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Masahiro Yamada, Thomas Pellard, Michinori Shimoji

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# Dunan grammar (Yonaguni Ryukyuan)

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Masahiro YAMADA (Kyoto University)  
Thomas PELLARD (CNRS–CRLAO)  
Michinori SHIMOJI (Kyushu University)

## 1 The language and its speakers

### 1.1 Geography

Yonaguni Ryukyuan, *Dunan munui* in the vernacular, is spoken on Yonaguni Island (*Dunan ccima*), which belongs to the Yaeyama district of the Okinawa prefecture, Japan. The island, 28.91 km<sup>2</sup> large, is the westernmost one in Japan (approximately long. 123° E, lat. 24°45' N) and is located halfway between Taiwan and Iriomote Island. There are three villages, Sonai (*Thumaimura*), Higawa (*Ndimura*), and Kubura (*Khubura*), located 5 to 7 km away from each other. Kubura's population almost entirely consists of immigrants from outside the island.

### 1.2 Genetic affiliation and historical developments

The Dunan language belongs to the Macro-Yaeyama subgroup of Southern Ryukyuan, and it is thus a sister language of Yaeyama Ryukyuan (Lawrence 2008; Pellard 2009, this volume).

Dunan exhibits some interesting phonological developments, such as the reduction of the vowel system to three basic ones, the shift of the velars \*k and \*g to respectively /g/ and /ŋ/ in intervocalic position, or the fortition of \*z and initial \*j to /d/. Dunan is also characterized by the historical syncope of high vowels between voiceless consonants that led to the emergence of strong consonants (\*C<sub>1</sub>VC<sub>2</sub> > C<sub>2</sub><sup>2</sup>), and by the nasalization of high vowels before a voiced or nasal consonant, which gave birth to syllabic nasals (\*(C<sub>1</sub>)VC<sub>2</sub>/N > nC<sub>2</sub>/N).

Concerning its lexicon, Dunan has renewed a significant number of its basic vocabulary, and it shares about 80–85% of it with the other Ryukyuan languages and 70% with Japanese (Ōshiro 1972).

### 1.3 Number of speakers

All Dunan speakers are in their mid-fifties or older, and all of them are bilingual in both Standard Japanese and Dunan, while younger generations are usually monolingual in Japanese. Extrapolating from these sociolinguistic observations and from the census data available, the total number of Dunan speakers can be roughly estimated to be around 400, that is to say 25% of the total population of the island (approximately 1600).

## 1.4 Dialects and sociolinguistic information

The dialects spoken in Sonai and Higawa are fully mutually intelligible and show very little if any variation, which is a rather unusual situation in the Ryukyus. It should also be noted that many women come from outside the island, which further contributes to the replacement of Dunan by Standard Japanese. Within most Yonaguni families, the inter-generational transmission of the language has long been interrupted, and the total number of Dunan speakers is steeply decreasing.

## 1.5 Previous studies and available documentation

The first extensive description of Dunan is Hirayama and Hirayama & Nakamoto's (1964) phonological and morphological survey, which is accompanied by a short lexicon and a few texts. More recent grammatical sketches can be found in Hirayama (1988), together with a larger lexicon, Takahashi (1997), or Izuyama (2002),<sup>1</sup> but most of the syntax is left undescribed. The tone system is best documented in Uwano (2009, 2010, 2011).

Though there are several Dunan-Japanese bilingual lexicons (Hōsei daigaku Okinawa bunka kenkyūjo 1987a,b; Ikema 2003), no real dictionary has been hitherto published. A few Dunan texts in phonemic script with word-by-word glosses in Japanese can be found in Hirayama & Nakamoto (1964, with accompanying sonosheets), Shibata (1972, with audio tapes and a re-edition as CD-ROMs), and Kajiku (2002). Fukuda et al. (1983) is the largest collection of Dunan texts, but it adopts an inconsistent orthography and has no glosses but only free translations in Japanese.

# 2 Phonetics and phonology

## 2.1 Vowels

Dunan has three main vowels: a low /a/, whose realizations vary between front [a] and back [ɑ], a high front unrounded /i/ ([i], [ɪ]), and a high back rounded /u/ ([u], [ʊ]). Though most previous studies only posit these three vowel phonemes, a mid-vowel [o] can also probably be recognized as an independent phoneme and not just as an allophone of /u/. The distribution of *o* is however extremely limited, and apart from a few interjections, this vowel seems to consistently appear in one morpheme only, the sentence-final exclamative particle *do*.

Vowel length does not appear to be distinctive, though vowels can be lengthened in some cases. For instance, monosyllabic words are usually lengthened if they are not followed by a clitic, and vowel lengthening can have an expressive function in some adverbs like *aragu* 'very' ([aragu] or [ara:gu]) or *buru* 'all' ([buru] or [bu:ru]).

1. Izuyama (2012) is the first grammar sketch of Dunan to appear in English, but it was not yet available at the time this chapter was in preparation.

## 2.2 Consonants

The Dunan consonant system is summarized in Table 18.1, with a practical orthographic representation given between parenthesis after each symbol. There is a three-way laryngeal opposition for stops between a fortis, a lenis, and a voiced series. The fortis/lenis opposition is neutralized in word-medial position, where all voiceless stops are usually phonetically fortis. The fortis series, traditionally called “glottalized”, is unaspirated and tense, while the lenis series is weakly aspirated and lax. The consonants /pʔ/ and /cʔ/ have no lenis counterparts. In our practical orthography, initial fortis consonants are written with double letters and lenis ones as *h*-digraphs, while word-medial neutralized consonants are written with a single letter.

In positions other than prevocalic, all nasals are neutralized and are here written uniformly as *n*, but phonetically they are homorganic with a following consonant (e.g. *ng* [ŋg], *nd* [nd], *nb* [mb]) and velar ([ŋ]) in final position. The symbol *c*(*c*) represents a voiceless dental affricate [tsʔ]. Major allophones include the palatalized realizations of *c*(*c*), *s*, and *h* before *j* and *i* ([tɕʔ], [ɕ], [ç]), and the labialized variant of *h* before *w* and *u* ([ʍ], [ɸ]).

Table 18.1: Dunan consonants

	Labial	Dental	Palatal	Velar	Glottal
Lenis stops		/tʰ/ ( <i>th</i> )		/kʰ/ ( <i>kh</i> )	
Fortis stops/affricates	/pʔ/ ( <i>pp</i> , <i>p</i> )	/tʔ/ ( <i>tt</i> , <i>t</i> )	/cʔ/ ( <i>cc</i> , <i>c</i> )	/kʔ/ ( <i>kk</i> , <i>k</i> )	
Voiced stops	/b/ ( <i>b</i> )	/d/ ( <i>d</i> )		/g/ ( <i>g</i> )	
Nasals	/m/ ( <i>m</i> )	/n/ ( <i>n</i> )		/ŋ/ ( <i>y</i> )	
Voiceless fricatives		/s/ ( <i>s</i> )			/h/ ( <i>h</i> )
Tap/trill		/ɾ/ ( <i>r</i> )			
Approximants	/w/ ( <i>w</i> )		/j/ ( <i>j</i> )		

## 2.3 Syllable

The syllable structure of Dunan is rather simple, with both the onset and coda being optional. Complex onsets are not allowed, except for the optional presence of a medial glide (G)*j* or *w*. The only coda possible is the nasal archi-phoneme, and the nucleus can contain up to two vowels. Dunan’s basic syllabic template is thus as follows:

- (1) (C(G))V<sub>1</sub>(V<sub>2</sub>)(N)

The nasal archi-phoneme can also constitute a syllable on its own, but this special type of *minor syllable* is strictly restricted to word-initial position before a stop, affricate, or nasal (e.g. *n.da* ‘you’).

## 2.4 Mora

All vowels bear a mora, and a nasal is also moraic when it stands in coda or nucleus position. Syllables can be light ((C)(G)V), heavy ((C)(G)VV, (C)(G)VN) or super-heavy ((C)(G)VVN). All super-heavy syllables seem to be morphologically complex and are

not subject to resyllabification (CVVN → \*CV.VN). Thus *hâi=n* ‘needle=**INCL**’ and *dûi=n* ‘handle=**INCL**’ are respectively realized with a falling and a high pitch, and not as LF and LH, as would be the case with disyllabic words (cf. *hâci=n* ‘chopsticks=**INCL**’ LF and *hâci=n* ‘bridge=**INCL**’ LH).

The mora has not been considered to be an important unit in previous studies on Dunan phonology, but it nevertheless plays a major role in two processes. First, there is a bimoraic constraint on the minimal size of words, and C(G)V words get their vowel lengthened when they constitute a phonological word on their own. This does not apply to NC(G)V words since the initial nasal bears a mora.

Second, heavy and light syllables differ in their ability to bear a falling tone: polysyllabic words ending with a light C(G)V syllable cannot realize an underlying falling tone, while those ending with a heavy (C)(G)VV or (C)(G)VN syllable can. NC(G)V words also fail to phonetically realize a falling tone since the initial nasal forms a syllable on its own and thus does not affect the prosodic weight of the final syllable.

## 2.5 Tone

Dunan has a three-way word-tone system for simple nouns. The tone domain is not the syllable nor the mora, but the word; one of the three distinctive melodies is mapped onto the word as a whole, regardless of its length. However, the actual tone-bearing unit is the syllable.

The three word-tones High, Low and Falling, are also usually called A, B and C. The High tone is characterized by a high pitch on the last syllable of the words, with all preceding syllables high, except the first one in polysyllabic words. The Low tone is evenly low throughout the word. The Falling tone is similar to the High one, but the final syllable has a falling contour if it is heavy. If the last syllable of the word is light (i.e., is a (C)V syllable), it is pronounced with a high pitch, making it indistinguishable from a High-tone word, unless it is made heavy by attaching some extra phonological material, such as the inclusive clitic =*n* (‘even, too’). An unrealized final fall can also trigger a downstep of the following word (Uwano 2010). In the present practical orthography, the High, Low and Falling tones are respectively marked with an acute (´), grave (`), and circumflex (^) accent on the first vowel of the word.

Table 18.2: Dunan tone system

	High			Low			Falling		
1σ	<i>ná</i> ‘name’	[ná:]	H	<i>khi</i> ‘tree’	[k <sup>h</sup> i:]	L	<i>wâ</i> ‘pig’	[wâ:]	F
	<i>mái</i> ‘rice’	[mái]	H	<i>hâi</i> ‘South’	[hâi]	L	<i>hâi</i> ‘needle’	[hâi]	F
	<i>hâci</i> ‘bridge’	[hâtci]	LH	<i>hâna</i> ‘flower’	[hànà]	LL	<i>hâci</i> ‘chopsticks’	[hâtci]	LH
2σ	<i>hâci=n</i> ‘bridge too’	[hâtciŋ]	LH	<i>hâna=n</i> ‘flower too’	[hànàn]	LL	<i>hâci=n</i> ‘chopsticks too’	[hâtciŋ]	LF
	<i>dúrai</i> ‘meeting’	[dùrái]	LH	<i>mùnui</i> ‘speech’	[mùnù]	LL	<i>mâgai</i> ‘bowl’	[màgái]	LF
3σ	<i>mínaga</i> ‘garden’	[minágá]	LHH	<i>dimami</i> ‘peanuts’	[dimàmì]	LLL	<i>dâmami</i> ‘k.o. turtle’	[dàmámí]	LHH

The difference of range between the high and low pitches is usually quite small in Dunan, which makes the assessment of each word’s tonal category a difficult task.

Investigation of the tone system has barely begun,<sup>2</sup> and tone will thus be left unmarked in most examples.

### 3 Word classes

There are two large word classes (nominals and verbs) and five small word classes (adverbs, role markers, adnominals, conjunctions, and interjections) in Dunan. As in most Ryukyuan languages, property words (“adjectives”) share most of their morphosyntax with ordinary verbs and can thus be regarded as a subclass of verbs. Most of the word classes listed above are phonologically independent, but role markers are clitics phonologically integrated into the last word of the nominal phrase they attach to.

#### 3.1 Nominals

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Nominals are words that head nominal phrases (NP), which are independently defined as constituents that can function as an argument or as a copula predicate. Nominals can be subcategorized into nouns, pronouns, and numerals.

#### 3.2 Verbs

Verbal words comprise both “ordinary” verbs (henceforth simply “verbs”) and stative verbs (which may alternatively be called “adjectives”). Verbs inflect and function as the predicate of a clause. Basically, the same set of inflectional affixes applies to both verbs and stative verbs, although some restrictions and differences are observed (Section 4.4). One conspicuous difference lies in the way negative forms are formed. Whereas verbs are negated with the suffix *-anu-*, stative verbs are negated with the affix *-minu-*, as in *khag-anu-n* (write-NEG-IND) ‘not write’ versus *thaga-minu-n* (high-NEG-IND) ‘be not high’.

#### 3.3 Adverbs

Adverbs serve as modifiers of an entire clause (sentential adverbs) or of the predicate of a clause (predicate adverbs). Adverbs may be underived bare root forms, or derived from a stative verb root, by attaching *-gu* to it, e.g. *thaga* ‘high’ → *thaga-gu* ‘high (adverb)’, *ninsa* ‘slow’ → *ninsa-gu* ‘slowly’.

#### 3.4 Role markers

Role markers are enclitics that mark the syntactic, semantic, and/or pragmatic role of the NP to which they attach. Case markers, quantifiers, topic markers, and focus markers form the class of role markers. Several role markers can be agglutinated on the same NP, with case markers coming closest to the NP, followed by quantifiers, and finally topic/focus markers.

2. All the information on tone in this chapter thus comes from Uwano (2009, 2010, 2011).

### 3.5 Other minor classes

Adnominals (*khunu*, *unu*, *khanu*) are preposed demonstrative modifiers of NPs. Though both *khunu* and *unu* could be analyzed as involving a demonstrative pronoun (i.e., *kh*u ‘proximal’, *u* ‘mesial’) followed by the genitive case marker =*nu*, this analysis is not possible for *khanu* (cf. *khari* ‘distal’).

Conjunctions like =*tasi* ‘while’, =*jungara* ‘because’, =*ŋa* ‘but’, =*tin* ‘even if’ encode the subordinate status of the clause they attach to. They follow the predicate of the subordinate clause and act as a linker with the main clause.

Interjections are uninflected words that mark an exclamation, like *di* ‘hey’.

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## 4 Morphology

Dunan has a comparatively complex morphology for a Japonic language, but its morphological type is nevertheless similar to that of its linguistic relatives. Dunan has thus a generally dependent-marking, concatenative, and suffixal morphology. Morphological formatives most often show no cumulative exponence, and words have a medium degree of synthesis.

### 4.1 Nominal morphology

The general morphological structure of nominal words in Dunan can be summarized as in (2).

- (2) (Prefix-) (Root+) ROOT (-diminutive) (-plural)

#### 4.1.1 Noun affixes

Dunan’s morphology is overwhelmingly suffixal, but some noun prefixes that denote a quality or a property are also found, like *ubu-* ‘big’ (e.g. *ubu-ici* ‘big stone’), *mi-* ‘female’, (e.g. *mi-uci* ‘cow’), or *bigi-* ‘male’ (e.g. *bigi-uci* ‘ox’). Nouns can be followed by the diminutive suffix *-ti*, which marks smallness, youth, or endearment (e.g. *agami-ti* child-DIM ‘small child’, *inu-ti* dog-DIM ‘puppy’). Most of nouns in Dunan are number neutral, in the sense that they are not specified as being singular or plural, and they can be used to refer to a single or to multiple entities (3).

- (3) *inu=ŋa maasiku bu-n*  
dog=nom many be-ind  
‘There are a lot of dogs.’

However, nouns can be explicitly be marked for plural number with the suffix *-nta*, which can express associative (e.g. *Tharu-nta* Taro-PL ‘Taro and others’) or collective (e.g. *inu-nta* dog-PL ‘a (particular) group of dogs’) plural. Derived from its associative meaning, the plural suffix can also be used to express ambiguity or approximation with entities (e.g. *khwaci-nta* cookie-PL ‘cookies among other things’) or locative nominals (e.g. *khuma-nta* here-PL ‘around here’).

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#### 4.1.2 Numerals and classifiers

Numerals in Dunan are built from a numeral root (1 *ttu*, 2 *tta*, 3 *mi*, 4 *du*, 5 *ici*, 6 *mu*, 7 *nana*, 8 *da*, 9 *khugunu*, 10 *thu*) followed by a classifier suffix. The choice of classifier depends on the nature or shape of the object quantified (humans: *-taintu*; animals: *-gara*; generic for inanimates: *-ci*; flat thin objects: *-ira*; trees: *-mutu*; days: *-ka/-ga*; times: *-muruci*; steps: *-mata*; handful: *-ka*, etc.). Some numeral + classifier combinations exhibit morphophonological alternations and suppletion, and borrowed Sino-Japanese numerals are also frequent.

#### 4.1.3 Pronouns

Pronouns can be categorized into interlocutory pronouns, i.e. those referring to speech act participants, demonstrative pronouns, which refer to non-speech act participants, reflexive pronouns, locative pronouns, and interrogative pronouns.

While other nominals are number neutral, personal pronouns are regularly marked for number. They also often exhibit suppletion and stem-final ablaut in the plural and some case forms. In particular, interlocutory pronouns form their genitive case with their bare (or truncated) stem or with the nominative marker *=ŋa* instead of genitive *=nu*, which can be viewed as an instance of case deponency.

Table 18.3: Dunan singular and plural pronouns

	Singular	Plural
Interlocutory 1 <sup>st</sup> person	<i>ânu</i>	<i>bânu(-nta)</i> (EXCL), <i>bânta</i> (INCL)
Interlocutory 2 <sup>nd</sup> person	<i>ndá</i>	<i>ndí(-nta)</i>
Demonstrative Proximal	<i>khú</i>	<i>khuntati</i>
Demonstrative Mesial	<i>ú</i>	<i>ùntati</i>
Demonstrative Distal	<i>khári</i>	<i>khàntati</i>
Reflexive 1	<i>sá</i>	<i>si</i>
Reflexive 2	<i>dû, dunudu</i>	
Locative Proximal	<i>khûma</i>	<i>khumanta</i>
Locative Mesial	<i>ûma</i>	<i>umanta</i>
Locative Distal	<i>kháma</i>	<i>khamanta</i>
Interrogative animate	<i>thá</i>	<i>thanta</i>
Interrogative inanimate	<i>nû</i>	
Interrogative locative	<i>nmâ</i>	

Table 18.4: Dunan irregular case forms of pronouns

	Base form	Special form
1SG	<i>ânu</i>	<i>a=ŋa</i> nominative/genitive
1PL	<i>bânu(-nta), bânta</i>	<i>ba=ŋa</i> nominative, <i>ba/bânta</i> genitive
Locative Proximal	<i>khûma</i>	<i>khûmi</i> locative
Locative Mesial	<i>ûma</i>	<i>ûmi</i> locative
Locative Distal	<i>kháma</i>	<i>khámi</i> locative
Locative Interrogative	<i>nmâ</i>	<i>nmî</i> locative



## 4.2 Case

Case is marked by postpositional markers that have phrasal scope over whole NPs. These markers are phonologically dependent, but they are not as tightly bound to their host as suffixes, and some of them can also appear on verbs and act as conjunctions.

There is a sharp distinction between direct cases, which encode core arguments (S, A, P), and oblique cases, which encode other verb satellites. While oblique cases are usually always formally marked, the core arguments S and P are usually not, though a nominative marker *=ŋa* can be used on S arguments, especially when they are not topicalized. This nominative marker is also regularly used to mark non-topicalized A arguments.<sup>3</sup>

Table 18.5: Dunan case markers

Label	Marker	Main role(s) encoded
Nominative	<i>=ŋa</i>	S, A (genitive function with 1 <sup>st</sup> person pronouns)
Genitive	<i>=nu</i>	possessor, nominal modifier
Locative	<i>=ni</i>	location of existence or action, time, goal of movement, state resulting of a change, recipient, standard of comparison, agent of passive constructions, causee of causative constructions, beneficiary of benefactive constructions
Directive	<i>=nki</i>	direction, goal of movement, state resulting of a change, recipient, agent of passive constructions, causee of causative constructions, malefactor of malefactive constructions
Ablative	<i>=gara</i>	source, cause, mean of locomotion, path, location
Elativ	<i>=di</i>	source
Terminative	<i>=ta</i>	temporal or spatial limit
Instrumental	<i>=si</i>	instrument, material, cause, mean
Comitative	<i>=tu</i>	companion, addition
Comparative	<i>=ka</i>	standard of comparison

## 4.3 Verb morphology

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### 4.3.1 Morphological structure and paradigm classes

The verbal system of Dunan is without doubt the most complex one within the whole Japonic family. Its complexity is the result of the conjunct effects of important phonological and morphological changes that have disrupted the originally rather straightforward system.

Figure 18.1 represents the overall structure of the verb in Dunan. Each position can be filled with only one morpheme, and only positions 0 (the root) and 5 (the endings)

<sup>3</sup> The exact conditions that determine when the nominative marker is used and when it is not are still unclear.

are obligatory. Each of the non-final suffixes in positions 1 to 4 can change the conjugation class of the stem. Position 3 (aspect/polarity) and 4 (tense) are incompatible with deontic moods and the medial/converb category.

o	(1)	(2)	(3)	(4)	5
			∅	Present <i>-u-/∅</i> Indicative <i>-n</i> Past <i>-(i)ta-</i> Participle <i>∅/-ru</i>	
			Negative <i>-anu-</i> Perfect <i>-(j)a-/-(j)u-</i>	Past <i>-(i)ta-</i> ∅	Circumstantial <i>-iba/-uba</i> Conditional <i>-ja</i>
Root Causative <i>-amir</i> Passive <i>-arir-</i>	∅	∅			Imperative <i>i</i> Prohibitive <i>-(u)nna</i> Hortative <i>-(i)ndangi</i> Medial <i>-i</i>

Figure 18.1: Verb structure in Dunan

Dunan's verb morphology is characterized by a high degree of allomorphy in both stems and grammatical formatives. There is generally no synchronic phonological motivation for these alternations, whose ultimate cause can only be found in the historical developments of the language. Moreover, stems and suffixes are arbitrarily co-indexed, and stems carry themselves no inflectional information. The co-indexation of stems and suffixes is also not uniform across all verbs.

The combination of stem alternations, formative allomorphy, and stem-suffix co-indexation necessitates positing a complex system with several dozens of inflectional verb classes and eight stems, far more than in any other Japonic language. There is also no single form or stem that can serve as a principal part or reference form and predict a verb's paradigm, which can only be deduced from a set of more than three forms.

For instance, some verbs otherwise homonymous differ only by their perfect form, such as *sagun* 'tear' → *satjan* versus *sagun* 'bloom' → *satun*, or *nirun* 'cook, boil' → *njan* versus *nirun* 'get cooked, boiled' → *njun*. On the other hand, the perfect form alone cannot disambiguate a verb's class membership, since non-homonymous verbs can have the same perfect form, like *khatun* 'win' and *khagun* 'write', which both have a perfect form *khatjan*.

#### 4.3.2 Stems

Dunan exhibits a comparatively high degree of stem allomorphy. Stem-shape alternation patterns are lexeme-based and follow no general (morpho)phonological rule (Table 18.6). Trying to account for Dunan's stem alternations with derivational rules would be rather pointless, since rules would not be generalizable but would turn out to be specific to some verb classes and suffixes, and they would thus hold no explanatory power.

Stem allomorphy involves not only segmental but also supra-segmental alternations, since some Low tone verbs shift to the Falling tone within their paradigm. Me-

tatony is not uniform across all Low tone verbs, and three patterns must be recognized according to which forms undergo tonal alternation (Table 18.7).

Table 18.6: Verb stem (segmental) alternations in Dunan

‘pull’	‘eat’	‘drop’	‘make’	‘do’	‘burn’
<i>sunk-</i>	<i>pp-</i>	<i>ut-</i>	<i>kkw-</i>	<i>kh-</i>	<i>mw-</i>
<i>sunt-</i>	<i>ppu-</i>	<i>utu-</i>	<i>kku-</i>	<i>khi-</i>	<i>mui-</i>
		<i>utus-</i>	<i>kkur-</i>	<i>khir-</i>	<i>muir-</i>

Table 18.7: Verb metatony in Dunan

	‘tear’		‘go’		‘rest’		‘think’
Present indicative	<i>dàndan</i>	L	<i>hìrun</i>	L	<i>dùgun</i>	L	<i>ùmun</i> L
Past indicative	<i>dàndatan</i>	L	<i>hìtan</i>	L	<i>dùgutan</i>	L	<i>ùmutan</i> F
Present negative indicative	<i>dàndanun</i>	L	<i>hìranun</i>	L	<i>dùganun</i>	F	<i>ùmanun</i> F
Present perfect indicative	<i>dàndasyan</i>	L	<i>hjúñ</i>	F	<i>dùgwan</i>	F	<i>ùmwan</i> F

The variation of stem-suffix co-indexation across verb classes necessitates setting up a complex system with eight different stems, though no verb has eight different stem forms (see Table 18.8).

Table 18.8: Examples of verb stems in Dunan

Used for	‘count’	‘walk’	‘think’	‘close’	‘make’	‘tear’	‘burn’ (v.i.)
1 Present, Conditional	<i>dùm<sub>1</sub></i>	<i>àig<sub>1</sub></i>	<i>ùm<sub>1</sub></i>	<i>hú<sub>1</sub></i>	<i>kkùr<sub>1</sub></i>	<i>dàndir<sub>1</sub></i>	<i>múir<sub>1</sub></i>
2 Negative	<i>dùm<sub>2</sub></i>	<i>àig<sub>1</sub></i>	<i>ùm<sub>2</sub></i>	<i>h’<sub>2</sub></i>	<i>kkùr<sub>2</sub></i>	<i>dàndir<sub>1</sub></i>	<i>múir<sub>1</sub></i>
3 Imperative, Circumstantial	<i>dùm<sub>1</sub></i>	<i>àig<sub>1</sub></i>	<i>ùmu<sub>3</sub></i>	<i>hú<sub>1</sub></i>	<i>kkùr<sub>1</sub></i>	<i>dàndir<sub>1</sub></i>	<i>múir<sub>1</sub></i>
4 Prohibitive	<i>dùm<sub>1</sub></i>	<i>àig<sub>1</sub></i>	<i>ùm<sub>1</sub></i>	<i>hú<sub>1</sub></i>	<i>kkù<sub>3</sub></i>	<i>dàndi<sub>2</sub></i>	<i>mú<sub>2</sub></i>
5 Past	<i>dùm<sub>1</sub></i>	<i>àit<sub>2</sub></i>	<i>ùmu<sub>4</sub></i>	<i>hú<sub>1</sub></i>	<i>kkù<sub>3</sub></i>	<i>dànd<sub>3</sub></i>	<i>mú<sub>3</sub></i>
6 Hortative	<i>dùm<sub>1</sub></i>	<i>àit<sub>2</sub></i>	<i>ùmu<sub>3</sub></i>	<i>hús<sub>3</sub></i>	<i>kkù<sub>3</sub></i>	<i>dànd<sub>3</sub></i>	<i>mú<sub>3</sub></i>
7 Medial	<i>dùm<sub>2</sub></i>	<i>àit<sub>3</sub></i>	<i>ùmu<sub>4</sub></i>	<i>hús<sub>3</sub></i>	<i>kkù<sub>4</sub></i>	<i>dànd<sub>4</sub></i>	<i>mú<sub>3</sub></i>
8 Perfect	<i>dùm<sub>2</sub></i>	<i>àit<sub>3</sub></i>	<i>ùmw<sub>5</sub></i>	<i>hús<sub>3</sub></i>	<i>kkw’<sub>5</sub></i>	<i>dànd<sub>4</sub></i>	<i>mw’<sub>4</sub></i>

#### 4.3.3 Inflectional morphology

Most of the inflectional information is encoded by suffixes, which, like stems, exhibit allomorphy. Several suffixes have two phonologically conditioned variants according to the shape of the stem they attach to, but, as explained above, the choice of the stem depends on the suffix and the verb’s class, and the allomorphy is not always phonologically motivated (see Table 18.9).

Table 18.9: Phonologically conditioned allomorphy in Dunan

	Prohibitive	Past	Present	Circumstantial
Consonant-ending stem	<i>-unna</i>	<i>-ita-</i>	<i>-u-</i>	<i>-uba-</i>
Vowel-ending stem	<i>-nna</i>	<i>-ta-</i>	∅	<i>-iba-</i>

On the other hand, the perfect marker shows lexeme-based allomorphy between *-(j)a-/-(j)u-*, depending on the verb's class only.<sup>4</sup> Moreover, an inflected form can combine several suffixes, and the combinations between suffixes of different slots are by and large idiosyncratic and often follow irregular patterns.

Inflected verb forms can be divided into two categories according to their morphosyntactic status and function, which are encoded by different endings (Slot 5). First, independent verb forms are marked for mood and are syntactically autonomous; they can head main clauses and form a complete sentence on their own. Indicative forms can be marked for tense and/or aspect, but not other independent mood forms (see Table 18.10).

Table 18.10: Dunan independent verb forms

3	4	5	Marker(s)	Example 'do'
Non-perfect	Present		<i>-∅-u/∅-n</i>	<i>khirun</i>
	Past		<i>-∅-(i)ta-n</i>	<i>khitan</i>
Negative	Present	Indicative	<i>-anu-∅-n</i>	<i>khiranun</i>
	Past		<i>-anu-ta-n</i>	<i>khiranutan</i>
Perfect	Present		<i>-(j)a/(j)u-∅-n</i>	<i>khjan</i>
	Past		<i>-(j)a/(j)u-ta-n</i>	<i>khjatan</i>
—	—	Imperative	<i>-i</i>	<i>khiri</i>
—	—	Prohibitive	<i>-(u)nna</i>	<i>khinna</i>
—	—	Hortative	<i>-(i)ndangi</i>	<i>khindangi</i>

On the other hand, dependent verb forms (Table 18.11) such as the medial form and converbs usually do not appear in independent clauses, except in the case of ellipsis. They head adverbial or chained clauses, or appear with an auxiliary in a complex verb form. Some of these dependent verb forms, namely the circumstantial and conditional forms, can be marked for tense/aspect and take the perfect and past suffixes. Medial and various converb forms are on the other hand incompatible with tense/aspect and depend on another clause's predicate for the expression of these categories.

Participial forms have a somehow ambiguous status since while their primary function is to head adnominal clauses, they can also appear in a main clause, with an exclamative value or in focus concord (*kakari musubi*) constructions. For most verbs, the stem of the indicative minus its suffix *-n* serves as a participle form, but for the perfect and past, a suffix *-ru* attaches to the stem.

4. The choice of the perfect marker is partly correlated with agentivity/transitivity, but there are too many exceptions to consider this correlation to be a synchronic rule. The relationship between transi-

Table 18.11: Dunan dependent verb forms

3	4	5	Marker(s)
Non-perfect	Present	Circumstantial	-Ø-Ø- <i>iba/uba</i>
	Past	Conditional	-Ø- <i>ta-ba</i>
	Present	Conditional	-Ø-Ø- <i>ja</i>
	Past	Conditional	-Ø- <i>ta-ja</i>
Negative	Present	Circumstantial	- <i>anu</i> -Ø- <i>ba</i>
	Past	Circumstantial	- <i>anu</i> - <i>ta-ba</i>
	Present	Conditional	- <i>anur</i> -Ø- <i>ja</i>
	Past	Conditional	- <i>anu</i> - <i>ta-ja</i>
Perfect	Present	Circumstantial	-( <i>j</i> ) <i>a</i> /( <i>j</i> ) <i>u</i> -Ø- <i>ba</i>
	Past	Circumstantial	-( <i>j</i> ) <i>a</i> /( <i>j</i> ) <i>u</i> - <i>ta-ba</i>
	Present	Conditional	-( <i>j</i> ) <i>ar</i> /( <i>j</i> ) <i>ur</i> -Ø- <i>ja</i>
	Past	Conditional	-( <i>j</i> ) <i>a</i> /( <i>j</i> ) <i>u</i> - <i>ta-ja</i>
—	—	Medial	- <i>i</i>
—	—	Sequential	- <i>iti</i>
—	—	Causal	- <i>ibi</i>
—	—	Simultaneous	- <i>idatana</i>
—	—	Negative converb	- <i>nki</i>
—	—	Supine	- <i>ndi</i>

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Table 18.12: Dunan participles

3	4	5	Marker(s)	Example 'do'
Non-perfect	Present		-Ø- <i>u</i> /Ø-Ø	<i>khiru</i>
	Past		-Ø-( <i>i</i> ) <i>ta-ru</i>	<i>khitaru</i>
Negative	Present	Participle	- <i>anu</i> -Ø	<i>khiranu</i>
	Past		- <i>anu</i> - <i>ta-ru</i>	<i>khiranutaru</i>
Perfect	Present		-( <i>j</i> ) <i>a</i> /( <i>j</i> ) <i>u</i> -Ø- <i>ru</i>	<i>khjaru</i>
	Past		-( <i>j</i> ) <i>a</i> /( <i>j</i> ) <i>u</i> - <i>ta-ru</i>	<i>khjataru</i>

Dunan also shows several complex verb forms, where a medial verb is followed by an auxiliary which carries the inflectional markers. Verb auxiliaries mark subject honorification (*warun*) or various TAM values (e.g. imperfective *bun*, completive *ccidimirun*, conative *nnun*, preparative *utugun*, potential *ccun*, desiderative *busan*) and can be more or less fused with the main verb. Some auxiliaries form a distinct word, as shown by the fact they retain their tone and can be separated from the main verb by the focus marker =*du* (e.g. *khati=du buru* 'be writing'). On the other hand, some auxiliaries form a compound with the main verb and have no autonomy (e.g. *khati-busan* 'want to write').

tivity and the perfect is thus better viewed as a relic of history.

#### 4.3.4 Derivational morphology

Non-class changing derivation includes the two voice categories, namely the causative and the passive. Both are marked by suffixes directly attaching to the root, and the two can combine with each other, in which case the causative precedes the passive suffix. The causative is marked by *-(a)mir-* and the passive by *-(a)rir-*.

#### 4.4 Stative verb morphology

Stative verbs (“adjectives”) have a different and less complex morphology than ordinary verbs. Stative verb roots uniformly end with the vowel *a* and attach the auxiliary verb *an* ‘exist’, which carries the inflectional markers. The root and the auxiliary are in the process of being completely fused together, and the final *a* of the root and the initial *a* of the auxiliary can be reduced to a single short vowel. In some constructions, the auxiliary still retains some freedom, and for instance the focus marker *=du* and the topic marker *=ja* can attach to the root, in which case the auxiliary is detached to the right.

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Table 18.13: Dunan stative verb morphology

3	4	5	Example ‘high’
Non-perfect	Present	Indicative	<i>thaga-n</i>
		Participle	<i>thaga-ru</i>
		Exclamative	<i>thaga-nu</i>
		Circumstantial	<i>thagar-u-ba</i>
		Conditional	<i>thagar-ja</i>
Negative	Past	Indicative	<i>thaga-ta-n</i>
		Participle	<i>thaga-ta-ru</i>
	Present	Indicative	<i>thaga-minu-n</i>
		Participle	<i>thaga-minu</i>
—	—	Adverbial	<i>thaga-gu</i>
		Causal	<i>thaga-bi</i>

Since all the inflectional information is carried by the auxiliary, stative verbs inherit the irregularities of the verb *an*, such as the suppletive form *minun* for the negative and the long participial form *aru*. Stative verbs also have two special forms not seen in other verbs: an exclamative form in *-anu* (‘high’ *thaga-(a)nu*), and an adverbial form in *-gu* (‘high’ *thaga-gu*). On the other hand, stative verbs lack most aspectual, mood, and converbial forms of other verbs.

Many stative verbs have two forms, a short one, and a long one with a suffix *-sa* intervening between the root and the auxiliary (e.g. ‘high’ *thaga-an/thaga-sa-an*), but the difference between the two is unclear.

#### 4.5 Word formation processes

Though both nominal and verbal derivations are usually realized through affixation, compounding is also frequent in nominal and verbal word formation. New nominals can be formed by adding a noun or a property concept root (PCR) before the head nominal root.

- (4) a. noun + noun: *dunan* ‘Yonaguni’ + *ttu* ‘person’ → *dunan-ttu* ‘Yonaguni islander’  
 b. *baga* ‘young’ + *nai* ‘seedling’ → *baga-nai* ‘young seedling’

Compounding is also frequent with verbs. Compound verbs can combine a main lexical verb with an auxiliary (see above) or a noun with the light verb *khurun* ‘do’ like in *hanasi-khirun* ‘to speak, to chat’ (literally ‘do story’). The noun can also be a loanword like *benkyoo* (Sino-Japanese ‘study’) → *benkyoo-khirun* ‘to study’.

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### 5 Syntax

Dunan is a head-final, dependent-marking language. The basic constituent order is S (X) V / A (X) P V, but the arguments may be left unstated if they are recoverable from the context. Word order is flexible and varies according to information structure, but no obligatory fronting or post-posing of arguments is observed in questions or other pragmatically marked structures. In nominal phrases, the modifier precedes the head, and the syntactic/semantic role of a whole NP is indicated by an enclitic.

#### 5.1 Alignment and the basic case system

Dunan has a nominative-accusative alignment, where the {S, A} argument rather than the P argument is marked. However, the {S, A} argument is often left unmarked (Section 4.2). The nominative marker is consistently *=ŋa*, unlike other Ryukyuan languages where there are usually two nominative case forms.<sup>5</sup> In a ditransitive clause, the Extended core argument (E, e.g. goal, recipient, causee) is indicated by the locative (*=ni*) or the directive (*=nki*) case, and the alignment is thus of the indirective type. In a nominal predicate clause, a subtype of intransitive clause, the copula subject is marked by the nominative, and the predicate NP is unmarked.

- (5) [*agami=ŋa*]<sub>S</sub> *maasiku bu-n*  
 child=**NOM** many exist-**IND**  
 ‘There are lots of children.’ (Intransitive)
- (6) [*agami=ŋa*]<sub>A</sub> [*min*]<sub>P</sub> *num-u-n*  
 child=**NOM** water drink-**PRS-IND**  
 ‘A child drinks water’ (Mono-transitive)
- (7) [*agami=ŋa*]<sub>A</sub> [*nma=nki*]<sub>E</sub> [*min*]<sub>P</sub> *num-asimir-u-n*  
 child=**NOM** horse=**DIR** water drink-**CAUS-PRS-IND**  
 ‘A child makes a horse drink water.’ (Ditransitive)

5. For example, Miyako has two different nominative markers *=ga* and *=nu* (Hayashi 2010; Pellard 2010; Shimoji 2011).

## 5.2 The nominal phrase

NPs have a head-final structure, with modifiers appearing before the head. An NP may be further followed by a role marker when it is used as an argument, or by a copula verb when it is used as a predicate. The entire construction consisting of an NP and its extension (case marker, copula, etc.) constitutes an extended NP. The head of an NP is usually a nominal, and it may be modified by an adnominal word, an adnominal clause, or a genitive NP.

- (8) *[[[isu=ni ntu-i buru]<sub>MODIF</sub> [agami]<sub>HEAD</sub>]<sub>NP=ŋa</sub>]<sub>EXT NP</sub> nai that-u-n*  
 chair=LOC sit-MED IPFV-PTCP child=NOM now stand-PRS-IND  
 ‘The child who is sitting on a chair will now stand up.’

Property-concept modification (e.g. ‘beautiful person’) is encoded by the adnominal clause construction with a stative verb predicate (e.g. ‘a person (who) is beautiful’). The stative verb must in this case be a participial form, like ordinary verbs in adnominal clauses.

- (9) *[[khanu ttu=ka mabin abja-taru]<sub>MODIF</sub> [ttu]<sub>HEAD</sub>]<sub>NP</sub>*  
 DIST person=CMP more beautiful-PST-PTCP person  
 ‘the person who was more beautiful than that person’

## 5.3 The predicate

### 5.3.1 Verbal predicate

A verbal predicate can be simply constituted of a single inflected lexical verb or combine a main lexical verb in the medial form with a following grammatical auxiliary which carries the inflections. Whereas the main verb denotes the lexical meaning of the predicate and is thus a primarily determinant of the argument structure of the clause, the auxiliary functions to indicate various grammatical categories that the predicate is typically associated with: TAM, modality, honorification, etc.

Auxiliary constructions fall into two types: analytic predicates, where the two components form distinct words, and compound predicates, where the two form a compound word. In both types, the main verb must be inflected as a medial form, which lacks TAM and other inflectional information, which are all taken over by the auxiliary verb that follows. Since the main and auxiliary components are separate words in analytic forms, it is possible for a role marker to be inserted, as in (10) below, where the focus marker =du follows the main verb.

- (10) *sujuti khat-i=du bu-ru=na?*  
 book write-MED=FOC IPFV-PTCP=YNQ  
 ‘(Are you) writing a book?’

By contrast, as illustrated in (11) below, some auxiliaries opt for a fused form, where the main verb component and the auxiliary component form a single compound word.

- (11) *khat-i-busa-n*  
 write-MED-DESID-IND  
 ‘(I) want to write.’



### 5.3.2 Nominal predicate

A nominal predicate minimally consists of an NP, which may be further followed by the copula, an irregular verb related to the existential verb *an*.<sup>6</sup> However, as illustrated in (12) below, the copula does not appear unless the overt marking of inflection (TAM, polarity, honorification, focus concord) is necessary, as in (13). In other words, no copula appears in non-focalized present indicative nominal predicates.

- (12) *khari=ja dunan-ttu* (\**a-n*)  
 DIST=TOP Yonaguni-person (\*COP-IND)  
 ‘(S)he is a Yonaguni islander.’
- (13) a. *khari=ja dunan-ttu=du a-ru/\*Ø*  
 DIST=TOP Yonaguni-person=FOC COP-PTCP/\*Ø  
 ‘(S)he is a Yonaguni islander.’
- b. *khari=ja dunan-ttu=ja ar-anu-n/\*Ø*  
 DIST=TOP Yonaguni-person=TOP COP-NEG-IND/\*Ø  
 ‘(S)he is a Yonaguni islander.’
- c. *anu=ja nkaci=ja maihuna a-ta-n/\*Ø*  
 1SG=TOP old.time=TOP good COP-PST-IND/\*Ø  
 ‘I was a good child a long time ago.’

### 5.4 Complex clause structure

Adverbial subordination is encoded by converb inflections on the predicate of subordinate clauses.

- (14) [*thagaramunu=du a-ibi*]<sub>ADV CL</sub> *atara khir-u-n*  
 treasure=FOC COP-CSL importance do-PRS-IND  
 ‘Since (it) is treasure, (I) treat it as such.’

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Adnominal subordination is marked by participle forms, and adnominal clauses fill the modifier slot of an NP with no linker (e.g. relative pronoun) required.

- (15) [*khami bu-ru*]<sub>ADV CL</sub> *nma*  
 there.LOC exist-PTCP horse  
 ‘the horse (that) is (standing) there.’

Complementation is either encoded by an adnominal clause where the head noun is a formal noun, or by a quotative clause with speech verbs like *ndun* ‘say’, *kkun* ‘hear’, *umun* ‘think’, etc.

- (16) [*anu=du nn-anu khatarai khir-iba*]=*ndi umu-i*,  
 1SG=FOC look-NEG.PTCP pretention do-CIRC=QUOT think-MED  
 ‘(The woman) thought, “[ (They) pretend not to see me, so... ], and”...’ (Kajiku 2002: 283)

6. Contrary to existential verbs (see Section 6.1.1), the copula shows no variation according to its argument’s animacy.

## 6 Functional categories

### 6.1 Sentence types

#### 6.1.1 Declarative

A declarative sentence with a verbal predicate normally takes the indicative verb ending *-n* as in (17), while with a nominal predicate, the bare nominal without a copula occupies the predicate position.

- (17) *nai=gara i hu-n=do*  
 now=**ABL** rice eat-**IND**=**SFP**  
 ‘I’m going to eat now.’

Clauses that express existence use one of the existential verbs, i.e. *bun* for animates or *an* for inanimates, as their predicate, and the location is marked the locative case (=ni).

- (18) *khunu da=ni agami maasiku bu-n=do*  
**PROX** house=**LOC** child many exist-**IND**=**SFP**  
 ‘There are many children in this house.’

In Dunan, clauses expressing possession use the same construction as location expressions, with the possessor marked as a locative.

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- (19) a. *khanu ttu=ni agami maasiku {bu, \*a}-n=do*  
**DIST** person=**LOC** child many exist-**IND**=**SFP**  
 ‘That person has many children.’ (Literally ‘Many children exist in that person.’)  
 b. *khanu ttu=ni din maasiku {\*bu, a}-n=do*  
**DIST** person=**LOC** money many exist-**IND**=**SFP**  
 ‘That person has a lot of money.’ (Literally ‘A lot of money exists in that person.’)

#### 6.1.2 Interrogative

A Yes/No-question is marked with the special sentence final particle *=na*. This particle attaches to the participle form of most non-perfect present verbs, but to a special form<sup>7</sup> for the existential verbs and for all past and perfect inflected forms.<sup>8</sup>

- (20) *khuruma mut-i bu=na?*  
 car hold-**MED** **IPFV**=**YNQ**  
 ‘Do (you) have a car?’

7. The indicative form without its suffix *-n*.

8. This constitutes further evidence that both the perfect and past markers historically derive from the existential verbs *bun* and *an*.

Interrogative Y/N nominal predicates with or without role marking also take =*na*.

- (21) a. *khami bur-u nma=ja dunan-nma=na?*  
 DIST be-PTCP horse=TOP Yonaguni-horse=YNQ  
 'Is the horse (standing) over there a Yonaguni horse?'  
 b. *thabi nma=nki=bagin hi-ta=nga? hokkaidoo=nki=bagin=na?*  
 travel where=DIR=INCL go-PST=WHQ Hokkaido=DIR=INCL=YNQ  
 'Up to where did you travel? Up to Hokkaido?'

A content question with a verbal predicate is marked by =*nga* on the verb, and a role marker =*ba* can attach to a *wh*-word.

- (22) a. *su=ja tha=ŋa waru=nga?*  
 today=TOP who=NOM be.HON=WHQ  
 'Who is (here/there) today?'  
 b. *nda=ja tharun=nki nu(=ba) thura=nga?*  
 2SG=TOP Taro=DIR what(=ba) give=WHQ  
 'What will you give to Taro?'

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A content question with a nominal (e.g. a noun or an interrogative) as its predicate is marked by =*ja* on the nominal.

- (23) a. *dunan-ccima=ja nma={ja, \*nga}?*  
 Yonaguni-island=TOP where=WHQ  
 'Where is Yonaguni Island?'  
 b. *nma=ŋa(=ba) dunan-ccima=ja?*  
 where=NOM(=ba) Yonaguni-island=WHQ  
 'Where exactly is Yonaguni Island?'

### 6.1.3 Imperative

The verb in an imperative sentence appears in either the imperative or the prohibitive form.

- (24) *da=nki hir-i / hi-nna*  
 house=DIR go-IMP go-PROH  
 'Go home / Do not go home.'

### 6.1.4 Negation

Negation of a verbal predicate is generally marked by the negative suffix *-anu-*, which appears before other inflections. The existential verb *an* has a special suppletive negative form *minun* (25a), which is also used with stative verbs and to negate the perfect aspect. Negation of a nominal predicate necessitates to use the negative form of the copula, which is the expected regular form *aranun* (25b), and not not the suppletive form *minun*.

- (25) a. *khumi=ja бага nnani=ja {minun, \*ar-anu-n}*  
 here.LOC=TOP 1.GEN clothes=TOP exist.NEG-IND \*COP-NEG-IND  
 'My clothes are not here.'

- b. *khu=ja baga nnani=ja* {*\*minun, ar-anu-n*}  
 PROX=TOP 1.GEN clothes=TOP \*exist.NEG-IND COP-NEG-IND  
 ‘These are not my clothes.’

There are also some special negative forms, like the negative potential/passive/malefactive, which is not formed by agglutinating the negative suffix *-anu-* to *-arir-* but is marked by a special form *-aninu-*. The prohibitive form can be regarded as a negative imperative and is marked by a specific suffix *-(u)nna* (24). Example (26) illustrates the negative sequential form, which is marked by a special negative sequential suffix *-nki* attached to a negative form.

- (26) *mata nni ccayir-anu-nki=du bu-ru=na?*  
 again rice wash-NEG-SEQ=FOC IPFV-PTCP=YNQ  
 ‘Are (you) not washing the rice again?’

## 6.2 Tense and aspect

### 6.2.1 Tense

In non-converbial clauses, past tense is marked by the verb suffix *-(i)ta-*, while the present and future (non-past) are marked by *-u-/Ø*.

- (27) *nnu=ja Tharu=ja uta khi-ta-n=do*  
 yesterday=TOP Taro=NOM song do-PST-IND=SFP  
 ‘Taro sang a song yesterday.’

### 6.2.2 Aspect

The imperfective auxiliary verb *bun* follows a verb and indicates an ongoing action or a resultant state.

- (28) a. *khat-i bu-n*  
 write-MED IPFV-IND  
 ‘(I) am writing (it).’  
 b. *khanu ttu=nu na ubu-i bu=na?*  
 DIST person=GEN name remember-MED IPFV=YNQ  
 ‘Do you remember the name of that person?’

The perfect<sup>9</sup> *-(j)a-/ (j)u-* signals that a resultant state of the event indicated by the verb exists at the reference time. The perfect is clearly differentiated in its uses from the imperfective, but it can often rather freely alternate with the past, and the exact distinction between the two remains to be fully clarified.

- (29) a. *tharu, di khat-ja=na? / khat-ita=na?*  
 Taro letter write-PRF=YNQ write-PST=YNQ  
 ‘Taro, have (you) written/did you write the letters (that i asked you to write)?’

9. Izuyama 2006 claims that what we call “perfect” is a type of evidential marker. We have tried to replicate her data in the same context settings she describes but we found no clear support for her claim. This issue will require further research.

- b. *oo, khat-ja-n / khat-ita-n*  
 yes write-PRF-IND write-PST-IND  
 ‘Yes, (I) have written/wrote (them).’

The negation of the perfect is marked by the special negative form *minun* following the medial form of the verb, which constitutes further evidence that the perfect etymologically comes from the medial form of the verb followed by the existential verb *an*.

- (30) a. *khica tharu=nki thuras-ja-n*  
 just.now Taro=DIR give-PRF-IND  
 ‘(I) have just given (it) to Taro.’  
 b. *madi tharu=nki thuras-i minu-n*  
 yet Taro=DIR give-MED IPFV.NEG-IND  
 ‘(I) have not given (it) to Taro yet.’

### 6.3 Mood and modality

#### 6.3.1 Moods

The main moods, namely the indicative, imperative, and prohibitive, have already been described above. Among other moods, the hortative (*-indangi*) expresses an invitation, an encouragement, or a request.

- (31) *ajami-habiru nn-iti=gara khais-i h-indangi*  
 mark-butterfly see-SEQ=ABL return-MED go-HOR  
 ‘Let’s go back after watching Ayami-habiru butterflies.’

The desiderative is marked by the auxiliary stative verb *busan* and expresses the volition of the subject. Contrary to Japanese, the undergoer cannot be marked with the nominative case.

- (32) *anu=ja bansuru(\*=ŋa) ha-i-busa=du ar-u*  
 1SG=TOP guava(\*=NOM) eat-MED-DESID=TOP exist-PTCP  
 ‘I want to eat a guava.’

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Two different potential moods are found: the potential suffix *-arir-* usually marks deontic possibility (33a), while the auxiliary verb *ccun* (< ‘know’) expresses the ability of the subject (33b).

- (33) a. *gaku ma simar-ja da=nki khais-i hir-ariru-n*  
 school already finish-COND house=DIR return-MED go-POT-IND  
 ‘Since school is already over, (you) may go home.’  
 b. *khanu ttu=ŋa santi tt-i-ccu-n*  
 DIST person=NOM sanshin play-MED-ABIL-IND  
 ‘That person can play the sanshin.’

The exclamative mood is expressed by a special form in *-(a)nu* for stative verbs.

- (34) *aca-(a)nu!*  
 hot-**EXCL**  
 ‘How hot it is!’

### 6.3.2 Evidentials

Dunan has several evidential markers that indicate the source of the information for the utterance. The inferential evidential marker *-indangi*, for instance, is illustrated in (35), where the information is presented as being inferred by the speaker on the basis of the outer appearance of the tree.

- (35) *khanu khi dagati thur-indangi=du ar-u*  
**DIST** tree eventually fall-**INFER=FOC** **COP-PTCP**  
 ‘That tree will fall(, I infer).’ (Looking at the root coming out of the ground)

### 6.3.3 Other modality expressions

Other modalities, like necessity and possibility, are marked by periphrastic constructions.<sup>10</sup> For example, the functional nominal *hadi* is used in an adnominal construction to indicate epistemic necessity (‘given the knowledge available for the speaker, it is necessarily the case that...’) as in (36a).<sup>11</sup> On the other hand, deontic necessity (‘given the current situation, it is necessarily the case that...’) is marked by a complex verbal expression, as in (36b).

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- (36) a. *khanu ttu=ja nai da=ni war-u hadi=do*  
**DIST** person=**TOP** now house=**LOC** exist.**HON-PTCP** must=**SFP**  
 ‘That person must be at home now.’
- b. *su=ja ttu=ja war-u=jungara, thai-gu da=nki*  
 today=**TOP** person=**NOM** come.**HON-PTCP**=because fast-**ADV** house=**DIR**  
*hir-anu-tu nar-anu-ta-n*  
 go-**NEG-COND** become-**NEG-PST-IND**  
 ‘I had to go home early because a guest was coming.’

Epistemic (‘given the knowledge available for the speaker, it is possibly the case that...’) and deontic (‘given the current situation, it is possibly the case that...’) possibilities are also expressed periphrastically (37a, 37b).

- (37) a. *khanu ttu=ja nai da=ni war-u=kan bagar-anu-n*  
**DIST** person=**TOP** now house=**LOC** exist.**HON-PTCP**=whether understand-**NEG-IND**  
 ‘That person may be at home now.’

10. Nominal predicates need to be followed by the copula in the constructions presented in (36b) and (37b), but not in those of (36a) and (37a).

11. According to the native speakers’ intuition, it might be too strong to call it a necessity modal; instead it could simply be translated as ‘I think that...’.

- b. *gaku ma simar-ja da=nki khais-i hi-ta-n=tin nsa-n*  
 schoolalready finish-COND house=DIR return-MED go-PST-IND=even.if good-IND  
 ‘Since school is already over, (you) may go home.’

## 6.4 Valency changing operations

### 6.4.1 Causative

The causative is marked by the suffix *-amir-* and increases a verb's valency by adding a causer argument, which is marked by the nominative case. The causee, which would be the {S, A} argument in a non-causative construction, is demoted and marked for the directive or locative case when the resulting verb is ditransitive.

- (38) a. *tharu=ŋa i maga-ta-n*  
 Taro=NOM rice cook-PST-IND  
 ‘Taro cooked rice.’  
 b. *a=ŋa tharu=nki i mag-ami-ta-n*  
 1SG=NOM Taro=DIR rice cook-CAUS-PST-IND  
 ‘I made Taro cook rice.’

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### 6.4.2 Passive

The passive is encoded by the suffix *-arir-* and is canonically used to reduce a verb's valency by demoting the A argument of a transitive verb. The demoted argument can be simply suppressed or it can surface as an oblique in the locative or directive case. Conversely, the corresponding P argument is usually promoted to the S position and marked with the nominative case.

- (39) a. *khunu maju=ŋa ujanu ha-ta-n*  
 PROX cat=NOM mouse eat-PST-IND  
 ‘This cat ate the mouse.’  
 b. *khunu ujanu=ŋa maju=ni h-ari-ta-n*  
 PROX mouse=NOM cat=LOC eat-PASS-PST-IND  
 ‘This mouse was eaten by the cat.’

### 6.4.3 Benefactive

The benefactive construction attaches the auxiliary verb *thuran* ‘give’ to a lexical verb to increase its valency by adding a beneficiary argument marked with the directive case, without demoting or promoting the other arguments. Unlike modern Japanese, the auxiliary verb is insensitive to the person feature of the beneficiary, and thus the same verb *thuran* is used when the beneficiary is the speaker (40a) and when it is a third person (40b).

- (40) a. *tharu=ŋa anu=nki thuru kh-i thura-ta-n*  
 Taro=NOM 1SG=DIR lamp do-MED BEN-PST-IND  
 ‘Taro turned on the lamp for me.’

- b. *a=ŋa tharu=nki thuru kh-i thura-ta-n*  
 1SG=NOM TaroSG=DIR lamp do-MED BEN-PST-IND  
 ‘I turned on the lamp for Taro.’

#### 6.4.4 Malefactive

Apart from encoding the canonical passive voice, the suffix *-arir-* is also used with a malefactive value. With intransitive verbs, an argument is added, which is usually topicalized and thus not case-marked,<sup>12</sup> while the original S argument is demoted and marked with the locative or directive case. This added argument is interpreted as an individual who is negatively affected by the event expressed in the clause.

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- (41) *anu=ja agami=ni nag-ar-iti, sikama khir-aninu-ta-n*  
 1SG=NOM child=LOC cry-MAL-SEQ work do-POT.NEG-PST-IND  
 ‘A child cried on me and i could not work.’

#### 6.4.5 Reflexive and reciprocal

Reflexive and reciprocal are not morphologically marked on the verb in Dunan. Reflexive interpretation is achieved by using the reflexive pronouns *sa* or *du* as in (42). Reciprocal, on the other hand, does not seem to be marked in any way. Reciprocal situations are often described by a plural subject and a transitive verb without an overt internal argument.

- (42) *tharu=ja {sa, du} khaŋan=nki ucus-iti nni-ta-n*  
 Taro=NOM REFL mirror=DIR reflect-SEQ see-PST-IND  
 ‘Taro reflected himself in a mirror and saw (himself).’

#### 6.4.6 Transitive/intransitive lexical alternations

Some verbs exhibit a transitive/intransitive morphological alternation, but the underlying process is opaque and no longer productive, so that such pairs are completely lexicalized.

- (43) a. *nai=gara tharu=ja that-u-n*  
 now=ABL Taro=NOM stand-PRS-IND  
 ‘Taro is going to stand up.’  
 b. *nai=gara diru=ja tharu thata-n*  
 now=ABL Jiro=NOM Taro stand-PRS-IND  
 ‘Jiro is going to make Taro stand up.’

### 6.5 Honorifics

Dunan has an honorific system where the socially higher status of the subject is encoded on the verb. Some verbs have suppletive honorific forms such as *ujan* ‘eat.HON’

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12. Our corpus does not include examples of non-topicalized maleficiary arguments that would reveal with which case they would be marked.



and *warun* ‘be.**HON**, go/come.**HON**’, while most verbs simply attach the honorific auxiliary verb *warun* as in (44).

- (44) *asa=ŋa uta khi war-u-n*  
 grandfather=**NOM** song do-**MED HON-PRS-IND**  
 ‘The grandfather is singing a song.’

A very limited number of verbs have a suppletive deferential form used when the subject has a lower status than another argument. This class of verbs for example includes *ccarirun* ‘say (to s.o.)’ and *thabararirun* ‘receive’, none of which is frequently used nowadays in Dunan except in some formulaic idioms. Contrary to Japanese, Dunan does not have allocutive (addressee honorific) forms.

## 6.6 Focus concord (*kakari musubi*)

Dunan exhibits a focus concord, or *kakari musubi*, phenomenon similar to that found in Classical Japanese and other Ryukyuan languages. In its strong form, this phenomenon can be described as follows: the main predicate of a sentence is in the participle form instead of the indicative form *if and only if* there is a focus marker =*du* in the main clause (45).

- (45) *nai=du ttam-ja-{ru, \*n}*  
 now=**FOC** tell-**PRF-PTCP \*IND**  
 ‘(I) told (something to someone) now.’

The existence of a special *kakari musubi* form for the negative predicates -*anu*- ‘**NEG**’ and *minu*- ‘exist.**NEG**’ has not been described in the existing literature hitherto. For example, the negated predicate in (46) ends with the special suffix -*ru*, which we tentatively glossed as “**MSB**” for *musubi*, rather than the expected participle form *hir-anu* or the non-*kakari musubi* indicative form *hir-anu-n*.

- (46) *khama=ja thwa-bi=du hir-anu-ru*  
 there=**TOP** far-**CSL=FOC** go-**NEG-MSB**  
 ‘(I) will not go there because (it is) far.’

There are however counter examples to this strong definition of *kakari musubi* in Dunan. For instance, there are examples where the indicative form can co-occur with the marker =*du* and the others where the main verb is in the participle form even though there is no marker =*du*. It seems that the co-occurrence of participle/*musubi* forms with the marker =*du* is at best a tendency, probably due to a significant overlap of their distributional environments, though more research is necessary.

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## References

- Fukuda, Akira, Hiroshi Iwase, Shoji Endō & Kin'ichi Yamashita (eds.). 1983. *Yonaguni-jima no mukashibanashi*. Vol. 10 (Nantō mukashibanashi sōsho). Kyoto: Dōhōsha.
- Hayashi, Yuka. 2010. Ikema (Miyako Ryukyuan). In Michinori Shimoji & Thomas Pellard (eds.), *An Introduction to Ryukyuan languages*, 167–188. Tokyo: ILCAA.
- Hirayama, Teruhiro & Masachie Nakamoto. 1964. *Ryūkyū Yonaguni hōgen no sōgōteki kenkyū*. Tokyo: Meiji shoin.
- Hirayama, Teruo (ed.). 1988. *Minami Ryūkyū no hōgen kiso goi*. Tokyo: Ōfūsha.
- Hōsei daigaku Okinawa bunka kenkyūjo. 1987a. *Ryūkyū no hōgen 11: Yaeyama Yonaguni-jima*. Ryūkyū no hōgen 12. Tokyo: Hōsei daigaku Okinawa bunka kenkyūjo.
- Hōsei daigaku Okinawa bunka kenkyūjo. 1987b. *Ryūkyū no hōgen 12: Yaeyama Yonaguni-jima*. Ryūkyū no hōgen 12. Tokyo: Hōsei daigaku Okinawa bunka kenkyūjo.
- Ikema, Nae. 2003. *Yonaguni jiten*. Privately published.
- Izuyama, Atsuko. 2002. Ryūkyū Yaeyama (Yonaguni) hōgen no bunpō kiso kenkyū. In Shinji Sanada (ed.), *Shōmetsu ni hinshita hōgen gohō no kinkyū choōsa kenkyū*, vol. A4-012 (Endangered languages of the Pacific Rim publication series), 99–135. Suita: Osaka Gakuin University, Faculty of informatics.
- Izuyama, Atsuko. 2006. Evidenshariti (shōko yōtai): Yonaguni hōgen no baai. *Mathesis Universalis* 7(2): 43–55.
- Izuyama, Atsuko. 2012. Yonaguni. In Nicolas Tranter (ed.), *The languages of Japan and Korea*, 412–457. New York: Routledge.
- Kajiku, Shin'ichi. 2002. Yonaguni hōgen ni tsuite. In Shigehisa Karimata, Toshiko Tshako, Shin'ichi Kajiku & Toshizō Takahashi (eds.), *Shōmetsu ni hinshita Ryūkyūgo ni kansuru choōsa kenkyū*, vol. A4-019 (Endangered languages of the Pacific Rim publication series), 263–307. Suita: Osaka Gakuin University, Faculty of informatics.
- Lawrence, Wayne P. 2008. Yonaguni hōgen no keitōteki ichi. *Ryūkyū no Hōgen* 32: 59–67.
- Ōshiro, Ken. 1972. Goitōkeigaku (gengo nendaigaku) teki hōhō ni yoru Ryūkyū hōgen no kenkyū. In Hattori Shirō sensei teinen taikan kinen ronbunshū henshū iinkai (ed.), *Gendai gengogaku*, 533–558. Tokyo: Sanseidō.
- Pellard, Thomas. 2009. *Ōgami: Éléments de description d'un parler du Sud des Ryūkyū*. École des hautes études en sciences sociales PhD thesis.
- Pellard, Thomas. 2010. Ōgami (Miyako Ryukyuan). In Michinori Shimoji & Thomas Pellard (eds.), *An Introduction to Ryukyuan languages*, 113–166. Tokyo: ILCAA.
- Shibata, Takeshi (ed.). 1972. *Zenkoku hōgen shiryō: Dai jūikkan Ryūkyū hen 11*. Tokyo: Nihon Hōsō Kyōkai.
- Shimoji, Michinori. 2011. Irabu Ryukyuan. In Yasuhiro Yamakoshi (ed.), *Grammatical sketches from the field*, 77–131. Tokyo: ILCAA.
- Shimoji, Michinori & Thomas Pellard (eds.). 2010. *An introduction to Ryukyuan languages*. Tokyo: ILCAA.
- Takahashi, Toshizō. 1997. Yonaguni hōgen. In Takashi Kamei, Rokurō Kōno & Ei'ichi Chino (eds.), *Nihon rettō no gengo*, 413–422. Tokyo: Sanseidō.
- Uwano, Zendō. 2009. Ryūkyū Yonaguni hōgen no akusento shiryō (1). *Ryūkyū no Hōgen* 34: 1–30.
- Uwano, Zendō. 2010. Yonaguni hōgen no akusento to sedaikan henka. In Uwano Zendō kyōju taishoku kinen ronshū henshū iinkai (ed.), *Nihongo kenkyū 12 shō*, 504–516. Tokyo: Meiji shoin.
- Uwano, Zendō. 2011. Yonaguni hōgen dōshi katsuyō no akusento shiryō (2). *Kokuritsu Kokugo kenkyūjo ronshū* 2: 135–164.

## Abbreviations

1	first person	FOC	focus	POT	potential
2	second person	GEN	genitive	PRF	perfect
ABIL	abilitative	HON	honorific	PROH	prohibitive
ABL	ablative	HOR	hortative	PROX	proximal
ADV	adverbial	IMP	imperative	PRS	present
BEN	benefactive	INCL	inclusive	PST	past
CAUS	causative	IND	indicative	PTCP	participle
CIRC	circumstantial	INFER	inferential	QUOT	quotative
CMP	comparative	IPFV	imperfective	REFL	reflexive
COND	conditional	LOC	locative	SEQ	sequential
COP	copula	MAL	malefactive	SFP	sentence final particle
CSL	causal	MED	medial	SG	singular
DESID	desiderative	MSB	musubi	TOP	topic
DIM	diminutive	NEG	negative	WHQ	<i>wh</i> -question
DIR	directive	NOM	nominative	YNQ	yes-no question
DIST	distal	PASS	passive		
EXCL	exclamative	PL	plural		