

Cultural Notes

メタデータ	言語: eng
	出版者:
	公開日: 2018-03-30
	キーワード (Ja):
	キーワード (En):
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URL	https://doi.org/10.15021/00008972

Cultural Notes

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This dictionary comprises cultural terms collected by cultural anthropologists. This section provides some cultural aspects that we hope will facilitate the understanding of some terms that appear in this dictionary. Relevant literature is referred to whenever appropriate. Sections of cultural notes are referred to in the dictionary by their sub-section numbers. The orthography used for writing words in this chapter is adjusted to that used in the dictionary. Therefore, some words may appear differently from those in the original papers from which they are taken. In a number of cases it was not possible to verify the pronunciation of some Satawalese words appearing in the original papers. Such words are included in the dictionary and marked with a subscript x.

Cultural Note A. The World and Society

In this section, notions and terms that are related to the traditional worldview and social structure of Satawal are summarized. The earlier Satawalese cosmology was documented and relevant terms were recorded by Ishimori, when they were being lost because of the introduction of Christianity and western ways of livings (Ishimori 1979a, 1979b, 1987b, cf. 1989a). The system of the world of humanbeings (*yaeremas*) and their society, as well as terms for human attributes were documented and recorded by Akimichi (1981a) and Sudo (1980, 1984a, 1985a, 1985b).

§A1. Satawalese Cosmology: The Heavens, the Land and the Ocean

According to the Satawalese cosmology, the world consists of three divisions; *weinang* 'the heavens', *weisan* 'the land', and *faaniinong* 'the world below the land and ocean' (Figure A1). The land is the living space of human-beings and consists of the land, sky and the ocean. Supernatural-beings (*yaniu*) reside in one of these three spaces depending on what they govern. For example, the *yaniu* of a storm resides in the heavens, while the *yaniu* of fish resides under the ground. Various phenomena occurring in life are interpreted and understood as the result of the activities of supernatural-beings. In incidents such as getting sick, being caught in a storm, or a canoe being capsized, etc., human-beings need to communicate with the responsible *yaniu* to ameliorate the situation.

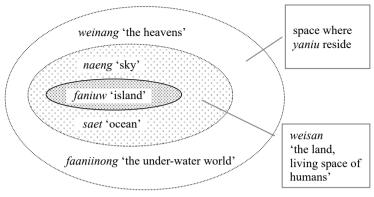


Figure A1 The world divisions: The heavens, the land and the ocean (based on Ishimori 1979a: 173, Sudo 1984a: 226)

§A2. Supernatural-beings and Human-beings

The way for humans to communicate with a supernatural-being is referred to as *roong* and those who have acquired knowledge of *roong* are referred to as *soawu-roong*. The term *roong* is also used to refer to the systematic knowledge associated with a specific phenomenon, which includes background knowledge and the charms to be chanted. Such knowledge is referred to as *rongon/rongoy* X 'the *roong* of X,' for example, *rongon kkoato-mengar* 'the *roong* of calling flyingfish', and *rongoy niyaeniwan* 'the *roong* of healing sickness.' There are 40 *roong* documented, a list of which appears in Ishimori (1987a: 268).

People who have acquired specific *roong* are referred to with the prefix *soawu*-'people with special knowledge.' These include such people as construction specialists and house-repair specialists, for whenever a human activity takes place, it was inevitable to communicate with the specializing *yaniu* for the event to be completed without mishap.

NAME	MEANING
sennap	canoe-building specialist
paniuw, paliu	navigation specialist
soawumaey	breadfruit specialist
soawupaew	shark-controlling specialist
soawupwaeng	construction specialist
soawupwe	number divination specialist
soawupwaengin-imw	canoe-house building and maintenance specialist
soawurheo	masseur specialist
soawusaefey	specialist of the treatment of sick people
soawuyaepeyipey	specialist of calling in driftwood
soawuyaraengap	skipjack-calling specialist
soawuyiuriur	weather forecast specialist

Table A1 Specialists of secret knowledge in this dictionary (Akimichi 1981a, Ishimori 1979a)

§A3. Number Divination

Number divination (*pwe*), also referred to as 'knot divination' in the literature, was commonly practiced on Satawal before the introduction of Christianity. Ishimori (1979a) documents the traditional knowledge of Satawalese number divination as taught in June-September 1978 by the late Mr. Lamonur (deceased in December 1978). Mr. Lamonur was then the oldest of the four remaining *soawupwe* 'number divination specialists' on the island.

Number divination was conducted by making many knots on strips made from the pinna of a coconut frond. A young coconut frond suitable for number divination is referred to as wupwut. A single pinna was divided into either one strip, two strips, or four strips. The total number on each strip was then counted. If only one strip had been knotted, the knots were counted in sequence from one through five, while if the pinna had been divided into either two or four strips and then knotted, the knots were counted in sequence from one through four. In any case it was the remaining number of knots beyond the sets of five (or four) that were important for divination. When four-strip divination was practiced, each strip was held between the fingers of one of the hands. Counting of the knots was performed first on the strips held between the little finger, the fourth finger and the middle finger, providing one set of remainders. These were then added to the remainders resulting from the counting of the knots on the third and fourth strips held between the middle finger, the second finger and the thumb. The combinations are thus listed in pairs in the definitions for four-strip divination. The (combination of the) remainders on each strip was named as shown in Tables A2 through A4. Each remainder name appears to have had a story associated with it (many of which were recorded by Ishimori 1979a), and which probably served as reminders of the significance of each omen. The literal meaning of each remainder name, when known, appears in the dictionary under the appropriate entry.

REMAINING NUMBER	NAME
1	siukiuto
2	sowurhurh
3	niwoynong
4, 5	(no names)

 Table A2
 One-strip divination (Ishimori 1979a: 165–166, with spelling adapted)

REMAINING NUMBER COMBINATION	NAME	REFERENCE TO FIGURE A2
(1+1)	tinifak-nukunkuruw	1
(1+2)	saupes-apinimwapis	2
(1+3)	nipun-metankainang	3
(1+4)	pukonimar-raangama	4
(2+1)	inipwai-faanmukorou	5
(2+2)	inaman-mesanweraimw	6
(2+3)	maomoi-nenimat	7
(2+4)	inimain-faanmukat	8
(3+1)	nangaperan-mwarikuor	9
(3+2)	mesauk-esiru	10
(3+3)	taunap-faanpwerpwer	11
(3+4)	nironiwan-faanmeseran	12
(4+1)	inifar-namwonaur	13
(4+2)	inifou-farikai	14
(4+3)	pweigak-faaynemo	15
(4+4)	sawiya-kassupai	16

 Table A3
 Two-strip divination (Ishimori 1979a: 167, with spelling adapted)

 Table A4
 Four-strip divination (Ishimori 1979a: 182-233; with spelling adapted)

REMAINING NUMBER COMBINATION	NAME	REMAINING NUMBER COMBINATION	NAME
(1+1)(1+1)	niukiuniukiurhiuw	(1+2)(2+2)	yayiurhimw
(1+1)(1+2)	soawiuniuk	(1+2)(2+3)	niukiunipwuwe
(1+1)(1+3)	mesaeniimw	(1+2)(2+4)	wenimmwarhenong
(1+1)(1+4)	faen-paerem	(1+2)(3+1)	niinger
(1+1)(2+1)	yoaronkerhaw	(1+2)(3+2)	soapwoorfas
(1+1)(2+2)	yaengemworhomaesae	(1+2)(3+3)	soarongopwe
(1+1)(2+3)	faeyirheonifine	(1+2)(3+4)	yitaensaw
(1+1)(2+4)	woayrhaepiiniu	(1+2)(4+1)	nikiteyiwen
(1+1)(3+1)	faenuwwaas	(1+2)(4+2)	yaniurang
(1+1)(3+2)	rhimweyiriu	(1+2)(4+3)	tetteraey-nowomwaer
(1+1)(3+3)	yaniut	(1+2)(4+4)	yewiuriimw
(1+1)(3+4)	ppinang	(1+3)(1+1)	neerhaepiniyiur
(1+1)(4+1)	komwaey	(1+3)(1+2)	maniukaen-weniimw
(1+1)(4+2)	yiunirangmaesae	(1+3)(1+3)	metaenakaeyinang
(1+1)(4+3)	wenikoasurh	(1+3)(1+4)	ppiy-maenoa
(1+1)(4+4)	noamworiu	(1+3)(2+1)	yapeniwow
(1+2)(1+1)	neesaekiy	(1+3)(2+2)	rhiipwun
(1+2)(1+2)	yaepiniyimwaepwis	(1+3)(2+3)	wamwaekik
(1+2)(1+3)	ppiyaerhikirhik	(1+3)(2+4)	faen-penang
(1+2)(1+4)	wenimmwarhrhewow	(1+3)(3+1)	nimwaeraesawi
(1+2)(2+1)	neefayikkit	(1+3)(3+2)	noamwonuuruman

REMAINING NUMBER COMBINATION	NAME	REMAINING NUMBER COMBINATION	NAME
(1+3)(3+3)	woanikar	(2+2)(2+2)	mesaenweraeyimw
(1+3)(3+4)	taniruwnong	(2+2)(2+3)	faeyinnat
(1+3)(4+1)	yoawuruppiy	(2+2)(2+4)	taeniuk
(1+3)(4+2)	fayiunimesaey- Nukaeyinaeng	(2+2)(3+1)	mweroawuraaw
(1+3)(4+3)	niukiuniyeor	(2+2)(3+2)	moarowa
(1+3)(4+4)	wungmaanetae	(2+2)(3+3)	yesoapwoorfas
(1+4)(1+1)	penoakoamwaay	(2+2)(3+4)	suukon
(1+4)(1+2)	yitiinoang	(2+2)(4+1)	yoaron-meserek
(1+4)(1+3)	fayiun-wuruman	(2+2)(4+2)	yiunirangmeyitam
(1+4)(1+4)	rangamoa	(2+2)(4+3)	feraekiy
(1+4)(2+1)	faeyicchen	(2+2)(4+4)	rhaepikon
(1+4)(2+2)	saeyifetaen	(2+3)(1+1)	niukiuniumeserek
(1+4)(2+3)	yaeyitiiwow	(2+3)(1+2)	niyaenipas
(1+4)(2+4)	niukiun-wuwaenepwerh	(2+3)(1+3)	faen-kayiusiumwaer
(1+4)(3+1)	kayiurek	(2+3)(1+4)	menaenipwe
(1+4)(3+2)	naeyisamwaer	(2+3)(2+1)	fayiutae
(1+4)(3+3)	niukiun-metewaenipwin	(2+3)(2+2)	yoaron-mesewi
(1+4)(3+4)	waniurang	(2+3)(2+3)	nnenimat
(1+4)(4+1)	yoaronofaeis	(2+3)(2+4)	mweoyiusiusineeng
(1+4)(4+2)	maeyitaenuur	(2+3)(3+1)	soamwomwaay
(1+4)(4+3)	mesaeniyaerae-rhikirhik	(2+3)(3+2)	yikewi
(1+4)(4+4)	yiuneeremwo	(2+3)(3+3)	yayiurhimweynepeep
(2+1)(1+1)	soawuwenimeroaw	(2+3)(3+4)	nikinikiwow
(2+1)(1+2)	neefayinnap	(2+3)(4+1)	wurupwaapwa
(2+1)(1+3)	raku	(2+3)(4+2)	serawiinap
(2+1)(1+4)	nesaettiumwaer	(2+3)(4+3)	woanpaeyiniu
(2+1)(2+1)	faenimwiukorhow	(2+3)(4+4)	yaepitoawur
(2+1)(2+2)	soapwoyoromae	(2+4)(1+1)	petokmwaay
(2+1)(2+3)	yaefiisan	(2+4)(1+2)	nisoakupw
(2+1)(2+4)	faeyiyonap	(2+4)(1+3)	fayiun-wirhimmarh
(2+1)(3+1)	waniiko	(2+4)(1+4)	wotonikiuw
(2+1)(3+2)	yaepiniwoopwur	(2+4)(2+1)	sepaenikiuw
(2+1)(3+3)	naeyiipwe	(2+4)(2+2)	soawutan
(2+1)(3+4)	nikaepinoamw	(2+4)(2+3)	neewi
(2+1)(4+1)	saepeyoar	(2+4)(2+4)	faen-mwiukaet
(2+1)(4+2)	wuuwameyaet	(2+4)(3+1)	niukiuniupikiram
(2+1)(4+3)	yoaronowa	(2+4)(3+2)	fayisamwit
(2+1)(4+4)	faen-wupwuupw	(2+4)(3+3)	yoawutyepeep
(2+2)(1+1)	yaengemworhmeyitam	(2+4)(3+4)	pweyipwokiunong
(2+2)(1+2)	maan	(2+4)(4+1)	faenungaeyttaeritiw
(2+2)(1+3)	тжос	(2+4)(4+2)	naeyimwiraen
(2+2)(1+4)	mesaey-toawurukon	(2+4)(4+3)	faenungaeyttaeritae
(2+2)(2+1)	puutiyeor	(2+4)(4+4)	yoawutufo

REMAINING NUMBER COMBINATION	NAME	REMAINING NUMBER COMBINATION	NAME
(3+1)(1+1)	niukiuniuyingaerhik	(3+3)(3+4)	fayiunikoar
(3+1)(1+2)	maanetiw	(3+3)(4+1)	yeyiwererhik
(3+1)(1+3)	niukiunanang	(3+3)(4+2)	faenfenaeyit
(3+1)(1+4)	yoaron-ppiyan	(3+3)(4+3)	ngiungiutiw
(3+1)(2+1)	soawnaeyiy	(3+3)(4+4)	saaw
(3+1)(2+2)	toawuraeniyeor	(3+4)(1+1)	ppiyito
(3+1)(2+3)	piyaeniyaen	(3+4)(1+2)	faey-tingarangar
(3+1)(2+4)	mesaenapiung	(3+4)(1+3)	taeniyruwwow
(3+1)(3+1)	mwaerikuwoar	(3+4)(1+4)	yaeraewa
(3+1)(3+2)	(no name)	(3+4)(2+1)	niukiuniummat
(3+1)(3+3)	noamwoneepwu	(3+4)(2+2)	yaepinifo
(3+1)(3+4)	yeorha	(3+4)(2+3)	yoangonpwuwe
(3+1)(4+1)	yoapwusaamwar	(3+4)(2+4)	seyimann
(3+1)(4+2)	weniyaengerewow	(3+4)(3+1)	yaepinanang
(3+1)(4+3)	waeyiyur	(3+4)(3+2)	yaengiumwaay
(3+1)(4+4)	yamoamenaeng	(3+4)(3+3)	negores
(3+2)(1+1)	noannomeserek	(3+4)(3+4)	faenmeserhoan
(3+2)(1+2)	mwaenpaseto	(3+4)(4+1)	pwaeniy-naeng
(3+2)(1+3)	ppiyaen-wuruman	(3+4)(4+2)	sepenaenuur
(3+2)(1+4)	yikisoamwaer	(3+4)(4+3)	moatonnap
(3+2)(2+1)	yitiniko	(3+4)(4+4)	maeripin-yaeneyi
(3+2)(2+2)	yitinipwuwe	(4+1)(1+1)	mesaeniyan-rhikirhik
(3+2)(2+3)	pweey-namatae	(4+1)(1+2)	yamanapwe
(3+2)(2+4)	mesaeniwaar	(4+1)(1+3)	pwicheyiniuk
(3+2)(3+1)	yitiniwuruwow	(4+1)(1+4)	niukiuysoaton
(3+2)(3+2)	yeesirhu	(4+1)(2+1)	yoangonkoawur
(3+2)(3+3)	saengiuk-metaw	(4+1)(2+2)	niukiun-meserek
(3+2)(3+4)	seroawukkir	(4+1)(2+3)	yiketin
(3+2)(4+1)	yitiniwurunong	(4+1)(2+4)	naeyipweeyoang
(3+2)(4+2)	niukiuniukiuyeew	(4+1)(3+1)	yiunngaeni
(3+2)(4+3)	niukiun-pwuwe	(4+1)(3+2)	nikinikinong
(3+2)(4+4)	mesaenkoatoniu	(4+1)(3+3)	yitinippiy
(3+3)(1+1)	yeoriutiw	(4+1)(3+4)	mweoyiinong
(3+3)(1+2)	pwuriccha	(4+1)(4+1)	noamwon-Yayiur
(3+3)(1+3)	maetetteren-mesaey-Niukaeyinaeng	(4+1)(4+2)	yitinifoamongmwaeng
(3+3)(1+4)	yeoriutae	(4+1)(4+3)	kumwiur
(3+3)(2+1)	fayiunipwunapwu	(4+1)(4+4)	ppiyoanu
(3+3)(2+2)	nikitiyaeterow	(4+2)(1+1)	yefoayinoamw
(3+3)(2+3)	pwiin-yimwikkar	(4+2)(1+2)	nisaenwaarhe
(3+3)(2+4)	yoawurusefa	(4+2)(1+3)	rhoomoan
(3+3)(3+1)	faey-tikoaw	(4+2)(1+4)	nipaenikkeo
(3+3)(3+2)	rhiuwaeyiyoang	(4+2)(2+1)	noawuruto
(3+3)(3+3)	faen-pwerhepwerh	(4+2)(2+2)	niyaeyiniuk

REMAINING NUMBER COMBINATION	NAME	REMAINING NUMBER COMBINATION	NAME
(4+2)(2+3)	serawikkit	(4+3)(3+4)	wun-mamaaw
(4+2)(2+4)	yasammwaen	(4+3)(4+1)	saepeman
(4+2)(3+1)	weniyaengerenong	(4+3)(4+2)	wenimaet
(4+2)(3+2)	niukitonnapanap	(4+3)(4+3)	faaeynama
(4+2)(3+3)	niukiun-wanetoow	(4+3)(4+4)	manneraen
(4+2)(3+4)	yapiungiuyirang	(4+4)(1+1)	faenyiuraeyitipw
(4+2)(4+1)	nepaenipwe	(4+4)(1+2)	kopwun
(4+2)(4+2)	faeraekay	(4+4)(1+3)	mweyaennetiw
(4+2)(4+3)	kkepaenikon	(4+4)(1+4)	taweneyirhik
(4+2)(4+4)	safurimpor	(4+4)(2+1)	mesaeniyan-napanap
(4+3)(1+1)	yaepinikoatoppweon	(4+4)(2+2)	waarhapp
(4+3)(1+2)	yiuneeremwo	(4+4)(2+3)	moaton-rhikirhik
(4+3)(1+3)	yoanpwuruwow	(4+4)(2+4)	ne-worhoapwut
(4+3)(1+4)	niukiunyaerrikirik	(4+4)(3+1)	seremaeniyoan
(4+3)(2+1)	yoanpwurunong	(4+4)(3+2)	pwiukiuwaenimwir
(4+3)(2+2)	yaepinipott	(4+4)(3+3)	pwaat
(4+3)(2+3)	yaepinoamman	(4+4)(3+4)	kerikeriwow
(4+3)(2+4)	noann-mesaey-soawuneyong	(4+4)(4+1)	yininefo
(4+3)(3+1)	wopwemaan	(4+4)(4+2)	kaenaey-rhak
(4+3)(3+2)	noamwoniyeor	(4+4)(4+3)	merheytekeoy
(4+3)(3+3)	ngiungiutae	(4+4)(4+4)	kassiupay

One- and two-strip divinations were practiced by everyone in the society. The former was practiced to predict, for example, whether something lost would be found, or whether a canoe would come back with a big catch. The latter is said to have been conducted every morning by all the male members on the island to predict if the day would turn out to be good.

Four-strip divination, on the other hand, was practiced only by *soawupwe*, specialists whom people visited when necessary. Four-strip divination was conducted also to predict issues concerning the whole island or the chiefly clans (*yaeyinang-soamwoon*) of the island, such as whether there would be a good harvest of breadfruits, if there would be a good catch in fishing, if there was a serious hurricane approaching, or if it was propitious to start a long-distance voyage. Four-strip divination associated with rituals was referred to as *wiunpwelap*¹, where only the chiefs, the navigation specialists, and number-divination specialists could participate, and a sequence of certain rituals were followed. In addition, it is said that until the 1930's, once a year, all the *soawupwe* on the island got together and a divination was conducted to predict the welfare of the island in the following year.

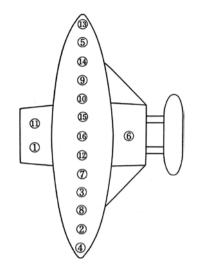


Figure A2 The Satawalese number divination canoe (Ishimori 1979a: 176)

Ishimori (1979a) also documents a story which is said to relate the origin of number divination. In this story, the deity of number divination, *Supunemen*, and 16 spirit-beings (or, supernatural-beings), *yaniuyaeremas*, are said to have descended to earth on a canoe to teach human-beings about number divination. The names of the 16 spirit-beings are identical to the names of the 16 two-number remainders in two-strip divination shown in Table A3. The 16 spirit-beings had fixed positions on the canoe in the story as shown in Figure A2. It has been argued that these positions are relevant to whether a specific combination signified a good or a bad omen in other parts of Micronesia (Matsuoka 1943: 156–161). In the Satawalese version of the origin story the significance of the position of the spirit-beings on the canoe is unclear.

Detailed information about each aspect related to the Satawalese number divination described above, as well as a brief comparison of these with number divination in other islands in Micronesia, including Saipan, Namoluk, Chuuk, Yap, and Woleai islands, appears in Ishimori (1979a and 1979b).

§A4. Human-beings in the World of Creatures, and Their Attributes

The land *weisan*, or the living space of human-beings, comprises *miin* 'stationary objects' and *maan* 'living creatures.' The former includes plants, soil, fire, stone and water, while the latter includes human-beings, animals, insects, and fish. Akimichi (1981a: 73–79), in his ethno-ichthyological work, schematically shows the folk-taxonomy of *maan* in the Stawalese community (Figure A3).

Note that the terms *maan* and *yiik* are used to express both broad and more specific senses. In the rest of this subsection, some lexical items related to human-beings

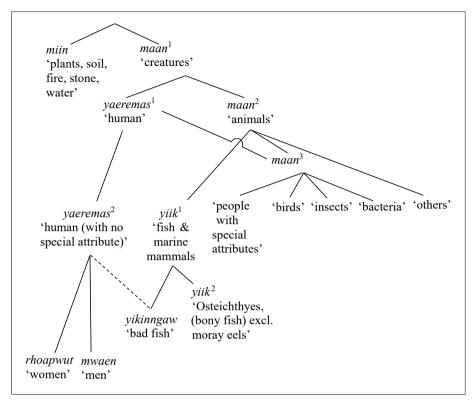


Figure A3 The world of creatures²⁾ (based on Akimichi 1981a: 79)

will be listed. Categories of fish and the members of each category are listed in Cultural Note D.

Yaeremas 'mankind' is described in various ways. In the rest of this subsection, developmental stages (Tables A5), age groups (Table A6), other terms describing the state of human-beings (Table A7), and terms that are used to describe humans with special attributes (Table A8) are presented.

Table A5 The developmental stages of infants (Sudo, pers.comm.)

DEVELOPMENTAL STAGE	MEANING
rhapp	able to turn over
moat	able to sit up
teoteo	able to crawl
taeritiit	able to stand holding on to something
yiuta	able to toddle
faeraek	able to walk

APPOXIMATE AGE	MALE	FEMALE
until 6 months old	koakoa, kaka, m	anikoan
6 months to 3 years	soawukaaw, wuukaaw	nikaaw, nikkoa
4 to 12 years old	woonikaet	woonikaet
13 to 15 years old	rayeofar, yaepinikkaet	yiumesaenwunut
16 to 20 years old	yaetemwaen	yaeterhoapwut
20 to 40 years old	yaniyan mwaen-yaniyan	rhoapwut-yaniyan
40 to 50 years old	yanikoraa	ra
60 years old	yanimwa	r
70 years and older	tukufaeyi	
very old, lying on a mat	mwaen-tukufaeyi sepoawsepo	rhoapwut-tukufaeyi paw

Table A6 The different stages of humanlife (Sudo, pers.comm.)

Table A7 Other terms related to humans

TERM	MEANING
yaeremas	fetus
seoreng	girl who menstruated for the first time
manimae	dead person, corpse

Table A8 People with special attributes (Akimichi 1981a and this dictionary)

TERM	MEANING
manipwoopwo, manuwuupw	pregnant woman
manasemwaay	sick person; patient
manimae	dead person; dead body, corpse
manisosoong _x	crazy person
manippungutiw _x	person who fell off a tree
maninayinay _x	mother with a new-born baby
manipekitakunoa _x	woman who is menstruating
manikoan	baby, Lit: 'one that is lying down'
<i>maniteoteo</i> _x	a crawling child
manimwoarho	thief, robber
manipeik _x	diver
$manimwaamway_{x}$	big man; strong person
manitukufaeyi _x	old person
manakkaenepaay	one who has Hansen's disease
manamweta	good or nimble climber
manamwoarho	thief; untamed or wild animal
manappwoar	person with a hunched back
manimit	active man; energetic person
manimmang	crazy person; mentally retarded person
manipwurh	crazy person, fool, idiot or mentally retarded person

§A5. Social Systems, Avoidance, and Gift Giving

Satawalese society consists of 8 matrilineal clans (*yaeyinang*) and everyone belongs to one of these. There is a distinction between chiefly clans (*yaeyinang-soamwoon*) and non-chiefly clans (*yaeyinang-yaeramas*) as shown in Figure A4. The relationship between a chiefly clan and its subordinated non-chiefly clan(s) is called *kuney-fengan*. The dominant chiefly clan is considered to have accommodated the non-chiefly clan at their first arrival in Satawal, making it obligatory for the subordinate clan members to provide labor for the building or repair of a canoe house. Such obligation is referred to as *yakkuneo*.

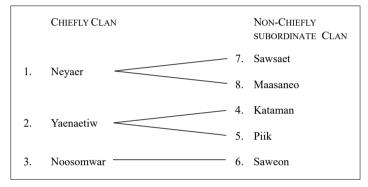


Figure A4 Chiefly clans and their subordinate clans (adopted from Sudo 1984a: 223, the numbers follow the original)

Each clan (*yaeyinang*) consists of two or three matrilineal lineages, or *raayaeyinang*. These are listed in Figure A5.

The residential area of each clan (*yaeyinang*) is referred to as *pwukos*, and people follow a matrilocal residence system. Thus, the residents of a *pwukos* typically consists of a matri-extended family; female members of the clan and their husbands, children of these couples, unmarried male and female members of the clan, and adopted members of the clan who originally belonged to a different *yaeyinang*.

Satawalese kinship terms, which are listed in Table A9, are used only in reference. To address someone, personal names are used, regardless of the relationship between the speaker and the addressee. Sudo analyses the system as a kind of "Hawai'i-type" system, first proposed by Murdock (1949: 123). For detailed descriptions of the kinship system, see Sudo (1980, 1985b). Kinship terms with possessive suffixes are not fully regular. Kinship forms are listed in Table A10, where the original spelling for the vowels is maintained.

1.	CLAN Neyaer	o 	LINEAGE Neyimenikaet (Pwuroorhik) Neyaer Rhaepiiraekirh
2.	Yaenaetiw		Yaenaetiw Neyaen Wenikeyiya
3.	Noosomwar		Nemegak* Kaningeirek Faeyinen
4.	Kataman		Yoasuknap Wenikeyiya
5.	Piik	o <u> o o o</u>	Nesaetikiuw
6.	Saweon	o <u> o o o</u>	Faeniyoar
7.	Sawsaet		Yaepeow Yaetiirong
8.	Maasaneo	o <u> o o o</u>	Weyisow
		*	The lineage Nemegak resides on the land of the Kaningeirek lineage. The ownership rights of the two lineages are kept separate.

Figure A5 Lineages belonging to each clan (Adopted from Sudo 1984a: 222)

Table A9	Kinship	terms	(Sudo	1980:	1014)
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	TERM	MEANING
1.	saam	father
2.	yiin	mother
3.	tukufaeyiya, or mwaenennap	mother's brother
4.	pwii-	same-sex sibling
5.	mwengeyaeng-	opposite sex sibling
6.	naay	child
7.	fatiuw	sister's child
8.	koawurh	man's brother-in-law
9.	keos	woman's sister-in-law
10.	pwiuniuw-	spouse

* The numbers correspond to those in Table A10.

			SINGULAR			PLURAL	T	
		1 st PERSON	2 nd PERSON	3 rd PERSON	1st person Inclusive	1 st person exclusive	2 nd PERSON	3 rd person
Ι.	saam	semaeiy	semoamw	seman	semarh	semaemmaem	semaemi	semeer
5.	yiin	yinaey	yinoamw	yinan	yinarh	yinaemmaem	yinaemi	yineer
ю.	tukufaeyiya	tukufaeyiyaey	tukufaeyiyoamw	tukufaeyiyan	tukufaeyiyairh	tukufaeyiyaemmaem	tukufaeyiyaemi	tukufaeyieer
4.	pwii-	pwiiy	pwiimw	pwiin	pwiirh	pwiimaem	pwiimi	pwiir
5.	mwengeyaeng-	mwengeyaey	mwengeyoamw	mwengeyan	mwengeyarh	mwengeyaemmaem	mwengeyaemi	mwengeyeer
.9	nay	naeyiy	поачитч	nayiun	nayiurh	nayimaem	nayimi	nayiuiur
7.	fatiuw	fatiuwaey	fatiuwoamw	fatiuwan	fatiuwarh	fatiuwaemmaem	fatiuwaemi	fatiuweer
×.	koawurh	koawurhuy	koawurhumw	koawurhun	koawurhurh	koawurhummaem	koawurhumi	koawurhuur
9.	keoeos	keoeosaey	keoeosoamw	keoeosan	keoeosarh	keoeosaemmaem	keoeosaemi	keoeoseer
10.	pwiuniuw-	pwiuniuiuwaey	pwiuniuiuwoamw pwiuniuiuwan	pwiuniuiuwan	pwiuniuwarh	pwiuniuiuwaemmaem	pwiuniuiuwaemi	pwiuniuiweer

KIKUSAWA Cultural Notes

In Satawalese society, there are some codes of behavior, or *yepin* 'taboos'. These are documented in detail in Sudo (1980). Three kinds of avoidance behavior are recognized, namely, *yepin-me-woan* 'deferential behavior', *pininmwengeyaeng* 'avoidance between opposite-sex siblings', and *kkepasepin* 'taboo words'. These are listed in Table A11 with explanation.

Table A11 K	Kinds of	avoidance	behavior	(based	on	Sudo	1980:	1020-	1033)
-------------	----------	-----------	----------	--------	----	------	-------	-------	-------

A. yepin-me-woan	Deferential behavior. This includes the use of deferential terms to those who are one's senior, the avoidance of physical contact with any body part above the shoulders of a respected person, and having to stay physically lower than the respected person.
a. yepin-faita-woan, kkepaseyawaawa	The use of deferential (honorific) terms toward the respected. See Tables A12 and A13.
b. yepin-yangetae-woan	Physical contact restriction as a part of deferential behavior.
c. yoappworo	Posture restriction as a part of deferential behavior.
B. pininmwengeyaeng (yepin-mwengeyaeng)	Avoidance between opposite-sex siblings.
a. yepin yiun	Literally, 'drinking/sucking taboo'. Women are restricted from touching anything that their male siblings have eaten from, including utensils, plates, bowls and dishes, pots and other cooking vessels.
b. yepin waisor	Literally, 'picking up taboo'. Women are restricted from using clothes and other personal belongings worn by their male siblings.
c. yepin sepao	Literally, 'coconut-frond mat taboo'. Women are restricted from getting close to their male sibling's sleeping area.
d. yepin kiekiy	Literally, 'pandanus mat taboo'. Women are restricted from directly touching their male sibling's sleeping gear.
e. yepin mangak	Literally, 'woven cloth taboo'. A woman's wraparound skirts should be put away so that they cannot be seen by her male sibling.
f. (others)	 i) A woman is not allowed to enter the house of her male sibling. ii) A woman is not allowed to show a tattoo on her thigh to her male sibling iii) A man is restricted from talking directly to his female sibling about "hospitality" provided to him by local women when he visited another island.
C. kkepasepin	'word taboo', also referred to as <i>kkepase-engaw</i> 'bad words'. A prohibition on the use of certain words between men and women.

Category A, *yepin-me-woan* 'deferential behavior,' applies to the following criteria: i) a man and his *fatiuw* 'sister's child', also his *tukufaeyiya* 'mother's brother'; ii) seniority by age between a person and their *pwii* 'same-sex sibling', also between members of the clan and their *yafakiur* 'father's clan'; iii) a woman and her *mwengeyaeng* 'opposite-sex sibling'; iv) between *koawurh* 'brothers-in-law'. There are detailed procedures to be observed in everyday life, the details of which are documented in Sudo (1980).

Of these, *yepin-faita-woan* (or *kkepaseyawaawa*) involves the use of deferential or honorific terms toward someone with higher status. These terms include both

verbs and nouns, and are listed in Tables 12 (verbs) and 13 (nouns). Most of the verbs describe human activities, senses and perception, while the nouns refer to the upper part of the body above the neck.

GLOSS	NON-DEFERENTIAL	DEFERENTIAL
to eat, to drink	mwongo yiun	wiis yaeyae yinet, yinetiiy, yinetiuk yoattoawur taecchiiy teep, tepeey pattiiy niuniuw
to hear, listen to	rongorong	pweroawusa pwoppworoa
to see	piipi, piipiiy	sakiuriuw sarheey woori niukiuniipwa niukiunpirheey woowo
to speak, talk	kkepas	faeniipwa yoanaek yoano
to know	kiuneey	reepiya
to sniff, smell	teongiu	ngiuri ngiungiu
to stand	yiutae	yiussiutae nnangetae
to laugh	kekkaey kkaey	feffayiwarh ffas ririyaek
to lick	tuttumw tumwuri	woongi sessoat soatoni yaekina nann nnaeri
to sleep	mayiur	saeyipaerh yateon kiunammw
to die	mae, maenoa	woasoanoa ppiungiunoa

Table A12 Deferential words (verbs) (based on Sudo 1980: 1022)

GLOSS	REGULAR WORD	DEFERENTIAL TERM
head	rhiimw	weyinaeng
forehead	moang	weyinaeng
hair of one's head	yaenni-rhimw	yaenni-weyinaeng, yiun
space between the eyebrows	neyaeyin-fatiun	weyinaeng
face, eye	maas	sapweoyiun
eye, eyeball	fayiuniumas	fayiuy-sapweoyiun
the pupil of one's eyes	checchoanono-mas	checchoanoy-sapweoyiun
eyebrow	faat	noangoy-taeyiuk
eyelash	maetetterene-mas	maetetteren-sapweoyiun
the outer edge of the eye	soapwon-maas	soapwoy-sapweoyiun
tears	rhanni-maas	rhanni-sapweoyiun
nose	pwoot	yoafoang
the tip of one's nose	merhenepwoot	merheneyoafoang
mouth	toawuusa	ngaerh
tooth, teeth	ngii	faay, foatoafoat
tongue	rheoneokaenew, rheoniyiuw	rheoningaerh
throat	faen-yiuw	yoasoarof
neck	yiuw	soarof
ear	saening	soapwoy-sapweoyiun pweroawus
ear-lobe	fayiuy-saening	yeonaen-pweroawus
cheek	saap, neeyoawusap	woai-sapweoyiun

Table A13 Deferential words (nouns) (based on Sudo 1980: 1023)

Category B, *pininmwengeyaeng* (*yepin mwengeyaeng*), is avoidance between opposite-sex siblings and there are many kinds. These prohibit a woman physically touching possessions of her male siblings and any behavior which is suggestive of a sexual-relationship between the two. One characteristic of Satawalese avoidance is that there are far more restrictions on a woman's behavior towards a man, while as for restrictions on a man, there is only one, as can be seen in Table A11.

Category C, *kkepasepin*, is word taboo, which restricts the use of certain words between a man and a woman. These include human reproductive organs, excretion behavior, and sexual-intercourse terms as listed in Table A14.

RESTRICTED WORD	MEANING	EUPHEMISM (IF ANY)
paa pa paati	excrement, feces to defecate to defecate upon s.t.	yaeppaen faennikaet faennikaeteeti
siir sir	urine to urinate	yaemeyoaw
rhakarhak fee	the movement of sexual intercourse sexual intercourse	
mesaeik	to feel sexual pleasure	kker
irir	masturbation	
yaemwaer yaemwesoaw	sweetheart, lover secret meeting of a man and a woman	
pwiuriuw	anus	
see ruumw kinin-merheyise faiseon kiniyse kkus	male genitals; penis glans penis; the head of one's penis the foreskin of the penis, prepuce testicle scrotum; the bag of one's testicles sperm, semen; to be ejaculated, of sperm	
tingiy pwaar fayitiuttiun rapiy-taan	female genitals a part of the female genital area clitoris thigh	
nngiufarh peyitaekenoa	to menstruate to be menstruating, of women	
kkor	pubic hair	

Table A14 Restricted words (Sudo 1980: 1033 and this dictionary)

§A6. Land Use and Land Tenure

In Satawal, the land (*faniuw*) is regarded as the source of food (*mwongo*), and the word *mwongo* is sometimes used to refer to the land. Therefore, it is important to understand people's ways of utilizing their land. In this section, terms associated with land use, land categories and names given to each piece of land are summarized below.

The land, or island, is classified into ten basic land categories according to topographic characteristics and to resource utilization. These are summarized in Figure A6. The explanation of each land category is presented in Table A15.

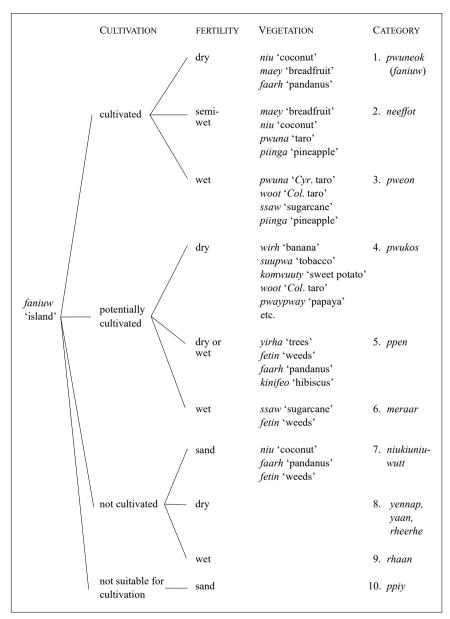


Figure A6 Classification of the land (based on Sudo 1984a: 231)

Table A15	Land use	(based or	n Sudo	1984a: 227-230)
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	LAND CATEGORY	LAND USE
1.	<i>pwuneok</i> 'coconut grove'	Dry land found in inland areas cultivated as coconut groves. Each of its divisions is named and owned by a lineage group. Boundaries surrounding each division are marked with young coconut trees, coconut shells, big trees, and/or rocks.
2.	pweon 'taro patches'	Cultivated wetland with rich soil found in inland areas and used for planting taro. There are 46 taro-patch divisions, each of which is named (see Table A18). Boundaries between the taro patches and their surrounding areas (<i>neeffot</i> , see below) are formed by rows of mounded soil with ditches alongside. Planted in the mounds are <i>pwuna</i> (<i>Cyrtosperma</i> spp.) and <i>woot</i> (<i>Colocasia esculenta</i>).
3.	<i>neeffot</i> 'uncultivated boundary land'	Uncultivated land with semi-wet soil that surrounds taro patches and serves as a boundary between them and coconut groves. These areas are annexed to their adjacent taro-patches, with ownership following that of their adjacent taro-patch division.
4.	pwukos 'homestead, residential area'	Each homestead belongs to a lineage, is named, and consists of several houses that surround a shared kitchen (<i>manuumw</i>) and a courtyard (<i>niukiuniyiimw</i>). There are 15 residential areas. The name of each residential area serves also as the name of the lineage that resides there. The physical locations of residential areas had changed considerably within the 100 years prior to the time of research. Lands that previously served as residential areas, although typically having the appearance of coconut groves, are called <i>pwosupwosu</i> and are differentiated from <i>pwuneok</i> .
5.	<i>ppen</i> 'uncultivated inland area'	These lands are scattered in the coconut grove areas and are considered to belong to the coconut grove where each is located. These are lands with the potential to be planted with coconut trees.
6.	<i>meraar</i> 'potential taro patch'	This is land that was formerly cultivated for a taro patch, but which turned out to not be suitable for taro planting. It is generally located between a taro patch and uncultivated boundary land. This is land that has the potential of being made suitable for cultivation, and once this takes place, the land can be categorized as a taro patch.
7.	niukiuniu-wutt, neewutt 'land between residential areas and the beach'	This is an area along the western coast of Satawal, separating residential areas from the beach. Eight canoe houses, which also serve as meeting houses, are located there. Each canoe house is owned by several residential groups.
8.	yennap, yaan, rheerhe 'path'	The term <i>yennap</i> 'big path' refers to the main road that passes by the coconut groves along the coast, and also to the roads connecting the east and west coasts of the island. The term <i>yaan</i> refers to a path that starts from a canoe house, crosses a residential area, and leads to an inland bathing area. All other paths are called <i>rheerhe</i> . All paths, including small passages leading to each division of coconut land or taro patch are public property.
9.	rhaan 'bathing area'	These are bathing areas dug between residential areas and the bush. Although each <i>rhaan</i> was in a division of land owned by a certain lineage, any (male) member on the Island could bathe there. In addition, there were small bathing areas dug out within a residential area and the use of these was limited to the members of each <i>pwukos</i> .
10.	<i>ppiy</i> 'sandy area'	Sandy areas adjacent to the ocean around the circumference of the island are where people collect pieces of coral to spread around their houses and to use in earth ovens. These areas are public.

* The numbers correspond to those in Figure A6.

The terms referring to the types of land are listed in Table A16.

Table A16 Types of land

TERM	MEANING
cchemaaw	'hard, dry (land)'
weychemao	'dry land with water'
petan	'marsh, wet land'
ppiy	'sandy beach'

Among the ten categories of land described above, the cultivated and potentially cultivated land divisions (categories 1 through 6 in Table A15) and residential areas are subject to the traditional land tenure system. Roads, bathing areas, and beaches (categories 8 through 10 in Table A15) are public areas, and are under the supervision of the heads of the three chiefly clans. The area where canoe houses exist (category 7) is fundamentally considered to be a public area (that is, the land itself does not belong to any specific clan), however, maintenance is shared by them. The details of land use and the land tenure system, including case studies, appear in Sudo (1984a). In this article he clarifies the nature of the relationship between social groups and their rights to physically existing properties.

All pieces of land for cultivation and taro patches are named as shown in Tables A17 and A18 respectively. The numbers 1–194 in the former, and T1–T46 in the latter correspond to those in Map A1.

	localed.)		
	LAND-DIVISION NAME		LAND-DIVISION NAME
1.	Neniuyennaey	14.	Niukiunkiumwiurh
2.	Meseniukiunpakiuniumaey	15.	Mwusonikkeorh
3.	Niukiuroang	16.	Yenaengeraek
4.	Pakiuniumaey	17.	Matainatik
5.	Yaepeneyoaw	18.	Mwoarhongaenikiun
6.	Nerheenow	19.	Ferhaefiraek
7.	Niukiunippiy	20.	Wenippan
8.	Raepinippiy	21.	Faeytaay
9.	Faeyiireon	22.	Rhaepiitaay
10.	Fayiunfaeniung	23.	Nemweoy
11.	Faeyicchen	24.	Weyitoawur
12.	Raenemwaay	25.	Faankeengiy
13.	Yimwaenipaey	 26.	Meseniuk

 Table A17
 Land divisions (Sudo 1984a:216–219, the asterisk symbol (*) marks where canoe houses are located.)

	LAND-DIVISION NAME	
27.	Foatomwor	71.
28.	Neweta	72.
29.	Neekeo	73.
30.	Neyamman	74.
31.	Nemaat	75.
32.	Neweriyoan	76.
33.	Nekiyoangoarhik	77.
34.	Nemwoattonong	78.
35.	Rhaepiiraekirh	79.
36.	Kkuwow	80.
37.	Neyaerepwann	81.
38.	Nepokuw	82.
39.	Nekao	83.
40.	Nemaeyoan	84.
41.	Neemwoano	85.
42.	Neepiiy	86.
43.	Yaepeow	87.
44.	Yaepinipaeyi	88.
45.	Faenimaey	89.
46.	Maeyikkit	90.
47.	Yaetiiroang	91.
48.	Yaenaetiw	92.
49.	Wenifayimwoa	93.
50.	Reewow	94.
51.	Pwuroorhik	95.
52.	Yaepinyimwenikaet	96.
53.	Weyisow	97.
54.	Faeniwirh	98.
55.	Neepiytiw	99.
56.	Yimwaffeo, or Neyaer	100.
57.	Kaningeirek	101.
58.	Sikaefina*	102.
59.	Ningiiccha	103.
60.	Yasiukiuwow*	104.
61.	Neyimwenikaet	105.
62.	Ropiiy	106.
63.	Neepwiitik*	107.
64.	Tesweyisow, or Niukarhik*	108.
65.	Neyaen	109.
66.	Faeniyoar	110.
67.	Yoasukunap	111.
68.	Nesaetikiuw	112.
69.	Faeyinen	113.
70.	Nemenak	114.

	LAND-DIVISION NAME
71.	Yawiiy
72.	Nepaeti
73.	Wenikeyiyae
74.	Neefay
75.	Nesoaroaniu
76.	Noosomwar
77.	Newirh
78.	Neroang, or Wuttnap*
79.	Yaenengaenipik
80.	Nemwaeir
81.	Ropotiw*
82.	Faenaemweok
83.	Weneyiteo*
84.	Kaeningataek*
85.	Yimwaeniwoa
86.	Faenaaniuw
87.	Nenaet
88.	Pekinong
89.	Kucchupey
90.	Suuren
91.	Faenaekun
92.	Pweoniuy-nimmong
93.	Neemaenong
94.	Wennuukurhann
95.	Yappwinis
96.	Soapwoniyan
97.	Menaeyisewa
98.	Yoamoamenaw
99.	Pwaeremenaw
100.	Nefaeniyap
101.	Wuraaw
102.	Neepw
103.	Nemwaering
104.	Wuwoawu
105.	Faeneereo
106.	Neonifaana
107.	Neekopw
108.	Noottae
109.	Neeyoaroma
110.	Raekmaefaeng
111.	Yaetiyan
112.	Neyitaenneew
113.	Pweonnaefaeng
114	17

Yaepinipweon

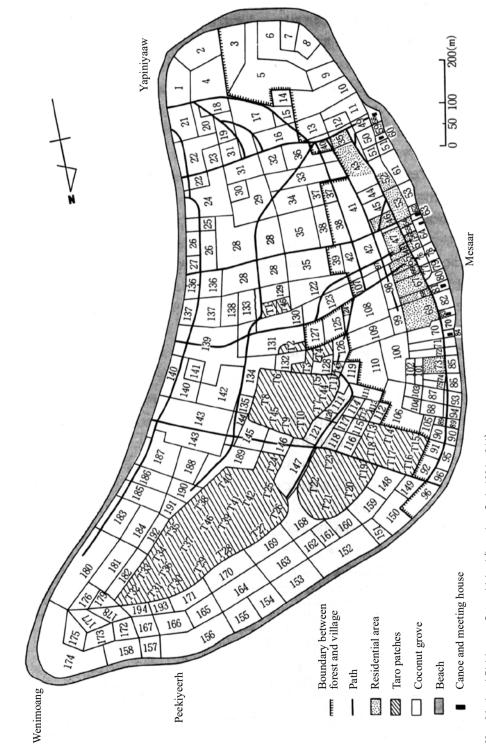
	LAND-DIVISION NAME	 	LAND-DIVISION NAME
115.	Fetaeynenwur	155.	Neepwa
116.	Weyinoamw	156.	Tewaenipar
117.	Fetaenaepwaen	157.	Yaengeiniuk
118.	Fetaennuwaenen	158.	Soapweeton
119.	Rhanimwaer	159.	Yaepitae
120.	Faen-kinifeo	160.	Nemoayrakirh
121.	Mengikoan	161.	Fetaenwoawarik
122.	Faey-niuwoan	162.	Netiwetiw
123.	Ppaeyirhan	163.	Maeynuuk
124.	Nemaet	164.	Peniyoar
125.	Newanetupw	165.	Yaeteraeyitip
126.	Neenngeoneor	166.	Neworor
127.	Neon-mweyaeng	167.	Maetanpwari
128.	Pweoniuyeew	168.	Neepwunong
129.	Maeyicchinong	169.	Nnak
130.	Wenimmerhoar	170.	Senar
131.	Yaepiirhan	171.	Saepen
132.	Faeyirhiun	172.	Maecchiisoamw
133.	Sawiirorh	173.	Netinenyaenet
134.	Waeniyoar	174.	Wenimoang
135.	Pisiriyaenworhow	175.	Yoawutoanyoatott
136.	Nekarengaes	176.	Neesangeonong
137.	Nennoan	177.	Pweoneo
138.	Ppeenoamw	178.	Neepat
139.	Woneyiniuk	179.	Mesaenikkaer
140.	Fateyitopw	180.	Neesang
141.	Mataeyrang	181.	Yaenaeyisoang
142.	Maetaeyreyiyap	182.	Pweonniukiuw
143.	Niukiuniupweon	183.	Weniinang
144.	Neemoan-wenipweon	184.	Wenimaat
145.	Weniyaen	185.	Raapot
146.	Rongeorhuw	186.	Yiuniuraekirh
147.	Wenipeopeo	187.	Netoapwut
148.	Soonifay	188.	Yamaniuw
149.	Neewuunoa	189.	Yawirhiyae
150.	Neemoayitip	190.	Pweoniunkayiut
151.	Niukiunkeoyun	191.	Faenupokiuw
152.	Yeengiy	192.	Teyinniuw
153.	Wenuutt	193.	Mwoarhongaeniyaw
154.	Yaepinifay	 194.	Kinnup

	TARO-PATCH NAME		TARO-PATCH NAME
T1.	Sawiirorh	T24.	Pweoniusaet
Т2.	Yaepiirhan	T25.	Wenipeopeo
Т3.	Faeyirhiun	T26.	Neepwunong
T4.	Pweoniuyeew	T27.	Ngiungiunong
Т5.	Neon-mweyaeng	T28.	Peniyoar
Т6.	Waeniyoar	T29.	Senar
Т7.	Faen-kinifeo	Т30.	Saepen
Τ8.	Neemoan-wenipweon	T31.	Maetaen-pwaeri
Т9.	Niukiuniupweon	Т32.	Faenaepokuw
T10.	Mengikoan	Т33.	Yaenaeyisoang
T11.	Raannimwar	Т34.	Pweoniufay
T12.	Pweonnaefaeng	Т35.	Pweoniunkayiut
T13.	Neonifaana	Т36.	Kkaer
T14.	Faayis	Т37.	Pweonniukiuw
T15.	Faeneereo	Т38.	Maapwoon
T16.	Faenaekun	Т39.	Yawirhiyae
T17.	Pweoniuy-nimmong	T40.	Yaefisafeo
T18.	Weyinoamw	T41.	Neekur
T19.	Soonifay	T42.	Neenngeoneor
T20.	Neemoayitip	T43.	Yaetiyan
T21.	Neemoayraekirh	T44.	Rongorhiuw
T22.	Neemaetiw	T45.	Maeyicchinong
T23.	Neeyaengiyaeng	T46.	Rrhapp

Table A18 Taro patches (Sudo 1984a: 220)

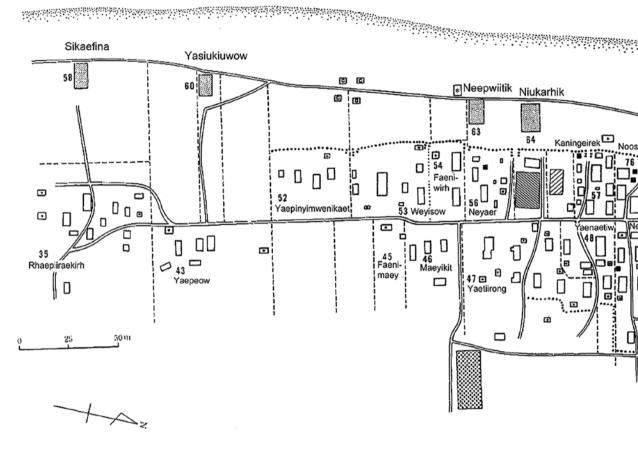
Notes

- 1) *wiunpwenap*, also *yiunpwenap* were important number divination ceremonies where only chiefs, navigation specialists, and number divination specialists could participate (Ishimori 1979a: 177).
- 2) The superscripted numbers follow the original (Akimichi 1981a: 79), where the relationship among the creatures is analyzed from an ethnological viewpoint. It should be noted that they do not correspond to the numbers given to subentries of *maan* in the dictionary.



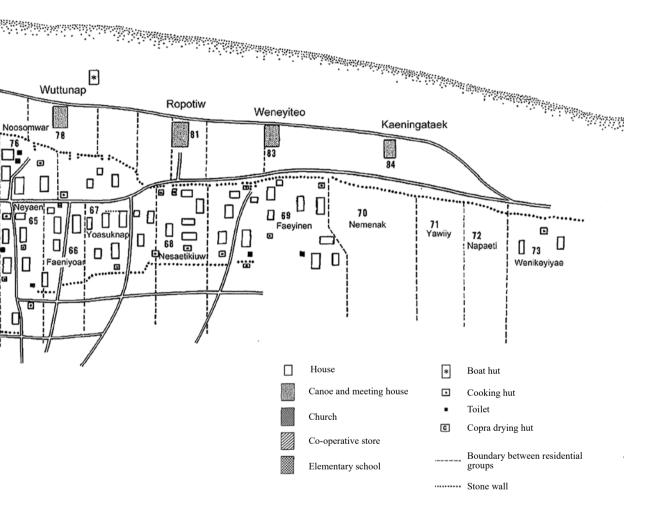
Map A1 Land Divisions on Satawal Island (based on Sudo 1984a: 214)

Sea (Mesaer)



Forest

Map A2 Location of residential groups (as of 1980, Sudo 1985a: Figure 9)



Cultural Note B. Navigational Knowledge

People in Micronesia had highly developed navigational skills enabling them to sail through Micronesia and beyond. Those in Satawal were still practicing long-distance ocean voyaging in the 1970's. In 1975, Chechemeni, an ocean-going outrigger canoe from Satawal, successfully sailed some 3000 km to Okinawa in Japan, spending 47 days demonstrating the efficiency and practicality of their traditional navigational knowledge. The canoe is now a part of the exhibition of the National Museum of Ethnology in Osaka, and proudly greets visitors in the exhibition hall.

Ocean areas were named according to their own system (§B1), and canoes were navigated with reference to the star compass and directional-orientation knowledge that was shared by all male members of the community (§B2). However, more advanced skills necessary for long-distance ocean voyaging, such as directional orientations associated with major islands (§B3), knowledge about phenomena surrounding major islands (§B4), and route information (§B5), were traditionally kept secret by specialists within each school of navigation, and were taught only to selected youths, who underwent several training periods. Those who completed the training and were approved as qualified, underwent a ritual called *ppwo*, and became *paniuw* 'navigation specialists'. A navigation specialist was responsible for taking a canoe to its destination and bringing everyone safely back home, and for this, he needed to be familiar also with rituals and taboos. Thus, a good *paniuw* was usually, at the same time, a good *sennap* 'canoe-building specialist' and a *soawupwe* 'number-divination specialist', and was highly respected in the society.

The following summary presents a picture of the Satawalese navigational system, information that is essential to understanding the meaning of some words that appear as dictionary entries.

§B1. Division of the Ocean Space

As noted in Table A16, a sandy beach is termed *ppiy*. A shallow area between the beach and the fringing reef is *neeneoneo*. It is edged by the sea break, or *neeppiungiy-noanoa*. A sea-slope outside the surf break is termed *niukiuniuworh*, beyond that is *mesaeniworh* and then the ocean *metaw*. This ocean area surrounding an island (*faniuw*) is generally referred to by one of the four cardinal direction terms shown in Figure B1.

Further away from the island, ocean areas are defined as the "area between Island A and Island B", with each section having its own name. The sum of the knowledge of such sections is called *yitimetaw*, and is shown on Map B1. The name of each inter-island ocean area is listed under the corresponding number in Table B1. It should be noted that, in the map, each section is indicated with a line

between two islands, however the name of each section refers to a twodimensional space. Detailed explanations of the basic ocean divisions and *yitimetaw* appear in Akimichi (1984a).

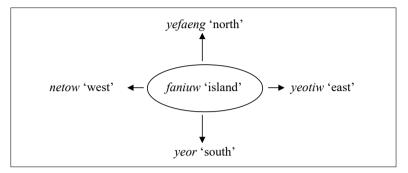
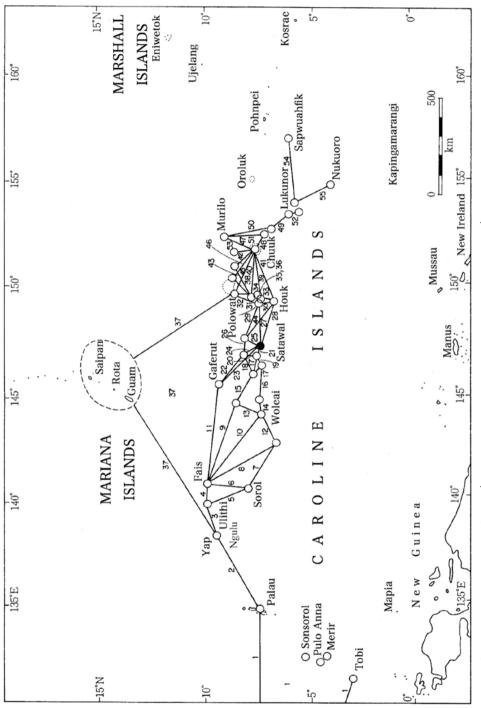


Figure B1 Cardinal directions of the ocean area surrounding an island (Akimichi 1984a: 657)

Table B1	Ocean	spaces	(Akimichi	1984a:	688-694)
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	OCEAN-SPACE NAME		OCEAN-SPACE NAME
1.	Metewaen-yaetinga	29.	Metewaeniman
2.	Metaw-mwaen	30.	Metaw-pengaek
3.	Metewaey-ruupaen	31.	Faeyisoapw
4.	Metaw-mwaeraefarh	32.	Faey-niuriuwaay
5.	Faen-mwaer	33.	Niukiun-yengi
6.	Woanimwaer	34.	Moatonnap
7.	Metewaen-kinimwaer	35.	Moatonorhik
8.	Faen-mekoan	36.	Moaton
9.	Neemekoan	37.	Metewaen-woan
10.	Yaepin-moan	38.	Nemmwurhaniyaeng
11.	Woan-Mekoan	39.	Yarhuwan
12.	Metewaenipwun	40.	Faasaet
13.	Faen-yikimwoatur	41.	Niukiun-yiiwan
14.	Fan-yoarhoma	42.	Wenupwanyora
15.	Yaepin-metaw	43.	Faey-niu-mmworh
16.	Yapinoyurhupw	44.	Faey-niu-pey
17.	Metewaen-kayiussa	45.	Wenuupwunoan
18.	Faen-keraek	46.	Wenuupwaen-mweyir
19.	Moaton	47.	Niukiiton
20.	Nekeraek	48.	Faey-Nemeo
21.	Woriraek	49.	Yapwong
22.	Niukiun-keraek	50.	Winaafar-sootiw
23.	Naafas	51.	Winaafar-sootae
24.	Metaw-pengaek	52.	Metaw-rhikirhik
25.	Metaw-yiu; Metewaen-wuumwaer	53.	Yaepiriuw
26.	Faayiu	54.	Saereyiu
27.	Yaepinaeney	55.	Metewaen-kinimwaer
28.	Faen-yiiwan; Faey-niukaseo	* The m	umbers correspond to those in Map B1.





§B2. The Star Compass and Directional Orientations

The star compass (*naeng*, Figure B2), contains 32 directions defined by the rising or setting positions of the North Star and 15 other stars (*fiui-naeng*, Table B2), and is the base for all Satawalese navigational knowledge. The basic directions are first memorized (*paafiu*), then the 16 combinations of two directions opposite each other (*yaerhowumw*). Combinations of directions are also memorized in sets of four (*yamas*). This is done in association with the position of a canoe, as shown in Figure B3.

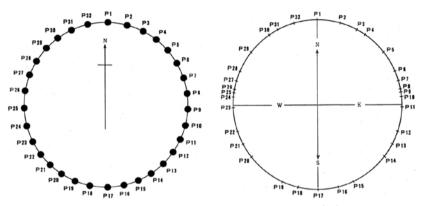


Figure B2 The 32 directions of the star compass as traditionally perceived (left) and their positions on the magnetic compass (right) (Akimichi 1980a: 626, 628)

SATAWALESE NAME	English name
Fiusemwakiut	North Star (Polaris)
Maeyineopaenefaeng	the star Kochab (Beta Ursae Minoris)
Weoneo	Alpha Ursae Majoris, a star in the constellation Great Bear (Ursa Major)
Yiukiuniik	the star Schedar (Alpha Cassiopeiae)
Meon	the constellation Lyra
Mwaerikaer	the star cluster Pleiades in the constellation Taurus
Wuun	the constellation Taurus
Payiyefaeng	the star Tarazed (Gamma Aquilae)
Maeyinap	the star Altair (Alpha Aquilae)
Payiyeor	the star Alshain (Beta Aquilae)
Yeoniuyeon	the constellation Orion
Saerepweon	the constellation Corvus
Tumwur	the star Antares (Alpha Scorpii)
Mesariuw	the constellation Scorpius
Pwuupw	the Southern Cross, the constellation Crux

Table B2 Stars upon which the star compass is formed (Akimichi 1980a: 627)

STAR COMPASS POSITION	TERM FOR THE DIRECTION	MAGNETIC COMPASS POSITION	STAR COMPASS POSITION	TERM FOR THE DIRECTION	MAGNETIC COMPASS POSITION
P1	Fiusemwakiut	0°	P17	wenewenenupw	180°
P2	taen-Maeyineopaenefaeng	14°	P18	maecchemenetow	193°
P3	taen-Weoneo	27°	P19	tupwunupw	206°
P4	taen-Yiukiuniik	33°	P20	tupwun-Mesariuw	233°
P5	taen-Meon	51°	P21	tupwuy-Tumwur	243°
P6	taen-Mwaerikaer	65°	P22	tupwuy-Saerepweon	252°
P7	taen-Wuun	73°	P23	tupwun-Yeoniuyeon	269°
P8	taen-Payiyefaeng	79°	P24	tupwun-Payiyeor	276°
Р9	taen-Maeyinap	81°	P25	tupwun-Maeyinap	279°
P10	taen-Payiyeor	83°	P26	tupwun-Payiyefaeng	281°
P11	taen-Yeoniuyeon	91°	P27	tupwun-Wuun	287°
P12	taen-Saerepweon	98°	P28	tupwun-Mwaerikaer	294°
P13	taen-Tumwur	117°	P29	tupwun-Meon	309°
P14	taen-Mesariuw	127°	P30	tupwun-Yiukiuniik	327°
P15	taenupw	154°	P31	tupwun-Weoneo	333°
P16	maecchemeyas	166°	P32	tupwun-Maeyineopaenefaeng	346°

Table B3 Directions on the star compass and positions on the magnetic compass (Akimichi 1980a: 627)

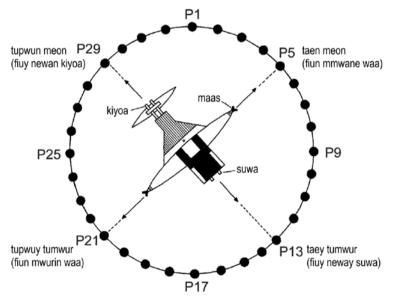


Figure B3 Example of a set of four directions in the yamas system (Akimichi 1980a: 633)

A detailed description of the Satawalese star compass and related knowledge, and a comparison of the traditional compass with the directions defined by a magnetic compass appear in Akimichi (1980a) and others.

§B3. Island Directions

The knowledge referred to as *woofaniuw* comprises a set of directions from one island to another given with reference to points on the star compass. The 32 directions of the star compass are used as references of such directions, and there is one set of *woofaniuw* for each island. The *woofaniuw* of Satawal is shown in Figure B4 as an example, where the directions of destination islands are associated with points on the star compass (Figure B2).

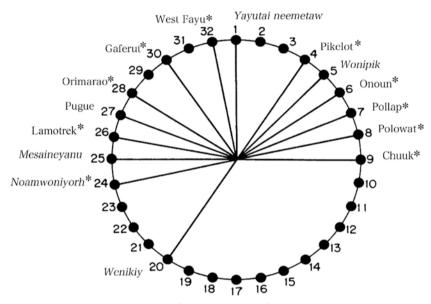
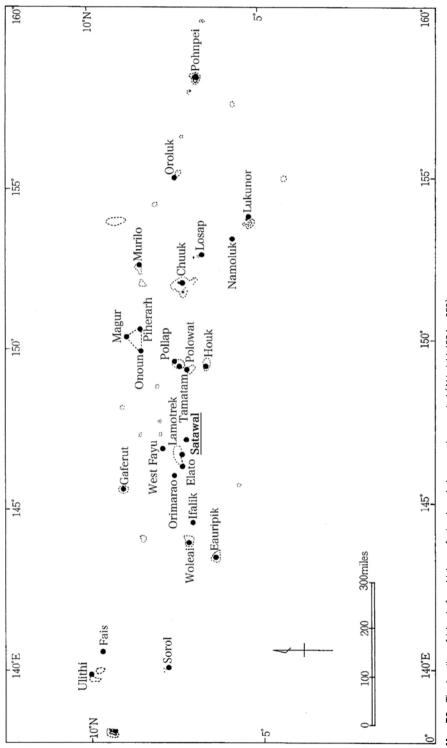


Figure B4 The woofaniuw of Satawal (Akimichi 1984a: 672)

The *woofaniuw* of 28 islands used by people in Satawal were recorded and their details described in Akimichi (1984a). These 28 islands spread over the whole of the Carolinian archipelago, as can be seen in Map B2.

A *woofaniuw* set consists of islands and reefs that are considered to exist and often are identifiable on a map, such as those marked with the symbol "*" in Figure B4. The other four unnamed positions (2, 3, 29 and 31) may possibley suggest existing submerged reefs. A single place name often occurs in the *woofaniuw* of several different islands, but naturally with different directions.





§B4. Navigational Clues

In addition to *woofaniuw*, there was a system of navigational clues that were memorized by navigation specialists. These referred to ocean phenomena and to living creatures associated with each island. Unlike the place names referred to in the *woofaniuw* system where most of the listed islands and reefs are readily identifiable, those that appear in *pwukof* are either difficult to locate on a map (such as small reefs and atolls), or unlikely to be always found in one place (creatures, whirlpools, etc). Akimichi (1988), based on his examination of the potential locations of some items appearing in different sets of *pwukof*, argues that *pwukof* may have originated from a system in which knowledge was transmitted about dynamic phenomena (as opposed to the static entities referred to in *woofaniuw*) that one may or may not encounter during an actual voyage. He proposes that this gradually developed to form an integral part of the educational knowledge for those who learn navigation skills.

The 36 sets of *pwukof* were recorded and are presented with detailed analyses in Akimichi (1988). The *pwukof* of Satawal itself is presented in Table B4 as an example. The numbers refer to the directions in the star compass (see §B2), and are followed by the description of each item as memorized by navigation specialists. Of these, the asterisk "*" indicates existing is lands on atolls. Table B5 is a list of all the items appearing in the *pwukof* system. A detailed explanation of each creature, when available, appears in the dictionary under each entry. Some items refer to islands/atolls that exist and overlap the references in *woofaniuw*.

DIRECTION ON THE STAR COMPASS	MEMORIZED ITEM (NAME OF THE ITEM: EXPLANATION)	DESCRIPTION OF THE NAVIGATIONAL CLUE
P1	Yiuniiso: yeew yasaf	a frigate bird, which looks shabby with missing feathers and tail
P2	Worhaenipar: woorh	a coral reef
P3	Mowuun: woorh	a coral reef
P4	Piik*	Pikelot Island
P5	Woonipik: woorh	a coral reef
P6	Wunowun*	Onoun Island
P7	Pwonnap*	Pollap Atoll
P8	Ponowat*	Polowat Atoll
Р9	Noawuwenimoang: yeew yoamoa	a booby bird
P10	Mwaeraemwaeraen-kiuriukaak	a noody tern bird
P11	(the name not identified): ruwow raaw, Wuroawuran: woorh	two big whales, a coral reef
P12	Sowuk*	Houk Island
P13	Worhaey-saeyifetaen: woorh	a coral reef

Table B4 A pwukof of Satawal Island (Akimichi 1988: 157-158, the spelling system has been revised)

P14	Niyaeyinemwaer: yeew nisingeor	a bird that is black with a white chest having wings with oval-shaped ends
P15	Noangonap: ruwow foofo	two rainbow runner fish that are about as long as a person's arm
P16	Yeyipwimwaer: yeew siuk	a tropic bird
P17	Nayifaeyiniuk: yeew yasaf	a frigate bird that is black with no white spots on its body
P18	Mesoa-me-yeor: ruwow yaraar	two terns that are not singing, their eyes are brown, the parts above their eyes are raised and their wings are dirty and shabby
P19	Mesoar-me-yefaeng: ruwow yaraar	two terns that are singing with no raised part above their eyes
P20	Wenikiy: woorh	a coral reef
P21	Yinaanamwaer: yeew fayi (faeriyap)	a stingray that does not have any thorns on its tail
P22	Serewaenimwaer: yeew seraw	a barracuda
P23	Nukeyisoamw: yeew siuk	a big tropicbird
P24	Noamwoniyeor: faniuw	an island
P25	Mesaeyineeyaniu: toawur	a channel
P26	Noamweoccheok*	Lamotrek Atoll
P27	Wenimeroaw*	Olimarao Atoll
P28	Yoniwa: yewumw raaw	a school of whales that is feared for its ability to destroy canoes
P29	Fayiun-kaeraengaap: woorh	a coral reef
P30	Fayiyeew*	Gaferut Island
P31	Maanirek: yeew saengir	a tuna fish
P32	Pikeeneo*	West Fayu

 Table B5
 Creatures that appear in the *pwukof* system (Akimichi 1988: 134-145)

 Fish

FISH			
SATAWALESE NAME	English common name	SATAWALESE NAME	ENGLISH COMMON NAME
cchep	trevally	ржоарж	shark
faeriyap	stingray	pwene	fairy cod
faeyi	stingray	saengir	tuna
fena	halfbeak	senganangan	wrasse
foofo	rainbow runner	sepoar	dolphinfish
тает	Maori wrasse	sera	spiny squirrelfish
maeyimeon	tripletail cod	seraw	barracuda
mengar	flying fish	songoong	goatfish
mongowuruur	shark	takiunaar	marlin
mwaerefarh	orange-epaulette	takiuniuworh	long-tom
	surgeonfish	taenepap	(unidenitified)
mwuunaeyinoamw	batfish	woomey	goatfish
neorh	pufferfish	wumwuneo	rabbitfish
ngaen	wahoo	wurha	parrotfish
niimweoy	shark (immature)	yaerengaap	skipjack tuna
niyoama	leather jacket	yetam	great trevally
paew	shark	yikaeyineo	sea-bream
paewnikaep	shark	yoappw	pennantfish

SATAWALESE NAME	English common name	SATAWALESE NAME	English common name
kius	octopus	nuumw	seaweed
kiuw	dolphin, porpoise	raaw	whale
masos	whale (small)	saeyiuwaaniu	sea snake
nifayifai	shellfish	woong	sea turtle
nifeoyirorh	shellfish	yamaaw	crab
numwunuworh	seaweed	yiur	spiny lobster
Birds			
SATAWALESE NAME	English common name	SATAWALESE NAME	English common name
kiyakiy	white tern	piungiupaeney	(unidentified)
kuniing	plover	reerh	frigate bird
kiuriukaak	noddy tern	sepan	small plover
mwiiy	starling	siuk	tropic bird
nicchok	bush warbler	yaraar	sooty tern
nikirhowur	common migratory shore bird	yasaf	frigate bird
nirhokusarepweon	small plover	yereo	heron
nisingeor	tern	yinin	(unidentified)
payennay	sooty tern	yoamoa	booby bird
Other creatures			
SATAWALESE NAME	English common name	SATAWALESE NAME	English common name
koos	moth	worhaep	dragonfly
nipweyipwok	butterfly	worhaepiy-naeng	dragonfly

Other Marine Creatures

§B5. Schematic Mapping of Islands in the Ocean

The system called *pwuupwunapanap* is a way to record information as to the position of specific islands, coral reefs, and some phenomena related to sea creatures. The relative positions of islands in the ocean are mapped on a lozenge-shaped figure in the shape of a *pwuupw* 'triggerfish.' It has five reference points, namely, the center, the head, the caudal fin, the dorsal fin and the tail. The positions of the target islands, along with imaginary islands to assist the system, are learned as being located on one of these five points, as shown in Figure B5 where Kaafururh and Faniuwaen-Kiuween are imaginary islands. Akimichi (1981b, 1987, 1994, 1998) describes sets of *pwuupwunapanap* knowledge told by three different specialists (yet belonging to the same school of traditional navigational knowledge) in Satawal. Because pwuupwunapanap forms part of the secret traditional knowledge which was passed on to very limited member(s) of the community, some differences are found in the three sets. Akimichi analyzes the nature of such differences, relating what is stated in each set to the actual physical positions of the references. As the location of the two imaginary islands is unknown, a cognitive model of *pwuupwunapanap* can be freely drawn. It does not matter to a navigator whether one or two parts of a large triggerfish are imaginary or not. Akimichi refers also to the descriptions of similar kinds of knowledge which are reported for Woleai Atoll (Alkire 1970), and for Polowat Atoll (Riesenberg 1976).

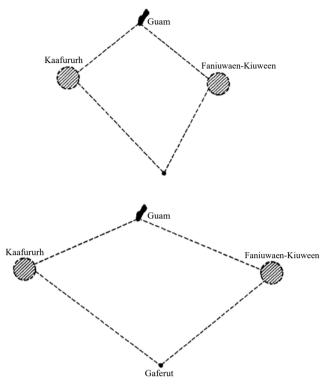


Figure B5 The relative positions of Guam and Gaferut using the pwuupwunapanap system (Akimichi 1994: 588)

§B6. Route Maps

A route map is learned as a sequence of events related to imaginary actions of a specific creature, such as whales (*noang*) or parrotfish (*wurha*), etc. Even with the same name, the content may differ depending on who the carrier of the knowledge is. This is because originally, this consisted of knowledge that was esoteric and secretly transmitted to limited members and not something shared among specialists.

For example, there is a route map knowledge referred to as *senoang*, which literally means "to place coconut fronds side by side." One documented version gives navigational instructions for sailing from Houk Island to the Palau Islands via various islands. The route states that, from Houk Island, by proceeding toward the star compass direction *wenewenenuppw* (P17 in Figure B2), one will see a big whale with its head toward the north. When one turns there towards the *tupwun-Maeyinap* (P25) direction, one will see another big whale with its head toward the north. Proceeding from there toward *Fiusemwakiut* (P1), one arrives at Pikelot Atolls. Navigational instructions continue in the same manner. Another route

remembered as *senoang* by another navigator is the route from Houk Island to Eauripik Atoll. There are three different routes documented as Satawal *senoang* knowledge, three of which are schematically presented by Akimichi as shown in Figure B6. Akimichi (1994) attempts to interpret documented routes against modern maps, and presents results. Figure B7 shows the route from Houk to Palau, as one such example.

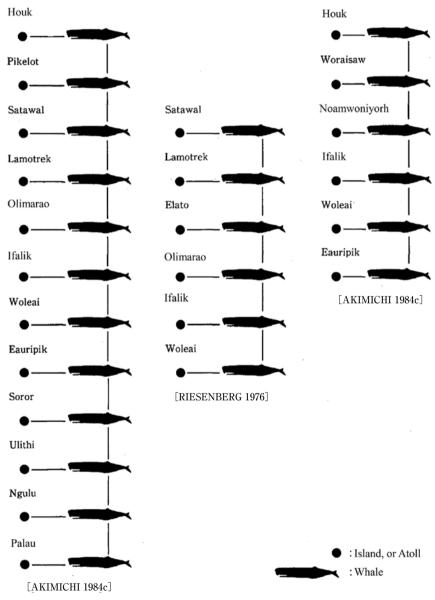


Figure B6 Senoang routes (based on Akimichi 1994: 550)

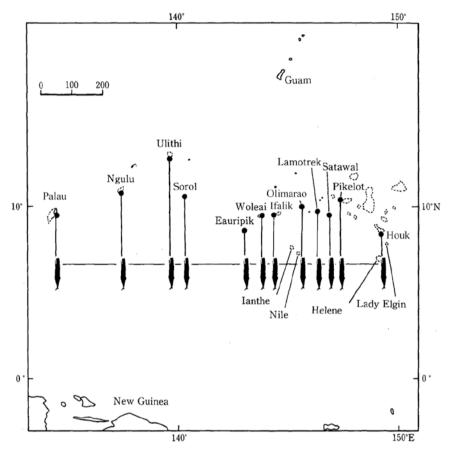


Figure B7 One of the senoang navigational routes plotted on a modern map (Akimichi 1994: 574)

In addition to *senoang*, seven different navigational route maps are documented in Akimichi 1994. The basic system of each of these map systems is described in Table B6.

1	
NAVIGATIONAL MAP	EXPLANATION

Table B6 The eight major navigational map systems (based on Akimichi 1994: 547-569)

1. senoang	A notional route map described as a sequence of whales (<i>noang</i>) lying with their head toward the north as the seamarks to make necessary turns.
2. yarhuwoaw	A notional route map described as conducting spear fishing (<i>yarhu</i>) and chasing a kind of parrotfish (<i>wurha</i>) which escapes from one reef trench to another. The reef trench on each island comes with a reference name and an instruction as to which direction the canoe should be turned. These are described as "the direction to which the parrotfish escapes".
3. rheoaniy	A notional route map where the seamarks are referred to as reefs and creature names. It is described as a journey chasing a <i>yaniey</i> fish (a kind of fish belonging to the <i>Epinephelus</i> spp.), which when about to be caught at a seamark, escapes into a specific direction leading toward the next seamark.

A	
4. tiuniuy-neon-Yaniufa, (also, pwukoffin- Faniuwaen-Kiuween)	As its alternative name shows (<i>pwukof</i> of Faniuwaen-Kiuween), this is a set of directional information about islands, atolls and creatures surrounding an unidentified island Faniuwaen-Kiuween (lit. lizard island). The information is recited in a sequence in such manner that <i>Yaniufa</i> , a supernatural being, points his torch in a certain direction, stating the name of the relevant phenomenon, and describes its nature one after another.
5. serhaknimasaccha (also, semay)	The name <i>serhaknimasaccha</i> literally means 'the navigation of the <i>masaccha</i> fish (<i>Sargocentron spiniferum</i>)'. It provides navigational routes for visiting islands and atolls with an anchor atoll/island. Akimichi infers that the shape of the birdeye's view of the total navigational route (Figure B8) is reminiscent of a distinctively big dorsal fin. This fish is the source of the name of this route map. When going from Polowat to Naam, the navigator goes back and forth between the islands/atolls and Pikelot Atoll. When navigating in the other direction, the navigator goes back and forth between the islands/atolls and pikelot and forth between the islands/atolls and pikelot probably the source of the other name <i>semay</i> 'tidal weir.'
6. rhipwerhipwen- yaenaen- yaeniyaeyireo	A notional route map starting from Polowat Atoll, to reach the imaginary island Faniuwaen-Kiuween, via Houk and Onoun Islands. The seamarks are referred to as either reefs or as creatures.
7. feofeon-perhaen- Yayiufaen	A notional route map described as an imaginary navigation. It starts from Polowat Atoll and returns there after visiting 50 points, each of which is described either as an island, a reef, or a creature.
8. feoyiyas	This is a set of information about features from a given island. Things that would be encountered if sailed in a certain direction from each island are described, as being reached by stretching out a <i>yiyas</i> , a pole with a V-shaped end, used for plucking bread-fruit from a tree. Islands, reefs, and creature names as well as land features, such as a sandy beach, appear in the system.

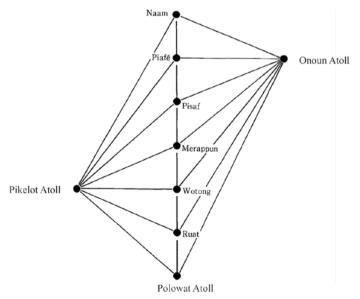


Figure B8 A schematic representation of the *serhaknimasaccha* route map (Akimichi 1994: 559)

LOCATION	NAME	SAILING DIRECTION TO BE CHANGED TO
1. Polowat Atoll	Woawuni-kaar	P16
2. Houk Island	Woawuy-nikoapwur	P2
3. Tamatam Island	Woaw-umwaen	P1
4. Pollap Island	Woaw-ufeefin	P2
5. Onoun Island	Woawun-maniur	P3
6. Magur Island	Woawun-waeyineo	P13
7. Ono Island	Woawun-maeyiyas	P13
8. Onari Island	Woaw-mumarhamarh	P16
9. Piherarh Island	Woawuy-nikoa	P8
10. East Fayu Island	Woawuy-noapwut	P11
11. Nomwin Island	Woawunar	P11
12. Fananu Island	Woawunap	P6
13. Murilo Atoll	Woawuni-kkoan	P20
14. Chuuk Atoll	Woawuniik	P8
15. Oroluk Island	Woawunimwaer	P11
16. Pohnpei Island	Woawuy-saewufoanopey	P11
17. Kosrae Island	Woawuy-soawukeorhaw	P22
18. Sapwuahfik Atoll	Woawupwerhepwerh	P25
19. Namoluk Atoll	Yeopoaw	P25
20. Houk Island	Woawuy-nikoapwur	P32
21. Polowat Atoll	Woawuni-kaar	

Table B7 Coral trenches appearing in yaariuwoaw (Akimichi 1994: 549-552)

§B7. Estimating Location During Navigation between Islands

In this section, the system of *yetak*, or the way to estimate one's location in a long-distance voyage, is described following Akimichi (1986). It is described in three parts: first, from the shore till the island disappears from the sight (Table B8); then, the space where no sight of islands or atolls is visible; finally, after the target island starts appearing in sight till the canoe lands (Table B9).

TERM	EXPLANATION
1. yarhikirhiki-yaramas	Position where people walking on the shore are visible.
2. piainap	Position from which the shore is visible as a surface area.
3. piairhik	Position from which the shore looks like a line.
4. piyoanus, or yepure-ton-pii	Looking back, the shore line is visible when the canoe is on top of a swell, and not visible when at the bottom of a swell.
5. nnati-serham, or yatono-pii	Position from which no shore can be seen.
6. nnatepei	Position from which the three layers of vegetation, namely breadfruit trees, coconut trees and smaller beach plants (<i>naupaka</i>) are still recognizable.

Table B8 The position of a canoe in relation to a departed island (Akimichi 1986: 935-939)

7.	yoarho-nuuk-takeyoas	Position where it is distant enough from the island to be suitable for bottom line fishing and trolling. The island is seen to be low on the horizon.
8.	yoarho-nuuk-takesoan	Position from which the island looks like a line.
9.	maan-yiik	(details unknown)
10.	yomweimwei-woan	Position where the island looks like a broken line with the higher areas visible and lower areas not visible.
11.	yaroangai-rhop	The island looks like a rope made from coconut fronds (<i>rhop</i>).
12.	ngin-kanianiy	The island looks like the teeth of the <i>yaniy</i> fish (<i>Epinephelus</i> spp.).
13.	rhuow-pwukuwani-maey	The island looks like two groups of breadfruit trees.
14.	yeew-pwukuwani-maey	The island looks like a group of breadfruit trees.
15.	tumwutumwun	The island looks like a dot.
16.	yaton	The outline of the island disappears.
17.	yatonoi-neemas	The island is completely invisible.
18.	yepwa-me-runayuw	The position from which the island is visible from the top of the mast, which is about 8 m high.
19.	yapwan-kitikit-noa-me-runayuw	An outline of the island is visible from the top of the mast.
20.	yaton-noa-me-runayuw	The island is not visible even from the top of the mast.

The position *yatonoi-neemas* where the island becomes completely invisible is also referred to as *yetaekini-kenna*. This is the position where the *yetaek* system (explained below) starts being applied. The area further than this position but still birds and fish belonging to the departed island are seen is referred to as *yetaekini-maan*.

After a canoe passes the *yetaekini-maan* area, no land guides are around until it reaches the *yetaekini-maan* area of the target island. The area between these areas is referred to as *neemetaw*, or "open ocean." The *neemetaw* space is recognized as three parts, for example, if a canoe is moving from the west to the east, the ocean space the canoe goes through would be: i) *pwono-sapitiw*, ii) *pwono-metaw*, iii) *pwono-sapita* (see Figure B9).

$$(north)$$

$$pwono-sapuwow$$

$$\uparrow \downarrow$$

$$(west) pwono-sapitiw \longleftrightarrow pwono-metaw \longleftrightarrow pwono-sapita (east)$$

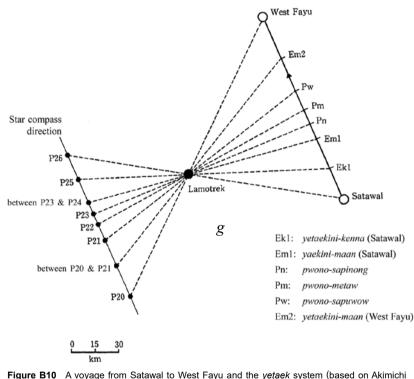
$$\uparrow \downarrow$$

$$pwono-sapinong$$

$$(south)$$

Figure B9 The parts of neemetaw (Akimichi 1986: 939)

As seen above, the ocean space is recognized by completely different sets of criteria depending on whether the canoe is within visible distance of an island or not. *Pwono* refers to 'vacant, empty', suggesting that *pwono-metaw* is the ocean without any signs. The distance from the departed island to the place where it becomes invisible is called *yetaek*. In Micronesia, the distance between islands and atolls is often more than hundreds of kilometers. Many islands and atolls are low and flat, the altitude of many being only a few meters. In such a situation, no sign of an island can be used as a guide for navigation. The *yetaek* system is a way to keep track of how much one has traveled and how far one has to go. A schematic diagram of the voyage from Satawal to West Fayu is shown in Figure B10. Explanation follows.



1986: 945-946)

The *yetaek* system is practiced to estimate the distance of travel, using a reference island. The reference island could be existing or imaginary, but in the case of the travel from Satawal to West Fayu, it is Lamotrek Atoll. The *yetaek* system operates based on the *woofaniuw* knowledge by which the navigator knows the directions of islands and atolls in relation to the island from which he is

departing.

According to the *woofaniuw* of Satawal (Figure B4), Lamotrek Atoll is in the P26 direction, and West Fayu is located in the P32 direction of Satawal. As a canoe reaches *yeatekini-kenna*, which is the edge of *neemetaw* 'outer ocean' and one *yetaek* away from Satawal, the direction of Lamotrek Atoll seen from the canoe changes to P25. When the canoe reaches *yetaekini-maan*, Lamotrek Atoll is in the direction between P23 and P24. The directions of the reference island at other positions are listed in Figure B10. From Satawal to West Fayu, it is seven *yesaek*, and this is how navigators know where exactly they are in the middle of the vast ocean.

Cultural Note C. Stars, Winds, and the Calendar

As described in Cultural Note B, stars and constellations play a key role in the Satawalese navigational system as they are used to identify the compass points which form the foundation of the system. The appearance of certain stars and constellations also define the traditional sidereal calendar and are associated with the seasons of the year.

Weather conditions, such as storms (*mwoor*), are forecast in association with the rising or setting of a star or constellation, the details of which are reported in Akimichi (1980b). Weather conditions are related to the strength of the wind, and different kinds of activities, such as fishing and sailing, as in Table C1.

Certain stars are believed to signify a storm as they rise and set. They are referred to as *fiun-mwoor*, literally 'storm stars', and are listed in Table C2. When

	NAME	GLOSS
1.	niuwa	calm, of wind and wave
2.	mwoomwoon-Wenikefas	a gentle breeze with quiet sea conditions, good for bottom-line fishing
3.	yangiyang-yekius, yeki-kitikiit-yaang, ye-mwittik-yaang	a light wind, just enough for sailing, but not strong enough for trolling, suitable for bottom-line fishing
4.	maniuweoniuw-yaang	a wind, strong enough for sailing, trolling and pole-line fishing; the ocean is somewhat rough, the state which is referred to as <i>maniuweoniuw-saet</i>
5.	sar-me-neeniuwa	a good wind after a calm; the ocean remains calm, and sailing is relatively easy
6.	mworaefirh	a fairly strong wind, the most suitable for sailing
7.	yaang-maamaaw, yangi-cchaw	a strong wind; when sailing in this kind of weather, the sail must be partly reefed
8.	mwoor-maniuweoniuw	a very strong wind preceding a storm; sailing is still possible but it is not possible to troll or do pole-line fishing
9.	yangiyang	any weather condition when wind is blowing; a generic term covering weather conditions 3-8 above
10.	mwoor, yaa-mwor, yaa-cchaw-yaang	storm, the ocean is turbulent (<i>toarumwurumw</i>) and sailing is impossible
11.	ffaatoawut	violent wind storm that often knocks down coconut and breadfruit trees
12.	maniman	tropical typhoon, with extremely turbulent (noanoa) ocean; the wind may destroy houses
13.	yaengiy-seraek	wind suitable for long-distance navigation
14.	cchon-mesaen-Mwaerikaer	a period of light easterly winds and rain that coincides with the period when the Pleiades (<i>Mwaerikaer</i>) rises on the eastern horizon before sunrise. Trunks of breadfruit trees become very slippery during this period and people tend to abstain from collecting breadfruits
15.	fennginiyeon	a period of light variable winds forecast by the appearance of the constellation Orion

Table C1 Satawalese words related to winds (Akimichi 1980b: 13-15 (1.-12.), and this dictionary (13.-15.))

NAME	GLOSS	
Meon	part of the constellation Lyra	
Maeyinap	the star Altair (Alpha Aquilae)	
Saepiy	the constellation Delphinus	
Seota	part of the constellation Equuleus	
Piing	a cluster of three stars in the constellation Cygnus	
Naa	the star Markab (Alpha Pegasi)	
Yikinnap	a fish-shaped constellation consisting of Pisces, Cassiopeia and Andromeda	
Yaenimateo	the constellation Andromeda	
Mwaerikaer	the star cluster Pleiades	
Wuun	the star Aldebaran (Alpha Tauri)	
Yeoniuyeon	the constellation Orion	
Maan	a bird-shaped constellation consisting of the Great Dog (Canis Major), Canis Minor and Carina	
Yicch	the name of a constellation shaped like the cross section of a piece of bamboo	
Yinenikek	the name of a constellation	
Pwuupw	the constellation Crux, the Southern Cross	
Saerepweon	the constellation Corvus	
Yaepiy-Saerepweon	the star Spica (Alpha Virginis)	
Weoneo	the constellation Great Bear (Ursa Major)	
Yoaromooy	the star Arcturus (Alpha Boötis)	
Rhoow	the constellation Corona Borealis	
Tumwur	the constellation Scorpion	
Mesariuw	the star Shaula (Lambda Scorpii)	

Table C2 Stars and constellations used for forecasting the weather (Akimichi 1980b: 17-29)

a storm star appears on the horizon right before sun rise, a storm comes. It continues while the star appears below the Polaris, and ends once the star appears above the Polaris. The Polaris does not move and it takes about a week from the time when a star appears on the horizon till its position becomes higher than that of the Polaris. Akimichi infers that this probably implies the fact that a storm generally lasts for about a week or so.

The forecast of weather conditions, such as wind directions and storms, is referred to as *yiuriuriun-mwoor* 'weather forecasting', and constituted part of the navigational knowledge that was acquired in the navigators' initiation ceremony *ppwo*. Seasonal winds and storms are named after the stars that "bring" them in, such as *mworaen-Meon* 'Lyra storm' and *mworaen-Maeyinap* 'Altair storm,' and the characteristics of each storm is known. For example, *mworaen-Meon* is known to bring a lot of rain with big waves. The waves caused by this storm are called *noan-Meon* 'Lyra waves.'

The storm stars are also recognized pairwise, each pair consisting of two stars, one of which rises in the East, while the other sets in the West. These pairs are shown in Table C3.

EAST (yeotiw)	WEST (<i>netow</i>)
Mayinap	Payiun-Maan
Saepiy	Yicch
Seota	Yinenikek
Piing	Pwuupw
Naa	Saerepweon
Yikinnap	Yaepiy-Saerepweon
Yaenimateo	Yoaromooy
Mwaerikaer	Rhoow
Wuun	Tumwur
Yeoniuyeon	Mesariuw
Maan	Meon
Yicch	Saepiy
Yinenikek	Seota
Ржиирж	Piing
Saerepweon	Naa
Yaepiy-Saerepweon	Yikinnap
Yoaromooy	Yaenimateo
Rhoow	Mwaerikaer
Tumwur	Wuun
Mesariuw	Yeoniuyeon
Meon	Maan

Table C3 Pairs of stars in the yaepwaenifiu system (Akimichi 1980b: 36)

The rise and fall of the storm stars is also directly relevant to the traditional months of the year. A year (*raek*) is divided into twelve months (*mereman*), according to the movement of stars. This is a sidereal calendar, and not to be taken for a lunar calendar where the shape of the moon determines the months.

The names of sidereal months are given in Table C4. Akimichi notes that there are two different documentations as to when a sidereal month begins. Goodenough (1953: 25) reports that when a star appears on the horizon, the month with the name of that star starts, while Akimichi (1980b: 39) states that a month starts when the star has reached a certain height (*yefenaek-wuwen*, see Table C6) in the sky right before the sunrise.

	SIDEREAL MONTH	APPROXIMATE CORRESPONDENCE TO THE WESTERN CALENDAR
1.	Meremaey-Tumwur	January
2.	Meremaen-Mayirhik	February
3.	Meremaen-Mayinap	March
4.	Meremaey-Seota	April
5.	Meremaey-Naa	May
6.	Meremaen-Kiuw	June
7.	Meremaen-Wuun	July

Table C4 The sidereal months

8.	Meremaen-Yeoniuyeon	August
9.	Mereman-Maan	September
10.	Meremaen-Yicch	October
11.	Meremaey-Saerepweon	November
12.	Meremaen-Yoaromooy	December

A year is divided into two seasons, namely, *neeraek* 'first half of the year' and *neefaeng* 'second half of the year'. Each season consists of six months, and the period of the first couple of months of each season is referred to as *neepetaen* 'in between.' Which months belong to which season differs depending on which month is the beginning of the year. There are two different views. One view is that *Meremaey-Tumwur* to *Meremaey-Kiuw* is the second half or *neeraek*. The other view has *Meremaen-Maerhik* to *Meremaey-wuun* as the *neeraek* (Akimichi 1980b: 42). The *neefaeng* is the season with rough ocean and unpredictable weather, while during *neerhaek*, the sea is calm and crops ripen well.

A day is referred to as *pwongin-merama* 'night of the sidereal month.' The names of days presented in Table C5 are found in the dictionary.

NIGHT	NAME	NIGHT	NAME
1 st night	sikowuru	16 th	nettiuw
2 nd	yeying	17^{th}	kineyi
3 rd	mesening	18^{th}	yaara
4 th	mesoan	19 th	soaparh
5 th	mesafiu	20^{th}	yefenaek
6 th	mesewan	21 st	wosenaeng
7 th	mesetiw	22 nd	yoarosaen yefenaek
8 th	yemetan	23 rd	soaparh memwiir
9 th	rhiuwoapwong	24^{th}	kineyiaen womwaneo
10 th	yoaropwiukiuw	25 th	womwaneo
11 th	yepaey	26^{th}	rhomwaen faen
12 th	wonoapwuwe	27^{th}	yoaroafiu
13 th	wonomwai	28^{th}	yeyiu
14 th	mmarh	29 th	yefeyinng
15 th	yiur	30 th	yerhaeff

Table C5 Days of the sidereal month (Sudo, fieldnotes)

* The spelling was checked by Richard Ligiteiwei (Sudo, pers.comm.)

The time of the day is referred to according to the position of the sun. Expressions referring to the first half of the day are listed in Table C6. These are also used to refer to the position of a star in some contexts.

NAME	MEANING
yesaei-ttor	dawn
yaa-ttor-yaenet	sunrise
pwongii-teor	time when women weave <i>teor</i> cloth (they are supposed to start weaving after sunrise and finish doing so around 8 am).
yiuriupweon	The sun is in a position where <i>Cyrtosperma</i> taro patches (about 1 to 2 m above the ground) are lit.
yiuriuwan	The sun is in a position where coconut and breadfruit trees (10 to 20 m) are lit.
yefenaek-meyiniuk	The sun is about 45 degrees in the East.
yefenaek-wuwen	The sun is still in the east but hasn't reached the highest point.
wuwen	The sun is at its highest point, noon.

 Table C6
 Times of the day (Akimichi 1980b: 39-42)

Cultural Note D. Food Resource Management and Fish-eating Regulations

Marine resources, particularly fish, form an important part of Satawalese peoples' diet. To control and secure the acquisition of foodstuff, it is known that various food management systems were practiced in the traditional society, such as regulating fishing by specialists, marine tenure, taboos, reservation of food, and resource protection. Fish propagation rituals were part of the management system, providing us with good resources for understanding people's perception towards the environment and nature.

In this section, terms related to food resources and their availability, food resource management, and fish-calling rituals are introduced (§D1). The classification of fish and fish-eating regulations, including taboos, are described in §D2.

§D1. Food Resource Management

Food (*mwongo*) consists of three categories, *niu* 'coconut products,' *saeniyeniy* 'animal/marine products', and *mwongo* 'plant (excluding coconut) products', with the word *mwongo* carrying either of the two senses depending on the context. These categories are important in various cultural contexts; for example, some cannot be eaten when tabooed for certain people. Words referring to specific categories available for food are presented in Table D1.

CATEGORY	CONSISTING OF
mwongo 'food in general'	mwongo 'plant products', saeniyeniy, and niu
mwongo-paniuwan	mwongo 'plant products' and saeniyeniy 'animal/marine products'
saniuwang	<i>peoniun</i> 'coconut meat' and <i>mwongo</i> 'plant products', or <i>peoniun</i> 'coconut meat' and <i>saeniyeniy</i>
perhan	<i>niu</i> 'coconut milk/juice' and <i>mwongo</i> 'plant products', or <i>niu</i> 'coconut milk/juice' and <i>saeniyeniy</i>

 Table D1
 Categories of food groups (based on Akimichi 1984b: 61-62, 1989: 199-232)

Availability of food is understood in relation to the seasons of the year, as shown in Table D2. The beginning of *neeraek* 'the first half of the year' is determined combining the position of the constellation *Meon* and how ripe breadfruits are (Akimichi 1984b: 64, citing Hijikata 1939).

STAR/CONSTELLATION	STORM	FOOD RESOURCE DESCRIPTION
Meon	mworaen-Meon	Schools of yellowstriped goatfish come near the shore; rich production of coconut toddy
Maeyinap	mworaen- Maeyinap	Spawning of sea turtles; sporadic ripening of breadfruits
Saepiy	mworaey-Saepiy	(unstable weather)
Seota	mworaey-Seota	Peak of the spawning of sea turtles; coral-reef fish come near the shore
Piing	mworaen-Piing	Catching sea turtles
Naa	mworaey-Naa	Catching sea turtles
Yikinnap	(none to moderate wind)	Catching massive amounts of sea turtles; harvesting breadfruits
Yaenimateo	mworaen- Yaenimateo	Catching sea turtles
Mwaerikaer	mworaen- Mwaerikar	Harvesting breadfruits
Wuun	mworaen- yefaengin-Wuun	Harvesting breadfruits; food deterioration caused by long rain; fish shortage
Yeoniuyeon	(unstable wind)	Trolling
Maan	payiun-Maan	Catching sea turtles; driftwood pieces come near the shore
Pwuupw	rhepenuppw	Driftwood pieces come near the shore
Yaepiy-Saerepweon	fenaenikaep	Driftwood pieces come near the shore; suitable for dive fishing
Yoaromooy	mworaen- Yoaromooy	_
Rhoow	mworaey-Rhoow	Water shortage; extreme low tide
Tumwur	mworaey-Tumwur	Water shortage; growth of taro worsens, not suitable for making toddy
Mesariuw	mworaen- Mesaeriuw	_

Table D2 Storms and food resources (based	l on Akimichi 1984b: 64)
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Securing food is an important factor for the sustainability of Satawalese people. Some traditional explanations exist to predict the availability of food. For example, it is said that when *rawucchik* 'a kind of sea snake' comes close to the island, many will die and the island will lack food. Terms related to the status of food are presented in Table D2. Two factors, namely, natural and supernatural causes are recognized as affecting food availability. The former is related to storms and accompanying climatic conditions resulting in the increase or decrease of foodstuff. The latter includes *maniman*, a storm caused by a supernatural being, as well as food reduction resulting from the violation of a taboo.

WORD	MEANING
fenaefir	rich in foodstuff
rhukufan	a lot of food
naengita	famine, food shortage
nangetani-faniuw, pwaseno-faniuw	shortage of plant products
manu-saet	shortage of fish

Table D3 Words related to food status (based on Akimichi 1984b: 66)

In case of famine, practical measures are taken, such as preserving coconut and breadfruit, equal-sharing of food ingredients among the population, group fishing, intensive visits to West Fayu (a resource island), releasing fish in prohibited areas, transplanting water-damaged taro to new taro patches, getting food assistance from another island. In addition, there are various food proliferation rituals, or *kkoato-mwongo*, listed in Figure D1.

A ritual is secretly conducted by a specialist at the request of the chief of the island. The chief brings a gift (*koow*) to a specialist (*soawu-roong*, see also §A2), and the specialist initiates the ritual with a chant and *saefey*. What comprises *saefey* and how it is treated, differs depending on the ritual conducted. For example, in a fish-calling ritual, *saefey* depends on what kind of fish are to be called, using several kinds of plants. These are put into a leaf bag, then into a basket woven with coconut fronds. The basket with *saefey* is then sunk in the reef and signposted with a stick. The reef area, referred to as *merhanguy-rhiuk*, is considered sacred and people are prohibited from passing on a canoe, bathing, or defecating near it. The species of fish called are considered to appear four nights after the ritual takes place.

Kinds of *saefey* prepared for the five fish-calling rituals are documented in Akimichi 1984b. For example, the *saefey* for driftwood calling includes combining a simulation of the drift wood being called and a simulation of the kind of fish that accompany the driftwood. Driftwood is distinguished by 24 different documented names. Each kind of driftwood has a different simulation in the *saefey* that is prepared. Simulated driftwood is prepared using a branch or root of the *yaetiyat* plant (*Wedelia biflora*) depending on which of the 24 kinds of driftwood is called. A list of the names of the driftwood and a description of *saefey* for the ritual are summarized in Table D4. Imitation driftwood fish are prepared using various leaves and pieces of bark. A description of imitation driftwood fish *saefey* appears in Table D5. The timing of conducting a ritual, and analyses from a cultural-anthropological view point are also presented there.

TARGET FOOD ITEM TO BE CALLED	breadfruit coconut taro (<i>Cyrtosperma chamissonis</i>) taro (<i>Colocasia esculenta</i>)	driftwood coral reef fish octopus	flying fish skipjack tuna
RITUALS	kkoatoomaey kkoato-niu kkoato-woot kkoato-woot	 - kkoato-neeraek - kkoato-yaepeyipey - calling in the first - kkoato-yikaen-weniworh - half of the year' - kkoato-kius 	<i>kkoato-neefaeng kkoato-mengar</i> 'calling in the second <i>kkoatooyaerengap</i> half of the year'
CATEGORIES	kkoato-mwongo pwusoan 'land food calling'	soawupong 'marine food calling,' or,	kkoato-yiik 'fish calling'

Figure D1 Food calling rituals (based on Akimichi 1984b: 70)

DRIFTWOOD NAME	CHARACTERISTICS OF THE DRIFTWOOD	DESCRIPTION OF THE <i>SAEFEY</i> FOR CALLING (a <i>yaetiyat</i> plant is used for all)
wonaeyirhaep	Some are over 20 m long, with branches and roots	One plant pulled out of the ground, used with its roots. Length: <i>yemwanu</i>
woonipwaay	The roots are bushy like those of bamboo (<i>pwaay</i>)	A dense growth is pulled out and used with its roots. Length: <i>yemwanu</i>
tapeoniupeon	With a big cracked surface, and drifts slowly	Length: yoppwutein
soweoima	Most commonly seen type of driftwood; with rough surface	Length: <i>yepay</i>
niukiumongow	With rotten and soft surface covered with holes. Followed by many fish.	Length: yerhunupwor
noagoipire	A piece of thin wood with a split end	A branch with a split end
tefirae	A branch broken off a trunk, with some side branches splitting off	One side of a split stem cut into halves lengthwise
wonaeyirhaepaeriusoapw	A branch with two split ends	A stem is cut into the shape of <i>wonaeyirhaepaeriusoapw</i> to make it about 25 cm.
yiuweoyiuw		A stem is cut into 10 to 20 cm pieces and further split into halves lengthwise
wonoattumw	Having a rotten and soft surface covered with holes. Followed by many fish. Floats up and down.	Length: yemwanu
wonappwiunn	Short driftwood, the longest being about 1.8 m.	A plant with roots. Length: <i>sokomwur</i>

Table D4 Simulated driftwood used in drift-wood calling (based on Akimichi 1984b: 73-74)

Table D5 Simulated fish used in drift-wood calling (based on Akimichi 1984b: 73-75)

	DESCRIPTION OF SAEFEY				
FISH NAME	PLANT USED	SCIENTIFIC NAME	NOTES		
ржиирж	pwacchen- reonimaey	Artocarpus spp.	The leaves of a variety with seeds called <i>rhoomoan</i> are used. Two each from 40 trees are collected.		
reon	pwacchen- reonimaey	Artocarpus spp.	Leaves without pinnate lobes are used. Two each from 40 trees are collected.		
(any fish or drift wood)	kkini-paar	Erythrina variegate	Bark cut into palm-size squares		
tiin	woomey	Polygonum minus	About 100 leaves are used		
ngaen sepoar	rheonifarh	Pandanus tectorius	4 or 5 leaves with pointy ends		
foofo	yappaw	(unidentified)	4 leaves		
paratet	reonnuk	Asplenium nidus	4 leaves, which are each about 30 cm long		
niyoama	cchen	Tournefortia argentea	green leaf		
yaerengaap toakuw	yunnu- rhoofarh	Cocos nucifera	two leaves sprouting from a coconut fruit		
nirheoneomeyimey kaenaengay	yammwe-ang	(unidentified)	two leaves each		

meseyiuk	seoyiur	Plumeria rubra
paeti	yoang	Bruguiera gymnorrhiza
mmwas	kunopw	Amaryllidaceae
merhów-uraaw	worhann	Hernandia sonora

Some fish have different names depending on whether they are accompanying driftwood or not as listed in Table D6.

COMMON NAME NAME WHEN ACCOMPANYING DRIFTWOOD SCIENTIFIC NAME ржиирж suunga Balistidae cchep cchep, or cchepen-faen-kiurang Caranx spp. parerhon, or reoniun-virae reon Kyphosus spp. niyoama parhutet (k.o. leather jacket) ppweov peoyennaey Elagatis bipinnulata (juvenile) Euthynnus pelamis vaerengaap vaas toakuw Thunnus spp. yaas paew maevinap (maevni-paewi-virha) Selachii tinni-metaw, especially tiin (tinni-weniworh) Caesio spp. tini-pwu Caesio spp.

Table D6 Fish captured by driftwood fishing (based on Akimichi 1984b: 92)

Similar descriptions for other rituals for calling fish are presented in Akimichi 1984b. The generic term for fish in Satawalese is *yiik*, and fish that are called in by ritual to the island are named *yikeon*.

§D2. Categories of Fish and Fish Taboos

The classification of living creatures in Satawal has been presented in Cultural Note A (§A4). In this subsection, terms related to the classification of fish and fish taboos are presented.

The word fish *yiik* in Satawal may refer to all fish and marine animals in general (*yiik*¹ in Figure A3), or it may be used to refer only to Osteichthyes or bony fish species, excluding moray eels, *yiik*² in Figure A3. The latter can be described as all fish excluding what are classified as "bad fish" (*yikinngaw*), which is considered to have ambiguous status between the category *yaeremas* 'human' and *yiik*¹ (see Figure D2). Other marine creatures that are not included in *yiik*¹ are sea turtle, sea cucumber, jellyfish, crabs, shellfish, mantis shrimp, sea urchin anemone, and starfish.

Fish are important food resources in Satawal and there are various restrictions, regulations and taboos related to their consumption. The rest of this section contains the general categories of fish classified according to restrictions (Table

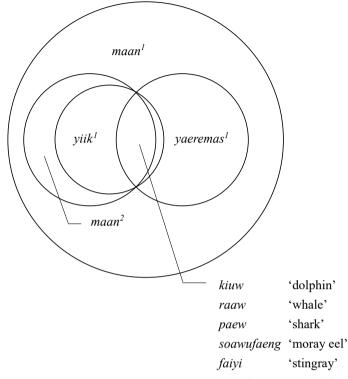


Figure D2 Relationship among categories of creatures (Akimichi 1981a: 78)

D7), specific categories of fish classified according to restrictions (Table D8), fish taboos (Table D9, D10, D11), and marine creatures with specific restrictions and/or applications (Table D12). Finally, fish part names are presented in Figure D3.

	CATEGORY	RESTRICTIONS
1.	pinin-paew	'the shark taboo.' Any fish that has been (partly) bitten by a shark is prohibited from being eaten.
2.	yikiyemas	'any raw fish, uncooked fish.' Some people think that it is not suitable to feed a child with uncooked fish, because it may cause stomach problems (<i>maeworhoarh</i> , or <i>yameepa</i>).
3.	yikinneo	'good fish,' any fish which is considered to have a good flavor; presented to a mother with a new-born baby (<i>rhoow</i>), or to a sick person (<i>manasemwaay</i>).
4.	yikiman	'any fish that carries <i>maan</i> .' When someone develops a sickness after eating a fish, such as an allergic reaction or food poisoning, the fish is described as 'having carried a bug (<i>maan</i>)'. Sicknesses caused by eating fish are called <i>maevinap</i> .

 Table D7
 General categories of fish and their restrictions

 Table D8
 Specific categories of fish and their restrictions¹⁾

	CATEGORY	RESTRICTIONS	FISH IN EACH CATEGORY
1.	yikinngaw 'bad fish'	Fish that are considered not suitable for eating. These are considered to either 'have bad smell', 'have an appearance that is so bad that they make people feel like vomiting,' or simply 'bad.' Most people on Satawal do not eat fish belonging to this category.	paew, faeyi, kiuw, raaw, soawufaeng, nipirarh (nikeriker, sepoar, ningiungiu, nimwaan, pwonifeoy, nimmeras)
2.	<i>yikiwerimae</i> 'poisonous fish'	These fish are considered to cause either death, or sickness when eaten. However, it is only <i>wupwin</i> (pufferfish) that is strictly avoided in Satawal. Other fish are known to be safe to eat in Satawal, although those that are caught in areas outside of Satawal may carry ciguatera, and cause sickness.	wupwin, pwene, mwocch, moos, seraw, nangiuw, yaeniy, yaiyeoy, noot
3.	yikiwe-yaener- soamwoon 'fish that are given as food for the chiefs'	Fish belonging to this category grow big, and are good for eating. Whenever a fish belonging to this category is caught, it is presented to the chiefs (<i>soamwoon</i>).	Includes: <i>saeiyaw</i> , <i>saengir, maem</i> , <i>rhimweni-wong</i> 'turfle head'
4.	maengirineo 'very big fish'	Fish belonging to this category grow very big, and like fish categorized as <i>yikiwe-yaener-soamwoon</i> , are presented to the chiefs when caught. A special ritual is performed before re-distributing it to the people.	maengirineon-yaeniy, maengirineoy-saeiyaw, maengirineoy-nununoa, maengirineon- yaenifrhimwecchemaw, maengirineon-kiucchiun- weniyoan

 wentyout

 1) Names of fish indicated in parentheses are considered to belong to the given category by some but not all the people.

Table D9 Fish tabooed for specialists

	CATEGORY NAME	FISH BELONGING TO EACH CATEGORY
1.	yikiwe-piniy-sennap 'fish that are prohibited for canoe-building specialists (sennap)'	senganengan, mwarius, rhaenaw, kiucchiyaeriyaer, nikeonaw, tayius
2.	keoparh 'fish that are prohibited for disaster- pacifiying specialists (soawukeopar)'	poot, sera, niyoarokuning, kirhkirh, kinipwut, neet, rhiukkaeng, moasera, wunfoar, sepaeyirh
3.	<i>pinin-yaraengap-me-toakuw</i> 'fish that are prohibited for construction specialists (<i>soawupwaeng</i>) to eat during the construction or repair work of a house or a canoe house'	yaerengaap, toakuw (except their tails)
4.	<i>pinin-maey</i> 'fish that are prohibited for breadfruit specialists (<i>soawumaey</i>)'	soawufaeng, sayiuwaaniu, nikeriker, rirhing, tayius, ningiungiu, soawurhemaerhem, nippwuruwoarorh, nipwurupwur, nisoapwoyiteo kaenaengay, nikupwirh, nirhonippwak
5.	fish that are prohibited for shark-controlling specialists (<i>soawupaew</i>)	paew, yayiuw, yaraf, yayiuwacch, paewaenerh, seraw, yoarong, yaesinneoy, toakuw, the half of the body containing the head of ngaen; the flesh of the belly part (mween) of yaerengaap
6.	<i>piniy-waeiy</i> 'fish that are prohibited for men to eat while sailing to another island, until they return to Satawal.' This not only includes <i>yikipin</i> 'tabooed fish', but also <i>mwongoopin</i> 'tabooed staple food.' (The list in the right column contains only tabooed fish.) This restriction does not apply to the navigation specialist (<i>paniuw</i>) on board.	poro, saerirh, yiur, taak, pwuupw, pwene, nangiuw, niuweniuw, paen, yoamosokin, maem, niupoaw, masaccha, pesepes, wuunfoar, naeyeew, yoarong, yetam, yiuwaeni-wong, fayiunyiurhiuw-wong, yiuwipin, safasaf, naamwaer, niomae, reon, rowu, sera

7.	fish that are prohibited for masseurs (<i>soawurheo</i>), most are categorized as spiny fish (<i>yikifanafan</i>)	kium, pwunukaney, mwaerefarh, noow, naariineo, wumwuneo, mono, naeyeew, yaerhepen-yiik, rerhen-yiik
8.	fish that are prohibited for a skipjack- calling specialist (<i>soawuyaraengap</i>), and also for pregnant or menstruating women	yaerengaap, toakuw, tiin, paeti, wuuwerhik
9.	fish that are prohibited for a specialist of calling in driftwood (<i>soawuyaepeyipey</i>), these fish are the ones that accompany driftwood.	pwuupw, cchep, reon, foofo, tiin, wuuwerhik, paeti, nirheoneomeyimey, meseyiuk, yaerengaap, toakuw
10.	fish that are prohibited for a specialist in the treatment of sick people (<i>soawusaefey</i>). This also applies to a patient under treatment	See 1-7 in Table D11.

Table D10 Creatures tabooed for people in a particular condition

	CREATURE NAME	EXPLANTION	FISH BELONGING TO EACH CATEGORY
1.	yikeppwut	Fish considered not suitable for women and children.	nippaer, noow, naariineo, niomae, nikeriker, takiunnoan, nirheyineyin, yaesaep, poot, nipwurupwur, worhaenipwerh, faeyisiwuu, nirheoneofaeniyap; yiungaeni, nikaesseraek, tayius, nifayifay, neorh, nippwuruwoarorh
2.	yoapwookan	Fish that are good for feeding to children. These fish are tasty with tender flesh. When cooked in the leaves of white lily (<i>kiyopw</i>), the skin of the fish sticks to the leaves and is easily removed, making them easier to feed to children.	pwene, poro, nippwaeyik, kinipwut
3.	pinin-manuwuupw	Creatures that are not suitable for pregnant women. It is believed that a woman who eats fish or crabs belonging to this category will have difficulty during delivery.	kius, yiur, pwuupw, nirhar, yaeff, roakumw
4.	yikifan, yikippwuton- neeyimwaenikaet	Fish that are bad and are prohibited for pregnant or menstruating women to eat.	yaerengaap, toakuw, paeti, tiin, wuuwerhik, reon, pwuupw, kius

Table D11	Creatures	tabooed	for	people	undergoing	treatment
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	THE PHYSICAL CONDITION	SYMPTOM	TABOOED CREATURE
1.	maepwerh	a kind of skin disease, which make the inside surface of one's mouth feel rough, or it can cause warts to develop on the skin.	kius 'octopus'
2.	maeyinap	this causes pain on the whole body with fever, and makes the skin red.	yikiparapar 'any red-colored fish', such as mweon, yaemaerhiyor, pwene, sewi, niupoaw, sera, neet, masaccha, moasera
3.	faay	body pain	Some say: <i>sonn</i> , Others say: <i>taak</i> , <i>niuweoniuw</i> , <i>yaer</i>

4.	masaparh	blindness	yengang, fateeraw, yoarong, yetam, cchep, saerirh, naariineo, noow, meroawuraaw, niyamwit, kiyakiy, naamwaer, yoafunn
5.	wuupwaeyinaeng	bleeding nose	Some say: <i>ttoa, sium</i> Others say: <i>roakumw, yaerik, yaeff</i>
6.	worong	choking	yeoreocchang, yaemaerhiyor, metaeyin, pwene, rhaniuniufaimwoa, yiukiurhaap
7.	moor	pounding heart, shortness of breath	the same as for worong

Table D12 Marine creatures with specific restrictions/applications

	CREATURE	RESTRICTIONS/APPLICATIONS
1.	woong	'k.o. green turtle'. When captured outside the vicinity of Satawal Island, everyone can eat it. When captured on or around Satawal Island, it is eaten only by old people, women with a new-born baby and those who are sick, while those who are healthy cannot eat it.
2.	maaw	'k.o. hawksbill turtle whose shell is used for making crafts'. No one is allowed to eat this turtle.
3.	takiunaar, mwaeraenoarho	'marlin' and 'sailfish'. The spear-like bill and the caudal fin of these fish must be cut off and discarded into the ocean when they are caught.
4.	yoapw, saerirh	The caudal fin of these fish must be cut off and discarded into the ocean when they are caught. In addition, <i>saerirh</i> is considered not suitable for children to eat.
5.	kius	'octopus'. This was formerly used during the <i>yateoteo-kius</i> ritual for a child who has started to crawl.
6.	seraw	A special earthoven (<i>wumwuy-seraw</i>), different from the one that is normally used, must be made to cook this fish. It must be filled up after cooking.
7.	cchep	A special earthoven (<i>yaengaetaey-cchep</i>), different from the one that is normally used, must be made to cook this fish. It must be filled up after cooking.

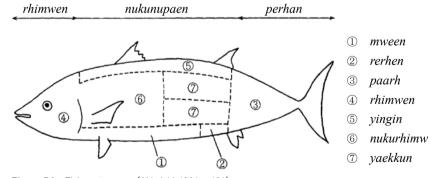


Figure D3 Fish part names (Akimichi 1981a: 101)

Cultural Note E. Canoe Parts and Words Related to Canoe Building

Outrigger canoes in the Central Carolinian Islands have been classified as "popo-type", which has the following characteristics (Haddon and Hornell 1975: 274–441, cited from Sudo 1979a: 253).

- 1) The cross-section of the hull is asymmetrical. The bow and the aft have an identical form with a Y-shaped raised end.
- 2) The outrigger is attached to the hull with two arms, the ends of which are bent downwards. The arms are tied to the outrigger with U and Y shaped connecting parts and rope.
- 3) Platforms are built on both sides of the hull and the one on the outrigger side has a triangle shape.

In this Section, canoe types in Satawal (\S E1), canoe part names (\S E2) and terms related to canoe building (\S E3) are presented.

§E1. Canoe Types

In Satawal, canoes (*waa*) are classified into two types, *yawan* and *papa*. The former no longer exists on the island, and is said to have been a large, ocean going canoe for 20 to 30 crew members, owned only by the chief. Sudo infers that it was a single outrigger canoe, with a different type of hull from the *papa*-type (Sudo 1979a: 254). The *papa* canoes include all the canoes that are used today. There were 51 Satawalese canoes (including ones under construction) in 1978. They are classified into four types as in Table E1. The usage of each type follows.

Table E1 Different kinds of cane	be (based on Sudo 1979a: 257)
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I. waa	I-1. yawan	
	I–2. papa	1) waaseraek (waniwai)
		2) man-ni-pwin
		3) wa-fatúl
		4) <i>ra-eu</i>

1) waaseraek 'sailing canoe' (waniwai 'sailing canoe')

An ocean-going sailing canoe which is used for long-distance voyaging, visiting other islands and going fishing to a remote area. At least six crew members are required to operate the canoe, and accommodates 10 people and their food for a voyage of 200 km. (one way).

man-ni-pwin 'man of a fishing pole'
 A sailing canoe for a day-voyage, used for fishing big-sized fish, such as bonito and tuna. Three can handle the canoe, and up to six people could be on board.

3) wa-fatiun 'canoe with paddle'

A canoe used for bottom fishing and spear fishing in the fringing reef near the island. Three to four people are necessary for its operation.

4) *ra-eu* 'one person'

The smallest among the four, and further classified into three according to the number of persons who could be on board; *ra-eu* 'one person (canoe)', *ra-rurai* 'two persons (canoe)' and *ra-enurai* 'three persons (canoe).' It has a shallow hull and is used for fishing and carrying goods within the lagoon.

All four types of canoe have a hull (*foo*) consisting of three parts: *pwunn* 'keel', *paap* 'side plank' and *pacch* 'aft/bow.' The bottom is made by digging out a piece of wood, and the other parts are attached to it. There is no "dug-out canoe" in Satawal. Of the four types, 1) and 2) share the same basic structure, with a hull, an outrigger, a platform, a mast and a sail (see Figures E1 through E4), however, 2) is smaller and has fewer cross-pieces (*ssoa*); 3) is smaller than 2) with a crosspiece on each end of the hull, and lacks the rack (*faeng*) and leeward platform (*yepeep*); 4) is further simplified, with no deck (*peraf*), no crosspieces, and no outrigger connecting piece (*waayree*).

§E2. Canoe Parts

In this section, canoe parts are listed in Table E2 through E7. The numbers in Tables E2 through E6 correspond to those in Figures E1 though E4 (based on Sudo's research.)

1.	pwunn	14. yaewaeyirhoan	
2.	paay	15. fooniwa, neefo	
3.	pacch, soapw, neesoapw	16. foonopacch	
4.	rhiunikaep	17. foo, foonap	
5.	rheonifarh	18. <i>ssoa</i>	
6.	maas	19. metengoar	
7.	pwootunumas	20. rhimwen-mentengoar	
8.	kkeengaenimas,	21. wumoan, yatiunim	
	yoawutonnomas	22. sarhekiyoa	
9.	moangorerh,	23. yaeyin, mesap	
10	yiuwoapwonomas	24. foaromooy, mesap	
10.	moangoy-Seonaeng	25. yinikisae, mesap	
11.	meosay-Seonaeng, tittinenemas	26. waenimwen	
12.	faen, neenaepe	27. <i>noapwu</i>	
13.	raesiim	100. mesap	

Table E2 The hull and parts constituting the hull

Table E3 Out	trigger and	outrigger parts	
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28.	kiyoa
29.	taam
30.	peraf, neeperaf
31.	yiuweoyiuweon-peraf
32.	mwaan-meosiur
33.	mwaennifaenefaeng
34.	keosaen
35.	yiyoyiyonofaeng
36.	faen-peraf
37.	mesaenifaeng
38.	yeonaw

- 39. waeniyaeng
- 40. waeyirhe

Table E4 Cabin and cabin parts

- 53. yepeep
- 54. suwa
- 55. taetaen-yepeep
- 56. yaeyimweyimw

Table E5 Sail and sail parts

- 60. vayiu
- 61. yiraerhoapwut
- 62. yiraemwaen
- 63. merhemerh
- 64. toon
- 65. ngetaeyton
- 66. saenitiw
- 67. ssoan-foatoafoat
- 68. nikkiumwiurh
- 69. soan
- 70. рииж
- 71. yeoreosefaen
- 72. nikeekeeyaang, kaenneyaang
- 73. pwunok
- 74. mween
- 75. yaepinipeotiw
- 76. yaefaech

Table E6 Other canoe parts

- 94. woomw
- 95. wunut
- 96. yiuniuwpwiun-yepeep

- 41. mesaeyirhe
- 42. yaamw
- 43. nniuniyamw
- 44. sooso
- 45. saenniso
- 46. merhen-kiyoa
- 47. waeyiso
- 48. ngetaeyitam
- 49. pwootuy-taam
- 50. yaepiirhe
- 51. saakiuy-noapwu
- 52. neeworh
- 57. feonaek
- 58. mwaereke
- 59. noangoniuw
- 77. pwoon
- 78. waenaefaecch
- 79. woopwur
- 80. soapwosoapwon-yiirae
- 81. ngaat
- 82. yaefisaek
- 83. kokk, kko-
- 84. yaesaey-rhiurhiu
- 85. yiraeyas
- 86. yiuriur
- 87. saennisoapw
- 88. yanap
- 89. feraek, saenniseraek saenniyaefiyaef
- 90. yiuw
- 91. teenap
- 92. teekkoaruw
- 93. saennimesaeniuw
- 97. yoatiwenifaeng
- 98. fayiinoonopacch
- 99. fayiinoonpwunn

 Table E7
 Canoe parts not found in Figures E1-E4

PART NAME	MEANING
foonak	the vertical end pieces of the mid-section benches
moangonoyoarh	the top of the convex part of the bilge
moangon-wunutunap	a part of the bilge on each side of a canoe above its keel
moangon-wunuturhik	a part of the bilge above the keel of a canoe
mwiir	aft, stern
neenaepe	the place on each side of a canoe where a long decorative line widening at each end is inscribed
neetiweyinim	the place on the leeward side of a canoe where bailed-out water lands
neeyoapwoawupwoaw	the area at the end of a canoe between the first outer thwart and the Y-shaped end-piece
neeyoawusap	the space around each side of the end-pieces of a canoe
ngii	a peg firmly fixed into the edge of a plank to prevent movement when fitted against another plank
pakiuw	the position inside a canoe where the end-piece meets the keel
pwiisoanonowa	a flare line on the bow of a canoe
soapwonowa	the end of a canoe
soraeng	the groove connecting two holes for lashings on a canoe
wenikisae	the leeward side of a canoe, the side opposite the outrigger
weniwa	a brace on the hull-side of the leeward platform of a sailing canoe
wonomwaen	a seat plank connecting benches on the leeward side of a sailing canoe
woppw	the slat fence borders in the hold of a canoe for storage
worhowunupwong	the portion of the detachable gunwale of a canoe that projects up from the inner edge and prevents water from entering, wash strake
wumwuumwuniyo	a stringer under the lee platform and above the lee booms of a canoe
yaaw	the end of the hull of a canoe where an end-piece is fitted
yaesaefaeyirho	a part of a canoe
yaeyin	a short joint connected to the major wash strake on the end of a canoe
yaeyinipwerh	the white-painted area between the two raesiim on a canoe
yaeyinoan	a bin in the center of a canoe hull for storage
yiraen-yepeep	the thin sticks forming a shelter on the leeward platform of a canoe
yoanongaeniwa	all the parts which constitute a canoe, the whole canoe
yoar	the bilges on both sides of the keel of a canoe
yoawusap	the outside area of each side of the end-pieces of a canoe hull

b)	Outrigger	and	outrigger	narts
D)	Outrigger	anu	outrigger	parts

PART NAME	MEANING
neepetaen-kiyoa	the area between the outrigger booms
neeyewaen-kiyoa	the space between the tips of the outrigger booms of a canoe
paarh	a stanchion consisting of two poles fastened in the shape of an X, typically used as the support of the outrigger boom of a canoe
rhimwen-kiyoa	the leeward end of an outrigger boom which protrudes through the windward hull and is fastened to the leeward hull of a sailing canoe
tariyaneo	a stick lashed parallel to an outrigger boom of a canoe for support
waenaekkaet	an outrigger stringer onto which other poles, sticks, etc. are tied

wungaeyitam	the top of the outrigger of a canoe
yammwarhiuy- saeninfatiuniupwu	a rope attached to the outrigger platform of a canoe to which the steering paddle's line is fastened
yitam	the outrigger side of a canoe

c) Sail and sail parts

PART NAME	MEANING	
nikeyikeyiyaang	a wind sock fixed to the tip of the sail boom of a canoe	
kko-	the top of a mast	
ppwoar	the sail of a canoe with curved boom and yard	
rhoorh	a string that is wound around the folded sail of a canoe	
saennikesae	a rope attached to the mast and fastened to one end of the leeward- platform supporter when the sail is down	
ttaering	a canoe sail that has been torn in a storm	
yaetaetae	to enlarge a sail by adding an extra piece of material to it	
wuwen	the sail of a canoe with a straight boom and yard	
yaefiitae	to make a sail smaller, to reef a sail	

d) Equipment and Others

PART NAME	MEANING	
fatun-pwupw	steering paddle	
noang	a canoe slipway formed with smoothed coconut palm midribs or soft papaya trunks laid close together for minimizing friction during the transportation of a canoe on land or sandy beach.	
noangeey	to put a supporter under a canoe	
pisaekiniwa	canoe equipment; such as lashings, riggings, paddles	
pwanapwaniuniumas	a coconut leaf mat or leaf used as a cover for the end-pieces	
pwoaw	the boom used for loading cargo onto a ship	
pwoawun-paap	a rope and piece of wood which are used to bend or curve a straight plank so that it will fit the shape of the main body of a canoe	
pwuruwoak	a strong stick used as an enforcing brace for the joint of a mast, boom, etc. of a canoe	
saenin-fatiuniupwu	a piece of rope for securing the steering paddle of a canoe	
saennitor	extra ropes carried on a voyage as replacements for broken ones	
yaefaeyinoang	coconut leaves placed under canoe rollers to prevent them from sinking into the sand	
yaeterow	a kind of woven coconut leaf mat used mainly on a canoe	
yammat	a container used to bail water out of a canoe	
yapiung	a wooden box carried on a canoe for keeping fishing gear	
saenni-weyitam	a rope installed parallel to the weather stay, from the outrigger float of a canoe	
wonoseraw	an unidentified canoe part	

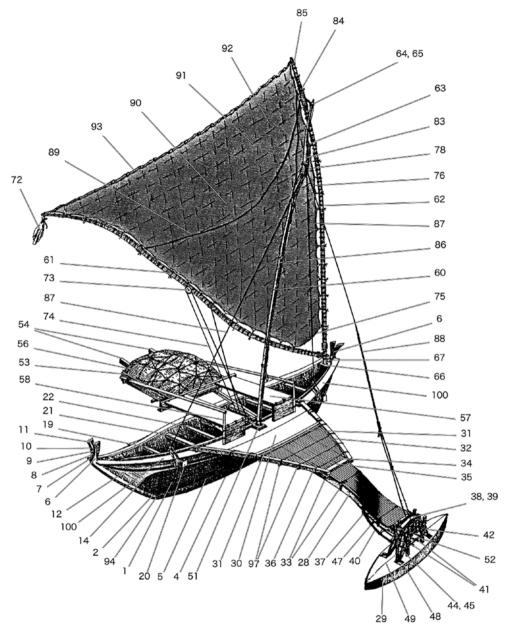


Figure E1 A Satawalese canoe

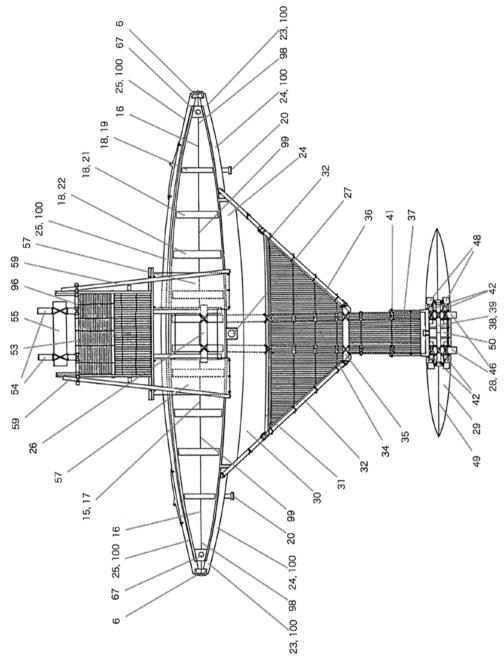
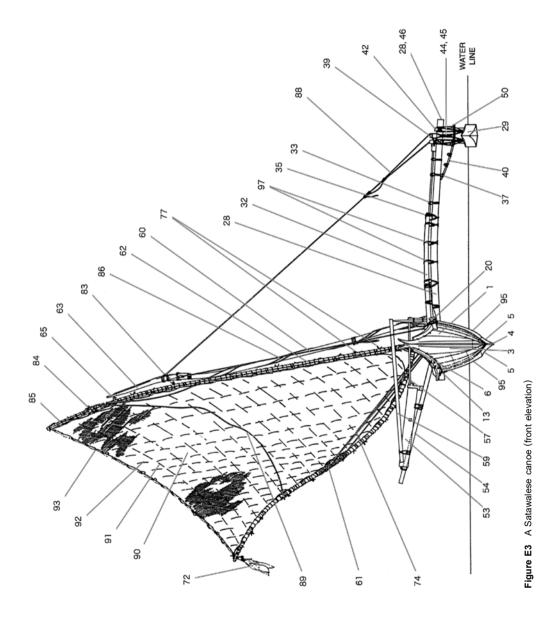


Figure E2 A Satawalese canoe (plan view)



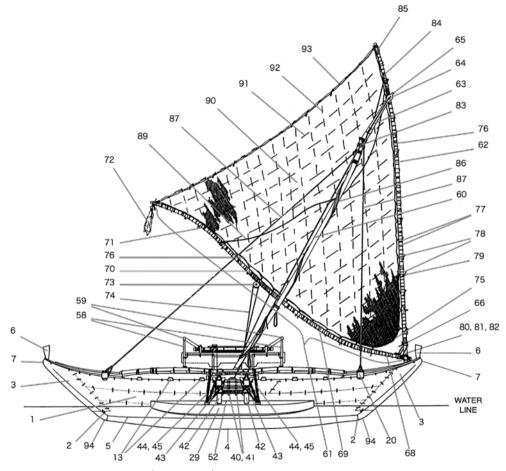


Figure E4 A Satawalese canoe (side elevation)

§E3. Canoe Building

A canoe is built under the supervision of a canoe-building specialist, or *sennap*, who inherited the knowledge and skills for canoe building under the apprenticeship of a senior *sennap*. Ritual ceremonies that take place in some stages in canoe building are listed below.

- 1) When a breadfruit tree to be made into a canoe has been chosen; this ritual is to seize the *yaniu* 'spirit' of a breadfruit that is going to be cut down. After this ceremony, the tree is cut down and trimmed into a log.
- 2) When the work to carve the log into pieces of wood begins; the bottom of the hull and gunwales are cut out from this log.
- 3) When the large section that is to be the bottom of the hull is completed; this is the end of the work that is done in the bush where the tree is felled.
- When the carved sections are carried to a canoe-house where the canoe-building work is to be completed.
- 5) When the carving of the canoe hull begins in the canoe-house (*fanapin*).
- 6) When a canoe is completed.

The term *fanapin* for Stage 5) is the only recorded term for the canoe-building rituals in the dictionary.

A list of words that relate to canoe building in general are provided in Table E8.

TERM	MEANING
fanawa	canoe carving or building
pwaeng	a system of knowledge including techniques used for either the construction or repair of a house or canoe
yaetitt	a technique employed in canoe making
yarhiuwaeytip	an informal gift made by a canoe owner to the master-builder to get his favor during the building of the canoe
fanapin	a ceremony held before the carving of the main body of a canoe begins in a canoe house
kkoakonosaen	a method of smoothing the exterior of a canoe hull. A line or string is stretched along the hull. Those areas which touch the line are marked and then scraped off

Table E8 Canoe building: General

Canoes are mainly made of the trunk of a kind of bread fruit tree, *Artocarpus altilis* (Park.). The size of the canoe is determined by the size of the tree, and the size of the parts are based on the size of the keel (details in Sudo 1979a: 259). The names of canoe-building stages, the terms describing the canoe-building processes, and the names of tools are provided in Tables E9 through E11.

STAGE	EXPLANATION
yimwirhapp	the main body is turned upside down to do carving on its bottom with an adze
yoatow	the inside of the keel is shaped with an adze
yaettip	chips of wood are scraped off with an adze
kkoakon-paap	planks are fitted on to the main body to form the hull
yoamwor-yaeser	temporary pegs used to hold planks and keel together are removed
yarhann	the sides of the hull are smoothed with an adze
woosoapw	the end-pieces of a canoe are carved with an adze
wiikiyoa	outrigger booms are fitted to the hull

 Table E9
 Canoe-building stages

Table E10 Activities taking place during canoe building

ACTIVITY	EXPLANATION
ppwopweerh	to prepare cement made from lime for plugging holes in the planks of a canoe
tinikaep	to carve, of the keel of a canoe from a breadfruit tree log
weenap	to do major carving on the side of a canoe before finishing
yay	to shape the gunwales of the fore and aft sections of a canoe by shaving the edge portions to make an appropriate curve
yayiuw	to shape the gunwales of the fore or aft of a canoe
wiikiyoani	to fit a canoe with outrigger booms

Table E11	Tools and	canoe-building	materials
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TOOL	DEFINITION
паер	a red dye, formerly used for marking uneven portions of parts of a canoe
noangoss	a short piece of log on which a deep V-shaped cut is made to hold the keel of a canoe during construction
rhiuwat	the side of a breadfruit log which is to be carved into the keel of a canoe
seoweocchemaaw	a slightly over-ripe coconut; the stage when the husk is best suited as caulking material for canoes
tiketik	a small adze used often in building a canoe
yaeser	sharpened wooden pegs temporarily hammered into the lashings of newly glued planks to tighten them in the process of canoe building
yamwirimwir	a wooden club used as a hammer during canoe building
yipwenikkaw	an adze with a long, curved handle used for scraping the inside of a canoe hull
yoafa	the temporary lashing of planks after gluing them together
saennippirh	a tool used for marking a straight line, a chalk line
sine	an adze for hollowing out a canoe hull
pwinis	breadfruit-sap glue

There are names for the measurement marks and lines made on the keel of a canoe during the construction. For example, Figure E5 shows the keel of a canoe placed with the bottom up. First, using a piece of coconut rope (*yoanoan*), the length of the keel (X to Y) is measured, and the middle point (*nuk*) is determined. Then, middle points between X and L (F_1) and Y and L (F_2) are identified. The points α and α' are marked outside of F_1 and F_2 , at the length as twice as long as from the tip of the pointing finger to its first joint (*rennifar*). Likewise, Figure E6 shows the hull of a canoe placed with the bottom part up. Points a and a', and b and b', are first determined respectively, as those directly below F_1 and F_2 , and S_1 and S_2 vertically. Then, the line between a and b and a' and b' are divided into quarters, by repeatedly measuring the middle point to identify, first, c and c', then d and d', and e and e'. Lines are drawn connecting a-a', b-b', c-c', etc., using a coconut from point L are: one *rennifar* for i, half *rennifar* for ii through vi.

The names of the lines and markings made during canoe construction are presented in Table E12. Some related terms appearing in the dictionary but which do not have identifications are listed in Table E13.

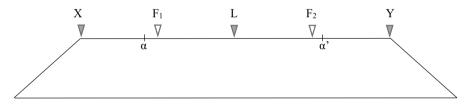


Figure E5 Measuring a keel (Sudo pers.comm.)

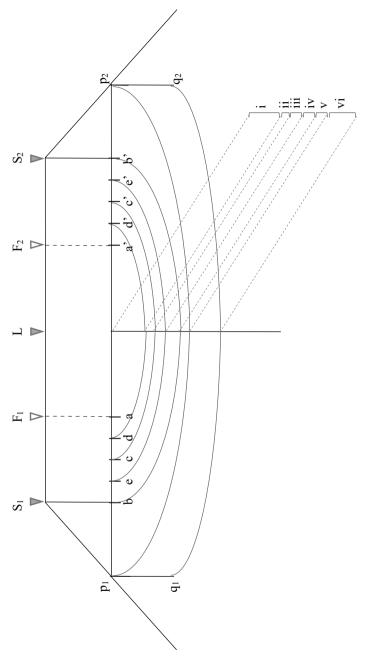


Figure E6 Measuring a hull (Sudo pers.comm.)

6
nuk
woomw
fesang
fesang-napnap
kaennetok
moangon-wunutunap
kaennetok-rhikirhik
kaennetok-napanap
moangon-wunuturhik
(no line)
mwaarepi
mesaen-kiusoar
mesaen-kiumwiurh
nukan-mwaarepi
saennimoangoniyoar
(no line name)

Table E12 Markings made on a canoe during construction

 Table E13
 Other markings made on a canoe during construction

NAME	DEFINITION
fesengaeniwan	a measurement mark made on a canoe keel during preliminary work in the forest
keomaeyinn	the height of the end-piece of a canoe from the point where it joins the keel to the upper point where side boards are joined to it
saennimera	one of several lines marked length-wise on the keel of a canoe during the process of carving
faen-pirheteyir	one of the measurement marks made on the keel of a canoe while under construction
fesang-napanap	one of the measurement marks made on the keel of a canoe while under construction
fesengaen-kiucch	one of the measurement marks made on the keel of a canoe while under construction
sokon-maarapw	one of the measurement marks made on the keel of a canoe while under construction
yipweneketeket	one of the measurement marks made on the keel of a canoe while under construction

Cultural Note F. House Parts

A list of house parts is presented in this section. Table F1 is a list corresponding to the numbers in Figure F1. Table F2 is a list of other terms that appear in the dictionary.

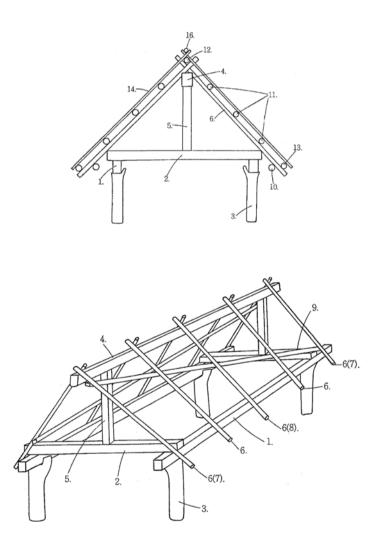


Figure F1 The basic structure of a house in Satawal (Cited from Sugito 1982: 360-361)

	HOUSE-PART NAME	DEFINITION
1.	taeriinap	the longitudinal tiebeam of a house
2.	yeoyirhamw	the horizontal beams on top of and connecting the tiebeams of a house
3.	yiur	the main corner posts of a house
4.	wungunap, wuung	the ridgebeam of a house
5.	yiuraenipwoot pwoot	the king posts supporting the ridgebeam of a house
6.	wou	the principle rafters of a house
6(7).	wowunumas	the principle rafters at each end of the roof of a house
6(8).	wowunuuk	the mid principle rafters of the roof of a house
9.	yitipwut	the diagonal struts extending obliquely up from the tiebeams (<i>taeriinap</i>) of a house to the ridgepole at about a 40-degree angle
10.	yaepiniwow	the under purlins, supporting the principal rafters of a house
11.	yaepengaek	the mid purlins, supporting the common rafters of a house
12.	wungaerhik	the ridgepole that sits on the overlap at the top of the principle rafters of a house
13.	yaepinikoat	the lowest purlins, supporting the bottom ends of the common rafters of a house
14.	yoat	the common rafters of the roof of a house
16.	soram	the topmost ridgepole sitting in the overlap at the top of the common rafters of a house

Table F1 Major house parts (Sudo, fieldnotes)

Table F2 Other house parts (Sudo, fieldnotes)

HOUSE-PART NAME	DEFINITION
faenaepiing	the space under the eaves of a house
fatikkeo	the corner of a house
kiniy-yateoteo	coconut-frond mats used for the walls of a house
kiyen-wuung	the top-most rung of the support structure used when installing the ridgepole of a house
monoofeoy	the auxiliary tiebeam of a house, above the wall plates
neeyimw	the inside area of a house
noangon-payiun- maniuk	the braces of the eave purlins of a house
noangon-piing	the supporting poles of the gable eaves of a house, attached to the horizontal beams (<i>yeoyirhamw</i>) of the house
nukunupaen-yiimw	the middle area of a house
payiun-maniuk	the eave purlins of a house
piing	a triangular wall section at the end of a house; the gable ends of a house
sengkin	the room of a house
soapw	the end of something, as the end piece of a canoe, the eaves of a house
tencho	the upper surface of a room or house, ceiling
tettar	the eaves of a house
tipwaenaepiing	end-piece booms supporting the gable eaves of a canoe house
towutowun-wuung	a stick used to fasten a coconut-frond mat onto the ridge of the roof of a house

ttipaap	a board or plank forming part of the wall of a house, the siding of a house
worhoarhon-peyik	the joist under the front wall of a house
worhoarhon-piing	the joist under a gable-side wall of a house
wowun-piing	the rafters of the gable eave of a house
yaennaewa	the platform in a house where food or leis for spirits are placed; the platform where formerly a corpse was placed prior to burying
yaepengaekaeniuk	the mid purlin forming part of the roof construction of a house
yaepin- payiunmaniuk	a lower purlin forming part of the roof construction of a house
yaepin-yoat	the lower part of the common rafters forming the eaves of the house
yaepiyaepiy- neeyamw	the lashing of stanchions and braces
yaeraemas	a support structure for putting up the ridgebeam of the house
yoas	 a thatched roof. 2. a thatched panel (woven with coconut fronds). the roof of a house
yoasoakiniy	thatching made of dried leaves
yoas-tittin	thatching made of green leaves

Index of Scientific Names for Plant, Fish and Other Creatures

This section presents an alphabetized list of scientific names that appear in the dictionary. Most of the scientific names are fish names and do not have any letter in parentheses following them. Other marine creatures, such as turtles and sea snakes, have (M) following the scientific name. Birds are identified with (B), and plant names are identified with (P).

It should be noted that the dictionary does not contain all plant names. Those who are interested are referred to Fosberg (1969) where the names of plants on Satawal Island are listed according to their scientific classification.

SCIENTIFIC NAME

SATAWALESE NAME(S)

Abudefduf spp.	mmaes
Abudefduf sordidus	sonn; pwaeni-faay
Acanthocybium solandri	ngaen
Acanthurus glaucopareius	mwocchonnaekey
Acanthurus lineatus	fenaang; fitirhu
Acanthurus olivaceus	mwaerefarh
Acanthurus pyroferus	yaerhengan
Acanthurus sp.	mwocch; nikayiungeoyiung; yefan
Acanthurus spp.	naepaenaep
Acanthurus thompsoni	mwocchon-mesaeniworh
Acanthurus triostegus	nikeonaw; nimen
Adioryx ruber	kiucchiupwerh
Adioryx sp.	kiucchiunifaen; kiucchiun-kaereyoan
Adioryx spinifer	sera
Adioryx spp.	rhiukkaeng
Adioryx tiere	neet
Aetobatus narinari	faeyiiketaf
Alectis ciliaris	yoappw
Alectis spp.	nirheok
Amaryllidaceae (P)	kunopw
Amphiprion spp.	nayiuy-rumerh; yinaey-rumerh
Anampses caeruleopunctatus	nipwurupwur
Anampses sp.	nirheoneofaeniyap; nirheyineyin, worhaenipwerh
Anyperodon leucogrammicus	yeoreocchang
Aphareus spp.	meroapw
Aploactis aspera	nikosorhoan
Apogon sp.	tukufaeyi ₂

Apogon spp. nirhopw; nirhopwuy-neepaeniyrhiya Aprion virescens vaiveov pwacchen-reonimaey; rhoomoan Artocarpus spp. (P) Artocarpus altilis (P) maeyifayiu Artocarpus mariannensis (P) maeyiyas kenaf Aulostoma spp. yiungaeniwoorh Aulostomus sp. Aulostomus spp. yiungaeni **[B]** Balistidae pwuupw; suunga Balistoides conspicillum ppwumaesen Belonidae taak; yawakkaeng Birgus latro (M) vaeff Bruguiera gymnorrhiza (P) yoang [C] Caesio spp. tiin: tinimoromor Caesio xanthonota nimmaereyoang Carangoides spp. saerirh; yikaen-faen-Maeyinap voruniworh Caranx ignobilis Caranx melampygus nangiuw Caranx sexfasciatus cchep1; yayiukiumaaw Caranx spp. cchepen-faen-kiurang; yoapw; yoarong; yetam metan Carcharhinus sp. Cardisoma spp. (M) roakumw Cephalopholis argus mwaeniseonius Cephalopholis caurantius yiukiurhaap Cephalopholis miniatus sewi Cephalopholis spp. rhanniufayimwoa ; sinnupoaw Cephalopholis urodelus yaemaerhiyor Cetoscarus bicolor (female) niyoarokuning Cetoscarus bicolor (male) wuunfoar, Cetoscarus spp. wuufoar *Cettia diphone* (B) nicchok Chaetodon spp. nisoapwoyiteor Chaetodon unimaculatur nifiuseram Chaetodontidae nikeriker Cheilinus sp. maemin-poro; maemin-yoamosokin Cheilinus trilobatus poro Cheilinus undulatus maem Chelonia mydas (M) woong₂

Chromis spp. nirheok Clerodendrum (P) wuunoa Cocos nucifera (P) niu Cololabis saira samma *Colocasia esculenta* (P) woot, Cordia subcordata (P) yanaw Coris avgula yanuw Coris gaimardi yaerheperang Coryphaena hippurus sepoar Crinum sp. (P) kiyopw Cucurbita maxima (P) kaenemaasa; kaenepwaas Cyrtosperma sp. (P) pwuna [D] Dasyatis sp. meet Decapterus spp. ppwayiur Diodon spp. tayius [E] Elagatis bipinnulata foofo Epinephelus fasciatus metaevin Epinephelus longispinis yaeniy-rheon-yoang Epinephelus quoyanus yaeniy-soapwon-paanap Epinephelus spp. yaeniy; yaeniyaen-yaerenoamw₁; yaeniyaeyneeyiinifay₁; yaeniyinap; yaeniy-mwerae *Epinephelus* spp. (mature) maniukaen-yaeniy Eretmochelys imbricate (M) woong₁ *Erythrina variegate* (P) kkini-paar *Eugenia javanica* (P) faeniyap Euthynnus affinis yaesinneoy Evistias acutirostris nikupwirh Exocoetidae mengar [F] takiunnoan Fistularia spp. Flammeo sammara kiucchoator kiucch; kiucchaeriyaer Flammeo spp. Forcipiger flavissimus nirhonippwak Fregata spp. (B) mannap [G] ninenneto, niyamwit Gerres spp. Glyphidodontops glaucus tefa Gomphosus varius yaesaep₂; yaesaep-pwerhepwerh

Gomphosus varius (male) yaesaepin-yaerhiineo; yaesaep-yarine, Gomphosus varius (female) yaesaep-pwerhepwerh_x sakiurhiuwar_x; yikaeyineo Gymnocranius spp. Gymnosarda unicolor yayiun Gymnothorax spp. soawuufaengaepwerh [H] soawurhemaerhem Halichoeres sp. Hemigymnus fasciatus nngiuwan Hemipteronotus spp. poot; potowurha Hemiramphus spp. fena, Hernandia sonora (P) worhann Heterocentrotus trigonarius (M) nirhar kinifeo *Hibiscus tiliaceus* (P) Hippopus hippopus (M) sium Hydrophiidae (M) sayiuwaaniu **[I]** Ipomoea batatas (P) koamwuutiy **[K]** Katsuwonis pelamis yaerengaap Kuhlia rupestris maerep Kyphosus spp. mwoamworhik; reon; reonnima [L]Labrichthys spp. nikos nippwuruwoarorh Labroides dimidiatus Leptoscarus sp. mesoat Lethrinus kalopterus woropwin Lethrinus miniatus yoapwuruppiy₂ Lethrinus reticulatus metin Lethrinus rubrioperculatus yaetik Lethrinus spp. noot Lethrinus xanthochilus yaetik Liza haematochezia yayiuwetam Liza macrolepis yayuwoatur Liza spp. yayiuw Liza vaigiensis yaraf Lobotes surinamensis maeyimeon₁ Lutjanus bohar moos Lutjanus gibbus masaccha Lutjanus spp. niteyitefarh Lutjanus vitta ngiirhif

[M]

Macolor niger	wonoanumw
Macolor niger (immature)	kiyakiy
Monotaxis grandoculis	masamas
Morinda spp. (P)	neen
Mugil cephalus	yayiuwetam
Mugil spp.	yayiuw; yayiuwacch
Mullidae	maapwuun
Mulloidichthys flavolineatus	wuuwerhik
Mulloidichthys flavolineatus (mature)	SOOW
Mulloidichthys flavolineatus	toapwotoapw
(young)	······································
Muraenidae (M)	sayiuwaaniu
Myripristis adustus	mweoneokkar; mweoneotamwiurh
Myripristis berndti	mweoniuccha
Myripristis spp.	mweon
Myrtaceae (P)	fariyap
[N]	
Naso brevirostris	fenamwe; moangoasines
Naso hexacanthus	naeyeew
Naso lituratus (adult)	pwunukaaney
Naso lituratus (immature)	nimaataat
Naso lituratus (young adult)	pesepes
Naso sp.	mono
Naso unicornis	kium
Naso vlamingii	mwiiyoarho ₁
Nephrolepis biserrata (P)	yaemaerey
[0]	
Ophichthus bonapartii	nimwaeraemwaer
Ophichthus sp.	yeoriurhoan
Ophichthus spp.	yeoriupwerhepwerh
Osteichthyes	yiik _x
Ostracion spp.	nifayifay
[P]	
Pandanus spp. (P)	faarh
Panulirus spp. (M)	yiur ₃
Paracanthurus hepatus	ffiyaen
Paracirrhites spp.	kiucchiun-weniyoan
Parapercis spp.	nikaayiufar

Parinari glaberrimum (P) Parupeneus bifasciatus Parupeneus sp. *Pemphis acidula* (P) *Platax orbicularis* (mature) Platax orbicularis (young) Platycephalidae Plectorhinchus spp. Plectropoma leopardus Plectropoma leopardus Plesiops sp. Plotosus anguillaris *Plumeria rubra* (P) Pogonoperca punctata Polydactylus plebeius Pomacanthus imperator Pomacentrus spp. Priacanthus sp. Pseudobalistes flavimarginatus Pseudobalistes fuscus Pseudobalistes sp. Pygoplites diacanthus Pterocaesio digramma **[S]** Saccharum officinarum (P) Scarops rubroviolaceus (M) (female) Scarops rubroviolaceus (M) (male) Scarops spp. (M) Scarus caudofasciatus Scarus chlorodon Scarus frenatus (female) Scarus harid Scarus lepidus Scarus niger Scarus sordidus Scarus sordidus (female) Scarus sordidus (male) Scarus sp.

vaeyis cchiukiun; semayiuriupwong faeyinikiiy; nayiuniyoon yeengiy₂ mwuunaeyinoamw nirheoneomeyimey moatow naamwaer; yoafunn₁ maengirineoy-saeiyaw saeiyaw nikos nayiuy-soawuufaeng seoviur nimmeras paew ningiungiu nirheok; rheok; tefa niupoaw; pwoawuriyap niuweoniuw paen niuweniuw rirhing tinimwoon, tipwu woow fasiuniumat yoamosokin kawakaw moasera kinipwut yaesiyoarho yaer, yaesiyoarho kaapw ningimmarh ngiiccha moakoweyimw rowu

Scarus spp. sepaeyirh; wunfoar Scolopsis bilineatus kaenengaay Scolopsis cancellatus kaenengaay Scolopsis lineata yoarhowa Scomberomorus spp. ngaen fatiyeraw Seriola spp. kaeraemey Siganus sp. Siganus sp. (immature) nnek Siganus sp. (mature) wumwuneo Sphyraena spp. seraw Sphyrna lewini nimoangoapaap Sterna albifrons sinensis (B) yaerar Stethojulis spp. yikaeyirek Sufflamen spp. ngiusiungius Synanceiidae noow **[T]** Tetraodontidae neorh Thalassoma fuscum rhaenaew Thalassoma hardwicke senganengan *Thalassoma purpureum* (female) mwarius Thalassoma quinquevittata vaerhiineo Thalassoma sp. keyiyop Thalassoma spp. yaepiyayiut, yaerheperang toakuw; toakuw-saengir Thunnus spp. Thunnus spp. (mature) mangaro; saengir *Tournefortia argentea* (P) cchen Trachinotus spp. yengang Tridacna squamosa (M) safasaf Tridacna crocea (M) ttoa [U] Upeneus spp. merep; wuwerhikin-woan-Meon Uraspis helvolus meroawuraaw faeriyap; faeyi-rheon-kinifeo Urolophus sp. [V] Variloa louti nirhipw, pwene [W] *Wedelia biflora* (P) yaetiyat **[X]** Xanthichthys spp. mwaaneyi

[Z]	
Zanclus cornutus	nikaesseraek
Zebrasoma spp.	meraseras
Zebrasoma veliferum	nikaeppwaerik

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