sanana | source: numerous | 2014 | note: literally 'ocean vegetable'

uta uta 'vegetable' | Bahasa Indonesia: sayur-mayur | collected on: Sanana | source: numerous | 2010–2019

utufua 'eggplant' | Bahasa Indonesia: terong | collected on: Sanana, Umahoya village | Source: Fagudu tribe | 2014 | note: see also uta fua, utufua.

utufua miti 'black eggplant' | Bahasa Indonesia: terong hitam | collected on: Sanana, Umahoya village | Source: Fagudu tribe | 2014 | note: see also uta fua, utufua miti.

utusan 'delegate' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

uwa 'rattan' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

uwa kadiga 'rheumatism' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

uwadu 'eel' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

uya 'rain' | Bahasa Indonesia: hujan | collected on: Sanana | source: numerous | 2010–2019

uya (saoa) mahuba 'thunderstorm' | Bahasa Indonesia: hujan badai guntur | collected on: Sanana | source: numerous | 2010–2019

uya bana 'light rain' | collected on: Sanana | source: numerous | 2010

uya mahuba telapat 'thunderstorm' | Bahasa Indonesia: hujan badai guntur | collected on: Sanana | source: numerous | 2010–2019

wa 'to sharpen' / 'grind' | collected on: Mangon | source: numerous | 2014 | note: see also mana, manga, monga, waha

wa 'admit, let in' / 'take away' | Bahasa Indonesia: menerima [terima], mengambil [ambil] | collected on: Sanana | source: numerous | 2010–2019

wa 'to get' / 'to take' | collected on: Sanana | source: numerous | 2010–2019

wa ngapu 'go head hunting' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: if the Sula people ever practiced headhunting, it was so long ago that a word for it has fallen out of the language.
**wa'a nap** 'go head hunting' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**wag** 'oil' | collected on: Mangon | source: numerous | 2010 | note: see also **wagi** for Mangon form

**wagi** 'oil' | collected on: Mangon | source: numerous | 2010 | note: see also **wag** for Sanana form

**waha** 'to sharpen' / 'grind' | collected on: Sanana | source: numerous | 2014 | note: see also **mana**, **manga**, **monga**, **wa**

**wahi lal** 'bush' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

**wai** 'water' / 'river' / 'stream' | Bahasa Indonesia: air | collected on: Sanana, Mangon | source: numerous | 2010

**wai aya** 'lake' | Bahasa Indonesia: danau | collected on: Mangon, Wai U village | source: numerous | 2014 | note: literally 'water' + 'big'.

**wai bakatai** 'dirty water' | collected on: Sanana | source: numerous | 2010

**wai bayon lal** 'saliva' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: this literally means 'water in the mouth'. See also the Mangon form, **wai nboni tuka**

**wai bena** 'high tide' | Bahasa Indonesia: pasang | collected on: Sanana | source: numerous | 2010–2019

**wai ewa** 'flood' | Bahasa Indonesia: banjir | collected on: Sanana | source: numerous | 2010–2019

**wai ewa** 'river' | collected on: Mangon | source: numerous | 2010 | note: literally 'flowing water'

**wai ewa (kadiga)** 'flood' | collected on: Sanana | source: numerous | 2010 | note: literally 'strong water flow'

**wai bagila** 'purified water' | Bahasa Indonesia: air penyulingan | collected on: Sanana | source: numerous | 2010–2019

**wai hama** 'source' | e.g. a water spring | collected on: Sanana | source: numerous | 2014 | note: literally 'water eye'

**wai ita** 'river valley' | collected on: Sanana | source: numerous | 2014

**wai iwa** 'flood' | collected on: Sanana | source: numerous | 2014 | note: see also **wai ewa**

**wai mota** 'hot water' | Bahasa Indonesia: air panas | collected on: Sanana | source: numerous | 2010–2019
wainboni tuka 'saliva' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: this literally means 'water in the mouth'. See also the Sanana form, wai bayon lal

wai ngapu 'source' | e.g. a water spring | collected on: Mangon | source: numerous | 2014 | note: literally 'water head'

wai pe'i 'sap of sugar palm tree' | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015 | note: literally 'water' + 'sugar palm'

wai sau 'waterfall' | Bahasa Indonesia: air terjun | collected on: Sanana | source: numerous | 2010–2019

wai yawa 'high tide' | Bahasa Indonesia: pasang | collected on: Sanana | source: numerous | 2010–2019

waisum 'a water well' | Bahasa Indonesia: sumur | collected on: Mangon, Waitulia village | source: numerous | 2014 | note: likely loan from Bahasa Indonesia sumur.

wak 'love' / 'to remember' / 'to think' | Bahasa Indonesia: cinta | collected on: Sanana | source: numerous | 2010–2019

wak 'frog' | collected on: Sanana | source: numerous | 2014 | note: Holle postulates this as a Ternate loan. See also taka er

wak 'scoop' (quantity) | e.g. (1) wak cenke 'scoop of cloves' (2) wak ipa 'scoop of kenari nuts' (3) wak coklat 'scoop of cacao' (4) wak ha'i 'scoop of earth' | collected on: Sanana, Waibau village | source: numerous | 2015

waka 'root' | collected on: Sanana | source: numerous | 2010–2019

wakdab / wakidabu 'to remember' / 'to miss' | Bahasa Indonesia: ingat | collected on: Sanana, Mangon, Mangon village | source: numerous | 2010–2019

waki 'to think' / 'remember' / 'miss' | Bahasa Indonesia: ingat | collected on: Mangon | source: numerous | 2014 | note: Mangon form. For Sanana form, see also wak

wako 'root vegetable' | collected on: Mangon | source: three to five consultants | 2010

waktu 'season' / 'while' | Bahasa Indonesia: musim | collected on: Sanana | source: numerous | 2010–2019 | note: loan from Bahasa Indonesia. 'time'?

waktu lea 'summer' | Bahasa Indonesia: musim panas | collected on: Sanana | source: numerous | 2010–2019

wama 'breast' | collected on: Sanana | source: numerous | 2010

wama 'breathe' / 'breast' / 'asthma' | Bahasa Indonesia: bernapas [napas], asma | collected on: Sanana | source: numerous | 2010–2019
wama aya 'to sigh' | collected on: Sanana | source: numerous | 2010–2019 | note: literally 'big breath'. See also wama sia

wama bo lai 'inhale' | collected on: Sanana | source: numerous | 2010

wama siya 'to sigh' | collected on: Mangon | source: numerous | 2014 | note: literally 'one breath'. Fossil form of numeral 'one' seen also in the numeral 'nine', gatasia (minus one). Mangon form. For Sanana form, see also wama aya

wama sup 'exhale' | collected on: Sanana | source: numerous | 2010

wan 'bee' / 'honey' | Bahasa Indonesia: madu | collected on: Sanana | source: numerous | 2010–2019

waris 'inheritance' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

wel gal 'nickname' | Bahasa Indonesia: nama panggilan | collected on: Sanana | source: numerous | 2010–2019

welirang 'sulphur' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

weu / weuw / wewi 'mango' | Bahasa Indonesia: mangga | collected on: Sanana | source: numerous | 2010

weu fua 'mango fruit' | Bahasa Indonesia: buah mangga | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015

weu hal 'mango blossom' | Bahasa Indonesia: mekar mangga | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015

weu kau 'mango tree' | Bahasa Indonesia: pohon mangga | collected on: Sanana | source: Duwila; Fagudu Tribe, Waibao village | 2015

wihi 'fan (uchiwa)' | Bahasa Indonesia: kipas tangan | collected on: Sanana | source: numerous | 2010–2019

wil 'to swallow' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this is likely an alternate pronunciation of win 'to drink'. Sula does not usually have widely-known sub-specifying words for larger actions, and wil~win is a natural sound correspondence. That said, there is a word for 'swallow', ma lia, and there is also a parallel in 'to eat'/'to bite', but the word uka 'to bite' applies only to animals biting in the violent sense. It is not acceptable for humans taking a bite of food. For that, a counting word would be used with gaya 'to eat'—i.e. gaya fat hia 'to bite' (literally 'one eat')

wil 'to call' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900 | note: archaic
wila  'iguana' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900 | note: there are no iguanas on Sula. Lizards are called kebal, and monitor lizards are called komodo.

winti ebi  'fishing with a throwing net' | collected on: Mangon, Waitulia village | source: single consultant | 2014

winu / win  'to drink' | Bahasa Indonesia: minum | collected on: Mangon, Sanana | source: numerous | 2010–2019

wiwa  'sea' | collected on: Sanana | source: numerous | 2010–2019

wiwa  'to scatter seeds' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

wiya  'rain' | collected on: Sanana | source: numerous | 2010 | note: variant pronunciation of uya

wo / woha  'stab' | Bahasa Indonesia: menusuk | collected on: Mangon, Capuli village | source: numerous | 2015 | note: straight ahead stab in the manner of a jouster

wol  'boat rudder' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

wosa  'admission (entry)' / 'including' | Bahasa Indonesia: masuk, masuk, termasuk | collected on: Sanana | source: numerous | 2010–2019

wosa bo (kamar) ganti  'change (rooms)' | Bahasa Indonesia: (kamar) ganti pakaian (Loan) | collected on: Sanana | source: numerous | 2010–2019

wosa moyya  'excluded' | Bahasa Indonesia: tidak termasuk | collected on: Sanana | source: numerous | 2010–2019

ya  'mother' | collected on: Mangon | source: numerous | 2010 | note: see also nyaya

ya  'points (in a game)' | Bahasa Indonesia: poin | collected on: Sanana | source: numerous | 2010–2019

ya  'road' / 'path' | Bahasa Indonesia: jalan | collected on: Sanana | source: numerous | 2010–2019

ya aya  'main road' | Bahasa Indonesia: jalan raya | collected on: Sanana | source: numerous | 2010–2019 | note: /ya/ 'road' /aya/ 'big'

ya eya  'way' / 'road' | collected on: Sanana | source: numerous | 2014 | note: see also ya aya

ya nana  'small path' / 'footpath' | Bahasa Indonesia: jalan kecil, jalan setapak | collected on: Sanana | source: numerous | 2010–2019
yag yag habar 'legend' | e.g. (1) yag yag habar (bo) hai sua 'a legend about Sula' (2) yag (yag yag) habar hai Sua bo ak 'tell me a legend about Sula' | collected on: Sanana | source: numerous | 2010

yaha 'tired' | Bahasa Indonesia: cape | collected on: Sanana, Malbufa village | source: numerous | 2015 | note: see also kol yaha

yai 'leg' / 'foot' | Bahasa Indonesia: kaki | collected on: Sanana | source: numerous | 2010

yai funa 'footprint' / 'footstep' | collected on: Mangon | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

yai hila hama 'ankle' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

yai ipa 'footprint' / 'footstep' | collected on: Sanana | source: Verified from Holle list by two or more speakers unless otherwise noted | c. 1900

yai ka'odi 'claw' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

yai kahor 'claw' | Bahasa Indonesia: kuku, cakar | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

yai kol 'hoof' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: literally 'leg skin'

yai lafa 'foot (leg)' | Bahasa Indonesia: kaki | collected on: Sanana | source: numerous | 2010–2019

yai pat 'broken leg' | collected on: Sanana | source: two to three consultants | 2010

yai tia loi 'shin' | collected on: Mangon | source: numerous | 2014 | note: see tania hoi

yai tila 'calf' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900

yai tiya 'calf' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

yai wana 'toe' | Bahasa Indonesia: jari kaki | collected on: Sanana | source: numerous | 2010–2019

yakis ihi 'cashew nut meat' | Bahasa Indonesia: jambu menteh | collected on: Sanana | source: numerous | 2010–2019

yana 'look' / 'watch' / 'see' | Bahasa Indonesia: melihat [lihat], menonton [nonton] | collected on: Sanana | source: numerous | 2010–2019
**Chapter 4: lexicon**

**yana bua in hama** 'stand a row of dominos to be visible' | Bahasa Indonesia: meliat anka | collected on: Sanana | source: two to three consultants during same session | 2010–2019 | note: this phrase is interesting, as it is not said to mean a row of dominos stacked for tumbling, but it glosses as 'see fall POSS eye'. Perhaps it would make sense to someone who understands the rules to the local domino game.

**yana yana** 'see' | Bahasa Indonesia: melihat [lihat] | collected on: Sanana | source: numerous | 2010–2019

**yana-yana** 'lookout' | Bahasa Indonesia: pengintai | collected on: Sanana | source: numerous | 2010–2019

**yanakoa** 'to eavesdrop' | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: as if peeking through a keyhole

**yanana** 'aisle' | e.g. between rows of seats as at an event or on an airplane | Bahasa Indonesia: gang | collected on: Sanana | source: numerous | 2010–2019

**yang penting** 'essential' | Bahasa Indonesia: yang terpenting | collected on: Sanana | source: numerous | 2010–2019

**yanga** 'to see' | Bahasa Indonesia: lihat | collected on: Mangon | source: three to five consultants | 2010

**yao** 'far' | Bahasa Indonesia: jauh | collected on: Sanana | source: numerous | 2014

**yau** 'away' | Bahasa Indonesia: jauh | collected on: Sanana | source: numerous | 2010–2019

**yawa** 'down', 'drop', 'take one's turn' | Bahasa Indonesia: turun | collected on: Sanana | source: two to three consultants | 2010–2019 | note: as in a game of dominos when one must place a domino down on the table

**yawa bia lida** 'to descend' | e.g. from a ladder | Bahasa Indonesia: turun | collected on: Sanana | source: entry from Holle List; unable to verify | c. 1900 | note: this Holle form is incorrect. It means 'go downhill'. Literally 'down from mountain'. See also yawa lida


**yawa lida** 'downhill' | Bahasa Indonesia: turun gunung | collected on: Sanana | source: numerous | 2010–2019
**yaya** 'mother' | Bahasa Indonesia: ibu | collected on: Sanana | source: numerous | 2010 | note: see also nyaya

**yaya goa** 'funny (for women)' | Bahasa Indonesia: lucu | collected on: Sanana | source: numerous | 2010–2019

**yogyog** 'almost' | Bahasa Indonesia: hampir | collected on: Sanana | source: numerous | 2010–2019

**yoi** 'room' | Bahasa Indonesia: kamar | collected on: Sanana | source: numerous | 2010–2019

**yon** 'corner' | Bahasa Indonesia: sudut | collected on: Sanana | source: numerous | 2010–2019

**yota** 'short' / 'low' | (height, length) | Bahasa Indonesia: pendek, rendah | collected on: Sanana | source: numerous | 2010

**yota (haiwan)** 'to hunt' | Bahasa Indonesia: berburu | collected on: Sanana | source: numerous | 2010 | note: haiwan is a loan from Arabic, hayawan.

**yota-yota / nish-nish** 'piece' | Bahasa Indonesia: potongan | collected on: Sanana | source: numerous | 2010–2019

**yoya** 'crab' / 'shrimp' | Bahasa Indonesia: kepiting, udang | collected on: Sanana | source: numerous | 2010–2019

**yoyu nana** 'aunt MZy' | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**yu'u lama** 'to nod' | Bahasa Indonesia: anggukan | collected on: Mangon | source: entry from Holle List; unable to verify | c. 1900

**yua** 'wash' | Bahasa Indonesia: mencuci | collected on: Mangon | source: three to five consultants | 2010

**yua lima** 'to hold hands' | Bahasa Indonesia: berpegangan tangan | collected on: Sanana | source: numerous | 2010
REFERENCES


Bloyd, Tobias. In prep. Toward a Phonological Reconstruction of Proto-Sula.


Blust, Robert. n.d. ‘Psysiological’ theories of sound change. LING-645. Honolulu, University of Hawai‘i at Mānoa.


Campbell, Lyle. Email. 19 Apr. 2015.


Hervás y Panduro, Lorenzo. 1784. Catálogo de las lenguas de las naciones conocidas, y numeración división y clase de éstas según la diversidad de sus idiomas y dialectos. Madrid.


and Pacific Studies, University of Hawai'i at Mānoa. Southeast Asia Paper ; No. 40. Web.


Jinam, Timothy A, Maude E Phipps, Farhang Aghakhanian, Partha P Majumder, Francisco Datar, Mark Stoneking, Hiromi Sawai, Nao Nishida, Katsushi Tokunaga,


Sankararaman, Sriram; Swapan Mallick, Nick Patterson, David Reich. 2016. The Combined Landscape of Denisovan and Neanderthal Ancestry in Present-Day Humans. Current Biology; DOI: 10.1016/j.cub.2016.03.037


Stefano Mona, Katharina E. Grunz, Silke Brauer, Brigitte Pakendorf, Loredana Castri, Herawati Sudoyo, Sangkot Marzuki, Robert H. Barnes, Jörg Schmidtke, Mark Stoneking, Manfred Kayser. Genetic Admixture History of Eastern Indonesia as


Voegelin, Carl F., Florence M. Voegelin, and Noel W. Schutz, Jr. 1967. The language situation in Arizona as part of the Southwest culture area. In Dell H. Hymes and


Yost, Chad; et al. (March 2018). "Subdecadal phytolith and charcoal records from Lake Malawi, East Africa imply minimal effects on human evolution from the ~74 ka Toba supereruption". *Journal of Human Evolution*. Elsevier. 116.

Appendix
Appendix A. Augmented Evaluative Factors of Language Vitality

1. Intergenerational Transmission (1-5)

(5) safe: The language is used by all ages, from children up.

(4) unsafe: The language is used by some children in all applicable domains; it is used by all children in limited domains.

(3) definitively endangered: The language is used mostly by the parental generation and up.

(2) severely endangered: The language is used mostly by the grandparental generation and up.

(1) critically endangered: The language is used by very few speakers, mostly of great-grandparental generation.

(0) extinct: None speak the language.

2. Absolute number of Speakers

3. Proportion of Speakers within the Total Population (1-5)

(5) safe: All speak the language (excepting extraordinary exceptions).

(4) unsafe: Nearly all speak the language.

(3) definitively endangered: A majority speak the language.

(2) severely endangered: A minority speak the language.

(1) critically endangered: Very few speak the language.

(0) extinct: None speak the language.

4. Shifts in Domains of Language Use (1-5)

(5) Universal use

(4) Multilingual parity

---

162 There are certain domains where Malay—or even Arabic—are required (although Arabic is a ritual language, very few Sula speakers are proficient in Arabic). For this reason, an “all domains” condition for viability is not suitable for the Sula language context.
(3) Dwindling domains
(2) Limited or formal domains
(1) Highly limited domain
(0) extinct

5. Response to New Domains and Media (1-5)

(5) dynamic: The language is used in all new domains.
(4) robust/active: The language is used in most new domains.
(3) receptive: The language is used in many new domains.
(2) coping: The language is used in some new domains.
(1) minimal: The language is used only in a few new domains.
(0) inactive: The language is not used in any new domains.

6. Availability of Materials for Language Education and Literacy (1-5)

(5) There is an established orthography and a literacy tradition with grammars, dictionaries, texts, literature and everyday media. Writing in the language is used in administration and education.
(4) Written materials exist, and at school, children are developing literacy in the language. Writing in the language is not used in administration.
(3) Written materials exist and children may be exposed to the written form at school. Literacy is not promoted through print media.
(2) Written materials exist, but they may only be useful for some members of the community; for others, they may have a symbolic significance. Literacy education in the language is not a part of the school curriculum.
(1) A practical orthography may be known to the community inasmuch as the language is phonologically compatible with a dominant language’s orthography, yet it is rarely used, and writing is mostly limited to graffiti and homemade notices (e.g. “no trespassing” signs)
(0) No orthography is available to the community.
7. Governmental and Institutional Language Attitudes and Policies, Including Official Status and Use: (1-5)

   (5) Equal support: All languages are protected.

   (4) Differentiated support: Minority languages are protected primarily as the language of private domains. The use of the language is prestigious.

   (3) Passive assimilation: No explicit policy exists for minority languages; the dominant language prevails in the public domain.

   (2) Active assimilation: Government encourages assimilation to the dominant language. There is no protection for minority languages.

   (1) Forced assimilation: The dominant language is the sole official language, while non-dominant languages are neither recognized nor protected.

   (0) Prohibition: Minority languages are prohibited.

8. Community Members’ Attitudes towards Their Own Language (1-5)

   (5) All members value their language and wish to see it promoted.

   (4) Most members support language maintenance.

   (3) Many members support language maintenance; others are indifferent or may even support language loss.

   (2) Some members support language maintenance; others are indifferent or may even support language loss.

   (1) Only a few members support language maintenance; others are indifferent or may even support language loss.

   (0) No one cares if the language is lost; all prefer to use a dominant language.
9. Type and Quality of Documentation (1-5)

(5) superlative: There are comprehensive grammars and dictionaries, extensive texts, and a constant flow of language materials. Abundant annotated high-quality audio and video recordings exist.

(4) good: There is one good grammar and a number of adequate grammars, dictionaries, texts, literature and occasionally updated everyday media; adequate annotated high-quality audio and video recordings exist.

(3) fair: There may be an adequate grammar or sufficient numbers of grammars, dictionaries and texts but no everyday media; audio and video recordings of varying quality or degree of annotation may exist.

(2) fragmentary: There are some grammatical sketches, word-lists and texts useful for limited linguistic research but with inadequate coverage. Audio and video recordings of varying quality, with or without any annotation, may exist.

(1) inadequate: There are only a few grammatical sketches, short word-lists and fragmentary texts. Audio and video recordings do not exist, are of unusable quality or are completely un-annotated.

(0) undocumented: No material exists.

10. ELECTRIC. Public utility service area
   YES
   NO

11. ELECTRIC. Access to electrical power in home (% of community)
   >70%
   30–70%
   10–29%
   <10%

12. ELECTRIC. Community cooperative generators (or public utility access points) that people can use to charge or power personal electronic devices (e.g. mobile phones, reading lights)
   YES
   NO

13. ELECTRIC. number of hours of electrical power daily
   N/A
   evening only
   evening–night
   24 hr
14. COMMUNICATION. reach of TV broadcast signal (including satellite dish when available)
   YES
   NO

15. COMMUNICATION. Is there a community TV (y/n)

16. COMMUNICATION. percentage of community with access to the TV (i.e. live close enough to a community TV for it to be a practical regular activity)
   >70%
   30–70%
   10–29%
   <10%

17. COMMUNICATION. Scale for cellular voice/SMS signal

   (0) no access
   (1) signal is available in certain locations of the village sometimes
   (2) signal is always available in certain locations of the village
   (3) signal is available in most locations of the village intermittently (asynchronous comm: send now, delivered later)
   (4) signal is available in most locations of the village most of the time (semi-synchronous comm)
   (5) signal is available in all locations of the village nearly all of the time (synchronous comm)

18. COMMUNICATION. Scale for cellular data signal

   (0) no access
   (1) signal is available in certain locations of the village sometimes
   (2) signal is always available in certain locations of the village
   (3) signal is available in most locations of the village intermittently (asynchronous comm: send now, delivered later)
   (4) signal is available in most locations of the village most of the time (semi-synchronous comm)
Signal is available in all locations of the village nearly all of the time (synchronous comm).

19. COMMUNICATION. percentage of adults with a smartphone
   >70%
   30–70%
   10–29%
   <10%

20. COMMUNICATION. percentage of adults with a ‘dumbphone’ (SMS)
   >70%
   30–70%
   10–29%
   <10%
### Appendix B. Data from Chapter Two part 1

#### APPENDIX ###. Section ###. Examples

<table>
<thead>
<tr>
<th>*uCi</th>
<th>PMP</th>
<th>PSM</th>
<th>Mangon</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*bukij</td>
<td>*faʔoki</td>
<td>faoki</td>
<td>faʔok</td>
<td>‘forested mountain areas’</td>
<td></td>
</tr>
<tr>
<td>*buni</td>
<td>*daʔufoŋi</td>
<td>daufoŋi</td>
<td>daʔufon</td>
<td>‘to hide’</td>
<td></td>
</tr>
<tr>
<td>*duRi</td>
<td>*loi</td>
<td>loi</td>
<td>hoi</td>
<td>‘thorn’/‘bone’</td>
<td></td>
</tr>
<tr>
<td>*kulit</td>
<td>*koli</td>
<td>koli</td>
<td>kol</td>
<td>‘skin’</td>
<td></td>
</tr>
<tr>
<td>*ma-putiq</td>
<td>*boti</td>
<td>boti</td>
<td>bot</td>
<td>‘white’</td>
<td></td>
</tr>
<tr>
<td>*puki</td>
<td>*poki</td>
<td>poki</td>
<td>pok</td>
<td>‘vulva, vagina’</td>
<td></td>
</tr>
<tr>
<td>*qutin</td>
<td>*oti</td>
<td>oti</td>
<td>ot</td>
<td>‘penis’</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>*uCu</th>
<th>PMP</th>
<th>PSM</th>
<th>Mangon</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*bubu</td>
<td>*fofu</td>
<td>fofu</td>
<td>fofa</td>
<td>‘bamboo fish/eel trap’</td>
<td></td>
</tr>
<tr>
<td>*buku</td>
<td>*foku</td>
<td>foku</td>
<td>foka</td>
<td>‘joint, finger or bamboo’</td>
<td></td>
</tr>
<tr>
<td>*bulu</td>
<td>*fou</td>
<td>fo:</td>
<td>foa</td>
<td>‘hair, feathers’</td>
<td></td>
</tr>
<tr>
<td>*kutu</td>
<td>*kotu</td>
<td>kotu</td>
<td>kota</td>
<td>‘hair louse’</td>
<td></td>
</tr>
<tr>
<td>*puluoq</td>
<td>*pou</td>
<td>po:</td>
<td>poa</td>
<td>‘ten’</td>
<td></td>
</tr>
<tr>
<td>*pusuq</td>
<td>*pou</td>
<td>po:</td>
<td>poa</td>
<td>‘banana inflorescence’</td>
<td></td>
</tr>
<tr>
<td>*susu</td>
<td>*sosu</td>
<td>sosu</td>
<td>sosa</td>
<td>‘female breast’</td>
<td></td>
</tr>
<tr>
<td>*tunu</td>
<td>*donu</td>
<td>donu</td>
<td>dona</td>
<td>‘to burn’</td>
<td></td>
</tr>
<tr>
<td>*tuktuk</td>
<td>*dotu</td>
<td>dotu</td>
<td>dota</td>
<td>‘to strike’</td>
<td></td>
</tr>
</tbody>
</table>

#### APPENDIX ###. Section ### examples

*u>a/o_o_. Lowering of *u to a where the preceding syllable contains a mid back vowel

<table>
<thead>
<tr>
<th>PSM</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*bagou</td>
<td>bagoa</td>
<td>‘cold’</td>
</tr>
<tr>
<td>*bosu</td>
<td>bosa</td>
<td>‘to suck’</td>
</tr>
<tr>
<td>*donu</td>
<td>dona</td>
<td>‘to burn’</td>
</tr>
<tr>
<td>*dutu</td>
<td>dota</td>
<td>‘to hit’</td>
</tr>
<tr>
<td>*fou</td>
<td>foa</td>
<td>‘hair, feather’</td>
</tr>
<tr>
<td>*kotu</td>
<td>kota</td>
<td>‘louse’</td>
</tr>
<tr>
<td>*momu</td>
<td>moma</td>
<td>‘to hit’</td>
</tr>
<tr>
<td>*(N-)*boyu</td>
<td>boya</td>
<td>‘wind’</td>
</tr>
<tr>
<td>*moru</td>
<td>mora</td>
<td>‘no, not’</td>
</tr>
<tr>
<td>*moyu</td>
<td>moya</td>
<td>‘tail’</td>
</tr>
<tr>
<td>*(N-)*boyu</td>
<td>nonu</td>
<td>‘to sleep’</td>
</tr>
<tr>
<td>*padomu</td>
<td>paroma</td>
<td>‘knee’</td>
</tr>
<tr>
<td>*pou</td>
<td>poa</td>
<td>‘blood’</td>
</tr>
<tr>
<td>*pou</td>
<td>poa</td>
<td>‘ten’</td>
</tr>
<tr>
<td>*pougahu</td>
<td>poagahu</td>
<td>‘twenty’</td>
</tr>
</tbody>
</table>
Appendix

*pougalima
*pamohu
*saotu
*sosu
*yotu

APPENDIX ###. Section ### examples

*i , u > Ø / [-cont] _#  
[-glottal]

<table>
<thead>
<tr>
<th>PSM</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>*(t,d)ufi</td>
<td>duf</td>
<td>‘to stab’</td>
</tr>
<tr>
<td>*aku</td>
<td>ak</td>
<td>‘1SG’</td>
</tr>
<tr>
<td>*api</td>
<td>ap</td>
<td>‘fire’</td>
</tr>
<tr>
<td>*asu</td>
<td>as</td>
<td>‘dog’</td>
</tr>
<tr>
<td>*bafei</td>
<td>bafei</td>
<td>‘green’</td>
</tr>
<tr>
<td>*bagu</td>
<td>bag</td>
<td>‘thick’</td>
</tr>
<tr>
<td>*bahali</td>
<td>bahal</td>
<td>‘shy’</td>
</tr>
<tr>
<td>*baifoŋi</td>
<td>baifon</td>
<td>‘to hide’</td>
</tr>
<tr>
<td>*bamanu</td>
<td>baman</td>
<td>‘to cook’</td>
</tr>
<tr>
<td>*banapi</td>
<td>banap</td>
<td>‘to shoot’</td>
</tr>
<tr>
<td>*baoni</td>
<td>bayon</td>
<td>‘mouth’</td>
</tr>
<tr>
<td>*betu</td>
<td>bet</td>
<td>‘day’</td>
</tr>
<tr>
<td>*boti</td>
<td>bot</td>
<td>‘white’</td>
</tr>
<tr>
<td>*daeti</td>
<td>daet</td>
<td>‘branch’</td>
</tr>
<tr>
<td>*dagati</td>
<td>dagat</td>
<td>‘narrow’</td>
</tr>
<tr>
<td>*daufoŋi</td>
<td>daʔufon</td>
<td>‘to hide’</td>
</tr>
<tr>
<td>*deti</td>
<td>det</td>
<td>‘to cut, hack’</td>
</tr>
<tr>
<td>*dogi</td>
<td>dog</td>
<td>‘to grow’</td>
</tr>
<tr>
<td>*duki</td>
<td>duk</td>
<td>‘to come’</td>
</tr>
<tr>
<td>*eki</td>
<td>ek</td>
<td>‘neck’</td>
</tr>
<tr>
<td>*gami</td>
<td>am</td>
<td>‘to squeeze’</td>
</tr>
<tr>
<td>*gapitu</td>
<td>gapit</td>
<td>‘seven’</td>
</tr>
<tr>
<td>*gasi</td>
<td>gas</td>
<td>‘salt’</td>
</tr>
<tr>
<td>*gatelu</td>
<td>gatel</td>
<td>‘three’</td>
</tr>
<tr>
<td>*jubi</td>
<td>jub</td>
<td>‘to shoot’</td>
</tr>
<tr>
<td>*kabaresi</td>
<td>kabares</td>
<td>‘bad, evil’</td>
</tr>
<tr>
<td>*kafini</td>
<td>kafin</td>
<td>‘mosquito’</td>
</tr>
<tr>
<td>*kagi</td>
<td>kag</td>
<td>‘to fear’</td>
</tr>
<tr>
<td>*kahiku</td>
<td>kahik</td>
<td>‘grass’</td>
</tr>
<tr>
<td>*kiti</td>
<td>kit</td>
<td>‘1PL.INCL’</td>
</tr>
<tr>
<td>*koli</td>
<td>kol</td>
<td>‘skin’</td>
</tr>
<tr>
<td>*kuli</td>
<td>kul</td>
<td>‘right’</td>
</tr>
<tr>
<td>*lani</td>
<td>-han</td>
<td>‘near’</td>
</tr>
<tr>
<td>Sula</td>
<td>Manuscript</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>*laŋi</td>
<td>lan</td>
<td>‘sky’</td>
</tr>
<tr>
<td>*lifi</td>
<td>lif</td>
<td>‘to turn’</td>
</tr>
<tr>
<td>*maki</td>
<td>mak</td>
<td>‘tongue’</td>
</tr>
<tr>
<td>*manipi</td>
<td>manip</td>
<td>‘thin’</td>
</tr>
<tr>
<td>*miti</td>
<td>mit</td>
<td>‘black’</td>
</tr>
<tr>
<td>*naŋu</td>
<td>nan</td>
<td>‘to swim’</td>
</tr>
<tr>
<td>*nibu</td>
<td>nib</td>
<td>‘to sit’</td>
</tr>
<tr>
<td>*nonu boli</td>
<td>nona bol</td>
<td>‘to lie down’</td>
</tr>
<tr>
<td>*ŋapu</td>
<td>nap</td>
<td>‘head’</td>
</tr>
<tr>
<td>*rekiŋ (L)</td>
<td>rek</td>
<td>‘to count’</td>
</tr>
<tr>
<td>*saku</td>
<td>sak</td>
<td>‘to pierce’</td>
</tr>
<tr>
<td>*samamu</td>
<td>samam</td>
<td>‘to chew’</td>
</tr>
<tr>
<td>*saŋa-petu</td>
<td>sanapet</td>
<td>‘thatch/roof’</td>
</tr>
<tr>
<td>*waki dabu</td>
<td>wak dab</td>
<td>‘to think’</td>
</tr>
<tr>
<td>*winu</td>
<td>win</td>
<td>‘to drink’</td>
</tr>
<tr>
<td>*yopu</td>
<td>yop</td>
<td>‘to suck’</td>
</tr>
</tbody>
</table>

---

163 This is a possible loan, however if so, it was likely borrowed prior to lowering of u to a.
<table>
<thead>
<tr>
<th>PSM</th>
<th>Mangon</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*afu-</td>
<td>afumai</td>
<td>aftuka</td>
</tr>
<tr>
<td>2</td>
<td>*aku</td>
<td>aku</td>
<td>ak</td>
</tr>
<tr>
<td>3</td>
<td>*api</td>
<td>api</td>
<td>ap</td>
</tr>
<tr>
<td>4</td>
<td>*asu</td>
<td>asu</td>
<td>as</td>
</tr>
<tr>
<td>5</td>
<td>*baba</td>
<td>baba</td>
<td>baba</td>
</tr>
<tr>
<td>6</td>
<td>*badagana</td>
<td>badagana</td>
<td>baragana</td>
</tr>
<tr>
<td>7</td>
<td>*bagou</td>
<td>bago(ː)</td>
<td>bagoa</td>
</tr>
<tr>
<td>8</td>
<td>*bagu</td>
<td>bagu</td>
<td>bag</td>
</tr>
<tr>
<td>9</td>
<td>*baha</td>
<td>baː</td>
<td>baha</td>
</tr>
<tr>
<td>10</td>
<td>*bahali</td>
<td>bali</td>
<td>bahal</td>
</tr>
<tr>
<td>11</td>
<td>*bama</td>
<td>bama</td>
<td>bama</td>
</tr>
<tr>
<td>12</td>
<td>*bampu</td>
<td>bampu</td>
<td>bamap</td>
</tr>
<tr>
<td>13</td>
<td>*banapi</td>
<td>banapi</td>
<td>banap</td>
</tr>
<tr>
<td>14</td>
<td>*baoni</td>
<td>boni</td>
<td>bayon (see 3.4.3)</td>
</tr>
<tr>
<td>15</td>
<td>*basu</td>
<td>basa</td>
<td>basa</td>
</tr>
<tr>
<td>16</td>
<td>*baumata</td>
<td>baumata</td>
<td>baumata</td>
</tr>
<tr>
<td>17</td>
<td>*behi</td>
<td>beː</td>
<td>behi</td>
</tr>
<tr>
<td>18</td>
<td>*bena</td>
<td>bena</td>
<td>bena</td>
</tr>
<tr>
<td>19</td>
<td>*betu pila</td>
<td>betu pila</td>
<td>bet pila</td>
</tr>
<tr>
<td>20</td>
<td>*betu</td>
<td>betu</td>
<td>bet</td>
</tr>
<tr>
<td>21</td>
<td>*beu</td>
<td>beu</td>
<td>beu</td>
</tr>
<tr>
<td>22</td>
<td>*binaka</td>
<td>binaka</td>
<td>bilnaka (see 3.4.3)</td>
</tr>
<tr>
<td>23</td>
<td>*bisa</td>
<td>bisa</td>
<td>bisa</td>
</tr>
<tr>
<td>24</td>
<td>*bo</td>
<td>bo</td>
<td>bo</td>
</tr>
<tr>
<td>25</td>
<td>*bosu</td>
<td>bosu</td>
<td>bosa</td>
</tr>
<tr>
<td>26</td>
<td>*boti</td>
<td>boti</td>
<td>bot</td>
</tr>
<tr>
<td>27</td>
<td>*bua</td>
<td>bua</td>
<td>bua</td>
</tr>
<tr>
<td>PSM</td>
<td>Mangon</td>
<td>Sanana</td>
<td>English</td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>---------</td>
<td>--------------------</td>
</tr>
<tr>
<td>28</td>
<td>*ca-gia</td>
<td>ca-gia</td>
<td>ca-hia</td>
</tr>
<tr>
<td>29</td>
<td>*daeti</td>
<td>badaeti</td>
<td>daet</td>
</tr>
<tr>
<td>30</td>
<td>*dagati</td>
<td>dagati</td>
<td>dagat</td>
</tr>
<tr>
<td>31</td>
<td>*dalena</td>
<td>dalena</td>
<td>dalena</td>
</tr>
<tr>
<td>32</td>
<td>*daʔufoŋi</td>
<td>daʔufoŋi</td>
<td>daʔufoŋi</td>
</tr>
<tr>
<td>33</td>
<td>*deti</td>
<td>deti</td>
<td>det</td>
</tr>
<tr>
<td>34</td>
<td>*dogi</td>
<td>dogi</td>
<td>dog</td>
</tr>
<tr>
<td>35</td>
<td>*donu</td>
<td>donu</td>
<td>dona</td>
</tr>
<tr>
<td>36</td>
<td>*dotu</td>
<td>dotu</td>
<td>dota</td>
</tr>
<tr>
<td>37</td>
<td>*duki</td>
<td>duki</td>
<td>duk</td>
</tr>
<tr>
<td>38</td>
<td>*eki</td>
<td>eki</td>
<td>ek</td>
</tr>
<tr>
<td>39</td>
<td>*(fa-N-)tui</td>
<td>fantui</td>
<td>fatui</td>
</tr>
<tr>
<td>40</td>
<td>*fa-ŋara</td>
<td>paŋara</td>
<td>faŋara</td>
</tr>
<tr>
<td>41</td>
<td>*fa-sina</td>
<td>fasina</td>
<td>fasina</td>
</tr>
<tr>
<td>42</td>
<td>*faʔoki</td>
<td>faʔoki</td>
<td>faʔok</td>
</tr>
<tr>
<td>43</td>
<td>*fata</td>
<td>fata</td>
<td>fata</td>
</tr>
<tr>
<td>44</td>
<td>*fatu</td>
<td>fatu</td>
<td>fat</td>
</tr>
<tr>
<td>45</td>
<td>*fatugia</td>
<td>fatugia</td>
<td>fathia</td>
</tr>
<tr>
<td>46</td>
<td>*feu</td>
<td>feu</td>
<td>feu</td>
</tr>
<tr>
<td>47</td>
<td>*fina</td>
<td>fina</td>
<td>fina</td>
</tr>
<tr>
<td>48</td>
<td>*fofu</td>
<td>fofu</td>
<td>fofa</td>
</tr>
<tr>
<td>49</td>
<td>*foku</td>
<td>foku</td>
<td>foka</td>
</tr>
<tr>
<td>50</td>
<td>*fou</td>
<td>fo:</td>
<td>foa</td>
</tr>
<tr>
<td>51</td>
<td>*gad(i,e)ha</td>
<td>gadia</td>
<td>gareha</td>
</tr>
<tr>
<td>52</td>
<td>*gahu</td>
<td>gu: (see 3.5.3)</td>
<td>gahu</td>
</tr>
<tr>
<td>53</td>
<td>*galima</td>
<td>galima</td>
<td>galima</td>
</tr>
</tbody>
</table>

Sula Manuscript

PSM Mangon Sanana English
<table>
<thead>
<tr>
<th>PSM</th>
<th>Mangon</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>54</td>
<td>*ganei</td>
<td>gane(ː)</td>
<td>ganei</td>
</tr>
<tr>
<td>55</td>
<td>*gapitu</td>
<td>gapitu</td>
<td>gapit</td>
</tr>
<tr>
<td>56</td>
<td>*gasi</td>
<td>gas</td>
<td>gas</td>
</tr>
<tr>
<td>57</td>
<td>*gatahua</td>
<td>gatua</td>
<td>gatahua</td>
</tr>
<tr>
<td>58</td>
<td>*gatasia</td>
<td>gatasia</td>
<td>gatasia</td>
</tr>
<tr>
<td>59</td>
<td>*gatelu</td>
<td>gatelu</td>
<td>gatel</td>
</tr>
<tr>
<td>60</td>
<td>*geka</td>
<td>geka</td>
<td>geka</td>
</tr>
<tr>
<td>61</td>
<td>*geli</td>
<td>geli</td>
<td>gehi</td>
</tr>
<tr>
<td>62</td>
<td>*gia (see 3.4.3)</td>
<td>gia</td>
<td>hia</td>
</tr>
<tr>
<td>63</td>
<td>*han</td>
<td>an</td>
<td>han</td>
</tr>
<tr>
<td>64</td>
<td>*hapa</td>
<td>apa, hapa</td>
<td>hapa</td>
</tr>
<tr>
<td>65</td>
<td>*ik(i,a)</td>
<td>ika</td>
<td>ik(i)</td>
</tr>
<tr>
<td>66</td>
<td>*jubi</td>
<td>jubi</td>
<td>jub</td>
</tr>
<tr>
<td>67</td>
<td>*kabaresi (L?)</td>
<td>kabaresi</td>
<td>kabares</td>
</tr>
<tr>
<td>68</td>
<td>*kafini</td>
<td>kafini</td>
<td>kafin</td>
</tr>
<tr>
<td>69</td>
<td>*kagi</td>
<td>kagi</td>
<td>kag</td>
</tr>
<tr>
<td>70</td>
<td>*kalo</td>
<td>kalo</td>
<td>kalo</td>
</tr>
<tr>
<td>71</td>
<td>*kam</td>
<td>kam</td>
<td>kam</td>
</tr>
<tr>
<td>72</td>
<td>*kau</td>
<td>kau</td>
<td>kau</td>
</tr>
<tr>
<td>73</td>
<td>*kena</td>
<td>kena</td>
<td>kena</td>
</tr>
<tr>
<td>74</td>
<td>*kim</td>
<td>kim</td>
<td>kim</td>
</tr>
<tr>
<td>75</td>
<td>*kiti</td>
<td>kiti</td>
<td>kit</td>
</tr>
<tr>
<td>76</td>
<td>*kiʔi</td>
<td>kiː</td>
<td>kiʔi</td>
</tr>
<tr>
<td>77</td>
<td>*koli</td>
<td>koli</td>
<td>kol</td>
</tr>
<tr>
<td>78</td>
<td>*kotu</td>
<td>kotu</td>
<td>kota</td>
</tr>
<tr>
<td>79</td>
<td>*kuli</td>
<td>kuli</td>
<td>kul</td>
</tr>
<tr>
<td>80</td>
<td>*la</td>
<td>laː</td>
<td>la</td>
</tr>
<tr>
<td>81</td>
<td>*lai</td>
<td>lai</td>
<td>hai</td>
</tr>
<tr>
<td>PSM</td>
<td>Mangon</td>
<td>Sanana</td>
<td>English</td>
</tr>
<tr>
<td>-----</td>
<td>------------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>82</td>
<td>*lai mai</td>
<td>hai mai</td>
<td>‘dust’</td>
</tr>
<tr>
<td>83</td>
<td>*laka</td>
<td>laka</td>
<td>‘to walk’</td>
</tr>
<tr>
<td>84</td>
<td>*lama</td>
<td>hama</td>
<td>‘eye’</td>
</tr>
<tr>
<td>85</td>
<td>*lani</td>
<td>han</td>
<td>‘near’</td>
</tr>
<tr>
<td>86</td>
<td>*laŋi</td>
<td>lan</td>
<td>‘sky’</td>
</tr>
<tr>
<td>87</td>
<td>*lawa</td>
<td>lawa</td>
<td>‘spider’</td>
</tr>
<tr>
<td>88</td>
<td>*lepa</td>
<td>lepa</td>
<td>‘above’</td>
</tr>
<tr>
<td>89</td>
<td>*lifi</td>
<td>lif</td>
<td>‘to turn’</td>
</tr>
<tr>
<td>90</td>
<td>*lika</td>
<td>lika</td>
<td>‘to choose’</td>
</tr>
<tr>
<td>91</td>
<td>*lima</td>
<td>lima</td>
<td>‘hand’</td>
</tr>
<tr>
<td>92</td>
<td>*loï</td>
<td>hoi</td>
<td>‘thorn, bone’</td>
</tr>
<tr>
<td>93</td>
<td>*mahī</td>
<td>mahi</td>
<td>‘sea’</td>
</tr>
<tr>
<td>94</td>
<td>*maki</td>
<td>mak</td>
<td>‘tongue’</td>
</tr>
<tr>
<td>95</td>
<td>*manipi</td>
<td>manip</td>
<td>‘thin’</td>
</tr>
<tr>
<td>96</td>
<td>*manu</td>
<td>man</td>
<td>‘bird’</td>
</tr>
<tr>
<td>97</td>
<td>*manutelu</td>
<td>mantel</td>
<td>‘egg’</td>
</tr>
<tr>
<td>98</td>
<td>*maŋa</td>
<td>mana</td>
<td>‘sharp’</td>
</tr>
<tr>
<td>99</td>
<td>*mata</td>
<td>mata</td>
<td>‘dead’</td>
</tr>
<tr>
<td>100</td>
<td>*mata-pia</td>
<td>matapia</td>
<td>‘human’</td>
</tr>
<tr>
<td>101</td>
<td>*ma-tua</td>
<td>matua</td>
<td>‘old’</td>
</tr>
<tr>
<td>102</td>
<td>*maʔana</td>
<td>maʔana</td>
<td>‘man’</td>
</tr>
<tr>
<td>103</td>
<td>*meŋa</td>
<td>mena</td>
<td>‘to cry’</td>
</tr>
<tr>
<td>104</td>
<td>*meta</td>
<td>meta</td>
<td>‘wet’</td>
</tr>
<tr>
<td>105</td>
<td>*meu</td>
<td>meu</td>
<td>‘rope’</td>
</tr>
<tr>
<td>106</td>
<td>*mia</td>
<td>mia</td>
<td>‘red’</td>
</tr>
<tr>
<td>107</td>
<td>*miti</td>
<td>mit</td>
<td>‘black’</td>
</tr>
<tr>
<td>108</td>
<td>*momu</td>
<td>moma</td>
<td>‘to pound, beat’</td>
</tr>
<tr>
<td>109</td>
<td>*mon</td>
<td>mon</td>
<td>‘you’</td>
</tr>
<tr>
<td>PSM</td>
<td>Mangon</td>
<td>Sanana</td>
<td>English</td>
</tr>
<tr>
<td>-----</td>
<td>--------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>110</td>
<td>*moru</td>
<td>moru</td>
<td>mora</td>
</tr>
<tr>
<td>111</td>
<td>*moyu</td>
<td>moyu</td>
<td>moya</td>
</tr>
<tr>
<td>112</td>
<td>*muamua</td>
<td>muamua</td>
<td>muamua</td>
</tr>
<tr>
<td>113</td>
<td>*(N-)boyu</td>
<td>mboyu</td>
<td>boya</td>
</tr>
<tr>
<td>114</td>
<td>*(N-)losa</td>
<td>nlosa</td>
<td>hosa</td>
</tr>
<tr>
<td>115</td>
<td>*(N-)yai</td>
<td>nyai</td>
<td>yai</td>
</tr>
<tr>
<td>116</td>
<td>*nahu</td>
<td>nau</td>
<td>nahu</td>
</tr>
<tr>
<td>117</td>
<td>*naŋu</td>
<td>naŋu</td>
<td>nan</td>
</tr>
<tr>
<td>118</td>
<td>*nau</td>
<td>nau</td>
<td>nau</td>
</tr>
<tr>
<td>119</td>
<td>*nibu</td>
<td>nibu</td>
<td>nib</td>
</tr>
<tr>
<td>120</td>
<td>*nonu</td>
<td>nonu</td>
<td>nona</td>
</tr>
<tr>
<td>121</td>
<td>*ŋa</td>
<td>ŋa</td>
<td>na</td>
</tr>
<tr>
<td>122</td>
<td>*ŋapu</td>
<td>ŋapu</td>
<td>nap</td>
</tr>
<tr>
<td>123</td>
<td>*ŋau</td>
<td>ŋau</td>
<td>nau</td>
</tr>
<tr>
<td>124</td>
<td>*ŋihi</td>
<td>ŋi:</td>
<td>nihi</td>
</tr>
<tr>
<td>125</td>
<td>*padomu</td>
<td>padomu</td>
<td>paroma</td>
</tr>
<tr>
<td>126</td>
<td>*pia</td>
<td>pia</td>
<td>pia</td>
</tr>
<tr>
<td>127</td>
<td>*pou</td>
<td>po:</td>
<td>poa</td>
</tr>
<tr>
<td>128</td>
<td>*pou</td>
<td>po:</td>
<td>poa</td>
</tr>
<tr>
<td>129</td>
<td>*pougahu</td>
<td>pogu(:)</td>
<td>poagahu</td>
</tr>
<tr>
<td>130</td>
<td>*rekiŋ (L)</td>
<td>rek</td>
<td>rek (see 3.4.3)</td>
</tr>
<tr>
<td>131</td>
<td>*saku</td>
<td>saku</td>
<td>sak</td>
</tr>
<tr>
<td>132</td>
<td>*samamu</td>
<td>samamu</td>
<td>samam</td>
</tr>
<tr>
<td>133</td>
<td>*samohu</td>
<td>samo</td>
<td>samoha</td>
</tr>
<tr>
<td>134</td>
<td>*saŋapetu</td>
<td>saŋapetu</td>
<td>sanapet</td>
</tr>
<tr>
<td>135</td>
<td>*saotu</td>
<td>sotu</td>
<td>saota</td>
</tr>
<tr>
<td>136</td>
<td>*soba</td>
<td>soba</td>
<td>soba</td>
</tr>
<tr>
<td>137</td>
<td>*sosu</td>
<td>sosu</td>
<td>sosa</td>
</tr>
</tbody>
</table>

‘wind’  
‘no, not’  
‘all’  
‘tail’  
‘leaf’  
‘leg’  
‘long’  
‘to swim’  
‘to know’  
‘to sit’  
‘to sleep’  
‘name’  
‘head’  
‘cat’  
‘tooth’  
‘knee’  
‘alive, good, safe’  
‘blood’  
‘ten’  
‘twenty’  
‘to count’  
‘to stab’  
‘to chew’  
‘needle’  
‘thatch/roof’  
‘dry’  
‘wing’  
‘breast’
<table>
<thead>
<tr>
<th>PSM</th>
<th>Mangon</th>
<th>Sanana</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>138</td>
<td>*tadu</td>
<td>tadu</td>
<td>tar</td>
</tr>
<tr>
<td>139</td>
<td>*tahaga (L)</td>
<td>taga</td>
<td>tahaga</td>
</tr>
<tr>
<td>140</td>
<td>*tahun</td>
<td>taun</td>
<td>taun, tahun (L)</td>
</tr>
<tr>
<td>141</td>
<td>*tapa</td>
<td>tapa</td>
<td>tapa</td>
</tr>
<tr>
<td>142</td>
<td>*tilu</td>
<td>tilu</td>
<td>til</td>
</tr>
<tr>
<td>143</td>
<td>*timu</td>
<td>timu</td>
<td>tim</td>
</tr>
<tr>
<td>144</td>
<td>*tua</td>
<td>tua</td>
<td>tua</td>
</tr>
<tr>
<td>145</td>
<td>*tui</td>
<td>tui</td>
<td>tui</td>
</tr>
<tr>
<td>146</td>
<td>*tuka</td>
<td>tuka</td>
<td>tuka</td>
</tr>
<tr>
<td>147</td>
<td>*uha</td>
<td>ua</td>
<td>uha</td>
</tr>
<tr>
<td>148</td>
<td>*uma</td>
<td>uma</td>
<td>uma</td>
</tr>
<tr>
<td>149</td>
<td>*uya</td>
<td>uya</td>
<td>uya</td>
</tr>
<tr>
<td>150</td>
<td>*wai</td>
<td>wai</td>
<td>wai</td>
</tr>
<tr>
<td>151</td>
<td>*(wai)ewa</td>
<td>(wai)ewa</td>
<td>(wai)ewa</td>
</tr>
<tr>
<td>152</td>
<td>*waka</td>
<td>waka</td>
<td>waka</td>
</tr>
<tr>
<td>153</td>
<td>*waki dabu</td>
<td>waki dabu</td>
<td>wak dab</td>
</tr>
<tr>
<td>154</td>
<td>*wama</td>
<td>wama</td>
<td>wama</td>
</tr>
<tr>
<td>155</td>
<td>*winu</td>
<td>winu</td>
<td>win</td>
</tr>
<tr>
<td>156</td>
<td>*yaŋa</td>
<td>yaŋa</td>
<td>yana</td>
</tr>
<tr>
<td>157</td>
<td>*yau</td>
<td>yau</td>
<td>yau</td>
</tr>
<tr>
<td>158</td>
<td>*yotu</td>
<td>yotu</td>
<td>yota</td>
</tr>
</tbody>
</table>

PSM: Mangon Sanana English
Appendix C. Data from Chapter Two part 2

Appendix ###. Words identified as containing final /i/ or /u/ target environments. (Reference tables #### and #### for Sanana and Mangon forms.)

*Items for which final vowels variants were produced:*

<table>
<thead>
<tr>
<th>CMD (V# Variant)</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. uli</td>
<td>'worm'</td>
</tr>
<tr>
<td>2. ami</td>
<td>'to squeeze'</td>
</tr>
<tr>
<td>3. duki</td>
<td>'to come'</td>
</tr>
<tr>
<td>4. lifi</td>
<td>'to turn'</td>
</tr>
<tr>
<td>5. kagi</td>
<td>'to fear'</td>
</tr>
<tr>
<td>6. eki</td>
<td>'neck'</td>
</tr>
<tr>
<td>7. maki</td>
<td>'tongue'</td>
</tr>
<tr>
<td>8. banapi</td>
<td>'to shoot with a gun'</td>
</tr>
<tr>
<td>9. jubi</td>
<td>'to shoot with a bow'</td>
</tr>
<tr>
<td>10. deti</td>
<td>'to cut/hack'</td>
</tr>
<tr>
<td>11. baseli</td>
<td>'to plant'</td>
</tr>
<tr>
<td>12. pani</td>
<td>'wing'</td>
</tr>
<tr>
<td>13. manipi</td>
<td>'thin'</td>
</tr>
<tr>
<td>14. dagati</td>
<td>'narrow'</td>
</tr>
<tr>
<td>NOT FOR CITATION</td>
<td>Sula</td>
</tr>
<tr>
<td>-----------------</td>
<td>------</td>
</tr>
<tr>
<td>15. bali</td>
<td>'shy'</td>
</tr>
<tr>
<td>16. boti</td>
<td>'white'</td>
</tr>
<tr>
<td>17. miti</td>
<td>'black'</td>
</tr>
<tr>
<td>18. gazi</td>
<td>'salt'</td>
</tr>
<tr>
<td>19. lan</td>
<td>'sky'</td>
</tr>
<tr>
<td>20. nibu</td>
<td>'to sit'</td>
</tr>
<tr>
<td>21. baumapu</td>
<td>'to cook'</td>
</tr>
<tr>
<td>22. fatu</td>
<td>'stone'</td>
</tr>
<tr>
<td>23. bagu</td>
<td>'thick'</td>
</tr>
<tr>
<td>24. tilu</td>
<td>'ear'</td>
</tr>
<tr>
<td>25. nanu</td>
<td>'bathe'</td>
</tr>
<tr>
<td>26. napu</td>
<td>'head'</td>
</tr>
<tr>
<td>27. asu</td>
<td>'dog'</td>
</tr>
<tr>
<td>28. nibu</td>
<td>'sit'</td>
</tr>
<tr>
<td>29. fatu</td>
<td>'stone'</td>
</tr>
<tr>
<td>30. bagu</td>
<td>'thick'</td>
</tr>
<tr>
<td>31. saku</td>
<td>'to pierce'</td>
</tr>
<tr>
<td>32. aku</td>
<td>'1SG'</td>
</tr>
</tbody>
</table>
Items for which final /i/ or /u/ target environment was present, but no final vowel variant was produced:\(^{164}\)

<table>
<thead>
<tr>
<th>CMD</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>33. gapit</td>
<td>'seven'</td>
</tr>
<tr>
<td>34. sanapet</td>
<td>'roof thatch'</td>
</tr>
<tr>
<td>35. kafin</td>
<td>'mosquito'</td>
</tr>
<tr>
<td>36. win</td>
<td>'to drink'</td>
</tr>
<tr>
<td>37. samam</td>
<td>'to chew'</td>
</tr>
<tr>
<td>38. nona bol</td>
<td>'to lie down'</td>
</tr>
<tr>
<td>39. kol</td>
<td>'skin'</td>
</tr>
<tr>
<td>40. mantel</td>
<td>'egg'</td>
</tr>
<tr>
<td>41. gatel</td>
<td>'three'</td>
</tr>
</tbody>
</table>

**Appendix ###.** Percentages for each word of tokens showing epenthesis.

-\(i\)#

<table>
<thead>
<tr>
<th>English</th>
<th>-V# variant</th>
<th>(% of tokens produced with -V#)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 'black'</td>
<td>miti</td>
<td>(86%)</td>
</tr>
<tr>
<td>2. 'branch'</td>
<td>daeti</td>
<td>(100%)</td>
</tr>
</tbody>
</table>

\(^{164}\) All forms are included in percentage calculations Section 6.
<table>
<thead>
<tr>
<th>NOT FOR CITATION</th>
<th>Sula</th>
<th>Manuscript</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. 'day'</td>
<td>beti</td>
<td>(100%)</td>
</tr>
<tr>
<td>4. 'evil'</td>
<td>kabaresi</td>
<td>(50%)</td>
</tr>
<tr>
<td>5. 'mosquito'</td>
<td>kafini</td>
<td>(0%)</td>
</tr>
<tr>
<td>6. 'narrow'</td>
<td>dagati</td>
<td>(100%)</td>
</tr>
<tr>
<td>7. 'neck'</td>
<td>eki</td>
<td>(100%)</td>
</tr>
<tr>
<td>8. 'right'</td>
<td>kuli</td>
<td>(56%)</td>
</tr>
<tr>
<td>9. 'salt'</td>
<td>gasi</td>
<td>(50%)</td>
</tr>
<tr>
<td>10. 'shy, ashamed'</td>
<td>bali</td>
<td>(100%)</td>
</tr>
<tr>
<td>11. 'skin'</td>
<td>koli</td>
<td>(0%)</td>
</tr>
<tr>
<td>12. 'sky'</td>
<td>lani</td>
<td>(50%)</td>
</tr>
<tr>
<td>13. 'thin'</td>
<td>manipi</td>
<td>(100%)</td>
</tr>
<tr>
<td>14. 'to come'</td>
<td>duki</td>
<td>(100%)</td>
</tr>
<tr>
<td>15. 'to cut, hack'</td>
<td>deti</td>
<td>(100%)</td>
</tr>
<tr>
<td>16. 'to fear'</td>
<td>kagi</td>
<td>(100%)</td>
</tr>
<tr>
<td>17. 'to lie down'</td>
<td>nona boli</td>
<td>(0%)</td>
</tr>
<tr>
<td>18. 'to plant'</td>
<td>baseli</td>
<td>(100%)</td>
</tr>
<tr>
<td>19. 'to shoot1'</td>
<td>banapi</td>
<td>(100%)</td>
</tr>
<tr>
<td>20. 'to shoot2'</td>
<td>jubi</td>
<td>(100%)</td>
</tr>
<tr>
<td>21. 'to sniff'</td>
<td>manamumi</td>
<td>(64%)</td>
</tr>
<tr>
<td>NOT FOR CITATION</td>
<td>Appendix</td>
<td>Manuscript</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------</td>
<td>------------</td>
</tr>
<tr>
<td>22. 'to squeeze'</td>
<td>ami</td>
<td>(100%)</td>
</tr>
<tr>
<td>23. 'to stab, pierce'</td>
<td>tufi</td>
<td>(100%)</td>
</tr>
<tr>
<td>24. 'to turn'</td>
<td>lifi</td>
<td>(100%)</td>
</tr>
<tr>
<td>25. 'tongue'</td>
<td>maki</td>
<td>(100%)</td>
</tr>
<tr>
<td>26. 'white'</td>
<td>boti</td>
<td>(50%)</td>
</tr>
<tr>
<td>27. 'wing'</td>
<td>in-pani</td>
<td>(100%)</td>
</tr>
<tr>
<td>28. 'woods/forest'</td>
<td>fa'a oki</td>
<td>(100%)</td>
</tr>
<tr>
<td>29. 'worm'</td>
<td>uli</td>
<td>(100%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-u#</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>-V# variant</td>
<td>(% of tokens produced with -V#)</td>
</tr>
<tr>
<td>30. 'dog'</td>
<td>asu</td>
<td>(100%)</td>
</tr>
<tr>
<td>31. 'drink'</td>
<td>winu</td>
<td>(0%)</td>
</tr>
<tr>
<td>32. 'ear'</td>
<td>tilu</td>
<td>(100%)</td>
</tr>
<tr>
<td>33. 'egg'</td>
<td>mantelu</td>
<td>(0%)</td>
</tr>
<tr>
<td>34. 'fire'</td>
<td>apu</td>
<td>(100%)</td>
</tr>
<tr>
<td>35. 'head'</td>
<td>napu</td>
<td>(100%)</td>
</tr>
<tr>
<td>36. 'I'</td>
<td>aku</td>
<td>(83%)</td>
</tr>
<tr>
<td>37. 'pierce ear'</td>
<td>sak-tilu</td>
<td>(100%)</td>
</tr>
<tr>
<td>NOT FOR CITATION</td>
<td>Sula</td>
<td>Manuscript</td>
</tr>
<tr>
<td>------------------</td>
<td>------</td>
<td>------------</td>
</tr>
<tr>
<td>38. 'seven'</td>
<td>gapitu</td>
<td>(0%)</td>
</tr>
<tr>
<td>39. 'stone'</td>
<td>fatu</td>
<td>(75%)</td>
</tr>
<tr>
<td>40. 'thatch/roof'</td>
<td>sanapetu</td>
<td>(0%)</td>
</tr>
<tr>
<td>41. 'thick'</td>
<td>bagu</td>
<td>(100%)</td>
</tr>
<tr>
<td>42. 'three'</td>
<td>gatelu</td>
<td>(0%)</td>
</tr>
<tr>
<td>43. 'to chew'</td>
<td>samamu</td>
<td>(0%)</td>
</tr>
<tr>
<td>44. 'to cook'</td>
<td>bamapu</td>
<td>(100%)</td>
</tr>
<tr>
<td>45. 'to cook rice'</td>
<td>haku</td>
<td>(100%)</td>
</tr>
<tr>
<td>46. 'to grow'</td>
<td>batu</td>
<td>(100%)</td>
</tr>
<tr>
<td>47. 'to sit'</td>
<td>nibu</td>
<td>(100%)</td>
</tr>
<tr>
<td>48. 'to stab, pierce'</td>
<td>saku</td>
<td>(100%)</td>
</tr>
<tr>
<td>49. 'to swim'</td>
<td>nanu</td>
<td>(100%)</td>
</tr>
</tbody>
</table>
**Appendix D.** Dialect comparison lists. Four tribes plus Bajo

The following lists were collected with strict geographic and speaker demographic controls as described in chapter two. These lists are provided in the hopes they might help a future researcher better map Sula’s dialect regions—a task that will be a dissertation unto itself. All lists correspond to recordings archived and freely available (###insert archive location here###).

**Vocab From Each Tribe**

<table>
<thead>
<tr>
<th>English</th>
<th>Facei Tribe in K. Sama, Sanana Island</th>
<th>Falahu Tribe in K. Wailau, Sanana Island</th>
<th>Fagudu Tribe in K. Umaloya, Sanana Island</th>
<th>Mangon Tribe in K. Waitina, Mangon Island</th>
<th>Ethnic Bajo settlement on Sanana Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 hand (tangan)</td>
<td>lima</td>
<td>lima</td>
<td>lima</td>
<td>lima</td>
<td>tangang</td>
</tr>
<tr>
<td>2 left (kiri)</td>
<td>tapa</td>
<td>(lima) tapa</td>
<td>(lima) tapa</td>
<td>(lima) tapa</td>
<td>kidal</td>
</tr>
<tr>
<td>3 right (kanan)</td>
<td>kul</td>
<td>(lima) kul</td>
<td>(lima) kuli</td>
<td>(lima) kuli</td>
<td>kanan</td>
</tr>
<tr>
<td>4 leg/foot (kaki)</td>
<td>yai</td>
<td>yai</td>
<td>yai</td>
<td>nyai</td>
<td>nai</td>
</tr>
<tr>
<td>5 to walk (berjalan)</td>
<td>laka</td>
<td>laka</td>
<td>laka</td>
<td>laka</td>
<td>dumalang</td>
</tr>
<tr>
<td>6 road/path (jalan)</td>
<td>ya ea</td>
<td>yai ea</td>
<td>yai ea</td>
<td>sanafa</td>
<td>lalang</td>
</tr>
<tr>
<td>6 road/path (jalanan)</td>
<td>laka-laka /</td>
<td>yai ea</td>
<td>sanafa</td>
<td>lalang</td>
<td></td>
</tr>
<tr>
<td></td>
<td>berjalan-jalan</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 to come (datang)</td>
<td>duk</td>
<td>duk</td>
<td>duk</td>
<td>duki</td>
<td>tika</td>
</tr>
<tr>
<td>8 to turn (bélok) (to turn halfway, 90 degrees)</td>
<td>lif</td>
<td>lif</td>
<td>lif</td>
<td>lifi</td>
<td>pabale / pabelo*</td>
</tr>
<tr>
<td></td>
<td><em>(They say pabale is ‘balik’, so this might be turning 180 (pabelo is probably either turning while in motion or turning 90 degrees.)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 to turn (berputar) (to turn completely, 180 degrees)</td>
<td>putar</td>
<td>sawai (pul)</td>
<td>lif puta</td>
<td>(lif) dagalili</td>
<td>paputar</td>
</tr>
</tbody>
</table>

547
<table>
<thead>
<tr>
<th>English</th>
<th>Facei Tribe in K. Sama, Sanana Island</th>
<th>Falahu Tribe in K. Wailau, Sanana Island</th>
<th>Fagudu Tribe in K. Umaloya, Sanana Island</th>
<th>Mangon Tribe in K. Waitina, Mangon Island</th>
<th>Ethnic Bajo settlement on Sanana Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 to swim (berenang)</td>
<td>nan</td>
<td>nan</td>
<td>nan</td>
<td>nangu</td>
<td>rumangi</td>
</tr>
<tr>
<td>10 dirty (kotor)</td>
<td>bakatai</td>
<td>bakatai</td>
<td>bakatai</td>
<td>bakatai</td>
<td>marota*</td>
</tr>
<tr>
<td><em>(the “original Bajo word”)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 dust (debu) (?)</td>
<td>hai mai</td>
<td>hai mai / mai-mai</td>
<td>bufa / bufai</td>
<td>lai mai</td>
<td>‘a.bu</td>
</tr>
<tr>
<td>12 skin (kulit)</td>
<td>kol</td>
<td>kol</td>
<td>koli</td>
<td>koli</td>
<td>‘ku.li</td>
</tr>
<tr>
<td>13 back (punggung)</td>
<td>ded pon</td>
<td>bahu / sanapahu / pau</td>
<td>gehi fat / sanapau</td>
<td>loi nau</td>
<td>‘b.uku</td>
</tr>
<tr>
<td><em>(shoulder)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>‘belakan’ ID</td>
</tr>
<tr>
<td>14 belly (perut)</td>
<td>tena</td>
<td>tena (kau)</td>
<td>tena (kau)</td>
<td>takau</td>
<td>‘b.bit.ta</td>
</tr>
<tr>
<td>15 bone (tulang)</td>
<td>ho’i</td>
<td>hoi (ho’i in Mangoli — VERIFIED)</td>
<td>hoi (ho’i / IS Fahu)</td>
<td>loi</td>
<td>‘b.ba.kas</td>
</tr>
<tr>
<td>16 intestines (usus)</td>
<td>tuka pon</td>
<td>tuka</td>
<td>tuka</td>
<td>tuka</td>
<td>‘tub.bo</td>
</tr>
<tr>
<td><em>(had to be prompted)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 liver (hati)</td>
<td>behifon</td>
<td>be(hi)for</td>
<td>behifor (‘lungs’ = wama)</td>
<td>kila</td>
<td>‘a.tai</td>
</tr>
<tr>
<td>18 breast (susu)</td>
<td>sosa</td>
<td>kila*</td>
<td>sosa / sosu</td>
<td>‘su.su</td>
<td></td>
</tr>
<tr>
<td><em>(woman’s breast)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>(pretty sure this is ‘liver’), wama (this means ‘breathe’)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 breast (dada) (“breast, chest” - not gender-specific)</td>
<td>bokatan</td>
<td>behi (tan)</td>
<td>behi (tan)</td>
<td>lela fatu</td>
<td>ka’ri.ka</td>
</tr>
<tr>
<td>19 shoulder (bahu)</td>
<td>sanapau</td>
<td>sanapau</td>
<td>sanapau</td>
<td>simpau</td>
<td>‘ba.ha</td>
</tr>
<tr>
<td><em>(Fagudu)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>‘ba’ha.ku</td>
</tr>
<tr>
<td><em>(shoulder ache’ I think)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 to know, be knowledgeable (tahu)</td>
<td>nau</td>
<td>nau</td>
<td>nau</td>
<td>(dahi) nau</td>
<td>ka.to’nang.ku</td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------------------------------</td>
<td>-----------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>21 to think (berfikir)</td>
<td>bapikir</td>
<td>bapikir</td>
<td>wak dab</td>
<td>waki dabu</td>
<td>pi’kir</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>had to think a lot</td>
<td>‘ingat’ ID</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>bapikir</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>‘berfikir’ ID</td>
<td></td>
</tr>
<tr>
<td>22 to fear (takut)</td>
<td>kag</td>
<td>kag</td>
<td>kag</td>
<td>kagi</td>
<td>‘ta.lau</td>
</tr>
<tr>
<td>23 blood (darah)</td>
<td>poa</td>
<td>poa</td>
<td>poa</td>
<td>po</td>
<td>‘la.ha</td>
</tr>
<tr>
<td>24 head (kepala) (Skt kapala 'skull')</td>
<td>nap (foka/fat)</td>
<td>nap (f)oka (skull) / nap fat/</td>
<td>ngapu</td>
<td>ti’ko.lo</td>
<td></td>
</tr>
<tr>
<td>25 neck (léhér)</td>
<td>ek</td>
<td>ek</td>
<td>ek</td>
<td>ek wai</td>
<td>‘kul.lo</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>eki wai</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>eki ek lawa</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Fagudu)</td>
<td></td>
</tr>
<tr>
<td>26 hair (rambut)</td>
<td>nap foa</td>
<td>nap foa</td>
<td>nap foa</td>
<td>ngapu fo</td>
<td>bulu ti’ko.lo</td>
</tr>
<tr>
<td>27 nose (hidung)</td>
<td>ne’i</td>
<td>nee (long / e/)</td>
<td>ne’i</td>
<td>ncumi</td>
<td>u’ro</td>
</tr>
<tr>
<td>28 to breathe (bernapas)</td>
<td>wama</td>
<td>wama</td>
<td>wama</td>
<td>wama</td>
<td>ni’an.sa</td>
</tr>
<tr>
<td>29 to sniff, smell (mencium) (&quot;to kiss&quot;?)</td>
<td>sayang (mana)mum</td>
<td>muhi (they rejected / mui/) / manam (ok for 'kiss')</td>
<td>sumpati (only ngu’ro)</td>
<td>sumpati</td>
<td>na.re’na.pas</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 to sniff, smell (menghiru)</td>
<td>etwama (dental t)</td>
<td>sakum</td>
<td>Did Not Skip — forgot to write. Check recording.</td>
<td>sumpati</td>
<td>na.re’na.pas</td>
</tr>
<tr>
<td>30 mouth (mulut)</td>
<td>bayon</td>
<td>bayon (/a/ almost schwa)</td>
<td>sum</td>
<td>boni</td>
<td>‘bo.a</td>
</tr>
<tr>
<td>31 tooth (gigi)</td>
<td>nihi</td>
<td>nihi</td>
<td>nihi</td>
<td>ngi</td>
<td>‘gi.gi ku’le.ber</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>('lips')</td>
</tr>
<tr>
<td>32 tongue (lidah) (metathesis)</td>
<td>mak</td>
<td>mak</td>
<td>mak</td>
<td>maki</td>
<td>‘de.la</td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td><strong>33 to laugh</strong> (tertawa)</td>
<td>balela</td>
<td>balela</td>
<td>balela</td>
<td>balela</td>
<td>ti’to.a ('eyebrow' = bulu’kin.ne)</td>
</tr>
<tr>
<td><strong>34 to cry</strong> (menangis)</td>
<td>mena</td>
<td>mena</td>
<td>mena</td>
<td>menga</td>
<td>‘nang.is</td>
</tr>
<tr>
<td><strong>35 to vomit</strong> (muntah)</td>
<td>lua</td>
<td>lua</td>
<td>lua</td>
<td>lua</td>
<td>‘ngu.ta</td>
</tr>
<tr>
<td><strong>36 to spit</strong> (meludah)</td>
<td>buakeu</td>
<td>oyakeu (also buakeu)</td>
<td>safe (keu)</td>
<td>‘ru.ja</td>
<td></td>
</tr>
<tr>
<td><strong>37 to eat</strong> (makan)</td>
<td>gaya</td>
<td>giya</td>
<td>gaya</td>
<td>giya</td>
<td>‘ngyin.ta</td>
</tr>
<tr>
<td><strong>38 to chew</strong> (mengunyah)</td>
<td>samam</td>
<td>bamap</td>
<td>mama / samam</td>
<td>samamu</td>
<td>‘ma.pa</td>
</tr>
<tr>
<td><strong>39 to cook</strong> (memasak)</td>
<td>bamap</td>
<td>bamap (bira) (they don’t know / haku/)</td>
<td>bamap</td>
<td>bamapu</td>
<td>ma’da.ta.i</td>
</tr>
<tr>
<td><strong>39 to cook</strong> (menanak) (to cook (rice only))</td>
<td>bamap bira</td>
<td>samam</td>
<td>bamap (bira)</td>
<td>bamapu pamasi (pamasi is ‘rice’) (don’t have / haku/ here)</td>
<td>ma’da’ta.i (ki’na.kan) ‘cook rice’</td>
</tr>
<tr>
<td><strong>40 to drink</strong> (minum)</td>
<td>win</td>
<td>win (wai)</td>
<td>win (wai)</td>
<td>winu</td>
<td>‘ngi.nung (/’bo.i/ is water)</td>
</tr>
<tr>
<td><strong>41 to bite</strong> (gigit)</td>
<td>uka</td>
<td>uka (nihi)</td>
<td>uka (animal) / gigi</td>
<td>ngasi</td>
<td>‘nge.ke</td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------------</td>
<td>---------------------------------------</td>
<td>----------------------------------------</td>
<td>-------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td><strong>42 to suck (mengisap)</strong></td>
<td>bosu (they also understand /bosa/ - /bosa/ more common for breast)</td>
<td>yop (they also understand /bosa/ - /bosa/ more common for breast)</td>
<td>bosu (e.g. drinking with straw)</td>
<td>yopu (‘isap’ or ‘isop’ in ID)</td>
<td>‘ngi.sa ge’go.la (‘permen’ ID)</td>
</tr>
<tr>
<td><strong>43 ear (telinga)</strong></td>
<td>til (hosa)</td>
<td>til</td>
<td>til</td>
<td>talinga</td>
<td>ta’ling.a</td>
</tr>
<tr>
<td><strong>44 to hear (mendengar)</strong></td>
<td>baked</td>
<td>baker (also know /gena/ but say it is Fagudu or Facei)</td>
<td>baked / gena (seem to actually be the same. But /gena/ is an old word used by old people only)</td>
<td>gena</td>
<td>ma’ka.le</td>
</tr>
<tr>
<td><strong>45 eye (mata)</strong></td>
<td>hama</td>
<td>hama</td>
<td>hama</td>
<td>lama</td>
<td>‘ma.ta</td>
</tr>
<tr>
<td><strong>46 to see (melihat)</strong></td>
<td>yana</td>
<td>yana</td>
<td>bil (‘see’ w/o volition necessarily) / yana (‘watch’ with volition, eg. ‘a film’)</td>
<td>yanga</td>
<td>na’rin.ta</td>
</tr>
<tr>
<td><strong>47 to yawn (menguap) ([&lt;kuap])</strong></td>
<td>bakafa</td>
<td>bakafa (eya)</td>
<td>bakafa</td>
<td>bakafa</td>
<td>‘ngo.a</td>
</tr>
<tr>
<td><strong>48 to sleep (tidur)</strong></td>
<td>nona</td>
<td>nona</td>
<td>nona</td>
<td>nonu</td>
<td>‘ti.dor</td>
</tr>
<tr>
<td><strong>49 to lie down (berbaring)</strong></td>
<td>nona bol</td>
<td>nona bol / baka leng (bol)</td>
<td>nona bol</td>
<td>nonu boli</td>
<td>ba’le.a</td>
</tr>
<tr>
<td><strong>50 to dream (bermimpi)</strong></td>
<td>baragana (ba)dagana</td>
<td>badagana</td>
<td>badagana</td>
<td>badagana</td>
<td>‘ngup.pi</td>
</tr>
<tr>
<td><strong>51 to sit (duduk)</strong></td>
<td>nib</td>
<td>nib</td>
<td>nib</td>
<td>nibu</td>
<td>‘nin.ko.lo</td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------</td>
<td>---------------------------------------</td>
<td>------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>to stand (berdiri)</td>
<td>gehi</td>
<td>gehi</td>
<td>(CANNOT / ge'i/ or / gei/)</td>
<td>geli</td>
<td>'nin.ge</td>
</tr>
<tr>
<td>person/human being (orang)</td>
<td>matapia</td>
<td>matapia</td>
<td>matapia</td>
<td>matapia</td>
<td>'a.ha</td>
</tr>
<tr>
<td>man/male (laki-laki)</td>
<td>ma'ana</td>
<td>ma'ana</td>
<td>maana</td>
<td>(pia) mana</td>
<td>'lil.la</td>
</tr>
<tr>
<td>woman/female (perempuan)</td>
<td>fina</td>
<td>fina</td>
<td>fina</td>
<td>fina</td>
<td>'din.de (final e is schwa)</td>
</tr>
<tr>
<td>child (anak)</td>
<td>ana mehi</td>
<td>ana mehi</td>
<td>'baby' ana ta(ha)</td>
<td>gama (nana)</td>
<td>a’na.na</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>('anak kecil' ID)</td>
<td>gama nana (same as / ana nana/ in Sanana)</td>
<td>a’na.na ('anak-anak’ ID)</td>
</tr>
<tr>
<td>husband (suami)</td>
<td>tua</td>
<td>tua</td>
<td>tua</td>
<td>tua</td>
<td>'lllll.la*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*~16:00 don’t know how to transcribe this, but same as 54 but with a very long l</td>
</tr>
<tr>
<td>wife</td>
<td>fata</td>
<td>fata</td>
<td>fata</td>
<td>fata</td>
<td>'nnnn.de (final e is schwa)</td>
</tr>
<tr>
<td>(isteri) (Sanskrit strī 'woman; wife; female')</td>
<td>yaya</td>
<td>ngyaya</td>
<td>ngyaya / mama</td>
<td>mama (NOT NYAYA)</td>
<td>‘mmm.me (final e is schwa)</td>
</tr>
<tr>
<td>mother (ibu)</td>
<td>baba</td>
<td>baba</td>
<td>baba</td>
<td>baba</td>
<td>‘uu.e (final e is schwa)</td>
</tr>
<tr>
<td>father (bapak)</td>
<td>uma</td>
<td>uma</td>
<td>uma</td>
<td>uma</td>
<td>'ru.ma</td>
</tr>
<tr>
<td>house (rumah)</td>
<td>sahosa</td>
<td>sanapet</td>
<td>sahosa / sanahosa*</td>
<td>sangapetu daki ('tutup’ ID)</td>
<td>‘do.da</td>
</tr>
<tr>
<td>thatch/roof (atap)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
*(came from same person. The other person did not notice sanahosa as being wrong but then said it was incorrect when I repeated it back. He also said sahosa and sa'ahosa are same.)*

**sanapet** (after sewed together and ready for use)

<table>
<thead>
<tr>
<th>English</th>
<th>Facei Tribe in K. Sama, Sanana Island</th>
<th>Falahu Tribe in K. Wailau, Sanana Island</th>
<th>Fagudu Tribe in K. Umaloya, Sanana Island</th>
<th>Mangon Tribe in K. Waitina, Mangon Island</th>
<th>Ethnic Bajo settlement on Sanana Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>63 name (nama)</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>nga</td>
<td>‘a.rang ‘a.ra.nu ‘sa.i ‘what’s your name’</td>
</tr>
<tr>
<td>(Sanskrit nāma</td>
<td>(nāman) ‘name’)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64 to say (berkata)</td>
<td>soya</td>
<td>bisnoya</td>
<td>bisnoya</td>
<td>beti (berkata)</td>
<td>su’su.rang (pisnoya only Sanana)</td>
</tr>
<tr>
<td>65 rope (tali)</td>
<td>meu</td>
<td>meu (no glottal stop here)</td>
<td>me’u</td>
<td>meu</td>
<td>‘ta.li</td>
</tr>
<tr>
<td>66 to tie up, fasten (mengikat)</td>
<td>be’u</td>
<td>beu (no glottal stop here)</td>
<td>beu (/beu/ is Falahu)</td>
<td>beu</td>
<td>‘ning.ka</td>
</tr>
<tr>
<td>67 to sew (menjahit)</td>
<td>bisnau</td>
<td>bisnau</td>
<td>bisnau (/bisnau/ becomes [pisnau] in [a-pisnau moy])</td>
<td>doi (‘tusuk’ ID)</td>
<td>nga’ra.e</td>
</tr>
<tr>
<td>68 needle (jarum)</td>
<td>samoha [sa.mo.ha]</td>
<td>samoha [sa.mo.ha]</td>
<td>samoha [sa.mo.ha]</td>
<td>samo (long o) ‘ja.rum</td>
<td></td>
</tr>
<tr>
<td>69 to hunt (berburu)</td>
<td>laka soi*</td>
<td>dol as**</td>
<td>yotu</td>
<td>ber’bu.ru</td>
<td></td>
</tr>
<tr>
<td>(menémbak)</td>
<td>banap**</td>
<td>banapi</td>
<td>‘nim.ba</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*I was told there is no one word but many specific words depending on type of hunting. But then they started using /yota/ as the general word in conversation to explain that.

**(lit. ‘bring dog’), lui fo’ok, ([a] becomes [o] because unstressed penultimate syllable?), haiwan pakiaki, (/yota/ also accepted but nobody produced it)**
<table>
<thead>
<tr>
<th>English</th>
<th>Facei Tribe in K. Sama, Sanana Island</th>
<th>Falahu Tribe in K. Wailau, Sanana Island</th>
<th>Fagudu Tribe in K. Umaloya, Sanana Island</th>
<th>Mangon Tribe in K. Waitina, Mangon Island</th>
<th>Ethnic Bajo settlement on Sanana Island</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>spear</strong> /per/, 'verb for spear' /bona/, 'snare' /dudes/, 'no special verb for snare', 'bow' /jub/, 'verb for bow' /pana/, 'machetti' /peda/, 'no special verb for machetti', 'gun' /senapang/, 'verb for gun' /banap/ <strong>(with 'senjata' ID)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>awa aliali a-pit do haiwan ('saya ambil kartafel terus saya tembak dengan burung') banap (with a gun)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>70 to shoot</strong> (memanah) (To shoot with bow)</td>
<td>jub</td>
<td>pana (bow) / jub</td>
<td>jubi</td>
<td>'ma.na</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>banap (with a gun)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>71 to stab, pierce</strong> (menikam)</td>
<td>sak</td>
<td>pana (do jub)</td>
<td>sak (/duf til/ or /til duf/ 'pierce ear')</td>
<td>saku</td>
<td>'ngi.a</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(spearing e.g. fish)</td>
<td></td>
</tr>
<tr>
<td><strong>71 to stab, pierce</strong> (menusuk)</td>
<td>sak</td>
<td>sak (/duf talina/ 'pierce ear')</td>
<td>doi (e.g. fish)</td>
<td>'nub.ba (e.g. stab one with knife)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>bau tufi talinga 'pierce ear' ('bau tuf til' Fagudu)</td>
<td>'nga.jo (</td>
<td></td>
</tr>
<tr>
<td><strong>72 to hit</strong> (memukul)</td>
<td>moma (hit with stick)</td>
<td>dota</td>
<td>moma / dota</td>
<td>dotu</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>72 to hit</strong> (memalu) (to hit (with a hammer))</td>
<td>befa</td>
<td>to (with hammer)</td>
<td>palu</td>
<td>'ma.lu</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>73 to steal</strong> (mencuri)</td>
<td>bilnaka</td>
<td>bilnaka</td>
<td>bilnaka</td>
<td>binaka</td>
<td>'nan.kau</td>
</tr>
<tr>
<td><strong>74 to kill</strong> (membunuh)</td>
<td>bau mata</td>
<td>bau mata</td>
<td>bau mata</td>
<td>bau mata</td>
<td>'mo.no</td>
</tr>
<tr>
<td><strong>75 to die, be dead</strong> (mati)</td>
<td>mata</td>
<td>mata</td>
<td>mata</td>
<td>mata</td>
<td>'ma.ti</td>
</tr>
<tr>
<td><strong>76 to live, be alive</strong> (hidup)</td>
<td>pia</td>
<td>pia</td>
<td>pia</td>
<td>pia</td>
<td>'u.lung</td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------</td>
<td>------------------------------------------</td>
<td>-------------------------------------------</td>
<td>------------------------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td><strong>77 to scratch</strong> (menggaruk) (to scratch (an itch))</td>
<td>gada</td>
<td>sakeu</td>
<td>sakeu (reduced to [skeu] in conversation)</td>
<td>sakeu</td>
<td>nga’ka.yao</td>
</tr>
<tr>
<td><strong>77 to scratch</strong> (mencakar) (to scratch (for the purpose of hurting))</td>
<td>gahu</td>
<td>gawai (NOT /gama/)</td>
<td>gawai /gama (also ‘gawai’ Fagudu)</td>
<td>ngu.’ra.o</td>
<td></td>
</tr>
<tr>
<td><strong>78 to cut, hack</strong> (memotong) (cut)</td>
<td>det</td>
<td>det</td>
<td>det (/det kau/ chop down tree)</td>
<td>deti</td>
<td>‘ngit.ta</td>
</tr>
<tr>
<td><strong>78 to cut, hack</strong> (menetak) (hack)</td>
<td>daneta</td>
<td>sis (/to/ is pounding, not chipping away at)</td>
<td>no specific word given</td>
<td>bama</td>
<td>‘ngit.ta</td>
</tr>
<tr>
<td><strong>79 stick/wood</strong> (kayu)</td>
<td>kau</td>
<td>kau (wood) /katanup (/tonka/ is a walking stick — ID loanword)</td>
<td>kau (wood) (‘tonka' ID) sana 'branch'</td>
<td>kau (wood) /tonka (stick)</td>
<td>‘ka.yu</td>
</tr>
<tr>
<td><strong>80 to split</strong> (membelah)</td>
<td>makariu</td>
<td>bama</td>
<td>bama</td>
<td>bama</td>
<td>‘mi.la</td>
</tr>
<tr>
<td><strong>81 sharp</strong> (tajam)</td>
<td>mana</td>
<td>mana</td>
<td>mana</td>
<td>manga</td>
<td>‘ta.rang</td>
</tr>
<tr>
<td><strong>82 dull, blunt</strong> (tumpul)</td>
<td>mahoka</td>
<td>mahoka</td>
<td>moka</td>
<td>bapompu</td>
<td>‘tom.pol</td>
</tr>
<tr>
<td><strong>83 to work</strong> (bekerja)</td>
<td>bau munara</td>
<td>bau munara</td>
<td>bau munara</td>
<td>bau munara</td>
<td>‘ngan.ja.ma</td>
</tr>
<tr>
<td><strong>84 to plant</strong> (menanam)</td>
<td>basel</td>
<td>basel</td>
<td>basel</td>
<td>batani</td>
<td>‘na.nang</td>
</tr>
<tr>
<td><strong>85 to choose</strong> (memilih)</td>
<td>bis loi</td>
<td>lika</td>
<td>lika</td>
<td>lika</td>
<td>‘mi.si</td>
</tr>
<tr>
<td><strong>86 to grow</strong> (tumbuh)</td>
<td>dog</td>
<td>dog*</td>
<td>dog**</td>
<td>dogi (grow)</td>
<td>‘tim.bo</td>
</tr>
<tr>
<td><em>(they tell me /batutu/ same meaning but only Mangon)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------</td>
<td>----------------------------------------</td>
<td>----------------------------------------</td>
<td>----------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td><strong>(this seems more general than the others), sak kau bo hai (plant like planting a flag), batut (e.g. /kasbi/ or /bira/ plant the way you plant rice or casava)</strong></td>
<td>mafai</td>
<td>mafai</td>
<td>mafai</td>
<td>mamfai</td>
<td>'ba.ha</td>
</tr>
<tr>
<td><strong>87 to swell (membengkak)</strong></td>
<td>mafai</td>
<td>mafai</td>
<td>mafai</td>
<td>mamfai</td>
<td>'ba.ha</td>
</tr>
<tr>
<td><strong>88 to squeeze (memeras)</strong></td>
<td>am</td>
<td>am</td>
<td>am</td>
<td>gami*</td>
<td>'pir.ra</td>
</tr>
<tr>
<td><em>(hold in hands), sangati (hold under the arm against side), sakafi (hold under the arm against side /binkaf/ Fagudu), sa'ka.fi (e.g. baby)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>89 to hold (menggenggam)</strong></td>
<td>kaf</td>
<td>kaf*</td>
<td>hakkot</td>
<td>manakem</td>
<td>'gen.do (hold baby) 'ng.ke (hold not baby)</td>
</tr>
<tr>
<td><em>(like holding baby) / ‘gendong’ (ID loan like holding baby)/ manakem (like grasping another’s arm with your hand)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>90 to dig (menggali)</strong></td>
<td>gahu</td>
<td>geka (like with shovel) / gahu (scratch, or to dig in a ‘scratching’ way with the hand)</td>
<td>geka (dig with shovel)</td>
<td>gahu (dig with hand)</td>
<td>'nga.li 'ke.he ('lubang’ ID)</td>
</tr>
<tr>
<td><strong>91 to buy (membeli)</strong></td>
<td>baha</td>
<td>baha</td>
<td>baha</td>
<td>ba</td>
<td>'mil.li</td>
</tr>
<tr>
<td><strong>92 to open, uncover (membuka)</strong></td>
<td>hoi</td>
<td>if*/ hoi**</td>
<td>hoi</td>
<td>gifu</td>
<td>'mu.ka</td>
</tr>
<tr>
<td>*(said with initial glottal but there is no phonemic contrast) *<em>(pronounced same as ‘bone’)</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>93 to pound, beat (memukul) (to beat, hit, strike [bell, drum, dog, etc.])</strong></td>
<td>moma</td>
<td>dota / mana</td>
<td>moma</td>
<td>dotu</td>
<td>'nyan.ta</td>
</tr>
<tr>
<td>tota / mana</td>
<td>manga</td>
<td>fau</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------</td>
<td>----------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td><strong>93 to pound, beat</strong> (menumbuk) (to pound [e.g. to unhusk rice])</td>
<td>tut</td>
<td>tut bira (/batutu/ only in Mangon they tell me)</td>
<td>(ba)tut (bira) THEY SAY /batutu/ means 'oba' ID</td>
<td>dotu pamasi (/pamasi/ 'rice')</td>
<td>'nu.to lu'so ('lesung' ID)</td>
</tr>
<tr>
<td><strong>94 to throw</strong> (melémparkan)</td>
<td>behi</td>
<td>behi</td>
<td>behi</td>
<td>be</td>
<td>'ngam.be.le</td>
</tr>
<tr>
<td><strong>95 to fall</strong> (jatuh)</td>
<td>bua</td>
<td>bua</td>
<td>bua</td>
<td>bua</td>
<td>'ca.pa</td>
</tr>
<tr>
<td><strong>96 dog</strong> (anjing)</td>
<td>as</td>
<td>as</td>
<td>as</td>
<td>fa'ko (long /o/)</td>
<td>'a.su</td>
</tr>
<tr>
<td><strong>97 bird</strong> (burung)</td>
<td>haiwan</td>
<td>haiwan kao **</td>
<td>manu kaupetu manu pandu (chicken)</td>
<td>ma'ma.no</td>
<td>*(mankaogoga / haiwan also understood) Great examples of part-to-whole generalisation w/ animal &amp; bird *<em>(no general word for bird) /haiwan/ 'animal' (or else specific bird names generally used. but when pressed for it, they gave me: /haiwankaugoga/)</em></td>
</tr>
<tr>
<td><strong>98 egg</strong> (telur)</td>
<td>mantel</td>
<td>mantel</td>
<td>mantel</td>
<td>man(u)telu</td>
<td>an’ti.lo</td>
</tr>
<tr>
<td><strong>99 feather</strong> (bulu)</td>
<td>haiwan foa</td>
<td>foa</td>
<td>foa</td>
<td>man(u)fo</td>
<td>'bu.lu</td>
</tr>
<tr>
<td><strong>100 wing</strong> (sayap)</td>
<td>pan</td>
<td>soba*</td>
<td>soba (Facei: /pan/)</td>
<td>man pani</td>
<td>‘ka.pe</td>
</tr>
<tr>
<td></td>
<td>*FALAHU (mpani FAGUDU &amp; FACEI / pani MANGON)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>101 to fly</strong> (terbang)</td>
<td>la</td>
<td>la</td>
<td>la</td>
<td>la</td>
<td>'lu.me.a</td>
</tr>
<tr>
<td><strong>102 rat</strong> (tikus)</td>
<td>safa</td>
<td>sahafa</td>
<td>/sa'aфа/ (young one said /safa/)</td>
<td>fafa</td>
<td>'ti.kus</td>
</tr>
<tr>
<td><strong>103 meat/flesh</strong> (daging)</td>
<td>(haiwan)</td>
<td>ihi*</td>
<td>ihi</td>
<td>nisi</td>
<td>‘da.ging</td>
</tr>
<tr>
<td></td>
<td>ihi</td>
<td><em>(did not produce it, but tell me it is the correct one when I ask)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>104 fat/grease</strong> (lemak)</td>
<td>gaji</td>
<td>gajigat</td>
<td>gaji</td>
<td>'mi.na</td>
<td></td>
</tr>
<tr>
<td><strong>105 tail</strong> (ékor)</td>
<td>boya</td>
<td>boya</td>
<td>boya</td>
<td>mboyu</td>
<td>'eng.ko</td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td><strong>106 snake</strong> <em>(ular)</em></td>
<td>tui</td>
<td>tui</td>
<td>tui</td>
<td>tui</td>
<td>peng’a.hang</td>
</tr>
<tr>
<td><strong>107 worm</strong> <em>(earthworm)</em> <em>(cacing)</em></td>
<td>makodn (speaker produced post-nasal, likely non-phonemic)</td>
<td>makaor / ul (small one) (Falahu: makaor)</td>
<td>mankawai / 'ca.cing</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>108 louse</strong> <em>(kutu)</em></td>
<td>kota</td>
<td>kota</td>
<td>kota</td>
<td>kotu</td>
<td>'ku.tu</td>
</tr>
<tr>
<td><strong>109 mosquito</strong> <em>(nyamuk)</em></td>
<td>kafin</td>
<td>samab (Facei &amp; Fagudu / kafin / they till me)</td>
<td>samab (mosquito) kafin (butterfly)</td>
<td>kafini / 'la.ming.nga</td>
<td></td>
</tr>
<tr>
<td><strong>110 spider</strong> <em>(laba-laba)</em></td>
<td>lawa</td>
<td>lawa</td>
<td>lawa</td>
<td>lawa / am'bom.bo</td>
<td></td>
</tr>
<tr>
<td><strong>111 fish</strong> <em>(ikan)</em></td>
<td>kena</td>
<td>kena</td>
<td>kena</td>
<td>kena / 'da.ya</td>
<td></td>
</tr>
<tr>
<td><strong>112 rotten</strong> <em>(busuk)</em></td>
<td>basa</td>
<td>basa (condition of being rotten) / suba (smell)</td>
<td>suba</td>
<td>basa / 'bun.tu</td>
<td></td>
</tr>
<tr>
<td><strong>113 branch</strong> <em>(dahan)</em></td>
<td>(kau) sana</td>
<td>(kau) sana ('dahan' ID)</td>
<td>sana</td>
<td>nchanga / 'e.ngas</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>daet ('ribun' ID)</td>
<td></td>
<td>badaeti / 'barumput' (ID)</td>
<td></td>
</tr>
<tr>
<td><strong>114 leaf</strong> <em>(daun)</em></td>
<td>hosa</td>
<td>(kau) hosa ('daun' ID)</td>
<td>nlosa</td>
<td>daun</td>
<td></td>
</tr>
<tr>
<td><strong>115 root</strong> <em>(akar)</em></td>
<td>(kau) waka</td>
<td>(kau) waka (kau) waka</td>
<td>nlosa / daun</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>116 flower</strong> <em>(bunga)</em></td>
<td>bunga</td>
<td>kau hal</td>
<td>bunga*</td>
<td>bunga</td>
<td></td>
</tr>
</tbody>
</table>

*ALSO: (kau) bahal (but only after I prompted about /kau hal/ from Falahu)
<table>
<thead>
<tr>
<th>English</th>
<th>Facei Tribe in K. Sama, Sanana Island</th>
<th>Falahu Tribe in K. Wailau, Sanana Island</th>
<th>Fagudu Tribe in K. Umaloya, Sanana Island</th>
<th>Mangon Tribe in K. Waitina, Mangon Island</th>
<th>Ethnic Bajo settlement on Sanana Island</th>
</tr>
</thead>
</table>
| **117 fruit (buah-buahan)**  
("fruits (the category, in general)"") | (kau) fua | (kau) fua | (kau) fua | (kau) seli | buah-buahan |
| **117 fruit (buah)**  
(fruit) | (kau) fua | fua | fua | nceli | buah |
| **117 fruit (sebiji buah)**  
("a piece of fruit") | (kau) fua | hia | (kau fua) | fatia | nceli fatu gia  
(kalo / da.kau/ itu satu) |
| **118 grass**  
(rumput) | (kau) hik | kahik (kasafoi is a woven grass mat) | kaik (alive outside) kasafoi (on floor of house) | kiku ‘grass growing outside’ (‘kah ik’ Fagudu)  
engka (on the floor) | ‘sig.ge |
| **119 earth/soil**  
(tanah) | hai | hai | hai | (FALAHU: hai) | ‘ta.na |
| **120 stone**  
(batu) | fat | fatu | fat | fatu | ‘ba.tu |
| **121 sand (pasir)** | kumawai | kum wai | kumwai | ka’mi.a | ‘gu.so |
| **122 water (air)** | wai | wai | wai | wai | ‘bo.i |
| **123 to flow**  
(mengalir) | wai ewa | (wai) ewa | (wai) ewa | (wai) ewa | ‘nyu.ru |
| **124 sea (laut)** | mahi | mahi | mahi | mai | ta’ru.sang |
| **125 salt**  
(garam) | gas | gas | gas | gas | ‘ga.ram |
| **126 lake**  
(danau) | wai duba | tahaga | taga | taga (/ta/ = ‘da.no long a) wai fanin |
| **127 woods/forest**  
(hutan) | kamatua | kamatua (big, on mountain) / fa’ok (reduced to [f-schwa-‘ok] | fa’oki | ‘ro.ma |
| **128 sky**  
(langit) | lan | lan | lan | langi | ‘lang.i |
<table>
<thead>
<tr>
<th>English</th>
<th>Facei Tribe in K. Sama, Sanana Island</th>
<th>Falahu Tribe in K. Wailau, Sanana Island</th>
<th>Fagudu Tribe in K. Umaloya, Sanana Island</th>
<th>Mangon Tribe in K. Waitina, Mangon Island</th>
<th>Ethnic Bajo settlement on Sanana Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>129 moon (bulan)</td>
<td>fasina</td>
<td>fasina</td>
<td>(fa)sina (s is back but not quite “sh”)</td>
<td>fasina</td>
<td>‘bu.lang ma.ta’l.‘lau (‘matahari’ ID)</td>
</tr>
<tr>
<td>130 star (bintang)</td>
<td>fatui</td>
<td>fatui</td>
<td>fatui</td>
<td>fantui</td>
<td>‘bin.tang</td>
</tr>
<tr>
<td>131 cloud (awan)</td>
<td>pangara</td>
<td>fangara</td>
<td>fangara</td>
<td>pangara</td>
<td></td>
</tr>
<tr>
<td>132 fog (kabut)</td>
<td>bafei</td>
<td>laf / mit gab laf</td>
<td>bafei</td>
<td></td>
<td></td>
</tr>
<tr>
<td>133 rain (hujan)</td>
<td>uya</td>
<td>uya</td>
<td>uya</td>
<td>uya</td>
<td>‘u.rang</td>
</tr>
<tr>
<td>134 thunder (guntur)</td>
<td>soa</td>
<td>telapat</td>
<td>so’a</td>
<td>badandu</td>
<td>‘gun.tur</td>
</tr>
<tr>
<td>135 lightning (kilat)</td>
<td>sagila’at</td>
<td>sagila’a’t (not /sagila/ only)</td>
<td>sagila (‘sagila’at Fagudu)</td>
<td>nga’la’la ‘pit.tir (‘pitir’ ID)</td>
<td></td>
</tr>
<tr>
<td>136 wind (angin)</td>
<td>mora (bufa)</td>
<td>mora bufa (‘to blow’ = ’tiup’ ID)</td>
<td>angi (‘mora’ Fagudu)</td>
<td>‘sang.ai ‘lan.do ‘storm wind’ (‘angin kencang’ ID)</td>
<td></td>
</tr>
<tr>
<td>137 to blow (bertiup) (the wind blows)</td>
<td>mora laka bufa</td>
<td>bufa (/mora i bufa/ ’the wind blows’)</td>
<td>boli angi boli ‘the wind blows’</td>
<td></td>
<td>‘ni.u</td>
</tr>
<tr>
<td>137 to blow (meniup) (a person blows (something))</td>
<td>buha bufa</td>
<td>bufa</td>
<td>boli</td>
<td></td>
<td>‘ni.u</td>
</tr>
<tr>
<td>138 warm (panas) (hot)</td>
<td>bahaha (pedas baha)</td>
<td>mota</td>
<td>mota</td>
<td>buba lia buba (‘matahari panas’ ID)</td>
<td>‘pa.nas ‘nga.nga (‘pedas’ ID)</td>
</tr>
<tr>
<td>138 warm (hanat) (warm)</td>
<td>mapana</td>
<td>mapana</td>
<td>bambana (Facei: / mapana/)</td>
<td>bapana</td>
<td>‘ang.at</td>
</tr>
<tr>
<td>139 cold (dingin)</td>
<td>bagoa</td>
<td>bagoa</td>
<td>bagoa (/a/ to [o] or [schwa] when old guy says it)</td>
<td>bago (long o)</td>
<td>ja’rin.ni</td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------------</td>
<td>------------------------------------------</td>
<td>-------------------------------------------</td>
<td>------------------------------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>dry (kering)</td>
<td>saota</td>
<td>saota</td>
<td>saota (becomes [s'ota])</td>
<td>sotu (long o)</td>
<td>‘to.ho</td>
</tr>
<tr>
<td>wet (basah)</td>
<td>meta</td>
<td>meta</td>
<td>meta</td>
<td>meta</td>
<td>‘ba.se</td>
</tr>
<tr>
<td>heavy (berat)</td>
<td>fa'a ta</td>
<td>fa'a ta</td>
<td>fa'a ta</td>
<td>fayata</td>
<td>‘bir.ra</td>
</tr>
<tr>
<td>fire (api)</td>
<td>ap</td>
<td>ap</td>
<td>ap</td>
<td>api</td>
<td>‘a.pi</td>
</tr>
<tr>
<td>to burn (membakar)</td>
<td>dona</td>
<td>dona</td>
<td>(ap) dona</td>
<td>batonu</td>
<td>‘nu.nu</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(general word)</td>
<td>(both ok. ba-is prefix explained in ID at 55 min file 007.wav)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(ap) mota</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(like house on fire)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>yom (nui)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(butning coconut shells like when cooking over them)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>sara tabak (verb describing the slow burning of a cigarette or a mosquito coil. This is not to be confused with /sui/, 'smoking' a cigarette.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>smoke (asap)</td>
<td>apfei</td>
<td>apfei</td>
<td>apfei / fei (also OK)</td>
<td>bafei</td>
<td>‘um.bu</td>
</tr>
<tr>
<td>ash (abu)</td>
<td>hai mai</td>
<td>aftuka</td>
<td>aftuka</td>
<td>aff(u)mai</td>
<td>‘a.bu</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(‘aftuka’ Fagudu)</td>
<td></td>
</tr>
<tr>
<td>black (hitam)</td>
<td>mit</td>
<td>mit</td>
<td>mit</td>
<td>miti</td>
<td>‘lo.hong</td>
</tr>
</tbody>
</table>

561
<table>
<thead>
<tr>
<th>English</th>
<th>Facei Tribe in K. Sama, Sanana Island</th>
<th>Falahu Tribe in K. Wailau, Sanana Island</th>
<th>Fagudu Tribe in K. Umaloya, Sanana Island</th>
<th>Mangon Tribe in K. Waitina, Mangon Island</th>
<th>Ethnic Bajo settlement on Sanana Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>148 white (putih)</td>
<td>bot</td>
<td>bot</td>
<td>bot</td>
<td>bot</td>
<td>‘po.ti</td>
</tr>
<tr>
<td>149 red (mérah)</td>
<td>mia</td>
<td>mia (‘mi’a/ Fagudu &amp; Facei they say)</td>
<td>mi’a (FALAHU: / mia/)</td>
<td>mia</td>
<td>‘mi.ra</td>
</tr>
<tr>
<td>150 yellow (kuning)</td>
<td>kakon</td>
<td>kakon</td>
<td>kakon</td>
<td>mangkuni</td>
<td>‘ku.ne</td>
</tr>
<tr>
<td>151 green (hijau)</td>
<td>babir</td>
<td>bafe (long / e#/ )</td>
<td>babir</td>
<td>babir</td>
<td>nu.lo ’da.ogn</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>bafei (‘abuabu’ ID)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>bairu kaulosa (green leaf = green)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>mai babir</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(‘sea green’ = blue)</td>
<td></td>
</tr>
<tr>
<td>152 small (kecil)</td>
<td>nana</td>
<td>nana</td>
<td>mehi / nana</td>
<td>male (long final /e/? )</td>
<td>di’di.ki</td>
</tr>
<tr>
<td>153 big (besar)</td>
<td>aya</td>
<td>eya (/aya/ Fagudu &amp; Facei they say)</td>
<td>aya</td>
<td>fanini</td>
<td>‘ba.sar</td>
</tr>
<tr>
<td>153 big (raya)</td>
<td>aya</td>
<td>ya eya eya ‘jalan raya’ (look at this</td>
<td>yai eya aya ‘jalan raya’</td>
<td>sanafa fanin / sana fanau (‘jalan raya’</td>
<td>‘la.lam ‘ba.sar (‘jalan raya’ ID)</td>
</tr>
<tr>
<td>(big, but limited</td>
<td></td>
<td>carefully, slightly diff from</td>
<td></td>
<td>ID)</td>
<td></td>
</tr>
<tr>
<td>like Indonesia</td>
<td></td>
<td>Fa&amp;Fac)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>raya, jalan raya</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(boulevard/big</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>road), hari raya</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(holiday/big day),</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>jagat raya (universe), etc</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>154 short (péndék)</td>
<td>yota</td>
<td>yota</td>
<td>yota</td>
<td>togi</td>
<td>pi’pin.da</td>
</tr>
<tr>
<td>155 long (panjang)</td>
<td>nahu</td>
<td>nahu</td>
<td>nahu</td>
<td>nau</td>
<td>‘ta.ha</td>
</tr>
<tr>
<td>156 thin (tipis)</td>
<td>manip</td>
<td>manip</td>
<td>manip</td>
<td>manipi</td>
<td>ni’ni,pis</td>
</tr>
<tr>
<td>157 thick (tebal)</td>
<td>bag</td>
<td>bag</td>
<td>bag</td>
<td>bagu</td>
<td>‘tub.bal</td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------------</td>
<td>-----------------------------------------</td>
<td>-------------------------------------------</td>
<td>-------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>158 narrow (sempit)</td>
<td>dagat</td>
<td>dagat</td>
<td>dagat</td>
<td>dagati</td>
<td>‘pi.pi</td>
</tr>
<tr>
<td>159 wide (lébar)</td>
<td>dalena</td>
<td>dalena / dahafa</td>
<td>aya (THEY DO NOT KNOW / dalena/)</td>
<td>dalena</td>
<td>’bu.ka</td>
</tr>
<tr>
<td>160 painful, sick (sakit)</td>
<td>geka</td>
<td>geka / dagis</td>
<td>geka</td>
<td>geka</td>
<td>‘pid.di</td>
</tr>
<tr>
<td>161 shy, ashamed (malu)</td>
<td>bal</td>
<td>bahal</td>
<td>bahal (DON’T KNOW / bali/)</td>
<td>baali (long a)</td>
<td>‘i.ya</td>
</tr>
<tr>
<td>162 old (tua) (old (for people))</td>
<td>matua</td>
<td>matua</td>
<td>matua</td>
<td>matua</td>
<td>‘to.a</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>‘a.ha ‘to.a ‘parents’</td>
</tr>
<tr>
<td>162 old (lama) (old (for things))</td>
<td>maneu</td>
<td>manen</td>
<td>manan</td>
<td>manau</td>
<td>‘bit.ta</td>
</tr>
<tr>
<td>163 new (baru)</td>
<td>fe’u</td>
<td>feu</td>
<td>feu</td>
<td>feu</td>
<td>ba’bau</td>
</tr>
<tr>
<td>164 good (baik) (for people)</td>
<td>pia</td>
<td>pia</td>
<td>pia</td>
<td>pia</td>
<td>‘a.la</td>
</tr>
<tr>
<td>164 good (bagus) (for things)</td>
<td>bisa</td>
<td>bisa</td>
<td>bisa</td>
<td>birahi / bisa (same range of meaning for both)</td>
<td>ma’la.so</td>
</tr>
<tr>
<td>165 bad, evil (jahat)</td>
<td>kabures</td>
<td>kabares</td>
<td>kabares</td>
<td>kabaresi</td>
<td>‘ra.ha</td>
</tr>
<tr>
<td>166 correct, true (benar)</td>
<td>dahi</td>
<td>dahi</td>
<td>dahi</td>
<td>dahi</td>
<td>ta’ru.a</td>
</tr>
<tr>
<td>167 night (malam)</td>
<td>bauhi</td>
<td>ba’uhi</td>
<td>ba’uhi (NOT: / buhi/)</td>
<td>bedi</td>
<td>‘sa.gnan</td>
</tr>
<tr>
<td>168 day (hari)</td>
<td>bet</td>
<td>bet</td>
<td>bet</td>
<td>betu</td>
<td>‘ill.lau</td>
</tr>
</tbody>
</table>

English Facei Tribe in K. Sama, Sanana Island Falahu Tribe in K. Wailau, Sanana Island Fagudu Tribe in K. Umaloya, Sanana Island Mangon Tribe in K. Waitina, Mangon Island Ethnic Bajo settlement on Sanana Island

NOT FOR CITATION Appendix Manuscript
<table>
<thead>
<tr>
<th>English</th>
<th>Facei Tribe in K. Sama, Sanana Island</th>
<th>Falahu Tribe in K. Wailau, Sanana Island</th>
<th>Fagudu Tribe in K. Umaloya, Sanana Island</th>
<th>Mangon Tribe in K. Waitina, Mangon Island</th>
<th>Ethnic Bajo settlement on Sanana Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>169 year (tahun)</td>
<td>tahun</td>
<td>taun</td>
<td>taun</td>
<td>taun</td>
<td>‘ta.ung</td>
</tr>
<tr>
<td>170 when? (kapan) (Indonesian Only)</td>
<td>bet pila</td>
<td>bet pila</td>
<td>bet pila</td>
<td>bet pila</td>
<td>si’m.e.rang</td>
</tr>
<tr>
<td>170 when? (bila)</td>
<td>bihoa</td>
<td>bet pila</td>
<td>bet pila</td>
<td>bet pila</td>
<td>si’m.e.rang</td>
</tr>
<tr>
<td>171 to hide (bersembunyi)</td>
<td>baifon (hide oneself) / daufon (to hide an item)</td>
<td>baifon (hide oneself) / da’ufon (to hide an item)</td>
<td>balfongi (oneself) / daufongi (item)</td>
<td>‘ta.po (oneself)</td>
<td>‘na.po (item)</td>
</tr>
<tr>
<td>172 to climb (naik) (1. ascend [person on stairs, balloon in air, bubble in water], 2. mount/ride [a horse, carriage, car, train, airplane])</td>
<td>bena</td>
<td>bena (also for transportati on)</td>
<td>bena</td>
<td>bena</td>
<td>du’tai</td>
</tr>
<tr>
<td>172 to climb (memanjat) (to climb [up a tree])</td>
<td>bena (kau)</td>
<td>bena (kau)</td>
<td>bena (kau)</td>
<td>ma’ha.ya</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>172 to climb (mendaki) (to climb [up a slope, a mountain])</td>
<td>bena (lida)</td>
<td>bena (lida)</td>
<td>bena (lida)</td>
<td>du’tai ‘climb’ ‘bul.lu ‘mountain’ du’tai ‘bul.lu ‘climb a mountain’</td>
<td></td>
</tr>
<tr>
<td>173 at (di)</td>
<td>bo</td>
<td>bo</td>
<td>bo</td>
<td>bo</td>
<td>ma</td>
</tr>
<tr>
<td>174 in, inside ([di] dalam)</td>
<td>bo lal</td>
<td>(bo) lal</td>
<td>(bo) lal</td>
<td>bo tuka (NOT lal)</td>
<td>da’a.lang</td>
</tr>
<tr>
<td>175 above ([di] atas)</td>
<td>deha lepa</td>
<td>(la) lepa</td>
<td>lepa</td>
<td>lepa</td>
<td>‘ma.di.a.ta</td>
</tr>
<tr>
<td>176 below (di bawah)</td>
<td>deha ne’u</td>
<td>(lal) neu</td>
<td>ne’u</td>
<td>bulela</td>
<td>ma’di.a</td>
</tr>
<tr>
<td>177 this (ini)</td>
<td>ika</td>
<td>ika</td>
<td>iki</td>
<td>ika</td>
<td>‘i.tu.ne</td>
</tr>
<tr>
<td>178 that (itu)</td>
<td>neka</td>
<td>mana (/ neka/ Fagudu &amp; Facei)</td>
<td>neka</td>
<td>ina (NOT NEKA)</td>
<td>‘i.tu.ko</td>
</tr>
<tr>
<td>179 near (dekat)</td>
<td>bakahan</td>
<td>bakahan</td>
<td>han (NOT: / iku/)</td>
<td>(de)lani</td>
<td>tu’tu.ku</td>
</tr>
<tr>
<td>180 far (jauh)</td>
<td>yau</td>
<td>yau</td>
<td>yau</td>
<td>(de)yau</td>
<td>‘te.u</td>
</tr>
<tr>
<td>181 where? (dimana)</td>
<td>bo soa</td>
<td>sahoa</td>
<td>soa / s-oa (FALAHU: sahoa)</td>
<td>(de)sibo</td>
<td>ma’ai</td>
</tr>
<tr>
<td>182 I (saya) ((formal))</td>
<td>ak</td>
<td>ak (/aku/ reportedly Mangoli)</td>
<td>ak</td>
<td>aku</td>
<td>aku</td>
</tr>
<tr>
<td>182 I (aku) ((informal))</td>
<td>ak</td>
<td>ak</td>
<td>ak</td>
<td>aku</td>
<td>aku</td>
</tr>
<tr>
<td>183 thou (kamu)</td>
<td>kim</td>
<td>N/A (kim/ mon in all of Sula)</td>
<td>mon / kim</td>
<td>mon</td>
<td>‘ka.u</td>
</tr>
<tr>
<td>183 thou (eŋkau)</td>
<td>mon</td>
<td>N/A (kim/ mon in all of Sula)</td>
<td>mon</td>
<td>kim (older person than speaker)</td>
<td>‘ka.u</td>
</tr>
<tr>
<td>184 he/she (beliau) (he/she (respectful))</td>
<td>??maybe</td>
<td>don’t have</td>
<td>mat nana??</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------------</td>
<td>-----------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
<td>----------------------------------------</td>
</tr>
<tr>
<td>184 he/she ([(]dia)</td>
<td>ki’i</td>
<td>i (they say ki’i is Falahu)</td>
<td>ki’i (i/- is agr marker)</td>
<td>ia</td>
<td></td>
</tr>
<tr>
<td>185 we (kita)</td>
<td>kit</td>
<td>kit</td>
<td>kit</td>
<td>kita</td>
<td></td>
</tr>
<tr>
<td>185 we (kami)</td>
<td>kimkim</td>
<td>kam</td>
<td>kami (/kit muamua/ accepted but not produced)</td>
<td>kam</td>
<td>kami</td>
</tr>
<tr>
<td>186 you (kalian) (Indonesian only)</td>
<td>N/A</td>
<td>kim</td>
<td>kim-kim / kim muamua</td>
<td>‘ka.han</td>
<td></td>
</tr>
<tr>
<td>186 you (anda)</td>
<td>mon</td>
<td>mon/kim</td>
<td>mon</td>
<td>mon</td>
<td>‘ka.u</td>
</tr>
<tr>
<td>187 they (meréka)</td>
<td>eb kim</td>
<td>??</td>
<td>??</td>
<td>kim (also /kim/)</td>
<td>‘ka.hang</td>
</tr>
<tr>
<td>188 what? (apa)</td>
<td>hapa</td>
<td>hapa</td>
<td>hapa</td>
<td>hapa</td>
<td>’a.i</td>
</tr>
<tr>
<td>189 who? (siapa)</td>
<td>han (neka)</td>
<td>han</td>
<td>han (neka)</td>
<td>an (NOT HAN)</td>
<td>‘sa.i.ru</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>/ana/ with questions (16 minutes)</td>
<td>‘ai.i.ru</td>
</tr>
<tr>
<td>190 other (lain)</td>
<td>basa</td>
<td>basa</td>
<td>basa</td>
<td>basa</td>
<td>sa’di.ri</td>
</tr>
<tr>
<td>191 all (semua) ([(]&lt;M])</td>
<td>pakiaki</td>
<td>pakaiki / muamua</td>
<td>pakaiki /‘all of us’</td>
<td>muamua (all things</td>
<td>me’mem.mon</td>
</tr>
<tr>
<td>192 and (dan)</td>
<td>do</td>
<td>du (not /do/ here)</td>
<td>do</td>
<td>di (NOT /do/!!)</td>
<td>‘ba.kap</td>
</tr>
<tr>
<td>193 if (kalau)</td>
<td>kalo</td>
<td>she says / kalo/ but uses /kalo/</td>
<td>kalo</td>
<td>kalo</td>
<td>‘ka.pa</td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>---------</td>
<td>--------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>194 how? (bagaimana)</td>
<td>bau goa (/bago(a)/ Fagudu &amp; Facei)</td>
<td>go’a neka (FALAHU: /ganoa/)</td>
<td>baganoki</td>
<td>ba’ting.ge.i.ru</td>
<td></td>
</tr>
<tr>
<td>195 no, not (tidak) ([&amp;&lt;mana?])</td>
<td>moya</td>
<td>~moya</td>
<td>~moya</td>
<td>~moyu</td>
<td>‘ng.gai ‘da.ha (‘don’t’ = ‘jangan’ ID)</td>
</tr>
<tr>
<td>196 to count (menghitung)</td>
<td>rek</td>
<td>rek</td>
<td>rek</td>
<td>reking</td>
<td>nga’re.ke</td>
</tr>
<tr>
<td>197 One (esa) (one’ (only used to express the oneness of God))</td>
<td>hia</td>
<td>hia</td>
<td>hia</td>
<td>gia</td>
<td>da’kau</td>
</tr>
<tr>
<td>198 Two (dua)</td>
<td>gu</td>
<td>gahu</td>
<td>g-u / gau</td>
<td>guu (long u)</td>
<td>‘du.a</td>
</tr>
<tr>
<td>199 Three (tiga)</td>
<td>gatel</td>
<td>gatel</td>
<td>gatel</td>
<td>gatelu</td>
<td>‘tul.lu</td>
</tr>
<tr>
<td>200 Four (empat)</td>
<td>gareha</td>
<td>gareha</td>
<td>gareha</td>
<td>gadia</td>
<td>m’pa</td>
</tr>
<tr>
<td>201 Five (lima)</td>
<td>galima</td>
<td>galima</td>
<td>galima</td>
<td>galima</td>
<td>‘li.ma</td>
</tr>
<tr>
<td>202 Six (enam)</td>
<td>ganei</td>
<td>gane (long / e#/)</td>
<td>gane (long / e#/)</td>
<td>ganei</td>
<td>n’nang</td>
</tr>
<tr>
<td>203 Seven (tujuh)</td>
<td>gapit</td>
<td>gapit</td>
<td>gapit</td>
<td>gapitu</td>
<td>‘pi.tu</td>
</tr>
<tr>
<td>204 Eight (delapan)</td>
<td>gatahua</td>
<td>gatahua</td>
<td>gatua / gat-hua / gatahua</td>
<td>gaatua</td>
<td>‘wa.lu</td>
</tr>
<tr>
<td>205 Nine (sembilan)</td>
<td>gatasia</td>
<td>gatasia</td>
<td>gatasia</td>
<td>gatasia</td>
<td>‘sang.ga</td>
</tr>
<tr>
<td>206 Ten (sepuluh)</td>
<td>poa</td>
<td>poa</td>
<td>poa</td>
<td>po</td>
<td>s(e)’pu.lu</td>
</tr>
<tr>
<td>207 Twenty (dua puluh)</td>
<td>po gu</td>
<td>poagahu*</td>
<td>pogu / poagu’u</td>
<td>pogu**</td>
<td>‘du.am ‘pu.lu</td>
</tr>
<tr>
<td>*NOT THE FOLLOWING HERE: /pogu/, /poagu’u/</td>
<td>**they say it is only one /u/ here, but it still sounds long</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>208 Fifty (lima puluh)</td>
<td>po galima</td>
<td>poagalima*</td>
<td>pogalima</td>
<td>po galima</td>
<td>‘li.mam ‘pu.lu</td>
</tr>
<tr>
<td>*They do not accept /pogalima/ here</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>209 One Hundred (seratus)</td>
<td>ota</td>
<td>ota</td>
<td>saka (NOT / ota/)</td>
<td>da’a.tus</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>Facei Tribe in K. Sama, Sanana Island</td>
<td>Falahu Tribe in K. Wailau, Sanana Island</td>
<td>Fagudu Tribe in K. Umaloya, Sanana Island</td>
<td>Mangon Tribe in K. Waitina, Mangon Island</td>
<td>Ethnic Bajo settlement on Sanana Island</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>210 One Thousand (seribu)</td>
<td>cahia</td>
<td>cahia</td>
<td>cagia</td>
<td>da’sab.bu</td>
<td></td>
</tr>
</tbody>
</table>
**Appendix E. Dialect comparison lists.** Facei tribe settlement on Sanana vs. Facei tribe settlements in mixed dialect region on Mangon.

The following lists are provided in the hopes they might help a future researcher better map Sula’s dialect regions—a task that will be a dissertation unto itself. All lists correspond to recordings archived and freely available (####insert archive location here###).

Comparison of Facei Tribe settlement on Sanana with settlements in mixed dialect region on Mangon. Differences in bold.

(Malay forms: R. Blust, from Echols & Shadily)

<table>
<thead>
<tr>
<th>Term</th>
<th>Facei on Sanana Island</th>
<th>Facei on Mangon Island</th>
<th>notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 hand (tangan):</td>
<td>lima</td>
<td>lima</td>
<td>Orifola session note: lima tapa 'left hand'</td>
</tr>
<tr>
<td>2 left (kiri):</td>
<td>tapa</td>
<td>tapa</td>
<td>Orifola session note: lima kuli 'right hand'</td>
</tr>
<tr>
<td>3 right (kanan):</td>
<td>kul</td>
<td>kuli</td>
<td></td>
</tr>
<tr>
<td>4 leg/foot (kaki):</td>
<td>yai</td>
<td>yai</td>
<td></td>
</tr>
<tr>
<td>5 to walk (berjalan):</td>
<td>laka</td>
<td>laka</td>
<td></td>
</tr>
<tr>
<td>6 road/path (jalan):</td>
<td>ya ea</td>
<td>yai ea</td>
<td></td>
</tr>
<tr>
<td>6 road/path (jalanan):</td>
<td>–</td>
<td>yai ea</td>
<td></td>
</tr>
<tr>
<td>7 to come (datan):</td>
<td>duk</td>
<td>duki</td>
<td></td>
</tr>
<tr>
<td>8 to turn (bélok) (to turn 90 degrees):</td>
<td>lif</td>
<td>lifi</td>
<td>Orifola session note: forms are the same , but Orifola consultant included verbal morphology</td>
</tr>
<tr>
<td>8 to turn (berputar) (to turn completely, 180 degrees):</td>
<td>putar</td>
<td>baputar</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>Sula</td>
<td>Manuscript</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>9 to swim (berenang):</td>
<td><em>nan</em></td>
<td><em>nanu</em></td>
<td></td>
</tr>
<tr>
<td>10 dirty (kotor):</td>
<td><em>bakatai</em></td>
<td><em>bakatai</em></td>
<td></td>
</tr>
<tr>
<td>11 dust (debu) (?):</td>
<td><em>hai mai</em></td>
<td><em>hai mai</em></td>
<td></td>
</tr>
<tr>
<td>12 skin (kulit):</td>
<td><em>kol</em></td>
<td><em>kol</em></td>
<td></td>
</tr>
<tr>
<td>13 back (punggung):</td>
<td><em>ded pon</em></td>
<td><em>bahu / sanapahu</em></td>
<td></td>
</tr>
<tr>
<td>14 belly (perut):</td>
<td><em>tena</em></td>
<td><em>tena kau</em></td>
<td></td>
</tr>
<tr>
<td>15 bone (tulang):</td>
<td><em>ho'i</em></td>
<td><em>ho'i</em></td>
<td></td>
</tr>
<tr>
<td>16 intestines (usus):</td>
<td><em>tuka pon</em></td>
<td><em>tuka</em></td>
<td></td>
</tr>
<tr>
<td>17 liver (hati):</td>
<td><em>behifon</em></td>
<td><em>kila</em></td>
<td></td>
</tr>
<tr>
<td>18 breast (susu) (1. woman's breasts, 2. milk [more often the latter, although originally it meant the former]):</td>
<td><em>sosa</em></td>
<td><em>susu / sosaxe</em></td>
<td></td>
</tr>
<tr>
<td>18 breast (dada) (&quot;breast, chest&quot; - not gender-specific):</td>
<td><em>bokatan</em></td>
<td><em>behi (tan)</em></td>
<td></td>
</tr>
<tr>
<td>19 shoulder (bahu):</td>
<td><em>sanapau</em></td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>20 to know, be knowledgeable (tahu):</td>
<td><em>nau</em></td>
<td><em>nau</em></td>
<td></td>
</tr>
<tr>
<td>21 to think (berfikir):</td>
<td><em>bapikir</em></td>
<td><em>bapikir</em></td>
<td></td>
</tr>
<tr>
<td>22 to fear (takut):</td>
<td><em>kag</em></td>
<td><em>kagi</em></td>
<td></td>
</tr>
<tr>
<td>23 blood (darah):</td>
<td><em>poa</em></td>
<td><em>poa</em></td>
<td></td>
</tr>
<tr>
<td>24 head (kepala) (Skt kapala 'skull'):</td>
<td><em>nap</em></td>
<td><em>napu</em></td>
<td></td>
</tr>
<tr>
<td>25 neck (léhér):</td>
<td><em>ek</em></td>
<td><em>eki</em></td>
<td></td>
</tr>
</tbody>
</table>

Orifola session note: consultant says it is hoi in Sanana. Likely borrowed from Mangon neighbors where the glottal is present and possibly even phonemic.

Sama session note: accepted, but had to be prompted.

Orifola session note: susu 'milk' / sosaxe 'woman's breast'

Sama session note: e.g. nap foka / nap fat.
<table>
<thead>
<tr>
<th>Appendix</th>
<th>Manuscript</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 hair (rambut):</td>
<td>nap foa</td>
</tr>
<tr>
<td>27 nose (hidung):</td>
<td>ne'i</td>
</tr>
<tr>
<td>28 to breathe (bernapas):</td>
<td>wama</td>
</tr>
<tr>
<td>29 to sniff, smell (mencium) (&quot;to kiss&quot;):</td>
<td>sayang</td>
</tr>
<tr>
<td>29 to sniff, smell (menghiru):</td>
<td>etwama</td>
</tr>
<tr>
<td>30 mouth (mulut):</td>
<td>bayon</td>
</tr>
<tr>
<td>31 tooth (gigi):</td>
<td>nihi</td>
</tr>
<tr>
<td>32 tongue (lidah) (metathesis):</td>
<td>mak</td>
</tr>
<tr>
<td>33 to laugh (tertawa):</td>
<td>balela</td>
</tr>
<tr>
<td>34 to cry (menangis):</td>
<td>mena</td>
</tr>
<tr>
<td>35 to vomit (muntah):</td>
<td>lua</td>
</tr>
<tr>
<td>36 to spit (meludah):</td>
<td>buakeu</td>
</tr>
<tr>
<td>37 to eat (makan):</td>
<td>gaya</td>
</tr>
<tr>
<td>38 to chew (mengunyah):</td>
<td>samam</td>
</tr>
<tr>
<td>39 to cook (memasak):</td>
<td>bamap</td>
</tr>
<tr>
<td>39 to cook (menanak) (to cook (rice only)):</td>
<td>bamap bira</td>
</tr>
<tr>
<td>Orifola session note: haku bira 'cook rice'</td>
<td></td>
</tr>
<tr>
<td>40 to drink (minum):</td>
<td>win</td>
</tr>
<tr>
<td>Orifola session note: win wai 'drink water'</td>
<td></td>
</tr>
<tr>
<td>41 to bite (gigit):</td>
<td>uka</td>
</tr>
<tr>
<td>Orifola session note: (both uka nihi 'bite meat' and uka temaha 'bite a friend')</td>
<td></td>
</tr>
<tr>
<td>42 to suck (mengisap):</td>
<td>bosa</td>
</tr>
<tr>
<td>43 ear (telinga):</td>
<td>til</td>
</tr>
<tr>
<td>Sama session note: also til hosa</td>
<td></td>
</tr>
<tr>
<td>Sula</td>
<td>Manuscript</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
</tr>
<tr>
<td>44 to hear (mendengar):</td>
<td>baked</td>
</tr>
<tr>
<td>45 eye (mata):</td>
<td>hama</td>
</tr>
<tr>
<td>46 to see (melihat):</td>
<td>yana</td>
</tr>
<tr>
<td>47 to yawn (menguap) ([&lt;kuap&gt;]):</td>
<td>bakafa</td>
</tr>
<tr>
<td>48 to sleep (tidur):</td>
<td>nona</td>
</tr>
<tr>
<td>49 to lie down (berbaring):</td>
<td>nona bol</td>
</tr>
<tr>
<td>50 to dream (bermimpì):</td>
<td>baragana</td>
</tr>
<tr>
<td>51 to sit (duduki):</td>
<td>nib</td>
</tr>
<tr>
<td>52 to stand (berdiri):</td>
<td>gehi</td>
</tr>
<tr>
<td>53 person/human being (orang):</td>
<td>matapia</td>
</tr>
<tr>
<td>54 man/male (laki-laki):</td>
<td>ma'ana</td>
</tr>
<tr>
<td>55 woman/female (perempuan):</td>
<td>fina</td>
</tr>
<tr>
<td>56 child (anak):</td>
<td>ana mehi</td>
</tr>
<tr>
<td>57 husband (suami):</td>
<td>tua</td>
</tr>
<tr>
<td>58 wife (isteri) (Sanskrit strī 'woman; wife; female'):</td>
<td>fata</td>
</tr>
<tr>
<td>59 mother (ibu):</td>
<td>yaya</td>
</tr>
<tr>
<td>60 father (bapak):</td>
<td>baba</td>
</tr>
<tr>
<td>61 house (rumah):</td>
<td>uma</td>
</tr>
<tr>
<td>62 thatch/roof (atap):</td>
<td>sahosa</td>
</tr>
<tr>
<td>63 name (nama) (Sanskrit nāma (nāman) 'name'):</td>
<td>na</td>
</tr>
<tr>
<td>64 to say (berkata):</td>
<td>soya</td>
</tr>
<tr>
<td>65 rope (tali):</td>
<td>meu</td>
</tr>
<tr>
<td>Number</td>
<td>Action</td>
</tr>
<tr>
<td>--------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>66</td>
<td>to tie up, fasten (mengikat)</td>
</tr>
<tr>
<td>67</td>
<td>to sew (menjahit)</td>
</tr>
<tr>
<td>68</td>
<td>needle (jarum)</td>
</tr>
<tr>
<td>69</td>
<td>to hunt (berburu)</td>
</tr>
<tr>
<td>70</td>
<td>to shoot (menémbak)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>to shoot (memanah) (To shoot with bow)</td>
</tr>
</tbody>
</table>
| 71     | to stab, pierce (menikam)     | *sak*      | *saku*     | Orifola session note: sak tuf tilu 'pierce ear'
<p>| 71     | to stab, pierce (menusuk)     | <em>sak</em>      | <em>saku</em>     |                                            |
| 72     | to hit (memukul)              | <em>moma</em>     | <em>dota</em>     | Sama session note: (as in hitting with stick) |
| 72     | to hit (memalu) (to hit (with a hammer)) | <em>befa</em>    | <em>dota</em>     |                                            |
| 73     | to steal (mencuri)            | <em>bilnaka</em>  | <em>bilnaka</em>  |                                            |
| 74     | to kill (membunuh)            | <em>bau mata</em> | <em>bau mata</em> |                                            |
| 75     | to die, be dead (mati)        | <em>mata</em>     | <em>mata</em>     |                                            |
| 76     | to live, be alive (hidup)     | <em>pia</em>      | <em>pia</em>      |                                            |
| 77     | to scratch (menggaruk) (to scratch (an itch)) | <em>gada</em>     | <em>sakeu</em>    |                                            |
| 77     | to scratch (mencakar) (to scratch (for the purpose of hurting)) | <em>gahu</em> | <em>gama</em> |                                            |
| 78     | to cut, hack (memotong) (cut) | <em>det</em>      | <em>deti</em>     |                                            |
| 78     | to cut, hack (menetak) (hack) | <em>daneta</em>   | <em>to</em>       |                                            |</p>
<table>
<thead>
<tr>
<th>Sula</th>
<th>Manuscript</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>79</strong> stick/wood (kayu):</td>
<td><em>kau</em></td>
</tr>
<tr>
<td><strong>80</strong> to split (membelah):</td>
<td><em>makariu</em></td>
</tr>
<tr>
<td><strong>81</strong> sharp (tajam):</td>
<td><em>mana</em></td>
</tr>
<tr>
<td><strong>82</strong> dull, blunt (tumpul):</td>
<td><em>mahoka</em></td>
</tr>
<tr>
<td><strong>83</strong> to work (bekerja):</td>
<td><em>bau munara</em></td>
</tr>
<tr>
<td><strong>84</strong> to plant (menanam):</td>
<td><em>basel</em></td>
</tr>
<tr>
<td><strong>85</strong> to choose (memilih):</td>
<td><em>bis loi</em></td>
</tr>
<tr>
<td><strong>86</strong> to grow (tumbuh):</td>
<td><em>dog</em></td>
</tr>
<tr>
<td><strong>87</strong> to swell (membengkak):</td>
<td><em>mafai</em></td>
</tr>
<tr>
<td><strong>88</strong> to squeeze (memeras):</td>
<td><em>am</em></td>
</tr>
<tr>
<td><strong>89</strong> to hold (menggenggam):</td>
<td><em>kaf</em></td>
</tr>
<tr>
<td><strong>90</strong> to dig (menggali):</td>
<td><em>gahu</em></td>
</tr>
<tr>
<td><strong>91</strong> to buy (membeli):</td>
<td><em>baha</em></td>
</tr>
<tr>
<td><strong>92</strong> to open, uncover (membuka):</td>
<td><em>hoi</em></td>
</tr>
<tr>
<td><strong>93</strong> to pound, beat (memukul) (to beat, hit, strike [bell, drum, dog, etc.]):</td>
<td><em>moma</em></td>
</tr>
<tr>
<td><strong>93</strong> to pound, beat (menumbuk) (to pound [e.g. to unhusk rice]):</td>
<td><em>tut</em></td>
</tr>
<tr>
<td><strong>94</strong> to throw (melémparkan):</td>
<td><em>behi</em></td>
</tr>
<tr>
<td><strong>95</strong> to fall (jatuh):</td>
<td><em>bua</em></td>
</tr>
</tbody>
</table>

Orifola session note: kau 'wood' / tonka 'stick'

Orifola session note: (one person present says maufai)

Wai U session note: batutu bira 'pound rice'
<table>
<thead>
<tr>
<th>Appendix</th>
<th>Manuscript</th>
</tr>
</thead>
<tbody>
<tr>
<td>96 dog (anjing): <strong>as</strong></td>
<td><strong>asu</strong></td>
</tr>
<tr>
<td>97 bird (burung): <strong>haiwan</strong></td>
<td><strong>haiwan</strong></td>
</tr>
<tr>
<td>98 egg (telur): <strong>mantel</strong></td>
<td><strong>mantel</strong></td>
</tr>
<tr>
<td>99 feather (bulu): <strong>haiwan foa</strong></td>
<td><strong>man foa</strong></td>
</tr>
<tr>
<td>100 wing (sayap): <strong>pan</strong></td>
<td><strong>mpani / pani</strong></td>
</tr>
<tr>
<td>101 to fly (terbang): <strong>la</strong></td>
<td><strong>la</strong></td>
</tr>
<tr>
<td>102 rat (tikus): <strong>safa</strong></td>
<td><strong>safa</strong></td>
</tr>
<tr>
<td>103 meat/flesh (daging): <strong>ihi</strong></td>
<td><strong>ihi</strong></td>
</tr>
<tr>
<td>104 fat/grease (lemak): —</td>
<td><strong>lemak</strong></td>
</tr>
<tr>
<td>105 tail (ékor): <strong>boya</strong></td>
<td><strong>boya</strong></td>
</tr>
<tr>
<td>106 snake (ular): <strong>tui</strong></td>
<td><strong>tui</strong></td>
</tr>
<tr>
<td>107 worm (earthworm) (cacing): <strong>makodn</strong></td>
<td><strong>uli</strong></td>
</tr>
<tr>
<td>108 louse (kutu): <strong>kota</strong></td>
<td><strong>kota</strong></td>
</tr>
<tr>
<td>109 mosquito (nyamuk): <strong>kafin</strong></td>
<td><strong>kafin</strong></td>
</tr>
<tr>
<td>110 spider (laba-laba): <strong>lawa</strong></td>
<td><strong>lawa</strong></td>
</tr>
<tr>
<td>111 fish (ikan): <strong>kena</strong></td>
<td><strong>kena</strong></td>
</tr>
<tr>
<td>112 rotten (busuk): <strong>basa</strong></td>
<td><strong>suba</strong></td>
</tr>
<tr>
<td>113 branch (dahan): <strong>sana</strong></td>
<td><strong>daeti</strong></td>
</tr>
<tr>
<td>114 leaf (daun): <strong>hosa</strong></td>
<td><strong>hosa</strong></td>
</tr>
<tr>
<td>Sula</td>
<td>Manuscript</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
</tr>
</tbody>
</table>
| 115 root (akar): | waka | waka | Wai U session note: also: kau waka 'tree root'  
Sama session note: also: kau waka 'tree root' |
| 116 flower (bunga): | bunga | bunga | Wai U session note: (consultant uncertain about this form) |
| 117 fruit (buah-buahan) ("fruits (the category, in general)"): | fua | fua | Sama session note: also: kau fua |
| 117 fruit (buah) (fruit): | fua | fua | Sama session note: also: kau fua |
| 117 fruit (sebiji buah) ("a piece of fruit"): | fua hia | — | Sama session note: also: kau fua hia |
| 118 grass (rumput): | hik | kasafoi | Sama session note: also: kau hik |
| 119 earth/soil (tanah): | hai | hai |
| 120 stone (batu): | fat | fatu | Wai U session note: (consultant uncertain about this form) |
| 121 sand (pasir): | kumawai | hai | |
| 122 water (air): | wai | wai | |
| 123 to flow (mengalir): | ewa | ewa | Wai U session note: wai ewa 'flowing water'  
Sama session note: wai ewa 'flowing water' |
<p>| 124 sea (laut): | mahi | mahi |
| 125 salt (garam): | gas | gas |
| 126 lake (danau): | wai duba | wai aya |
| 127 woods/forest (hutan): | kamatua | fa'a oki |
| 128 sky (langit): | lan | lan |
| 129 moon (bulan): | fasina | fasina |
| 130 star (bintang): | fatui | fatui |</p>
<table>
<thead>
<tr>
<th>131 cloud (awan):</th>
<th><strong>pangara</strong></th>
<th><strong>fangara</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>132 fog (kabut):</td>
<td><strong>bafei</strong></td>
<td><strong>mit gab</strong></td>
</tr>
<tr>
<td>133 rain (hujan):</td>
<td><strong>uya</strong></td>
<td><strong>uya</strong></td>
</tr>
<tr>
<td>134 thunder (guntur):</td>
<td><strong>soa</strong></td>
<td><strong>batu</strong></td>
</tr>
<tr>
<td>135 lightning (kilat):</td>
<td><strong>sagila’at</strong></td>
<td><strong>sagila</strong></td>
</tr>
<tr>
<td>136 wind (angin):</td>
<td><strong>mora</strong></td>
<td><strong>buha</strong></td>
</tr>
<tr>
<td>137 to blow (bertiup) (the wind blows):</td>
<td><strong>mora laka</strong></td>
<td><strong>buha</strong></td>
</tr>
<tr>
<td>137 to blow (meniup):</td>
<td><strong>buha</strong></td>
<td><strong>buha</strong></td>
</tr>
<tr>
<td>138 warm (panas) (hot):</td>
<td><strong>bahaha</strong></td>
<td><strong>mota</strong></td>
</tr>
<tr>
<td>138 warm (haŋat) (warm):</td>
<td><strong>mapana</strong></td>
<td>—</td>
</tr>
<tr>
<td>139 cold (dingin):</td>
<td><strong>bagoa</strong></td>
<td><strong>bagoa</strong></td>
</tr>
<tr>
<td>140 dry (kering):</td>
<td><strong>saota</strong></td>
<td><strong>saota</strong></td>
</tr>
<tr>
<td>141 wet (basah):</td>
<td><strong>meta</strong></td>
<td><strong>meta</strong></td>
</tr>
<tr>
<td>142 heavy (berat):</td>
<td><strong>fa'ata</strong></td>
<td><strong>fa'ata</strong></td>
</tr>
<tr>
<td>143 fire (api):</td>
<td><strong>ap</strong></td>
<td><strong>apu</strong></td>
</tr>
<tr>
<td>144 to burn (membakar):</td>
<td><strong>dona</strong></td>
<td><strong>dona</strong></td>
</tr>
<tr>
<td>145 smoke (asap):</td>
<td><strong>apfei</strong></td>
<td><strong>apfe</strong></td>
</tr>
<tr>
<td>146 ash (abu):</td>
<td><strong>hai mai</strong></td>
<td><strong>aftuka</strong></td>
</tr>
<tr>
<td>147 black (hitam):</td>
<td><strong>mit</strong></td>
<td><strong>mit/miti</strong></td>
</tr>
<tr>
<td>148 white (putih):</td>
<td><strong>bot</strong></td>
<td><strong>bot/boti</strong></td>
</tr>
<tr>
<td>149 red (mérah):</td>
<td><strong>mia</strong></td>
<td><strong>mi’a</strong></td>
</tr>
<tr>
<td>150 yellow (kuning):</td>
<td><strong>kakon</strong></td>
<td><strong>kakon</strong></td>
</tr>
<tr>
<td>151 green (hijau):</td>
<td><strong>babir</strong></td>
<td><strong>bafei</strong></td>
</tr>
</tbody>
</table>

Wai U session note: (consultant uncertain about this form)
Sama session note: consultant says pedas is baha
Wai U session note: (ambiguous final vowel. maybe apfei)
Wai U session note: maybe transcribed better as bafeei
<table>
<thead>
<tr>
<th>Page</th>
<th>Sula</th>
<th>Manuscript</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>152</td>
<td>small (kecil):</td>
<td>nana</td>
<td>nana</td>
</tr>
<tr>
<td>153</td>
<td>big (besar):</td>
<td>aya</td>
<td>aya</td>
</tr>
<tr>
<td>153</td>
<td>big (raya):</td>
<td>aya</td>
<td>aya</td>
</tr>
<tr>
<td>154</td>
<td>short (péndék):</td>
<td>yota</td>
<td>yota</td>
</tr>
<tr>
<td>155</td>
<td>long (panjang):</td>
<td>nahu</td>
<td>nahu</td>
</tr>
<tr>
<td>156</td>
<td>thin (tipis):</td>
<td>manip</td>
<td>manipi</td>
</tr>
<tr>
<td>157</td>
<td>thick (tebal):</td>
<td>bag</td>
<td>bagi</td>
</tr>
<tr>
<td>158</td>
<td>narrow (sempit):</td>
<td>dagat</td>
<td>dagati</td>
</tr>
<tr>
<td>159</td>
<td>wide (lébar):</td>
<td>dalena</td>
<td>aya / dalena</td>
</tr>
<tr>
<td>160</td>
<td>painful, sick (sakit):</td>
<td>geka</td>
<td>geka</td>
</tr>
<tr>
<td>161</td>
<td>shy, ashamed (malu):</td>
<td>bal</td>
<td>bali</td>
</tr>
<tr>
<td>162</td>
<td>old (tua) (old (for people)):</td>
<td>matua</td>
<td>matua</td>
</tr>
<tr>
<td>162</td>
<td>old (lama) (old (for things)):</td>
<td>maneu</td>
<td>—</td>
</tr>
<tr>
<td>163</td>
<td>new (baru):</td>
<td>fe'u</td>
<td>feu</td>
</tr>
<tr>
<td>164</td>
<td>good (baik) (for people):</td>
<td>pia</td>
<td>—</td>
</tr>
<tr>
<td>164</td>
<td>good (bagus) (for things):</td>
<td>bisa</td>
<td>bisa</td>
</tr>
<tr>
<td>165</td>
<td>bad, evil (jahat):</td>
<td>kabures</td>
<td>kabares</td>
</tr>
<tr>
<td>166</td>
<td>correct, true (benar):</td>
<td>dahi</td>
<td>dahi</td>
</tr>
<tr>
<td>167</td>
<td>night (malam):</td>
<td>bauhi</td>
<td>buhi</td>
</tr>
<tr>
<td>168</td>
<td>day (hari):</td>
<td>bet</td>
<td>hari</td>
</tr>
<tr>
<td>169</td>
<td>year (tahun):</td>
<td>tahun</td>
<td>taun</td>
</tr>
<tr>
<td></td>
<td>bet pila</td>
<td>bet pila / bet pi</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>----------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td>170 when? (kapan) (Indonesian Only):</td>
<td>bet pila</td>
<td>bet pila / bet pi</td>
<td></td>
</tr>
<tr>
<td>171 to hide (bersembunyi):</td>
<td>baifon</td>
<td>baifon / da'ufon</td>
<td></td>
</tr>
<tr>
<td>Wai U session note: baifon 'to hide oneself' / da'ufon 'to hide an item'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>172 to climb (naik) (1. ascend [person on stairs, balloon in air, bubble in water], 2. mount/ride [a horse, carriage, car, train, airplane]):</td>
<td>bena</td>
<td>bena</td>
<td></td>
</tr>
<tr>
<td>173 at (di):</td>
<td>bo</td>
<td>bo</td>
<td></td>
</tr>
<tr>
<td>174 in, inside ([di] dalam):</td>
<td>bo lal</td>
<td>bo lal</td>
<td></td>
</tr>
<tr>
<td>175 above ([di] atas):</td>
<td>lepa</td>
<td>lepa</td>
<td></td>
</tr>
<tr>
<td>Sama session note: lepa 'exists above'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>176 below (di bawah):</td>
<td>ne'u</td>
<td>ne'u</td>
<td></td>
</tr>
<tr>
<td>Sama session note: ne'u 'exists below'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>177 this (ini):</td>
<td>ik</td>
<td>ik</td>
<td></td>
</tr>
<tr>
<td>178 that (itu):</td>
<td>neka</td>
<td>neka</td>
<td></td>
</tr>
<tr>
<td>179 near (dekat):</td>
<td>bakahan</td>
<td>iku</td>
<td></td>
</tr>
<tr>
<td>180 far (jauh):</td>
<td>yau</td>
<td>yau</td>
<td></td>
</tr>
<tr>
<td>181 where? (dimana):</td>
<td>bo soa</td>
<td>so</td>
<td></td>
</tr>
<tr>
<td>Wai U session note: also offered deha so 'exists where'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sama session note: also offered bo soa 'at where'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>182 I (saya) ((formal)):</td>
<td>ak</td>
<td>aku / ak</td>
<td></td>
</tr>
<tr>
<td>182 I (aku) ((informal)):</td>
<td>ak</td>
<td>aku / ak</td>
<td></td>
</tr>
<tr>
<td>183 thou (kamu):</td>
<td>kim</td>
<td>mon</td>
<td></td>
</tr>
<tr>
<td>Wai U session note: (consultant uncertain about this form)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>183 thou (enjau):</td>
<td>mon</td>
<td>mon neka</td>
<td>Wai U session note: (consultant uncertain about this form)</td>
</tr>
<tr>
<td>184 he/she (beliau)</td>
<td>—</td>
<td>ki’i</td>
<td></td>
</tr>
<tr>
<td>(he/she (respectful)):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>184 he/she ([d]ia):</td>
<td>ki’i</td>
<td>ki’i</td>
<td></td>
</tr>
<tr>
<td>185 we (kita):</td>
<td>kit</td>
<td>kit</td>
<td>Wai U session note: (unsure, maybe also: mon neka)</td>
</tr>
<tr>
<td>185 we (kami):</td>
<td>kimkim</td>
<td>kit muamua</td>
<td>Wai U session note: (consultant uncertain about this form)</td>
</tr>
<tr>
<td>186 you (kalian)</td>
<td>—</td>
<td>mon</td>
<td>Wai U session note: (consultant uncertain about this form)</td>
</tr>
<tr>
<td>(Indonesian only):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>186 you (anda):</td>
<td>mon</td>
<td>mon</td>
<td></td>
</tr>
<tr>
<td>187 they (meréka):</td>
<td>eb kim</td>
<td>—</td>
<td>Wai U session note: (unsure)</td>
</tr>
<tr>
<td>188 what? (apa):</td>
<td>hapa</td>
<td>hapa</td>
<td></td>
</tr>
<tr>
<td>189 who? (siapa):</td>
<td>han</td>
<td>han</td>
<td>Wai U session note: han neka 'who's that' offered Sama session note: han neka 'who's that' offered</td>
</tr>
<tr>
<td>190 other (lain):</td>
<td>—</td>
<td>basa</td>
<td></td>
</tr>
<tr>
<td>191 all (semua)</td>
<td>pakiaki</td>
<td>muamua</td>
<td></td>
</tr>
<tr>
<td>([&amp;&lt;M]):</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>192 and (dan):</td>
<td>do</td>
<td>do</td>
<td></td>
</tr>
<tr>
<td>193 if (kalau):</td>
<td>kalo</td>
<td>kalo</td>
<td></td>
</tr>
<tr>
<td>194 how? (bagaimana):</td>
<td>baugoa</td>
<td>bagoa / bago</td>
<td>Wai U session note: also: bagoa neka / bago neka 'how's that'</td>
</tr>
<tr>
<td>195 no, not (tidak) ([&amp;&lt;mana?]):</td>
<td>moya</td>
<td>moya</td>
<td></td>
</tr>
<tr>
<td>196 to count (menghitung):</td>
<td>rek</td>
<td>hitung fata</td>
<td>Wai U session note: (consultant uncertain about this form)</td>
</tr>
<tr>
<td>Number</td>
<td>Indonesian</td>
<td>English</td>
<td>Notes</td>
</tr>
<tr>
<td>----------</td>
<td>------------------</td>
<td>---------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>197</td>
<td>One (esa)</td>
<td>—</td>
<td>hia</td>
</tr>
<tr>
<td>197</td>
<td>One (satu)</td>
<td>hia</td>
<td>hia</td>
</tr>
<tr>
<td>198</td>
<td>Two (dua)</td>
<td>gu</td>
<td>gu</td>
</tr>
<tr>
<td>199</td>
<td>Three (tiga)</td>
<td>gatel</td>
<td>gatel</td>
</tr>
<tr>
<td>200</td>
<td>Four (empat)</td>
<td>gareha</td>
<td>gareha</td>
</tr>
<tr>
<td>201</td>
<td>Five (lima)</td>
<td>galima</td>
<td>galima</td>
</tr>
<tr>
<td>202</td>
<td>Six (enam)</td>
<td>ganei</td>
<td>gane</td>
</tr>
<tr>
<td>203</td>
<td>Seven (tujuh)</td>
<td>gapit</td>
<td>gapit</td>
</tr>
<tr>
<td>204</td>
<td>Eight (delapan)</td>
<td>gatahua</td>
<td>gatahua</td>
</tr>
<tr>
<td>205</td>
<td>Nine (sembilan)</td>
<td>gatasia</td>
<td>gatasia</td>
</tr>
<tr>
<td>206</td>
<td>Ten (sepuluh)</td>
<td>poa</td>
<td>poa</td>
</tr>
<tr>
<td>207</td>
<td>Twenty (dua puluh)</td>
<td>pogu</td>
<td>pogu/poagu'u</td>
</tr>
<tr>
<td>208</td>
<td>Fifty (lima puluh)</td>
<td>pogalima</td>
<td>pogalima</td>
</tr>
<tr>
<td>209</td>
<td>One Hundred (seratus)</td>
<td>ota</td>
<td>ota</td>
</tr>
<tr>
<td>210</td>
<td>One Thousand (seribu)</td>
<td>cahia</td>
<td>—</td>
</tr>
</tbody>
</table>
Appendix F. Dialect comparison lists. CMD region

The following lists were collected with the intention of following up on and refining part two of chapter two: new dialects. This data includes wordlists created by speakers of different age ranges for each of the region’s villages. Where words appear in duplicate, it indicates the speaker giving multiple responses in succession. Unfortunately it became clear that speaker variation will be difficult to describe and as such, revising my preliminary conclusions from Chapter Two is a task that is too ambitious for the present dissertation. It is one that I hope to return to, but I am providing the raw data in case another ambitious researcher can approach the task before me. All lists correspond to recordings archived and freely available (####insert archive location here####).

Young (Y) = -27 | Middle (M) = 28-47 | Older (O) = 48+

<table>
<thead>
<tr>
<th>Asmi Mafa</th>
<th>Fadli Sangaji</th>
<th>Tika Gorontalo</th>
<th>Ramli Gorontalo</th>
<th>Kalasun Kemhai</th>
<th>Ali Umasangaji</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Capuli ~25)</td>
<td>(Capuli ~21)</td>
<td>(Capuli ~38)</td>
<td>(Capuli ~28 y/o b. 1987)</td>
<td>(Capuli ~100)</td>
<td>(Capuli ~58 y/o b. 1957)</td>
<td></td>
</tr>
<tr>
<td>Young F</td>
<td>Young M</td>
<td>Middle F</td>
<td>Middle M</td>
<td>Older F</td>
<td>Older M</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>aku / ak / ak / aku</th>
<th>aku</th>
<th>aku</th>
<th>aku</th>
<th>aku</th>
<th>1SG (saya)</th>
</tr>
</thead>
<tbody>
<tr>
<td>di</td>
<td>di</td>
<td>do</td>
<td>do</td>
<td>di</td>
<td>di</td>
</tr>
<tr>
<td>nanu / nanu / nanu</td>
<td>nanu</td>
<td>nanu</td>
<td>nanu</td>
<td>nanu</td>
<td>nanu</td>
</tr>
<tr>
<td>Appendix</td>
<td>Manuscript</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>tena kau</em> (kau)</td>
<td><em>belly</em> (perut)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>bo heha</em> neʔu heha</td>
<td><em>below</em> (di bawah)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>aya</em> aya</td>
<td><em>big</em> (besar)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>miti</em> sana bati</td>
<td><em>black</em> (hitam)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>ana</em> amehina na / anamehi nana</td>
<td><em>branch</em> (dahan)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>nui</em> katimu</td>
<td><em>child</em> (anak)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>asu</em> saota</td>
<td><em>coconut</em> (kelapa)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>tilu</em></td>
<td><em>cucumber</em> (ketimun)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>haʔi</em></td>
<td><em>dog</em> (anjing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mantel / mantelu / mantelu</td>
<td><em>dry</em> (kering)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mantel / mantelu / mantelu</td>
<td><em>ear</em> (telinga)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mantel / mantelu / mantelu</td>
<td><em>earth/soil</em> (tanah)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mantel / mantelu / mantelu</td>
<td><em>egg</em> (telur)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mantel / mantelu / mantelu</td>
<td><em>feathers</em> (bulu)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mantel / mantelu / mantelu</td>
<td><em>flesh</em> (daging)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mantel / mantelu / mantelu</td>
<td><em>flower</em> (bunga)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mantel / mantelu / mantelu</td>
<td><em>fog</em> (kabut)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mantel / mantelu / mantelu</td>
<td><em>four</em> (empat)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mantel / mantelu / mantelu</td>
<td><em>fruit</em> (buah)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mantel / mantelu / mantelu</td>
<td><em>grass</em> (rumput)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mantel / mantelu / mantelu</td>
<td><em>hair</em> (rambut)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

583
<table>
<thead>
<tr>
<th>Sula</th>
<th>Manuscript</th>
</tr>
</thead>
<tbody>
<tr>
<td>kota</td>
<td>hair louse (kutu)</td>
</tr>
<tr>
<td>napu</td>
<td>head (kapala)</td>
</tr>
<tr>
<td>siku</td>
<td>here (di sini)</td>
</tr>
<tr>
<td>uma</td>
<td>house (rumah)</td>
</tr>
<tr>
<td>ota</td>
<td>Hundred (one) (seratus)</td>
</tr>
<tr>
<td>bo lali</td>
<td>in, inside ([di] dalam)</td>
</tr>
<tr>
<td>sagilaatu</td>
<td>lake (danau)</td>
</tr>
<tr>
<td>lali</td>
<td>lightning (kilat)</td>
</tr>
<tr>
<td>lali</td>
<td>liver (hati)</td>
</tr>
<tr>
<td>maana</td>
<td>man/male (laki-laki)</td>
</tr>
<tr>
<td>kafini</td>
<td>mosquito (nyamuk)</td>
</tr>
<tr>
<td>dagati</td>
<td>narrow (sempit)</td>
</tr>
<tr>
<td>eki</td>
<td>neck (léhér)</td>
</tr>
<tr>
<td>buku</td>
<td>node in bamboo, sugarcane</td>
</tr>
<tr>
<td>matua</td>
<td>nose (hidung)</td>
</tr>
<tr>
<td>hia</td>
<td>old (people) (tua)</td>
</tr>
<tr>
<td>sofa</td>
<td>one (satu)</td>
</tr>
<tr>
<td>uya</td>
<td>plaited rattan fish trap</td>
</tr>
<tr>
<td>uya</td>
<td>rain (hujan)</td>
</tr>
<tr>
<td>uya</td>
<td>rat (tikus)</td>
</tr>
<tr>
<td>safa</td>
<td>road/path (jalan)</td>
</tr>
</tbody>
</table>

584
<table>
<thead>
<tr>
<th>sanapetu</th>
<th>sanapetu</th>
<th>sahosa</th>
<th>sanapetu</th>
<th>sanapetu</th>
<th><strong>roof thatch (atap)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>suba</td>
<td>suba</td>
<td>basa</td>
<td>suba</td>
<td>basa</td>
<td><strong>rotten (busuk)</strong></td>
</tr>
<tr>
<td>gasi</td>
<td>gasi</td>
<td>gasi</td>
<td>gasi</td>
<td>gasi</td>
<td><strong>salt (garam)</strong></td>
</tr>
<tr>
<td>haʔi</td>
<td>haʔi</td>
<td>haʔi</td>
<td>haʔi</td>
<td>kumawai</td>
<td><strong>sand (pasir)</strong></td>
</tr>
<tr>
<td>mahi</td>
<td>mahi</td>
<td>mahi</td>
<td>mahi</td>
<td>mahi</td>
<td><strong>sea (laut)</strong></td>
</tr>
<tr>
<td>gapitu</td>
<td>gapitu</td>
<td>gapitu</td>
<td>gapitu</td>
<td>gapitu</td>
<td><strong>seven (tujuh)</strong></td>
</tr>
<tr>
<td>yota</td>
<td>yota</td>
<td>yota</td>
<td>yota</td>
<td>yota</td>
<td><strong>short (pendek)</strong></td>
</tr>
<tr>
<td>uha</td>
<td>uha</td>
<td>uha</td>
<td>uha</td>
<td>uha</td>
<td><strong>shrimp, lobster (udang)</strong></td>
</tr>
<tr>
<td>bal / bal</td>
<td>bali</td>
<td>bali</td>
<td>bali</td>
<td>bali</td>
<td><strong>shy, ashamed (malu)</strong></td>
</tr>
<tr>
<td>kali</td>
<td>kali</td>
<td>kali</td>
<td>kol</td>
<td>koli</td>
<td><strong>skin (kulit)</strong></td>
</tr>
<tr>
<td>lan</td>
<td>faʔara</td>
<td>lan</td>
<td>lani</td>
<td>lan</td>
<td><strong>sky (langit)</strong></td>
</tr>
<tr>
<td>nana</td>
<td>nana</td>
<td>nana</td>
<td>nana</td>
<td>nana</td>
<td><strong>small (kecil)</strong></td>
</tr>
<tr>
<td>bafei</td>
<td>apfei</td>
<td>bafei</td>
<td><strong>bafei (all smoke &amp; fog)</strong></td>
<td>apfei</td>
<td><strong>smoke (asap)</strong></td>
</tr>
<tr>
<td>fatu</td>
<td>fat</td>
<td>fat</td>
<td>fat</td>
<td>fat</td>
<td><strong>stone (batu)</strong></td>
</tr>
<tr>
<td>poa</td>
<td>poa</td>
<td>poa</td>
<td>(fat) poa</td>
<td>poa</td>
<td><strong>ten (sepuluh)</strong></td>
</tr>
<tr>
<td>bagu</td>
<td>bagu</td>
<td>bagu</td>
<td>bagu</td>
<td>bagu</td>
<td><strong>thick (tebal)</strong></td>
</tr>
<tr>
<td>manipi</td>
<td>manipi</td>
<td>manipi</td>
<td>manipi</td>
<td>manipi</td>
<td><strong>thin (tipis)</strong></td>
</tr>
<tr>
<td>gatel</td>
<td>gatelu</td>
<td>gatel</td>
<td>gatelo</td>
<td>gatelu</td>
<td><strong>Three (tiga)</strong></td>
</tr>
<tr>
<td>gatelu</td>
<td>gatelu / gatelu / gatelu</td>
<td>gatelo</td>
<td>gatelu / gatelu</td>
<td><strong>talapati</strong></td>
<td><strong>thunder (guntur)</strong></td>
</tr>
<tr>
<td>nihi</td>
<td>nihi</td>
<td>nihi</td>
<td>nihi</td>
<td>nihi</td>
<td>uka</td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>buha</td>
<td>buha</td>
<td>buha</td>
<td>buha</td>
<td>buha</td>
<td>buha</td>
</tr>
<tr>
<td>(a person blows something)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>badona</td>
<td>dona</td>
<td>dona</td>
<td>dona</td>
<td>dona</td>
<td>dona</td>
</tr>
<tr>
<td>mama</td>
<td>samam</td>
<td>bakumur</td>
<td>samam</td>
<td>mama</td>
<td></td>
</tr>
<tr>
<td>babili</td>
<td>lika</td>
<td>pili</td>
<td>lika</td>
<td>lika</td>
<td></td>
</tr>
<tr>
<td>dukir</td>
<td>dukir</td>
<td>dukir</td>
<td>dukir</td>
<td>dukir</td>
<td>dukir</td>
</tr>
<tr>
<td>bamapu</td>
<td>bamapu</td>
<td>bamapu</td>
<td>bamapu</td>
<td>bamapu</td>
<td>bamapu</td>
</tr>
<tr>
<td>yeba</td>
<td>deti</td>
<td>deti</td>
<td>deti</td>
<td>deti</td>
<td>deti</td>
</tr>
<tr>
<td>(menetak)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>geka</td>
<td>geka</td>
<td>geka</td>
<td>geka</td>
<td>geka</td>
<td>geka</td>
</tr>
<tr>
<td>win</td>
<td>winu</td>
<td>winu</td>
<td>winu</td>
<td>winu</td>
<td>winu</td>
</tr>
<tr>
<td>winu</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gaya</td>
<td>gaya</td>
<td>gaya</td>
<td>gaya</td>
<td>gaya</td>
<td>gaya</td>
</tr>
<tr>
<td>kagi</td>
<td>kagi</td>
<td>kagi</td>
<td>kagi</td>
<td>kagi</td>
<td>kagi</td>
</tr>
<tr>
<td>dota</td>
<td>dota</td>
<td>dota</td>
<td>tutu</td>
<td>dogi</td>
<td></td>
</tr>
<tr>
<td>gena</td>
<td>gena</td>
<td>gena</td>
<td>gena</td>
<td>gena</td>
<td>gena</td>
</tr>
<tr>
<td>gemu</td>
<td>luk</td>
<td>luk</td>
<td>gemu</td>
<td>gemu</td>
<td>gemu</td>
</tr>
<tr>
<td>(kati) / manake m</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>nona</td>
<td>nona</td>
<td>nona</td>
<td>nona</td>
<td>nona</td>
<td>nona</td>
</tr>
<tr>
<td>boli</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hoi</td>
<td>hoi</td>
<td>hoi</td>
<td>dika</td>
<td>hoi</td>
<td>hoi</td>
</tr>
<tr>
<td>(&quot;same as hoi&quot;)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>baseli</td>
<td>baseli</td>
<td>seli</td>
<td>baseli</td>
<td>seli</td>
<td>to plant (menanam)</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>gahu</td>
<td>gahu</td>
<td>gada</td>
<td>gada</td>
<td>gahu</td>
<td>gahu</td>
</tr>
<tr>
<td>gada</td>
<td>gahu / sakeu</td>
<td>gahu / gada</td>
<td>gada</td>
<td>gada</td>
<td>gahu</td>
</tr>
<tr>
<td>jubi</td>
<td>jubi</td>
<td>jubi</td>
<td>pana</td>
<td>jubi</td>
<td>to shoot (memanah) (To shoot with bow)</td>
</tr>
<tr>
<td>banapi</td>
<td>banapi</td>
<td>banapi</td>
<td>banapi</td>
<td>banapi</td>
<td>banapi</td>
</tr>
<tr>
<td>nib</td>
<td>nibu</td>
<td>nibu</td>
<td>nibu</td>
<td>nibu</td>
<td>nibu</td>
</tr>
<tr>
<td>oyakeu</td>
<td>bitfua</td>
<td>buakeu</td>
<td>buakeu</td>
<td>buakeu</td>
<td>to spit (meludah)</td>
</tr>
<tr>
<td>bama</td>
<td>wariu</td>
<td>bama</td>
<td>bama</td>
<td>bama</td>
<td>bama</td>
</tr>
<tr>
<td>ami</td>
<td>ami</td>
<td>ami</td>
<td>ami</td>
<td>ami</td>
<td>to squeeze (memeras)</td>
</tr>
<tr>
<td>saku</td>
<td>saku</td>
<td>saku</td>
<td>saku</td>
<td>saku</td>
<td>saku</td>
</tr>
<tr>
<td>nanu</td>
<td>nan</td>
<td>limayai</td>
<td>nanu</td>
<td>le</td>
<td>nanu</td>
</tr>
<tr>
<td>lifi</td>
<td>lifi</td>
<td>lifi</td>
<td>lifi</td>
<td>lifi</td>
<td>lifi</td>
</tr>
<tr>
<td>maki</td>
<td>maki</td>
<td>maki</td>
<td>maki</td>
<td>maki</td>
<td>maki</td>
</tr>
<tr>
<td>nihi</td>
<td>nihi</td>
<td>nihi</td>
<td>nihi</td>
<td>nihi</td>
<td>nihi</td>
</tr>
<tr>
<td>boti</td>
<td>boti</td>
<td>bot / boti / boti</td>
<td>boti</td>
<td>boti</td>
<td>boti</td>
</tr>
<tr>
<td>npani</td>
<td>pani</td>
<td>pani</td>
<td>mpani</td>
<td>pani</td>
<td>wing (sayap)</td>
</tr>
</tbody>
</table>

587
<table>
<thead>
<tr>
<th>NOT FOR CITATION</th>
<th>Sula</th>
<th>Manuscript</th>
</tr>
</thead>
<tbody>
<tr>
<td>uli cacing tana / cacing cacing uli</td>
<td>cacing / uli <strong>worm</strong> (earthworm) (cacing)</td>
<td></td>
</tr>
<tr>
<td>tahun tahun</td>
<td>tahun <strong>year (tahun)</strong></td>
<td></td>
</tr>
<tr>
<td>kakoni kakoni kakoni kakoni</td>
<td>kakoni <strong>yellow (kuning)</strong></td>
<td></td>
</tr>
</tbody>
</table>
Young (Y) = -27 | Middle (M) = 28-47 | Older (O) = 48+-1

<table>
<thead>
<tr>
<th>Ria Halim</th>
<th>* Hasrina Umasang aji</th>
<th>Mardono Murne</th>
<th>Hamsa Pora</th>
<th>Darmi Sangaji</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young F</td>
<td>Middle F</td>
<td>Middle M</td>
<td>Older M</td>
<td>Older F</td>
<td></td>
</tr>
</tbody>
</table>

Saturday 1 August 2015

*no consultant available. Small village and all of the young men were off to work

<table>
<thead>
<tr>
<th>ak</th>
<th>aku / aku</th>
<th>ak / ak</th>
<th>ak / ak</th>
<th>1SG (saya)</th>
</tr>
</thead>
<tbody>
<tr>
<td>di</td>
<td>di / di</td>
<td>do / do</td>
<td></td>
<td>and (dan)</td>
</tr>
<tr>
<td>nanu</td>
<td>nanu / nanu</td>
<td>nan / nan</td>
<td>nan / nan</td>
<td>bathe (mandi)</td>
</tr>
<tr>
<td>tena</td>
<td>tena (kau) / (kau)</td>
<td>tena (kau) / (kau)</td>
<td>tena (kau) / (kau)</td>
<td>belly (perut)</td>
</tr>
<tr>
<td>neʔu</td>
<td>neʔu / neʔu</td>
<td>bo heha / bo heha</td>
<td>bo heha / bo heha</td>
<td>below (di bawah)</td>
</tr>
<tr>
<td>aya</td>
<td>aya / aya</td>
<td>aya / aya</td>
<td>aya / aya</td>
<td>big (besar)</td>
</tr>
<tr>
<td>mit / miti / miti</td>
<td>mit / mit</td>
<td>mit / mit</td>
<td>mit / mit</td>
<td>black (hitam)</td>
</tr>
<tr>
<td>sana</td>
<td>sana / sana</td>
<td>kaopet / kaopet</td>
<td>sana / sana</td>
<td>branch (dahan)</td>
</tr>
<tr>
<td>ana</td>
<td>ana / ana</td>
<td>ana / ana</td>
<td>ana / ana</td>
<td>child (anak)</td>
</tr>
<tr>
<td>nui</td>
<td>nui / nui</td>
<td>nui / nui</td>
<td>nui / nui</td>
<td>coconut (kelapa)</td>
</tr>
<tr>
<td>mantimu</td>
<td>mantimu / mantimu</td>
<td>ketim / ketim</td>
<td>ketim / ketimun</td>
<td>cucumber (ketimun)</td>
</tr>
<tr>
<td>Sula</td>
<td>Manuscript</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>asu</strong></td>
<td>asu / as</td>
<td>as / as</td>
<td>as / as</td>
<td>dog (anjing)</td>
</tr>
<tr>
<td><strong>saota</strong></td>
<td>saʔota / saʔota</td>
<td>saʔota / saʔota</td>
<td>saota / saota</td>
<td>dry (kering)</td>
</tr>
<tr>
<td><strong>tilu</strong></td>
<td>tilu / tilu</td>
<td>til / til</td>
<td>til / til</td>
<td>ear (telinga)</td>
</tr>
<tr>
<td><strong>haʔi</strong></td>
<td>haʔi / haʔi</td>
<td>haʔi / haʔi</td>
<td>haʔi / haʔi</td>
<td>earth/soil (tanah)</td>
</tr>
<tr>
<td><strong>mantelu</strong></td>
<td>mantelu / mantelu</td>
<td>mantel / mantel</td>
<td>mantel / mantel</td>
<td>egg (telur)</td>
</tr>
<tr>
<td><strong>foa</strong></td>
<td>foa / foa</td>
<td>foa / foa</td>
<td>foa / foa</td>
<td>feathers (bulu)</td>
</tr>
<tr>
<td><strong>bafei / bafei / bafei</strong></td>
<td>bafei / bafei</td>
<td>bafei / bafei</td>
<td>bafei / bafel</td>
<td>flesh (daging)</td>
</tr>
<tr>
<td><strong>gareha</strong></td>
<td>gareha / gareha</td>
<td>gareha / garea</td>
<td>garea / garea</td>
<td>flower (bunga)</td>
</tr>
<tr>
<td><strong>fua</strong></td>
<td>fua / fua</td>
<td>fua / fua</td>
<td>fua / fua</td>
<td>fog (kabut)</td>
</tr>
<tr>
<td><strong>keku</strong></td>
<td>kekku / kekku</td>
<td>eka / eka</td>
<td>kahik / kahik</td>
<td>four (empat)</td>
</tr>
<tr>
<td><strong>napu</strong></td>
<td>nap foa / nap foa</td>
<td>nap foa / nap foa</td>
<td>nap / nap</td>
<td>fruit (buah)</td>
</tr>
<tr>
<td><strong>kota</strong></td>
<td>kota / kota</td>
<td>kota / kota</td>
<td>kota / kota</td>
<td>grass (rumput)</td>
</tr>
<tr>
<td><strong>napfoka</strong></td>
<td>napu / napu</td>
<td>napu / napu</td>
<td>nap / nap</td>
<td>hair (rambut)</td>
</tr>
<tr>
<td><strong>bo siku</strong></td>
<td>siku / siku</td>
<td>siku / siku</td>
<td>sik / sik</td>
<td>hair louse (kutu)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>head (kapala)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>here (di sini)</td>
</tr>
<tr>
<td>English</td>
<td>Amami</td>
<td>Amami</td>
<td>Amami</td>
<td>Amami</td>
</tr>
<tr>
<td>--------------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td><strong>uma</strong></td>
<td>uma</td>
<td>uma</td>
<td>uma</td>
<td>uma</td>
</tr>
<tr>
<td><strong>ca ota</strong></td>
<td>ota</td>
<td>ota</td>
<td>ota</td>
<td>ota</td>
</tr>
<tr>
<td><strong>bo lali</strong></td>
<td>baleu</td>
<td>lal</td>
<td>lal</td>
<td>lal</td>
</tr>
<tr>
<td><strong>maana</strong></td>
<td>ma?ana</td>
<td>ma?ana</td>
<td>ma?ana</td>
<td>ma?ana</td>
</tr>
<tr>
<td><strong>kafini</strong></td>
<td>kafin</td>
<td>kafin</td>
<td>kafin</td>
<td>kafin</td>
</tr>
<tr>
<td><strong>dagati</strong></td>
<td>dagat</td>
<td>dagat</td>
<td>dagat</td>
<td>dagat</td>
</tr>
<tr>
<td><strong>eki</strong></td>
<td>eki</td>
<td>ek</td>
<td>ek</td>
<td>ek</td>
</tr>
<tr>
<td><strong>ne?e</strong></td>
<td>ne?e</td>
<td>ne?e</td>
<td>ne?i</td>
<td>ne?i</td>
</tr>
</tbody>
</table>

*Note: Amami is a language spoken in Okinawa, Japan.*
<table>
<thead>
<tr>
<th>Sula</th>
<th>Manuscript</th>
<th>NOT FOR CITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>matua</td>
<td>matua / matua</td>
<td>matua / matua</td>
</tr>
<tr>
<td></td>
<td>matua / matua</td>
<td>matua / matua</td>
</tr>
<tr>
<td></td>
<td>maota / maota</td>
<td>maota / maota</td>
</tr>
<tr>
<td></td>
<td>(e.g. old coconut)</td>
<td>(old coconut)</td>
</tr>
<tr>
<td></td>
<td>matua / matua</td>
<td>matua / matua</td>
</tr>
<tr>
<td></td>
<td>(old people)</td>
<td>(old people)</td>
</tr>
<tr>
<td>hia</td>
<td>hia / hia</td>
<td>hia / hia</td>
</tr>
<tr>
<td></td>
<td>hia / hia</td>
<td>hia / hia</td>
</tr>
<tr>
<td></td>
<td>hia / hia</td>
<td>hia / hia</td>
</tr>
<tr>
<td></td>
<td>one (satu)</td>
<td>one (satu)</td>
</tr>
<tr>
<td></td>
<td>fofa / fofa</td>
<td>fofa / fofa</td>
</tr>
<tr>
<td></td>
<td>plaited rattan fish trap</td>
<td>plaited rattan fish trap</td>
</tr>
<tr>
<td></td>
<td>(bubu)</td>
<td>(bubu)</td>
</tr>
<tr>
<td>uya</td>
<td>uya / uya</td>
<td>uya / uya</td>
</tr>
<tr>
<td></td>
<td>uya / uya</td>
<td>uya / uya</td>
</tr>
<tr>
<td></td>
<td>uya / uya</td>
<td>uya / uya</td>
</tr>
<tr>
<td></td>
<td>rain (hujan)</td>
<td>rain (hujan)</td>
</tr>
<tr>
<td>saafa / safa</td>
<td>safa / safa</td>
<td>safa / safa</td>
</tr>
<tr>
<td></td>
<td>safa / safa</td>
<td>safa / safa</td>
</tr>
<tr>
<td></td>
<td>saafa / safa</td>
<td>safa / safa</td>
</tr>
<tr>
<td></td>
<td>rat (tikus)</td>
<td>rat (tikus)</td>
</tr>
<tr>
<td>yaeya</td>
<td>nyaieya / nyaieya</td>
<td>nyaieya / nyaieya</td>
</tr>
<tr>
<td></td>
<td>nyaieya / nyaieya</td>
<td>nyaieya / nyaieya</td>
</tr>
<tr>
<td></td>
<td>ya / ya</td>
<td>ya / ya</td>
</tr>
<tr>
<td></td>
<td>yai eya / yai eya</td>
<td>yai eya / yai eya</td>
</tr>
<tr>
<td></td>
<td>road/path (jalan)</td>
<td>road/path (jalan)</td>
</tr>
<tr>
<td>sanapetu</td>
<td>sanapet / sanapet</td>
<td>sanapet / sanapet</td>
</tr>
<tr>
<td></td>
<td>sanapet / sanapet</td>
<td>sanapet / sanapet</td>
</tr>
<tr>
<td></td>
<td>roof thatch (atap)</td>
<td>roof thatch (atap)</td>
</tr>
<tr>
<td>suba</td>
<td>basa / basa</td>
<td>basa / basa</td>
</tr>
<tr>
<td></td>
<td>basa / basa</td>
<td>basa / basa</td>
</tr>
<tr>
<td></td>
<td>basa / basa</td>
<td>basa / basa</td>
</tr>
<tr>
<td></td>
<td>patsuba / patsuba</td>
<td>patsuba / patsuba</td>
</tr>
<tr>
<td></td>
<td>rotten (busuk)</td>
<td>rotten (busuk)</td>
</tr>
<tr>
<td>gasi</td>
<td>gasi / gasi</td>
<td>gasi / gasi</td>
</tr>
<tr>
<td></td>
<td>gas / gas</td>
<td>gas / gas</td>
</tr>
<tr>
<td></td>
<td>gas / gas</td>
<td>gas / gas</td>
</tr>
<tr>
<td></td>
<td>gas / gas</td>
<td>gas / gas</td>
</tr>
<tr>
<td></td>
<td>salt (garam)</td>
<td>salt (garam)</td>
</tr>
<tr>
<td>haʔi</td>
<td>haʔi / haʔi</td>
<td>haʔi / haʔi</td>
</tr>
<tr>
<td></td>
<td>haʔi / haʔi</td>
<td>haʔi / haʔi</td>
</tr>
<tr>
<td></td>
<td>hai</td>
<td>hai</td>
</tr>
<tr>
<td></td>
<td>sand (pasir)</td>
<td>sand (pasir)</td>
</tr>
<tr>
<td>mahi</td>
<td>mahi / mahi</td>
<td>mahi / mahi</td>
</tr>
<tr>
<td></td>
<td>mahi / mahi</td>
<td>mahi / mahi</td>
</tr>
<tr>
<td></td>
<td>mahi / mahi</td>
<td>mahi / mahi</td>
</tr>
<tr>
<td></td>
<td>sea (laut)</td>
<td>sea (laut)</td>
</tr>
<tr>
<td>gapitu</td>
<td>gapitu / gapitu</td>
<td>gapitu / gapitu</td>
</tr>
<tr>
<td></td>
<td>gapit / gapit</td>
<td>gapit / gapit</td>
</tr>
<tr>
<td></td>
<td>gapit / gapit</td>
<td>gapit / gapit</td>
</tr>
<tr>
<td></td>
<td>seven (tujuh)</td>
<td>seven (tujuh)</td>
</tr>
<tr>
<td>yota</td>
<td>yota / yota</td>
<td>yota / yota</td>
</tr>
<tr>
<td></td>
<td>yota / yota</td>
<td>yota / yota</td>
</tr>
<tr>
<td></td>
<td>yota / yota</td>
<td>yota / yota</td>
</tr>
<tr>
<td></td>
<td>short (pendek)</td>
<td>short (pendek)</td>
</tr>
<tr>
<td>uha</td>
<td>uha / uha</td>
<td>uha / uha</td>
</tr>
<tr>
<td></td>
<td>uha / uha</td>
<td>uha / uha</td>
</tr>
<tr>
<td></td>
<td>shrimp, lobster</td>
<td>shrimp, lobster</td>
</tr>
<tr>
<td></td>
<td>(udang)</td>
<td>(udang)</td>
</tr>
<tr>
<td>bali</td>
<td>bali / bali</td>
<td>bali / bali</td>
</tr>
<tr>
<td></td>
<td>bal / bal</td>
<td>bal / bal</td>
</tr>
<tr>
<td></td>
<td>bal / bal</td>
<td>bal / bal</td>
</tr>
<tr>
<td></td>
<td>bahal / bahal</td>
<td>bahal / bahal</td>
</tr>
<tr>
<td></td>
<td>shy, ashamed (malu)</td>
<td>shy, ashamed (malu)</td>
</tr>
<tr>
<td>koli</td>
<td>koli / koli</td>
<td>koli / koli</td>
</tr>
<tr>
<td></td>
<td>kol / kol</td>
<td>kol / kol</td>
</tr>
<tr>
<td></td>
<td>kol / kol</td>
<td>kol / kol</td>
</tr>
<tr>
<td></td>
<td>skin (kulit)</td>
<td>skin (kulit)</td>
</tr>
<tr>
<td>lan</td>
<td>lan / lan</td>
<td>lan / lan</td>
</tr>
<tr>
<td>-----</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>nana</td>
<td>nana / nana</td>
<td>nana / nana</td>
</tr>
<tr>
<td>apfei</td>
<td>apfei / bafei</td>
<td>apfei / bafei</td>
</tr>
<tr>
<td>fatu</td>
<td>fatu / fatu</td>
<td>fat / fat</td>
</tr>
<tr>
<td>poa</td>
<td>poa / poa</td>
<td>poa / poa</td>
</tr>
<tr>
<td>bagu</td>
<td>bagu / bagu</td>
<td>bag / bag</td>
</tr>
<tr>
<td>manipi</td>
<td>manipi / manip</td>
<td>manip / manip</td>
</tr>
<tr>
<td>gatelu</td>
<td>gatelu / gatelu</td>
<td>gatel / gatel</td>
</tr>
<tr>
<td>telapat</td>
<td>telapat / telapat</td>
<td>telapat / telapat</td>
</tr>
<tr>
<td>uka</td>
<td>uka / uka</td>
<td>nihi / nihi</td>
</tr>
<tr>
<td>buha</td>
<td>buha / buha</td>
<td>buha / buha</td>
</tr>
<tr>
<td>batona</td>
<td>dona / dona</td>
<td>dona / dona</td>
</tr>
<tr>
<td>samam</td>
<td>samam</td>
<td>mama / dona</td>
</tr>
<tr>
<td>pili</td>
<td>pili / pili</td>
<td>pili / pili</td>
</tr>
<tr>
<td>duk</td>
<td>duk / duk</td>
<td>duk / duk</td>
</tr>
<tr>
<td>bamapu</td>
<td>bamapu / bamapu</td>
<td>bamapu / bamapu</td>
</tr>
<tr>
<td>deti</td>
<td>bota / bota</td>
<td>bota / bota</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>gahu</td>
<td>gahu / gahu</td>
<td>gahu / gahu</td>
</tr>
<tr>
<td>winu</td>
<td>winu / winu</td>
<td>win / win</td>
</tr>
<tr>
<td>gaya</td>
<td>gaya / gaya</td>
<td>gaya / gaya</td>
</tr>
<tr>
<td>kag / kagi</td>
<td>kagi / kagi</td>
<td>kagi / kagi</td>
</tr>
<tr>
<td>dogi / dogi</td>
<td>dog / dog</td>
<td>dog / dog</td>
</tr>
<tr>
<td>gena</td>
<td>geni / geni</td>
<td>gena / gena</td>
</tr>
<tr>
<td>kafi</td>
<td>gemu / gemu</td>
<td>sakaf / sakaf</td>
</tr>
<tr>
<td>nona</td>
<td>nona / nona</td>
<td>nona / nona</td>
</tr>
<tr>
<td>hoi</td>
<td>hoi / hoi</td>
<td>hoi / hoi</td>
</tr>
<tr>
<td>baseli</td>
<td>seli / seli</td>
<td>basel / basel</td>
</tr>
<tr>
<td>gama</td>
<td>gahu / gahu</td>
<td>gama / gama</td>
</tr>
<tr>
<td>gahu</td>
<td>sakeu / sakeu</td>
<td>sakeu / sakeu</td>
</tr>
<tr>
<td>Not for Citation</td>
<td>Appendix</td>
<td>Manuscript</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------</td>
<td>------------</td>
</tr>
<tr>
<td>pana</td>
<td>jubi / jubi</td>
<td>pana / jub / jubi / pana</td>
</tr>
<tr>
<td>banap</td>
<td>banapi / banapi</td>
<td>banap / banap / banapi / banapi</td>
</tr>
<tr>
<td>nibu</td>
<td>nibu / nib</td>
<td>nib / nib / nib / nib</td>
</tr>
<tr>
<td>buakeu</td>
<td>buakeu / buakeu</td>
<td>bu?akeu / bu?akeu / bu?akeu / buakeu</td>
</tr>
<tr>
<td>pama</td>
<td>sida / sida da?a / da?a (if coconut)</td>
<td>bama / bama / a pama / a bama</td>
</tr>
<tr>
<td>ami</td>
<td>ami / ami</td>
<td>am / am / a am / a am</td>
</tr>
<tr>
<td>bona</td>
<td>saku / saku</td>
<td>sak / sak / sak / saku</td>
</tr>
<tr>
<td>nanu</td>
<td>nanu / nanu</td>
<td>nan / nan / i nan / i nan</td>
</tr>
<tr>
<td>lifi</td>
<td>lif / lif</td>
<td>lif / lif / a lif / a lif</td>
</tr>
<tr>
<td>saka lifi</td>
<td>dai?oa / dai?oa</td>
<td>lif / lifi / lif puta / taputar / taputar</td>
</tr>
<tr>
<td>maki</td>
<td>maki / maki</td>
<td>mak / mak / maka / maka</td>
</tr>
<tr>
<td>nihi</td>
<td>nihi / nihi</td>
<td>nihi / nihi / nihi / nihi</td>
</tr>
<tr>
<td>boti</td>
<td>boti / boti</td>
<td>boti / bot / bot / bot</td>
</tr>
<tr>
<td>pani</td>
<td>pani / pani</td>
<td>pan / pan / pan / pan</td>
</tr>
<tr>
<td>mokawa? i / mokawa? i</td>
<td>ul / ul / ul / ul</td>
<td>worm (earthworm) (cacing)</td>
</tr>
<tr>
<td>Language</td>
<td>Equivalent</td>
<td>Meaning</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
<td>---------</td>
</tr>
<tr>
<td>taun</td>
<td>tahun</td>
<td>year</td>
</tr>
<tr>
<td>koni</td>
<td>kuning</td>
<td>yellow</td>
</tr>
</tbody>
</table>
Young (Y) = -27 | Middle (M) = 28-47 | Older (O) = 48+-2

<table>
<thead>
<tr>
<th>Mardani Umasan gaji</th>
<th>Eko P</th>
<th>Uni Umasan gaji</th>
<th>Kampung Ulfoa</th>
<th>Idham Pora</th>
<th>Aisa Umasan gaji</th>
<th>Kasim Pora</th>
<th>English</th>
</tr>
</thead>
</table>

Middle F (born Capuli, lived in Ulfoa at least 10 years)

<table>
<thead>
<tr>
<th>Young F</th>
<th>Young M</th>
<th>Middle M</th>
<th>Older F</th>
<th>Older M</th>
</tr>
</thead>
</table>

<p>| ak | aku | aku | aku | aku | ak | 1SG (saya) |
| do | di | di | di | do | do / do | and (dan) |
| nan | nanu | nan | nan | nan | nan | bathe (mandi) |
| tena (kau) | tena (kau) | tena (kau) | tena (kau) | tena (kau) | tena (kau) | belly (perut) |
| neu / neu heha | neu / neu heha | bo heha | neu / neu | neu / ila | neu / ila neu | below (di bawah) |
| aya | aya | aya | aya | aya | aya | big (besar) |</p>
<table>
<thead>
<tr>
<th>mit</th>
<th>mit</th>
<th>miti</th>
<th>miti</th>
<th>mit</th>
<th>mit</th>
<th>black (hitam)</th>
</tr>
</thead>
<tbody>
<tr>
<td>sana</td>
<td>in sana</td>
<td>daeti</td>
<td>kau sana</td>
<td>sana /</td>
<td>kau sana</td>
<td>branch (dahan)</td>
</tr>
<tr>
<td>nana</td>
<td>ana mehi</td>
<td>ana</td>
<td>ana</td>
<td>anak</td>
<td>ana</td>
<td>child (anak)</td>
</tr>
<tr>
<td>nui</td>
<td>nui</td>
<td>nui</td>
<td>nui</td>
<td>nui</td>
<td>nui</td>
<td>coconut (kelapa)</td>
</tr>
<tr>
<td>katim</td>
<td>katim</td>
<td>katim</td>
<td>katim</td>
<td>katim</td>
<td>katim</td>
<td>cucumber (ketimun)</td>
</tr>
<tr>
<td>asu</td>
<td>asu</td>
<td>asu</td>
<td>asu</td>
<td>as</td>
<td>as</td>
<td>dog (anjing)</td>
</tr>
<tr>
<td>saota</td>
<td>saota</td>
<td>saota</td>
<td>saota</td>
<td>saota</td>
<td>saota</td>
<td>dry (kering)</td>
</tr>
<tr>
<td>til</td>
<td>tilu</td>
<td>tilu</td>
<td>til / tilu</td>
<td>til</td>
<td></td>
<td>ear (telinga)</td>
</tr>
<tr>
<td>hai</td>
<td>haʔi</td>
<td>haʔi</td>
<td>haʔi</td>
<td>hai</td>
<td>hai</td>
<td>earth/soil (tanah)</td>
</tr>
<tr>
<td>mantel</td>
<td>mantel</td>
<td>mantelu</td>
<td>mantel</td>
<td>mantel</td>
<td>mantel</td>
<td>egg (telur)</td>
</tr>
<tr>
<td>foa</td>
<td>man foa</td>
<td>foa</td>
<td>foa</td>
<td>foa</td>
<td>foa</td>
<td>feathers (bulu)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>flesh (daging)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>flower (bunga)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>fog (kabut)</td>
</tr>
<tr>
<td>fangara</td>
<td>bafe</td>
<td>bafei</td>
<td>bafei</td>
<td></td>
<td></td>
<td>four (empat)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>fruit (buah)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>grass (rumput)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>hair (rambut)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>hair louse (kutu)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>head (kapala)</td>
</tr>
<tr>
<td>saïk</td>
<td>siku</td>
<td>siku</td>
<td>siku</td>
<td>saïk</td>
<td>saïk*</td>
<td>here (di sini)</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>-------</td>
<td>---------------</td>
</tr>
<tr>
<td>*saïk (to here) siku / siku (to there at 14 min in sound file)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>uma</td>
<td>uma</td>
<td>uma</td>
<td>uma</td>
<td>uma</td>
<td>uma</td>
<td>house (rumah)</td>
</tr>
<tr>
<td>ota</td>
<td>fat otā</td>
<td>ota</td>
<td>ota</td>
<td>ota</td>
<td>ota</td>
<td>Hundred (one) (seratus)</td>
</tr>
<tr>
<td>bo lal</td>
<td>bo lal</td>
<td>lal</td>
<td>bo lal</td>
<td>lal</td>
<td>lal</td>
<td>in, inside ([di] dalam)</td>
</tr>
<tr>
<td>wai duba</td>
<td>taga</td>
<td>tahaga</td>
<td>lake (danau)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>telanihi</td>
<td>sagiła</td>
<td>lightning (kilat)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lal</td>
<td>lal</td>
<td>lal</td>
<td>lal</td>
<td>lal</td>
<td>lal</td>
<td>liver (hati)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>maana</th>
<th>ma?ana</th>
<th>maana</th>
<th>maana</th>
<th>ma?ana</th>
<th>maana</th>
<th>man/male (laki-laki)</th>
</tr>
</thead>
<tbody>
<tr>
<td>kafin</td>
<td>kafin</td>
<td>kafin</td>
<td>kafin</td>
<td>kafin</td>
<td>kafin</td>
<td>mosquito (nyamuk)</td>
</tr>
<tr>
<td>gati</td>
<td>nāna</td>
<td>dagati</td>
<td>dagati</td>
<td>dagat</td>
<td>dagat</td>
<td>narrow (sempit)</td>
</tr>
<tr>
<td>ek lāwa</td>
<td>eki / ek lāwa</td>
<td>eki / ek lāwa</td>
<td>ek</td>
<td>ek lāwa</td>
<td>neck (léhér)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>foka</th>
<th>foka / foka donga</th>
<th>donga</th>
<th>foka / foka*</th>
<th>node in bamboo, sugarcane (buku)</th>
</tr>
</thead>
</table>

| *donga / donga (same meaning -- both knuckle, elbow, bamboo joint etc) |
| ne?e   | ne?e | ne?i | ne?i | ne?e | nee / nee | nose (hidung) |
| matua  | matua | matua | matua | matua | matua | old (people) (tua) |
| hia    | fat hia | hia  | hia  | hia  | fofa  | one (satu) |
| fofa   | fofa | fofa | fofa | fofa | fofa | plaited rattan fish trap (bubu) |
| uya    | uya | uya | uya | uya | uya | rain (hujan) |

<p>| safa | safa | safa | safa | saafa | safa | rat (tikus) |</p>
<table>
<thead>
<tr>
<th>Sula</th>
<th>Manuscript</th>
</tr>
</thead>
<tbody>
<tr>
<td>yaeya lal</td>
<td>road/path (jalan)</td>
</tr>
<tr>
<td>sanapet</td>
<td>roof thatch (atap)</td>
</tr>
<tr>
<td>basa</td>
<td>rotten (busuk)</td>
</tr>
<tr>
<td>gasi</td>
<td>salt (garam)</td>
</tr>
<tr>
<td>kumawai</td>
<td>sand (pasir)</td>
</tr>
<tr>
<td>mahi</td>
<td>sea (laut)</td>
</tr>
<tr>
<td>gapit</td>
<td>seven (tujuh)</td>
</tr>
<tr>
<td>yota</td>
<td>short (pendek)</td>
</tr>
<tr>
<td>uha</td>
<td>shrimp, lobster (udang)</td>
</tr>
<tr>
<td>bal</td>
<td>shy, ashamed (malu)</td>
</tr>
<tr>
<td>kol</td>
<td>skin (kulit)</td>
</tr>
<tr>
<td>lan</td>
<td>sky (langit)</td>
</tr>
<tr>
<td>nana</td>
<td>small (kecil)</td>
</tr>
<tr>
<td>apfei</td>
<td>smoke (asap)</td>
</tr>
<tr>
<td>fat</td>
<td>stone (batu)</td>
</tr>
<tr>
<td>poa</td>
<td>ten (sepuluh)</td>
</tr>
<tr>
<td>bag</td>
<td>thick (tebal)</td>
</tr>
<tr>
<td>manip</td>
<td>thin (tipis)</td>
</tr>
<tr>
<td>gatel</td>
<td>Three (tiga)</td>
</tr>
<tr>
<td>nihi</td>
<td>to bite (gigit)</td>
</tr>
</tbody>
</table>

600
<table>
<thead>
<tr>
<th>buha</th>
<th>buha</th>
<th>buha</th>
<th>buha</th>
<th>buha</th>
<th>bufa</th>
<th>to blow (meniup)</th>
</tr>
</thead>
<tbody>
<tr>
<td>batona</td>
<td>dona</td>
<td>dona</td>
<td>batona</td>
<td>dona</td>
<td>dona</td>
<td>to burn (membakar)</td>
</tr>
<tr>
<td>samam</td>
<td>gaya</td>
<td>samam</td>
<td>samam /</td>
<td>samam</td>
<td>samam gaya</td>
<td>to chew (mengunyah)</td>
</tr>
<tr>
<td>wa iku</td>
<td>wa</td>
<td>lika</td>
<td>pili fa /</td>
<td>lika /</td>
<td>pili lika</td>
<td>to choose (memilih)</td>
</tr>
<tr>
<td>duk</td>
<td>duki</td>
<td>duki</td>
<td>duki</td>
<td>duk</td>
<td>duk</td>
<td>to come (datang)</td>
</tr>
<tr>
<td>bamap</td>
<td>bamapu</td>
<td>bamapu</td>
<td>bamapu</td>
<td>bamapu</td>
<td>bamapu</td>
<td>to cook (memasak)</td>
</tr>
<tr>
<td>bota</td>
<td>bota</td>
<td>bama</td>
<td>deti</td>
<td>bota</td>
<td>det / det bota / bota</td>
<td>to cut (memotong) / to hack (menetak)</td>
</tr>
<tr>
<td>gahui</td>
<td>gahu</td>
<td>gahui</td>
<td>gahu</td>
<td>gahu</td>
<td>gahu / gahu</td>
<td>to dig (menggali)</td>
</tr>
<tr>
<td>win</td>
<td>win</td>
<td>win</td>
<td>win</td>
<td>win</td>
<td>win</td>
<td>to drink (minum)</td>
</tr>
<tr>
<td>gaya</td>
<td>gaya</td>
<td>gaya</td>
<td>gaya</td>
<td>gaya</td>
<td>gaya</td>
<td>to eat (makan)</td>
</tr>
<tr>
<td>kag</td>
<td>kagi</td>
<td>kagi</td>
<td>kagi</td>
<td>kagi</td>
<td>kag</td>
<td>to fear (takut)</td>
</tr>
<tr>
<td>dog</td>
<td>dota</td>
<td>dogi</td>
<td>dogi</td>
<td>dogi</td>
<td>dog</td>
<td>to grow (tumbuh)</td>
</tr>
<tr>
<td>gena</td>
<td>gena</td>
<td>gena fa?a</td>
<td>/ gena fa?a /</td>
<td>gena</td>
<td>gena</td>
<td>to hear (mendenggar)</td>
</tr>
<tr>
<td>gem</td>
<td>gem</td>
<td>gemu</td>
<td>gem fa /</td>
<td>gem kat fa</td>
<td>gawak</td>
<td>to hold (menggenggam)</td>
</tr>
</tbody>
</table>

601
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>nuna bol</td>
<td>to lie down (berbaring)</td>
</tr>
<tr>
<td>hoi</td>
<td>to open, uncover (membuka)</td>
</tr>
<tr>
<td>sel / basel</td>
<td>to plant (menanam)</td>
</tr>
<tr>
<td>gahu</td>
<td>to scratch (mencakar) (to scratch (for the purpose of hurting))</td>
</tr>
<tr>
<td>pana</td>
<td>to shoot (memanah) (To shoot with bow)</td>
</tr>
<tr>
<td>banap</td>
<td>to shoot (menembak)</td>
</tr>
<tr>
<td>nib</td>
<td>to sit (duduk)</td>
</tr>
<tr>
<td>keu</td>
<td>to spit (meludah)</td>
</tr>
<tr>
<td>bama</td>
<td>to split (membelah)</td>
</tr>
<tr>
<td>am</td>
<td>to squeeze (meremas)</td>
</tr>
<tr>
<td>sak</td>
<td>to stab, pierce (menikam)/ (menusuk)</td>
</tr>
<tr>
<td>nan</td>
<td>to swim (berenang)</td>
</tr>
<tr>
<td>lif</td>
<td>to turn (bélòk) (to turn (halfway, 90 degrees))</td>
</tr>
<tr>
<td>gamat putar</td>
<td>to turn (berputar)</td>
</tr>
<tr>
<td></td>
<td>Appendix</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>mak</td>
<td>maki</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>nihi</td>
<td>nihi</td>
</tr>
<tr>
<td>bot</td>
<td>boti</td>
</tr>
<tr>
<td>inpan</td>
<td>pani</td>
</tr>
<tr>
<td>ul nana /</td>
<td>ul nana /</td>
</tr>
<tr>
<td>ul</td>
<td>ul</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>tahun</td>
<td>tahun</td>
</tr>
<tr>
<td>kakon</td>
<td>kon</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>