The linguistic encoding of landscape in Lokono

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3. Sketch grammar of space

This chapter sets the stage for the discussion of the linguistic features of landscape terms presented in the remainder of the thesis by sketching out the most important features of Lokono grammar, particularly of the Lokono grammar of space.\(^{25}\)

Bearing in mind that this thesis was written as a collection of self-contained articles, it should come as no surprise that this general introduction repeats parts of the sections that follow. Each chapter contains a short grammatical introduction relevant to and sufficient for the exposition of the argument presented in the article it is based on. This chapter brings together these brief grammatical outlines, significantly elaborates on them, and establishes internal links between the chapters to come.

The main focus of this chapter is the grammar of space—that is, the linguistic means employed in Lokono to express spatial relations (Levinson and Wilkins 2006). This semantic domain in Lokono has not been accounted for in a systematic and detailed manner before. It has to be acknowledged, however, that the description presented here builds upon previous studies of the language, most importantly the work of Patte, Pet, and van Baarle (e.g., Patte 2003; Pet 1987; Baarle et al. 1989). The interested reader is advised to consult the work of these authors, as well as other published materials listed in the Lokono catalogue given in the online Appendix I for further information on the Lokono language and culture.

The grammatical sketch presented below develops in the following order. First, I comment on the methodological underpinnings of the research and the type of data presented here (§ 3.1). Second, I give an account of the linguistic features of person-marking, which transcend the division into the two main word classes of nouns and verbs (§ 3.2). Importantly, the distinction between nouns and verbs is not clear-cut in Lokono. I therefore do not commit myself to the concepts of noun and verb as clearly defined classes in Lokono. I do, however, in the remainder of the thesis use these labels out of convenience. Third, I describe the features of Lokono nouns, including a number of forms that are at the periphery of the nominal domain, many of which are central to the spatial language (§ 3.3). Fourth, I provide a typology of Lokono verbs, distinguishing active verbs, stative verbs, and the empty verb o/a (§ 3.4). Building on the analysis of verbal and nominal forms, I provide a classification of Lokono clause types (§ 3.5). The different clause types are the underlying structures, through which spatial relations can be expressed. I then turn to the description of spatial language, starting with a detailed account of the Basic Locative Construction—that is, a stative verb clause that is the most frequent structure employed to encode spatial relations in Lokono (§ 3.6). It is in this subsection that I also introduce the what/where distinction discussed in detail in later chapters. Subsequently, I look at the functionally determined alternatives of the Basic Locative Construction. The Posture Construction is a type of an empty verb clause, which is used to encode the posture of the referent that needs to be located (§ 3.7). I then give a description of the Locative Equation—an equative clause used

\(^{25}\) I want to thank Kees Hengeveld, Eithne Carlin, and Enoch Aboh for their comments this chapter.
predominantly to express spatial relations that are seen as permanent (§ 3.8). Following the analysis of the three types of locative constructions, I introduce the Lokono system of deictic forms (§ 3.9). Last but not least, I provide an overview of the linguistic means of encoding motion in Lokono (§3.10). I finish the grammatical sketch with a few notes on locative relative clauses, locative adverbial clauses, locative complement clauses and locative questions (§§ 3.11 and 3.12, respectively). Throughout this description of the grammar of space, I incorporate landscape terminology as much as possible through numerous examples and analyses thereof. I also consistently point out which parts of the grammatical description anticipate the following chapters devoted solely to the landscape domain.

### 3.1 Data and methodology

The data upon which the description presented here is based have been collected using a number of stimuli developed for the specific purpose of eliciting spatial language. Table 6 lists the experiments I conducted with the Lokono speakers, together with the linguistic domains they zoom in upon. The stimuli have been used before by other researchers to document and describe spatial expressions in a number of languages, which adds a comparative angle to the present analysis (e.g., Ameka and Levinson 2007; Levinson and Wilkins 2006). The participants included both men and women. The minimum number of participants per experiment was three—when there was consensus among the speakers’ responses I ceased further investigation. The maximum number of participants was ten. On the whole, the only task which led to contradicting results was the Man and Tree experiment (Levinson et al. 1992)—the provisional results of which are reported on below as well.

<table>
<thead>
<tr>
<th>Name of stimulus (authors)</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topological Relation Picture Series</strong> (Bowerman and Pederson 1992)</td>
<td>topology</td>
</tr>
<tr>
<td><strong>Picture Series for Positional Verbs</strong> (Ameka, Witte, and Wilkins 1999)</td>
<td>positional verbs</td>
</tr>
<tr>
<td><strong>Motion Verb</strong> (Levinson 2001)</td>
<td>motion verbs</td>
</tr>
<tr>
<td><strong>Frog where are you?</strong> (Mayer 2003)</td>
<td>motion verbs</td>
</tr>
<tr>
<td><strong>Event Triads</strong> (Bohnemeyer, Eisenbeiss, and Narasimhan 2001)</td>
<td>frames of reference</td>
</tr>
<tr>
<td><strong>Man and Tree</strong> (Levinson et al. 1992)</td>
<td>motion verb</td>
</tr>
<tr>
<td><strong>Motionland</strong> (Bohnemeyer 2001a)</td>
<td></td>
</tr>
<tr>
<td><strong>Demonstrative Questionnaire</strong> (Wilkins 1999)</td>
<td>deixis</td>
</tr>
<tr>
<td><strong>Deixis and Demonstratives</strong> (Levinson 1999)</td>
<td>deixis</td>
</tr>
<tr>
<td><strong>Elicitation Guide on Body Part Terms</strong> (Enfield 2006)</td>
<td>body part terms</td>
</tr>
<tr>
<td><strong>Put Project</strong> (Bowerman et al. 2004)</td>
<td>placement verbs</td>
</tr>
</tbody>
</table>

The following sections are based as much on the results of the experiments listed in Table 6 as on the data from the corpus of narratives created during regular periods of fieldwork in Suriname since 2009—fourteen months in total (Rybka 2014a). The corpus includes genres such as traditional animistic folklore, instructional narratives
about subsistence practices, personal life stories, descriptions of places, and narrated biblical stories. As such, the corpus provides an opportunity to observe spatial language in a more neutral context than the elicitation sessions. Most of the general linguistic features of Lokono and of the grammatical encoding of spatial relations described here are further illustrated in a robust linguistic context in the traditional Lokono story given in the online Appendix IV. Occasionally examples are also given from other sources, in which case the glossing is by the present author.

3.2 Person-marking

Lokono person-marking permeates most of the lexicon—it is found on both nouns and verbs, as well as on a handful of forms that belong in the penumbra of the nominal domain and could be classified as postpositions (§ 3.3.6). It is therefore crucial to the grammar of the language as a whole and the landscape vocabulary. Lokono distinguishes two sets of bound person markers and one set of free pronouns, listed in Table 7. The bound forms are grouped into two series: personal prefixes, called the A-class, and personal enclitics, called the B-class. Personal prefixes (the A-class) and pronouns are used to encode the subject of (active) verbs and the possessor of nouns, therefore I discuss person-marking before the two open word classes are introduced. Demonstrative pronouns, which can also function as 3rd person pronouns, are marked in Table 7 with an asterisk, but are discussed separately together with other deictic forms (see § 3.9.1.1).

<table>
<thead>
<tr>
<th>Person</th>
<th>Number</th>
<th>Gender</th>
<th>Humanness</th>
<th>Pronouns</th>
<th>Bound forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>SG</td>
<td></td>
<td></td>
<td>dei/dai</td>
<td>da=de</td>
</tr>
<tr>
<td>1st</td>
<td>PL</td>
<td></td>
<td></td>
<td>wei/wai</td>
<td>wa=we</td>
</tr>
<tr>
<td>2nd</td>
<td>SG</td>
<td></td>
<td></td>
<td>bi</td>
<td>bu=bo</td>
</tr>
<tr>
<td>2nd</td>
<td>PL</td>
<td></td>
<td></td>
<td>hi</td>
<td>hu=hu</td>
</tr>
<tr>
<td>3rd</td>
<td>M</td>
<td></td>
<td></td>
<td>li*</td>
<td>lu=dei/=i</td>
</tr>
<tr>
<td>3rd</td>
<td>F</td>
<td>HUMAN</td>
<td></td>
<td>to*</td>
<td>thu=no</td>
</tr>
<tr>
<td>3rd</td>
<td>PL</td>
<td>HUMAN</td>
<td></td>
<td>na*, nci/nai</td>
<td>na=ye</td>
</tr>
</tbody>
</table>

The person markers listed in Table 7 distinguish 1st, 2nd, and 3rd person. In the 1st and 2nd person there is also a number distinction (singular/plural). In the 3rd person, a gender split is introduced (masculine/feminine); both the feminine and masculine 3rd person forms are unspecified for number. Finally, there are also 3rd person forms restricted to plural human referents. Humanness, however, is defined in terms of the membership in the Lokono ethnic group. Members of other ethnic groups are normally indicated with the 3rd person feminine forms, which can refer to both singular and plural referents.
3.2.1 Personal prefixes, enclitics, and pronouns

Personal prefixes may adapt to the phonological form of the root they are attached to. If the root begins with a vowel, one of the vowels, either the vowel of the root or that of the prefix, has to be deleted. Vowel deletion happens in keeping with the cline in (9), showing that the vowels to the right tend to be replaced by the vowels to the left.

(9) Long vowels > /a/ > /o/ > /e/ > /ɨ/ > /i/.

In the case of the combination /a/ + /ɨ/, a diphthong is formed, pronounced either as /ai/ or as /ei/, in Guyana and Suriname, respectively. The weak vowel /ɨ/ of the prefixes can also harmonize with the first vowel of a consonant-initial root. Finally, the aspirated consonant /tʰ/ of the 3rd person feminine prefix is palatalized in the Suriname dialect if the vowel of the prefix is replaced by /ɨ/ or /i/. These phonological processes also apply to the attributive, privative, and the expletive prefixes discussed below. In Table 8, the prefixes are combined with inalienable nouns (both given in their phonological form), demonstrating some of the most common phonological adaptations discussed above that typify Surinamese Lokono.

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Noun</th>
<th>Meaning</th>
<th>Possessed</th>
<th>Meaning</th>
<th>Process involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>da–</td>
<td>i:ri</td>
<td>name</td>
<td>deiri</td>
<td>my name</td>
<td>diphthongization</td>
</tr>
<tr>
<td>wa–</td>
<td>oyo</td>
<td>mother</td>
<td>wayo</td>
<td>my mother</td>
<td>vowel deletion</td>
</tr>
<tr>
<td>bi–</td>
<td>ida</td>
<td>skin</td>
<td>bida</td>
<td>your skin</td>
<td>vowel deletion</td>
</tr>
<tr>
<td>hi–</td>
<td>pe:ro</td>
<td>dog</td>
<td>hepe:roŋ</td>
<td>your dog</td>
<td>vowel harmonization</td>
</tr>
<tr>
<td>li–</td>
<td>ari</td>
<td>tooth</td>
<td>lari</td>
<td>his tooth</td>
<td>vowel deletion</td>
</tr>
<tr>
<td>tʰi–</td>
<td>iτʃi</td>
<td>father</td>
<td>ṭʃʃi</td>
<td>her father</td>
<td>palatalization, vowel deletion</td>
</tr>
<tr>
<td>na–</td>
<td>isa</td>
<td>child</td>
<td>nasa</td>
<td>their child</td>
<td>vowel deletion</td>
</tr>
</tbody>
</table>

The set of free pronouns is derived from the set of prefixes by the addition of the particle i. The same phonological adaptations are at work here as well (e.g., da– + i → dei). Interestingly, there are clear formal correspondences between the free and bound forms in the 1st and 2nd person, but not in the 3rd person, where the gender distinction is introduced. The 3rd person enclitics are in turn related to gender markers, the masculine –i, and the feminine –o. The 3rd person masculine enclitic =dei is most likely a combination of the evidential enclitic =da, signaling first-hand knowledge, and the masculine gender marker –i, which today still functions as a 3rd person masculine enclitic. The 3rd person feminine enclitic =no may be the result of

26 Such internal structure of free pronouns is in keeping with Arawakan tendencies. According to Aikhenvald (1999:85) free pronouns in Arawakan languages “consist of a cross-referencing prefix and an emphatic one-syllable particle”—that is, the particle i in the Lokono case.
the reanalysis of the event nominalizer –n combined with the feminine gender marker –o. Both these processes may have had little semantic motivation and are rather the result of the frequent concurrence of the morphemes at the end of the predicate.

Morphosyntactically, the three types of person markers given in Table 7 are used to encode distinct functions. Personal prefixes encode the possessor on nouns and the subject of active verbs (§§ 3.3.3 and 3.4.1, respectively). Personal prefixes cannot co-occur with full expressions of the subject or possessor preceding the verb or noun, respectively. These prefixes, called the A-class, are always glossed with a subscript capital A. The 1st person prefix da–, for instance, is always glossed simply as 1SG.A, and not as 1SG.A, 1SG.1SG.A, or 1SG.POSS, since the language does not make such fine syntactic distinctions.

Personal enclitics, on the other hand, encode the subject of stative verbs and the object of transitive verbs (§ 3.4.1). The enclitics form the B-class, and are consistently glossed with subscript capital B, since the language does not distinguish between the marking of the object of transitive verbs and the subject of stative verbs. Summing up, it is worth pointing out that the class of intransitive verbs is split into two groups, those that combine with personal prefixes (intransitive verbs encoding activities) and those that combine with personal enclitics (intransitive verbs encoding states) to express the subject. Such active/stative split of intransitive verbs is typical of Arawakan languages (e.g., Aikhenvald 1999). In Lokono the split of intransitive verbs is motivated by the meaning of the verb only, as opposed to languages in which it can be motivated by, for instance, tense and aspect.

Importantly, all transitive verbs, irrespective of their meaning, fall into the active verb category.

Finally, the free pronouns and the demonstrative pronouns can be used to express the possessor of nouns as well as the subject and object of verbs (see also § 3.9.1.1 on demonstratives). They are glossed without any subscripts. However, similarly to other Arawakan languages, free pronouns are used in Lokono mostly for topicalization (Aikhenvald 1999:85). The prefixes and enclitics are preferred if the referent is already established in the discourse or needs to be backgrounded. Personal enclitics similarly to personal prefixes do not normally co-occur with subjects expressed by full noun phrases (see § 3.5.2).

### 3.2.2 Expletive, attributive, and privative prefixes

In Lokono there are five other prefixes—namely, the privative ma–, the attributive ka–, and the expletive m–, k–, and V–, where V stands for a vowel typically harmonized with the first vowel of a consonant-initial form, to which the prefix is attached. The expletive prefix V– used to be attached to verbs and possessed nouns if the subject, or possessor in the case of nouns, was expressed by a full noun phrase preceding the verb or the possessed noun. Personal prefixes cannot co-occur with such full expressions of the subject or possessor preceding the verb or noun, respectively. The function of the prefix V– was purely to fill in the prefix slot on the verb or the possessed noun, thereby cross-referencing the full noun phrase. Today the expletive prefix is not in common use, although it occasionally appears in the data. Example (10) comes from a discussion of the history of Cassipora village,
during which the speaker regrets that it was never put on paper. The speaker did not harmonize the vowel in keeping with the general harmonization rule, which may be taken as an additional token of the obsolete character of the expletive prefix.

(10)  
\textit{to kharasahu udiako}  
\textit{to k\textsuperscript{3}arasa-hi i-d'ako}  
DEM:F scratch--ABST:NMLZ EXPL-top  
\textit{‘in writing (lit. ‘scratching’).}

In (10), the expletive prefix \textit{V--} cross-references the noun \textit{kharasahu} ‘writing’. Today the expletive prefix can be omitted without affecting the grammaticality of the phrase. The context of the rare cases in which it is found in the corpus, such as (10), suggest that it may have gained an emphatic function today. The expletive prefix is also fossilized in a few nouns. Take as an example the spatial term \textit{anakhubo} ‘right in the middle’—a combination of \textit{nakan} ‘middle’, the precision suffix \textit{–bo}, and the expletive prefix \textit{V--} realized as the word-initial \textit{a--}. Finally, a rare but interesting case of the use of the expletive prefix \textit{V--} today is to disambiguate the meaning of the form \textit{mun} (§ 3.6.3.2). When unmarked, \textit{mun} can be read as the free dative marker \textit{mun} or as the obsolete bound form of the location and goal directionality marker \textit{–mun}. When combined with the expletive prefix, \textit{umun} can only be analyzed as the free dative marker. In sum, the expletive prefix \textit{V--} is not productively used, it is never obligatory, and today only appears to emphasize or disambiguate a handful of expressions.

The privative prefix \textit{ma--} and the attributive prefix \textit{ka--} are found across the Arawakan language family; so much so that they function as one of the diagnostic features of family membership (Aikhenvald 1999). In Lokono, the privative typically derives negative stative verbs meaning ‘not have’, for instance, \textit{mashikwan} ‘not have a house’, derived from the possessed form \textit{shikwa} ‘house.POSS’. Analogically, the attributive prefix \textit{ka--} derives stative verbs meaning ‘have’, for instance, \textit{kashikwan} ‘have a house’ (see § 3.4.4 for further discussion of both prefixes). Interestingly, apart from the expletive prefix \textit{V--}, there are two other expletive prefixes—namely, \textit{m--} and \textit{k--}. The two prefixes are in complementary distribution with the prefix \textit{V--} and may be related to the privative and the attributive prefix, respectively.

The expletive prefix \textit{m--} is formally similar and possibly related to the privative prefix \textit{ma--}, but it has a clearly different function. The two prefixes are therefore glossed as different forms. The expletive prefix \textit{m--} appears with the empty verb \textit{o/a} only, in which case it cross-references a subject expressed by a full noun phrase preceding the verb (see also § 3.5.4 on empty verb clauses), as in (11).\textsuperscript{27} The expletive prefix \textit{m--} is never used with nouns.

\textsuperscript{27} As explained above, the prefix \textit{V--} is expected in such cases, but since the empty verb is a single changeable vowel, the use of the prefix \textit{V--} is not distinctive enough. It would lead to a single long vowel, /aː/ or /oː/, both of which are possible forms of the empty verb itself.
In (11), the main verb is the empty verb—a semantically empty verb that often links the subject to a non-verbal predicate, typically an adverbial expression (see § 3.4.2). In (11), the use the empty verb is triggered by the adverb balâko, derived from the posture root bala ‘sitting on one’s bottom’ with the adverbializer –ko, which has a continuative meaning (see § 3.5.4.1). The subject is expressed by the noun phrase aba mafathi, with the indefinite article aba and a complex nominalization mafathi ‘blind man’. Since the subject is expressed by a full noun phrase preceding the verb, personal prefixes cannot appear on the empty verb. Neither is the expletive prefix of any use. In such cases, the specialized expletive prefix m– is employed.

The expletive prefix k– is found with a limited number of forms—notably, the verbs âmunin ‘have’ and anshin ‘love’. Such verbs can optionally appear with the prefix k– if the subject is expressed by a full noun phrase preceding the verb. In such cases, the verb can be prefixed with the expletive k–, forming kâmunin and kanshin, respectively. The expletive prefix k– cross-references the subject noun phrase but it can always be dropped without affecting the grammaticality of the sentence, similarly to the expletive prefix V–. It is possible that the two prefixes, V– and k–, were in the past in complementary distribution. The former combined with consonant-initial bases, the latter with vowel-initial bases, except for the empty verb o/a, in which case the expletive prefix m– is employed. In sum, it is worth noticing that the privative and attributive prefixes may have been the source of the two expletive prefixes m– and k–, both of which are in complementary distribution with the expletive V–.²⁸

²⁸ It is not entirely clear why the prefix k– does not appear on the empty verb instead of m–, thereby forming a more regular paradigm. It is worth noting, however, the combination ka, which would be one of the results of combining the expletive k– and the empty verb o/a, is homophonous with one of the most frequent TAM suffixes—namely, the perfective –ka. The other resultant combination—namely, ko—corresponds to the adverbializer –ko. This may have prevented the use of k– with the empty verb. The combination ma, is homophonous with the abilitative suffix –ma, which is much less frequent, while the combination mo is unique.

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(12)  *Kakosakada no.*

\[ \text{ka–kosa–ka=da=no} \]

\[ \text{ATR–near–PFV=DIRCT=3fR} \]

‘They are near each other.’

In cases such as (12), the attributive meaning is discernible. In the classic attributive scenario, the referent of the subject is attributed an entity, for instance, a house. In the case of configurational nouns encoding reciprocal spatial relations such as *kosa* ‘near’, the referent of the subject is attributed a spatial region. The subject in (12) encodes a plural referent; both of which are attributed a spatial region *kosa* ‘near’. It is the semantic content of the noun *kosa* ‘near’, which is reciprocal in nature, that differentiates such cases from the typical attributive examples. Were the attributive prefix substituted by a 3rd person feminine prefix *thu–*, the sentence could only be read ‘This is near that’—that is, not a reciprocal relationship, but one in which the subject is profiled as the Figure and the possessor of the configurational noun as the Ground. Such instances of the prefix *ka–* are therefore consistently glossed as attributive, although they represent a departure from the classic attributive meaning.

## 3.3 Nouns

Lokono nouns are categorized along a few different dimensions—namely, gender, number, and possession discussed below (§§ 3.3.1, 3.3.2, and 3.3.3, respectively). In this section, I also elaborate on the Lokono encoding of definiteness and specificity (§ 3.3.4). I then turn to the morphosyntactic processes used to coin nominal expressions, specifically in the domain of flora and fauna—a sizeable semantic domain in Lokono (§ 3.3.5). Last, I discuss the penumbra of the nominal domain—that is, a number of forms that straddle the border between nouns and adpositions (§ 3.3.6). Lokono nouns are also grouped into what- and where-nouns, a distinction, which is one of the main narrative threads of this thesis, and is discussed in detail throughout the following chapters. The topics discussed here are of direct relevance to the analysis of Lokono landscape terms. The gender distinction features prominently in the discussion of terms for ecotopic patches derived from names of plant species (chapter 5). The gender dichotomy is employed in this domain to differentiate terms for dry ecotopes from terms for wet ecotopes. Number, definiteness, and specificity are relevant to the study of place names (chapter 6). Place names, as terms referring to unique entities, cannot be combined with the exponents of plurality and collectivity. On the other hand, the deictically unmarked demonstratives that function as definite articles can modify both proper and generic terms. The possessive paradigms of landscape terms reflect the cultural practices in which their referents are embedded. The possessive paradigms of inalienable nouns, and the features of nominal outliers are crucial to the understanding of the morphosyntactic behavior of relational and configurational terms. These two types of nouns are the building blocks of the Basic Locative Constructions as well as of the numerous landform terms (§ 3.6 and chapter 4, respectively). Finally, the morphosyntactic means of coining new nominal expressions, found in other robust
domains such as ethnobiology, provide us with a general template, against which the internal structure of landscape terms can be compared.

### 3.3.1 Gender and humanness

Lokono nouns belong either to the masculine or the feminine agreement class. However, few nouns have morphological exponents of gender. All those nouns are complex forms, though not necessarily synchronically transparent. From a diachronic perspective –ro and –i are the feminine and masculine gender markers, respectively. The gender morphology is, however, only partially analyzable, and includes the respectively feminine and masculine gender markers –ro/–li, their specificity equivalents –koro/–kili, the subject relativizers –thi/–tho, and the derivational suffixes –do/–di occasionally found in family names. Examples of nouns with morphological exponents of gender include the masculine noun *wadili* ‘man’ and the feminine noun *hiyaro* ‘woman’, which are not synchronically analyzable.

Gender morphology can be found also in analyzable place names, such as *Madisero*, derived from the verb *madisen* ‘lack game’ with the feminine –ro. Most nouns, however, are not morphologically marked for gender, and their agreement class manifests itself only through other gender-marked elements in the utterance such as the 3rd person prefixes and enclitics discussed above, but also verb marked by relativizers and demonstratives (§§ 3.4.6 and 3.9.1.1, respectively). All gender-marked forms are listed in Table 9.

<table>
<thead>
<tr>
<th>Form</th>
<th>Masculine</th>
<th>Feminine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DERIVATIONAL (VERBS)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender markers</td>
<td>–li</td>
<td>–ro</td>
</tr>
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<td>Specificity markers</td>
<td>–kili</td>
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</tr>
<tr>
<td>Subject relativizers</td>
<td>–thi</td>
<td>–tho</td>
</tr>
<tr>
<td>Meaning uncertain</td>
<td>–di</td>
<td>–do29</td>
</tr>
<tr>
<td><strong>NON-DERIVATIONAL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstratives</td>
<td>li</td>
<td>to</td>
</tr>
<tr>
<td>3rd person prefixes</td>
<td>li–</td>
<td>thu–</td>
</tr>
<tr>
<td>3rd person enclitics</td>
<td>=i/=dei</td>
<td>=no</td>
</tr>
</tbody>
</table>

Although gender is not a derivational category for nouns, the four forms labeled derivational in Table 9 function also as nominalizers, and are therefore a

29 The suffixes –di and –do are typically attached to place-denoting nouns, and derive nouns that have a general meaning ‘entity characterize by the location encoded by the base’, for instance, *lokodo* ‘contents’, from the configurational noun *loko* ‘inside’ or *konokhodo* ‘Maroon’ from the noun *konoko* ‘forest’. They are also frequently found in the names of families, which suggests that these two are derived from place-denoting nouns, for instance, *karhowfodo* and *karhowfodi*, the female and male of the same family, the name of which may be ultimately derived from *karhow* ‘savanna’. If this analysis is correct, the two suffixes would be derivational suffixes that are limited to place-denoting nouns—that is, *where*-nouns, discussed in further chapters.
derivation category for verbs. Such uses of the gender markers –li and –ro, as well as their specificity equivalents –kili and –koro, are important to the discussion of ecotope terms and place names (chapters 5 and 6, respectively).

As a rule, the masculine gender is restricted to nouns denoting Lokono males, to the exclusion of nouns denoting men from other ethnic groups, such as other indigenous peoples, Maroons, and people of European descent. Gender-marking thus establishes a dichotomy between the insiders (Lokono men) and outsiders (other men). All other nouns are treated grammatically as feminine. Example (13) illustrates how gender agreement operates on a clause level. The utterance comes from a narration of a biblical story about a poor widow recorded during a Bible translation workshop organized by the Summer Institute for Linguistics in Paramaribo.

(13) *Tora hiyaro, kamonêkatho, therethi òda koba hibin.*

to–ra hiyaro ka–mone:ka–fö

DEM.F–MED woman ATR–grief–SBJ.REL:F

³e–retʃi o:da=koba hibî–ŋ

3F–husband die=REM.PST already–NMLZ

‘That woman, (she was) a poor one, her husband died already long ago.’

In the first clause of example (13), the main protagonist is referred to as hiyaro ‘woman’, a noun denoting a female, which has a lexicalized morphological exponent of feminine gender, the feminine marker –ro. Its modifier, the medial feminine demonstrative tora, is in gender agreement with the noun. The whole expression functions as the argument of a nominal predicate that follows, forming a non-verbal equative clause. The nominal predicate consists of the derived stative verb kamonêkan ‘grieve’ (lit. ‘have grief’), nominalized with the help of the feminine relativizer –tho. In the second clause of (13), the feminine gender is also expressed by the 3rd person feminine prefix, cross-referencing the noun hiyaro. The prefix encodes the possessor of the inalienable masculine noun rethi ‘husband’, which itself contains a lexicalized masculine relativizer –thi.

The Lokono general gender assignment rule does not always apply. Under certain circumstances the masculine gender can be extended to nouns denoting referents other than Lokono males. This happens if the referent is important, dear, or in any other way individuated to the speaker. It is, for instance, quite common to use the masculine gender with reference to dogs and monkeys that are domesticated pets—that is, animals that are part of the household. Interestingly, exemplars of the same species, for instance, fodi (*Cebus apella*) can be treated as pets, and as such cannot be eaten, or as game, in which case they are hunted and eaten. This is reflected in the use of the gender-marked forms in the language. The gender extension rule does not apply to nouns denoting women, which are always grammatically feminine irrespective of how important, dear, and individuated their referents are. The extension of masculine gender to other nouns is exemplified in (14), in which the speaker talks about his hobbies, one of which is fishing. Horhishiri is a small type of the horhi fish (*Macrodon intermedius*) that he often catches.
In (14) the main predicate is a transitive verb bodeshan, derived from the noun bode ‘hook’ with the verbalizing suffix –sha, the exact meaning of which is not yet clear (vis-à-vis the more common verbalizing suffixes –tV and –dV discussed in § 3.4.3). The subject of the verb is encoded by the 1st person prefix attached to the verb, while the object is expressed by two preposed appositional phrases. First, the speaker decided to use the masculine demonstrative li with the noun horhishiri, which normally requires a feminine modifier. Second, the same masculine demonstrative, which functions both as a modifier and as a pronoun, appears on its own in its pronominal function. Both the noun, and the demonstrative are combined with the collective suffix –be indicating multiplicity of referents. The choice of the masculine gender is motivated here by the intention to express the smallness of this particular species of fish and the affectedness concomitant with it, signaled also by the use of the diminutive enclitic =khan.

Summing up the masculine gender is used with nouns denoting Lokono men. However, referents that are dear, familiar, or for any other reason individuated to the speaker can be optionally treated as masculine as well. Such examples are not uncommon, and a few cases are mentioned in the following chapters. An interesting case of the use of the gender distinction, encoded by the masculine –li, and the feminine –ro suffixes, is mentioned in the analysis of the meaning of terms for ecotopic patches (chapter 5). I argue that in this specific domain, the masculine and feminine morphological gender marking could have functioned as a beacon of warning to the speakers. The masculine gender marker extends to terms for dry ecotopes, which should normally be feminine. This distinguishes terms for dry ecotopes from terms for wet ecotopes derived with the feminine gender marker. Such wet ecotopes are regularly associated with the presence of the malevolent water spirit oriyo, which may have justified their gender in the light of the occasionally positive associations of the masculine forms (see chapter 5 for details).

3.3.2 Number and collectivity

With respect to the category of grammatical number, Lokono nouns are subdivided into three groups—namely, singular object nouns, set nouns, and mass nouns (Rijkhoff 2002:54). Singular object nouns encode a singular entity; this class includes only nouns denoting Lokono people, such as reitho ‘wife’ and other kinship terms. The nouns basari ‘Kari’na’, faretho ‘Caucasian’, and dorhi ‘Maroon’ are normally not included in this category. Singular object nouns combine directly with numerals, and are obligatorily marked for plural number when referring to plural referents. Example (15) comes from a description of a landform photograph, in which two Lokono women are walking up a hill.
(15)  *Bian hiyaronon dadukha.*
biāŋ  hiyaro–nōŋ  da–díkʰa
two  woman–pl.  1SG–see
‘I see two women’

In (15) the numeral *bian* ‘two’ modifies the noun *hiyaro* ‘woman’, which encodes a singular entity, and therefore needs to be combined with the plural suffix –*non* to signal plurality. This preposed phrase functions as the direct object of the verb *dikhun* ‘see’, the subject of which is expressed by the 1st person prefix.

Set nouns, on the other hand, do not encode any information about the number of referents denoted—they are transnumeral. This is reflected in the morphological behavior of set nouns. Whether with or without a numeral, they always remain unmarked for number; they cannot attach the plural suffix –*non*. This class includes terms for other animate entities (animals and members of other ethnic groups), as well as all inanimate entities, including terms such as *kasakabo* ‘day’ in the following example from another adaptation of a biblical story.

(16)  *Bian kasakabo diki landa.*
biāŋ  kasakabo ɗiki  l–ãnda
two  day  footstep  3MA–arrive
‘(Jesus) arrived after two days.’

In (16) the numeral *bian* ‘two’ modifies the noun *kasakabo* ‘day’ which encodes a set of unspecified number (from one to infinity), and remains unmarked for plurality. The phrase is followed by the temporal marker *diki* ‘after’ (lit. ‘footstep’), forming an adverbial time expression modifying the predicate. The predicate consists of the motion verb *andun* ‘arrive’, the subject of which is expressed by the 3rd person masculine prefix.

Both singular object nouns and set nouns can take the collective suffix –*be*, which we saw already in example (14) attached to the noun *horhishiri*, denoting a type of fish. The collective suffix signals the multiplicity of referents, and can be used both in combination with numerals as well as without them, for instance, *bian wadilibe* ‘a group of two men’, or *onikhanbe* ‘a number of creeks’. In the case of singular object nouns, however, the plural rather than the collective suffix is more frequently attested when referring to the multiplicity of referents. The collective

30 There is handful of nouns derived with the relativizing suffixes –*thi* and –*tho* that refer to individuals from certain age groups, for instance, *bikidoliathi* ‘young man’, and *bikidoliatho* ‘young lady’, both derived from the reflexive verb *bikidonon* ‘grow.REFL’, with the inchoative suffix –*lia* and the gender-marked relativizers. In these cases, the plural form is created by substituting the relativizer with the plural marker itself, resulting in genderless terms, such as *bikidolianon* ‘young people’. This does not, however, apply to cases where the verb combined with a relativizer is already lexicalized, for instance, *semethi* ‘medicine-man’, derived from the stative verb *semen* ‘tasty’, the plural of which is *semethinon*. The plural suffix has therefore also a secondary nominalizing function, when deriving such genderless expressions as *bikidolianon*.
marker is also found on stative verbs and on the empty verb o/a (§ 3.4.1 and 3.4.2, respectively).

Neither the collective nor the plural marker combines with mass nouns, such as mothoko ‘sand’ in (17). Mass nouns also cannot combine directly with a numeral. They require a mensural term such as karo ‘grain’—a set noun itself.

(17) bian mothoko karo
    biāŋ moł’oko karo
two sand grain
‘two grains of sand’

Mass nouns form a possessive phrase with the mensural term, which functions as the head. The phrase as a whole, headed by a set noun, can combine with numerals, as in (17), and with the collective marker. There are only a few cases of mass nouns in Lokono—the category is therefore tentative. Finally, proper names, as terms referring to unique entities, cannot be combined with numerals, neither with the plural nor the collective suffix (see chapter 6).

3.3.3 Possession paradigms

On the basis of their morphological behavior when possessed, Lokono nouns are divided into two large classes, alienable and inalienable nouns, and a small group of nouns with irregular, or suppletive possessed forms. The possessor is expressed by either a full noun phrase or a free pronoun preceding the possessed noun. Alternatively, a personal prefix from the A-class is attached to the noun. The difference between alienable and inalienable nouns manifests itself in the marking of the possessed noun. When possessed, alienable nouns receive a possessive suffix as in (18).

(18) da–barho–n
    da–baroŋ
1SG.A-axe–POSS
‘my axe’

In (18) the possessor is expressed by a 1st person prefix, and the possessive suffix –n appears on the possessed noun. Other possessive suffixes are also attested. If the possessed noun ends in the vowel /i/, the possessive suffix is usually –a. The noun oni ‘rain, water’, used also as a landscape term ‘river’, when possessed, has therefore the form unia, a partly irregular form beginning with the vowel /i/ (written as <u>). Other less frequent suffixes are listed in Table 10. Most nouns that combine with the less frequent suffixes are culturally salient artifacts. Notice also two landscape terms karhow ‘savanna’ and konoko ‘forest’, the inclusion of which among terms for culturally salient artifacts is interesting.
TABLE 10.

LESS FREQUENT POSSESSIVE SUFFIXES.

<table>
<thead>
<tr>
<th>Noun</th>
<th>Possessed form</th>
<th>English translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>adaloko</td>
<td>adaloko–ya</td>
<td>type of fish trap</td>
</tr>
<tr>
<td>arhwa</td>
<td>rhwa–the</td>
<td>tiger, general term for members of the cat family</td>
</tr>
<tr>
<td>bian</td>
<td>bian–the</td>
<td>two, second, partner (husband or wife)</td>
</tr>
<tr>
<td>hadisa</td>
<td>adisa–ra</td>
<td>trough for preparing cassava flour</td>
</tr>
<tr>
<td>hime</td>
<td>hime–ya</td>
<td>fish, general term</td>
</tr>
<tr>
<td>ida</td>
<td>ida–le</td>
<td>calabash, general term</td>
</tr>
<tr>
<td>karhow</td>
<td>karhow–ya</td>
<td>savanna</td>
</tr>
<tr>
<td>kêke</td>
<td>kêke–re</td>
<td>basket used for carrying items such as cassava</td>
</tr>
<tr>
<td>kôdo</td>
<td>kôdo–ya</td>
<td>pitcher</td>
</tr>
<tr>
<td>konoko</td>
<td>konoko–ra</td>
<td>forest</td>
</tr>
<tr>
<td>kôsa</td>
<td>kôsa–the</td>
<td>needle</td>
</tr>
<tr>
<td>ihi/iya</td>
<td>ia–the</td>
<td>arrow cane</td>
</tr>
<tr>
<td>pamo</td>
<td>pamo–ya</td>
<td>salt (possibly a borrowing from Warao)</td>
</tr>
<tr>
<td>tambo</td>
<td>tambo–ya</td>
<td>type of fish trap</td>
</tr>
<tr>
<td>yorhi</td>
<td>yorhi–the</td>
<td>tobacco, cigarette</td>
</tr>
<tr>
<td>wayarhi</td>
<td>wayarhi–ya</td>
<td>basket used by hunters to carry game home</td>
</tr>
</tbody>
</table>

Inalienable nouns, on the other hand, do not take any possessive suffixes. This class includes kinship terms, relational nouns (including body part terms), configurational nouns (i.e. nouns encoding spatial relations), some landscape terms, locative nominalizations, instrument nominalizations, event nominalizations, and a few other terms for culturally salient artifacts. Many of these nouns, most notably relational nouns, configurational nouns, as well as locative and event nominalizations figure prominently in the discussion of landform terms and place names (chapters 4 and 6). An example of an inalienably possessed landscape term is given in (19)—a place name referring to a location where the late medicine-man of Cassipora used to take a bath.

(19)  **Semethimi Kori**

seme–ți–mi kuri

'tasty—SBJ,REL:M—DEAD bathing.place'

'bathing place of the dead medicine-man’

In (19), a landscape term *kori* ‘bathing place’, denoting an area of a creek purposefully cleared from vegetation in order to wash oneself, appears in a possessive phrase with the possessor expressed by a full noun phrase. The noun phrase *semethi* consists of the lexicalized combination of a stative verb and the masculine relativizer, conventionally translated as 'medicine-man’, combined with the suffix –*mi* meaning ‘deceased’. The noun *kori* is an inalienable noun therefore there is no possessive suffix attached to it. Inalienably possessed nouns that function solely as landscape terms are listed in Table 11.
**Table 11. A Sample of Inalienable Landscape Terms.**

<table>
<thead>
<tr>
<th>Noun</th>
<th>Meaning and possible origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>babo</td>
<td>an underwater hole between the roots of a tree growing by the bank of a creek, in which certain types of fish are often found (unanalyzable)</td>
</tr>
<tr>
<td>banabo</td>
<td>a temporary outfield camp built in times of intensive agricultural work, or during long hunting trips (derived from bana ‘leaf’ and the instrumental abo)</td>
</tr>
<tr>
<td>bunaha</td>
<td>a permanent path, usually leading to a field or a hunting ground (possibly related to buna ‘bone’ according to Taylor (1961))</td>
</tr>
<tr>
<td>dako</td>
<td>a tributary of a creek, river, or the sea (unanalyzable but possibly related to the active verb dakan ‘urinate’)</td>
</tr>
<tr>
<td>ima</td>
<td>a mouth of a creek or a river ending in another creek, river, swamp, or the sea (unanalyzable); the body part term rheroko ‘lips’ is sometimes used with the same meaning</td>
</tr>
<tr>
<td>kabura</td>
<td>a fishery, an area believed to be particularly rich in a certain species of fish; also the territory (land and water) of a village (unanalyzable)</td>
</tr>
<tr>
<td>kori</td>
<td>a part of a creek cleared from vegetation functioning as a bathing place, in which one washes oneself and one’s clothes (unanalyzable)</td>
</tr>
<tr>
<td>lakabwa</td>
<td>a distributary of a creek or a river, typically one that joins the same water feature later along its course (possible related to the verb lakadun ‘scatter’)</td>
</tr>
<tr>
<td>shikwa</td>
<td>house, used also to express the burrows or animals, the nests of birds, and the homes of spiritual beings (unanalyzable)</td>
</tr>
<tr>
<td>shirima</td>
<td>headland, a piece of land jutting out from the bank of a water feature (possibly related to the body part term shiri ‘nose’)</td>
</tr>
<tr>
<td>shiroko</td>
<td>headwaters (possibly from shi ‘head’ and roko ‘inside body’); also the edible flesh of animals, fruits, vegetables—not necessarily historically related</td>
</tr>
<tr>
<td>sorhi</td>
<td>narrow, impermanent path created by slashing or breaking off twigs, used primarily when following game (unanalyzable)</td>
</tr>
<tr>
<td>waboroko</td>
<td>road, treated sometimes as inalienable and sometimes as alienable by the speakers (clearly complex but unanalyzable)</td>
</tr>
</tbody>
</table>

The list above includes relational nouns that are specific to the subdomain of terms for water features (e.g., dako ‘tributary’) and non-relational inalienable landscape nouns (e.g., kori ‘bathing place). Table 11 does not include relational and configurational nouns that are used both within and outside of the landscape domain (see § 4.5.1 for a detailed discussion).

Within the domain of landscape, in the case of relational nouns, the inalienable paradigm is a reflection of the general architecture of the language—all relational nouns are inalienable. In the case of non-relational inalienable nouns given in Table 11, the inalienable paradigm reflects the Lokono landscape-related cultural practices. The referents of all non-relational inalienable nouns (banabo ‘outfield camp’, sorhi ‘temporary path’, bunaha ‘permanent path’, and kori ‘bathing place’, kabura ‘fishery’) are typically considered the property of individuals or groups, expressed by the obligatory possessor. Permanent paths lead typically to the fields of

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31 Notice that I use the English noun *fishery* not in its primary sense ‘a place where fish are reared for commercial purposes’, but in its secondary sense ‘a fishing ground or an area where fish are caught’.
the family; temporary camps are set up by families near their fields. Bathing places are considered private, and passing through the bathing places of others is avoided. Temporary paths are created merely for the purpose of a single individual that sets out into the forest, and disappear within days. The fact that roads are a recent addition to the local landscape and that they have not been created by the Lokono may explain the exceptional case of waboroko ‘road’. The ownership of landscape features such as roads may be culturally indeterminate. Linguistically, this is reflected in the inconsistent use of the possessive suffix with waboroko, treating it sometimes as alienable and sometimes as inalienable.

In the group of inalienable non-relational nouns, the possessor of which encodes the owner or creator of the landscape feature, I also include the noun kabura ‘fishery’. At first glance, the possessor of kabura encodes the likely catch. It is possible, however, that the possessor refers here in fact to the spiritual manifestation of the relevant species associated with the place. In the Lokono animistic beliefs, each living being has its own spirit, which protects the species and is responsible for its reproductive activity (e.g., Roth 1915; Goeje 1942). The obligatory possessor of the noun kabura may have in fact referred to the spirit of the particular fish associated with the place, rather than the species. This idea is similar to the better-described concept of the master of animals of the Tukano people (Reichel-Dolmatoff 1987). Such masters of animals—the spiritual protectors of a landscape feature—are in charge of certain places making sure that the animals there are under required protection, so that their reproductive activities are not disrupted. Importantly too, kabura has a secondary meaning ‘village territory’. When signifying a territory of a village, the possessor of kabura encodes the inhabitants of the village.

In order to use an inalienable noun without a possessor, an unpossessed suffix –hV has to be attached. The vowel of the suffix undergoes regressive harmonization with the last vowel of the inalienable noun, unless the last vowel is an /a/, in which case the vowel of the unpossessed suffix becomes an /i/, written as <u>. This regressive harmonization rule also applies to other suffixes with unspecified vowels (e.g., the abstract nominalizer –hV, the verbalizers –dV and –tV, the causative suffix –kVtV, and the distal suffix –kVtV discussed below). An example of an inalienable noun used without a possessor is given in (20) from a grammar by Pet (1987), who lived and worked in the village of Cassipora. The noun sorhi denotes an impermanent, impromptu path slashed through the forest when hunting or gathering.

(20) *Aba sorhīhi darhukaγa, dayokhakwanaγa.*

<table>
<thead>
<tr>
<th>abā surī-hī da-γi-γa</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDF path.impermanent–UNPOSS 1SG –cut.knife–FUT</td>
</tr>
<tr>
<td>da-γokbγa–kwana–wa</td>
</tr>
<tr>
<td>1SG–shooγL–INT–V–INST.NMLZ–REFL</td>
</tr>
</tbody>
</table>

‘I will cut open a path to help me hunt.’ (Pet 1987:321)

In (20), the inalienable landscape term sorhi ‘path’ is modified by the indefinite article abā. Since there is no expression encoding the possessor in (20), an unpossessed suffix is attached to the noun. The noun phrase abā sorhīhi is the
preposed object of the predicate expressed by the verb *rhukun* ‘cut with a knife’ prefixed with the 1st person prefix encoding the subject of the clause, and suffixed with the future marker –*fa*. The remaining noun phrase at the end of the clause—an inalienable instrument nominalization—stands in apposition to the object of the verb, and could be translated literally as ‘my hunting implement’.

The clause-final appositional noun phrase in (20) demonstrates one more important nuance of Lokono possessive marking. When the object of a verb is possessed and the possessor is coreferential with the subject of the verb, the reflexive suffix –*wa* may be necessary. The reflexive marker is attached to the possessed noun only if the possessed noun follows the predicate. If it were preposed—a strategy used for topicalization—there would be no reflexive marking. In (21), the possessed noun is *kashipara* ‘machete’, an acculturation term borrowed from Spanish (*cachiporra* ‘machete’).

(21)  *Danuka dakashiparaniawa.*

da–nika    da–kajiparâ–n–ia–wa  
‘I took my cutlass.’

In (21), the alienable noun *kashipara* is possessed, and the 1st person possessor is coreferential with the subject of the clause, therefore the reflexive suffix –*wa* is present. If the noun is inalienable, the reflexive suffix is simply attached to the noun functioning as the object of the verb, as in (20). If the noun is alienable, the reflexive suffix follows the possessive suffix. If the possessive marker happens to be –*n*, an epenthetic syllable needs to be inserted between the possessive and the reflexive suffix, as in (21).

Apart from alienable and inalienable nouns, there is a small group of nouns that have irregular or suppletive forms when possessed listed in Table 12. Such forms are glossed with the index POSS to distinguish them from their non-possessed forms (notice that non-possessed is different from unpossessed, the form derived with the unpossessed suffix –*hV*). This category includes a number of terms for culturally salient artifacts, but also a few landscape terms, such as *horhorho* ‘landform’, *kabuya* ‘field’, and *wiwa* ‘star’, if one wants to count celestial bodies into the landscape domain.
TABLE 12.
IRREGULAR AND SUPLETIVE POSSESSED NOUNS.

<table>
<thead>
<tr>
<th>Noun</th>
<th>Possessed</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>bahu</td>
<td>shikwa</td>
<td>house, used also to encode the burrows or animals, the nests of birds, and the homes of spiritual beings</td>
</tr>
<tr>
<td>budali</td>
<td>budale</td>
<td>baking plate for baking cassava bread, typically made of metal,</td>
</tr>
<tr>
<td>hala</td>
<td>ulan</td>
<td>traditional bench on which the Lokono people sit, today not commonly used</td>
</tr>
<tr>
<td>hamaka</td>
<td>kora</td>
<td>hammock, the unpossessed form koraha also exists, and has the same meaning as hamaka</td>
</tr>
<tr>
<td>horhorho</td>
<td>horhorha</td>
<td>landform, general term unspecified with respect to shape and size (chapter 4)</td>
</tr>
<tr>
<td>hiki</td>
<td>hime</td>
<td>fire, the unpossessed form hikihi also exists, and has the same meaning as hiki</td>
</tr>
<tr>
<td>kabuya</td>
<td>koban</td>
<td>a swidden, an area cleared from vegetation by slashing and burning vegetation; a field, a plantation</td>
</tr>
<tr>
<td>khali</td>
<td>khale</td>
<td>bitter cassava (Manihot esculenta); also a generic term for cassava bread</td>
</tr>
<tr>
<td>maba</td>
<td>omban</td>
<td>honey</td>
</tr>
<tr>
<td>wiwa</td>
<td>koya</td>
<td>star, used also as a temporal expression meaning ‘year’; koya means also ‘spirit’</td>
</tr>
</tbody>
</table>

A case worth discussing is the non-possessed noun bahu ‘house’, the possessed form of which is shikwa. The possessed form, for instance, dashikwa with the 1st person prefix, means ‘my house’. The unpossessed form of shikwa, however, that is shikwahu with the unpossessed suffix –hV, has the meaning ‘village’ only. The term villages does not have a possessed equivalent. 32

Finally, let us notice that certain types of nouns are never possessed. I do not commit myself, however, to the statement that they cannot be possessed at all. Given the right circumstances, all nouns can probably be possessed. Nevertheless, certain landscape terms (e.g., barhâ ‘sea’), address terms from the domain of kinship (e.g., tête ‘mother’), certain types of place names (e.g., Kasuporhi ‘Cassipora), other terms encoding unique entities (e.g., adali ‘sun’, awadoli ‘wind’), and the configurational nouns ayo ‘up’ and onabo ‘down’, encoding directions on the abstract vertical dimension, have not been attested as the possessed element in possessive phrases. The unpossessable landscape terms are given in Table 13.

32 It is not unlikely that the lack of a possessed term for village is a reflection of cultural practices. The Lokono society is organized into matrilineal family groups. Spatially the family groups are organized into matrilocal complexes, located at a distance from each other within the village. These distances might have been even larger in the past, since the centralization of the villages is the result of missionary activities. The utility of the possessable noun shikwa ‘home’ is therefore evident. The derived nature of the term for village and its incomplete possessive paradigm may in turn be attributable to the fact that villages—at least in the form known today—are a form of social organization that was not native to Lokono culture.
TABLE 13. UNPOSSESABLE LANDSCAPE TERMS.

<table>
<thead>
<tr>
<th>Noun</th>
<th>Meaning and origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>barhā</td>
<td>sea, also any landscape feature that is a large body of water (unanalyzable)</td>
</tr>
<tr>
<td>kairi</td>
<td>negative vegetation space; either a clearing in the forest, or a clump of bush in the savanna</td>
</tr>
<tr>
<td>kiraha</td>
<td>pond, any landscape feature that is a small body of water</td>
</tr>
<tr>
<td>omadāro</td>
<td>rapids (from the verb omadun ‘roar’)</td>
</tr>
<tr>
<td>onēbera</td>
<td>a swamp or a waterlogged area, typically not permanent (literally ‘big rain’, in contrast to onikhan ‘creek’ and oni ‘river’)</td>
</tr>
<tr>
<td>oni</td>
<td>a river (lit. ‘rain’) refers to the largest rivers that end in the sea; a term often replaced by proper names of rivers or barhā dako ‘tributary of the sea’</td>
</tr>
<tr>
<td>onikhan</td>
<td>a creek (lit. ‘little rain’), refers to all other watercourses (and their tributaries) that and in the major rivers, irrespective of their size</td>
</tr>
<tr>
<td>shikwahu</td>
<td>village</td>
</tr>
<tr>
<td>thoyoshikwa</td>
<td>city, typically the capital city Paramaribo, but also other big cities (lit. ‘old house’)</td>
</tr>
<tr>
<td>X-wkili</td>
<td>dry patch of plant X (see chapter 5)</td>
</tr>
<tr>
<td>Y-wkaro</td>
<td>wet patch of plant Y (see chapter 5)</td>
</tr>
</tbody>
</table>

In the domain of landscape, the possessive paradigm—that is, the unpossessable character of such nouns—can be attributed to the fact that the landscape features encoded by such nouns are not considered the property of any individuals or groups. They are therefore never possessed.

3.3.4 Definiteness and specificity

Lokono does not have a distinct set of definite articles. Instead, it has a set of three deictically unmarked demonstratives, which can be used both attributively and pronominally. These demonstratives combine with demonstrative suffixes to form fully-fledged demonstratives expressing distance distinctions (§ 3.9.1.1). However, on their own the three deictically unmarked demonstratives listed in Table 14, function as definite articles.

TABLE 14. DEMONSTRATIVE FORMS AND THE INDEFINITE ARTICLE.

<table>
<thead>
<tr>
<th>Number</th>
<th>Gender</th>
<th>Humanness</th>
<th>Demonstrative</th>
<th>Article</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG</td>
<td>M</td>
<td>li</td>
<td></td>
<td>aba</td>
</tr>
<tr>
<td>SG</td>
<td>F</td>
<td>to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PL</td>
<td>HUMAN</td>
<td>na</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When used attributively, the bare deictically unmarked demonstratives indicate that the referent is identifiable in a given context without making use of the distance distinctions encoded in the demonstrative suffixes. This contrasts the three forms with the indefinite aba, which is also be used attributively, and less frequently
pronominally, indicating that the referent is not identifiable in a given context. Importantly, Lokono proper nouns can combine with the deictically unmarked demonstratives—a topic taken up in the discussion of place names (chapter 6).

The demonstratives *li* and *to* are unspecified for number—recall that in example (14), the masculine demonstrative *li* is combined with the collective suffix *–be*. The two demonstratives, however, encode the difference between the masculine and feminine gender. The demonstrative *na* in turn combines with nouns encoding plural human referents only, where ‘human’ means *de facto* ‘Lokono’. None of the demonstratives can combine with the plural suffix *–non*. The attributive use of the demonstratives as markers of definiteness is exemplified in (22), a sentence from a traditional story given in Appendix IV, in which one of the protagonists is turned into a turtle as a form of punishment.

(22)  *Ludukha li hikorhi.*

\[\begin{array}{llll}
\text{li–} & \text{dik}'a & \text{li} & \text{hikuri} \\
\text{3MA} & \text{DEM:M} & \text{turtle} & \end{array}\]

‘He sees the turtle.’

In (22) the speaker uses the deictically unmarked demonstrative *li* to indicate a referent already established in discourse. By choosing the masculine demonstrative instead of the feminine gender expected of non-human referents, he also expresses his sympathy toward the referent that used to be a human being.

The indefinite pronoun and article *aba* is formally identical to the numeral *aba* ‘one’. It exists in the singular only and is gender-neutral. However, the indefinite *aba* can be suffixed with the gender markers, the masculine *–li* and the feminine *–ro*. The result is a pair of indefinite forms *abali* and *abaro*, masculine and feminine, respectively, that can function both as pronouns and articles. The gender-neutral form *aba* is exemplified in (22), the opening sentence of the traditional story in Appendix IV. In (23) the indefinite *aba* is used attributively (i.e. as an article).

(23)  *Bámun koba tha aba loko hiyaro.*

\[\begin{array}{llll}
\text{b–} & \text{a} & \text{min}= & \text{koba}=t^b\text{a} & \text{aba} & \text{loko} & \text{hiyar} \\
\text{2SGA} & \text{have}= & \text{REM.PST} & \text{RPRT} & \text{INDF} & \text{Lokono} & \text{woman} \\
\end{array}\]

‘You had once a Lokono woman.’

Example (23) serves to introduce the main protagonist. The indefinite article modifies the phrase *loko hiyaro* ‘Lokono woman’, indicating an as yet unidentifiable referent. The whole expression functions as the object of the verb *āmun* ‘have’ prefixed with the 2nd person marker encoding the subject, and followed by the distant past enclitic =koba, and the hearsay enclitic =tha, usually present in traditional stories. The verb *āmun* ‘have’ derives historically from a spatial expression *omamun*, with the comitative *oma* and the locative *–mun*, a point discussed in the section on complex locative expressions (§ 3.6.3.6). This form of encoding possession is therefore inextricably linked to the expression of spatial relations.
Example (24) comes from the description of the Man and Tree task (Levinson et al. 1992). In (24) in turn, the masculine form *abali* is used functioning as a stand-alone indefinite pronoun.

(24)  *Ken abali dimanâko ma.*

<table>
<thead>
<tr>
<th>kẽŋ</th>
<th>abâ-li</th>
<th>dîmana–ko</th>
<th>m-a</th>
</tr>
</thead>
<tbody>
<tr>
<td>and</td>
<td>INDF–M</td>
<td>standing–CONT</td>
<td>EXPL–E.V</td>
</tr>
</tbody>
</table>

‘And a (man) is standing.’

In (24) the main verb is the empty verb *o/a*, the subject of which is expressed by the indefinite pronoun *abali*, cross-referenced by the expletive prefix on the empty verb. The empty verb in turn links the subject to the non-verbal adverbial predicate—the adverb *dimanâko* ‘standing’.

Finally, related to the category of definiteness is the encoding of specificity. In Lokono, there are two forms, the masculine –*kili* and the feminine –*koro*, which can be suffixed to a noun in order to mark it as specific—that is, to signal that the speaker is referring to a specific entity (whether definite or not). The feminine specific marker is exemplified in (25), taken from Patte (2011:134).

(25)  *Dayo dukuha to hiyaro koro damatisa.*

|-------|---------|----|-------------|-------------|

‘My mother will see the woman I want to marry.’ (Patte 2011:134)

In (25), the predicate consists of the verb *dukhun* ‘see’, suffixed with the future marker –*ha* (a speaker-dependent variant of –*fa*), the subject of which is expressed by the possessed noun *oyo* ‘mother’. The object of the verb is expressed by the noun *hiyaro* ‘woman’ suffixed with the feminine specificity marker –*koro*, and modified by the feminine demonstrative. Following the object phrase comes spatial expression combined with a relativizer, functioning as an equivalent of a relative clause. If the specificity marker were absent in (25), the speaker would be talking about a hypothetical future bride, whereas in the current case he already knows who he is going to marry.

As a side note, the specificity suffixes –*kili* and –*koro*, contain the masculine and the feminine markers –*li* and –*ro* respectively. The remaining element –*ki–ko* is the specificity element. Underlyingly it is probably –*ki*, the vowel of which underwent harmonized with the feminine suffix. The element *ki* functions today both as an nominal enclitic and a verbal suffix, and semantically appears to be related to the specificity markers. However, the form *ki* developed a number of other uses, the discussion of which is beyond the scope of this thesis. A few examples of –*ki/=ki* can be found in the traditional story in the Appendix IV. It is not unlikely that the forms –*ki/=ki* and the discourse marker *kia* are also related (see § 3.9.2.3 for a discussion of the discourse marker).
3.3.5 Derived nouns

Morphologically complex nouns can be formed either by the process of derivation, compounding, or the lexicalization of possessive phrases. Table 15 gives an overview of the derivational suffixes used to form nouns.

<table>
<thead>
<tr>
<th>SUFFIXES DERIVING NOUNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
</tr>
<tr>
<td>=-rhin</td>
</tr>
<tr>
<td>=-bêro</td>
</tr>
<tr>
<td>=-do</td>
</tr>
<tr>
<td>=-di</td>
</tr>
<tr>
<td>=-kwana</td>
</tr>
<tr>
<td>=-li</td>
</tr>
<tr>
<td>=-n</td>
</tr>
<tr>
<td>=-nale</td>
</tr>
<tr>
<td>=-ro</td>
</tr>
<tr>
<td>=-thi</td>
</tr>
<tr>
<td>=-tho</td>
</tr>
<tr>
<td>=-sa</td>
</tr>
<tr>
<td>=-wkili</td>
</tr>
<tr>
<td>=-wkaro</td>
</tr>
</tbody>
</table>

A few of these suffixes are relevant to the landscape domain. The event nominalizer and the subject relativizers, discussed together with other nominalizations, play a minor role in the domain of landform terms (chapter 4). The locative nominalizer =nale, the feminine and masculine suffixes =-ro and =-li, and the specificity markers are present in many place names (chapter 6). All of these suffixes are discussed together with other nominalizations (§3.4.6). The masculine and feminine locative suffixes =-wkili and =-wkaro are discussed in detail in the chapter about plant-based ecotopes (see chapter 5). The derivational suffixes =-do and =-di typically derive nouns from noun denoting places, such as konoko ‘forest’ (konokhodo ‘Maroon’), loko ‘inside’ (lok hodono ‘contents’). They are also found in a few family names (e.g., karhowfodo ‘woman of the relevant family’ and karhowfodi ‘man of the relevant family’), signaling that such family names may be derived from place-denoting nouns (e.g., karhow ‘savanna’). This derivational process is not discussed further in this thesis. However, if these suffixes indeed combine only with place-denoting nouns, they would be the only morphological processes limited to where-nouns, discussed in detail in the following chapters (see also footnote (29)).

The lexicalization of phrases, especially possessive phrases, is another frequently attested source of expressions, particularly in the domain of flora and fauna. Patte

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33 The noun dorhi ‘Maroon’ is a synonym of konokhodo. Of the two, the latter appears to be less politically correct today.
lists a number of complex plant and animal names. Most of them have the form of possessive phrases. An overview of the internal structure of such terms, and of the nouns functioning as the head in such phrases, is given in Table 16.

<table>
<thead>
<tr>
<th>Example</th>
<th>Possessor</th>
<th>Possessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>arhwa likin</td>
<td>Tangara sp.</td>
<td>arhwa</td>
</tr>
<tr>
<td>buhuri bada</td>
<td>Machaerium sp.</td>
<td>buhuri</td>
</tr>
<tr>
<td>dorki dike</td>
<td>mushroom sp.</td>
<td>dorki</td>
</tr>
<tr>
<td>hashiro khabo</td>
<td>Selaginella spp.</td>
<td>hashiro</td>
</tr>
<tr>
<td>horhorho se</td>
<td>Leptotphylops sp.</td>
<td>horhorho</td>
</tr>
<tr>
<td>yeshi koshi</td>
<td>Ternstroemia spp.</td>
<td>yeshi</td>
</tr>
<tr>
<td>kama koti</td>
<td>Bombax spp.</td>
<td>kama</td>
</tr>
<tr>
<td>káro shi</td>
<td>Cuervea sp.</td>
<td>káro</td>
</tr>
<tr>
<td>kodibio shi</td>
<td>Mieropholis sp.</td>
<td>kodibio</td>
</tr>
<tr>
<td>korhi koyoko</td>
<td>Anaxagora spp.</td>
<td>korhi</td>
</tr>
<tr>
<td>kwa sepere</td>
<td>Bellucia sp.</td>
<td>kwa</td>
</tr>
<tr>
<td>warhiti yê</td>
<td>Brassavola sp.</td>
<td>warhiti</td>
</tr>
</tbody>
</table>

The head in such expressions is almost always an inalienable noun, more specifically a relational nouns, such as a body part term. Such plant and animal names are lexicalized, therefore the possessor cannot be substituted by a possessive prefix. Semantically, such expressions are metaphoric in nature. The plant name hashiro khabo (lit. ‘otter’s paw’), for instance, is a type of moss, the shape of which resembles the paws of the animal. It is interesting to point out that the grammatical pattern prevailing in the domain of fauna and flora reappears in the domain of landscape. Possessive phrases with relational nouns (including body part terms), and configurational nouns, function as heads in the overwhelming majority of landform terms. The landform terms, however, all share the same possessor—namely, the general term horhorho ‘landform’. Moreover, landform terms are much less lexicalized than the forms in Table 16. In the expression horhorho shi ‘landform’s head’ (i.e. ‘the top of a mountain’) the possessor can be replaced by a 3rd person feminine prefix thu—(see chapter 4).

Finally, compounding is uncommon in Lokono. The few cases that we can clearly call compounds have been attested in the domain of landscape, specifically the proper names of large geographic entities, such as the main rivers of the Guianas, large savannas, and large stretches of the forest. When analyzable, such compounds consist of a head denoting the landscape feature and a modifier expressing a location, with respect to which the landscape feature is located, for instance, Kasuporhi Konoko ‘Cassipora Forest’—a forest close to the Cassipora creek. I discuss this compounding template for large geographic entities and contrast it with the other strategies for naming smaller landscape feature when in the chapter on Lokono place names (see chapter 6).
3.3.6 Nominal peripheries

A number of Lokono terms straddle the border between nouns and adpositions. A few cases that can readily be considered adpositions are listed in Table 17. All these forms combine with personal prefixes, following the pattern of inalienable nouns discussed above. Since they have somewhat irregular paradigms, their combinations with personal prefixes are given in Table 17. The list could be expanded, but I focus here only on a few terms that are important to the grammar of space and reappear in the examples used in the thesis. Temporal expressions such as \textit{bena} ‘after’, and \textit{bora} ‘before’, for instance, also fall into this category.

First, personal prefixes combine with the dative marker \textit{mun}, forming both full and reduced forms. Secondly, the prefixes also attach to the instrumental marker \textit{abo}—expressing both instruments and human referents who accompany the agent (see § 3.3.6.2). The comitative \textit{oma} marks co-participants in an activity. The dative and the comitative are important for the discussion of spatial language, and are therefore discussed in more detail below (§§ 3.3.6.1 and 3.3.6.2, respectively). The reciprocal and the collective form (i.e. \textit{together}), \textit{onekwa} and \textit{omakwa}, respectively, are only formed in the plural. None of the five forms can be used as the core arguments of a verb without additional measures being taken—that is, without the presence of additional derivational morphology. Such measures include, for instance, attaching a relativizing suffix, which renders the expression nominal. The expression \textit{loma} ‘with him’, for instance, cannot function as the core argument of a verb, but the expression \textit{lomathi} ‘the man who is with him’ with the relativizing suffix can. These peripheral forms also combine with nouns, forming noun phrases, the structure of which might have been that of a possessive phrase in the past. This explains features such as the presence of the reflexive marker if the modifier is coreferential with the subject. However, today they can no longer be thought of as possessive phrases, and are therefore referred to as adverbial expressions.

\begin{table}
\centering
\caption{Dative, Instrumental, Comitative, Reciprocal, and Collective Forms.}
\begin{tabular}{lllll}
\hline
 & Dative & Instrumental & Comitative & Reciprocal & Collective \\
\hline
1SG & damun/dan & dabo & dama & & \\
2PL & wamun/wan & wabo & wama & wonekwa & wamakwa \\
2SG & humun/bon & babo & homa & & \\
2PL & humun/hon & habo & homa & honekwa & hamakwa \\
3M & lhumun/lon & labo & loma & & \\
3M & thumun/thon & thabo & thoma & thonekwa & thamakwa \\
3PL & namun/nan & nabo & nama & nonekwa & namakwa \\
\hline
\end{tabular}
\end{table}

The situation is more complex with configurational nouns, such as \textit{loko} ‘inside’, which, provided the right context, can function as the core argument of the verb. Configurational terms are therefore counted here as nouns, although it is clear that they straddle the border between nouns and adpositions. Importantly too, configurational nouns differ among themselves in the degree, to which they still exhibit their nominal status. Some nouns, for instance, \textit{bana} ‘surface’, and \textit{shibo}
‘front’ are still clearly nominal, and are used also as relational nouns (bana ‘leaf’, and shibo ‘face’). Others are further removed from the nominal core, for instance, khona, a term encoding a configuration in which the object to be located adheres to the surface of the location. It is also quite likely that Dutch, which has a class of prepositions, exerts influence on the class of configurational nouns and the other forms that more adpositional in nature. Although diachronically most plausibly nouns in Lokono, many of them are clearly becoming less nominal. Configurational nouns are discussed further in the description of the Basic Locative Construction and figure prominently in the analysis of landform terms (§ 3.6.4 and chapter 4, respectively).

3.3.6.1 Dative

The dative marker mun stands central to the discussion of the what/where distinction, since it is the diachronic source of the where-marker –(mu)n, encoding locations and goals of movement (§ 3.6.3.2). The dative marker forms a phrase with a free noun or is marked with personal prefixes. Apart from the regular prefixed forms, the dative has also developed phonologically reduced forms given in Table 17 above. In contemporary Lokono, the dative marker mun marks the following participants: the receiver in a giving event (26), the addressee in a speech event (27), the benefactor of an event (28), and the causee in the causative constructions with the causative verbs derived with the causative suffix –kVtV (29). Theses functions are illustrated below. Example (26) comes from a description of how the Lokono people receive guests, usually family member, from other villages.

(26)  Khotaha washika namun.
   k’oτa–ha   wa–fika   na–miŋ
   game–ABST.NMLZ 1PL–give 3PL–DAT
   ‘We give them game.’

In (26) above the dative encodes the receiver in a giving event, expressed by the verb shikin ‘give, put’. The direct object of the verb is encoded by a preposed abstract nominalization. Example (27) below, on the other hand, comes from a speech of the village chief of Cassipora, addressing the inhabitants. In (27) the dative encodes the addressee in a speaking event, expressed by the intransitive verb dian ‘speak, talk’. The preposed expression, literally an expression of the source, is used as an emotional metaphor.

(27)  Dalwa loko wáya dadiǖka humun.
   da–lwa   loko   wa–ya   da–d’a–ka   hi–miŋ
   1SG–heart   inside   SRC:TL 1SG–speak–PFV 2PL–DAT
   ‘I speak to you from my heart.’

Example (28) below contains in turn the derived verb kashirdan ‘make cassiri’. Cassiri, an alcoholic beverage made from bitter cassava, is typically made by elderly women in the village who specialize in the task.
Thukashiridâha damun.

‘She’ll make cassiri for me.’

In (28), the dative marks the benefactor in an event, the person who will benefit from the activity, or for whom the activity is performed. The above three uses of the dative are semantically similar in that they all encode an end-point of the activity (the receiver, the addressee, the benefactor). This end-point semantics is clearly the semantic link with the directionality marker –mun, which encodes the goal of movement (and the location of an activity if the predicate does not imply motion)—a topic taken up in the discussion of the directionality marker (see § 3.6.3.2).

The last use of the dative marker is to express the causee in a causative event; this use is clearly semantically more removed from the above three. I exemplify it below with a sentence taken form van Baarle et al. (1989:64).

Dashikwa diakhodo damarhitikita li korhwa bana kodârhin mun.

‘I had my roof fixed by the roof-maker.’ (van Baarle et al. 1989:64)

In (29) the dative marker is combined with a complex phrase li korhwa bana kodârhin mun ‘the weaver of korhwa leaves’, denoting a person professionally engaged in the building of thatched roofs made out of the leaves of the Attalea sagotii plam called korhwa (see also the ecotope korhwabanawkili ‘patch of korhwa bana’ in chapter 5). The dative marks the causee in the causative event encoded by the verb marhitikitin ‘have someone make something’ derived from the verb marhitin ‘make’, with the causative suffix –kVtV (see § 3.4.3). The rooftop is here expressed by the noun diakhodo, derived from the configurational noun diako ‘top’ with the feminine derivational suffix –do, which typically combines with place-denoting nouns.

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34 The terms directionality and configuration are used in keeping with the theory proposed by Lestrade (2010), which builds upon earlier work by Kracht (2002; 2003; 2008). They correspond to the earlier notions of Path and Place (Jackendoff 1990) or Vector and Conformation (Talmy 2000). Configuration markers encode the type of spatial relation between entities (e.g. Lokono loko ‘inside’, a containment configuration). Directionality markers encode the change of configuration over time (e.g. –mun–n location directionality, implying lack of change over time).
3.3.6.2 Comitative

The comitative oma encodes participants that are typically equally involved in an activity. As such it contrasts with the instrumentalabo, which marks participants that have an instrumental role, or who are not as engaged in the activity. Example (30) illustrates the use of the comitative. In (30), the speaker uses the marker to talk about her marriage, a relationship in which two people are ideally engaged in to a similar degree.

(30) Kia domada loma kobada de.
    kia doma=da 1-oma=koba=da=de
    DSC cause=DIRCT 3MA–COM=REM.PST=DIRCT=1SGb
    ‘Therefore, I was with him back then.’

In (30) above the comitative oma is prefixed with the 3rd person masculine prefix, referring to the husband with whom the woman lived. Together with the temporal enclitic =koba, the comitative forms a stative predicate, the subject of which is encoded by the 1st person enclitic =de. Example (30) can be compared with (31) below which describes the death of the father of another speaker. The father passed away on his way to a celebration that took place in another village, which meant that his travel companions had to go back with his body to their home village.

(31) Nandashin, lôda, nashifodâka labo kidaban.
    n–ânda–ʃi–ŋ 1–o:da
    3PLA–arrive–ANTCP–NMLZ 3MA–die
    na–ʃifodaː–ka 1–abo kida–bâ–ŋ
    3PLA–turn,INTRV–PFV 3MA–INST again–ADD–AFF
    ‘He died just before arrival; they turned around with him the same way.’

In (31), the first clause is an adverbial clause indicating the time of the event, containing an event nominalization enhanced by a specialized suffix –shi meaning ‘just before’ (and glossed here as anticipative). The predicate in the main clause contains the introversive verb shifodan ‘turn around’ (related to shifodun ‘turn (something) around’), the subject of which is expressed by the 3rd person plural prefix. Instead of the comitative marker, the instrumental marker is used, since the referent of the 3rd personal prefix—the deceased father—is no longer equally engaged in the activity of returning home.

Important for the discussion of the Lokono grammar of space is the fact that the comitative oma has also spatial uses as a marker of proximity. This is exemplified in (32), which comes from the description of a photograph from the Picture Series for

35 Transitive verbs are occasionally translated with an object place-holder something (e.g., rurukun ‘move (something)’) to distinguish them from related intransitive introversive verbs backgrounding the object (e.g., rurukan ‘move, clean’).
Positional Verbs stimulus, showing a number of cassava tubers lying next to a tree stump (Ameka, Witte, and Wilkins 1999).

(32)  \[
\text{Kakosako tha to ada toro oma.} \\
\text{ka–kosa–ko ì–a to ada toro oma} \\
\text{ATR–near–CONT 3F–E.V DEM:F tree stump COM} \\
\text{‘They are close to each other, next to the tree stump.’}
\]

Example (32) is a complex empty verb clause, expressing a reciprocal spatial relation (i.e. being next to one another). Without going into much detail at this point, let us notice that the comitative *oma* combines here with the possessive phrase *ada toro* ‘tree stump’, forming an adverb of place meaning ‘close to the tree stump’. Clearly this proximal meaning is an extension of the accompaniment semantics inherent in the comitative. Although examples such as (32) are rare in the corpus, the proximal meaning of the comitative clearly gave rise to four spatial expressions, ámun, manro, âdi and maria, discussed at length below (see § 3.6.3.6).
3.4 Verbs

Lokono is a morphologically complex language with a tendency for suffixation. This proclivity is particularly conspicuous in the verbal domain, where derivational and inflectional morphology is rampant. In this section, I focus on the most important features of Lokono verbs, particularly those that are relevant to the ensuing discussion of landscape terms. First, I explain the morphosyntactic split into active and stative verbs based on how the subject of the verb is encoded (§ 3.4.1). The subtypes of active verbs and the semantically empty verb a/o, a special case of an active verb, are discussed separately (§§ 3.4.1.1 and 3.4.2, respectively). Second, I give an account of the derivational processes involved in the creation of both active and stative verbs from other lexical items (§§ 3.4.3 and 3.4.4, respectively), including the privative prefix, which derives negative verbs (§ 3.4.5). Finally, I review a number of nominalizations—structures frequently recurring in Lokono grammar—focusing particularly on the use of gender morphology and relativizers as deverbal derivational suffixes, locative nominalizations, and event nominalizations (§ 3.4.6).

This introduction to Lokono verbal forms provides a necessary background to the analysis of spatial language and landscape terms. The linguistic properties of active verbs, including their internal division into subclasses and means of deriving active verbs, are essential to the encoding of dynamic spatial scenes—that is, motion events (§ 3.10). In addition, two motion verbs kodonon 'enter containment', and fotikidin 'enter non-containment' show an interesting pattern of collocations with the terms for major constituents of the local landscape—that is, forests, savannas, creeks, and rivers—speaking volumes for what these landscape terms encode (§ 3.10.4). The discussion of stative verbs, on the other hand, is crucial to the understanding of the structure of the Basic Locative Construction, which has the form of a stative clause (§ 3.6). It also helps to understand the functional limitations of the Basic Locative Construction vis-à-vis the Locative Equation, the surface form of which can be misleadingly similar to that of the default spatial construction (§ 3.8). The empty verb, in turn, plays a key role in the Posture Construction; another functionally determined alternative to the Basic Locative Construction employed when the posture of the referent to be located is informationally salient (§ 3.7). Event nominalizations and verbs marked with relativizers are also utilized in the Posture Construction and the Locative Equation, and play a minor role in the domain of landform terms and place names (§§ 4.5.1.3 and 6.2, respectively). In the latter domain, locative nominalizations and derivational gender morphology described here as well play a more significant role.

3.4.1 Active and stative verbs

The class of active verbs is defined by their compatibility with personal prefixes to encode the subject—the same prefixes that encode the possessor of nouns (i.e. the A-class). Active verbs include all transitive verbs, including verbs such as ìhin
‘know’, which encodes a state, as well as intransitive verbs denoting activities, and the empty verb o/a. All motion verbs are active verbs (§ 3.10.2). An example with the transitive verb of caused motion rurukhun ‘move (something)’ is given in (33)—an order to move something out of the way.

(33)  Bururukha no!
bi–ririk⁷a=no
2SG.A–move=3F.B
‘Move it (out of the way)’!

Sentence (33), an example of the use of the imperative mood, distinguished from the indicative mood only by intonation, contains the transitive active verb rurukhun ‘move (something)’, prefixed with a 2nd person prefix expressing the subject (A-class), and followed by the 3rd person feminine enclitic expressing the object of the verb (B-class).

The subject of intransitive verbs encoding actions is encoded with the same prefixes that combine with transitives. This is exemplified in (34), another example of the imperative mood. The class of intransitive active verbs includes a number of motion verbs, such as the deictically unmarked verb ôsun ‘go’. When unaccompanied by other deictic morphology, for instance, the deictic markers of associated motion, the verb receives a translocative interpretation (see § 3.10.3).

(34)  Bôsa!
 b–oːsa
 2SG.A–go
 ‘Go (away)!’

In (34) the intransitive active verb ôsun ‘go’ is prefixed with the 2nd person marker of the A-class encoding the subject; the same form that was employed to encode the subject of the transitive active verb in (33).

As opposed to intransitive active verbs, stative verbs are intransitive verbs that lexicalize states. The concepts encoded by stative verbs are expressed in English by the grammatical class of adjectives. Lokono has no such word class. Nevertheless stative verbs are glossed with English adjectives, for instance, heben ‘ripe’ in (35). It is worth reiterating that states expressed by verbs such as ãmunin ‘have’, ìhin ‘know’ are encoded by transitive verbs, and therefore are part of the active verb class. Lokono also lacks posture verbs such as the English sit encoding the state of being in a certain position. The closest translational equivalents are expressed either by active verbs such as baluttun ‘sit down’ or by the complex posture adverbs in a construction with the empty verb o/a (see § 3.7). Importantly, the Basic Locative Construction has the form of a stative predicate (§ 3.6).

Instead of personal prefixes found with intransitive active verbs, stative verbs combine with personal enclitics to encode the subject—the same enclitics that are used with transitive verbs to encode the object (i.e. the B-class). This is exemplified in (35), which comes from an instructional narrative about planting a calabash tree, and manufacturing drinking vessels from its fruit. In this bi-clausal example, the first clause is an adverbal temporal clause containing the stative verbs heben ‘ripe’.

In (35) the stative verb heben ‘ripe’ is prefixed with the 2nd person marker of the A-class encoding the subject; the same form that was employed to encode the subject of the transitive active verb in (33).

To summarize, the nominal morphological distinction of the Basic Locative Construction is the form of the stative predicate. The stative predicate is formed from a stative verb with a prefix, which expresses the nominative subject, and an enclitic, which expresses the accusative object, that is the same form that is employed to encode the object of a transitive predicate. This is exemplified in (36), which contains the stative predicate of a stative verb, in this case the stative verb heben ‘ripe’.

(36)  Òló ohebe no!
bi–ôsun⁷a=no
2SG.A–go=3F.B
 ‘Go (away)!’

In (36) the stative verb heben ‘ripe’ is prefixed with the 2nd person marker of the A-class encoding the subject; the same form that was employed to encode the subject of the transitive active verb in (33).

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Since it is preceding the main clause, it iconically encodes an anterior event. The second clause is the main clause containing the transitive verb óyin ‘harvest’ (used with fruits that grow above the ground, as opposed to yâdan used with tubers).

(35)  Hebenda no, wôyada no.
     hebê–n=da=no w–o:ya=da=no
     ripe–NMLZ–DIRECT=3FB 1PLA–harvest–DIRECT=3FB
     ‘When (the fruit) has ripened, we harvest it.’

In (35) the subject of the stative verb heben ‘ripe’ is expressed by the 3rd person feminine enclitic =no, the same form that expresses the object of the transitive verb in the main clause (i.e. B-class).

Summing up, all transitive verbs, irrespective of their meaning, fall into the active verb category. It is worth pointing out that the class of intransitive verbs is split into two groups, those that combine with personal prefixes (intransitive verbs encoding activities) and those that combine with personal enclitics (intransitive verbs encoding states) to express the subject. Such active/stative split of intransitive verbs is typical of Arawakan languages (e.g., Aikhenvald 1999). In Lokono the split of intransitive verbs is motivated by the meaning of the verb only, as opposed to languages in which it can be motivated by, for instance, tense and aspect.

In (35) above there is no TAM marker on the stative nor on the active verb, but it should be stressed that the language has a tendency for morphological complexity. Both active and stative verbs can combine with an array of TAM suffixes, a selection of which is listed in Table 18.

<table>
<thead>
<tr>
<th>Suffix</th>
<th>Meaning</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>–bia</td>
<td>transformative</td>
<td>has also a purposive meaning ($ § 3.10.1$)</td>
</tr>
<tr>
<td>–bo</td>
<td>progressive</td>
<td>encodes activity that is in progress</td>
</tr>
<tr>
<td>–fa</td>
<td>future</td>
<td>has a speaker-dependent variant –ha</td>
</tr>
<tr>
<td>–ka</td>
<td>perfective</td>
<td>stative verbs and active verbs: subclass II and IV ($ § 3.4.1.1$)</td>
</tr>
<tr>
<td>–koma</td>
<td>ablative</td>
<td>stative verbs and active verbs: subclass II and IV ($ § 3.4.1.1$)</td>
</tr>
<tr>
<td>–li</td>
<td>volition</td>
<td>encodes volition, but not obligation</td>
</tr>
<tr>
<td>–ma</td>
<td>ablative</td>
<td>used with active verbs from subclass I and III only ($ § 3.4.1.1$)</td>
</tr>
<tr>
<td>–na</td>
<td>expected</td>
<td>used when the event is expected from the general context</td>
</tr>
<tr>
<td>–ra</td>
<td>unexpected</td>
<td>used when the event is unexpected from the general context</td>
</tr>
<tr>
<td>–ti</td>
<td>desiderative</td>
<td>the only suffix that can precede the event nominalizer</td>
</tr>
<tr>
<td>–ya</td>
<td>veritative</td>
<td>pertaining to the possibility of something being true</td>
</tr>
</tbody>
</table>

36 The future suffix has two forms –fa and –ha, the distribution of which might have depended on the dialect before. Similar variation exists in lexical items such as yaho/yafó ‘cotton’.
The discussion of the combinatorial possibilities of the TAM suffixes is beyond the scope of this thesis (see also Patte 1998; 2003; 2008; Pet 1987; Baarle et al. 1989). A few important cases are discussed in the following section, in which the subclasses of active verbs are examined.

3.4.1.1 Subclasses of active verbs

Active verbs are split into four subclasses, based on the paradigm of the root-final vowel. The subclasses differ in their general semantic profile, which is relevant to the discussion of motion verbs (§ 10). The subclasses are easily recognizable, for instance, by their nominalized form with the event nominalizer, which is used as the citation form of the verb. The four types of nominalizations are illustrated in Table 19, with four different verbs formed from the same root, namely marhikhotV–, which itself is a combination of marhikho ‘knowledge’ and the verbalizer –tV (see § 3.4.3).

Table 19. Event nominalizations of verbs from four active verb subclasses.

<table>
<thead>
<tr>
<th>Root</th>
<th>Vowel</th>
<th>NML</th>
<th>Nominalization</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>marhikho</td>
<td>-V</td>
<td>-n</td>
<td>marhikhoton</td>
</tr>
<tr>
<td>II</td>
<td>marhikho</td>
<td>-a</td>
<td>-n</td>
<td>marhikhotan</td>
</tr>
<tr>
<td>III</td>
<td>marhikho</td>
<td>-o</td>
<td>-non</td>
<td>marhikhotonon</td>
</tr>
<tr>
<td>IV</td>
<td>marhikhotwa</td>
<td>-wa</td>
<td>-n</td>
<td>marhikhotwan</td>
</tr>
</tbody>
</table>

The underlying vowels of the verbs from subclass I are not predictable. The vowel can be either /i/, /e/, /o/, or /ɨ/, depending on the root. It cannot, however, be the vowel /a/, which is the underlying vowel of verb roots in subclass II only. The underlying vowel of verbs in subclass III is always /o/; such verbs have a special form of the event nominalizer—namely, –non, which distinguishes them from verbs from subclass I that end in /o/, for instance, morodon ‘fly’. The root-final vowel of nominalized verbs from subclass IV is the diphthong /wa/, which is most likely a combination of the /o/ of subclass III and the /a/ of subclass II—a fact reflected in the meaning of such verbs (see below). These vowels are found in the nominalized form, but they change if a TAM suffix is added, according to the specific paradigm of the subclass. These secondary alternations are, however, not relevant to the discussion of landscape terms, and therefore the root-final vowels are not glossed in this thesis. In the case of the empty verb o/a, the changes, however, result in a suppletive form of the verb, and are therefore exemplified below (§ 3.4.2).

The four subclasses of verbs also differ in how the basic inflected form of the verb is formed. Verbs from subclasses I and III can stand unmarked, without any TAM marker. Verbs from subclass I end in this case in the vowel /a/. A few examples appeared above in (33), (34), and (35). In example (36) the transitive verb farun ‘kill’ is used, the object of which is expressed by a nominalization firobêro, a synonym for kama ‘tapir’, which succinctly describes the appearance of the largest mammal of South America.
(36)  *Dafara firobêro.*

\[
\begin{array}{ll}
da & - fara \\
1SG & - kill
\end{array}
\]

\[
\begin{array}{ll}
\text{firo} & \text{be:ro}
\end{array}
\]

In (36), there is no TAM suffix, and the verb ends in the vowel /a/. Such unmarked forms are temporally unspecified, and it is the context that provides the clues necessary to the interpretation of their temporal reference. Most transitive verbs fall into this category, which also includes certain intransitive verbs—notably, ṥsun ‘go’ and andun ‘arrive’.

The unmarked form of the verbs of subclass III, on the other hand, ends in the diphthong /wa/, which is not accidentally identical to the reflexive suffix –wa used on nouns (§ 3.3.3). Verbs from this class often have a reflexive meaning, but importantly the subclass includes also a number of motion verbs, the internal structure of which is not necessarily transparent. Whether semantically transparent or not, all such verbs are glossed as reflexive, which should be understood in terms of their membership in subclass III. The reflexive motion verb *rurukhonon* ‘move oneself’, related to the verb *rurukhun* ‘move (something)’ from example (33) above, is exemplified in (37). The utterance comes from an elicitation session based on the *Event Triads* stimulus, showing a ball moving away from a wooden block (Bohnemeyer, Eisenbeiss, and Narasimhan 2001).

\[
\begin{array}{ll}
\text{Thururukhwa thôya.}
\end{array}
\]

\[
\begin{array}{ll}
t³i & - ririk³wa \\
3F & - move.REFL
\end{array}
\]

\[
\begin{array}{ll}
t³ & - o:ya
\end{array}
\]

\[
\begin{array}{ll}
\text{‘(A ball) moved itself away from (a wooden block).’}
\end{array}
\]

Verbs from subclasses II and IV, on the other hand, cannot stand unmarked. They require a TAM suffix. Verbs of subclass II are either idiosyncratic cases such as *dian* ‘talk’, which has no equivalents in other subclasses, or introversive verbs. Introversive verbs are understood here as verbs expressing events in which the patient is backgrounded, and the activity itself is foregrounded. The introversive verb *faran* ‘fight’ in (38), for instance, is related to the verb *farun* ‘kill’ from (36), which is reflected in the glosses.

(37)  *Thururukhwa thôya.*

\[
\begin{array}{ll}
da & - fara \\
1SG & - kill
\end{array}
\]

\[
\begin{array}{ll}
\text{pe:ro} & \text{oma}
\end{array}
\]

\[
\begin{array}{ll}
dog & \text{COM}
\end{array}
\]

(38)  *Dafarâka péro oma.*
In this case the perfective suffix –ka is employed to encode an activity that is viewed as completed. The perfective form can be seen as an equivalent of the a-form of subclass I and the wa-form of subclass III, when these refer to past events; verbs from these two subclasses cannot combine with the perfective suffix. The backgrounded patient is expressed as an oblique argument with the comitative oma, but such introversive verbs do not necessarily have to be intransitive.

Verbs from subclass IV, in turn, are rare, and often have idiosyncratic meanings. They cannot stand unmarked, and instead combine with the perfective suffix –ka, analogically to the verbs from subclass II. If structurally transparent, as the verb marhikhotwan ‘study’ in Table 19, they combine the features of both reflexive and introversive verbs. The patient is backgrounded, the activity is foregrounded and performed on the subject. This semantic profile is reflected also in their underlying diphthong /wa/, which is a coalescence of the reflexive /o/ typical of subclass III and the introversive /a/ typical of subclass II.

Verbs from subclasses I and III cannot be combined directly with the perfective –ka. They can, however, combine with the perfective suffix, if additional morphology is added first, for instance, the desiderative suffix –ti, the comparative suffix –sabo, and the specificity suffix –ki. Examples of such predicates are numerous in the folktale given in the online Appendix IV. There are thus similarities between subclasses I and III, on the one hand, and subclasses II and IV, on the other. Interestingly, each subgroup also has their own ablative suffix. The verbs from subclass I and III use the ablative –ma, the verbs from subclass II and IV the suffix –koma (see Table 18 above). As evident from Table 19, the examples, and the discussion above, the subclasses defined by their vowel paradigms have different semantic profiles. However, it has to be stressed that there are many idiosyncratic meanings in the lexicon of Lokono verbs. The description presented here should therefore be understood as a generalization, to which exceptions certainly can be found, the discussion of which is beyond the scope of this thesis.

3.4.2 Empty verb o/a

The empty verb is the central element of the predicate in the Posture Construction (§ 3.7). Its function is mainly to relate the subject to a non-verbal predicate, but it is different from the copula found in equative clauses (§ 3.5.3). As opposed to the copula, which is a bare demonstrative form, the empty verb has a number of features typical of active verbs. It has the form of a single vowel o/a, a vowel alternation typical of active verbs. It combines with personal prefixes to encode the subject and the TAM markers. Yet, it is semantically vague; its most semantically fleshed-out realization is as a verb of speech used to report direct speech. In Arawakan literature such verbs are often called empty verbs (e.g., Danielsen 2014), though in other languages they may be often labeled relators or linkers.

There are a number of expressions that trigger the use of the empty verb, most importantly adverbial expressions (§ 3.5.4). As in the case with other active verbs, the root-final vowel changes, depending on the suffix that follows—these changes are not glossed in this thesis. However, since the empty verb is only one vowel long, the verb in fact has two suppletive forms dependent on the following marking, as in demonstrated in (39) and (40) below. Utterance (39) comes from a recording of a
man weaving a kéke, the most common type of basket, worn on the back and carried by a strap wrapped around one’s forehead.

(39)  To di bohada inatunhada no.
      to d'i  b-o-ha=da  ina-ti-n-ha=da=no
     DEM:F  SMLR  2SGa,E.V-FUT=DIRCT bottom-VBZ-NMLZ-FUT=DIRCT=3FB
   ‘Like this you will do, starting it.’

In (39) it is the similarity marker di following the feminine demonstrative to, forming an adverbial phrase of manner that triggers the use of the empty verb. The empty verb is always the carrier of the personal prefixes; here the 2nd person prefix is used to encode the subject. Typically the empty verb is also the carrier of the TAM morphology. When the future suffix –ha is attached to it, the verb assumes the form o. The semantic content of the predicate is expressed by the nominalized derived verb inatun ‘begin’ (lit. ‘make a bottom’) in the example above. Occasionally, however, as in (39), the TAM markers also appear on the nominalized form (§ 3.4.6.4). More importantly, in other contexts, for instance, when there is no suffix following the empty verb, its form changes to a. This is illustrated in (40), which is part of the same recording as (39), and structurally very similar to (39) as well.

(40)  To di ba shikinda no.
      to d'i  b-a  jikí-n=da=no
     DEM:F  SMLR  2SGa,E.V put-NMLZ=DIRCT=3FB
   ‘You put it like this.’

The choice between o and a depends on what suffixes are attached to it (if any). I hypothesize that the vowel changes of the empty verb, and of other active verbs in fact, triggered by the TAM suffixes are diachronically attributable to the realis/irrealis distinction. It is, however, difficult at the moment to find a pattern behind the paradigm, which for other active verbs is much more complex than the o/a substitution. This simplified picture does not give justice to the empty verb morphology. In fact there are at least two empty verbs, the one described here which patterns like a subclass I active verb, and another empty verb patterning like a subclass II verb. Worth noticing too, is the fact that there is small set of adverbs such as din/dian expressing similarity in (40), which also have two different root-final vowel forms, and are probably verbal in origin (cf. dian ‘talk’).

3.4.3 Derived active verbs

Active verbs can be derived from both nouns and verbs. In Table 20, the most important means of deriving active verbs are given. These derivational processes come to the forefront in the discussion of motion verbs (§ 3.10).
Lokono active verbs can be derived from nouns and stative verbs with two verbalizing suffixes –dV and –tV, of which only the former one is productive. Both transitive and intransitive verbs can be derived with the two suffixes. The latter suffix is found in already existing verbs only, such as shikwatun ‘make a house’, derived from the noun shikwa ‘house—POSS’—a suppletive possessed form of bahu ‘house’. Example (41) comes from a personal narrative of an elderly Lokono woman, and illustrates the matrilocality of the Lokono people, which is not as strictly practiced as before.

(41) Derethi shikwata kobada wo da yo kosan.

de–retʃiŋikwa–ta=koba=da=wo da–yo kosã–ŋ
1SG,–husband house.POSS–VBZ=REM.PST=DIRCT=1PLB 1SG,–mother near–LOC.WHR
‘My husband made us a house back then, close to my mother.’

The subject of the transitive verb shikwatun ‘make a house’ is expressed by a full noun phrase derethi ‘my husband’, while the object is expressed by the 1st person plural enclitic. A spatial expression encoding the location of the event comes at the end of the clause. The vowel of the verbalizing suffixes –tV and –dV undergoes the same regressive harmonization as the nominal unpossessed suffix –hV described earlier (§ 3.3.3). Importantly, the final vowel of the verbalizing suffix becomes the root-final vowel of the verb, and therefore undergoes the changes typical of other root-final vowels, and can be used to identify the subclass of the verb. Another example of a derivation with the suffix –tV is the verb inatun ‘begin’ (lit. ‘make a bottom’), given in (39) above.

Active verbs can also be derived from stative verbs with the –dV–tV suffixes, as in (42) with the reflexive verb shokotonon ‘become smaller’, derived from the stative verb shokon ‘small’. The addition of the verbalizing suffix to the stative verb introduces an extra participant—the agent, turning it from a stative verb encoding a state into an active verb encoding an activity performed to reach that state. Example (42) comes form a discussion of the present territory of the Cassipora village, which according to the village chief speaking in (42) has shrunk due to encroachment of the government, logging and mining companies, and other parties. Notice that the postposed subject-denoting noun kabura (lit. ‘fishery’), has a second meaning ‘territory’, which speaks volumes for the importance of water features to the Lokono people.

<table>
<thead>
<tr>
<th>Process</th>
<th>Meaning</th>
<th>Base</th>
<th>Derived verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>–dV–tV</td>
<td>verbalizer</td>
<td>bode ‘hook’</td>
<td>bodedan ‘fish’</td>
</tr>
<tr>
<td>–bo</td>
<td>intensifier</td>
<td>bodedan ‘fish’</td>
<td>bodedâbon ‘fish a lot’</td>
</tr>
<tr>
<td>reduplication</td>
<td>iterative</td>
<td>bodedan ‘fish’</td>
<td>bodebodedan ‘fish repeatedly’</td>
</tr>
<tr>
<td>–kVtV</td>
<td>causative</td>
<td>bodedan ‘fish’</td>
<td>bodedakutun ‘have someone fish’</td>
</tr>
</tbody>
</table>
In (42) the postposed subject is cross-referenced on the verb with the 3rd person prefix. The derived reflexive verb shokotonon ‘shrink’ (subclass III) is related to the transitive verb shokotono ‘make smaller’ (subclass I). Notice that the root-final vowel of the derived verb is the vowel of the verbalizing suffix. The verb is additionally followed by the comparative suffix and the venitive enclitic, which here signal that the process has progressed and is coming to completion (see § 3.10.5 on the uses of the venitive). The verbalizers derive a few motion verbs, such as the reflexive aymuntonon ‘move oneself up’, derived from the stative verb ayomun ‘high’.

The suffix –bo applies to active verbs, the meaning of which it intensifies. Take as an example the verb dûdun ‘jump’, and the verb dûdâbon derived from it. Example (43) comes from a narrative about a trip to the forest, during which the speaker was observing a monkey jumping among tree branches, referred to here as masculine to show affectivity.

In (43) both the main clause and the dependent clause have the structure of an empty verb construction (see § 3.5.4). Zooming in on the (second) dependent clause, I should point out that the speaker decided not to use the simplex motion verb dûdun ‘jump’, which encodes a singular punctual event, nor the simple introversive verb dûdan. Instead he opted for a derived verb dûdâbon ‘jump intensively’, which is an intransitive verb encoding an event of higher intensity. The vowel preceding the intensifier is always a long /aː/, which is also typical of introversive verbs. Most motion verbs can be intensified, enriching the Lokono vocabulary of motion verbs.

A somewhat different result is achieved by reduplicating the root of an active verb. Reduplication of active verbs results in an iterative meaning. In (44), a sentence describing my frequent visits to Suriname, the reduplicated verb moromorodon ‘fly repeatedly’, derived form the root of the verb morodon ‘fly’ appears. For comparison, an intensified verb morodâbon means ‘fly back and forth (like crazy)’.

The suffix is also attested with terms that are not necessarily verbal, for instance, môthia ‘morning’ (cf. môshi ‘tomorrow’), which when intensified môthiâbon means ‘early in the morning’. However, the vowel alternations between môshi and môthia, may suggest that these are in fact originally verbs.
Lumoromoroda Sorhinamanro.

\[ \text{li–moro–moro–da } \text{surţinam–n–ro} \]
\[ 3\text{MA–itr–fly–vBZ } \text{Suriname–loc.WHR–atl} \]
‘He keeps flying to Suriname.’

Notice that reduplication is accompanied by the attachment of the verbalizer \(–\text{dV} \). This is more conspicuous when we look at verbs such as ôsun ‘go’, which do not contain the verbalizing \(–\text{dV} \) suffix in the first place, as opposed to morodon—a synchronically unanalyzable, but clearly derived verb. The reduplicated form of ôsun ‘go’ is ôsosâdun ‘go repeatedly’. The goal of motion in (44) is marked by an atelic marker \(–\text{ro} \), normally signaling that the goal is not reached (see §3.6.3.3). Here, it is rather echoing the meaning of the verb, which necessitates that the referent of the subject does not remain at the location. Reduplication is a productive process, further complementing the motion lexicon.

Finally, Lokono also has a causative suffix \(–\text{kVtV} \), which can be attached to active verbs to derive causative verbs, thereby introducing yet another participant: the causer. The vowels of the suffix \(–\text{kVtV} \) undergo the same regressive harmonization described earlier. Example (45) comes from a description of a stimulus from the Put project, showing a woman throwing stones on the ground (Bowerman et al. 2004).

\[ \text{Thutikidikita shiba horhorho bana.} \]
\[ t\text{i–tikidi–kiyta fiba hororo } \text{bana} \]
\[ 3\text{FA–fall–caus stone landform surface} \]
‘She let the stone fall to the ground.’

The verb used in (45) is tikidikitin ‘let fall, cause to fall’, a form derived form the verb tikidin ‘fall’. The subject is expressed by the prefix attached to the verb. If there is a causee and there is a need to express it linguistically, it is typically marked by the dative mun (see §3.3.6.1 above). The causative derivation is a productive derivational process, which yields a number of verbs, including verbs of caused motion.

### 3.4.4 Derived stative verbs

Stative verbs can be derived from nouns with the attributive or the privative prefix, resulting in verbs meaning, respectively, possessing or lacking the entity encoded by the noun. The attributive prefix ka– and the privative prefix ma– are possibly related to the expletive prefixes k– and m– discussed earlier (§3.2.2). Interestingly, Lokono also has an active verb âmunin ‘have’, which is in fact a phonologically reduced locative expression omamun, consisting of the comitative oma and the directionality marker mun. The different historical origin of the two ways of expressing possession, with the prefixes or with the verb, explains the observed semantic difference. The attributive and privative prefixes are typically used to express permanent possession or part-whole relations, while the latter is used for temporary
possessions, and could be translated as ‘have on oneself’ or ‘in one’s proximity’—a meaning clearly related to the comitative semantics.\(^{38}\) The affixal strategy is exemplified in (46), taken from the instructional narrative about planting the calabash tree. Here the complex verb *katokorhon* ‘have flowers’ derived form the noun *tokorho* ‘flower’ is employed.

(46) \textit{Katokorhokada no.}
\text{ka–tokorho–ka=a>da=no}
\text{\textit{ATR–flower–PFV=D\textsc{direct}=3\textsc{f}}}
‘It has flowers.’

If the noun is an inalienable noun such as *tokorho* ‘flower’, there is no possessive marking following it. If it is an alienable noun, the appropriate possessive suffix is required. If it is a noun with an irregular or suppletive possessed form, it is this form that has to be used. This is exemplified with the privative prefix in example (47), taken from a traditional story about a man who lived on his own without a wife, and therefore had no cassava.

(47) \textit{Makhaleka tha sabo dei.}
\text{ma–khale–ka=t>ha=sabo=dei}
\text{\textit{PR–bitter.cassava.Poss–PFV=\textsc{report}=3\textsc{mas}}}  
‘He had no bitter cassava anymore, it is said.’

In (47), the noun *khali* ‘bitter cassava’ appears in its possessed form *khale*, prefixed with the privative *ma–*, forming a stative verb *makhalen* ‘lack bitter cassava’. The perfective suffix –*ka* is used, followed by an evidential enclitic =*th*a, signaling that this information is based on hearsay (see also example (23) above). The enclitic =*sabo* encodes the comparative degree, while the subject is expressed by the 3\(^{rd}\) person masculine enclitic.

#### 3.4.5 Negation with the privative prefix *ma–*

Negation in Lokono can be expressed either by the negative particles *kho* and *khoro*, or by the privative prefix; the differences between the two types of negation are discussed in other publications (Patte 2014). I focus here therefore on the privative prefix only, which is of importance to the discussion of motion verbs (§ 10).

The privative prefix can be attached to both active and stative verbs to form a verb with a negative meaning. Such negative stative verbs do not differ in any other

\footnote{\textsuperscript{38} This division of labor between the two strategies of encoding possession is today blurred by language contact with Dutch and Sranantongo, which conflate the two types of meanings in one verbal form. In Lokono the verb *âmunin* ‘have’ therefore is spreading to domains previously dominated by the prefixes. In the text given in the online Appendix IV, for instance, family relations are expressed with the verb *âmunin*, while typically here Lokono used to employ the prefixes.}
respect from typical stative verbs, and the negative stative verbs derived from nouns discussed above. The subject is expressed by personal enclitics, and the usual TAM markers appear, as in (48) below with the verb *masemen* 'not tasty,' derived from the verb *semen* 'tasty'.

(48)  *Masemekada no.*

\[
\text{ma–seme–ka=da=no} \\
\text{PRV–tasty–PFV=DRTCT=3G} \\
\text{‘It is not tasty.’}
\]

In the case of active verbs, on the other hand, the privative prefix fills in the prefix slot, which is normally occupied by the personal prefix encoding the subject. In such cases a special construction is required with the empty verb *o/a* to form a complete predicate. The empty verb bears the person-marking and the TAM suffixes, while the content verb combines with the privative prefix and an event nominalizer forming a privative nominalization. Example (49) comes from a conversation about hunting and speaks volumes for how the distance covered by hunters diminishes with age, a factor that may explain the proximity of the ecotopic patches mapped with the elderly speakers in Cassipora (see chapter 5).

(49)  *Môsun da tàdi sabo.*

\[
\text{m–o:sì–n d–a taː–dì=sabo} \\
\text{PRV–go–NMLZ 1SG–E.V  far–VIA=CMPR} \\
\text{‘I don’t go far anymore.’}
\]

In (49), the content verb *ôsun* ‘go’ is prefixed with the privative prefix, while the empty verb is prefixed with the 1st person prefix encoding the subject. Empty verb clauses such as the one given in (49) are discussed in more detail below (§ 3.5.4).

3.4.6 Nominalizations

Lokono makes extensive use of specialized nominalizers, listed together with gender markers and relativizers in Table 21. Nominalizations can function as typical nominal expressions, although some of them have specialized uses, for instance, as complements of complement-taking predicates and as adverbial dependent clauses. The gender markers discussed earlier and relativizers, in turn, when attached to verbs form modifiers analogous to adjectives or relative clauses (§ 3.5.5). These forms too can function as stand-alone nominals.
For the ensuing discussion of spatial language and landscape terms, a selection of the suffixes listed in Table 21 requires further elaboration. The event nominalizer –n and its reflexive equivalent –non, which are particularly frequent in Lokono discourse, play an important role in a number of following sections. The relativizers are central to the discussion of the Locative Equation (§ 3.8). Both event nominalizations and verbs marked with relativizers are also employed as a minor strategy for coining landform terms (chapter 4). Event nominalizations and, more importantly, the locative nominalizer –nale, and the gender markers, whether encoding specificity or not, feature prominently in the discussion of place names (chapter 6).

### 3.4.6.1 Gender morphology on verbs

The four gender markers, listed in Table 22, were discussed earlier in the sections on gender and definiteness in the nominal domain (§§ 3.3.1 and 3.3.4, respectively). However, they can also be attached to verbs, forming nominalizations differing in gender and specificity. Such forms are frequently attested in the corpus of place names (chapter 6).

![](image)

<table>
<thead>
<tr>
<th>Specificity</th>
<th>Masculine</th>
<th>Feminine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unspecific</td>
<td>–li</td>
<td>–ro</td>
</tr>
<tr>
<td>Specific</td>
<td>–kili</td>
<td>–ro</td>
</tr>
</tbody>
</table>

The gender marker –li and –ro attach to nouns forming nominalizations encoding the subject of the verb. Such nominalizations can be derived from both active verbs
(encoding activities) and stative verbs (encoding states). They differ from agent nominalizations in –rhin, which do not apply to stative verbs, and derive terms for people professionally engaged in an activity. A nominalization derived with the masculine gender marker –li is given in (50), from the story in the online Appendix IV, in which it is used as a description of one of the main protagonists who is a hard-working young man.

\[(50)\]  
\[\text{Li ôsôsâdali mòthìâbórọ mali ôsun [...]}\]  
\[\text{DEM: MTR \text{go-VBZ-M} m-a-li o:si-ŋ} \]  
\[\text{go-NMLZ} \]  
\[\text{\text{The one who goes repeatedly must go only early in the morning [...].}}\]

Fragment (50) has the structure of an empty verb clause, triggered by the restrictive suffix –ro, which derives adverbs with the meaning ‘only’ (§ 3.5.4). Since the subject is preposed to the predicate, the expletive prefix m– appears on the empty verb, which in turn is followed by the content verb ôsun ‘go’. The preposed subject is expressed by a masculine nominalization of the verb ôsosâdun ‘go repeatedly’, meaning ‘man who goes repeatedly’, modified by the masculine demonstrative li.

Example (51), in turn, demonstrates the use of the feminine gender marker –ro with a stative verb. The utterance comes from an elicitation of motion verbs, with the help of the Event Triads stimulus, and describes a scene in which a ball enters an enclosure (Bohnemeyer, Eisenbeiss, and Narasimhan 2001).

\[(51)\]  
\[\text{Thokodwa tora balalaro tholokonro.} \]  
\[\text{DEM: F \text{enter.containment.REFL} to-ra balala-ro t\text{ô-lokō-n-ro} \]  
\[\text{3F_A-enter.containment.REFL DEM:F-MED round-F 3F_A-inside-LOC.WHR-ATL} \]  
\[\text{\text{\text{That ball (lit. the round feminine) entered toward the inside of it.}}}\]

The subject of the reflexive verb kodonon ‘enter containment’ is expressed in (51) by the nominalized stative verb balala ‘round’. Since the referent is an inanimate entity, the feminine gender marker is used, and the modifying demonstrative agrees in gender. The subject is also cross-referenced on the verb with the 3rd person feminine prefix. The locative expression that follows at the end encodes the goal of motion, which is here treated as atelic to express ‘toward’. Just like the gender markers, the specificity suffixes can also be attached to verbs, deriving nominalizations. In the case of the specificity markers, however, the nominalization has a specific referent. The nominalization balalakoro ‘specific round object’, for instance, would be used if the speaker has a specific round object in mind, and wants to foreground this information.

3.4.6.2 Relativizers

Relativizers typically attach to verbs, both active and stative, forming equivalents of relative clauses, although they have also been found on nouns (§ 3.5.5). The combination of a verb and a relativizer can also function as nominals on their own, and as such play an important role in the Locative Equation (§ 3.8). The choice of
the relativizer depends on two other factors. First, the question is whether it is the subject or the object of the verb marked with a relativizer that is coreferential with the noun relativized noun. In the latter case the object relativizer is used—namely, the suffix –tho, which has a speaker-dependent variant –sha. Naturally, object relativizers are only found on transitive verbs. Nominals derived with the object relativizer are inalienably possessed—the subject has to be expressed either by a prefix on the verb or by a full noun phrase preceding the nominal. Example (52) is one of the typical opening sentences of a Lokono folktale, speaking volumes for the oral aspect of Lokono culture.

(52) *Dathimi åkasha to, ani, udiahu.*

\[ \begin{align*}
\text{da–tʃi–mi} & \quad \text{a:ka–ʃa} \\
\text{SG} & \quad \text{DEAD} \\
\text{father} & \quad \text{tell} \\
& \quad \text{OBJ, REL} \\
\text{DEM} & \quad \text{DEM} \\
\text{FEM} & \quad \text{FEM} \\
\text{EXPL, talk} & \quad \text{ABST, NMLZ}
\end{align*} \]

‘The story is what my late father, um, told me.’

Example (52) is a verbless equative clause with the (first) feminine demonstrative functioning as a copula. The argument is expressed by the noun phrase to udiahu, with the second feminine demonstrative to modifying the abstract nominalization udiahu, containing the obsolete expletive prefix \( V^– \). The predicate is expressed in turn by the verb åkan ‘tell’ nominalized with the object relativizer; the form åkasha means therefore literally ‘what is said’. The possessor of the nominalization is expressed by the full noun phrase dathimi—an inalienable noun ithi ‘father’ combined with the 1st person possessor and a suffix meaning ‘deceased’.

If, on the other hand, it is the subject of the verb marked with a relativizer that is coreferential with the relativized noun, the gender of the relativized noun determines whether the masculine relativizer –thi or the feminine relativizer –tho is used. Subject relativizers are found on both active verbs (transitive and intransitive), and stative verbs. The relativizers have also been attested on nouns denoting materials, for instance shiba ‘stone’, ada ‘wood’, and event nominalizations. All such forms can also function as stand-alone nominals, and are in fact frequently used as such. Typical examples are the terms for members of particular age groups, such as thoyothi ‘elderly man’ and thoyotho ‘elderly woman’, both derived from the stative verb thoyon ‘elderly’. As pointed out by Pet (1987:44), the forms marked by the relativizers form a continuum from relative clauses to lexicalized items that are no longer transparent to the speakers. The last group is best exemplified by the Lokono kinship terminology, with many of the male kinship terms ending in the relativizing suffix –thi, and many of the female counterparts ending in –tho, for instance, rethi ‘husband’ and retho ‘wife’, respectively. The following example, in turn, contains two ad hoc forms that are not lexicalized. Utterance (53) is another opening sentence of a traditional story, directly addressing the listeners and the viewers of the recording that was being made.

(53) *Kanabakanabâkwanthi of dukhuthi, dei to Purci.*

\[ \begin{align*}
\text{kanaba–kanaba:–kwa–n–tʃi} & \quad \text{of dikʰ–tʃi} \\
\text{ITR, hear, INTRV, CONT, NMLZ} & \quad \text{SBJ, REL} \\
\text{M} & \quad \text{or see–SBJ, REL} \\
\text{M} & \quad \text{1SG} \\
\text{DEM} & \quad \text{FEM}
\end{align*} \]

‘Listeners and viewers, I am Purci.’
In (53) the masculine relativizer is first attached to the reduplicated introversive verb *kanaban*, meaning ‘listen’, suffixed with the adverbializer –*kwa*, and an event nominalizer –*n*. Subsequently, it appears on the verb *dukhun* ‘see’. Both nominalizations function as terms of address to the prospective audience of the recordings, and are followed by an equative clause, in which the speaker introduces himself. Finally, it is important to point out that the nominalizations derived with the relativizers readily attach TAM markers. This is typically the case when they are used as an argument in an equative clause or as relative clauses (relevant examples are given in §§ 3.5.3 and 3.5.5, respectively).

3.4.6.3 Locative nominalization

The locative nominalizer –*nale* is found in a number of place names (chapter 6). Its history and morphological make-up are somewhat complex. The second syllable of the morpheme is likely linked to other forms such as –*kole*, a suffix expressing habitual aspect. More interestingly, the shortest attested nale-term is *munale* meaning ‘a person’s designated place in the house’ (i.e. for hanging a hammock). This form is most likely a combination of the directionality marker *mun* expressing static location, which today is reduced to –*n*, and the habitual –*le*. The vowel /a/ in the suffix –*nale* might have been part of the expression from the start, functioning as an epenthetic vowel, since the combination /nl/ is not allowed in Lokono. It appears thus that the suffix –*nale* is originally a combination of the directionality marker, encoding location, and the habitual suffix, which supports its semantic content today.

Furthermore, the dictionary of the Western dialect spoken in Guyana contains a number of forms in –*nale* (Bennett 1989). The author of the dictionary treats –*nale* as a noun meaning ‘place’, and often writes such expressions as two words, for instance, *biran nale* ‘play ground’, including the event nominalization *biran* ‘play, playing’. Such terms are always a combination of a nominal (a nominalization or a simplex noun) and the term *nale*. This again corroborates the analysis that the suffix –*nale* originates in the locative element *mun*, which indeed is nominal in origin and is related to the free dative form *mun* (§ 3.6.3.2). A number of *nale*-forms extracted from Bennet’s (1989) dictionary are given in Table 23.
The data suggest that the form _nale_ was in fact a combination of the location marker _mun_ with the habitual marker _–le_, which, combined with a nominal, most likely formed a locative expression enhanced with habitual semantics. The nominals used in such forms indicated a location where an activity (encoded by nominalizations) usually took place, or where an entity (encoded by other types of nominals, e.g., _tika_ ‘shit’) was usually found. I believe that, since nominalizations were the most frequent input for this derivation, the suffix was reanalyzed as a verbal suffix, and the geminate nasal (e.g., _birannale_ ‘playground’) was reduced to a single instantiation of an _/n_/.

The reanalysis hypothesis is further corroborated by the aberrant behavior of _nale_-derivations with the directionality marker. Examples from van Baarle et al. (1989) suggest that such derivations can be unmarked when encoding the location of an event, similarly to configurational nouns (e.g., _loko_ ‘inside’).

(54)  To hadali lamadan, dadukha Loes thoyokharan nale.

In (54) the form _thoyokharan nale_ functions as an adverbial expression of location, yet there is no location marker _–n_. This could be a feature of the idiolect of van Baarle’s informant. However, if the reanalysis hypothesis is true, such behavior is not surprising. If indeed from a diachronic perspective the suffix _–nale_ contains the directionality marker _mun_, there may have been no reason to express it again. In my corpus, however, _nale_-derivations appear with the directionality marker _mun_, when used to encode location of an event. This may be a signal that such forms have

<table>
<thead>
<tr>
<th>Nale-term</th>
<th>Base</th>
<th>Base meaning</th>
<th>Meaning of the <em>nale</em>-term</th>
</tr>
</thead>
<tbody>
<tr>
<td>balutadan nale</td>
<td>balutadan</td>
<td>sit together</td>
<td>room, a sitting area, living room</td>
</tr>
<tr>
<td>biran nale</td>
<td>biran</td>
<td>play</td>
<td>playground, football field</td>
</tr>
<tr>
<td>bokan nale</td>
<td>bokan</td>
<td>cook</td>
<td>cooking shed, kitchen</td>
</tr>
<tr>
<td>dukhushanale</td>
<td>dukhushan</td>
<td>peep</td>
<td>observatory, lurking place</td>
</tr>
<tr>
<td>yokaran nale</td>
<td>yokaran</td>
<td>sell</td>
<td>market</td>
</tr>
<tr>
<td>yokhan nale</td>
<td>yokhan</td>
<td>hunt</td>
<td>hunting ground</td>
</tr>
<tr>
<td>yorokan nale</td>
<td>yorokan</td>
<td>pull</td>
<td>portage</td>
</tr>
<tr>
<td>kan nale</td>
<td>kan</td>
<td>bathe</td>
<td>swimming place</td>
</tr>
<tr>
<td>karatan nale</td>
<td>karatan</td>
<td>burry</td>
<td>burial ground</td>
</tr>
<tr>
<td>khoton nale</td>
<td>khoton</td>
<td>eat</td>
<td>dining room</td>
</tr>
<tr>
<td>khoton nale</td>
<td>khoton</td>
<td>eat</td>
<td>pantry</td>
</tr>
<tr>
<td>marhikhonale</td>
<td>marhikhon</td>
<td>teach</td>
<td>school, classroom</td>
</tr>
<tr>
<td>sokosan nale</td>
<td>sokosan</td>
<td>wash</td>
<td>place where clothes are washed</td>
</tr>
<tr>
<td>thokodanale</td>
<td>thokodon</td>
<td>descend</td>
<td>bus stop or airport</td>
</tr>
<tr>
<td>thun nale</td>
<td>thun</td>
<td>drink</td>
<td>café, bar</td>
</tr>
<tr>
<td>tika nale</td>
<td>tika</td>
<td>shit</td>
<td>toilet</td>
</tr>
<tr>
<td>tikahan nale</td>
<td>tikahan</td>
<td>drown</td>
<td>place where people drown</td>
</tr>
<tr>
<td>timan nale</td>
<td>timan</td>
<td>cross</td>
<td>bridge</td>
</tr>
</tbody>
</table>

This afternoon, I saw Loes at the market.’ (Baarle et al. 1989:53)
become lexicalized, and that the fossilized marker is no longer transparent to the speakers.

Finally, it is important to notice that such nominalizations are inalienably possessed, and that they typically combine with active verbs of subclass II—that is, the verbs, the citation form of which ends in –an (see Table 23). The choice of the verb is probably not accidental since subclass II verbs are typically introversive, foregrounding the activity, and it is the activity that lies at the core of the semantics of the nale-derivations. The inalienable possession paradigm, in turn, is demonstrated in (55), which comes from the description of the ecotope mokorowkarö ‘a patch of mokoro reed (Ischnosiphon sp.)’ (see chapter 5).

(55) Nayokhanale kida to yahadi.
    na–yokh–nale   kida to ya–ha–d‘i
    3PL.–shooINTRV.–LOC.NMLZ too DEM:F LOC.DEM–PRX–VIA
    ‘This area around here is (the ancestors’) hunting ground as well.’

In (55), the locative nominalization yokhanale ‘hunting ground’ appears with the 3rd person plural prefix, but there is no possessive marker, a pattern symptomatic of inalienable nouns. Interestingly, the 3rd person prefix used here can only refer to Lokono people, and it is regularly found in certain types of place names, where it encodes the ancestors of the Lokono people living in the villages today—a topic taken up in the chapter on place names (chapter 6). The 3rd person feminine prefix thu– would be used instead to express other ethnic groups.

3.4.6.4 Event nominalization

The event nominalizer –n, and its reflexive equivalent –non, are particularly frequent in Lokono grammar. The nominalized form of the verb is first of all used as the citation form of the verb, both by the speakers and by linguists (e.g., ôsun ‘go’). Such nominalized forms are also used as a complementation strategy, and in a number of dependent adverbial clauses, including locative adverbial clauses (see § 3.11.2). Event nominalizations also play a role in the Posture Construction (§ 3.7), and in the domain of landforms and place names (chapter 4 and 6, respectively).

If not used as a citation form, event nominalizations always require a possessor; they can therefore be grouped together with other inalienable nouns. Interestingly, however, they retain many of their verbal features. They can, for instance, be suffixed with most of the TAM markers typically found on verbs, such as the abilitative suffix –ma in (56) below. I exemplify the use of event nominalizations in a clause with the verb ithin ‘know’, which shows how they function with complement-taking predicates. Example (56) is a fragment from the traditional story in the online Appendix IV. The verb ithin ‘know’ is a transitive verb, and requires

39 However, not all adverbial clauses require the nominalized form with the event nominalizer, an important exception being the conditional clause, which employs the conditional suffix –harukha.
an object, normally encoded by a noun or personal enclitic. In (56), however, it is an event nominalization that takes the place of the object.

(56)  Deitha budukhunima dei khona kiba.
  d–eit³a   bi–ðik⁵i–n–i–ma   dei  kʰona   kiba
  1SG–know  2SG–see–NMLZ–EP–ABIL.I  1SG about too
‘I know that you can take care of me too.’

In (56) the object of the verb ihtin ‘know’ is the complex nominalization budukhunima, literally meaning ‘your ability in care-taking’. The possessor of the nominalization is expressed by the 2nd person prefix attached to it, and encodes the agent in the activity. The abilitative suffix appears following an epenthetic vowel. It is worth mentioning that the event nominalizer used as a complementation strategy or as a marker of dependent clauses is sometimes omitted. Instead, paratactic clauses are used without any marking of dependency, which may be symptomatic of language attrition.
3.5 Clause structure

In Lokono there are four types of main clauses. Active clauses are used to express events lexicalized by active verbs, while stative clauses are required with stative verbs (§§ 3.5.1 and 3.5.2, respectively). The third option is a verbless equative clause that has both identificational and descriptive uses (§ 3.5.3). Finally, there is a special case of active clauses—namely, clauses in which the main verb is the empty verb o/a (§ 3.5.4). Dependent clauses, on the other hand, can be grouped into relative clauses (§ 3.5.5), identifiable by the presence of one of the three relativizers, adverbial clauses typically containing an event nominalization (§ 3.5.6), and complement clauses. The last type is not discussed in this thesis, as its role in the grammar of space is negligible.

All six types play a role in spatial language, and the encoding of landscape terms. Active clauses are central to the expression of motion events (§ 10). Stative clauses provide the morphosyntactic frame for the Basic Locative Construction (§ 3.6). The analysis of equative clauses is necessary to the description of the Locative Equation and its functional limits (§ 3.8). The Posture Construction, in turn, used when posture is informationally salient, has the form of an empty verb clause (§ 3.7). In addition, relative clauses play a minor role in the encoding of landforms (§ 4.5.1.3), while adverbial clauses provide the important context for adverbial clauses of location (§ 3.11.2).

3.5.1 Active clauses

Since this thesis focuses on landscape and active verbs play only a marginal role in this domain, active clauses are not focal to the analysis presented in the following chapters. The structure of the active clause is, however, important to the proper understanding of motion verbs and many examples given in the thesis. Active verbs denote actions, or are transitive verbs, and are characterized by the possibility of expressing the subject with a personal prefix (A-class), and the object with a personal enclitic (B-class), if transitive. Instead of the prefixes a full noun phrase or a free pronoun can be used to encode both the subject and the object of the verb. The prefixes are preferred in unmarked discourse. Full noun phrases tend to introduce new subjects and objects, and free pronouns are used mostly for topicalization.

The prefixes do not normally have a cross-referencing function (within a clause), but if the subject is postposed to the predicate, the prefix is still obligatory on the verb. In other words, some expression of the subject always has to precede the predicate. This is exemplified in (57), where an intransitive active verb is used.

(57) Lôda koba, li wathimi koba.
1-o::da=koba li wa-tʃi–mi=koba
3M–die=REM.PST DEM:M 1PL–father–DEAD=REM.PST
‘He died long time ago, our late father.’

In (57) the active intransitive verb ôdon ‘die’ is prefixed with the 3rd person masculine prefix, coreferential with the postposed noun phrase li wathimi koba. The postposed subject phrase contains the suffix –mi, meaning deceased, and a distant
past enclitic =koba functioning here as a nominal temporal marker. The prefixes are, however, ungrammatical if a full noun phrase or a personal pronoun precedes the predicate. This is evidenced by example (58), which comes from a story in the online Appendix IV about two men competing for the hand of a young woman. The mother of the young woman wants to inspect their fields, but she will only do so once they have finished clearing the field.

(58)  [...] dei kho dukhuhathe alika ha nekhebon!
       dei=k’o  dihk’i–ha=t’e  alika  h–a  nek’hëb–ŋ
       1SG=NEG  see–FUT=VEN how  2PLA–E,V  work–NLMZ

’[...] I will not come look how you work! (i.e. before you finish)’

In the main clause of (58) the 1st person pronoun dei encodes the subject, and therefore there is no personal prefix on the verb itself. The predicate consists of the verb dukhun ‘see’, suffixed with the future marker, and a marker of associated motion =the, signaling motion toward the deictic center—in this case the place where the two interlocutors will be working (§ 3.10.5).

The same restriction applies to the use of personal enclitics, as shown in (59), which comes from the same story, and is uttered by one of the prospective sons-in-law, addressing the mother.

(59)  Danshika bî, damukuthuwa kiba.
       d–ânjî–ka  bi:  da–mikît’i–wa=kiba
       1SGA–love–PFV  2SG  1SGA–mother.in.law–REFL=too

‘I love you too, my mother-in-law.’

In (59), the 2nd person pronoun bî encodes the object of the transitive verb anshin ‘love’. The pronoun bî is used instead of the personal enclitic =bo for emphatic effect—the speaker stresses that he loves his (prospective) mother-in-law as well, irrespective of the circumstances. The object is also expressed by a postposed kinship term, specifying whom the speaker addresses.

It is important to notice, however, that if the object of the verb is preposed to the predicate, it is not cross-referenced by a personal enclitic following the verb. Example (60) comes from the same story as (59); here the prospective son-in-law addresses the daughter of the elderly woman.

(60)  Bi danshika.
       bi:  d–ânjî–ka
       2SG  1SGA–love–PFV

‘You, I love.’

In (60) a prepposed free pronoun encodes the object—the topicalization and fronting of the object, compared to similar expressions of love in the story, such as (59) above, render this utterance particularly powerful. It is the love toward the daughter that really is at stake. Morphosyntactically, it is noteworthy that there is no personal enclitic following the verb. In conclusion, the subject and object of active verbs can only be expressed once within the clause. The former always has to be expressed
preceding the verb, but the latter can appear either before or after the predicate. Additional postposed appositional subject and object expressions are used to provide more information about the subject.

3.5.2 Stative clauses

Stative clauses are central to the topic of this thesis, since the Lokono Basic Locative Construction has the morphosyntactic structure of a stative clause (§ 3.6). The predicate in stative clauses is a stative predicate, usually a stative verb—that is, an intransitive verb encoding a state. In previous sections, I have identified stative verbs as those that can encode the subject with personal enclitics (B-class), as opposed to active intransitive verbs that combine with personal prefixes (A-class). Stative verbs, apart from a few idiosyncratic cases, require a TAM suffix to form a complete predicate. The perfective marker is quite frequent in such clauses, and semantically most unmarked, but a number of other TAM suffixes can be used. These are the same suffixes that are used with active verbs (see Table 18 above). As opposed to active verbs, however, stative verbs can also combine with the collective suffix –be, typically found on nouns. This is exemplified in (61), in which an elderly woman is speaking about her children.

(61) Thoyobekathe ye.
    t’oyo–be–ka=t’e=ye
    elderly–COL.–PFV=VEN=3PLBJ

‘They have all become almost elderly.’

In (61), the stative verb thoyon ‘elderly’ is first combined with the collective –be, before the perfective suffix is attached. Subsequently comes the venitive enclitic, which signals that the process is almost achieved. This morphological nuance is interesting in the light of the fact that stative clauses may be formed not only by stative verbs, but also by nouns, provided that the right pragmatic context is given. Example (62) comes form a landform elicitation session, during which the participants described photos of landforms. The participant hesitated how to call a mountain in Lokono, and concluded with the following utterance.

(62) Bergikoma no.
    bergi–koma=no
    mountain–ABIL.2=3FB

‘It can be a mountain.’

In (62), the landform term bergi ‘mountain’—an ad hoc borrowing from Sranantongo (ultimately from Dutch berg ‘mountain’)—is followed by the abilitative suffix –koma, forming a complex predicate. The predicate has the structure of a stative clause, since the subject is expressed by the 3rd person enclitic. A similar example comes from a narrative about baking khal ‘cassava bread’ from the flour extracted from the tuber (also called khal).
Khalibiakada, bikhada no.
k’ali–bia–ka=da bi–ki–ha=da=no
bitter.cassava–TRNSF–PFV=DIRECT 2SGA–eat–FUT=DIRECT=3F
‘When (it) becomes cassava bread, you will eat it.’

Example (63) is interesting not only because the stative predicate is formed by a noun, followed by the transformative suffix –bia, and the perfective suffix –ka, but also because it shows that the active/stative alignment applies across clauses. The subject of the first stative predicate is coreferential with the object of the transitive verb in the second clause. The speaker expresses it therefore only once at the end of the whole sequence.

The subject of a stative clause need not be expressed by a personal enclitic—a full noun phrase or a pronoun can be used instead, under the pragmatic circumstances described above for active verbs. According to Pet (1987), if such a noun phrase were preposed with respect to the stative predicate, an enclitic coreferential with the noun phrase would still be used following the predicate. This is no longer the case in Lokono, as demonstrated by example (64), taken from the story in the online Appendix IV, in which it is part of the explanation of the origin of the ebb and flow of the sea.

Kia lokoda to kashirida oniabobiakate.
kia loko=da to kaširi=da uŋiabo–bia–ka=tˈe
DSC inside=DIRECT DEM:F cassiri=DIRECT water–TRNSF–PFV=VEN
‘In the meantime the cassava drink finally became water.’

In (64), following the sentence connective kia lokoda, with the discourse marker kia, comes the noun phrase to kashirida, the subject of a complex stative predicate. The predicate consists of the noun oniabo ‘water’, followed by the transformative suffix –bia, the perfective suffix –ka, and the venitive enclitic =the, which signals that the state has been almost accomplished. The subject is preposed, but there is no coreferential enclitic following the verb. The same rule applies to free pronouns, as shown in a structurally similar example (65), which comes from a life story of a speaker who plays the role of a medicine-man during performances of a Lokono dance group.

Olo nōsun, da dei semethibiaka.
olo n–o:sīŋ da dei seme–tʃi–bia–ka
where 3PLA–go–NMLZ then 1SG tasty–SBJ.REL:M–TRNSF–PFV
‘Where (the dance group) go (to perform), I turn into a medicine-man’

In (65) following the dependent locative clause comes the main stative clause, the subject of which is expressed by a 1st person singular free pronoun dei, preposed with respect to the predicate. The predicate, in turn, consists of the stative verb semen ‘tasty’ marked by the masculine relativizer –thi, meaning literally ‘the tasty masculine one’, but conventionally translated as ‘medicine-man’, followed by the transformative suffix –bia, and the perfective suffix –ka. Needless to say, if a full
noun phrase encoding the subject follows the predicate, the enclitics are not used either, unless, of course, the noun phrase is in apposition to the personal enclitic, and serves merely to provide more information about the subject. In conclusion, the subject in stative clauses can only be expressed once within the clause, whether following the predicate in an unmarked clause or preceding the predicate for topicalization.

3.5.3 Equative clauses

The Basic Locative Construction is a stative clause, typically employing the perfective marker –ka, though other markers are also attested in less typical scenarios (§ 3.6). However, if a spatial relation is viewed as permanent, the Basic Locative Construction is not felicitous, and a Locative Equation is employed instead (§ 3.8). This construction has the form of an equative clause. In equative clauses two nominal expressions, one of which functions as the predicate and the other as its argument, are juxtaposed. The predicative element expressing new information can precede its argument as in (66).

(66) Fodi toho.
    
    fuːdi to–ho
    monkey DEM–PRX

    ‘This here is a tufted capuchin (Cebus apella).’

In (66) the proximal feminine demonstrative toho is the argument, about which identity as a fodi (Cebus apella) is predicated. The two nominals agree in gender, in this case the feminine gender, and number in the case of human-denoting nouns that encode number. A deictically unmarked demonstrative (masculine li or feminine to) can be optionally added between the predicate and the argument to function as a copula in such clauses. The copula typically agrees in gender with the argument, but today it seems that the feminine copula to is increasingly being used in all cases, irrespective of gender agreement.

Alternatively, the order of the predicate and the argument can be reversed. The two structures, one in which the predicate precedes, and one in which it follows the argument, are contrasted below in an extract from Patte (2003). The difference is pragmatic in nature—if the argument precedes the predicate it is topocalized.

(67) [A₁]: Hama biri?
    
    hama b–iːri
    what 2SGA–name

    ‘What’s your name?’

[B₁]: Lucy Smith dīri.
    
    lusi smiθ d–iːri
    Lucy Smith 1SGA–name

    ‘Lucy Smith (is my name).’
[A]: Hama bi iri?
    hama   bi:      i:ri
what  2SG name

‘What’s your name?’ (emphasis by the present author)

[B]: Diri, Deborah.
    d–i:ri    debora
1SG–name Deborah
‘My name is Deborah.’ (Patte 2003:102)

The first question [A] is a pragmatically unmarked way of asking about a person’s identity—it follows the first structure with the predicate preceding its argument. The reply [B] is a neutral way of answering the question, echoing the pattern with the predicate preceding the argument. The second question [A] differs in the use of the free pronoun instead of the person prefix, which signals a shift of attention to the other speech participant. The following answer [B] makes use of the inverted structure with the argument preceding the predicate, topicalizing the argument.

Irrespective of the order of the predicate and the argument, such equative structures are employed to identify the referent, or have a more descriptive function, particularly if both the predicate and the argument are morphologically complex. Utterance (68) is another example of such a clause, illustrating the use of nominalizations formed with the relativizing suffixes to attribute a feature to the entity expressed by the argument.

(68)  Ken kia hiyaro, bikidoliatho tora.
    k’ẽŋ kia    hiyaro  bikido–lia–tʰo   to–ra

‘And this girl, she was a young (lady).’

In (68) the complex nominalization bikidoliatho ‘young lady’ functions as the predicate. It consists of the reflexive verb bikidonon ‘raise oneself, grow’, suffixed with an inchoative suffix –lia, and the feminine relativizer –tho. The literal meaning of this nominal expression, denoting a member of a certain age group, is ‘feminine one that begins to grow’. The expression is, however, customarily translated as ‘young lady’. The argument of the predicate is the feminine medial demonstrative tora, which has here an anaphoric function. The preposed noun phrase kia hiyaro, with the discourse marker kia, identifying a participant mentioned earlier in discourse, is coreferential with the argument of the predicate.

Verbs marked with relativizers such as bikidoliatho can attach TAM markers to express meanings that are quite removed from the prototypical idea of identifying an entity. Examples (69), for instance, is a typical Lokono greeting—a rhetorical question, about what one is doing at the moment. It is framed as an equative clause; notice that yes/no questions differ from assertions only in the intonation pattern.
(69) **Balabalákwantiboda hi?**
\[\text{bala–bala–}KWÀ–n–TFI–bo=da\]
\[\text{COL–sitting.on.bottom–CONT–NMLZ–SBJ.REL–M–PRG=DIRCT 2PL}\]
‘How do you do? (lit. Are you still sitting now?)’

In (69) the predicate is formed from a posture root *bala* ‘sitting on one’s bottom’, reduplicated to express plurality of the subject—a reduplication pattern restricted to certain roots (§ 3.7.1). It is followed by a series of suffixes, including an adverbializer, an event nominalizer, a masculine subject relativizer, and a progressive suffix. Notice that if the argument is a 1st or 2nd person, the free pronouns *dei*/wei (1st singular/1st plural) or *bi*/hi (2nd singular/2nd plural) are used. This is a crucial piece of evidence demonstrating that equative constructions are juxtapositions of two nominals, and not stative verb constructions, which require personal enclitics. Confusion could arise since the same TAM markers (e.g., the progressive –bo) appear also in stative clauses. It is worth recalling that such predicates are also formed by nouns, as discussed earlier on examples (62), (63), (64), and (65). If a full noun phrase, or a free pronoun is used, the surface form of an equative clause may therefore be identical to that of a stative clause. A stative clause, however, has a different underlying morphosyntactic frame—the subject can be expressed by a personal enclitic. In equative clauses, if a person form expresses the subject, it must be a free pronoun, not an enclitic. It is worth stressing that in equative clauses the TAM suffixes function merely as nominal temporal markers, as opposed to the stative clauses in which they are an integral part of the predicate.

The difference between stative and equative clauses does not restrict itself to their morphosyntactic structure. The meaning of stative clauses is always tinged with the semantics of the particular TAM marker used. Most frequently, it is the perfective suffix –*ka*, which is semantically quite vague compared to other TAM suffixes listed in Table 18 above. But even the meaning of the perfective –*ka* colors the clause with its semantics. This becomes particularly conspicuous when a stative and an equative clause, both built around the same stative verb, are contrasted. This is exemplified in (70) and (71), in which both predicates contain the stative verb *semen* ‘tasty’.

(70) **Semeka to kadukura.**
\[\text{seme–ka to kadikira}\]
\[\text{tasty–PFV DEM:F soup}\]
‘The soup is tasty.’ (i.e. ‘The soup turned out tasty’)

In (70) the noun *kadukura*, denoting a thick soup made out of the cooked juices squeezed out of the tubers of bitter cassava, is the subject of the stative predicate formed by the verb *semen* ‘good’ and the perfective suffix. The use of the perfective marker implies a resultative reading: the soup turned out tasty. The implication is different if an equative clause is used instead.
(71)  *Semetho to kadukura.*

\[
\begin{array}{ll}
\text{seme} & \text{–} \text{Po} \\
\text{tasty} & \text{–} \text{SBJ.REL:F} \\
\text{to} & \text{DEM:F} \\
\text{kad} & \text{ɨ} \\
\text{ɨ} & \text{ra} \\
\end{array}
\]

‘The soup is tasty.’ (i.e. ‘Soup is a tasty meal’)

In (71) the noun *kadukura* functions as the argument of the nominal predicate *semetho* ‘one that is tasty’. The soup is here identified as or equated with a tasty meal in general. This difference in meaning between stative and equative clauses underlies the functional division between the (stative) Basic Locative Construction, which is used to encode spatial scenes that are seen as resultative states, and the Locative Equation, which encodes spatial scenes seen as permanent configurations (§ 3.8).

3.5.4 Empty verb clauses

In empty verb clauses the empty verb *o/a* functions as the main verb—the element to which personal prefixes encoding the subject are attached, and to which the TAM markers are suffixed. Personal prefixes define empty verb clauses as a subtype of active clauses. Empty verb clauses appear throughout the thesis, but their structure is of particular importance to the discussion of the Posture Construction—a functionally determined alternative to the Basic Locative Construction (§ 3.7). In the following I therefore discuss their general properties, and subsequently turn to the features of the continuative adverbializer –ko, which derives posture adverbs found in the Posture Construction.

There are a number of linguistic contexts that trigger empty verb clauses, the most important of which are listed in Table 24. The triggers can be grouped into two main types: negation of active verbs with the privative prefix and adverbial expressions. In the former case, the empty verb construction is used simply because the prefix slot on the active verb is already occupied by the privative prefix (§ 3.4.5 above). The empty verb is therefore necessary as a placeholder for personal prefixes expressing the subject. All other triggers of empty verb clauses fall into the category of adverbial expressions. These include simplex adverbs such as *mera* ‘quickly’, but also a number of complex forms derived with specific adverbializer, such as the continuative adverbializer –ko. Furthermore, adverbial phrases, for instance, those formed with the marker of similarity *din/dian* also require an empty verb. The same applies to complement clauses introduced by the relative adverb *halika* ‘how’. Even reported utterances bear traces of adverbial expressions in Lokono, since they can be substituted with both *halika* ‘how’ and *hama* ‘what’, and always require a speech-act tag, which has the form of a minimal empty verb clause.
TABLE 24.
LINGUISTIC CONTEXTS TRIGGERING EMPTY VERB CLAUSES.

<table>
<thead>
<tr>
<th>Type of expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>• privative prefix <em>ma–</em> used with active verbs, blocking the subject prefix slot</td>
</tr>
<tr>
<td>• reported utterances</td>
</tr>
<tr>
<td>• complement clauses with the relative adverb <em>halika</em> ‘how’</td>
</tr>
<tr>
<td>• manner adverbs <em>mera</em> ‘quickly’ and <em>basada</em> ‘slowly’</td>
</tr>
<tr>
<td>• adverbial phrases with the similarity marker <em>din/dian</em> ‘like’</td>
</tr>
<tr>
<td>• adverbs derived with the augmentative adverbializer <em>(–ke</em> adding the meaning ‘very’)</td>
</tr>
<tr>
<td>• adverbs derived with the continuative adverbializer <em>(–ko</em> adding the meaning ‘still’)</td>
</tr>
<tr>
<td>• adverbs derived with the restrictive adverbializer <em>(–ro</em> ‘only’)</td>
</tr>
<tr>
<td>• adverbs derived with the restrictive adverbializer <em>(–re</em> ‘exactly’)</td>
</tr>
<tr>
<td>• adverbs derived with the intensifying adverbializer <em>(–bo</em>)</td>
</tr>
<tr>
<td>• adverbs derived with the approximative adverbializer <em>(–thin–thian</em> ‘kind of’)</td>
</tr>
</tbody>
</table>

As already mentioned, in empty verb clauses person-marking normally appears on the empty verb. An important exception to this rule is the situation, in which the subject is expressed by a pronoun or a full noun phrase preceding the predicate, as in (72), another fragment from the story in the online Appendix IV. In such cases, the expletive prefix is employed.

(72)  *Than bena thada, tora dukhako ma kida.*

The subject is overtly expressed by the medial demonstrative pronoun *tora*, which appears before the predicate. In keeping with an earlier observation that personal prefixes can only be used if the subject is not expressed by a full noun phrase preceding the predicate, such utterances necessitate the use of the expletive prefix *m–* on the empty verb (§ 3.2.2). Nota bene, if the overtly expressed subject follows the empty verb, personal prefixes appear on the empty verb as expected; the noun phrase expressing the subject stands in such cases in apposition to the clause.

In (72), the main clause, which comes as the second part of the utterance, has the form of the empty verb clause triggered by the adverb derived with the continuative suffix *(–ko).* The subject is overtly expressed by the medial demonstrative pronoun *tora*, which appears before the predicate. In keeping with an earlier observation that personal prefixes can only be used if the subject is not expressed by a full noun phrase preceding the predicate, such utterances necessitate the use of the expletive prefix *m–* on the empty verb (§ 3.2.2). Nota bene, if the overtly expressed subject follows the empty verb, personal prefixes appear on the empty verb as expected; the noun phrase expressing the subject stands in such cases in apposition to the clause.

The empty verb clause can be further illustrated with an example of reported speech, many instances of which are found in the story in the online Appendix IV. The reported utterance normally comes first, and is followed by a speech-act tag. The speech-act tag consists of the empty verb, to which a personal prefix is attached identifying the speaker of the original quote. Example (73) comes from a story about a man, whose dog secretly transforms every day into a woman and cooks for him, while the man is hunting. One day, the man realizes what is happening and decides to marry the dog–woman. He concludes with the utterance reported in (73).

(73)  ‘Having said that, she stares again.’
The quote is a complex equative sentence with the inalienable noun *reitho* ‘wife’ marked by the transformative suffix –bia and the future marker –ha, forming a nominal predicate that best translates as ‘my wife-to-be’. The argument is preposed and expressed by a free pronoun. The quote is followed by the empty verb marked by the 3rd person prefix, and a reportative marker indicting that this knowledge is obtained by hearsay. Were the author of the quote explicitly named before the speech-act tag—a relatively rare situation—the expletive prefix on the empty verb would be used. If need be, the addressee is introduced by a dative marker (§3.3.6.1).

Finally, an interesting feature of the empty verb is the possibility of attaching the collective marker –be, found on nouns and stative verbs, but normally not on active verbs (§3.4.1). This is exemplified in (74), an utterance describing a scene in which a number of stones form a straight line.

In example (74), the collective marker –be is placed on the empty verb, preceding the perfective suffix –ka, which is obligatory in such cases. The collective marker in such situations encodes the multiplicity of the referents encoded by the subject. This way of marking collectivity is found in all types of empty verb clauses, including the Posture Construction, which is in fact exemplified in (74), where the posture adverb *laliâko* encodes the spatial arrangement of the Figures—or in other words the ‘posture’ of the set as a whole (§3.7).

### 3.5.4.1 Continuative adverbializer –ko

Posture adverbs derived with the adverbializer –ko are the building blocks of the Posture Construction, employed to express the posture of the referent. The adverbializer –ko derives adverbs from verbs, and rarely nouns. Such adverbs can only from a predicate with the empty verb, in which case they encode the semantic content of the predicate. Semantically, the adverbs indicate that the activity, encoded by the verb to which the suffix is attached, has not been concluded yet (e.g., *dukâko* ‘keep on staring’ from *dukkan* ‘stare’, ultimately from *dukun* ‘sea’). Although technically adverbs, they can often be translated with verbs, such as ‘continue’ or ‘keep on’, since they form the predicate with the empty verb that is semantically bleached but provides the active verb morphosyntax. Alternatively, sentences with the adverbs in –ko are sometimes translated by the speakers with Dutch posture verbs, for instance *staan* ‘stand’, even though the Lokono equivalent
may not contain a posture term. The Dutch posture verbs indicate the activity is viewed as incomplete (e.g., He stood looking).

Phonologically, the adverbializer appears in two forms. When it is not followed by any other morphemes, it appears as –ko and sometimes as –kwa; this appears to vary per speaker. However, if an event nominalizer follows it, it always assumes the latter form –kwa. Importantly too, the vowel preceding the adverbializer –ko is always a long vowel, typically a long /aː/, irrespective of what the vowel of the root is originally. The long vowel /aː/ is typical of introversive verbs, and indeed when pairs of such verbs exist (e.g., farun ‘kill’ and faran ‘fight’), it is the introversive form only that is used with the adverbializer. The two forms of the continuative marker are exemplified in (75).

(75) Balâko dabo kanabâkwan.
    bala–ko d–a–bo kanaba–kwâ–ŋ
    sitting.on.bottom–CONT 1SG=E.V–PRG hear.INTRV–CONT–NMLZ
    ‘I was still sitting on my bottom, listening continuously.’

In (75) the first adverbializer appears on the posture root bala– ‘sitting on one’s bottom’, and is not followed by any suffixes, therefore its form is –ko. The adverb derived with this suffix triggers the empty verb construction. The empty verb is prefixed with the person marker encoding the subject and suffixed with the progressive marker. The second adverbializer is part of the nominalization that follows the empty verb. Here the adverbializer is followed by the event nominalizer, in which case the adverbializer has the form –kwa. The verb kanaban ‘listen’ is an introversive verb related to the verb kanabun ‘hear’—the continuative adverbializer derives an adverb with the former meaning only. This nominalization functions as a dependent clause of manner in (75). Manner is therefore encoded in fact in two different ways in (75), first by the adverb balâko, triggering the empty verb clause, and secondly by the nominalized adverb kanabâkwan. The latter is an instance of a more general pattern of encoding adverbial clauses with nominalization (§ 3.5.6). The former way of encoding manner, on the other hand, is central to the discussion of the Posture Construction (§ 3.7).

3.5.5 Relative clauses

Relative clauses are formed by attaching relativizers to stative and active verbs, but as mentioned before relativizing suffixes have also been attested with nouns. A relative clause with the object relativizer is exemplified in (76), a sentence from an instructional narrative about baking cassava bread.

(76) To di woha rhuka na no, to khali wakorosathe to budali diako.
    to di w–o–ha ṭikâ–n=da=no
    DEM:F SMLR 1PL=E.V–FUT cut.knife.INTRV–NMLZ=DIRCT=3FB
    to kˤali wa–koro–sa=tˤe to bidali dˤako
    DEM:F bitter.cassava 1PL=bake–OBJ.REL=VEN DEM:F baking.plate top
    ‘Like this we will cut it, the cassava that we bake on the top of the plate.’
The first (main) clause in (76) has the structure of an empty verb construction triggered by an adverbial clause with the similarity market din/dian. The subject and the TAM markers are expressed on the empty verb, followed by a nominalized introversive verb rhukan ‘cut with a knife’. The object of the nominalization is expressed first by the 3rd person enclitic, and subsequently by the noun phrase to khali. The object noun phrase is modified by the relative clause that follows. The relative clause contains the transitive verb koron ‘bake’, suffixed with the object relativizer. The object relativizer indicates that the noun modified by the relative clause is coreferential with the object of the verb marked by the relativizer. Additionally the venitive enclitic is attached to the verb indicating that the result of the process of baking will be nearly completed by the time it will be cut. Finally, a locative expression follows encoding the location where the activity is taking place.

If instead of the object it is the subject of the verb marked with the relativizer that is coreferential with the noun modified by the relative clause, subject relativizers are employed. Whether it is a subject of an active verb (encoded by personal prefixes) or a subject of a stative verb (encoded by personal enclitics) does not play a role; the relativizers follow a nominative-accusative pattern. A relative clause with the feminine relativizer is exemplified in (77)—an utterance from a recording about the problem of legal and illegal logging companies in Suriname.

(77) To adayaha, dukhutho Sorhinama diako, kia wanshika nukun kia mathali kiba.

to adaya-ha dik3i-3o su rinama da ko
DEMF mature-ABST,NMLZ see-SBJ,REL,F Suriname top
kia w-anji-ka niki-ŋ kia mat9ali kiba
DSC 1PLA-love-PPV take-NMLZ DSC thing too
‘The government that looks over Suriname, we want them to take this thing up too.’

In (77) the main verb anshin ‘love’ is prefixed with the 1st person plural marker encoding the subject. The complement of the verb is expressed by the nominalization nukun ‘taking’, the object of which is expressed by the noun phrase kia mathali, with the discourse marker kia, referring to the problem at hand. The subject of the nominalization, is expressed twice; first by the noun adayaha ‘government’—an abstract nominalization of the stative verb adayan ‘mature’, followed by a relative clause—and second by the (first) discourse marker kia, referring back to this whole expression. At the center of the relative clause is the verb dukhun ‘see’, which is suffixed with the subject relativizer, signaling that the subject of the verb marked with a relativizer is coreferential with the noun modified by the relative clause.

An analogical pattern is found with stative verbs, though stative verbs combined with a relativizer typically precede rather than follow the noun they modify, since such clause tend to be less heavy. In (78) an example is given from the traditional story in the online Appendix IV. The heroine concludes here that only adayali
‘god’—a noun derived from the same stative verb as adayaha ‘government’—is in charge of her fate.  

In (78) the object of the verb shikin ‘put, give’ is the noun wadili ‘man’, which is modified by a stative verb san ‘good’ marked with the relativizer. It is worth reiterating that stative predicates can be formed out of both nominal and verbal elements. Importantly, the Basic Locative Clause has the form of a stative clause, the predicate of which is nominal in nature and can also be combined with relativizers in an analogical fashion. In such relative locative clauses it is the subject relativizers that are used, since the BLC is a stative clause, and as such does not have an object (see § 3.6).

3.5.6 Adverbial clauses

Adverbial clauses typically contain an event nominalization followed by a specialized nominal or suffix indicating the type of the clause. Adverbial clauses of location discussed below depart from this pattern in that there is no clause-specific marker that follows the nominalization. Instead there are two dedicated forms that are employed to introduce such clauses (see § 3.11.2). It is nevertheless useful to analyze locative clauses against the background of other adverbial clauses. Temporal clauses—a more representative case—contain makers such as benz ‘after’, bora ‘before’, or the suffix –kha ‘when’, that follow or attach to, in the case of the suffix, a nominalized verb. In (79), a temporal clause encoding an anterior event is exemplified. The speaker explains here the steps of making a swidden for planting cassava.

(79) Bibitin benada no, dan huburukàha.

\[
\begin{align*}
\text{bi-bi'\text{-}m} & \quad \text{bena=da=no} & \quad \text{dang bi-birika=ha} \\
2\text{SG}_{A} \text{--burn--NMLZ} & \quad \text{after=\text{DIRECT--3F} then} & \quad 2\text{SG}_{A} \text{--clear.from.burnt.wood.\text{INTRV--FUT}}
\end{align*}
\]

‘When you burn (the field), then you’ll clear the (it) from burnt wood.’

The restrictive enclitic =ron ‘only’ is related to the restrictive adverbializer –ro and the event nominalizer –n. Similarly to the continuative suffix –ko, the restrictive –ro, derives adverbs that can only function as a predicate with the empty verb or be nominalized with the event nominalizer. The frequent combination –ron may have been reanalyzed as an enclitic meaning only. As such it is only found with noun phrases. The same applies to the combinations =kwan ‘still’ (a combination of the continuative and the event nominalizer), and the combination =ren ‘exactly’ (a combination of the restrictive –re and the event nominalizer).
The second clause in (79) is an independent clause that can function on its own. The temporal expression *dan* ‘then’, a borrowing from Dutch, is not used by more fluent speakers and could be omitted. The verb in the preceding clause—that is, the dependent temporal clause—appears in its nominalized form *biin* ‘burning’, followed by the temporal marker *ben* ‘after’. The subject of the nominalization is expressed by a prefix attached to the nominalization, and the object by the enclitic that follows at the end of the clause. A dependent temporal clause can also appear without any temporal adposition. In such cases it must precede the main clause, iconically indicating an anterior event.

Adverbial clauses of reason also contain a nominalization followed by a nominal marker; in this case the noun *doma* ‘reason’. Other types of clause, on the other hand, instead of a free nominal marker require a specialized suffix, such as the already mentioned *–kha* ‘when’. Other such suffixes include the (possibly diachronically complex) conditional *–harukha*, possibly analyzable as a combination of the future marker *–ha* and the simultaneity marker *–kha*. Purposive clauses require the transformative marker *–bia*, which indicates the final result of an activity. In (80), the speaker talks about the reason why he goes fishing and hunting in the forest. The discourse marker *kia* refers back to the game and fish that he catches.

(80) *Kia wayokara, wadukhunbia wasabe khona.*

\[
\begin{align*}
\text{kia} & \quad \text{wa–yokara} & \quad \text{wa–dik}’–m–bia & \quad \text{wa–sa–be} & \quad \text{k}’\text{ona} \\
\text{DSC} & \quad \text{1PL$_A$–sell} & \quad \text{1PL$_A$–see–NMLZ–TRNSF} & \quad \text{1PL$_A$–child–COL} & \quad \text{about}
\end{align*}
\]

‘That we sell in order (for us) to take care of our children.’

The first clause is an independent clause with the subject of the transitive verb *yokarun* ‘sell’ expressed by the 1st person plural prefix and the object by the preposed discourse marker *kia*. The nominalized verb form, in turn, marked by the transformative suffix *–bia* functions as an equivalent of a purposive clause.
3.6 Basic Locative Construction

The Basic Locative Construction (henceforth BLC) is defined by Levinson and Wilkins (2006:15) as “the predominant construction that occurs in response to a where-question”. In Lokono the BLC has the form of a stative clause, in which the Figure, the entity to be located, is expressed as the subject. The predicate, in turn, encodes the Ground, the entity with respect to which the Figure is to be located. The terms Figure and Ground were introduced by Talmy (1975) and are equivalent to later Trajector and Landmark (Lakoff 1987; Langacker 1987) and Referent and Relatum, respectively (Levelt 1996; Miller and Johnson-Laird 1976). The predicate also contains an expression of the location and goal directionality; since the BLC is a stative clause directionality marking is interpreted as location only. A TAM marker is always necessary in a stative clause; therefore the perfective suffix typically completes the predicate. The relevant part of the Ground involved in the spatial scene and the specific spatial relation that holds between the Figure and the Ground (or its part) can be optionally specified within the predicate as well. As such, the BLC echoes the form of a basic locative question, a stative clause too, in which the predicate contains the locative interrogative halo ‘where’. An exemplary locative question and answer are given in (81) and (82), respectively.

(81) Halonka no?
   halö–ŋ–ka=no
   where–LOC.WHR–PFV=3FB
   ‘Where is it?’

In (81) the predicate is formed by the locative interrogative halo ‘where’, which serves as a placeholder for the expression of the Ground, its part, and the spatial relation. The interrogative is combined with the suffix –n encoding the location directionality. The perfective suffix –ka completes the predicate, the subject of which is encoded by a personal enclitic and refers to the entity to be located (i.e. the Figure). As such (81) is a typical example of a stative clause, and inherits all its features (§ 3.5.2).

In the exemplary answer to such a question, the interrogative halo ‘where’ is substituted with the Ground-denoting noun. The Ground-denoting noun can function as the possessor of an optional relational noun naming its part. This possessive phrase can function in turn as the possessor of an optional configurational noun encoding the spatial relation that holds between the Figure and the Ground. Finally, the Ground-denoting noun or the possessive phrase headed by the relational or configurational noun is combined with a directionality marker, and the perfective suffix –ka, followed by the expression of the subject.

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41 The term directionality is used here in keeping with the theory proposed by Lestrade (2010), which builds upon earlier work by Kracht (2008; 2003; 2002). It corresponds to the earlier notions of Path (Jackendoff 1990) and Vector (Talmy 2000).
(82) *Ada shi diakonka no.*

\[\begin{array}{llllll}
\text{Ground} & \text{Part} & \text{Spatial relation} & \text{Directionality and Telicity} & \text{TAM} & \text{Figure} \\
\text{ada} & \text{fi} & \text{d’akô–ŋ–ka=no} & \text{LOC.WHR–PFV=3FB} & \text{no} & \\
\text{tree} & \text{head} & \text{top} & \text{LOC.WHR–ATL} & \text{ABIL2} & \text{=3FB} \\
\end{array}\]

‘It is on top of the tree tops.’

In (82) the predicate includes the Ground-denoting noun *ada* ‘tree’, which is the possessor of the relational noun *shi* ‘head’, naming the relevant part of the Ground. The possessive phrase, in turn, is the possessor of the configurational noun *diako* ‘top’, encoding the spatial relation of superessive contact. This complex noun phrase is suffixed with the location directionality marker –n, and the perfective marker –ka. The subject, encoding the Figure, is expressed by a personal enclitic—a structure diagnostic of stative clauses.

The simple structure exemplified in (82) is an instance of a stative locative clause, which can vary in its form and function. The complete structure of such a clause is represented schematically in Figure 2 on a more complex example.

![Figure 2](image)

**Figure 2.**—The Schematic Structure of a Stative Locative Clause.

Building upon the general description of Lokono grammar given in the previous sections, I discuss in the following the different elements forming locative stative clauses in Lokono, many of which do not classify as the BLC. I thus illustrate the whole spectrum of locative clauses available in Lokono, and delimit the functionality of the BLC. I start from the right side of the clause represented in Figure 2, discussing first the possibility of dropping the Figure-denoting expression and the TAM marker, resulting in a bare directional phrase (§3.6.1). Such directional phrases can function both as elliptical answers to the basic locative question, but also as adverbial phrases indicating the location, goal, or source in other types of clauses. Secondly, I give an overview of the different TAM suffixes that can substitute for the perfective –ka, imbuing the stative locative clause with their semantics. Such specific cases are, however, not examples of the BLC since the semantics of the TAM suffix usually requires a specific linguistic context other than the basic locative question (§3.6.2). Third, I give a description of the different directionality markers that can be used in stative locative clauses, including their telic and atelic variants (§3.6.3). Importantly, in this section I introduce the *what*- and *where*-directionality markers—a recurrent topic in the thesis—that select different types of nouns, depending on the ontological features of their referents. This topic is discussed at length in the following chapters, therefore in this section I limit myself to the necessary background information. Since the BLC is an answer to the basic locative question, locative clauses with directionality markers other than...
those encoding the location directionality (e.g., those encoding the source directionality) often fall outside the functional domain of the BLC. Nevertheless, they are an important part of spatial language. I then turn to the features of configurational nouns, which play a central role in the BLC encoding the spatial relation that holds between the Figure and the Ground (§ 3.6.4). Subsequently, I discuss relational nouns—that is, nouns naming parts of entities—which are employed to specify the relevant part of the Ground in a spatial description (§ 3.6.5). Both configurational and relational nouns play an important role in the encoding of landscape in the Lokono language (chapter 4). Finally, I discuss the expression of the Ground in the BLC, contrasting the use of nouns, pronouns, personal prefixes, and the special case of the attributive prefix ka—(§ 3.6.6).

The BLC, “the predominant construction that occurs in response to a where-question”, has its functional limitations (Levinson and Wilkins 2006:15). It is therefore substituted with other constructions if the spatial scene to be described falls outside of its functional domain. In Table 25, I give an overview of the construction types that were elicited in response to the Topological Relation Picture Series and Picture Series for Positional Verbs, together with their functional domains (Bowerman and Pederson 1992; Ameka, Witte, and Wilkins 1999).

<table>
<thead>
<tr>
<th>Construction Type</th>
<th>Functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Locative Construction</td>
<td>Default: spatial relations that are seen as resultative states, not as permanent spatial relations, and in which posture is not informationally salient.</td>
</tr>
<tr>
<td>Posture Construction</td>
<td>When posture is informationally salient, or when the Figure is a person, or when the spatial relation is reciprocal, or as a conventionalized greeting formula.</td>
</tr>
<tr>
<td>Locative Equation</td>
<td>When the spatial relation between the Figure and the Ground is seen as permanent, for instance, the relationship between a person and their home village, predictable locations of animals and spirits, relations between landscape elements, and permanent reciprocal spatial relations.</td>
</tr>
</tbody>
</table>

The other two constructions—that is, the Posture Construction and the Locative Equation—are discussed in the sections below. The Posture Construction is used when the posture of the Figure is informationally salient, and often when the Figure is a human being. It is also employed as a conventionalized greeting formula, and when the spatial relation is reciprocal (§ 3.7). The Locative Equation, on the other hand, expresses spatial relations that are considered permanent. This includes the relation between a person and their home village, predictable locations of animals and spirits, relations between landscape elements, and permanent reciprocal spatial relations (§ 3.8).
3.6.1 Figure omission and the bare directional phrase

The BLC is a complete stative clause. However, it is quite common to answer a locative question without mentioning the Figure again. In such cases, the reduced variant of the BLC is no longer a complete clause, since the Figure is expressed by the elided subject. The stative predicate in such cases disintegrates—the TAM marker cannot be used—and we are left with a bare directional phrase only. An example of such a directional phrase is given in (83)—a perfectly well-formed answer to a *where*-question, elicited with the *Topological Relation Picture Series* (Bowerman and Pederson 1992).

(83)  i̥da lokon
     i:da lok̄-n
     calabash inside-LOC.WHR
     ‘in the calabash’

Example (83) is a directional phrase, consisting of a configurational noun *loko* ‘inside’, the possessor of which, *i̥da* ‘calabash’, encodes the Ground. The directionality marker indicates the location directionality. As such, (83) is not a complete clause, but it can function as an answer to a locative question.

It is worth recalling at this point that stative clauses are formed by the addition of a TAM marker to both stative verbs and nouns (§ 3.4.1). The directional phrase is in principle a nominal expression. The head of such phrases—that is, the directionality marker—is nominal in nature. Most of the directionality markers are still free forms that can combine with personal prefixes. Others, such as the location directionality marker –n, are historically traceable to free forms, but have been grammaticalized to suffixes. In any case, the directionality markers are clearly at the edge of the nominal domain, since even the free forms cannot function as the core arguments of the verb. Instead, the directional phrase headed by the directionality marker functions as an adverbial phrase encoding the location, goal, or source in active and stative clauses. This is exemplified in (84), elicited with the *Put project* videos (Bowerman et al. 2004).

(84)  Ida lokon thushika to merehe.
     i:da lokɔ-η  )i-jika to merehe
     calabash inside-LOC.WHR 3F-[A]-put DEM:F cashew
     ‘She put the cashew in the calabash.’

In (84) the same directional phrase that was used in (83) as an answer to a locative question appears as an adverbial phrase. Since there is no TAM marker on the directional phrase, it does not form an independent stative clause. It functions as an adverbial phrase indicating the goal of motion encoded by the active verb *shikin* ‘put’. The goal interpretation of the directionality marker –n is attributable to the semantics of the verb, which is incompatible with static location. Such directional phrases already appeared in many examples above, but were until now called with a general term *locative expression*. Since the directionality markers are typically the
head of such phrases, or at least the elements that distinguish such phrases from the core arguments of the clause, in the following I refer to them as *directional phrases*.

### 3.6.2 TAM template of locative stative clauses

If a TAM marker is attached to the directional phrase, a full stative clause with the subject encoding the Figure is formed. The most frequently attested TAM marker in the BLC is the perfective suffix –*ka*, exemplified again in (85).

(85)  *Bahu kosankai*

    bahi  kosā–η–ka=i
    house  near–LOC:WHR–PFV=3M

‘He is near the house.’

In (85), the perfective suffix is attached to the directional phrase *bahu kosan* ‘near the house’, forming a stative clause, the subject of which is expressed by a personal enclitic. Other TAM markers, listed in Table 26, are in complementary distribution with the perfective –*ka* in all types of stative clauses, and can be used instead of it in locative stative clauses as well. Table 26 is not an exhaustive list of the TAM markers; it includes only the TAM markers that have been attested in locative stative clauses.

<table>
<thead>
<tr>
<th>TAM marker</th>
<th>Gloss</th>
<th>Meaning in locative clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>–<em>ka</em></td>
<td>perfective</td>
<td>non-permanent location</td>
</tr>
<tr>
<td>–<em>hai–fa</em></td>
<td>future</td>
<td>future location</td>
</tr>
<tr>
<td>–<em>bo</em></td>
<td>progressive</td>
<td>immediate location (irritation)</td>
</tr>
<tr>
<td>–<em>ra</em></td>
<td>counter-expectation</td>
<td>unexpected location</td>
</tr>
<tr>
<td>–<em>na</em></td>
<td>expectation</td>
<td>expected location</td>
</tr>
<tr>
<td>–<em>ya</em></td>
<td>veritative</td>
<td>confirmed location</td>
</tr>
<tr>
<td>–<em>kona</em></td>
<td>abilitative 2</td>
<td>possible location</td>
</tr>
<tr>
<td>–<em>li</em></td>
<td>volition</td>
<td>necessary location</td>
</tr>
<tr>
<td>–<em>ti</em></td>
<td>desiderative</td>
<td>desired location</td>
</tr>
</tbody>
</table>

Each TAM suffix tinges the locative stative clause with its own semantics, as indicated in the last column of Table 26. Most of the markers are therefore not part of the BLC, but are listed here as possible elements of locative stative clauses in general. The BLC is an instantiation of this general template with the specific perfective suffix –*ka*, which is the most semantically neutral of all the TAM markers. Nevertheless, it was already mentioned that even the use of the perfective marker has certain implications, which are foregrounded when a stative clause is compared with an equative clause (§ 3.5.3). The former encodes events that are seen as resultative states, the latter does not entail such an interpretation, but implies a more permanent state of affairs. This difference is an important limitation of the
BLC, which cannot be used to express permanent spatial relations. In such cases the Locative Equation is employed instead (see § 3.8).

3.6.3 Directionality markers

The terms directionality and configuration are used in keeping with the theory proposed by Lestrade (2010), which builds upon earlier work by Kracht (2002; 2003; 2008). They correspond roughly to the earlier notions of Path and Place (Jackendoff 1990) or Vector and Conformation (Talmy 2000). Lestrade’s (2010) account significantly improves the previous analysis of spatial meaning, and is therefore adopted here. Configurational nouns encode the type of spatial relation that holds between entities (e.g. Lokono loko ‘inside’, a containment configurational noun). Directionality markers express the change of configuration over time (e.g. the suffix –mun/-n expressing location directionality, implying lack of change over time). The location directionality encodes lack of change—that is, a static configuration. I use the term location directionality to indicate what Lestrade (2010) calls place directionality, since the term place is used in many different senses in the literature on space and landscape. The goal directionality encodes a change into a new configuration, while the source directionality a change out of a configuration (Lestrade 2010). Both concepts, directionality and configuration, are discussed at length in the following chapters (particularly in chapters 7 and 8). Here, I restrict myself to sketching out the directionality system as a whole.

In Lokono there are two directionality markers conflating the location and the goal directionality. The two forms distinguish, however, between nouns that denote people and objects, on the one hand, and nouns that denote places, on the other hand (§ 3.6.3.1 and 3.6.3.2, respectively). The two forms, bithi and –n, respectively, play a central role in the discussion of the what/where distinction (chapters 7 and 8). Both of them encode telic locations and goals, but they can attach the atelic suffix –ro to mark their atelic equivalents—that is, spatial configurations that have not been fully achieved (§ 3.6.3.3). After discussing the location and goal directionality, I elaborate upon two markers of the source directionality āya and ōya. These are, in turn, indifferent to the ontological features of the referent of the noun they combine with, but encode a telicity contrast (§ 3.6.3.4). In addition, there is a secondary via directionality expressed by the suffix –dh, usually signaling that the Figure is distributed over the Ground (§ 3.6.3.5). Finally, I turn to four cases of complex directionality markers, which are the combinations of the comitative oma and the simplex directionality markers (§ 3.6.3.6). All of the markers are in principle in complementary distribution. However, occasionally a directionality marker may become part of a lexicalized expression, in which case the attachment of another directionality marker may be necessary to form a directional phrase. Such nuances are discussed in the relevant subsections. It should be kept in mind that all of the directionality markers are crucial to the Lokono grammar of space, but not all of them are found in the BLC, which typically expresses the location directionality.

42 For Jackendoff, for instance, location is not a type of Path on a par with goal and source (see Lestrade 2010 for the detailed analysis of the previous accounts of spatial meaning).
3.6.3.1 Location and goal directionality: the what-marker

The directionality marker *bithi* conflates the goal and the location directionality—that is, it can encode both the goal of the Figure’s movement and the location of the Figure. The interpretation of a directional phrase headed by *bithi* depends solely on the linguistic context. A motion verb such as *morodon* ‘fly’ signals a goal reading. A static predicate—that is, a stative predicate or an active predicate that expresses a non-motion event (e.g., *bokon* ‘cook’) implies a location. Irrespective of the interpretation, however, the marker *bithi* is a free nominal form, which forms a possessive phrase with the Ground-denoting noun.

Generally speaking, the free directionality marker *bithi* can only combine with nouns that denote people or objects, as opposed to the location and goal directionality suffix –*n*, which combines with other types of nouns—those that refer to places (§ 3.6.3.2). Since *bithi* can combine with both *hama* ‘what’ and *halikan* ‘who’, it is called the what-marker, as opposed to the directionality marker –*n*, which can combine with the locative interrogative *halo* ‘where’ and place-denoting nouns, and is therefore called the where-marker. The difference between the two is discussed in the following chapters, where it is illustrated with numerous examples, including the rare instances of nouns that can combine with both markers. In such cases, the directionality markers modulate the meaning of the noun, implying an interpretation in keeping with their semantic profile. Below, I provide only a general picture of the features of both markers.

The *bithi* marker is exemplified first as a part of the BLC—a stative clause expressing the location of the Figure. In this case, there is no motion verb hence the directional phrase with *bithi*, which forms part of the stative predicate, can only be interpreted as encoding the location directionality.

(86)  
*Libithikai, ludathi bithi.*

\[
\text{li–bítʃi–}\text{ka}=\text{i} \quad \text{li–daṭʃi} \quad \text{bítʃi}
\]

\[
3\text{MA–LOC.WHT–PFV}=3\text{MB} \quad 3\text{MA–father} \quad \text{LOC.WHT}
\]

‘He’s by him, by his father.’

In (86), the stative predicate is formed by the directional phrase *libithi* ‘by him’ suffixed with the perfective –*ka*. The Ground is expressed first as the 3rd person prefix on the free form *bithi*. In apposition to the main clause, stands another directional phrase with *bithi*, expressing the Ground with a full noun, thereby specifying the referent of the 3rd person prefix on the first instance of *bithi*. The Ground is a person, which requires the use of the what-marker. The subject of the predicate, encoding the Figure, is in turn expressed by the 3rd person masculine enclitic following the predicate.

The next example illustrates the use of *bithi* in a clause expressing a motion event. In example (87), a directional phrase with *bithi* is used to verify to whom I was going at the moment.
Sonia bithi bősabo?

‘Are you going to Sonia?’

In (87) the directionality marker bithi is used since the presumed goal of motion is a person as well. Since the predicate is formed by the motion verb ṣun ‘go’, the directional phrase Sonia bithi is interpreted as an expression of a goal, not of a location. The subject of the active verb, encoded by a personal prefix, expresses the Figure that is in motion.

It is crucial to observe that the directionality marker bithi does not specify the spatial configuration between the Figure and the Ground; this is the domain of configurational nouns discussed below (§ 3.6.4). Since the English spatial language is organized differently, in translation I am forced to use English prepositions specifying the spatial relation, for instance, by in the translation of (86). The directional marker bithi is, however, in a paradigmatic relationship with other directionality markers only, distinguishing between the conflated location and goal directionality, on the one hand, and the source and via directionality, on the other.

Apart from spatial uses, the directionality marker bithi is also found introducing the oblique object of certain verbs, such as dukhu ‘see’, wâdun ‘search’, yokhan ‘hunt’, and budedan ‘fish’. However, in this function it must always appear with the atelic suffix –ro (§ 3.6.3.3). As such, bithiro can be thought of as a specialized, possibly lexicalized form that marks the object toward which the activity is oriented, as in the following example.

Môthi dayokhâha matola bithiro.

‘Tomorrow I will hunt for peccary.’

In (88) the predicate contains the introversive verb yokhan ‘hunt’, related to the transitive verb yokhon ‘shoot’. The introversive verb is intransitive; therefore the hunted animal has to be introduced as an oblique object marked by bithiro.

3.6.3.2 Location and goal directionality: the where-marker

The directionality marker –n also conflates the location and the goal directionality, which are similarly disambiguated by the type of a predicate. Motion verbs imply the goal reading, while static predicates a location reading. Similarly to the bithi marker it also does not specify the spatial configuration that holds between the Figure and the Ground. However, in contrast to bithi, the directionality suffix –n combines with nouns denoting places. Since it can also combine with the locative interrogative halo ‘where’, it is called the where-marker. An important difference between bithi and –n lies in the fact that the former is a free form, and thus can combine with personal prefixes. The latter is today a bound form and thus cannot combine with such forms.
However, from a diachronic perspective the where-marker is related to the free form mun, which today functions as the dative marker only (§ 3.3.6.1 above). In the Lokono-German dictionary, umün is translated as “Nota Dativi” [dative marker] with the following additional information “manchmal auch: an, bei” [sometimes also: on/to, at] (Schumann and Schumann 1882a). In the same source, under the related form mūn without the expletive prefix V–, the definition is more spatial in nature: “in, nach, auf, bei, an” [in, to, from, at, on]. The collection of German prepositions speaks volumes for the difficulties the author had with pinning down the general directionality meaning of the marker. The expletive prefix V–, which is absent in the second spatial definition, is a sign of a grammaticalization process whereby the free form mun became the bound form –mün, later grammaticalized to the suffix –n, a process that must have started already in the 19th century. Numerous examples from the Lokono-German dictionary, and from the translation of the Acts of the Apostles by Schultz (1850), demonstrate that already then –mün had the same semantic profile as today’s –n. It combined with nouns denoting places, for instance, landscape terms such as horhorho ‘landform’, place names, configurational nouns, and the locative interrogative halo ‘where’—a placeholder for place-denoting expressions. In (89) an example from the definition of hállu ‘where’ from the Lokono-German dictionary is given (Schumann and Schumann 1882a).

\[(89)\] Hállumünikai?
\[
\text{hálłu–mün–i–ka=i}\\
\text{where–LOC.WHR–EP–PFV=3Mf}
\]

‘Where is he?’

Example (89) is strikingly similar to its contemporary equivalent, given in (81), and repeated here as (90).

\[(90)\] Halonka no?
\[
\text{halõ–ŋ–ka=no}\\
\text{where–LOC.WHR–PFV=3Ff}
\]

‘Where is it?’

The only difference that remains unaccounted for is the element –i, which is most likely an epenthetic vowel that today is no longer present, since syllable-final /n/ is allowed before non-nasals. As evident from the historical data, a process of grammaticalization and phonetic reduction took place, whereby the free form mün became a bound element –mün, later shortened to the suffix –n. Today, the free form is productively used as a dative marker only. The longer bound form of the directionality suffix is rare, and is only consistently attested in a few combinations given in Table 27.

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43 In (89), and other examples from the Lokono-German dictionary, the orthography is left unchanged, and the parse tier does not reflect the pronunciation. The gloss tier, on the other hand, is not present in the original (i.e. the glosses are by the present author).
Table 27. Terms with unreduced form of the where-marker.

<table>
<thead>
<tr>
<th>Form</th>
<th>Meaning</th>
<th>Long form</th>
<th>Reduced form</th>
</tr>
</thead>
<tbody>
<tr>
<td>âbo</td>
<td>relative configurational noun 'under'</td>
<td>âbomon</td>
<td>âbon</td>
</tr>
<tr>
<td>âmun</td>
<td>complex directionality marker 'by'</td>
<td>âmun</td>
<td>not applicable</td>
</tr>
<tr>
<td>ayo</td>
<td>configurational noun 'up'</td>
<td>aymun</td>
<td>ayon</td>
</tr>
<tr>
<td>halo</td>
<td>locative interrogative 'where'</td>
<td>halomon</td>
<td>halon</td>
</tr>
<tr>
<td>yo</td>
<td>locative anaphoric adverb</td>
<td>yomun</td>
<td>yon</td>
</tr>
</tbody>
</table>

Two of the terms in Table 27, the locative anaphoric adverb yo and interrogative halo, are grammatical items discussed below (§ 3.9.2.2 and 3.12, respectively); their long and short forms are in free variation. The two combinations of the configurational noun ayo ‘up’ with the directionality marker are also interchangeable (§ 3.6.4.1). The remaining forms, âmun ‘by’ and âbomon/âbon ‘under’, have a complex history involving the phonological reduction of the first element as well. The noun onabo ‘ground’ became âbo ‘under’, a form attested with both the reduced and the non-reduced form of the directionality marker and (see § 3.6.4.1). The comitative oma was combined with the directionality marker –mun and reduced to âmun (§ 3.6.3.6). Combinations of the longer form of the directionality marker with common nouns such as onikhan ‘creek’ in (91) below, an example from a publication by the Lokono people living in French Guiana, have not been attested in the speech of the Surinamese Lokono documented in my corpus.

(91) Toho onikhanmunroron nòsa.

\[
\begin{align*}
\text{to–ho} & \quad \text{unī-kāŋ–mīn–ro=tōŋ} \\
\text{DEMF–PRX} & \quad \text{rain–DM–LOC,WHR–ATL=only} \\
\text{n–o:s}: & \quad 3\text{PLA–go}
\end{align*}
\]

‘They went to this creek only.’ (Kayeno 2009:35)

In (91), the landscape term onikhan ‘creek’ appears with the unreduced form of the directionality marker –mun, followed by the atelic suffix –ro, and the restrictive enclitic =ron meaning ‘only’ (when alternatives exist). The whole directional phrase, preceded by a proximal demonstrative, functions as an adverbal phrase encoding the goal of motion in the event lexicalized by the active verb òsun ‘go’.

When comparing the diachronic and synchronic function and form of the dative marker and the where-marker, the following hypothesis can be put forward. The directionality suffix developed from the dative marker due to the fact that on an abstract level the dative marks end-points of an activity (see § 3.3.6.1 above). This analysis is corroborated by the fact that the directionality suffix marks not only the location directionality, but also the goal directionality.\(^{44}\) The dative typically combines with person-denoting nouns, for the referents of which actions are performed. However, when combined with place-denoting nouns, the dative developed a secondary function from its general and abstract end-point semantics.

---

\(^{44}\) Such conflation of the location and the goal directionality in one form is not uncommon cross-linguistically (Lestrade 2010).
This secondary function is a direct application of the end-point semantics to place-denoting nouns, for the referents of which actions are rarely performed, but which support a directionality interpretation of a goal of movement. As the directionality meaning was crystallizing in combinations with place-denoting nouns, there appeared a need to distinguish it from the formally identical dative. The free form mun was kept for the dative function. Nothing hindered the process of phonetic reduction of the dative in combination with personal prefixes with which it typically co-occurs. Hence, the reduced forms of the dative marker were formed (see Table 17 above). The directionality function, on the other hand, became associated with the bound and later phonologically reduced form –(mu)n. This association was particularly strong in the cases where there was no ambiguity between a dative and locative reading—that is, with nouns denoting places rather than objects. The phonological reduction of the directionality marker continues today. The forms that are particularly spatial in nature—that is, certain configurational nouns and the locative demonstratives—have partly dropped the directionality marking altogether, and can often stand unmarked in directional phrases (§ 3.6.4 and 3.9.1.2, respectively). Such an origin of the directionality marker –n, also explains the need for the what-marker bithi. While the directionality suffix –(mu)n became a marker of directionality of place-denoting nouns, a different marker had to be recruited for person- and object-denoting nouns to complete the paradigm, as the form mun could only have a dative interpretation with such nouns.

Interestingly, occasionally there are cases in which the dative and the directionality meaning still need to be distinguished. As noted above, the unreduced form of the directionality marker –mun, formally identical to the free dative marker mun, is attested in a few fossilized cases. In my corpus, however, I have found an example of a different nature—a situation where the dative marker is used with a place-denoting noun, given in (92). Example (92) is one of the closing lines of a monologue about the problems of indigenous people in Suriname, and expresses the speaker’s wish that everything will turn out well. In this case, the speaker felt it necessary to use the obsolete expletive prefix V– on the dative marker to disambiguate the phrase. Due to the presence of a place-denoting noun, the combination Sorhinama mun might sound like a directional phrase with the obsolete longer form of the directionality marker.

(92) Sare tha ôsun to Sorhinama umun.
    sa–re  t̪̪–a  oːsi–n  to  surı́nama  i–mîŋ
    ‘Let it go well with Suriname.’

Example (92) has the form of an empty verb construction triggered by the restrictive suffix –re. Importantly, the dative marker mun is prefixed with the expletive prefix V– cross-referencing the possessor expressed by a full noun phrase to Sorhinama. The expletive prefix signals that it is a free form mun that appears in (92)—that is, a dative marker. The directionality marker, whether phonologically reduced or not, is a bound form, and cannot combine with any prefixes, including the expletive. This mechanism allows the speaker to make sure that the phrase to Sorhinama umun is
not understood as a directional phrase ‘in Suriname’, but as a dative phrase expressing the benefitting party.

Summing up, in contemporary Lokono the directionality marker –n has two forms: the obsolete form –mun, found in a few combinations, and the reduced form –n. However, under certain phonological circumstances, an epenthetic vowel or syllable must be inserted before the directionality marker. If the preceding word ends in a diphthong or a consonant other than a nasal /ɨ/, the epenthetic syllable –ni is inserted. If the noun ends in the consonant /ŋ/, the epenthetic vowel –i is inserted. This is exemplified in the following two examples with place-denoting nouns that typically combine with the where-marker –n. Example (93) comes from a narrative about how the inhabitants of Cassipora used to travel to the capital city Paramaribo, before the dirt road was built.

(93)  
Yo wáya bósa tholoko andun Paranamnin.

From there you go on (a ship), arriving in Paranam.

In (93) the directionality marker –n combines with a place name Paranam—a town on the Suriname river on the way to Paramaribo—encoding the goal of movement originating in the village, referred to with the locative anaphor yo combined with a telic source marker. Since the place name ends in the consonant /ni/, the epenthetic syllable –ni is inserted. Similarly in (94), the landscape term karhow ‘savanna’, ending in a diphthong, requires the epenthetic syllable –ni. Example (94) comes from a narrative about a hunting trip to the forest.

(94)  
Danda karhownin, yeyendwa loko dakooywathe.

I arrived on the savanna singing and singing, and I went back home.

It is worth noticing that in both (93) and (94) the directional phrase with the where-marker appears as the adverbal of the verb andun ‘arrive’, the closest Lokono equivalent of the English verb come. The Lokono verb necessitates, however, a goal expression, expressed here by the directional phrases with the where-marker. Source expressions, which can be found with the English equivalent come, are not found in clauses with the Lokono verb andun ‘arrive’ (§ 3.10.3).

3.6.3.3 Location and goal directionality: the atelic suffix –ro

The addition of the suffix –ro to the location and goal directionality markers bithi and –n implies that the configuration that holds between the Figure and the Ground is not reached, but that the Figure is merely oriented or moving in the direction of the Ground. The configuration itself (which is not achieved) can be left unspecified.
or can be encoded by a configurational noun. This applies to both motion events as in (95) and to static scenes as in (96). The first example comes from the descriptions of the Event Triads stimulus, showing a ball rolling toward a wooden block, but never reaching it (Bohnemeyer, Eisenbeiss, and Narasimhan 2001).

(95)  Lôsa thibithiro, mandunko la thâmun.

He went toward (a wooden block), but he did not arrive by it.

In (95) two configurations that hold between the Figure and the Ground are named. In the first clause, the predicate is the motion verb ôsun ‘go’. The goal of motion is expressed by the what-marker bitte with the 3rd person masculine prefix encoding the Ground (a wooden block). The atelic suffix attached to the what-marker signals that the final configuration is not achieved. The configuration is not specified in this case. The second clause has the structure of an empty verb clause triggered by the use of the privative prefix on the active verb andun ‘arrive’. The second configuration is expressed by the complex directionality marker âmun, consisting on the comitative oma, which has a secondary proximity meaning, fused with the directionality marker –mun (§ 3.6.3.6). Here the configuration is telic, but it is never reached since the sentence describes a negative proposition.

Example (96) in turn demonstrates the use of the atelic suffix with the where-marker. The example comes from a session based on the Picture Series for Positional Verbs material, showing a number of bottles, two of which are upside down (Ameka, Witte, and Wilkins 1999). Importantly, in (96) the atelic marker is used in a description of a static scene, not a dynamic scene, as is the case in (95) above.

(96)  Ken bian, onabonroka thushibo.

And two (bottles) are upside down (lit. their faces are oriented downwards).”

In (96), the atelic marker is attached to the where-marker, which is suffixed to the configurational noun onabo ‘down’, encoding a direction on the absolute vertical dimension. The perfective suffix –ka completes the predicate. The subject is expressed by the noun shibo ‘face’, the possessor of which refers to the two bottles named by the preposed cardinal numeral. The lack of the atelic marker would imply that the two bottles are lower than the other bottles, which is not the case. The two bottles are, however, oriented toward the Ground, or in other words, placed in the direction ‘down’ as opposed to the remaining bottles, which is captured by the addition of the atelic suffix. Importantly, the atelic suffix precedes the TAM suffix, and is thus an integral part of the directional phrase. The telicity distinction is also expressed within the directional phrase in the case of the source directionality.
3.6.3.4 Telic and atelic source directionality markers

If the Figure is leaving a configuration, as opposed to being in a configuration (the location directionality) or entering a configuration (the goal directionality), the source directionality markers have to be used. These markers are normally not attested in the BLC, since the BLC is an answer to a locative question, not to a question about the source. However, directional phrases formed with the source directionality markers can function as adverbial phrases in active clauses, or when combined with relativizers, as nominal predicates in the Locative Equation (§ 3.8.). For the discussion of the what/where dichotomy in the following chapters, it is useful to remember that the source directionality markers are insensitive to this distinction. The what/where split is only found in the conflated location and goal directionality.

As opposed to the location and goal directionality, atelicity is not encoded here by a separate morpheme (i.e. –ro). Instead, there are two clearly related forms āya ‘telic source’ and ōya ‘atelic source’. The former marks a telic source—that is, a configuration that the Figure has left, typically entering into a new configuration at the goal. It is a free form, which can combine with personal prefixes, and is often realized as /aria/ or as /wa:ya/ after an /o/. This is exemplified in (97), which is a description of the journey that the ancestors of the inhabitants of Cassipora had embarked upon, before they founded the village.

(97) Adiâbo wâya natimâkathe Mopentinro.

ad'a:bo wa:ya na-tima:-ka=t’e mopênti–n–ro
Adiâbo SRC:TL 3PLA–swim.INTRV–PFV=VEN Mopenti–LOC.WHR–ATL
‘From Adiâbo they crossed toward Mopenti.’

In (97), the source directionality marker āya combines with the place name Adiâbo forming a phrase that functions as an adverbial. Adiâbo, the possessor, encodes the Ground from which the movement originated. The source expression is followed by the predicate consisting of the introversive verb iman ‘cross’, related to the verb timun ‘swim’. The verb is marked with the perfective suffix –ka, and the ventive enclitic =the, signaling that the movement toward Mopenti is also a movement toward the deictic center (i.e. the Cassipora village). Interestingly, the 3rd personal prefix on the verb is only used for Lokono people, implying the ancestors of the villagers. Finally, the directionality marker –n combined with the atelic suffix –ro mark the direction of movement—a new configuration that the Figure enters.

When combined with nouns that end in /a/, especially configurational nouns in /a/, such as khona ‘adhering’ in (98), the telic source marker āya is typically fused with the configurational noun. Example (98) is a sentence uttered by an inhabitant of Washabo village, who was born in Pwaka (Powaika in Sranantongo), but does not live there anymore.

(98) Dei to Pwaka khonâyathi.

dei to pwaka k’hona:ya–tfi
1SG DEM:F Powaika adhere.SRC:TL–SBJ.REL:M
‘I am from Powaika (lit. from along the Powaika creek).’
In (98) the directional phrase is combined with a relativizer forming a stand-alone nominal *Pwaka khonâyathi* ‘a man from along the Powakka creek’. The phrase functions as a nominal predicate in an equative clause, the subject of which is expressed by the 1st person free pronoun. Here too the source configuration (i.e. *Pwaka khona* ‘along Powakka’) was left in favor of a new configuration (i.e. *Washabo*).

The marker *ôya*, realized also as */oria/, is an atelic equivalent of the source marker *âya*. It implies that the Figure is moving out of a certain configuration, but this change is either not accomplished or the subsequent configuration into which the Figure is moving is obliterated therefore there is no new configuration to relate the Figure too. The two source markers are contrasted below. Example (99) comes from a depiction of a ball moving away from one wooden block toward another. In this description of a video from the *Event Triads*, the telic source marker was used (Bohnemeyer, Eisenbeiss, and Narasimhan 2001).

(99) *Thôsa thuwâya.*
\[
\begin{array}{ll}
\text{t}^\text{b}–\text{o}:\text{sa} & \text{t}^\text{b}–\text{wa}:\text{ya} \\
3\text{F}_\text{A}–\text{go} & 3\text{F}_\text{A}–\text{SRC:TL} \\
\end{array}
\]
‘(A ball) left (the wooden block).’

By contrast, in the structurally identical example (100), the atelic source marker is felicitous. Here the speaker described a scene from the same stimulus, in which a ball moves away from a wooden block into an empty space, not toward another wooden block.

(100) *Thôsa thôya.*
\[
\begin{array}{ll}
\text{t}^\text{b}–\text{o}:\text{sa} & \text{t}^\text{b}–\text{o}:\text{ya} \\
3\text{F}_\text{A}–\text{go} & 3\text{F}_\text{A}–\text{SRC:ATL} \\
\end{array}
\]
‘(A ball) went away from (a wooden block).’

The interpretation of (100) is that the original configuration is not completely abandoned, or that there is no other configuration to relate the Figure to. In both (99) and (100), the Ground is expressed by the personal prefix attached to the source markers, making it evident that they are nominal in nature, though clearly part of the nominal penumbra, since they cannot function as the core arguments of a verb.

The telicity contrast can be observed in two additional examples below from natural speech. In the first case, the event is conceptualized as telic. Utterance (101) was produced in Paramaribo during a field trip to the local zoo. It was in the city (the goal), after completing the movement out of Cassipora (the source).

(101) *Kasuporhi wâya wôsa ya thoyohikwanro*
\[
\begin{array}{ll}
kasi–pu & w:ya \text{ w–o:sa} \text{ ya} \\
kasi–pu & w:ya \text{ w–o:sa} \text{ ya} \\
kasi–pu & \text{ wa}:ya \text{ w–o:sa} \text{ ya} \\
\text{Cassipora} & \text{ SRC:TL} \text{ 1PL}–\text{go} \text{ LOC:DEM} \text{ elderly–house.Poss–LOC:WH–ATL} \\
\end{array}
\]
‘We went from Cassipora here, to the city.’

In (101) the expression of the telic source precedes the predicate, which is followed by the expression of the goal—a commonly used time-iconic order of source and
goal (even though both place-denoting nouns are clearly marked as source and goal, respectively and thus their order could be reversed). This description can be contrasted with the atelic event in (102). Here the goal is obliterated or unknown, which may suggest that the Figure is not leaving the configuration permanently.

(102) Môthiâbo wa ôsun to thoyoshikwa óya.
mo:ʃaː–bo w–a oːš–n to ʃoy–ʃikwa oːya
‘Early in the morning we will set out from the city.’

The difference between (101) and (102) is expressed by the respective use of the telic ñya and the atelic ñya, and can be often translated with verbs such as leave, which combines with telic sources, and move or set out, the first of which can combine with both types of sources, and the second of which obliterates the goal. Interestingly, I have not attested the atelic ñya with configurational nouns—that is, if the configuration is atelic, it cannot be specified with a configurational noun. The telic equivalent readily combines with configurational nouns.

Finally, it is worth pointing out that the atelic marker also has as a malefactive interpretation. This is exemplified in (103), which describes what the water spirit oriyo can do if one does not obey the rules of places that harbor such spirits. If annoyed, the spirit can, for instance, make one’s bathing place grow back with water plants.

(103) Thutaka ma to kori bôya.
̃tʃi–taka–ma to kuri ʃo–ya
3F–close–ABIL1 DEM:F bathing.place 2SG–SRC:ATL
‘(The water spirit) can close the bathing place away from you.’

In (103), the spirit is said to be able to close the area cleared for bathing—that is, make plants grow in it again. The example does not have a spatial interpretation as a source, and the atelic source marker combined with the 2nd person singular prefix indicates the person to whose disadvantage this can happen. Nevertheless, all such malefactive uses of the ñya marker have a common denominator—they mark a participant from whom something is taken away.

3.6.3.5 Via directionality marker

The via directionality is a secondary directionality. It can be thought of as a subtype of the location directionality, since it can encode the location through which the Figure is distributed during the activity, as in the English example We were walking in the forest for hours. In this case, the Figure is in containment configuration with the Ground, but this relation is distributed though the whole space of the Ground. Alternatively, the via directionality is a combination of the source and goal directionalities, as in We went through the forest in an hour, in which case the Figure entered and left the configuration. In Lokono, there is a dedicated via directionality marker –di which covers both types of situations, and is distinct from
the configurational nouns (i.e. the equivalents of the English prepositions *in* and *through*). The via directionality marker combines with configurational nouns, since its function is directly related to their meaning, but also with a few landscape terms (e.g., *konoko* ‘forest’), and relational nouns such as *shibo* ‘face’. As such it is insensitive to the *what/where* distinction, but it cannot combine with nouns denoting people. The addition of the via directionality suffix –*di* can cause phonological changes of the final consonants of the configurational noun that it attaches to. A non-aspirated /k/ becomes an aspirated /kʰ/, and a /b/ often fricativized to /f/. Occasionally, the final /o/ of a configurational noun becomes an /u/. This is exemplified in (104), which illustrates also that given the right context, the nouns marked with the via directionality marker can function as the core arguments of the verb. The example comes from an instructional narrative about weaving a basket.

(104) *Dan bukuruha thushifodi.*

\[ \text{dan bi-kiri-ha t\textsuperscript{i}-fifu-d\textsuperscript{i}} \]

then 2SG.A–bind–FUT 3F.A–face–VIA ‘Then you bind the whole front (of the basket).’

In (104) the noun *thushifodi* ‘face’ (from *shibo* ‘face’) names a part of the basket, and functions as the direct object of the transitive verb *kurun* ‘bind’. In such cases the expression *thushifodi*, with the directionality element –*di*, cannot be understood as an adverbial of location, since the valency condition of the verb has to be satisfied first. Such cases are extremely infrequent in the corpus, where directional phrases with –*di* typically function as adverbs of location.

The via directionality marker can be used to describe both dynamic and static scenes. Example (105) from the story in the online Appendix IV, for instance, does not contain a motion verb. Here the directional phrase formed by the via directionality marker –*di*, functions as a location adverbial to a predicate, indicating the location where the person metamorphosed into a bird will be singing in the future.

(105) *Ada shi diakhodi buyeyedwaha.*

\[ \text{ada \textsuperscript{j}i d\textsuperscript{ak}	extasciitilde{o}-d\textsuperscript{i} bi-ye-\textsuperscript{yen}-dwa-ha} \]

tree head top–VIA 2SG.A–ITR–melody–VZB.INTRV.REFL–FUT ‘Everywhere above the tree tops you will be singing and singing.’

In (105) the addition of the via directionality marker –*di* to the configurational noun *diako* ‘top’ implies that the Figure will be engaged in the activity at many different tree tops. It is worth recalling that nouns denoting non-humans are transnumeral. The via directionality marker often brings the multiplicity of the entities forming the Ground to the fore, but it is clearly different form the plural or collective marking. Example (106), in turn, is a description of what is found in the creek called *Kakhalekoyaro* ‘One With Crystals’. Here, the directional phrase is part of a stative locative clause, structurally identical to a basic locative construction, but functionally different, since the question is what kinds of Figures are found at the given Ground, not where the Figure is.
In (106), the preposed phrase is the subject of the stative predicate—it refers to the white quartz crystals that are often put into the medicine-man’s rattle. The speaker explains that they can be found in the whole creek, which is why it is called Kakhalekoyaro. The addition of the directionality marker –di is understood as a multiplication of the configuration expressed by the configurational noun loko ‘inside’. In translation of the directional phrases with the via directionality marker words such as ‘all over’, ‘everywhere’, ‘throughout’ are often used.

3.6.3.6 Complex directionality markers

In addition to the directionality markers discussed above, there are four complex directionality markers—namely, âmun, mânro, âdi, and mâya given in Table 28. All four terms are lexicalized combinations of the comitative oma and one of the directionality markers described above. However, since their compositional semantics is still mostly transparent, they are fully glossed in this thesis.45 The speakers, however, are not aware of the historical links described below.

<table>
<thead>
<tr>
<th>Directionality</th>
<th>Simplex marker</th>
<th>Complex directionality marker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location &amp; goal telic</td>
<td>–mün</td>
<td>umamün</td>
</tr>
<tr>
<td>Location &amp; goal atelic</td>
<td>–männiru</td>
<td>umamäniru</td>
</tr>
<tr>
<td>Source telic</td>
<td>âria</td>
<td>umâria</td>
</tr>
<tr>
<td>Via</td>
<td>–di</td>
<td>no data</td>
</tr>
</tbody>
</table>

Starting from the top of Table 28, the Lokono-German dictionary lists uma as the comitative, and mün as the location and goal directionality marker (§ 3.6.3.2). Both elements are easily recognizable in the form umamün translated as “zu, bei, an” [to, by, on]. The contemporary equivalent of the combination is âmun, a form in which the link is less conspicuous. Noticing, however, that the comitative is often combined with personal prefixes, the changes are understandable. The first vowel of

45 In the glosses the forms are glossed as, for instance, COM.LOC.WHR—that is, a fusion of the comitative and the where-marker. Notice that the where-marker is normally glossed as LOC.WHR as it stands in opposition to the what-marker LOC.WHT. The lexicalized cases discussed here do not form such pairs and therefore the colon is not used. This applies also to the telicity contrast in the complex directionality markers (glossed as COM.SRC.TL) that contain the telic source marker (SRC:TL).
uma was regressively harmonized with the following /a/—a process that was facilitated by the fact that three out of seven combinations of uma with personal pronouns contain an /a/ already (i.e. dama ‘1SG.A.COM’, wama ‘1PL.A.COM’, nama ‘3PL.A.COM’). Subsequently, a process of syllable reduction took place, whereby amamün became âmun—most long vowels in Lokono are traceable to such contracted syllables. Similarly umamünniru “hinzuwärts” [toward] is clearly composed of the comitative uma, the location and goal directionality marker –mün, and the atelic suffix –ru. In this case, however, it is mostly the directionality marker that underwent phonological changes, resulting in the term mânro. Analogically, as a result of the combination of the comitative uma with the telic source marker aria, the form mâya/maria appeared. Finally the form âdi is likely a combination of uma with the via directionality marker –di, although there is no data to support this analysis. The formation of the four complex directionality markers is the result of the fact that the where-marker –mun (later –n) does not combine with terms denoting people. It can, however, combine with configurational nouns (e.g., diako ‘top’), which in turn can combine with person-denoting nouns and personal prefixes (e.g., dadiakon ‘on top of me’). The concept of accompaniment, inherent in the comitative semantics must have been extended to physical proximity. As mentioned above, even today there are cases of the comitative oma used as a proximity configurational noun with person- and object-denoting nouns (§ 3.3.6.2 above).

In spite of the radical and somewhat irregular phonological reduction that took place in these four cases, the morphosyntactic and semantic features of the four complex directionality markers reflect, for the most part, the componential analysis with oma as a proximity marker. The complex directionality marker âmun encodes a telic location and goal directionality with nouns denoting humans and objects, but not places. It cannot combine with the directionality marker –di, since it contains it already, and cannot be marked as atelic, since its atelic equivalent is lexicalized as mânro. It is frequently used in directional phrases encoding the goal of movement or the location of an event, as in (107) from another traditional story.

(107) Thôsa adisa âmun.
\( \text{t}^{3} \text{F.A}-\text{go} \text{ hadisa } \text{ a:mân} \)
\( \text{cassava.trough} \text{ COM.LOC.WHR} \)
‘She went to the cassava trough.’

In (107), the verb ôsun ‘go’ appears, the subject of which is encoded by the personal prefix. The complex directionality marker âmun forms a directional phrase with the noun hadisa ‘cassava trough’, encoding the goal of motion. Interestingly, âmun is rarely found in stative locative clauses with the perfective –ka. This may be attributed to the fact that the same form âmun, developed a secondary function as a transitive verb âmunin ‘have’, typically found in combination with the perfective marker –ka. The development of the verb âmunin ‘have’ is a case of a reanalysis of a stative locative expression. In the stative locative clause, the prefix on the configurational proximity marker oma encoded the Ground, while the subject of the clause expressed the Figure. This form was reanalyzed as an active verb, the subject of which encodes the possessor, and the object of which encodes the possessed. The
possessive verb âmunin is exemplified in (108), a sentence form a discussion about place names in the Cassipora area.

(108) To Omadâro bâmunka, bâmunka to Urhikoro, bâmunka Fodiâran, bâmunka Mopenti Karhow, bâmunka Loshi Karhow.

to omadaː-ro bːa:mïŋ-ka bːa:mïŋ-ka to iɾj–koro
DEMF roar–F 2SGA–have–PFV 2SGA–have–PFV DEMF brown–SPEC:F

bːa:mïŋ-ka fudːiː-a:raŋ bːa:mïŋ–ka mopenti kaɾow
2SGA–have–PFV monkey–complete 2SGA–have–PFV Mopenti savanna

‘Omadâro you have, you have Urhikoro, you have Fodiâran, you have Mopenti Savanna.’

In (108) the speaker lists a number of place names using the transitive verb âmunin ‘have’, prefixed with the 2nd person prefix encoding the subject, and suffixed with the perfective marker –ka. It appears that the verb âmunin ‘have’ was first used to encode immediate possessions—that is, things one has on oneself in keeping with the proximity semantics of the comitative omu from which it developed. As evident from (108), this is no longer the case. The verb âmunin ‘have’ is used in all kinds of possession scenarios. Importantly, as a verb âmunin combines with the perfective suffix –ka; the combination âmunika is therefore typically analyzed as a transitive verb encoding possession, which prevents the complex directional from forming stative clauses, in which it would have the same form âmunika.

The complex directionality marker mânro is the atelic equivalent of the directionality marker âmun. Similarly to âmun, it combines with nouns denoting people and objects. This is illustrated in example (109), which was uttered by a father whose son died. This resulted in the wife of the deceased son moving back to the village where she came from.

(109) Thôsa thoyono mânro, Pwakanro.

 tôː-oːsa tôː-oːyo–nːn məːoro pwâkː–n–ro
3Fg–go 3Fg–mother–PL COM.LOC.WHR.ATL Pwakka–LOC.WHR–ATL

‘She went to (be with) her family, to Pwakka.’

In (109), the directionality marker mânro is combined with the noun oyonon ‘family’ (lit. ‘mothers’), speaking volumes for the matrilineal and matrilocal character of Lokono society. The atelic marker mânro indicates that the widow moved back toward her family, not necessarily with them. Interestingly, the following directional phrase includes a place name. In this case, the where-marker is used, which typically combines with place-denoting nouns such as Pwaka.

The complex directionality marker âdi, on the other hand, contains the via directionality suffix –di. In keeping with the semantics of its components, the combination is employed to encode configurations, in which the Figure is distributed in the proximity of the Ground. In this case, however, the type of nouns âdi can combine with is not restricted to person- and object-denoting nouns. It has also been attested with place names. Clearly, in this case the comitative semantics has been
bleached out. Typically, âdi encodes movement ‘along’ or ‘by’ the Ground, as in (110).

(110) *Aba shoko thi balibo lâdi.*  
\[
\begin{array}{llll}
\text{aba} & \text{ʃoko–tfi} & \text{bali–bo} & \text{l–aːdzi} \\
\text{INDF} & \text{small–SBJ.REL.M} & \text{pass–PRG} & \text{3MA–COM.VIA}
\end{array}
\]
‘A boy passes by him.’ (Barrle et al. 1989:29)

In (110), the directionality marker âdi is combined with a 3rd person masculine prefix, indicating the path that the Figure has covered with respect to the Ground. The directionality marker âdi is usually found with the motion verbs balin and fakutun, both meaning ‘pass’. I believe that it is through the collocation with these verbs that the directionality marker âdi broadened its scope.

Finally, the complex directionality marker mâya, realized also as /maria/, is furthest removed from its compositional meaning, based on the comitative oma and the telic source marker âya. The term mâya is today independent of any directionality; it can encode a source, a location, and a goal. It can also combine with all types of nouns, irrespective of the ontological status of their referents. The speakers typically translate it as Dutch *kant* ‘side’. It is often found, for instance, with the terms baro ‘left’ and isa ‘right’, which may be a Dutch influence (cf. linker *kant* ‘left side’, rechterkant ‘right side’). This is exemplified in (111), which comes form a description of the *Event Triads* video, showing a ball moving across a surface from left to right (Bohnemeyer, Eisenbeiss, and Narasimhan 2001).

(111) *Baro mâya lôsa isanro.*  
\[
\begin{array}{llll}
\text{baro} & \text{maːya} & \text{lːoːsːa} & \text{isãːn–ro} \\
\text{left} & \text{COM.SRC.TL} & \text{3MA–go} & \text{right–LOC.WHR–ATL}
\end{array}
\]
‘He went from left to right.’

In (111), mâya is combined with the noun baro ‘left’, encoding the source of motion. In this case, the directionality is suggested by the iconic order of the constituents: the source precedes the verb and the goal follows it. In (112), on the other hand, the directional phrase with mâya follows the verb, and is understood as expressing the goal of motion. Example (112) comes from a story of the old chief of Cassipora, who as a young man was invited to work in West Suriname, by a creek called Kabo.

(112) *Bian wiki diaro bôsayama Kabo mâya na damun.*  
\[
\begin{array}{llll}
\text{biaŋ} & \text{wiki} & \text{dːaro} & \text{bːo–sa–ya–ma} \\
\text{two} & \text{week} & \text{maybe} & \text{2SGa–go–VERI–ABIL.1Kabo}
\end{array}
\]
\[
\begin{array}{llll}
\text{kabo} & \text{maːya} & \text{na} & \text{da–mĩŋ} \\
\text{COM.SRC.TL} & \text{3PLA–E.V 1SGA–DAT} & \text{da–miŋ} & \text{two week}
\end{array}
\]
‘In two weeks you can surely come to Kabo, they said to me.’

It is interesting to notice that in (112) the directionality marker mâya combines with a place name. Although this is surprising, considering the comitative origin of the directionality marker, it is in keeping with the combinatorial possibilities of the source marker âya, which is indifferent to the what/where distinction. The directionality marker mâya is also often found with the locative demonstrative ya
and the term *ta* ‘far’. The respective combinations *ya máya* and *ta máya* are used as lexicalized collocations to contrast one’s village with other villages. I believe that the term *máya* in these cases, translated always as *kant* ‘side’, referred literally to the sides of the creek. This is also the case in (113), a sentence from a narrative in which the speaker describes the benefits of moving from his village in Suriname to a new settlement in French Guiana.

(113) *Dei maria amaron bôthika.*

\[
\text{dei maria } \text{ama}=rêm \quad \text{b–o:tfika}
\]

\[1SG \text{ COM.SRC.TL what}=only \quad 2SG\text{–find}\]

‘On my side (of the creek) you find everything.

In (113) the noun *máya* is combined with a 1st person pronoun, used for topicalization. The expression *dei maria* refers to the village in which the inhabitant lives. Interestingly, this example shows that the directional phrases with *maria* can also encode location, if the verb supports such an interpretation, as is the case here with the verb *ôthikin* ‘find’, which does not allow a goal, nor a source expression.

The complex directionality markers are not discussed in the following chapters on the *what/where* distinction, since they are analyzed as combinations of the comitative *oma*, which functions also as a proximity configurational noun, with the directionality markers. As such, the complex directionality markers do not contradict the following analysis of the *what/where* distinction. The two forms *âdi* and *máya* are insensitive to the distinction, as are the directionality markers *–di* and *âya*, encoding the via and the source directionality, respectively. The remaining two markers, *âmun* and its atelic equivalent *mânro*, on the other hand, behave as expected. They are comparable to other combinations of a configurational noun with the *where*-marker *–n*. In this case, however, the configurational marker is *oma*, a proximity configurational noun, and not, say, *loko* ‘inside’, a containment configurational noun. The combinations presented here are furthermore lexicalized, as opposed to other combinations of configurational nouns with the directionality markers.

### 3.6.4 Configurational nouns

Configurational nouns express a number of specific spatial regions (e.g., *diako* ‘top’, *bana* ‘surface’). Their semantics, however, can also include information about the nature of the spatial relation (e.g., *khona* ‘lack of horizontal support’) or even about the nature of the Ground itself (e.g., *komoloko* ‘inside dim light’ or *rako* ‘inside a liquid’). As such, within the BLC and other types of locative clauses, configurational nouns specify the spatial relation between the Figure and the Ground. They are also important building blocks of the Lokono landscape vocabulary, forming, for instance, non-lexicalized phrases with the general landform term *horhorho* ‘landform’ specifying its spatial (and other) features (see chapter 4). In Table 29, a selection of configurational nouns is given.
The semantic content of those configurational nouns contributing to the landform vocabulary is discussed in the relevant sections (see chapter 4); the meanings of other configurational nouns are partly covered in Rybka (2010). In the following lines, I briefly comment on the content of Table 29. First of all, there are a number of diachronically related configurational nouns encoding containment relations (loko ‘inside’, rako ‘inside liquid’, roko ‘inside body part’, koloko ‘inside an unbounded container’, nakanroko ‘inside a bipartite container’ etc.). Such interest in containment configurations is also reflected in the fact that Lokono has two specialized motion verbs kodonon and fotikidin, meaning respectively ‘enter containment’ and ‘enter non-containment’—the closest equivalents of the English

<table>
<thead>
<tr>
<th>Form</th>
<th>Meaning; comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>abo</td>
<td>under; used in the relative frame of reference (from onabo ‘ground’)</td>
</tr>
<tr>
<td>abwa</td>
<td>surrounding; used when the Figure occludes the Ground from vision</td>
</tr>
<tr>
<td>ayo</td>
<td>up; encodes the direction on the vertical dimension (unpossessable)</td>
</tr>
<tr>
<td>bana</td>
<td>surface; typically a non-elevated surface</td>
</tr>
<tr>
<td>boloko</td>
<td>most elevated part; the top of the head (possibly related to loko ‘inside’)</td>
</tr>
<tr>
<td>bara</td>
<td>left; used in the relative frame of reference (usually possessed)</td>
</tr>
<tr>
<td>diako</td>
<td>top; elevated part of an entity; secondary meaning ‘above’</td>
</tr>
<tr>
<td>duna</td>
<td>arm, side, only of symmetrical entities that have two sides</td>
</tr>
<tr>
<td>inabo</td>
<td>behind; from ina ‘bottom’, with an unidentified morpheme –bo</td>
</tr>
<tr>
<td>isar</td>
<td>right; used in the relative frame of reference (usually possessed)</td>
</tr>
<tr>
<td>loko</td>
<td>inside a rigid container; also used with terms for paths and roads</td>
</tr>
<tr>
<td>khona</td>
<td>adhering; used when support is not by a horizontal surface; also ‘along’</td>
</tr>
<tr>
<td>kira</td>
<td>surrounded, when the Figure has a circular shape</td>
</tr>
<tr>
<td>koboroko</td>
<td>inside a multipartite container (e.g., konoko ‘forest’), related to loko ‘inside’</td>
</tr>
<tr>
<td>koloko</td>
<td>inside an unbounded container (e.g., rain, ash, fire), related to loko ‘inside’</td>
</tr>
<tr>
<td>komoloko</td>
<td>inside dim light (occlusion of vision), related to loko ‘inside’</td>
</tr>
<tr>
<td>kosa</td>
<td>next to, near</td>
</tr>
<tr>
<td>nakanroko</td>
<td>inside the middle; from nakan ‘waist’ and roko ‘inside body’</td>
</tr>
<tr>
<td>olabwa</td>
<td>other side of the same entity; with the unidentified morpheme –bo (cf. rhebo, inabo, shibo) and the reflexive suffix –wa</td>
</tr>
<tr>
<td>oma</td>
<td>near; secondary meaning of the comitative oma</td>
</tr>
<tr>
<td>onabo</td>
<td>down; opposite of ayo ‘up’, from onabo ‘ground’ (unpossessable)</td>
</tr>
<tr>
<td>rabuduku</td>
<td>other side, opposite</td>
</tr>
<tr>
<td>rako</td>
<td>inside a liquid, typically water, but other liquids as well</td>
</tr>
<tr>
<td>rhebo</td>
<td>edge, contains the unidentified element –bo (cf. inabo, shibo, olabwa)</td>
</tr>
<tr>
<td>roko</td>
<td>inside and sometimes in contact with a body part</td>
</tr>
<tr>
<td>shi</td>
<td>head, top part</td>
</tr>
<tr>
<td>shibo</td>
<td>face, front; from shi ‘head’ with the unidentified –bo (cf. inabo, rhebo, olabwa)</td>
</tr>
<tr>
<td>shiri</td>
<td>most frontal part, nose, probably from shi ‘face’</td>
</tr>
<tr>
<td>toro</td>
<td>base, typically close to the ground</td>
</tr>
<tr>
<td>yabo</td>
<td>behind, implies occlusion of vision from the perspective of the speaker</td>
</tr>
</tbody>
</table>

A SAMPLE OF CONFIGURATIONAL NOUNS.
verbs *enter* and *exit* (§ 3.10.3). Secondly, there are a few forms encoding contact: *diako ‘top’, bana ‘surface’, and khona ‘adhering’, the last of which is only felicitous if the Figure is not supported by the Ground, but glued, attached, stuck, or in any other way connected to the surface of the Ground. These three configurational nouns are discussed in detail in the chapter on landforms, where they play an important role (§ 4.5.1.2). Moreover, three forms, *awa ‘covering’, yabo ‘behind’, and komoloko ‘inside dim light’, often imply occlusion of vision. In the first case, however, it is the Ground that is hidden from view, while in the remaining two cases it is the Figure. There are also configurational nouns encoding proximity, *kosa ‘next to’, oma ‘near’, and kira ‘surrounding’, the third of which includes information about the circular shape in which the Figure is distributed. Finally, there are nouns that roughly translate as ‘other side’: *olabwa ‘other side of the same entity’ (with what appears to be a lexicalized reflexive marker –*wa*) and *rabuduku ‘other side, opposite’.* Apart from the above, there are a number of terms that are frame-of-reference dependent—namely, *baro ‘left’ and isa ‘right’ (relative frame of reference), ayo ‘up’ and onabo ‘down’ (absolute frame of reference), and a number of relational nouns that function as projective configurational nouns in the intrinsic frame of reference (e.g., *duna ‘to the side of’*). The projective configurational nouns are discussed below since some of them differ from non-projective configurational nouns in their behavior in the directional phrase (§ 3.6.4.1).

Configurational nouns are used in the BLC if configuration is informationally salient, signaling which spatial region is involved and how. Otherwise they are omitted, and a directionality marker is used on its own, leaving the configuration unspecified (see examples in § 3.6.3.2). The directionality marker *bithi* cannot combine with configurational nouns at all, since they do not refer to objects or people, but to spatial regions—that is, places. The atelic source marker *ôya* also does not combine with configurational nouns, a fact for which I do not have an explanation at the moment. Configurational nouns are normally attested with the *where*-marker –*n*, the telic source marker *ôya*, and the via directionality marker –*di*. When used in the BLC, they combine with the Ground-denoting noun or the relational noun naming a part of the Ground, forming a possessive phrase. As inalienable nouns, configurational nouns do not take a possessive marker. The aquatic containment configurational noun *rako ‘inside liquid’* is exemplified in (114), which is a description of a picture showing a vast swamp.

(114) *Onikhan rakon barhindâ no ma yon bôthikama firotho thorodotho.*

\[
\begin{align*}
\text{uni} \text{-t'ân} & \quad \text{rakô-} \quad \text{ba} \text{-n} = \text{da} = \text{no} \quad \text{ma} \\
\text{rain-DIM} & \quad \text{inside[liquid]-LOC-WHR} & \text{though-NMLZ=DIRCT=3F_3} & \text{but} \\
\text{yô-} & \quad \text{b-o.t'ïka-} & \quad \text{firo-} & \quad \text{t'ôrodo-} & \quad \text{t'ôo} \\
\text{LOC-ANPH} & \text{2SG portals-ABL.1} & \text{big-SBJ.REL.F} & \text{open.REFL-SBJ.REL.F} \\
\end{align*}
\]

‘Although it is in a creek, there you will find a big open space.’

In the first clause of (114) the speaker uses the BLC to locate the swamp. He uses the aquatic configurational noun *rako*, since the referent is a creek, seen here as a liquid container. The speaker’s perspective plays an important role as the creek can also be thought of as, for instance, a path on which one travels, in which case *loko*
'inside' is felicitous. The Ground in (114) is encoded by a noun, but like all other possessable nouns, configurational nouns can attach personal prefixes to encode the possessor. Interestingly, spatial relations between landscape features are often seen as permanent and therefore encoded by the Locative Equations (§ 3.8). Swamps are, however, typically seasonal, which may explain why in (114) the BLC is used instead.

Considering that possessive phrases can be nested inside one another, it would be expected that configurational nouns can form more complex possessive phrases. However, in practice such complex forms as 'horhorho bana diako khona' meaning literally 'adhering to the top of the surface of the landform' are unacceptable to the speakers. It is important to notice that the semantics of many of the configurational nouns makes them incompatible with one another, and even in the cases where there is no semantic conflict per se between the configurational nouns, stacking is not allowed. Rarely therefore do we attest examples such as (115), with configurational nouns bana 'surface' and khona 'adhering' appearing one after another. The example describes a picture from the Topological Relation Picture Series, showing a necklace on someone’s neck (Bowerman and Pederson 1992).

Example (115), however, does not include two configurational nouns, but one. The possessive phrase lwa bana 'chest' is a lexicalized body part term, followed by a configurational noun khona 'adhering'. The evidence for the lexicalized status of such expressions is presented in the discussion of relational nouns, many of which are complex body part terms (§ 3.6.5).

Since configurational nouns form possessive phrases with the Ground-denoting noun, it is worth reiterating that reflexive marking appears on the noun encoding the object of the verb, if its possessor is coreferential with the subject of the verb (§ 3.3.3). This is only the case if the object follows the predicate. This rule extends to configurational nouns in directional phrases. The possessive marker –wa is required if the possessor (the Ground-denoting noun) is coreferential with the subject of the verb, provided that the directional phrase follows the predicate. Such reflexive marking is present, however, only in the telic location and goal directionality. This is exemplified in (116), a fragment from a story about the spirit of the tapir, an animal of extreme force and strength.

Example (116) is a fragment from a story about the spirit of the tapir, an animal of extreme force and strength.

In (116), the subject of the clause is expressed by the 3rd person prefix referring to the spirit of the animal. The object is expressed by the 2nd person enclitic, and is thus...
not coreferential with the subject and not expressed by a noun. The following
directional phrase encodes the goal of the throwing motion, and consists of the
configurational noun *loko* ‘inside’, the possessor of which is expressed by the
relational noun *âbo* ‘back’. The possessor of *âbo*, in turn, is expressed by a 3rd
person prefix, coreferential with the subject of the verb. Since the subject is
coreferential with the possessor of the configurational noun (even through such *pars
pro toto* mechanisms), the reflexive marking is obligatory. Interestingly, if both the
direct object and the directional phrase fulfill the criteria for reflexive marking, only
the direct object is marked.

Finally, as a general rule, it can be summarized that all configurational nouns can
drop the location and goal directional
ity
maker –*n*, when used in a directional
phrase. This is only possible if there is no atelic suffix –*ro*, which necessitates as its
host a directionality marker. An example of the BLC in which the directionality
marker is dropped is given in (117).

(117) *Iki kolokoka to hime.*

<table>
<thead>
<tr>
<th>iki</th>
<th>koloko–ka</th>
<th>to</th>
<th>hime</th>
</tr>
</thead>
<tbody>
<tr>
<td>fire</td>
<td>inside[<em>unbounded</em>]–PFV</td>
<td>DEM:F</td>
<td>fish</td>
</tr>
</tbody>
</table>

‘The fish is in the fire.’

In (117), the configurational noun *koloko*, used to encode containment by
unbounded containers such as fire, sunbeams, rain, or ash, is used. It is marked
directly by the perfective suffix –*ka*, and there is no directionality marker –*n*, which
we typically expect with configurational nouns in the location and goal
directionality. Such optional omission of the directionality marker is possible with
many, but not all configurational nouns. Important exceptions are discussed in the
following section. Omission of the where-marker is also possible with other terms
that have a clearly locative function, such as the locative demonstrative *ya* (§
3.9.1.2). Such behavior can be explained by the fact that many configurational nouns
have a strikingly spatial meaning (notice that they often have to be translated with
English spatial prepositions). Such nouns can hardly function as the core arguments
of the verb: they belong to the nominal penumbra discussed earlier (§ 3.3.6).
Nevertheless, it should be pointed out that this varies on an individual basis. The
noun *loko* ‘inside’ can, for instance, function as the core argument of the verb when
used as a mensural expression (e.g., *ida loko* ‘the amount that fits in a calabash’).

### 3.6.4.1 Projective configurational nouns

Configurational nouns can be grouped into two types: *projective* and *non-projective.*
The former include those configurational nouns that require the knowledge of how
the spatial relation is projected, or in Levinson’s terminology, which *frame of
reference* is used (Levinson 1996; 2003; Levinson and Wilkins 2006). In the relative
frame of reference, the relation between the Figure and the Ground is defined from
the perspective of an external viewer, as in *The glass is to the left of the TV*, which
means that the Figure is located to the left of the Ground from the point of view
chosen by the speaker. In the intrinsic frame of reference, the Figure is related to the
Ground by means of the parts of the Ground itself, as in *The glass is at the TV’s front*, whereby we refer to a region projected from the part of the TV to establish the location of the Figure. In the absolute frame of reference, the spatial relation between the Figure and the Ground is expressed by means of a fixed abstract bearing, as in *Amsterdam is west of Warsaw* or *The balloon went up*. Here, the Figure is located with respect to the abstract cardinal system or the abstract vertical dimension, respectively. The category of non-projective configurational nouns, on the other hand, includes those terms that do not rely on any frame of reference for their meaning. This group includes configurational nouns expressing the notions of containment, contact, and proximity. As pointed out in the introduction to this chapter, the only elicitation task which led to contradicting results was the *Man and Tree* experiment (Levinson et al. 1992)—the purpose of which is the systematic analysis of the use of frames of reference. The preliminary results are summed up below.

The absolute frame of reference is employed by two configurational nouns *ayo* ‘up’ and *onabo* ‘down’, which refer to the absolute vertical dimension. These two nouns are unpossessable nouns, which reflects the fact that they do not establish a spatial relation with respect to the Ground, but with respect to the abstract vertical axis. From both *ayo* ‘up’ and *onabo* ‘down’ reflexive motion verbs were derived—namely, *ayomuntonon* ‘move oneself up’ and *onabotonon* ‘move oneself down’. Finally, the combination of *ayo* with the directionality marker –n functions also as a stative verb *ayonin* meaning ‘high, tall’. Interestingly, both nouns have two paradigms of forms (short and long) when combined with the directionality markers, given in Table 30.

<table>
<thead>
<tr>
<th>Directionality</th>
<th>Long</th>
<th>Short</th>
<th>Long</th>
<th>Short</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location/Goal</td>
<td><em>ayomun</em></td>
<td><em>ayon</em></td>
<td><em>onabon</em></td>
<td><em>âbon</em></td>
</tr>
<tr>
<td>Via</td>
<td><em>ayomundi</em></td>
<td><em>ayondi</em></td>
<td><em>onafodi</em></td>
<td><em>âfodi/abondi</em></td>
</tr>
<tr>
<td>Source</td>
<td><em>ayo wâya</em></td>
<td><em>onabo wâya</em></td>
<td><em>âbo wâya</em></td>
<td></td>
</tr>
</tbody>
</table>

The two pairs of long and short forms with *ayo* ‘up’ are in free variation. The *ayo* forms express the absolute direction ‘up’, but cannot be used to express the relative notion ‘above’. In order to express the latter configuration, the configurational noun *diako* ‘top’ is used, which has a secondary meaning ‘above’. Noteworthy is also the rare case of the lexicalization of the *where*-marker in the via directionality (cf. *ayomundi/ayondi*, which contain both –n and –di directionality markers). The meaning ‘up’ is exemplified in (118), in which the obsolete form of the location directionality marker –mun appears.

(118) *Ken dei ayomunka.*

`kën dei ayo–mĩŋ–ka`

and *1SG high–LOC.WHR–PFV*

‘I was up (i.e. upstairs).’
In (118), there is no expression of the Ground; the 1st person pronoun functions as the preposed subject of the stative locative clause and encodes the Figure. The context makes it clear that the speaker means ‘upstairs’.

As opposed to the two forms of ayo ‘up’, the reduced and non-reduced forms of onabo ‘down’ have different functions. They differ also from the ayo case in that here it is the configurational noun that was reduced. The reduced form âbo ‘under’ is used in the relative frame of reference, encoding a spatial relation from the perspective of the speaker. As such it forms a possessive phrase with a Ground-denoting noun, as in (119), from a casual conversation about a participant’s family.

(119) Dayonon balabalâko ma merehe âbon.

1SG–mother–PL COL–sitting.on.bottom–CONT EXPL–E.V cashew under–LOC.WHR
‘My family is sitting under a cashew tree.’

Example (119) is an empty verb clause employed here since the speaker wanted to express the posture of the Figure. This is only possible through a specialized Posture Construction (§ 3.7). The location is in turn expressed by a directional phrase with the where-marker –n attached to the configurational noun âbo ‘under’, which itself forms a possessive phrase with the Ground-denoting noun merehe ‘cashew’. In contrast, the form onabo ‘down’ cannot combine with any Ground-denoting nouns, as it encodes a direction on the abstract vertical dimension. This is exemplified in (120), an utterance form the description of a scene, in which a ball rolls downward, from the Event Triads stimulus (Bohnemeyer, Eisenbeiss, and Narasimhan 2001).

(120) Thurhibiswa onabonro.

tð–tibiswa onabô–n–ro
3f–move.REFL down–LOC.WHR–ATL
‘It moved downwards.’

In (120), an example of an active clause with the reflexive verb rhibisonon ‘roll itself’, the subject is encoded by the 3rd person prefix, while the direction of motion is expressed by the configurational noun onabo ‘down’, combined with the where-marker –n and the atelic suffix –ro.

Although results are inconclusive, it seems that the relative frame of reference is rarely used in Lokono. The case of âbo ‘under’ was mentioned above. The nouns isa ‘right’ and baro ‘left’ are always used with a possessor identifying the point of reference. The participants used these nouns in the description of numerous scenes, but often found themselves or their interlocutors in the director-matcher tasks confused, as to who the point of reference was and how to rotate the scene. Example

46 The configurational noun onabo is related to the noun onabo ‘ground’ (cf. wínabu ‘die Erde’ in the Lokono-German dictionary), which today is rarely used in its original meaning, having been substituted by horhorho ‘landform’ (chapter 4). Its original meaning is still discernible in nouns such as onabose ‘worm lizard’, from use ‘worm’.
(121) comes from a task, in which the speakers are describing to one another a set of landform drawings (§ 4.3).

(121) *Alika dan balutun akharoho, to ada deisa máyaka.*

<table>
<thead>
<tr>
<th>akaróho</th>
<th>ada</th>
<th>deisa</th>
<th>máyaka</th>
</tr>
</thead>
<tbody>
<tr>
<td>sit.down</td>
<td>now</td>
<td>DEM.F</td>
<td>tree</td>
</tr>
</tbody>
</table>

In the second (main) clause of (121), the predicate is formed by the complex directionality marker *máya* ‘side’, suffixed with the perfective marker. The possessor of the directionality marker *máya* ‘side’ is expressed by the noun *isa* ‘left’, which in turn is possessed by the 1st person prefix. The subject of the clause is expressed by the noun phrase *to ada* ‘the tree’ preposed with respect to the predicate. As mentioned before, both *baro* and *isa* appear often with the complex directionality marker *máya* ‘side’, but they are also found with the *where*-marker –*n* as in example (111) above. Quite likely the noun *yabo* ‘behind’ is also used in the relative frame of reference, since its meaning often includes visual occlusion from the speaker’s perspective.

The intrinsic frame of reference, on the other hand, is fairly well represented, and includes a number of configurational nouns, which function also as relational terms, such as *shibo* ‘front’, *olabwa* ‘other side of the same entity’, *duna* ‘side’, *shiri* ‘most frontal part’, *rhebo* ‘edge’, *boloko* ‘most elevated part’. These cases are important for the discussion of the *what/where* distinction. As opposed to non-projective configurational nouns and the projective cases described above, the projective configurational nouns used in the intrinsic frame of reference cannot drop the *where*-marker when used in directional phrases. This is related to the fact that projective configurational nouns still have non-configurational meanings—they denote in the first place parts. If the marker of directionality were dropped, the resulting phrase could be analyzed not as a directional phrase but as the core argument of the verb. This is also possible with non-projective nouns, but it is much less likely, as the meanings of the non-projective nouns, such as *rako* ‘inside liquid’ are already quite abstract spatial notions, for the most part far removed from their original meanings.

### 3.6.5 Relational nouns

The role of relational nouns in the BLC is to specify the part of the Ground with respect to which the Figure is located. Just like configurational nouns, they are an optional element in the directional phrase. Similarly too, relational nouns form a possessive phrase with the Ground (e.g., *onikhan rhebo* ‘bank of a creek’). They differ from configurational nouns in that they can readily function as objects or subjects of the verb. Configurational nouns can only be used as the core arguments of the verb under restricted circumstances described above (§ 3.6.4).
The number of relational nouns is quite high. It includes body part terms (e.g., *duna* 'arm'), terms for parts of plants (e.g., *daya* 'trunk'), terms for parts of objects (e.g., *rhebo* 'edge'), and even specialized terms for parts of landscape features (e.g., *lakabwa* 'distributary'). All such nouns denote parts, and are inalienably possessed. In Table 31 a selection of relational terms is given, including a few terms specific to the landscape domain. Importantly, there is a small overlap between Table 31 and Table 29, since some relational nouns function also as projective configurational nouns in the intrinsic frame of reference. As a relational noun *shibo* 'face', for instance, refers to a part of an entity—its front, which is usually determined by its functionality. The front of a house is, for instance, the part where the door is. When referring to a part (e.g., *bahu shibo* 'front of a house'), the noun *shibo* functions as relational noun, and can be the core argument of the verb. However, when followed by the *where*-marker –*n*, the meaning of the term changes from 'front'—a part of the entity—to 'the area in front', a spatial region projected form the part. This phenomenon is discussed and exemplified in the following analysis of the *what/where* distinction (see chapter 7 and 8).

**Table 31.**

A SAMPLE OF RELATIONAL NOUNS.

<table>
<thead>
<tr>
<th>Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>ari</em></td>
<td>tooth, a pitchfork formation of branches of a tree</td>
</tr>
<tr>
<td><em>babo</em></td>
<td>hole under the roots of a tree standing by a creek</td>
</tr>
<tr>
<td><em>bana</em></td>
<td>surface, leaf</td>
</tr>
<tr>
<td><em>boloko</em></td>
<td>top of the head, most elevated part</td>
</tr>
<tr>
<td><em>debo</em></td>
<td>part of the body immediately below the waist, inner side of a meander,</td>
</tr>
<tr>
<td></td>
<td>convex part of the land</td>
</tr>
<tr>
<td><em>dâle</em></td>
<td>large, wall-like roots of a tree growing above the ground</td>
</tr>
<tr>
<td><em>dako</em></td>
<td>tributary of a creek, river, or the sea</td>
</tr>
<tr>
<td><em>daya</em></td>
<td>trunk of a tree or bush</td>
</tr>
<tr>
<td><em>doko</em></td>
<td>lap, convex part, bent</td>
</tr>
<tr>
<td><em>duna</em></td>
<td>arm, side</td>
</tr>
<tr>
<td><em>dunabo</em></td>
<td>branch of a tree, tributary of a river</td>
</tr>
<tr>
<td><em>îma</em></td>
<td>mouth of a river</td>
</tr>
<tr>
<td><em>ina</em></td>
<td>buttocks, bottom part</td>
</tr>
<tr>
<td><em>lakabwa</em></td>
<td>distributary of a creek or river (maybe related to <em>lakadun</em> 'scatter')</td>
</tr>
<tr>
<td><em>nakan</em></td>
<td>waist, middle</td>
</tr>
<tr>
<td><em>olabwa</em></td>
<td>other side of the same entity</td>
</tr>
<tr>
<td><em>orhe</em></td>
<td>bend, especially in a river or road</td>
</tr>
<tr>
<td><em>rhebo</em></td>
<td>edge, bank of a creek, edge of forest, savanna</td>
</tr>
<tr>
<td><em>shi</em></td>
<td>head, top part</td>
</tr>
<tr>
<td><em>shibo</em></td>
<td>face, front part</td>
</tr>
<tr>
<td><em>shiri</em></td>
<td>nose, most frontal part</td>
</tr>
<tr>
<td><em>shirima</em></td>
<td>headland</td>
</tr>
<tr>
<td><em>shiroko</em></td>
<td>headwaters</td>
</tr>
<tr>
<td><em>toro</em></td>
<td>heel, base, close to the ground</td>
</tr>
</tbody>
</table>
In the BLC, and in other locative clauses, relational nouns—identifying a part of the Ground—are often followed by a configurational noun specifying the type of relation that holds between the part of the Ground and the Figure. This is exemplified in (122), which is a description of a picture showing a swamp.

(122) Onêbera to, liba rhebo khona.

\[
\begin{array}{ccc}
\text{on-êbera} & \text{to} & \text{liba rhebo khona} \\
\text{rain--AUG} & \text{DEM/F} & \text{river edge adhering}
\end{array}
\]

‘It is a swamp, by the edge of the river.’

In (122), the main clause is an equative clause in which the landscape term onêbera ‘swamp’, a combination of oni ‘rain’ and the augmentative suffix –êbera, functions as the predicate, the argument of which is the feminine demonstrative to. Following this identification comes a directional phrase with the configurational noun khona ‘adhering’. The configurational noun is unmarked for location directionality—that is, the where-marker is dropped. The possessor of the configurational noun is expressed by the possessive phrase liba rhebo, itself also a possessive phrase headed by the relational noun rhebo ‘edge’ and containing the noun liba ‘river’, a borrowing from Sranantongo. Interestingly, here the location is neither expressed as a BLC, which encodes spatial relations seen as resultative states, nor as the Locative Equation, which encodes spatial relations that are permanent (e.g., spatial relations between landscape features). Instead a bare directional phrase is employed which is indifferent to the resultative/permanent opposition (see also 3.8).

Such complex directional phrases, including both a relational and a configurational noun are common. It is thus not surprising that the combination of a relational and a configurational noun that often co-occur with each other can become lexicalized. This leads to two possible outcomes: complex relational nouns and complex configurational nouns. The latter case is exemplified by the configurational noun nakanroko ‘inside a bipartite container, between’, which is a lexicalized possessive phrase containing the relational noun nakan ‘waist, middle’ and the configurational noun roko ‘inside body part’. Such forms have the features typical of configurational nouns: they cannot easily function as the core argument of the verb, and they can drop the where-marker in directional phrases.

The alternative result, a complex relational noun, is more interesting. Some body part terms consist of a relational noun a configurational noun, for instance, shiri loko ‘nostril’ (lit. ‘inside of the nose’). Others, however, include as the first element a cranberry morpheme. Take as an example the term miroko ‘corner of the mouth’ and rheroko ‘outer side of the mouth, lips’ containing the morphemes *mi ‘corner’ and *rhe ‘edge’, which do not appear as free forms today.\(^\text{47}\) The latter morpheme is also found in rhebo ‘edge’. The degree of lexicalization of such configurational phrases has consequences for their morphosyntactic behavior in directional phrases. If the spatial configuration that needs to be expressed is identical to that expressed by the configurational noun that is lexicalized in the body part term, there are two options. Some terms behave as if the configurational term is still functional, as in (123).

\(^{47}\) Unless indicated otherwise the * symbol marks reconstructed forms.
Aba mathali dashiri lokoka.

(123) *Aba mathali dashiri lokoka.*

\[
\begin{align*}
&\text{aba mat'ali da–}\text{firi loko–ka} \\
&\text{INDF thing 1SGA–nose inside–PFV}
\end{align*}
\]

‘There is something in my nose.’

In (123), the configurational noun *loko* ‘inside’ forming the body part term *shiri loko* ‘nostril’ appears with the perfective suffix –ka attached to it (the where-marker is optionally dropped). This implies that configurational noun, which is part of the body part term, functions as part of the directional expression.

Other terms behave as if the configurational noun already became part of the complex lexicalized body part term, therefore requiring a new configurational noun to follow it to express the same type of configuration, as in (124).

\[
\begin{align*}
&\text{limiroko lokoka layorhithe.} \\
&\text{li–miroko loko–ka li–yuji–t'be} \\
&3\text{MA–corner.mouth inside–PFV 3\text{MA–tabacco–POS}}
\end{align*}
\]

‘There is a cigarette in the corner of his mouth.’

In (124) the body part term *miroko*, although clearly containing the configurational noun *roko* ‘inside body’, requires the configurational noun *loko* ‘inside’ to form a directional phrase. This test distinguishes terms such as *shiri loko* ‘nostril’ and *rheroko* ‘lips’, in which the configurational term still retains its function, from *miroko*, in which the configurational term became a lexicalized, dysfunctional part of the body part term.

However, there is also a difference between terms such as *shiri loko* ‘nostril’ and *rheroko* ‘lips’. When the directional phrase requires a configurational noun that is different from the one that forms the body part term, the *loko* of *shiri loko* is simply replaced by the right configurational term. This is not the case for *rheroko* ‘mouth’, in which case an extra configurational noun has to be used, such as *khona* ‘adhere’ in (125). If the spatial relation was that of containment, *rheroko* is not followed by an additional configurational noun—that is, the element *roko* of *rheroko* functions as the configurational noun.

\[
\begin{align*}
&\text{b'amunka aba mathali burheroko khona.} \\
&\text{b–a min–ka aba mat'ali bi–}\text{roko k'ona} \\
&2\text{GA–have–PFV INDF thing 2SGA–mouth adhere}
\end{align*}
\]

‘You have something on your lips.’

In (125) the noun *rheroko* ‘mouth’ behaves like a completely lexicalized term, without a configurational noun. It has already been noticed above that lexicalization of possessive phrases is a productive way of coining new terms in the domain of plant and animal names (§ 3.3.5). This observation can now be extended to the domain of body part terms. The point of the above discussion is to demonstrate, however, that the lexicalized expressions differ in the degree of the integration of their constituents. In the case of body part terms, this manifests itself in their behavior in the directional phrase. Yet both plant and animal terms as well as body
part terms discussed here are more lexicalized than landform terms described below (chapter 4). In the case of plant and animal terms, the possessor cannot be substituted with a personal prefix, while in the case of landform term this is still possible, and in fact often practiced. In the case of body part terms, the possessor can be substituted with a personal prefix. Body part terms are therefore quite similar to landscape terms in that they possessor and the possessed do not form a lexicalized whole; internally many body part terms do differ in the extent to which the combination of a relational and configurational noun is lexicalized. Yet, in the domain of body part terms there is no lexicalized common denominator that functions as the sole possessor of body part terms. Rather, body part terms combine with personal prefixes or nouns denoting people or animals. In the domain of landforms, there is a unique beginner—namely, horhorho ‘landform’—which is part of all landform terms (e.g., horhorho bana ‘surface of landform’). This is discussed further in the chapter on landforms (see chapter 4).

3.6.6 The encoding of the Ground

Within the Basic Locative Construction, but also in more complex types of locative clauses, the Ground can be expressed by free forms such as nouns, pronouns, and demonstratives, or by a prefix attached to relational nouns, configurational nouns, or directionality markers, depending on the complexity of the expression. The choice is guided by the same principles that determine the use of nouns, pronouns, demonstratives, and prefixes in other contexts. Generally speaking, nouns are used when a new Ground is introduced into discourse. In the case of answering a locative question, the Ground is therefore often encoded by a noun, since it is likely to be new information. When talking about spatial relations concerning Grounds that are already established in the discourse, personal prefixes are preferred. Pronouns are typically used for topicalization, while demonstratives for contrast and emphasis. Moreover, two configurational nouns—namely, ayo ‘up’ and onabo ‘down’—encode directions on the absolute vertical dimension, and are never possessed. Finally, the attributive prefix ka– is occasionally attested with configurational nouns as in example (126), which was elicited with the Picture Series for Positional Verbs (Ameka, Witte, and Wilkins 1999).

(126) Kêke kalokoka khali doli.

\[
\begin{array}{llll}
\text{kêke} & \text{kalokoka} & \text{khali} & \text{doli} \\
\text{basket} & \text{ATR–inside–PFV} & \text{bitter.cassava tuber} \\
\end{array}
\]

‘The tubers of the bitter cassava are in the basket.’

In (126) the Figure is expressed by the possessive phrase khali doli ‘cassava tubers’ following the predicate. The Ground is expressed by the noun kêke ‘type of basket’. The predicate consists of the configurational noun loko ‘inside’ and the perfective suffix –ka. It is not clear why in this example the speaker used the attributive prefix, which can be omitted without affecting the grammaticality of the sentence, nor its meaning. The use of the attributive prefix ka– is here reminiscent of the use of the expletive prefix k–, and a better understanding of such examples may shed light on the possible historical relation between the attributive ka– and the expletive k–.
Finally, there are rare cases in which the Figure/Ground dichotomy, which we have until now taken for granted, is put to a test—namely, spatial configurations of entities in which none of them stands out as the Figure or the Ground. Instead, both entities are considered the Figure and the Ground at the same time, and the spatial relation that holds between them is seen as reciprocal. In such cases, the attributive prefix on the configurational noun, encoding the Ground, has the same referent as the subject of the predicate, encoding the Figure. Example (127) is a description of a picture from the *Picture Series for Positional Verbs* showing two sticks standing side by side (Ameka, Witte, and Wilkins 1999).

(127) *Kakosakada no.*

\[
\begin{array}{c}
\text{ka–kosa–ka=da=no} \\
\text{ATR–near–PFV=DIRCT=3f_B} \\
\text{‘They are near each other.’}
\end{array}
\]

Example (127) is the complete answer given by the speaker to describe such a scene. The two entities, which are the same type of entity (sticks), are encoded by the 3rd person feminine enclitic. This enclitic is unspecified with respect to number; here it refers to a plural referent. There is no expression of the Ground, neither in the preceding, nor in the following discourse. Instead, the attributive prefix—taking the place of a personal prefix encoding the Ground—is in this case coreferential with the subject. Literally, the sentence could be read as *They have a “near” spatial relation*. This pattern is not uncommon as such, but it is uncommon in stative locative clauses. Reciprocal spatial relations are typically expressed by a subtype of the Posture Construction in which the attributive prefix is used (§ 3.7.4). In the case of stative clauses, such use of the attributive prefix has been attested only with one noun—namely, *kosa* ‘near’. This is clearly attributable to the fact that *kosa* encodes a symmetrical spatial relation, prone to such a reciprocal interpretation.48

---

48 Although not related to the topic of the expression of the Ground, one idiosyncratic form should be mentioned as well. The configurational noun *loko* ‘inside’ seems to have been combined with the attributive prefix *ka*– resulting in a stative verb *kalokon* ‘have a hole’.
3.7 Posture Construction

The predicate of the BLC does not contain a verb; it is a complex stative predicate built out of the Ground-denoting noun, relational and configurational nouns, and a directionality marker suffixed with the perfective –ka. In Lokono there is therefore no class of *positional verbs*—that is, posture verbs that are obligatory in the BLC, comparable to Dutch *staan* ‘stand’, *liggen* ‘lie’, and *zitten* ‘sit’ (Ameka and Levinson 2007). In Dutch such verbs encode the posture of the Figure, and are obligatory in most spatial descriptions (e.g., *Het boek ligt op tafel*, lit. ‘The book lies on the table’). In fact, Lokono does not even have a class of posture verbs—that is, verbs expressing the position or internal configuration of an entity. This does not imply, however, that Lokono lacks means to express posture or that posture is less important to the speakers. When information about posture needs to be expressed, the Lokono speakers have at their disposal a set of posture adverbs and a dedicated construction, which allow for the expression of posture. The relevant structure, called the *Posture Construction* (henceforth PC), has the form of an empty verb clause with posture adverbs derived with the adverbializer –ko/–kwa. In the following sections, I first summarize the morphosyntactic features of the construction (§ 3.7.1). Subsequently, I give an overview of the posture adverbs used in the PC and their morphosyntactic features (§ 3.7.2). I then discuss the functional domain of the PC in comparison to that of the BLC (§ 3.7.3). Finally, I present a construction that has the same form as the PC, but is used to encode reciprocal spatial relations instead of posture (§ 3.7.4).

### 3.7.1 Morphosyntactic features of the Posture Construction

The PC has the typical features of an empty verb clause (§ 3.5.4). The main verb is the empty verb *o/a*, to which the TAM markers and the personal prefixes encoding the subject are attached. The collective marker –be can also appear on the empty verb if followed by the perfective suffix –ka. The expletive prefix *m–* is used if the subject is expressed by a preposed noun phrase. The semantic content—that is, the information about the posture—is encoded by an adverb derived with the adverbializer –ko/–kwa (e.g., *kurumwâkwan* ‘sitting with legs under one’s bottom’). As with other adverbs derived with the adverbializer, reduplication is employed to encode collectivity. Finally, if the Ground needs to be expressed, it is introduced as a directional phrase, functioning as an adverb of location to the empty verb.

Example (128) is an illustration of the features of the PC. It was elicited with the *Picture Series for Positional Verbs* stimulus showing a number of footballs on the ground (Ameka, Witte, and Wilkins 1999).

(128) *Burheburhéko tha to kayorhéro udabe orhorho diako.*

\[
\begin{array}{ll}
\text{bíːɾe–bíːɾe–ko} & \text{tʰ–a} \\
\text{COL–lying–CONT} & \text{3FE–E.V} \\
\text{to} & \text{ka–yɔɾeː–ɾo} \text{ida–be} \text{ɔɾɔɾo} \text{dʰako} \\
\text{DEM–F} & \text{ATR–throat–F} \text{skin–COL} \text{landform top} \\
\end{array}
\]

‘A number of footballs are sitting on top of the ground.’
In (128), the subject is encoded on the empty verb with the 3rd person feminine prefix, as well as by the appositional noun phrase to kayorhêro udabe 'the footballs' (lit. 'the many skins of the one with the neck'). Since the subject is not preposed, the expletive prefix m– is not used on the empty verb. The noun uda 'skin' is a set noun, and as such cannot combine with the plural marker –non, but it combines with the collective suffix –be signaling collectivity. Collectivity is also encoded by the reduplicated adverb burheburhêkwan. The directional phrase at the end of the clause encodes the location. It consists of the configurational noun diako 'top', unmarked for the location and goal directionality. The possessor of the configurational noun, horhorho 'landform', encodes the Ground.

3.7.2 Morphosyntactic features of posture adverbs

Lokono posture adverbs are derived with the adverbializer –ko/-kwa, for instance, balâko ‘sitting on one’s bottom’. The vowel preceding the adverbializer is always a long vowel, in the vast majority of the cases a long /aː/. The morphosyntactic possibilities of such adverbs are limited; they appear exclusively in clauses with the empty verb. They can, however, be nominalized with the event nominalizer –n. When preceding the event nominalizer, the adverbializer always has the form –kwa, for instance, balâkwan ‘sitting on one’s bottom’. The nominalized form is used in this thesis and in other publications on Lokono as the citation form of such adverbs, since the adverbial form is context-dependent. A selection of such (nominalized) adverbs is given in Table 32. Worth noticing is the semantic specificity of the posture adverbs, particularly visible in the vocabulary of sitting positions, such as balâkwan ‘sitting on one’s bottom’, kurumwâkwan ‘sitting with legs under one’s bottom’, kurwâkwan ‘sitting with legs crossed’, and teberêkwan ‘squatting on the ground’. In a few cases (i.e. the adverbs of hanging), I was unable to define the meanings of the adverbs precisely at this point in the analysis.
TABLE 32.
A SAMPLE OF DERIVED POSTURE ADVERBS.

<table>
<thead>
<tr>
<th>Nominalized adverb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>dinabâkwan</td>
<td>standing in an upright position</td>
</tr>
<tr>
<td>balâkwan</td>
<td>sitting on one’s bottom</td>
</tr>
<tr>
<td>kurumwákwan</td>
<td>sitting with legs under one’s bottom</td>
</tr>
<tr>
<td>kurwákwan</td>
<td>sitting with legs crossed</td>
</tr>
<tr>
<td>teberêkwan</td>
<td>squatting on the ground</td>
</tr>
<tr>
<td>yowákwan</td>
<td>hanging (possibly a variant of yolâkwan)</td>
</tr>
<tr>
<td>yolâkwan</td>
<td>hanging (possibly a variant of yowákwan)</td>
</tr>
<tr>
<td>wêlâkwan</td>
<td>hanging, covering (possibly from Spanish vela ‘sail’)</td>
</tr>
<tr>
<td>duluwâkwan</td>
<td>leaning (from the noun dule ‘support’)</td>
</tr>
<tr>
<td>burhêkwan</td>
<td>lying (from the stative verb burhen ‘horizontal’)</td>
</tr>
<tr>
<td>tholâkwan</td>
<td>hanging lazily in a hammock</td>
</tr>
<tr>
<td>lakâkwan</td>
<td>scattered (related to lakadun ‘scatter’)</td>
</tr>
<tr>
<td>laliâkwan</td>
<td>lined up vertically (related to lalidin ‘arrange vertically’)</td>
</tr>
<tr>
<td>fitâkwan</td>
<td>clinging (from fitin ‘paste’)</td>
</tr>
<tr>
<td>kodivákwan</td>
<td>rolled in a circle (related to kodidin ‘roll up’)</td>
</tr>
<tr>
<td>hôrhodâkwan</td>
<td>piled-up (related to horpho ‘pile, sediment’)</td>
</tr>
<tr>
<td>shifwâkwan</td>
<td>upside-down (related to shibo ‘face’)</td>
</tr>
<tr>
<td>håtâkwan</td>
<td>stuck (related to the stative verb hâtata ‘stutter’)</td>
</tr>
</tbody>
</table>

Some of the posture adverbs have corresponding active verbs listed in Table 33. Such verbs usually encode an activity that results in the posture encoded by the adverb. The adverb balâkwan ‘sitting on one’s bottom’, for instance, is related to the active verb balutun ‘sit down on one’s bottom’ derived with the verbalizer –tV from the root balu– (§ 3.4.3). From such verbs, in turn, a number of other forms can be derived, such as the verbs balutadan and balutukutun. The former means ‘sit together in a group’, for instance, when paying a visit to a family. The latter is inextricably linked to the cultural practices related to the first menstruation. It is a causative verb derived with the suffix –kVtV, meaning ‘have a girl sit alone for a period of time after her first menstruation in a structure constructed specifically for this purpose.’
It is difficult today to ascertain the grammatical class of the bases from which the adverbs are derived. Some of the bases appear to be cranberry morphemes (e.g., the root of \textit{tholákwan} ‘hanging lazily in a hammock’). In a few cases a nominal source has been found. The base of \textit{horhodákwan} ‘piled-up’, for instance, is the term \textit{horho} ‘sediment, pile’, which is the non-reduplicated form of the noun \textit{horhorho} ‘landform’ (chapter 4). Yet the root \textit{horho} appears to have been first verbalized with the verbalizing suffix \textit{–dV}, before serving as the input for the adverbializer. The verbal source is also confirmed in cases such as \textit{fitákwan} ‘clinging’, derived from the active verb \textit{fitin} ‘paste’. It seems therefore that the posture adverbs are derived from verb in keeping with the general tendency of the adverbializer \textit{–ko/-kwa}. As mentioned above, however, the adverbializer is also occasionally attested with nouns, a feature of the Lokono derivational morphology as a whole (§ 3.5.4.1 above).

### 3.7.3 Functional limits of the Posture Construction

The functional domain of the PC is delimited in principle by two factors: informational salience and animacy. The PC is also used as a conventionalized greeting formula. The \textit{Picture Series for Positional Verbs} stimulus was designed specifically as a set of scenes contrasting not only different postures, but also scenes, in which posture is informationally salient with those in which it is not (Ameka, Witte, and Wilkins 1999). A good example of the former spatial arrangement is illustrated in Figure 3, showing seven bottles; some of them are standing while others are lying on the table. The participants in the elicitation session were asked for each of such scenes to say where the Figures are. In other words, they were asked a simple locative question that typically triggers the BLC. Although the participants occasionally did use the BLC in the description of such scenes, and
answered simply *tafra diako* ‘on top of the table’, using the borrowing *tafra* ‘table’ (from Sranantongo or Dutch), a more typical answer is the one given in (129) below.

**Figure 3.**—Photograph 46 from the *Picture Series for Positional Verbs.*

(129) *Abaro kho botoli, tafra diakoka, aburuku dinabåko ma, kabunbe dinabåko ma,* ken bîthi burheburhêko ma.

<table>
<thead>
<tr>
<th>abaríro</th>
<th>botoli</th>
<th>tafra</th>
<th>d’ako-ka</th>
</tr>
</thead>
<tbody>
<tr>
<td>one-F=NEG</td>
<td>bottle</td>
<td>table</td>
<td>top-PFV</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>abiriki</th>
<th>d’inaba-ko</th>
<th>m-a</th>
</tr>
</thead>
<tbody>
<tr>
<td>some</td>
<td>standing-CONT</td>
<td>EXPL-E.V</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>kabim-be</th>
<th>d’inaba-ko</th>
<th>m-a</th>
</tr>
</thead>
<tbody>
<tr>
<td>three-COL</td>
<td>standing-CONT</td>
<td>EXPL-E.V</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>kem</th>
<th>bi Child</th>
<th>biçe-biçe-ko</th>
<th>m-a</th>
</tr>
</thead>
<tbody>
<tr>
<td>and</td>
<td>four</td>
<td>COL-lying-CONT</td>
<td>EXPL-E.V</td>
</tr>
</tbody>
</table>

‘(There) are many bottles on the table, some are standing, three are standing, and four are lying.’
In (129) the speaker first made a general comment using the BLC, and declared that there are many bottles on the table, employing litotes to express multiplicity (abaro kho ‘many’, lit. ‘not one’). In the remainder of the description, however, the speaker paid attention to the differences in the postures of the various bottles. The second, third and fourth clause of (129) are examples of the PC. In all three cases the expletive prefix m– appears on the empty verb, since the subjects are topicalized and appear as noun phrases before the predicates. The posture adverbs dinabako ‘standing’ and burheko ‘lying’ express the semantic content of the predicates, differentiating the two types of postures illustrated in the picture.

Animacy and humanness are the other criteria that determine the choice between the BLC and the PC. The PC is preferred when describing spatial scenes, in which the Figure is an animate entity. If the Figure is a human, the PC is particularly frequent. This is illustrated in (130), which comes from an elicitation session based on the Man and Tree stimulus, consisting of pictures of a toy man and a toy tree in different spatial configurations (Levinson et al. 1992). The participants in these director-matcher tasks were asked to describe as well as they could a chosen picture form such a set of pictures, so that another participant could identify the same picture in the same set placed in front of him.

(130) Abali kakathi dinamako ma, ken dukhako la ada bithiro.

aba–li kaki–ti d’inama–ko m–a
one–M alive–SBJ.REL:M standing–CONT EXPL–E.V
kên dik’a–ko l–a ada bitji–ro
and see.INTRV–CONT 3M=E.V tree LOC.WHT–ATL
‘A man is standing, and he is looking toward the tree.’

In (130), two examples of an empty verb clause appear. The first clause is an example of the PC, encoding the posture of the toy man with the adverb dinamako, a speaker-dependent variant of dinabako ‘standing’ that appeared in (129). In this case, the use of the PC is motivated by the nature of the Figure, not the informational salience of posture; the man is standing in all of the pictures in the Man and Tree stimulus (Levinson et al. 1992). Even though it is a toy, and not a real person, the PC was the most common way of describing such scenes.

The PC has also a socially important function as a conventionalized greeting formula. I mentioned before that a common way of greeting people is with a rhetorical question about the activity or state they appear to be engaged in (§ 3.5.4). The relevant example (69) is an equative clause repeated below as (131). Such greetings are conventionalized and there is no irony implied here.

(131) Balabalakwanthiboda hi?

bala–bala–kwa–n–ti–bo=da hi:
COL–sitting.on.bottom–CONT–NMLZ–SBJ.REL:M–PRG=DISTRCT 2PI.
‘How do you do?’ (lit. ‘Are you still sitting now?’)

In (131), the complex nominalization with the masculine relativizer and the progressive marker functions as a nominal predicate of the argument expressed by
the 2\textsuperscript{nd} person pronoun. Importantly, at the core of the predicate in (131) is the nominalized posture adverb *balákwan* ‘sitting on one’s bottom’. Such greetings are in fact usually framed as empty verb clauses, and typically encode posture.

(132) **Balabaláko habo?**

\begin{align*}
\text{bala} & \text{bala:–ko} & \text{h–a–bo} \\
\text{COL} & \text{–sitting.on.bottom–CONT} & \text{2PL–E–V–PRG} \\
\text{‘How do you do?’ (lit. ‘Are you still sitting now?’)}
\end{align*}

Example (132) is pragmatically equivalent to (131), but it has the form of an empty verb clause triggered by the adverb. Other posture adverbs used in such greetings are *burhäkwan* ‘lying’, *tholâkwan* ‘hanging lazily in a hammock’, *kurumwâkwan* ‘sitting with legs under one’s bottom’, and *kurwâkwan* ‘sitting with legs crossed’. A typical reply to such a greeting echoes the structure of the question, and a departure from this convention may have undesirable overtones. If one uses, instead of a posture adverb, an adverb derived from a verb encoding an activity (e.g., *dorâkwan* ‘weaving’), the speaker may be signaling irritation on his part. Breaking the convention signals that the speaker is engaged in a particular activity other than maintaining the posture.

Some of such greetings depart from the original idea of a rhetorical question about what one is doing at the moment. The following example is considered rude, but not offensive. It does at the same time speak volumes for the typical Lokono sense of humor, which is quite sexually explicit.

(133) **Wêlawêlâko habo?**

\begin{align*}
\text{we:la} & \text{–we:la:–ko} & \text{h–a–bo} \\
\text{COL} & \text{–hanging–CONT} & \text{2PL–E–V–PRG} \\
\text{‘How are you guys?’ (lit. ‘Are you guys a-hanging?’)}
\end{align*}

Employing a *pars pro toto* figure of speech, the greeting in (133) is used to address a group of men by jokingly referring to the male genitalia (that are hanging). An analogical greeting can be used with women, substituting *wêlawêlakwan* ‘hanging (as a group)’ with *ôleôlêko* ‘pierced (as a group)’. Both greetings are rumored to be typical of the Sabajo family, the members of which are said to be real jokers at heart. On a more serious note, it is worth noticing that the greeting pattern is conventionalized. So much so that even people whose Lokono language skills are rudimentary are familiar with it. It should come as no surprise that the most frequent greeting a field linguist hears in the village, which is on the whole Dutch and Sranantongo speaking, is *Ben je aan het wandelen?* ‘Are you walking around?’. This greeting, which is a calque of the Lokono formula, says as much about the persistence of the typical greeting patterns of the Lokono, as it does about the activities of the field linguist in the, sometimes vast, Lokono villages.

3.7.4 Expression of reciprocal spatial relations

A reciprocal spatial constellation is a situation in which neither of the two or more entities involved is profiled exclusively as the Figure or the Ground. Typically this
involves entities that are of the same type (e.g., two stick, three stones etc.) or at least entities of similar size (e.g., a pot and a tree stump). In such situations, the entities involved can be considered on a par and are treated as the Figure and Ground simultaneously with respect to each other. An example of such a situation was discussed above—a rare case of the BLC, in which the attributive prefix takes the place of a personal prefix attached to the configurational noun, which normally encodes the Ground, and cross-references the subject, typically encoding the Figure. This rare case of the BLC is explained by the fact that the configurational noun kosa ‘near’ lexicalizes a spatial relation that is fairly symmetrical (see the discussion of example (127) above).

Such spatial arrangements are, however, more frequently encoded by an empty verb clause. Posture as such is not important in such cases, but the reciprocal spatial relation describing the internal configuration of set of entities is clearly a semantically-motivated deviation from the general pattern of encoding posture (i.e. the internal configuration of a single entity). The main verb in such situations is the empty verb o/a, which bears the TAM suffixes and the person markers. The spatial relation is encoded by a configurational noun prefixed with the attributive ka–, which fills the possessor slot of the inalienable configurational noun. The configurational noun is then suffixed with the adverbializer –ko/–kwa, forming an adverb encoding the reciprocal spatial relation, for instance, kadunako ‘side to side’.

The final vowel of the configurational noun becomes a long /aː/, as is usually the case when the adverbializer is attached. The directionality marker is never present on configurational nouns in such adverbs, even on those that normally require it, such as shibo ‘face’. Similarly to other adverbs in –ko/–kwa, the adverbial form is strictly limited to the empty verb context, but the adverbs can also be nominalized (e.g., kadunakkwan ‘side to side’). An example of such a construction is given in (134), a description of a picture from the Picture Series for Positional Verbs stimulus showing four cassava tubers lying on the ground (Ameka, Witte, and Wilkins 1999).

(134) Kadunako thabeka.
         ka–duna–ko tʰ–a–be–ka
       ATR–arm–CONT 3F.A–E.V–COL–PFV
       ‘They are one next to another.’

The clause structure of (134) does not differ significantly from the structure of the PC. The subject is expressed here by the 3rd person feminine prefix on the empty verb, which is suffixed with the collective and the perfective suffixes. The spatial relation is expressed by the adverb kadunako ‘side by side’. In Table 34 adverbs attested in this construction, together with the configurational nouns they are derived from are listed. Similarly to other adverbs in –ko/–kwa, they can be reduplicated to encode collectivity, if there are more than two entities involved. Notice that collectivity normally implies more than one; in the cases discussed here it implies more than two, since two is the minimum number of entities required for a reciprocal relation to hold.
If need be, the subject of the clause can be expressed by an appositional noun phrase, as in example (135), in which two different entities are framed in a reciprocal spatial relationship. Interestingly, example (135) is a description of a photograph in which a pot is lying next to a tree stump, an immovable entity, which an English speaker would typically profile as the Ground.

(135) *Dwada matho ada toro, kakosâko thâ.*

\[
\begin{array}{l}
dwada \quad ma-\bar{t}o \quad ada \quad toro \quad ka-\bar{kosa}:--ko \quad \bar{t}^{h-a} \\
pot \quad \text{COM-SBJ.REL:F} \quad \text{tree stump} \quad \text{ART-near–CONT} \quad 3\text{F}_\text{A-E.V}
\end{array}
\]

‘A tree stump and a pot are next to one another.’

In (135) the subject is explicitly named by a preposed noun phrase. In Lokono noun phrases can only be conjoined by turning an expression with the comitative into a relative clause, forming a larger noun phrase. In (135) the possessive noun phrase *ada toro* ‘tree stump’ is the head of the phrase, modified by a relative clause *dwada omatho* ‘one with a pot’. I am not sure why in this case the expletive prefix *m*– is not used on the empty verb.\(^{49}\)

If posture is informationally salient it is encoded by the nominalized form of the posture adverb following the empty verb, as in (136), which describes the position of the speaker and me sitting in front of a laptop.

(136) *Kakosâko wa balâkwan.*

\[
\begin{array}{l}
ka-\bar{kosa}:--ko \quad w--\bar{a} \quad bala:--kwâ--\bar{g} \\
\text{ART-near–CONT} \quad 1\text{PL}_\text{A-E.V} \quad \text{sitting.on.benchmark–CONT–NMLZ}
\end{array}
\]

‘We are next to one another, sitting (on bench).’

In (136) the nominalized form *balâkwan* ‘sitting on one’s bottom’ follows the empty verb. Such event nominalizations function often as equivalents of adverbal clauses (§ 3.5.6); in (136) the nominalization functions as an adverbial clause of manner.

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\(^{49}\) It may be the case that *dwada matho ada toro* is a separate equative clause to the speaker, therefore not affecting the use of the personal prefixes on the empty verb in the second clause.
3.8 Locative Equation

The BLC is the default—that is, the most frequent—construction opted for in the linguistic encoding of spatial relations. It is an instantiation of a more general locative stative clause, in which the directional phrase is suffixed with the semantically most neutral of the TAM markers, the perfective –ka. However, when a stative clause is compared with an equative clause, the functional limits of the BLC become conspicuous. Stative clauses encode states that are considered potentially changeable. On a more abstract level, such states are the results of previous events and causes of future events. On the level of linguistic form, the obligatory TAM markers modulate the different temporal, aspectual, and modal dimensions of the state. The equative clause, on the other hand, has primarily an identificational function, which is in principle detached from the temporal, aspectual, and modal template. Such dimensions can, however, be specified by the optional addition of some TAM markers to the nominal predicate (§ 3.5.3). The difference between the two types of clauses is particularly pronounced in the case of the perfective –ka, which is the only TAM marker not allowed in equative clauses. The use of the perfective marker implies a resultative, temporary reading. This implication is absent in equative clauses, in which the argument is identified as or equated with the nominal predicate, implying a permanent relation.

This difference between stative and equative clauses translates into the difference between the BLC and the Locative Equation (henceforth LE). The former encodes spatial relations that are seen as resultative, temporary states. The latter encodes spatial relations that are considered permanent. Such equative clauses were occasionally attested as responses to the elicitation materials used, but were attested more often in the corpus of Lokono recordings. The scarcity of such constructions in the elicited data is attributable to the fact that the stimuli focus predominantly on spatial relations that involve non-permanent relations between tabletop type of entities. Below I first compare the structure of the LE to that of the BLC (§ 3.8.1). Subsequently, I discuss the functional domain of the LE. I first present a permanent spatial relation in which the Figure is a human being—the relationship that holds between a person and their home village (§ 3.8.2). Secondly, I discuss cases in which the relation is encoded as the LE, because it is thought of as stereotypical—that is, the predictable habitats of animals and spirits (§ 3.8.3). Subsequently, I turn to the landscape domain, in which the relationship between landscape elements is often encoded by the LE because of the spatial and temporal stability of the referents (§ 3.8.4). Finally, the LE is also used to encode permanent reciprocal spatial relations (§ 3.8.5).

3.8.1 Morphosyntactic features of the Locative Equation.

On the level of linguistic form, the stative and equative clauses share the core of the predicate, which in one case is suffixed with the perfective –ka, and in the other case nominalized with a relativizer. Given the right context, in both cases the core element can be a verbal or a nominal expression. In the specific subtypes of stative and equative clauses expressing spatial relations, the BLC and the LE, the shared element is the directional phrase, which is nominal in nature. In the BLC, the
directional phrase forms a stative predicate by attaching the perfective suffix –ka. In the LE, the directional phrase is combined with a relativizer forming a nominal predicate. The complexity of the directional phrase is irrelevant. As in all directional phrases, minimally the Ground and the directionality have to be expressed, but additional relational and configurational nouns can be included in keeping with the restrictions on the combinatorial possibilities of the elements of the directional phrase discussed in previous sections. The two constructions differ, however, in the encoding of the Figure. In stative clauses, and therefore also in the BLC, the subject can be encoded by personal enclitics. In equative clauses, and hence also in the LE, the subject cannot be expressed by personal enclitics, but only by free forms, since such clauses are the de facto juxtapositions of two stand-alone nominals. The LE does not depart therefore in any other way from a typical equative clause. The relativizers used include only the subject relativizers, since the stative clauses have one core argument only: the subject encoding the Figure. The argument typically follows the predicate, but can be fronted for topicalization (§ 3.5.3). Interestingly, the BLC has a corresponding basic locative question; analogically there is also a locative question echoing the structure of the LE (§ 3.12).

3.8.2 Relation between a person and their home

The relation between a person and their home is important to everyone. In Lokono, the linguistic manifestation of this strong bond is found in the use of the LE instead of the BLC to contrast belonging to a certain place and being at a certain location. Consider the two examples given below. In both cases, the directional phrase is the same: Kasuporhin ‘in Cassipora’. The Ground is the Cassipora village and the spatial configuration is unspecified (i.e. there is no configurational noun). The directionality is expressed by the where-marker –n, typically combining with place names.

(137) Kasuporhinkada we.
   kasi puñ–n–ka=da=we
   Cassipora–LOC.WHR–PFV=DIREC=1PL
   ‘We are in Cassipora.’

Example (137) is an instance of the BLC stating the location of the Figure. It is a stative clause, which manifests itself in the use of the B-class personal enclitic. Example (137) could be used when talking on the phone with someone in another village to describe one’s current location. This form and meaning can be contrasted with example (138).

(138) Kasuporinhithida wei.
   kasi puñ–n–tʃi=da
   Cassipora–LOC.WHR–SBJ.REL=M=DIREC 1PL
   ‘We are in Cassipora’ (lit. ‘We are the people in Cassipora’)

Utterance (138) is an example of the LE, in which the directional phrase is combined with a relativizer and functions as a nominal predicate. The argument of
this nominal predicate is expressed by the 1st person plural free pronoun. This particular example comes from a narrative about the inhabitants of the Cassipora village, in which it serves to affirm that the inhabitants were always there and will always be there too. It expresses a spatial relation that is considered permanent or timeless, even if at a given point in time it may not obtain. Example (138) could also be used as an answer to a question: Where do you live? An alternative way of expressing such a relation is a stative clause with the verb kakun ‘alive’ and a directional phrase functioning as an adverb of location.

If a person has moved to a new village, as used to be the case for many Lokono men, since the village exogamy was prevalent, the directional element is changed. Instead of the location and goal directionality, the telic source directionality marker âya is employed, as in example (98) above given here again as (139).

Example (139), although employing the source directionality, is still an instance of the LE, in which a spatial relation is expressed as an equative clause, thus imparting it with temporal permanence. Interestingly, the venitive marker could be added to the predicate in (139), which makes it difficult to treat such locative expressions as instances of fictive motion (Langacker 1987; Talmy 1983). This source formula with the venitive marker is also used to express descent—that is, the membership in a particular family, as in (140).

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Worth noting is the fact that Lokono and English use here different spatial dimensions to encode blood relations. While English uses the vertical dimension encoded in the verb descend, the Lokono verb thokodon ‘descend’ is unacceptable in such contexts. Instead the venitive marker encoding motion toward the deictic center is used. It is tempting to think of the Lokono pattern in terms of the Lokono village exogamy, which necessitates in fact that the married-in male member of the community literally come toward the deictic center from another village.

**3.8.3 Typical habitat of animals and spirits**

The LE can also be used to describe the typical locations where certain animate beings are found—that is, the habitats of certain animals and spirits. The Lokono

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50 The verb descend comes of course from Latin, and English has also other ways of expressing blood relations.
people are very knowledgeable about where certain species make their burrows and nests, where they typically graze and gather fruits, or where they come to drink water. Certain animals are particularly strongly associated with specific places, which occasionally leads to naming locations after the animal activity that takes place there. However, I have only limited data on animal species due to the focus on landscape classification, as opposed to ethnobiological classification. As part of the landscape research, however, I have discussed with the speakers the typical abodes of spirits, particularly the water spirit oriyo and the spirits associated with rock formations (see also chapter 5 and 4, respectively). The oriyo (from ori oyo ‘snake’s mother’) is the most powerful of the spirits according to the Surinamese Lokono. The speakers on the whole are not willing to discuss matters related to the oriyo spirit, most likely due to linguistic taboos and general restrictions and avoidance strategies, employed in order not to attract the spirit’s attention. Nevertheless, I was informed by the speakers what the typical habitat of the spirit looks like. An example from the discussion of the oriyo spirit is given in example (141).

(141) Thushikwa, inia bolok to.
    tʰi-jikwax ijniaboko loko-tʰo to
    3FA-house.POSS water inside-SIBJ.REL:F DEM:F
    ‘(Water spirit’s) house, it is in the water.’

In (141) the predicate is expressed by the directional phrase inia bolok ‘inside water’ combined with a relativizer. The argument in turn is encoded by the deictically unmarked demonstrative pronoun to. The preposed appositive noun phrase is coreferential with the subject. This sentence is a general statement about the stereotypical locations that harbor the oriyo type of spirits. The deictically unmarked demonstrative is used here not with reference to any particular location that can be identified in space, but as placeholder for the preposed subject expression. I have not attested an equivalent construction with the stative verb kakun ‘alive’ in the context of animals and spirits, which leads me to the conclusion that the verb kakun is used predominantly with human referents.

Such examples can be contrasted with (142), which comes form a discussion of the oriyo spirits with another elder in Cassipora. In this case, however, the speaker was not making a general statement but commenting on a particular oriyo spirit that lives in a creek nearby his house. Notice that the speaker uses kriki, a borrowing from Sranantongo (and ultimately from Dutch kreek or English creek), to talk about the water feature.

(142) Yarakathushikwa, tora kriki.
    ya–ra–ka tʰi–jikwax to–ra kriki
    LOC:DEM–MED–PFV 3FA-house.POSS DEM:F–MED creek
    ‘There is its home, that creek.’

Example (142) is a locative stative clause, in which the predicate contains the medial demonstrative adverb yara, while the subject is encoded by the following noun phrase. In this case, the spatial relation is not seen as stereotypical; on the contrary the speaker is focusing on the spirit that lives in a creek close to his house—hence
the use of a stative clause. This is also clear from the use of the deictically marked demonstrative pronouns and adverbs in (142), which do refer to a specific location. The LE and the BLC can be employed to encode such contrasts between stereotypical relations and specific instantiations of spatial configurations. This extends to the animal world as well, but it should be stressed that such knowledge of both the local faunal and spiritual kingdoms is quickly disappearing. Only a fraction of the cultural practices associated with the spiritual world described in the historical ethnographic record can be observed today (Goeje 1942; Renselaar and Voorhoeve 1962; Roth 1915; 1924; 1929).

3.8.4 Permanent spatial relations between landscape features

The Locative Equations is also used when the Figure is a landscape feature. In this case, the LE is preferred over the BLC since landscape features are in principle immovable entities, and therefore their location is permanent. The LE is of course used only when a landscape feature is the Figure, not the Ground. This is exemplified in (143), which is a description of a photograph showing a number of large stones in the middle of a creek.

(143) To kaduro thokoborokhodi, oniabo koborokhoditho to.
      to        kidi–ro  t’o–koborok’o–d’i
      DEM:F heavy–F 3F,–inside[multipartite]–VIA
    oniabo  koborok’o–d’i–t’o
    water  inside[multipartite]–VIA–SBJ,REL:F DEM:F
  ‘The stones are surrounded by it, they are surrounded by the water.’

In (143) the speaker first uses a directional phrase, which is neither combined with a relativizer nor suffixed with a TAM marker, and as such escapes the resultative/permanent dichotomy. He uses the configurational noun koboroko, which encodes a situation in which the Figure is surrounded by the Ground from multiple sides. The via directionality suffix is employed to signal that the Figure is distributed through the Ground. The speaker then uses the same configurational noun in a clause that has the form of the LE. The Figure is expressed by the deictically unmarked demonstrative, coreferential with the noun phrase to kaduro ‘the heavy one’, speaking volumes for the immovability of the referent (i.e. stone). The Ground is encoded by the noun oniabo ‘water’.

Such examples can again be contrasted with the use of the BLC. Example (144) comes form a description of a scene from the Put Project stimuli, showing a person throwing a number of stones on the ground (Bowerman et al. 2004).

(144) Horhorho diakoka to shibabe.
    hororo  d’ako–ka to  fiba–be
    landform  top–PFV DEM:F stone–COL
  ‘The stones are on the ground.’
In (144), instead of the LE, the speaker uses the BLC. The Figure in this case is expressed by the noun *shiba*, another term for ‘stone’. In this case, the relationship between the Figure and the Ground cannot be seen as permanent: the speaker witnesses the state before and after the event. The stones were not on the ground; they were thrown by the actor in the video, and can also be easily picked up. Such differences in the expression of location have to be attributed to the Figure, which in one case is considered immovable and permanently located at the Ground. In the other case, however, the Figure, much smaller and movable, is only temporarily in the specific configuration with the Ground. The LE is also attested with other nouns encoding landscape elements. These include *kaikai* ‘whirlpool’ (possibly related to the stative verb *kaima* ‘angry’), a water feature associated with the *oriyo* spirits due to its potential as a dangerous place where one can easily drown, and *omadâro* ‘rapids’ (encoding the auditory experience lexicalized in the verb *omâdun* ‘roar’), and also associated with water spirits, since boats can easily capsize on the rocks and sink in such places.¹ I have also attested the LE with the noun *shikwahu* ‘village’.

Importantly, some of the stimuli that I used to elicit landscape vocabulary may have induced the speakers to use the BLC instead of the LE. In the chapter on landforms, I describe a set of drawings showing outlines of landforms that were used to elicit landform vocabulary (§ 4.3). Since the drawings form a set of alternating configurations, and as such suggest changeable states, they may have induced more instances of the BLC then is typical of the landform domain in natural discourse. Interestingly, occasionally the speakers used a bare directional phrase, as in the first part of (143) or in the description of a swamp discussed earlier (example (122)). The bare directional phrase may be considered another way to avoid the resultative implications of the BLC, since it is neither a stative clause, nor an equative clause. This methodological problem does not affect the analysis of landform terms given below, which are encoded within the directional phrase—the common denominator of both the BLC and the LE. However, the stimuli could have biased the choice of the construction. The difference between encoding permanent and temporary spatial relations should be kept in mind when developing stimuli for landscape elicitation. In more general terms, elicitation materials such as the *Topological Relation Picture Series* (Bowerman and Pederson 1992) could be enhanced by adding scenes in which immovable entities, permanently located in space (e.g., landscape features) are the Figure.

3.8.5 Permanent reciprocal relations

Finally, the LE is also employed to express reciprocal spatial relations that are considered permanent. In such situations the speakers opt for a combination of the

---

¹ Interestingly all but one petroglyphs found in Suriname are located next to a water feature; in many cases on large stones forming part of such rapids (Versteeg 1998). The meanings of such petroglyphs remain a mystery today, but there have been claims that some of them were used as warnings against the dangerous rocks in such places, which seasonally may be hidden under water, constituting a danger to passing boats (Goeje 1942).
elements of the Posture Construction and the Locative Equation. Reciprocal spatial relations are typically encoded by a subtype of posture adverbs discussed earlier (§ 3.7.4). Such adverbs include a configurational noun prefixed with the attributive prefix *ka-* and suffixed with the adverbializer *–ko/*–kwa*. If the relationship is considered permanent, the nominalized form of the adverb is combined with a relativizer, forming a nominal predicate. This specific situation is exemplified by the description of a picture showing a number of tree stumps arranged in line. The tree stumps are in a reciprocal relationship—that is, none of them is specifically profiled as the Figure or the Ground, since they are identical entities (tree stumps). The relationship is considered permanent since the tree stumps are rooted in the ground.

(145) *Kadunâkwantho ada ina.*

\[
\text{ka--dina:--kwâ--n--tho} \quad \text{ada ina}
\]

\[
\text{ATR--arm--CONT--NMLZ=SBJ.REL:F} \quad \text{tree bottom}
\]

‘Tree stumps standing one next to another.’

In (145) the possessive noun phrase *ada ina* ‘tree stump’ functions as the argument of the complex nominal predicate built around the configurational noun *duna* ‘arm’. The noun forms a posture adverb, which appears in its nominalized form *kadunâkwan* ‘side by side’. Finally the nominalization is combined with a relativizer forming a nominal predicate. Such spatial relations may be relatively rare, but the morphological means used to encode them provide us with additional evidence for the functional limits of the Basic Locative Construction, the Posture Construction, and the Locative Equation.
3.9 Deixis and reference tracking

Deictic forms have appeared in numerous examples above, but their discussion has been postponed until now, since some of them can appear only in the directional phrase. In this sketch of the grammar of space, it is their morphosyntactic features related to the discussion of the what/where distinction that I focus upon. The many aspects of the ecology of such forms, including their non-spatial uses and accompanying gestures are only mentioned briefly in the following sections. The analysis presented here is based on the data that were elicited or retrieved from the corpus, following the guidelines for analyzing deictic expressions outlined in Wilkins and Pederson (1996) and Levinson (1999). This methodology resulted in a systematic picture of the Lokono deictic forms and meanings. First, Lokono has a set of forms that function as demonstrative pronouns, which can be used both attributively and pronominally. Such forms can refer to most types of entities when used as the argument in equative clauses, or as the subject or object in active and stative clauses. However, in the directional phrase, the locus of the what/where distinction, they pattern like person- and object-denoting nouns (§ 3.9.1.1). Secondly, there is a set of demonstrative adverbs, which cannot function as the core arguments of the verb or arguments in equative clauses. They are found in directional phrases only, in which they pattern like place-denoting nouns (§ 3.9.1.2). The demonstrative pronouns and adverbs share, however, their combinatorial possibilities with a set of demonstrative suffixes encoding distance from the speaker. Furthermore, there is a presentative demonstrative used solely to introduce new referents into the discourse space (§ 3.9.1.3). Finally, there are a number of anaphoric devices worth mentioning, including the person forms discussed above and demonstratives treated here, but also a dedicated locative anaphoric adverb yo and the discourse marker kia (§ 3.9.2). Among deictic forms I also include the venitive and the andative markers, which encode the movement of the Figure with respect to the deictic center. These two forms are discussed separately in the section on motion (§§ 3.10.5 and 3.10.6).

3.9.1 Demonstrative pronouns and adverbs

Demonstrative pronouns and adverbs serve as expressions helping to identify a person, object, or a place by using a spatial contrast involving the location of the speech act participants. They are often accompanied by a pointing gesture made with the tip of the nose or the hand. Such gestures also appear with the presentative demonstrative hai, but not with the discourse marker kia or the locative anaphoric adverb yo. Both demonstrative pronouns and adverbs share a paradigm of demonstrative suffixes encoding distance from the speaker. Lokono demonstrative pronouns differ, however, from demonstrative adverbs in their morphosyntactic behavior. The former can be used as the core arguments of the verb or as arguments in equative clauses. They can also be used in noun phrases, in which they can function attributively (as determiners) or pronominally (as possessors of nouns). As possessors, they can function as the modifier of relational and configurational nouns in the directional phrase. Finally, they can also function as the Ground-denoting expression combining with the directionality markers directly (§ 3.9.1.1).
Demonstrative adverbs, on the other hand, can appear as part of the directional phrase only, in which they combine directly with the directionality markers (§ 3.9.1.2).

The morphological build-up of demonstrative pronouns and adverbs crosses the categorical division. Both types of demonstratives are built out of a deictically unspecified demonstrative root (li, to, na, ya) and a demonstrative suffix encoding distance from the speaker (−hV, −ra, −kVtV). The first three roots (li, to, na), when appearing without the demonstrative suffixes function a secondary function similar to the English definite article. They signal that the referent is identifiable in a given context without making use of the distance distinctions (see § 3.3.4).

<table>
<thead>
<tr>
<th>TABLE 35.</th>
<th>DEMONSTRATIVE PRONOUNS AND ADVERBS.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Deictically Unspecified</td>
</tr>
<tr>
<td>3M</td>
<td>li</td>
</tr>
<tr>
<td>3F</td>
<td>to</td>
</tr>
<tr>
<td>3PL</td>
<td>na</td>
</tr>
<tr>
<td>PLACE</td>
<td>ya</td>
</tr>
</tbody>
</table>

All four deictically unspecified demonstratives can be further subdivided into the root-formative consonants (l–, t–, n–, y–) and the root-formative vowels (−i, −o, −a, −a). The root-formative consonant y– expresses the ontological status of the referent as a place. The same consonant is also found in the locative anaphoric adverb yo, an element referring to places that were already mentioned in discourse (§ 3.9.2.2). As such, their referents belong to the same category as the referents of nouns that combine with the where-marker. The root-formative consonants of the remaining demonstratives are clearly related to the personal prefixes (li–, thu–, na–), of which the feminine form became de-aspirated in the demonstrative. The root-formative consonant of the plural demonstrative na, expresses the ontological status of the referent as human and plural. The origin of the plural demonstrative na and the corresponding prefix na– is uncertain, but together with the n-initial plural –non, the three forms are the only grammatical elements in the language encoding human plural referents. The formative-vowels of the demonstrative roots li and to can be traced back to the masculine and feminine gender markers –i and –o, respectively. The demonstrative li encodes referents that are masculine, which typically include Lokono men only. The form to, on the other hand, can refer to any grammatically feminine entity.

The demonstrative suffixes encode what Diessel (1999:35) calls the deictic features of demonstratives, which position the referent with respect to the speaker. The suffixes encode three degrees of distance. Proximal distance is encoded by the suffix −hV, with the vowel undergoing regressive harmonization, just like the homophonous unpossessed marker −hV, and other suffixes with unspecified vowels. The referents of the proximal forms are on the whole within the speaker’s reach. The medial suffix −ra is formally identical to the suffix −ra, expressing counter-expectation, which is a possible source of the proximal–medial contrast. The medial forms are used to talk about entities that are not within the speaker’s reach, but still
part of the immediate surroundings. The distal suffix bears striking resemblance
to the causative suffix –kVtV, and undergoes analogical regressive harmonization.
Distal forms are rarely used today, and refer to entities that are far away from the
speaker, way beyond the immediate surroundings. Both medial and distal forms also
combine with a suffix –ha, the function of which is probably emphatic but this
remains uncertain at the moment (e.g., liraha). The proximal, medial, and distal
forms can also combine with the contrastive suffix –bo (e.g., lirabo ‘the other man’).
To the best of my knowledge, the forms do not take into account the distance of the
referent from the listener.

3.9.1.1 Demonstrative pronouns

Whether deictically specified or not, the demonstrative pronouns can be used both
pronominally and attributively. The former use is illustrated in (146), which was
uttered in response to a question about the history of Washabo village, in which
there are only a few Lokono speakers who know the history of the village.52

(146) Neibe harha ôdon ma li ìhasaboka.

  nei–be hara o:dô–ŋ ma li ì:³a–sabo–ka
  3PL–COL complete die–NMLZ but DEM:M know–CMPR–PFV

‘They all died, but he knows more.’

In (146), the subject of the second clause is expressed by the deictically unmarked
masculine demonstrative pronoun li, referring to an elderly man who knows more
about the topic. The demonstrative pronoun was accompanied by a pointed gesture
toward the house of the man in question. In the first (stative) clause, on the other
hand, the free 3rd person plural pronoun nei combined with the collective suffix –be
encodes the subject. The collective suffix can presumably also attach to all three
demonstrative pronouns, although I have only attested it with the masculine and the
plural demonstrative pronouns (libe and nabe, respectively).

The attributive use of demonstratives is illustrated in (147) from the story in the
online Appendix IV. Here, the medial demonstratives are not used as spatial
expressions, but rather as means of reintroducing a backgro
unded participant. In
such cases, they are not accompanied by a gesture.

(147) Torabo kasakabo diaro lirabo andathe.

  to–ra–bo kasakabo ða:ro li–ra–bo ãnd=t³e
  DEM:F–MED–CNTR day maybe DEM:M–MED–CNTR come=VEN

‘Some other day the other man comes.’

In (147) the feminine medial demonstrative torabo functions as the modifier of the
noun kasakabo ‘day’. The phrase functions as an adverbial phrase encoding the time
of the event expressed by the predicate. Notice that another demonstrative (i.e.

52 The stative verb harhan ‘complete’ is one of the few stative verbs that does not require
a TAM marker to form a complete predicate
"lirabo) expresses the subject of the clause. Both demonstratives contain the contrastive marker –bo, which creates the contrast between this male character and the day of his arrival, and the other male character in the story, who comes on a different day. The venitive enclitic –the, on the other hand, signals that the motion is oriented toward the deictic center, which in this case is the female protagonist in the story.

The demonstrative pronouns are also frequently used in what Diessel (1999) calls the identificational demonstrative context, which in Lokono is realized as an equative clause (§ 3.5.3). As discussed above, the nominal argument in such clauses can either follow the nominal predicate or be preposed for topicalization, as in (148). Example (148) was uttered by a Lokono woman who was weaving a cotton hammock, and introduced me to the different tools and materials she used. The demonstrative was accompanied by a gesture pointing at a basket with cotton cord.

(148) Tora to yaho.

to–ra  to  yaho
 DEM:F–MED  DEM:F  cotton
 ‘That is cotton.’

In (148) yaho ‘cotton’ functions as the predicate, the argument of which is expressed by the feminine medial demonstrative pronoun tora. The deictically unspecified demonstrative to in turn plays the role of the copula. The copula is often inserted if the combination of the argument and the predicate can be misunderstood as a single noun phrase. This would have been the case in (148): tora yaho ‘this cotton’. If such a misinterpretation is excluded by the word order of the constituents, the copula can be left out as in (149). Example (149) sums up the description of the creek called Kakhaledoyaro ‘one with crystals’. Here, the demonstrative pronoun is used anaphorically and is not accompanied by a gesture. The example includes the Lokono landscape term onikhan ‘creek’ (lit. ‘little rain’) and a complex nominalization wakhaitho kho ‘beautiful’ (lit. ‘not very bad’).

(149) Ja, wakhaitho kho onikhan tora.

ya  wak’a-i–ra=ko  unī–k’ān  to–ra
 ‘Yes, (Kakhaledoyaro) is a beautiful creek (lit. ‘not a very bad small rain’).’

In (149) the nominal expression wakhaitho kho onikhan ‘a beautiful creek’ is a nominal predicate, the argument of which is expressed by the feminine medial demonstrative pronoun tora. Since the combination onikhan tora cannot be parsed as a single phrase, the copula is not necessary, and typically does not appear.

When functioning as the core arguments of the verb or as the argument in equative clauses, demonstrative pronouns can in principle refer to any entity, including people, objects, and landscape features, as exemplified in (147), (148), and (149), respectively. In directional phrases, on the other hand, demonstrative pronouns can modify the Ground-denoting noun or serve themselves as the Ground-denoting terms. The first situation is exemplified in (150), in which the feminine
distal demonstrative pronoun is used as the modifier of the Ground-denoting expression.

(150) *Tokotabo orhorho diako, amadiaro maborhodonka.*

to–kota–bo oɾoŋo d'ako amaɗaro ma–boŋoŋdo–ŋ–ka
DEM–DIST–CNTR landform top nothing PRV–grow–NMLZ–PTV

‘On top of that other landform in the distance, nothing grows.’

The example comes from an elicitation, in which two speakers are describing drawings of landforms to each other (see § 4.3). In (150) the distal feminine demonstrative pronoun, combined with the contrastive suffix –bo, modifies the Ground-denoting noun *horhorho* ‘landform’. The Ground-denoting noun, in turn, is the possessor of the configurational noun *diako* ‘top’, forming a directional phrase encoding location. The configurational noun is unmarked for the location directionality (i.e. the where-marker is dropped).

Importantly for the discussion of the what/where distinction, when used as Ground-denoting expressions in the directional phrase—the locus of the distinction—demonstrative pronouns cannot combine with the where-marker –n. They are typically found either with the what-marker bithi or with a configurational noun. The latter situation is exemplified in (151), a description of the *Event Triads* stimulus, showing a ball rolling toward a wooden block (Bohnemeyer, Eisenbeiss, and Narasimhan 2001).

(151) *Thukheroswathe andun torabo âmun.*

₃ₕ=k’eɾoswa=tʰe Ṙndi–n to–ra–bo a.miŋ
3FA−roll.REFL=VEN arrive–NMLZ DEM–MED–CNTR COM.LOC.WHR

‘(A ball) rolled toward us arriving by the other (wooden block).’

In (151), the goal of motion is expressed by the directional phrase, with the complex directionality marker âmun, consisting of the phonologically reduced proximity configurational noun oma (i.e. the comitative marker) and the directionality marker –n. The Ground-denoting demonstrative referring to an object is thus first combined with a configurational noun, which in turn attaches the directional where-marker.

The difference in the referential scope of demonstrative pronouns as core arguments and Ground-denoting expressions is not surprising. Whether people, objects, or places, it is necessary for a language to have means of referring to entities in active, stative, and equative clauses, so that they can be identified or described. In the directional phrase, however, the entities are categorized as people and objects or as places by the location and goal directionality markers. If a demonstrative pronoun is used in the directional phrase, its referent must be compatible with the type of the referents encoded by nouns combining with the what-marker. If the demonstrative pronoun refers to a place (e.g., a landscape feature), its meaning is modulated by the what-marker. Such cases are discussed in the following chapters, in which I give examples of the combination of demonstrative pronouns referring to landscape features with the what-marker (chapter 4). In such cases the landform is typically construed as an object-like point on the map or far in the distance. More typically, places, if expressed by deictic forms, are encoded in the directional phrase by
demonstrative adverbs. Demonstrative adverbs, which specialize in referring to places, cannot, however, be used as the core arguments of the verb or as arguments in equative clauses.

3.9.1.2 Demonstrative adverbs

The set of demonstrative adverbs is defined by the same set of distance-encoding suffixes that form demonstrative pronouns. The morphosyntactic properties of demonstrative adverbs are, however, different. They cannot function as the core arguments of the verb, nor as the argument in equative clauses. They also do not function as modifiers. As such, demonstrative adverbs cannot be classified as nouns, although they pattern similarly to place-denoting nouns in the directional phrase. Demonstrative adverbs combine with directionality markers, functioning solely as modifiers of the predicate, expressing the source, location, or goal of the event, as in (152). The example comes from the same narrative about the history of Washabo cited above, and contains two borrowings from Dutch, the numeral twalf ‘twelve’ and the noun jaar ‘year’ in the dependent clause indicating the time of the event in the main clause.

(152) *Wakili, twalf jaar dankha, yâ danda kobathe.*

<table>
<thead>
<tr>
<th>wakili</th>
<th>twalf</th>
<th>jaar</th>
<th>ya:r</th>
<th>d-â-į-kʰa</th>
</tr>
</thead>
<tbody>
<tr>
<td>long.ago</td>
<td>twelve</td>
<td>year</td>
<td>1SG=E.V–NMLZ–SIM</td>
<td></td>
</tr>
<tr>
<td>ya:</td>
<td>d-ánda=koba=tʰe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOC DEM PRX</td>
<td>1SG – arrive=REM.PST=VEN</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

‘Long ago, when I was 12 years old, back then I came here.’

In the second clause of (152), the demonstrative adverb yâ encodes the goal of movement of the verb andun ‘arrive’. The venitive enclitic indicates that the movement is oriented toward the deictic center—Washabo village where the speaker lives now. The demonstrative adverb is unmarked for the location and goal directionality in (152). The demonstrative adverbs are in fact never marked in the telic location and goal directionality. However, when the event is atelic, the where-marker is used. I assume that the where-marker was dropped with demonstrative adverbs, just as it is optionally dropped with configurational nouns. The forms of the demonstrative adverb in the different directionalities are given in Table 36.
150

<table>
<thead>
<tr>
<th>Directionality</th>
<th>Proximal</th>
<th>Medial</th>
<th>Distal</th>
</tr>
</thead>
<tbody>
<tr>
<td>location and goal telic</td>
<td>yaha/yā</td>
<td>yara</td>
<td>yakuta</td>
</tr>
<tr>
<td>location and goal atelic</td>
<td>yahanthero/yânthero</td>
<td>yaranro</td>
<td>yakutanro</td>
</tr>
<tr>
<td>source telic</td>
<td>yahāya</td>
<td>yarāya</td>
<td>yakutāya</td>
</tr>
<tr>
<td>via</td>
<td>yahadi</td>
<td>yaradi</td>
<td>yakutadi</td>
</tr>
</tbody>
</table>

Worth pointing out is the fact that demonstrative adverbs do not combine with the atelic source marker, and that the atelic location and goal form of the proximal demonstrative is a complex lexicalized form that contains the venitive enclitic =the.

The proclivity of the demonstrative adverbs to appear in the directional phrase makes them frequent elements of stative locative clauses and the BLC. The directional expression—that is, the demonstrative itself in the case of the telic location and goal directionality—can be suffixed with the perfective marker, or any other TAM suffix, forming a stative clause, as in (153) from the story in the online Appendix IV, in which the speaker is calling out to check if there is anybody home.

(153) Yaraka bo?
    ya-ra-ka=bo
    LOC.DEM-MED–PFV=2SG

'Are you there?'

Example (153) has the structure of the BLC; the raising intonation implies it is a question. The medial demonstrative adverb is suffixed with the perfective marker and there is no where-marker preceding it. Demonstrative adverbs are incompatible with the what-marker. Neither can they form any phrases with relational and configurational nouns. Their meaning renders them the prototypical place-denoting expressions. However, this function comes at a cost; such forms are so far removed from prototypical nouns encoding people and objects that they cannot be considered nominal, as reflected in their morphosyntactic distribution.

3.9.1.3 Presentative demonstrative

In Lokono there is also a presentative demonstrative hai, also realized as hei, similar to the French voilà or the Russian vot. Fillmore (1982:47) calls such demonstratives “sentential demonstratives”. As Diessel (1999:79) points out that they are characterized by a degree of syntactic independence that distinguishes them from demonstrative pronouns. The Lokono hai appears only in equative clauses, always in sentence-initial position, followed by a demonstrative pronoun, and an optional appositional noun phrase identifying the entity. Although structurally similar to an equative clause with demonstrative pronouns, the presentative construction has a different function. It not only serves to identify an entity referred to by the demonstrative pronoun by equating it with a juxtaposed noun phrase, but also to introduce the referent into the physical discourse space. The example below comes
from a traditional story about a young man who meets a girl by a creek. She takes him home and introduces him to her parents.

(154) *Hai lira dathi, hai tora dayo.*

\[
\begin{array}{lll}
\text{hai} & \text{li–ra} & \text{da–tʃi} \\
\text{PRES} & \text{DEM:M–MED} & 1\text{SG}\_\text{father} \\
\end{array} \quad \begin{array}{ll}
\text{hai} & \text{to–ra} & \text{da–yo} \\
\text{PRES} & \text{DEM:F–MED} & 1\text{SG}\_\text{mother} \\
\end{array}
\]

‘This is my father, this is my mother.’

The presentative is gender neutral; in (154) there are two presentative clauses, introducing the parents to addressee. In another version of the same story, the situation in (154) is expressed with an equative clause without the presentative demonstrative (i.e. *Lira li dathi, tora to dayo* ‘He is my father, she is my mother’). This alternative version is more felicitous when talking about the parents who are not participants in the speech-act, but are present somewhere in the background. It is worth noticing, however, that the appositional phrase identifying the referent is not obligatory. The presentative demonstrative forms a complete clause with the demonstrative pronoun. This is exemplified in (155), which is a useful sentence when handing something over to someone.

(155) *Hai tora.*

\[
\begin{array}{ll}
\text{hai} & \text{to–ra} \\
\text{PRES} & \text{DEM:F–MED} \\
\end{array}
\]

‘Here it is’.

The presentative construction above can also be extended with the venitive enclitic \textit{=the}, which adds a motion dimension to it, as in (156).

(156) *Hai torathe.*

\[
\begin{array}{ll}
\text{hai} & \text{to–ra=tʰe} \\
\text{PRES} & \text{DEM:F–MED=VEN} \\
\end{array}
\]

‘Here it comes.’

In the three cases discussed above, the utterance is typically associated with a gesture, which makes it clear which entity is referred to by the demonstrative pronoun. The presentative demonstrative does not appear in directional phrases, therefore it cannot be classified with respect to the what/where distinction.

### 3.9.2 Reference tracking

Lokono has a number of forms that can be used to refer back to elements already mentioned in discourse. First of all, Lokono has a number of person forms discussed above, which help keep track of the referents. The restrictions on their use are summarized below, particularly with respect to the directional phrase (§ 3.9.2.1). Furthermore, there is a specialized locative anaphoric adverb \textit{yo} referring back to places (§ 3.9.2.2). Finally, Lokono also boasts a discourse marker \textit{kia}, referring back to any type of noun phrase and to larger portions of the text (§ 3.9.2.3).
3.9.2.1 Personal affixes and pronouns

In Lokono personal prefixes and enclitics are the most common way of keeping track of referents, as opposed to full noun phrases, which are typically used for introducing a new referent. Pronouns, on the other hand, including the demonstrative pronouns, are typically used for topicalization and, when combined with the contrastive or emphatic suffixes, for contrast and emphasis. This is a typical pattern for Arawakan languages, and it can be observed in the traditional story given in the online Appendix IV. The medial form of the demonstratives is typically used to indicate a referent that is somewhat unexpected, and not in the focus of attention at the moment. This is illustrated again in example (157), which also comes from the traditional story in Appendix IV.

(157) $Ma$ wakhaithi kho barhin lira [...] 
  ma $wak^{h}-i-\dddot{\iota}=k_{h}^{o}$ baři-$\eta$ li-ra 
  but $bad^{\dddot{-}VERI-\dddot{SBJ.REL:M}=NEG}$ though $NMLZ$ DEM:M=MED 
  ‘But he is a very good looking man though [...]’

In (157), the speaker refers to the man she was just complaining about, contesting that nevertheless he is very pretty. Hence, the medial demonstrative pronoun is used. It is possible that such use of the medial demonstratives pronoun in $-ra$ is linked to the counter-expectation suffix $-ru$. Noteworthy is the use of the form $barhin$, which functions as a concessive or frustrative marker.

With respect to the what/where distinction, it is worth reiterating that personal prefixes cannot combine with the where-marker, which is a suffix. This restriction is first of all of a formal nature, but interestingly the same restriction applies to free pronouns, which suggests a semantic conflict (notice that personal prefixes can combine with suffixes, e.g., the collective suffix). This extends also to demonstrative pronouns. As discussed above, demonstrative pronouns can refer to all kinds of entities when used as the core arguments of the verb. In the directional phrase, however, their meanings must be compatible with that of the what-marker $bithi$, which de facto limits their referents to people and objects.

3.9.2.2 Locative anaphoric adverb yo

The locative anaphoric adverb $yo$ is used to refer back to places mentioned in discourse. It is interesting to notice that the locative anaphoric root contains the same root-formative consonant $y$—that forms the locative demonstrative adverb $ya$ (§ 3.9.1.2). The anaphoric adverb is exemplified in (158), a sentence form a traditional story about a man who decides to live on his own in the forest.

(158) To yon landun, lumarhita lubanabowa. 
  to $yõ-\eta$ l-$\dddot{\iota}=\dddot{\iota}$ li-\dddot{mařǐ}$ta$ li-\dddot{ba}nabo-wa 
  DEM:F LOC:ANPH=LOC.WHR 3MA-arrive=NMLZ 3MA-make 3MA-Hut=REFL 
  ‘After (his) arriving (in the forest), he made a hut.’
In (158) the locative anaphoric adverb combines with the directionality marker –n to refer back to the destination of movement—that is, the forest. The combination functions as an adverb to the event nominalization *landun* ‘his arriving’. The nominalization in turn functions as a dependent temporal clause, preposed with respect to the main clause, iconically encoding an event anterior to it.

As opposed to the demonstrative adverb the locative anaphoric adverb cannot appear on its own, it has to be followed by the directionality marker –n.

Interestingly, the adverb is one of the few forms in the language still occasionally attested with the non-reduced form of the directionality marker—namely, *mun*. That the combination of the locative anaphoric root and the directionality marker is lexicalized is clearly visible in the fact that the source and via markers do not substitute for the location and goal directionality marker –n, as is usually the case, but follow it. In (159) the speaker tells a story of the death of the chief of Cassipora, which happened when the speaker was working at the Kabo creek in the west of the country.

(159) *Yon wâya damikodathe diâha nabithiro.*

```
yô–ŋ wa:yâ da–mikoda=t’e d’â:–ha na–bitfi–ro
LOC.ANPH–LOC.WHR SRC:TL 1SGA=send=VEN speak–UNPOSS 3PLA–LOC.WHT–ATL
```

‘From (Kabo), I sent a message to them’.

In (159) the speaker uses the locative anaphoric adverb to refer back to a location, from which he sent out messages to his home village. Even though the telic source directionality marker *wâya* is used, the location and goal directionality marker –n is present. The directionalities are normally incompatible, therefore I assume that *yon* is today a lexicalized form encoding a location previously mentioned in discourse, which stands unmarked in the location and goal directionality. The same applies to the via directionality marked by the suffix –*di*. In (160), the speaker tells us about the adventures of his youth, part of which was spent in the city. The via directionality signals that the activity was distributed through the Ground rather than focused in a specific location.

(160) *Yondi dabu da koba kiba.*

```
yô–n–dîi dabi d–a=koba kiba
LOC.ANPH–LOC.WHR–VIA staying 1SGA–E.V=REM.PST as.well
```

‘I stayed (in the city) for a while as well.’

In (160) the adverb *dabu* ‘staying’, which triggers an empty verb clause, encodes the semantic content of the predicate. The subject and TAM markers are found on the empty verb. Importantly, the distributive suffix follows the location and goal directionality marker, which again signals that the combination *yon* is lexicalized. The different combinations of the anaphoric locative adverb with the directionality markers are given in Table 37. For comparison, Table 37 also includes the forms of the locative demonstrative. The anaphoric adverb is incompatible with the what-marker, the atelic source marker, relational nouns, and configurational nouns.
### Table 37.
**Directionality Paradigm of the Locative Anaphoric Adverb**

<table>
<thead>
<tr>
<th>Directionality</th>
<th>Locative anaphoric adverb</th>
<th>Demonstrative adverb (proximal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location/Goal telic</td>
<td>yon</td>
<td>yaha/yâ</td>
</tr>
<tr>
<td>location/Goal atelic</td>
<td>yonro</td>
<td>yahanthero/yanthero</td>
</tr>
<tr>
<td>Source telic</td>
<td>yon wâya/yon waria</td>
<td>yahâya/yâya</td>
</tr>
<tr>
<td>Via</td>
<td>yondi</td>
<td>yahâdi/yâdi</td>
</tr>
</tbody>
</table>

The combination *yon* may be a relatively recent lexicalization, as historical sources do not mention it, instead noting the expected form *juâria* “von dort her” [from there] (Schumann and Schumann 1882a). Similarly, according to Bennett (1989), in the Guyanese dialect, which is more conservative, *yo wâya* means ‘from there, from that place’. In my data *yo wâya*, however, is consistently used with a temporal rather than spatial meaning. It is not unlikely therefore that speakers introduced the locative element –*n* to distinguish the two uses.

(161) *Yo waria, ya damêkheboka, Korhitin shirokonro.*

\[
\text{LOC\_ANPH} \quad \text{LOC\_DEM} \quad 1\text{SGA\_work\_PFV}
\]

\[
\begin{array}{c}
\text{kuři}\text{řiŋ} \quad \text{firokô\_n\_ro} \\
\text{Corentyne} \quad \text{headwater\\ LOC\_WHR\_ATL}
\end{array}
\]

‘After that I worked here, toward the source of the Corentyne river’

In (161), the combination *yo waria* functions as a temporal expression; this is evidenced by the type of the predicate used in the clause, which does not involve motion, hence making the literal source reading impossible.

#### 3.9.2.3 Discourse marker *kia*

Diessel (1999:101) does not distinguish a class of discourse demonstratives, treating them instead as one of the pragmatic uses of demonstratives. Within such pragmatic uses he does distinguish a discourse function, whereby a demonstrative is coreferential with a proposition, from the anaphoric use of demonstratives, in which a demonstrative is coreferential with a noun phrase, and from pure text deixis, whereby a demonstrative refers to “the material side of language” (Diessel 1999:101). The Lokono marker *kia* clearly has such a discourse function. Formally, it is distinct from demonstratives and has no deictic qualities—that is, it cannot combine with the demonstrative suffixes encoding degrees of distance or contrast. Neither is it accompanied by a gesture. It can refer back to a proposition, but also to noun phrases referring to people, objects, and places. Example (162) comes form a narrative about the government not recognizing Amerindian titles to land. The problem is discussed in the preceding discourse, but is also mentioned again as a postposed negative nominalization.
In (162) the main clause has a semantically complex structure of litotes—a relatively common strategy in Lokono. The stative verb min 'little' is combined with the perfective marker –ka, only to be followed by the negation enclitic =kho, which reverts the meaning from 'little' to 'very big'. The subject is expressed by the preposed discourse marker kia, and elaborated upon in the following postposed nominalization.

In (163), in turn, the discourse marker kia refers to the referent of a noun phrase. The example comes from a narration of the biblical story about a poor widow, who is introduced in the preceding fragment, and referred back to with the discourse marker.

Interestingly, the discourse marker can also be used attributively. Example (68), discussed earlier, and given below as (164) demonstrates this use.

Finally, let us notice that the discourse marker can also be used to refer back to places, as in example (165), which comes from a description of Urhikoro, a creek in the Cassipora territory, which is a popular tourist attraction.
the directionality marker -n indicating a location, and nominalized with the feminine specificity marker -korō. The following event nominalization specifies what type of a place it is. The speaker, who is not fluent in Lokono, first uses the general verb ani ‘do’, while trying to remember the right content verb—that is, timun ‘swim’.

As Diessel (1999:125) points out, because the function of such demonstratives is often to connect different parts of discourse, they may give rise to sentence connectives. This is in keeping with the Lokono data, in which a number of fairly fixed expressions with kia exist that could be classified as sentence connectives.

<table>
<thead>
<tr>
<th>Connector</th>
<th>Meaning</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>kia doma</td>
<td>therefore</td>
<td>doma ‘reason’</td>
</tr>
<tr>
<td>kia bena</td>
<td>after that</td>
<td>bena ‘after’</td>
</tr>
<tr>
<td>kia loko</td>
<td>in that situation</td>
<td>loko ‘inside’</td>
</tr>
<tr>
<td>kia diki</td>
<td>after that</td>
<td>diki ‘footprint’</td>
</tr>
<tr>
<td>kia abo</td>
<td>with that</td>
<td>abo ‘INSTR’</td>
</tr>
</tbody>
</table>

In sum, the discourse marker kia is used to refer back to both noun phrases and larger portions of discourse. It is insensitive to the what/where distinction in that it can refer back to both nouns denoting people, objects, and places. Neither is the form kia specified for person or number, as opposed to the personal prefixes.
3.10 Motion

The linguistic means of expressing spatial constellations discussed so far were framed as stative clauses (Basic Locative Construction), empty verb clauses (Posture Construction), and equative clauses (Locative Equation). All three types of constructions are used to encode static spatial scenes. Dynamic events, on the other hand, are expressed predominantly as active clauses; usually active clauses in which the verb encoding motion functions as the predicate, although motion semantics can be also imparted by the associated motion markers attached to other types of predicates. In this section, I first give a general description of the structure of active clauses used to encode motion events (§ 3.10.1). Second, I provide an overview of the motion verb lexicon, discussing its semantic richness, which is particularly enhanced by a number of productive derivational processes (§ 3.10.2). Third, I discuss two basic motion verbs that are often thought of as central elements of the motion verb inventory—that is, the verbs ôsun ‘go’ and andun ‘arrive’, the closest Lokono equivalents of the English deictically oriented verbs come and go (§ 3.10.3). Subsequently, I look at two verbs, kodomon ‘enter containment’ and fotikidin ‘enter non-containment’, which contrast with their English equivalents enter and exit in that they lexicalize the type of the resultant spatial configuration rather than the direction of motion. As such the two verbs give us an insight into the semantics of some landscape terms (3.10.4). I then turn to two markers of associated motion, the venitive =the and the andative –ba, the function of which is to orient the motion encoded by the verb with respect to the deictic center (§§ 3.10.5 and 3.10.6, respectively).

3.10.1 General features of clauses encoding motion

The analysis presented so far is of importance to the discussion of the linguistic encoding of motion events. The directional phrase—the central element of the BLC and the LE—can also function as an adverbial phrase encoding the directionality of the event encoded by active verbs. In fact, as described above, the two directionality markers, the what-marker bithi and the where-marker –n, collapse the distinction between the static location directionality and the dynamic goal directionality. On the level of the clause, the type of the predicate disambiguates the two. A predicate encoding a motion event implies that the directional phrase expresses the goal of motion, while a predicate encoding a static event implies the location reading. The same logic applies to the via marker. The use of directional phrases in stative and equative clause was illustrated with numerous examples in previous sections. The use of the directional phrases in active clauses is exemplified in (166), which comes from a post factum description of a fieldwalk through the Cassipora area.

(166) Kia wâya wakonâkathe ya, washikwanro.
    kia  wa:ya  wa-kona:–ka=t’e  ya  wa–fikwâ–n–ro
   ‘From the savanna) we walked here, toward our home.’
In (166), the source of movement is expressed by a directional phrase with the discourse marker kia, referring to a nearby savanna mentioned earlier, combined with the telic source marker. The goal of movement is encoded by two directional phrases. First the deictically unmarked demonstrative adverb appears in its telic form—that is, unmarked by the directionality marker —n— encoding the present location of the speaker. The second directional phrase is marked with the where-marker —n and the atelic suffix —ro. Since the predicate contains the motion verb konan ‘walk’, additionally marked with the venitive enclitic =, the two directional phrases can only be interpreted as encoding the goal of movement. Although the source and goal directionality are distinguished from each other by their respective markers, it is worth noting that the word order of the constituents iconically strengthens their meanings. Source directional phrases typically precede the predicate and goal directional phrases follow it.

The discussion of the distribution of the information about the path and manner among the elements of an active clause à la Talmy (1985; 2000) is beyond the scope of this chapter. As a general guideline, however, it can be summed up that the spatial configuration (e.g., containment) and the directionality (e.g., goal) are encoded in the directional phrase. As such most Lokono motion verbs can be classified as satellite-framed, as opposed to, for instance, Spanish verbs salir ‘exit’ and entrar ‘enter’, which lexicalize a directionality component (Talmy 1985; 2000). However, there are counterexamples to this general rule, such as the transitive verb ämunutun ‘approach’, derived from the complex directionality marker ämun with the verbalizing suffix —tV, which encodes the goal directionality.

More important for the discussion of the structure of active clauses with motion verbs is the common use of event nominalizations. A nominalized verb can appear following the main motion verb. Such nominalizations function as adverbial clauses. Any motion verb can be used as the main predicate. The function of such adverbial clauses depends, however, on the type of the nominalized verb. If the nominalized verb is either the verb ôsun ‘go’ or andun ‘arrive’, the adverbial clause functions as an adverbial of manner. Since these verbs encode only deictic information, they are the de facto expressions of the direction of motion. This is exemplified in (167) taken from the recording of an elicitation session based the Event Triads stimulus, showing a ball rolling away from the speaker (Bohnemeyer, Eisenbeiss, and Narasimhan 2001).

(167) Thukheroswa ôsun.
  t³i-k³eroswa o:si-ŋ,
  3FROLL.REFL go-NMLZ
  ‘It rolled away.’

In (167), the nominalized verb ôsun ‘go’, although in fact deictically unspecified, is interpreted as translocative in contrast to the cislocative verb andun ‘arrive’ (§ 3.10.3). The nominalization serves here merely to encode the direction of motion with respect to the deictic center, which can alternatively be achieved by the addition of the markers of associated motion (§ 3.10.5). Importantly, apart from the verb andun ‘arrive’, and the verb ôsun ‘go’, which is often interpreted as translocative, there are no verbs that lexicalize the deictic orientation of movement.
The other possibility is for the nominalized verb to encode an activity other than arriving and going, in which case the adverbial clause receives either a manner or a purposive reading. The former situation is exemplified in (168), which comes form the description of the parades of the Lokono social club Wayonon in Paramaribo.

(168) *Yon wôsa yâdun to waboroko lokhodibe.*

\begin{verbatim}
 yò–n w–o:sa ya:di–n to waboroko lokʰo–dʰi–be
 LOC,ANPH–LOC,WHR 1PL,–go wander–NMLZ DEM:F road inside–VIA–COL
 ‘There we go wandering through the streets (i.e. performing as a parade).’
\end{verbatim}

In (168), the motion verb *yâdun* ‘wander’ is used to express the idea of parading in the streets. It appears in its nominalized form, following the main predicate expressed by the verb *ôsun* ‘go’. The nominalization encodes an activity that is simultaneous with that expressed by the main predicate, thereby specifying the manner of movement. However, the adverbial clause could also be interpreted as purposive, if the context supports such an analysis. The purposive meaning is more pronounced if the atelic marker –ro is added to the nominalization, as in example (169) below. The utterance comes form a narrative about the utility of the dugout canoes for the Lokono people.

(169) *Wôsa kabuyanro tholoko, wôsa yarhidanro tholoko, wôsa yokhanro tholoko.*

\begin{verbatim}
 w–o:sa kabiya–n–ro tʰo–loko
 1PL,–go field–LOC,WHR–ATL 3F,–inside

 w–o:sa yarhi–dã–n–ro tʰo–loko
 1PL,–go liana–vbr,INTRV–NMLZ–atl 3F,–inside

 w–o:sa yokʰa–n–ro tʰo–loko
 1PL,–go shoot,INTRV–NMLZ–ATL 3F,–inside

 ‘We go to the field in it, we go catching fish with poison in it, we go hunting in it.
\end{verbatim}

In the last two clauses of (169), the nominalizations of verbs that do not encode motion appear suffixed with the atelic marker –ro. The respective verbs encode activities that are not performed in the dugout itself. The introversive verb *yarhidan* is derived from the nominal root *hayarhi*, a type of liana (*Lonchocarpus martynii*), the sap of which is used to temporally paralyze fish. The activity encoded by the verb *yarhidan* requires the damming of a watercourse and soaking the liana in the water. The dugout canoe is used in order to reach areas where such activities as *yarhidan* ‘catch with poison’ or *yokhan* ‘hunt’ can be performed. In this case, the two nominalizations encode a purpose of movement rather than the manner thereof. If confusion between the two interpretations needs to be avoided, the transformative suffix –bia can be used instead of the atelic –ro, signaling a purely purposive reading.

As a side note, it is worth noticing the parallelism in structure between the directional phrase *kabuyanro* ‘toward the field’ and the adverbial phrases *yarhidanro* ‘to catch fish with poison’ and *yokhanro* ‘to hunt’. It remains an open
question whether the two forms, the where-marker –n and the event nominalizer –n have a common origin—that is, the dative marker. Interestingly too, in the Guyanese dialect, the what-marker biti is also found in combination with nominalized verbs, encoding the purpose of motion. The difference between such purposive clauses with the what-marker and the event nominalizer is not yet clear.

3.10.2 Motion verb lexicon

Lokono has a number of verbs encoding spontaneous motion, a sample of which is given in Table 39 below. Semantically, these verbs range from those with a very general meaning to those encoding specific information about the motion event. The verb ösun ‘go’, for instance, is unspecified with respect to the deictic orientation, manner and medium through which the movement takes place. It also does not specify the type of Figure engaged in the movement. The verb andun ‘arrive’ differs from it in that it is a deictically specified cislocative verb. The verbs kodonon and fotikidin, in turn, encode the type of the resultant spatial configuration, which in the former case must be a type of containment, while in the latter case a type of non-containment. There are also five verbs encoding spontaneous motion along the vertical dimension: the simplex verbs mudun ‘ascend’ and thokodon ‘descend’, their complex synonyms ayomuntwan and onabontwan, respectively, and the verb tikidin ‘fall’ which encodes lack of control on the part of the Figure.

A few verbs encode information about the type of path. The synonymous verbs fakutun and balin are used when the Figure passes in the vicinity of the Ground; they typically combine with the directional phrases marked by the via directionality marker –di. The reflexive verb koyonon ‘go home’ lexicalizes a return path, typically if not exclusively toward one’s home. It can be contrasted with the verb shiftidan ‘turn back’, which does not necessarily imply home as the goal of movement. The verb khösun ‘go around’ implies a semi-circular path, while the verb timan ‘cross’ encodes a path that is transversal with respect to the Ground.

Moreover, there are a few verbs encoding the medium of motion, including the verb morodon ‘fly’ and verbs specifically related to water—that is, timun ‘swim’ used with all types of referents except for fish, and konon ‘swim (of fish)’, which is the only verb specifying the type of Figure. In this group, I also include the verb tobadonon ‘immerse oneself’ encoding movement resulting in containment by a liquid Ground, màshidwan ‘dive’, maladun ‘be carried by water current’, and nàkonon ‘move by paddling’, which also encodes the instrument used (i.e. nahale ‘paddle’).

The speed of movement is encoded by two verbs, the simplex form darhidin ‘move quickly’ and the verb basadadwan ‘move slowly’ derived from the stative verb basadan ‘slow’. Other manner distinctions encoded in the motion lexicon
### Table 39: A Sample of Verbs of Spontaneous Motion

<table>
<thead>
<tr>
<th>Type</th>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>come/go</td>
<td>ösun</td>
<td>go (deictically unspecified)</td>
</tr>
<tr>
<td></td>
<td>andun</td>
<td>arrive (cisslocative)</td>
</tr>
<tr>
<td>enter/exit</td>
<td>kodonon</td>
<td>enter containment</td>
</tr>
<tr>
<td></td>
<td>fotikidin</td>
<td>enter non-containment</td>
</tr>
<tr>
<td>vertical dimension</td>
<td>mudun</td>
<td>ascend</td>
</tr>
<tr>
<td></td>
<td>thokodon</td>
<td>descend</td>
</tr>
<tr>
<td></td>
<td>tikidin</td>
<td>fall</td>
</tr>
<tr>
<td></td>
<td>onabontwan</td>
<td>ascend</td>
</tr>
<tr>
<td></td>
<td>ayomuntwan</td>
<td>descend</td>
</tr>
<tr>
<td>type of path</td>
<td>fakutun/balin</td>
<td>pass&lt;sup&gt;53&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>kayonon</td>
<td>go home</td>
</tr>
<tr>
<td></td>
<td>shifudan</td>
<td>turn back</td>
</tr>
<tr>
<td></td>
<td>khôsun</td>
<td>go around</td>
</tr>
<tr>
<td></td>
<td>timan</td>
<td>cross</td>
</tr>
<tr>
<td>medium of motion</td>
<td>morodon</td>
<td>fly</td>
</tr>
<tr>
<td></td>
<td>timun</td>
<td>swim (all but fish)</td>
</tr>
<tr>
<td></td>
<td>konon</td>
<td>move in water (fish only)</td>
</tr>
<tr>
<td></td>
<td>tobadonon</td>
<td>immerse oneself in liquid</td>
</tr>
<tr>
<td></td>
<td>maladun</td>
<td>be carried by water current</td>
</tr>
<tr>
<td></td>
<td>nákonon</td>
<td>move by paddling</td>
</tr>
<tr>
<td></td>
<td>môshidwan</td>
<td>dive</td>
</tr>
<tr>
<td>speed of motion</td>
<td>darhidin</td>
<td>move quickly</td>
</tr>
<tr>
<td></td>
<td>basadadwan</td>
<td>move slowly</td>
</tr>
<tr>
<td>manner of motion</td>
<td>dîdun</td>
<td>jump</td>
</tr>
<tr>
<td></td>
<td>konan</td>
<td>walk</td>
</tr>
<tr>
<td></td>
<td>irhibisonon</td>
<td>roll along the horizontal axis</td>
</tr>
<tr>
<td></td>
<td>khérosomon</td>
<td>roll along the vertical axis</td>
</tr>
<tr>
<td></td>
<td>sorhidonon</td>
<td>move by cutting a path</td>
</tr>
<tr>
<td></td>
<td>rhwadun</td>
<td>crawl on all fours</td>
</tr>
<tr>
<td>distance between Figure and Ground</td>
<td>âmunton</td>
<td>approach (something)</td>
</tr>
<tr>
<td></td>
<td>âmuntonon</td>
<td>move oneself closer</td>
</tr>
<tr>
<td></td>
<td>tátotonon</td>
<td>move oneself away from</td>
</tr>
<tr>
<td>reason behind motion</td>
<td>yarodon</td>
<td>migrate</td>
</tr>
<tr>
<td></td>
<td>yarodonon</td>
<td>migrate (of fish)</td>
</tr>
<tr>
<td></td>
<td>tudun</td>
<td>run away from danger</td>
</tr>
<tr>
<td></td>
<td>rarakhonon</td>
<td>move oneself out of the way</td>
</tr>
<tr>
<td></td>
<td>yâdun</td>
<td>travel</td>
</tr>
<tr>
<td></td>
<td>yâdwan</td>
<td>wander with purpose</td>
</tr>
<tr>
<td></td>
<td>bunan</td>
<td>follow a trace of an animal</td>
</tr>
</tbody>
</table>

<sup>53</sup> I am not aware of any semantic differences between the two verbs *fakutun* and *balin*, both meaning 'pass', as well as between verbs derived from them given in tables below.
include crawling on all fours (rhawdun), walking on two feet (konan), jumping (dûdun), and two verbs for rolling differing in the axis around which the rotation takes place (irhibisonon ‘roll oneself around the horizontal axis’ and khêrosonon ‘roll oneself around the vertical axis’). There is also a landscape related motion verb sorhidonon ‘move through the forest by cutting a path with a machete’, derived from the landscape term sorhi ‘temporary path’.

In addition, there are three verbs lexicalizing the distance between the Figure and the Ground—namely, the related verb âmuntonon ‘approach’ and âmuntonon ‘move oneself closer’, and their antonym tatonon ‘move oneself away from’. Finally, there are a few verbs that encode the reason why movement takes place, including two verbs that encode migratory movements, yarodon and tudun, of which the former is used when movement is voluntary while the latter when the movement is caused by imminent danger. A related reflexive verb yarodonon encodes the seasonal migration of fish. The reflexive verb rurukhonon ‘move oneself’ implies that the Figure is obstructing someone or something. Finally, the verb yâdwan ‘wander with purpose’ typically describes hunting or fishing trips, which are normally not planned with a certain goal in mind (i.e. game or fish), but thought of as walks through the forest during which one may come across useful resources. Related to this verb is also the form yâdun ‘travel’. Finally, in the list I also included the verb bunan meaning ‘follow the traces of an animal’. A word of caution, however, would be appropriate here. In certain cases—for instance, sorhidonon, timun, and bunan—I was unable to ascertain if the verbs indeed encode a motion element or merely name an activity.

Table 39, however, does not do justice to the semantic richness of the Lokono lexicon, which is significantly enhanced by the morphological complexity of the verbal domain. Although a detailed description of the derivational processes pertaining to motion verbs is beyond the scope of this thesis, a few general remarks are in place. First of all, as discussed in earlier sections, active verbs are divided into four subclasses defined by the paradigms of their root-final vowels. The subclasses have their own general semantic profiles, which are echoed in the meaning of the individual verbs. This phenomenon is best discussed in the domain of motion verbs by comparing verbs of spontaneous motion with the verbs of caused motion, a sample of which is given in Table 40.

Lokono has two general verbs of caused motion shikin ‘put, give’ and nukun ‘take’, and a number of specific verbs such as sonkon ‘pour’, lakadun ‘scatter’, burhedin ‘throw’, rubutun ‘pull’, and fitin ‘paste’. All such verbs belong to the subclass I of active verbs—that is, they end in a vowel other than /a/ in their nominalized form and are typically transitive. Such verbs of caused motion have, however, also introversive equivalents in subclass II ending in the vowel /a/ in the nominalized form, for instance, rurukhan ‘move things out of the way’, which is an intransitive verb of caused motion backgrounding the object. Many of the verbs in Table 39 and Table 40 have such introversive equivalents, for instance, mudun ‘ascend (something)’ and mudan ‘ascend’, thokodon ‘descend (something)’ and thokodan ‘descend’. Such parallel forms also include the verbs timun ‘swim’, and its introversive equivalent timan ‘cross’, the meaning of which has been broadened to include transversal movement with respect to any Ground. In certain cases, the
relationship between the verbs of subclass I and II is not fully transparent today. It is nevertheless tempting to analyze the verbs konon ‘leak’, which is also used to encode the movement of fish in water as a subclass I equivalent of konan ‘walk’.

TABLE 40.
A SAMPLE OF CAUSED MOTION VERBS (NON-CAUSATIVE).

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>shikin</td>
<td>put, give (something)</td>
</tr>
<tr>
<td>nukun</td>
<td>take (something)</td>
</tr>
<tr>
<td>irhibishin</td>
<td>roll (something) along the horizontal axis</td>
</tr>
<tr>
<td>shifudun</td>
<td>turn (something) around</td>
</tr>
<tr>
<td>ayomuntun</td>
<td>put (something) high</td>
</tr>
<tr>
<td>rurukhun</td>
<td>move (something)</td>
</tr>
<tr>
<td>sonkon</td>
<td>pour (something)</td>
</tr>
<tr>
<td>lakadun</td>
<td>scatter (something)</td>
</tr>
<tr>
<td>burkedin</td>
<td>throw (something)</td>
</tr>
<tr>
<td>fotikitin</td>
<td>bring (something) out of containment</td>
</tr>
<tr>
<td>rubutun</td>
<td>pull (something) out</td>
</tr>
<tr>
<td>khoroton</td>
<td>put (something) into tight containment</td>
</tr>
<tr>
<td>shishin</td>
<td>put (something) into tight containment</td>
</tr>
<tr>
<td>kherôsun</td>
<td>turn (something) around along the vertical axis</td>
</tr>
<tr>
<td>fitin</td>
<td>paste, pluck (something)</td>
</tr>
</tbody>
</table>

Other verbs of caused motion have equivalents in subclass III, which ends in the vowel /o/ and has a special event nominalizer –non. These verbs have, in turn, a reflexive meaning, for instance, rurukhonon ‘move oneself out of the way’, irhibisonon ‘roll oneself along the horizontal axis’, and khêrononon ‘roll oneself along the vertical axis’, which were listed in Table 39 as verbs of spontaneous motion. The analysis is more dubious in cases such as the reflexive kodonon ‘enter containment’, which may be related to the transitive verb kodon ‘weave’, but generally speaking all reflexive verbs in Table 39 can be traced back to a subclass I verb. The only exception is the verb koyonon ‘go home’, which is a fully unanalyzable reflexive verb. Interestingly, many verbs encoding the activity resulting in a certain posture of the human body are also reflexive, for instance, teberedonon ‘sit down on the ground’.

Finally, there are a few verbs from subclass IV, which are typically idiosyncratic cases, but in the case of motion verbs are fairly transparent. These include yâdwan ‘wander with purpose’, related to the verb yâdan ‘travel’, and possibly to the verb yâdan ‘harvest’, as well as the verbs basadadwan ‘move slowly’, onabontwan ‘ascend’, and ayomuntwan ‘ascend’ which are all subclass IV verbs derived with the verbalizer –dV, from respectively, the stative verb basadan ‘slow’, and the directional phrases onabon ‘at the ground’ and ayomun ‘high’. A few forms that belong to either subclass III (reflexive verbs) or subclass IV (typically introversive reflexive verbs) encode carefulness on the part of the Figure, for instance, kodwan ‘enter containment carefully’, fotikidonon ‘enter non-containment carefully’, and fotifotidwan ‘enter non-containment carefully one after another.’ Last but not least,
the verb of spontaneous motion fotikidin ‘enter non-containment’ shares the element *fotiki with the verb of caused motion fotikitin ‘bring into non-containment’. The former verb may be derived with the verbalizer –dV and the latter with the causative suffix –kVtV, which with bases that have the consonant /k/ in the last syllable has the shorter form –tV.

Summing up, it has to be kept in mind that the verbs in Table 39 and Table 40 have equivalents in other subclasses of active verbs, the meaning of which may, but does not have to, involve motion. Eliciting such related forms is extremely difficult as their use is very context dependent. If asked directly the speakers can easily discard certain forms as ungrammatical if the right context is not provided. All the forms listed above have been attested in the corpus of texts, and have not been elicited directly.

If this vast motion vocabulary were not enough, in Lokono there are also a number of other highly productive derivational processes that can further enrich the expression of motion (§ 3.4.3). First, the Lokono motion verbs, similarly to many other Lokono verbs, can be intensified with the suffix –bo. The attested intensified verbs of spontaneous motion are listed in Table 41.

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
<th>Intensified</th>
</tr>
</thead>
<tbody>
<tr>
<td>ôsun</td>
<td>go</td>
<td>ôsâbon</td>
</tr>
<tr>
<td>andun</td>
<td>arrive</td>
<td>andâbon</td>
</tr>
<tr>
<td>kodonon</td>
<td>enter containment</td>
<td>kodvâbon</td>
</tr>
<tr>
<td>fotikidin</td>
<td>enter non-containment</td>
<td>fotikidâbon</td>
</tr>
<tr>
<td>mudun</td>
<td>ascend</td>
<td>mudâbon</td>
</tr>
<tr>
<td>thokodon</td>
<td>descend</td>
<td>thokodâbon</td>
</tr>
<tr>
<td>tikidin</td>
<td>fall</td>
<td>tikidâbon</td>
</tr>
<tr>
<td>fakaton</td>
<td>pass</td>
<td>fakutâbon</td>
</tr>
<tr>
<td>balin</td>
<td>pass</td>
<td>balikâbon</td>
</tr>
<tr>
<td>koyonon</td>
<td>go home</td>
<td>koywâbon</td>
</tr>
<tr>
<td>khôsun</td>
<td>go around</td>
<td>khôswâbon</td>
</tr>
<tr>
<td>morodon</td>
<td>fly</td>
<td>morodâbon</td>
</tr>
<tr>
<td>timun</td>
<td>swim</td>
<td>timâbon</td>
</tr>
<tr>
<td>tobadonon</td>
<td>immerse oneself</td>
<td>tobadvâbon</td>
</tr>
<tr>
<td>darhidin</td>
<td>move quickly</td>
<td>darhidâbon</td>
</tr>
<tr>
<td>diidun</td>
<td>jump</td>
<td>diidâbon</td>
</tr>
<tr>
<td>konan</td>
<td>walk</td>
<td>konâbon</td>
</tr>
<tr>
<td>tudun</td>
<td>run away</td>
<td>tudâbon</td>
</tr>
<tr>
<td>rumukhonon</td>
<td>move oneself</td>
<td>rumukhwâbon</td>
</tr>
</tbody>
</table>

The addition of the intensifier has various semantic effects, depending on the meaning of the verb. The verb ôsun ‘go’, for instance, loses the motion element of its semantics, becoming a verb that encodes manner only (ôsâbon ‘haste’). The intensified verb andâbon, on the other hand, is translated by the speakers as ‘arrive with pleasure’, which is probably a pragmatic consequence of ‘arrive completely’.
Other intensified verbs encode motion events that are in a more advanced stage than that encoded by the non-intensified form, for instance, *kodwâbon* ‘enter further into containment’. Verbs that do not encode a configuration or path, such as *darhidin* ‘run’, when intensified, signal that the motion is distributed in many directions, and were often translated with the addition of ‘back and forth’ or ‘like crazy’. Quite likely verbs of caused motion can also be intensified but I have not explored such forms.

Verbs of spontaneous motion can also be reduplicated, a process that has a more regular semantic pattern, indicating that the activity is performed many times. The attested reduplicated verbs of spontaneous motion are given in Table 42.

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ôsun</td>
<td><em>go</em></td>
<td>ôsosâdun</td>
<td><em>go repeatedly</em></td>
</tr>
<tr>
<td>andun</td>
<td><em>arrive</em></td>
<td>andandadun</td>
<td><em>arrive repeatedly</em></td>
</tr>
<tr>
<td>kodonon</td>
<td>enter contain.</td>
<td>kodwakodwadun</td>
<td>enter containment repeatedly</td>
</tr>
<tr>
<td>fotikidin</td>
<td>enter non-contain.</td>
<td>fotikifotikidin</td>
<td>enter non-contain. repeatedly</td>
</tr>
<tr>
<td>fotikidin</td>
<td>enter non-contain.</td>
<td>fotifotidwan</td>
<td>enter non-contain. carefully</td>
</tr>
<tr>
<td>mudun</td>
<td>move up</td>
<td>mudamudadun</td>
<td>move up repeatedly</td>
</tr>
<tr>
<td>thokodon</td>
<td>move down</td>
<td>thokothokodon</td>
<td>move down repeatedly</td>
</tr>
<tr>
<td>tikidin</td>
<td>fall</td>
<td>tikitikidin</td>
<td>fall repeatedly</td>
</tr>
<tr>
<td>fakutun</td>
<td><em>pass</em></td>
<td>fakufakudun</td>
<td><em>pass repeatedly</em></td>
</tr>
<tr>
<td>balin</td>
<td><em>pass</em></td>
<td>balibalidin</td>
<td><em>pass repeatedly</em></td>
</tr>
<tr>
<td>koyonon</td>
<td><em>go home</em></td>
<td>koywakoywadun</td>
<td><em>go home repeatedly</em></td>
</tr>
<tr>
<td>khósun</td>
<td><em>go around</em></td>
<td>khowkhowdun</td>
<td><em>go around repeatedly</em></td>
</tr>
<tr>
<td>timan</td>
<td><em>cross</em></td>
<td>timatimadan</td>
<td><em>cross repeatedly</em></td>
</tr>
<tr>
<td>morodon</td>
<td><em>fly</em></td>
<td>moromorodon</td>
<td><em>fly repeatedly</em></td>
</tr>
<tr>
<td>timun</td>
<td><em>swim</em></td>
<td>timitimidin</td>
<td><em>swim repeatedly</em></td>
</tr>
<tr>
<td>darhidin</td>
<td><em>move quickly</em></td>
<td>darbidarhidin</td>
<td><em>move quickly repeatedly</em></td>
</tr>
<tr>
<td>konan</td>
<td><em>walk</em></td>
<td>konakonadun</td>
<td><em>walk repeatedly</em></td>
</tr>
<tr>
<td>rhwadun</td>
<td><em>crawl</em></td>
<td>rhwarkinadun</td>
<td><em>crawl repeatedly</em></td>
</tr>
<tr>
<td>tudun</td>
<td><em>run away</em></td>
<td>tudatudadan</td>
<td><em>run away repeatedly</em></td>
</tr>
<tr>
<td>yâdwan</td>
<td><em>wander</em></td>
<td>yâyâdun</td>
<td><em>wander repeatedly</em></td>
</tr>
</tbody>
</table>

Just as in the previous case, I have not looked at the verbs of caused motion, but the productivity of the pattern suggests that they can be reduplicated as well. Although the pattern is fairly regular, there are also a number of forms that are somewhat idiosyncratic, for instance, *fotifotidwan* ‘enter non-containment carefully one after another’, which is a reduplicated verb, related to the verb *fotikidin* ‘enter non-containment’. In this case, not only is the reduplicated form irregular (i.e. missing the element –*ki*), but instead of encoding an iterative activity in which the same Figure is involved, it encodes the collectivity of the Figure. Apart from this irregular formation, there is also the perfectly regular verb *fotikifotikidin* ‘enter non-containment repeatedly’.

**Table 42. A sample of reduplicated motion verbs.**
Finally, most verbs can also be suffixed with the causative marker –kV̩V̩, which in the case of verbs of spontaneous motion results in a set of derived verbs of caused motion. The suffix can also be added to most of the verbs of caused motion, introducing another participant that is causing the caused motion. However, I have not analyzed such verbs, and I expect that there are idiosyncratic cases among them as well. The verb rurukhun ‘move (something)’, for instance, is related to the verb rurudukutan ‘move (something) carefully’ derived with the causative suffix from *rurudun, containing the same root as rurukhun. To the best of my knowledge, the former, however, does not exist as a verb today.

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
<th>Causative verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>ôsun</td>
<td>go</td>
<td>ôsukutun</td>
</tr>
<tr>
<td>andun</td>
<td>arrive</td>
<td>andukutun</td>
</tr>
<tr>
<td>kodonon</td>
<td>enter contain</td>
<td>kodokoton</td>
</tr>
<tr>
<td>fotikidin</td>
<td>enter non-contain.</td>
<td>fotikidikitin</td>
</tr>
<tr>
<td>mudun</td>
<td>ascend</td>
<td>mudukutun</td>
</tr>
<tr>
<td>thokodon</td>
<td>descend</td>
<td>thokodokoton</td>
</tr>
<tr>
<td>tiki</td>
<td>fall</td>
<td>tikiðikitin</td>
</tr>
<tr>
<td>fakutun</td>
<td>pass</td>
<td>fakutukutun</td>
</tr>
<tr>
<td>balin</td>
<td>pass</td>
<td>balikitin</td>
</tr>
<tr>
<td>koyonon</td>
<td>go home</td>
<td>koyokoton</td>
</tr>
<tr>
<td>khôsun</td>
<td>go around</td>
<td>khowsukutun</td>
</tr>
<tr>
<td>timan</td>
<td>cross</td>
<td>timäkoton</td>
</tr>
<tr>
<td>morodon</td>
<td>fly</td>
<td>morodokoton</td>
</tr>
<tr>
<td>timon</td>
<td>swim</td>
<td>timikitin</td>
</tr>
<tr>
<td>tobadonon</td>
<td>immerse self in liquid</td>
<td>tobadukutan</td>
</tr>
<tr>
<td>darhidin</td>
<td>move quickly</td>
<td>darhidikitin</td>
</tr>
<tr>
<td>ðidun</td>
<td>jump</td>
<td>ðidukutun</td>
</tr>
<tr>
<td>konan</td>
<td>walk</td>
<td>konäkoton</td>
</tr>
<tr>
<td>tâtonon</td>
<td>go further</td>
<td>tâtokoton</td>
</tr>
<tr>
<td>yâdan</td>
<td>travel</td>
<td>yâdukutun</td>
</tr>
</tbody>
</table>

Importantly, causative verbs may be derived from all four subclasses of active verbs. Such causative verbs themselves can, in turn, have equivalents in other subclasses. The Lokono motion verb vocabulary is therefore much richer than the above tables suggest. A good example of the various possibilities available are the verbs derived from the root *foti, which encodes movement into non-containment. There is the simple verb fotikidin meaning ‘enter non-containment’, which has an introversive equivalent fotikidan. The latter is used specifically to encode the situation when a girl who had her first menstruation leaves the hut, in which she was sitting for a period of time. There is also a reflexive verb fotikidonon, encoding movement into non-containment, but additionally signaling that the movement is performed in a careful manner. From the speaker’s reactions, I surmise that it is used to talk about sexual intercourses. The same root appears also in a reduplicated verb fotikifotikidin.
meaning simply ‘enter non-containment repeatedly’, which has also an introversive equivalent \textit{fotikifotikidan}, and a related subclass IV form \textit{fotifotidwan} ‘enter non-containment one after another carefully’. There is also an intensified verb \textit{fotikidâbon} ‘enter further into non-containment’, and at least two causative verbs \textit{fotikidikitin} ‘cause something to enter into non-containment’ and its introversive equivalent \textit{fotikidikitan}. Finally, there is also a verb of caused motion \textit{fotikitin} ‘bring something into non-containment’, which comes with its own set of derived forms. Many of such verbs have very narrow, often culturally-specific uses.

3.10.3 Verbs òsun ‘go’ and andun ‘arrive’

The verb òsun is the most semantically general and the most frequently used verb of spontaneous motion. It is an intransitive active verb that encodes a path unspecified with respect to shape. It does not place any restrictions on the type of referents that can be encoded by its subject, and it does not encode manner of motion. It is in principle unspecified for the type of medium in which the movement takes places, but medium-specific verbs are often preferred if the motion event takes place in air or water. It also typically describes motion in various types of vehicles, though there is a specific verb \textit{nâkonon} ‘paddle’. Example (170) comes from a narrative about how the inhabitants of Cassipora travelled to the city, before dirt roads were built.

\begin{align*}
\text{(170) } & \text{Ken kia lokhodi bôsa tâ, ani, thoyoshikwanro.} \\
& \text{k'ëŋ kia loko-ô-d'i b-o:sa ta: t'oyo-fikwâ-n-ro} \\
& \text{and DSC inside-VIA 2SG go elderly-house.POSS-LOC.WHR-ATL} \\
& \text{‘And through it, you go far, um, to the city.’}
\end{align*}

In (170), the verb òsun ‘go’ refers to travelling down the Suriname River, mentioned earlier and referred to by the directional expression kia lokhodi. The configurational noun loko ‘inside’ is typically used with paths, roads, creeks, and rivers conceptualized as transportation arteries. The verb òsun is deictically unspecified, but it is normally interpreted as translocative (i.e. encoding motion away from the deictic center), especially if it appears on its own in a clause. It can, however, have a cislocative meaning as well (i.e. encoding motion toward the deictic center), particularly if it is combined with the venitive enclitic =the. The translocative use was exemplified in (170) above. The cislocative reading of the verb òsun is given in (171), an example from a life story of one of the participants, in which she explains that she moved from Suriname to French Guiana because of the War of the Interior (1986-1992).

\begin{align*}
\text{(171) } & \text{Dôsathe yanthero nabo.} \\
& \text{d-o:sa=t'ë yà–n-t'ë–ro n–abo} \\
& \text{1SG go=VEN LOC.DEM-LOC.WHR-ATL 3SG-INST} \\
& \text{‘I went toward (French Guiana) with (my family).’}
\end{align*}

In (171), the fossilized atelic form of the demonstrative adverb ya in the location and goal directionality encodes the goal of movement. The verb òsun can encode movement from, to, and across from the deictic center irrespective of whether there
is a clearly defined source or goal. It is interesting to notice, however, that the
cislocative uses of the verb ôsun appear to be felicitous only if the goal has not been
reached—a feature that contrasts the verb ôsun ‘go’ with the verb andun ‘come’.

The verb andun encodes movement toward the deictic center, whether expressed
explicitly or not. If the goal is reached, andun is preferred over the verb ôsun. It is,
however, not always clear what the difference between the utterances with telic and
atelic goals is in the case of andun. The following two examples, containing a telic
goal and atelic goal respectively, were both translated by participants as telic.

(172) Danda karhowin yeyendwa loko.
1SGA come savanna EP LOC ITTR melody VIBZ INTRV REFL inside
‘I arrived on a savanna singing.’

In (172), the noun karhow ‘savanna’ is marked as a telic goal, and was translated
accordingly. In (173), however, the noun shikwa ‘house’ is marked as an atelic goal,
but it is also consistently translated as telic.

(173) Deimedâka, dadibaledâka, dandathe dashikwanro thabo.
1SGA fish VIBZ INTRV PFV 1SGA smoke for food VIBZ INTRV PFV
1SGA arrive VEN 1SGA house POSS WHR ATL 3F A INST
‘I have fished, I have smoked (it), I arrived home with it.’

In this particular case, we can explain the grammatical inconsistency by referring to
cultural practices. It is not accepted in the Lokono culture for the hunter to come
home directly with his catch. Instead, he should leave it nearby his home and inform
his wife about the location, who then goes and picks it up. Larger hunting parties
including many hunters would often meet their respective wives half way in
specially designated resting areas. Group hunting is seldom practiced today, and
traces of such places are only preserved in the place names of the area (chapter 6),
but the practice of not bringing the catch home oneself is still occasionally practiced.
Often more than one person (e.g., wife and children) is necessary to carry the meat
home from where the already tired hunter left it. The ethnographic record tells us too
that the practice is inextricably linked to the animistic beliefs of the Lokono: it is a
way of making sure that the spirit of the killed animal will not follow the hunter
home (Goeje 1942; Roth 1915). Such inconsistencies between the telic and atelic
uses of andun are, however, more common, and appear also in contexts other than
hunting. It appears therefore that the verb andun lexicalizes in fact telic motion to
the deictic center; the telicity distinction expressed in the directional phrase is
neutralized in this case. The verb ôsun, on the other hand, is deictically unspecified,
but its functional domain is limited by that of andun. In practical terms ôsun is used
for all translocative events and atelic cislocative events.
3.10.4 Enter containment and enter non-containment

The reflexive verb *kodonon* ‘enter containment’ describes a motion event, in which the Figure enters a containment configuration. Lokono has a number of containment configurational nouns distinguishing different types of container Grounds, making it therefore interesting to find a verb lexicalizing such configurations. However, if the Ground is a liquid, a more specific or a more general verb is used (e.g., *tobadonon* ‘immerse oneself in liquid’ or *ôsun* ‘go’). Non-containment configurational nouns can encode the goal with *kodonon*, provided they imply a containment configuration in the given context. If expressed at all, the goal is always atelic—that is, marked by the atelic suffix –ro. The verb *kodonon* encodes therefore a process of configurational change of the durative translocation type—the Figure must undergo the process of transgressing the non-containment configuration and entering into a containment configuration. In (174), a reaction to a scene from the *Event Triads* stimulus, in which a gray block moves under a brick bridge, is given (Bohnemeyer, Eisenbeiss, and Narasimhan 2001).

(174) *Thokodwa thâbonro, thokodwa tholokonro.*

\[
\begin{align*}
&\text{th}o^{\circ} \text{kodwa} & \text{th}o^{\circ} \text{lokõ} \text{n} \text{ro} \\
&3_{F,A} \text{-enter.contain.REFL} & 3_{F,A} \text{-inside-LOC.WHR-ATL}
\end{align*}
\]

‘(Gray block) entered under (the brick bridge), it entered (into) it.’

In (174), the containment configuration is expressed once with the configurational noun *âbo* ‘under’, and once with *loko* ‘inside’. Importantly, the verb is deictically unspecified, but it can be combined with markers of associated motion, as in the following two examples, which can both be used when inviting someone to enter a building.

(175) *Bokodwathe.*

\[
\begin{align*}
&\text{bo} \text{–kodwa}=\text{th}e \\
&2_{SG,A} \text{-enter.contain.REFL=VEN}
\end{align*}
\]

‘Enter (i.e. come inside).’

In (175), the verb *kodonon* appears with the venitive enclitic =the, signaling motion toward the deictic center. This expression can be uttered by a person inside the building inviting the addressee to come inside. In (176), the verb *kodonon* is in turn combined with the andative suffix –ba, signaling motion away from the deictic center.

(176) *Bokodoba.*

\[
\begin{align*}
&\text{bo} \text{–kodo} \text{–ba} \\
&2_{SG,A} \text{-enter.contain.REFL-AND}
\end{align*}
\]

‘Enter (i.e. go inside).’
This expression, on the other hand, can be uttered by a person standing outside, encouraging the addressee, who is also outside, to go inside, thereby moving away from the deictic center. In both cases, however, the Figure is entering a containment configuration.

Within the domain of landscape, the verb *kodonon* can combine with the noun *konoko* ‘forest’ and *onikhan* ‘creek’, when these are entered from a more open type of space. In the former case, the Figure must enter the forest from a savanna, a road, or a village. In the latter case, the Figure typically enters the creek from a more open watercourse such as a river or a swamp. This is illustrated in (177), which comes from a story about the origin of Cassipora village.

(177) *Nakovwasabokathe to onikhan lokonro.*

\[
\text{na–kodwa–sabo–ka}=\text{th}_e \quad \text{to} \quad \text{uni–k\=an} \quad \text{lok\=o–n–ro}
\]

3PL*–enter.contain.REFL–CMPR–PFV=VEN DEM*F* rain–DIM inside–LOC.WHR–ATL

‘They sailed further up the creek toward here.’

The ancestors of the inhabitants of Cassipora are believed to have come through the Suriname River. When they came across the mouth of the Cassipora creek, they entered it, and sailed further up the creek toward the place where the village is located today.

As a side note, the verb *kodonon* is also used to encode the movement of the sea. The expressions *barh\=a kodonon* ‘sea entering containment’ is used to describe the incoming tide. The movement of the tide out to the sea, however, is called *barh\=a koyonon* ‘sea returning’; hence not with the antonymic verb *fotikidin* ‘enter-non-containment.’ The antonymic pair is used to encode the cardinal directions. The phrase *hadali kodonon* ‘sun entering containment’ and *hadali fotikidin* ‘sun entering non-containment’ combined with the configurational *khona* ‘adhere’ and complex directional *m\=aya*, mean respectively east and west (i.e. e.g., *hadali kodonon khona m\=aya* ‘east’).

The antonymic verb *fotikidin* ‘enter non-containment’, on the other hand, is used when the Figure enters a non-containment configuration. Somewhat counterintuitively to the speakers of English, this closest equivalent of the English verb *exit* combines with *go* rather than *source* expressions. The verb *fotikidin* functions as the antonym of *kodonon*, but not in the way *exit* and *enter* do. The English verbs encode respectively movement into containment and movement out of containment. The Lokono verbs encode movement into containment, and movement into non-containment. This is illustrated in example (178), a typical response to two scenes from the *Event Triads* stimulus, in which a ball rolls into a circular enclosure and then rolls out of it (Bohnemeyer, Eisenbeiss, and Narasimhan 2001).

(178) *Thokodwa tora balalaro tholokonro; thufotikida kiba.*

\[
\text{t}^\circ\text{o–kodwa} \quad \text{to–ra} \quad \text{balala–ro} \quad \text{t}^\circ\text{o–lok\=o–n–ro}
\]

3FA*–enter.containment.REFL DEM*F–MED round–F 3FA*–inside–LOC.WHR–ATL

\[
\text{t}^\circ\text{i–futikida} \quad \text{kiba}
\]

3FA*–enter.non.containment again

‘That ball entered (into an enclosure); it entered again (into the open space).’
At first glance, such responses may seem elliptic with regard to the source expression—a common problem in repetitive elicitation sessions. However, the few cases of source directional phrases attested with the verb fotikidin appear to be the result of me asking if such directional phrases are possible with the verb. In natural discourse, goal is typically expressed with the verb fotikidin, as in (179) and (180) below. Example (179) comes from a description of a hunting trip.

(179) \textit{Wafotikidashin karhowninro} [...]  
\begin{verbatim}
wa-fut'ikida-ʃ-ŋ  kaʁow-ɲ-ɜ–n-ro  
\end{verbatim}  
‘Just before entering onto a savanna [...]’

In (179), the noun \textit{karhow} ‘savanna’ functions as the Ground toward which the Figure is moving. As usual, the source is not named but it is clear from the linguistic and situational context that it is the forest that the Figure is about to leave. Example (180), in turn, comes from a description of an old route from Cassipora to Matta. It contains two borrowings from Sranantongo, the temporal expression te leki ‘until, and the landscape term \textit{liba} ‘river’.

(180) \textit{Te leki bufotikida libanro}.  
\begin{verbatim}
te leki  bi-fut'ikida  libã–n-ro  
until  2SGA-enter.non.containment  river–LOC.WHR–ATL
\end{verbatim}  
‘Until you enter into the river.’

It is instructive to compare example (180) with (177). In (180) the noun \textit{liba} ‘river’ functions as the Ground toward which the Figure is moving. From the preceding context, it is clear that it is a creek that the Figure is leaving. The two entering verbs kodonon ‘enter containment’ and fotikidin ‘enter non-containment’ thus collocate with the two different types of landscape features. The former typically combines with konoko ‘forest’ and onikhan ‘creek’, which are considered more contained spaces than karhow ‘savanna’ and liba ‘river. The last two, on the other hand, typically combine with the verb fotikidin, since they are considered open spaces. The two verbs provide us with an insight into how the major landscape features of the area are conceptualized: as containers and as open spaces.

3.10.5 Venitive enclitic =\textit{the}  
The venitive enclitic can be attached to active and stative verbs, including the empty verb, and to nominalizations, but also to directional phrases and nouns. Generally speaking, it indicates movement toward the deictic center, as in example (181), in which it appears with a motion verb timan ‘cross’.

(181) \textit{Natimâkathe, andun Mопentinro}.  
\begin{verbatim}
na-timːa–ka=t’e  ândi–ŋ  mopenʃi–n-ro  
3PLA–swim_INTRV–PFV=VEN  come–NMLZ  Mopenti–LOC.WHR–ATL
\end{verbatim}  
‘They crossed toward here, coming toward Mopenti (place name).’
Example (181) is part of the description of the movement of the inhabitants of Cassipora, before the permanent settlement was established. The venitive enclitic orients the movement toward the deictic center—the location of the Cassipora village today. The ancestors have crossed in this direction through creeks and savannas, coming as far as Mopenti, where an older settlement was located.

The venitive suffix can be attached to verbs that do not encode motion, in which case it adds the motion component to the event. Notice the temporal order of the subevents; the motion event precedes the main event encoded by the verb. This is exemplified in (182), which comes from the description of the day when a young woman leaves the hut in which she was sitting for a few days after her first menstruation.

(182) Dakuthu Firoda kudatheda de.

\[
\begin{align*}
dak &\text{– kit}^\text{i} \\
kida &\text{–} \text{t}^\text{e} = \text{da} = \text{de}
\end{align*}
\]

\[\text{1SG_A–grandmother firo=DIRCT kida=t\text{e}=da=de} \]

‘My grandma Firo came to wash me.’

In (182), the speaker is telling about her experiences, when she had her first menstruation. At the time young girls are left in seclusion, attended only by their grandma for a few days to learn valuable household skills. The transitive verb kudun ‘wash’ appears here with the venitive enclitic =the, which signals that the grandmother came to wash the speaker in her secluded hut. It is interesting to notice, moreover, that the deictic center is not necessarily that of the speech event. In (182), the deictic center is the secluded hut, to which the speaker was confined after her first menstruation, not the place where the speaker is at the moment of speaking.

The enclitic =the is also occasionally found in stative predicates. If the stative predicate contains a noun, the enclitic may combine with the future marker to encode motion (183). Example (183) comes from a description of a consultant’s family given by a speaker in Matta, and explains that her husband will only be back tomorrow from hunting.

(183) Môthiâbohathe dei.

\[
\begin{align*}
\text{mo} &\text{–} \text{fi} \text{– ha} = \text{t}^\text{e} = \text{dei} \\
\text{morning–INTS–FUT} &\text{=VEN=DIRCT=3SG_B}
\end{align*}
\]

‘He will come back early in the morning.’

The venitive enclitic can encode motion on smaller scales as well, and it does not have to follow the predicate directly. In example (184) it is attached to a directional phrase encoding the goal of motion of the verb of caused motion shikin ‘put’.

(184) Bushikiha aba mawaditho thudiakothe kidaba.

\[
\begin{align*}
biki &\text{–} \text{fi} \text{– ha} \text{–} \text{ma} \text{–} \text{wadi} \text{–} \text{t}^\text{o} \\
t^\text{i} &\text{–} \text{ako} = \text{t}^\text{e} = \text{kida} = \text{ba}
\end{align*}
\]

\[\text{2SG_A–put–FUT one PRV–long–SBJ.REL= 3F_A–top=VEN=too–ADD} \]

‘You will put one short one on top of it too.’

Example (184) comes from a demonstration how to make a simple basket (kêkê). The speaker instructs the listener where the shorter reed strips have to be placed.
Both with active and stative predicates the venitive enclitic may also have a secondary aspectual meaning. In both cases the venitive indicates that a process has taken place, and can often be translated as 'become’. An example with a stative and active predicate is given (185) and (186), respectively, which were discussed above.

(185) Thoyobekate ye.
\[ t^\text{ho}–\text{oy}–\text{be}–\text{ka}=t^\text{he}=\text{ye} \]
elderly–PL–PFV=VEN=3PLA
‘They all have become old.’

Example (185) without the venitive enclitic would be a simple statement about a state-of-affairs: they are all old. The venitive adds a progressive or developmental component to the description. Similarly in (186) with a derived active verb shokotonon ‘make oneself smaller’.

(186) Thoshokotwasabokate, wakabura.
\[ t^\text{ho}–\text{o}–\text{joko}–\text{twa}–\text{sabo}–\text{ka}=t^\text{he} \]
3PLA–small–VBZ–REFL–CMPR–PFV=VEN 1PLA–fishery
‘Our fishery (our land) has become smaller.’

Importantly in (186), the verb, being an active verb encoding an activity, not a state, already has a dynamic component. The addition of the venitive enclitic suggests that the process is not yet accomplished. The aspectual use of the venitive is particularly useful in time expressions, where it signals that the named time of the day has almost come. This is exemplified in (187), where the time of the day is expressed by the term kasakonro—a combination of kasako ‘daylight’, the where-marker, and the atelic marker—encoding the time of the day just before first sunrays appear (lit. ‘toward the sunlight’).

(187) Kasakonrokate we.
\[ \text{kasako}–\text{no}–\text{ro}–\text{ka}=t^\text{he}=\text{we} \]
daylight–LOC.WHR–ATL–PFV=VEN=1PLA
‘It’s almost dawning.’

Example (187) has the morphosyntax of a stative clause. Such expressions are a common way of expressing the time of the day, and can also function as greetings. The venitive marker is added to be more specific; it implies that the relevant time of the day has almost been achieved.

3.10.6 Andative suffix –ba

As opposed to the venitive enclitic, the andative –ba is a suffix always attached to the verb. The suffix appears to be used as a marker of associated motion only—that is, it does not have an aspectual meaning such as the venitive. If added to a motion verb it signals that the movement is oriented away from the deictic center. The semantic contrast between the two markers of associated motion can be observed by comparing the two examples of the verb kodotonon ‘enter containment’ given above.
In (175), the verb *bokodwathe* contains venitive enclitic =*the*, signaling motion toward the deictic center. In (176), the same verb is combined with the andative suffix, resulting in *bokodoba*, implying motion away from the deictic center. The former can be uttered by somebody on the inside, while the latter by someone on the outside, encouraging a third party to enter. Such pairs can be formed from all Lokono motion verbs, since none of them is deictically oriented, with the exception of the verb *andun* ‘arrive’.

Similarly to the venitive enclitic, the andative marker can also be attached to verbs that do not encode a motion event. In such cases it adds a motion element to the meaning of the predicate, as in example (188), in which the verb *dukhun* ‘see’ appears. The example comes from a story about forest spirits who are collecting fruits high in the tree branches, while a Lokono man is secretly shooting at them with his bow and arrow. As one of them falls, the other spirits wonder where he disappeared to. Notice that in (188) the masculine prefix is used to encode the subject of the verb. As a rule, the masculine gender is only used when the referent is a Lokono man. In this case, however, the reported utterance is said by one of the spirits and the masculine gender is used by the spirit to talk about a fellow spirit—a member of the same group. The masculine gender here therefore is extended to a male member of the same group in order to express the group.

\[(188)\] *Budukhuba halon lösun.*

\[
\begin{align*}
&\text{bi–dikhi–ba} & \text{halö–n} & \text{l–o:sf–ŋ} \\
&2SGA–see–AND & & 3SGA–go–NMLZ
\end{align*}
\]

‘Go look where he went.’

In (188) the addition of the andative marker imparts a motion meaning to the predicate. The motion is oriented away from the deictic center—that is, the location where the forest spirits are. The main verb is the transitive verb *dukhun* ‘see’, which in (188) takes a complement clause introduced by the interrogative *halo* ‘where’ (§3.11.3). The addition of the andative suffix or the venitive enclitic, though signaling a motion event prior to the event lexicalized by the verb, does not change the predicate as a whole into a motion predicate that combines with the expression of goals. Directional phrases encoding goals are not normally found in such clauses with the markers of associated motion attached to verbs that do not encode motion on their own.

Finally, the two markers can be combined, in which case the meaning of the predicate includes both motion away from the deictic center and toward the deictic center. Such combinations can only be used to describe situations in which the movement thither happens prior to the event encoded by the verb and the movement hither happens after it, as in example (189) from the story in the online Appendix IV.

\[(189)\] *Wadukhubathe lirabo koban.*

\[
\begin{align*}
&\text{wa–dik’i–ba=te} & \text{li–ra–bo} & \text{kobän} \\
&1PLA–see–AND=VEN & & \text{DEM:M–MED–CNTR field.POSS}
\end{align*}
\]

‘We will go see the field of the other one, and come back.’
In (189), the mother and the daughter are about to inspect the field of one of the prospective sons-in-law. The two markers are attached to the verb dukhun ‘see’. The order of the suffixes is fixed and corresponds to the order of the motion events involved: first going away and then coming back. The valency of the verb does not change: the object of the transitive verb is expressed by the following noun phrase, but there are no directional phrases encoding the direction of any of the motion subevents.
3.11 Expression of location in complex clauses

To complete the grammatical sketch of the grammar of space, in this section I look at the expression of location in complex clauses. I first discuss locative relative clauses, which contain the relativizers discussed earlier (§ 3.11.1). Secondly, I turn to adverbial clauses of location, which are typically introduced by a lexicalized form yontho, containing the locative anaphoric adverb, the where-marker –n, and the feminine relativizer (§ 3.11.2). Finally, I discuss the structure of locative complement clauses (§ 3.11.3).

3.11.1 Relative locative clauses

A directional phrase combined with a relativizer can function as a nominal predicate in the Locative Equation encoding spatial relations that are considered permanent. Alternatively, such a phrase marked by a relativizer can be used as an equivalent of a relative clause (§ 3.5.5). In this case, the relative clause conveys the information about the location of the referent of the modified noun. This is exemplified in (190), which comes from a narrative about land titles.

Example (190) has the form of an empty verb clause due to the fact that an active verb is negated with the privative prefix. The subject is encoded on the empty verb, even though it is expressed by a preposed phrase (and therefore the expletive prefix $m$– is expected on the empty verb). This may be a sign that the speaker is not fluent in Lokono, a fact reflected also in the incorrect possessed form of the noun horhorho (which should be horhorha). The subject noun phrase is complex and contains a relative clause modifying the noun phrase to wafodobe ‘our bosses’. The relative clause consist of the relational phrase Parmurbo diako, unmarked for location and goal directionality, the head of which is suffixed with the feminine relativizer.

Such relative clauses can be formed from any type of a directional phrase. In (191), one more example is given, illustrating that the Ground can also be expressed by a prefix, as in any other type of a directional phrase with a configurational noun. The example comes from an instructional narrative about making a swidden.

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\[(190) \text{To wafodobe Parmurbo diakotho mashikati na worhorho wamun.}\]

\[
\begin{array}{llllllll}
\text{to} & \text{–w–afodo–be} & \text{parmurbo} & \text{–dako–t}^0 \\
\text{DEM/F} & \text{1PL}–\text{boss–COL} & \text{Paramaribo} & \text{top–SBJ.REL:F} \\
\text{ma–jika–t}^i & \text{n}–\text{a} & \text{w–oropo} & \text{wa–miŋ} \\
\text{PRV–give–DES} & \text{3PL}–\text{E,V} & \text{1PL}–\text{landform} & \text{1PL}–\text{dat} \\
\end{array}
\]

‘Our bosses (who live) in Paramaribo do not want to give us our land.’

(191) Dan bulāduha to adabe tholokotho.

\[
\begin{array}{llllllll}
dan & \text{bi–la:di–ha} & \text{to} & \text{ada–be} & \text{t}^0\text{o–loko–t}^0 \\
\text{2SGA–fell–FUT} & \text{DEM:F} & \text{tree–COL} & \text{3FA–inside–SBJ.REL:F} \\
\end{array}
\]

‘Then you fell the trees that are in (the area you want to turn into a swidden).’
In (191) the relative clause modifies the object of the main verb. The main predicate is encoded by the verb ădun ‘fell (trees)’, the object of which is expressed by a full noun phrase. The relative clause consists of a directional phrase containing the configurational noun loko ‘inside’, unmarked for location and goal directionality. The possessor, encoding the Ground, is expressed by the 3rd person prefix and refers to the area demarcated as the future swidden. Although in both cases, the directionality marker is absent, it should be kept in mind that this is a feature of the directional phrase with certain types of configurational nouns. If the directionality marker cannot be dropped, it is part of the relative clause, preceding the relativizer.

3.11.2 Adverbial locative clauses

Adverbial clauses of location are introduced by the lexicalized combination yontho, containing the locative anaphoric adverb yo, the where-marker, and the feminine relativizer. Similarly to relative clauses, the adverbial locative clause contains therefore a relativizing element. Similarly to other types of adverbial clauses, locative clauses also contain an event nominalization (§ 3.5.6). This strategy, combining features of relative and adverbial clauses, is used when the adverbial phrase indicates a specific location, as in (192). The example comes from a description of a hunting trip, during which the speaker came across a place where a logging company was operating in the past.

(192) Dadukhâka karhow bandi yontho koba nanekhebon.
     da–di₃aː–ka kaʁow bān–dʒi
1SG–see.INTRV–PFV savanna surface–VIA
    yō–n–t⁶o=koba na–nekk³ebō–ŋ
LOC.ANPH–LOC.WHR–SBJ.REL;F=REM.PST 3PL₃–work–NMLZ
‘I inspected the savanna, where they used to work.’

In (192), the main clause contains the introversive verb dukhan ‘inspect’, related to the transitive verb dukhun ‘see’. It is an intransitive verb, therefore the directional phrase karhow bandi indicates the location of the event. The following dependent clause elaborates on the relevant location. It is introduced by the element yontho followed by an event nominalization encoding the activity that took places at the location.

Alternatively, the adverbial clause may not refer to a specific location. Such clauses are comparable to the English sentences with wherever. In this case, the combination halonron, containing the interrogative locative halo, the where-marker –n, and the enclitic =ron ‘only’ (a lexicalized combination the restrictive –ro, and the event nominalizer –n) introduces the clause. Such clauses are typically topicalized and appear before the main clause, as in (193), which is a general comment on life: wherever you go, you find the same thing: good and bad people.

(193) Dukhan nan jhejεr =ron nan bala –n. =ron –n.
go–n–hejεr =ron–n–n bala =ron–n
‘Wherever you go, you find good and bad people.’
(193) **Halonron bōsun, bāmunka no.**

```
where–LOC.WHR=only 2SGA–go–NMLZ  2SGA–have–PFV=3Fb
```

‘Wherever you go, you have this.’

In (193) the main clause contains the transitive verb âmunin ‘have’, the subject and object of which are expressed by bound person markers. The preposed clause functions as an adverbial clause of location, encoding the goal of the motion of the verb ôsun.

### 3.11.3 Locative complement clauses

In contrast to relative locative clauses and adverbial clauses of location, locative complement clauses are an indispensable part of the main clause. The complement clause, which has the form of an event nominalization, takes in such cases the place of the object of the complement-taking predicate (see § 3.4.6.4). The locative interrogative halo ‘where’, combined with the where-marker, introduces complement clauses of the verbs of knowledge, perception, and speech. If there is no verb in the complement clause, the combination halon functions as a stative predicate, and the event nominalizer is attached to it as in (194). The example comes from a conversation with an inhabitant of Washabo, who does not know where the rest of his family lives today.

(194) **Deitha kho haloninda ye.**

```
dei=tʰa=kʰo    halō–n-i–n=da=ye
1SGA–know=NEG where–LOC.WHR–EP–NMLZ=DIRECT=3PLB
```

‘I don’t know where they are.’

In (194) the directional phrase halon is followed by the event nominalizer. As such it is a stative clause which instead of a TAM marker contains the event nominalizer –n, the subject of which is expressed by personal enclitic. If there is a full verb in the complement clause, it has to assume the nominalized form. The event nominalizer attaches in such cases to the main verb, as in (195), which comes from a traditional story about forest spirits.

(195) **Dei kho itha halon thōsun kidaba.**

```
dei=kʰo     i:tʰa    halō–n    tʰ–o:sī–ŋ    kidaba
1SG=NEG     know     where–LOC.WHR  3FA=go–NR too–ADD
```

‘I do not know where she went again too.’

In (195), the complement clause is introduced by the element halon, but the nominalized intransitive motion verb ôsun is used—the subject is expressed by the prefix on the verb and encodes the Figure. A paratactic construction is possible as well, both as equivalent of (194) and (195). In (196), an example is given from the story in the online Appendix IV.
Example (196) differs but little from (195). The order of the clauses is reversed, and the locative interrogative is additionally combined with an atelic suffix, meaning ‘toward’. More importantly, in (196) there is the discourse marker kia, which refers back to the first sentence—the discourse marker is only present if the locative clause precedes the clause with the verb of knowledge, perception or speech.

Although the clauses with halon discussed above can introduce also complement clauses of affirmative sentences that indicate a specific, known location, I have also attested a different construction in such contexts. The complement clause can be introduced by the element yontho, which is typically found in locative relative clauses. This is exemplified in (197), which comes from the description of different place names in the Cassipora area.

In (197), the same verb âmunin ‘have’ that appeared in (193) is used. In this case, however, the object of the verb is expressed by the clause introduced by yontho. As typical of dependent clauses, an event nominalization is used. However, this structure today is also replaced by an equivalent without the event nominalization given in (198), which is a description of a photograph showing a farm.

In (198) the second clause has the structure of the main clause, without any morphological markers of dependency (i.e. the event nominalizer –n). Such paratactic constructions may be typical of Lokono grammar, but are more frequently used by semi-speakers, which suggests they may be contact-induced.

\[\text{(196) Halonro thôsa, kia kho weitha.}\]
\[\text{halô–n–ro tʰ–oːsa kia=kʰo w–eitʰa}\]
\[\text{where–LOC.WHR–ATL 3F̣–go DSC=NEG 1PL–know}\]
\[\text{‘Toward where she went, that they do not know.’}\]

\[\text{(197) Bâmunka yontho nósun koba yokhan.}\]
\[\text{2SG–have–PFV LOC.ANPH–LOC.WHR–SBJ.REL:F 3PL–go–NMLZ=REM.PST}\]
\[\text{yokɒ–ŋ shoÔL INT–V–NMLZ}\]
\[\text{‘You have places where they used to go hunting.’}\]
3.12 Locative questions

This description of the Lokono grammar of space started with a locative question, which is the syntactic frame used to elicit spatial descriptions, including the Basic Locative Construction, the Posture Construction, and the Locative Equation (§ 3.6). I then also explained that the BLC echoes the structure of the basic locative question. Having described the nuances of the BLC and its functional equivalents, I now give a fuller account of locative questions, which mirror in fact not only the BLC, but the whole spectrum of locative constructions.

I start with the basic locative question given again in (199). As explained, it contains the locative interrogative halo ‘where’ forming a directional phrase with the location and goal directionality marker –n. This directional phrase is part of a stative predicate formed by the addition of the perfective suffix, followed by the expression of the Figure, completing the stative clause.

\[(199) \text{Halonka no?}\]
\[\text{halò–n–ka=no} \]
\[\text{where–LOC.WHR–PFV=3Fb} \]
\[\text{‘Where is it?’}\]

This simplistic structure shows the same structural variation observed in the BLC and other stative locative clauses. In principle, the telic source marker can substitute for the location and goal directionality marker (i.e. halo wâya ‘from where’), but questions about source are typically framed as active clauses discussed below. The via directionality marker –di, in turn, is added on top of the location and goal directionality marker, showing that the combination is partly lexicalized (i.e. halondi ‘through where’). However, such a question requires a specific context, in which the type of directionality—the very specific via directionality—is already assumed. I have not come across such a stative question in natural speech. The atelic source marker and the what-marker are, on the other hand, incompatible with the locative interrogative. Similarly to other stative locative clauses, however, the perfective –ka can be substituted with other TAM markers, if special semantic distinctions need to be made.

Configurational nouns cannot be part of a basic locative question with the locative interrogative halo. The basic question inquires about the location of the Figure without presupposing the type of spatial relation. However, this information might be given, and the speaker might merely want inquire about the Ground. In this case, it is possible to use a construction with the object interrogative hama ‘what’ combined with one of the specific configurational nouns, as in (200).

\[(200) \text{Hama rakonka no?}\]
\[\text{hama rakò–n–ka=no} \]
\[\text{what inside[liquid]–LOC.WHR–PFV=3Fb} \]
\[\text{‘What liquid is it in?’}\]

This type of a question with the specific configurational nouns assumes the type of spatial relation that holds between the Ground and the Figure, which in this case is
containment by a liquid. Structurally, such questions mirror the structure of stative locative clauses; the object interrogative *hama* functions as a placeholder for the Ground expression, and is followed by a configurational noun, and the directionality marker, forming a complete stative clause. However, such questions are quite far removed from the basic locative question, in which case it is both the Ground and the spatial relation that are unknown. Importantly, the *what*-marker *bithi* cannot combine with the locative interrogative *halo* ‘where’. The structure given in (200) is therefore the only one available if one wants to ask a question that presupposes the ontological status of the referent, as in (201). The example comes from an elicitation session based on the *Event Triads* stimulus, showing a ball moving toward a wooden block. The speaker at this point is merely asking himself what the Ground is, probably wondering how to best call the wooden block in Lokono.

(201) *Hama bithiro thôsa to balalaro?*

<table>
<thead>
<tr>
<th>hama</th>
<th>bithi-ro</th>
<th>t³-o:sa</th>
<th>to</th>
<th>balala-ro</th>
</tr>
</thead>
<tbody>
<tr>
<td>what</td>
<td>LOC.WHT–ATL</td>
<td>3rA–go</td>
<td>DEM:F</td>
<td>round–F</td>
</tr>
</tbody>
</table>

‘What did the ball move toward?’

In (201), the speaker used the directional phrase *hama bithiro*, with the object interrogative *hama*, which is compatible with the semantics of the *what*-marker *bithi*. Alternatively, if the Ground were a person, the interrogative *halikan* ‘who’ could substitute for *hama*. Such questions are relatively rare in the corpus, since in most cases, the ontological status of the Ground is not known. Importantly, however, the *what/where* distinction obtains both in assertions and in questions.

A question about the location of an entity can also be framed as an equative clause. The contrast between a stative and an equative locative question echoes the distinction between the Basic Locative Construction (a stative clause) and the Locative Equation (an equative clause). The meaning of the former, exemplified above in (199), is colored by the semantics of the TAM suffixes, most importantly the perfective suffix –*ka*. When compared to an equative clause, this imparts the stative clause with a resultative meaning. An equative locative question, on the other hand, construes the spatial relation as permanent. An example of such a question is given in (202).

(202) *Halon tho?*

| halō–n–t³–o | to |
| LOC.WHR–SUBJ.REL:F | DEM:F |

‘Where is it?’

In (202), the interrogative directional phrase *halon* is combined with a relativizer and functions as a nominal predicate, the argument of which is expressed by the feminine demonstrative pronoun. Such questions are not common and are restricted to the same functional domain as the Locative Equation—that is, spatial configurations that are considered permanent. This includes questions about the home village of a person, questions about the typical habitat of animals and spirits, and interestingly for the discussion of landscape, questions about the location of landscape features. An example of a question enquiring about the location of a creek
is given in (203). The examples was uttered by a speaker who wanted to confirm if what I was interested in is the location of the creek called *Simo Kriki* ‘Simon’s Creek’, which is only known under its Sranantongo name.

(203)  *Halontho to onikhan?*

```
halō–n  t³o
where–LOC.WHR–SBJ.REL:F
go
upi–kʰaŋ
DEM:F rain–DIM
```

‘Where is the creek?’

In (203), the speaker used a locative question frame to ask the question instead of a stative clause, since the location of the creek is permanent, not a result of motion or a displacement. Such locative questions are fairly rare, and in spontaneous discourse I have only attested them with frequency in the landscape domain. This of course must be biased to a certain degree by the focus of the project, but it is nevertheless noteworthy that landscape features in particular are thought of as permanently anchored in space. Such questions are virtually impossible with the *what*-marker *bihi*, since the types of Ground-Figure constellations that are considered permanent do not include moveable objects as Grounds.

Finally, the interrogative directional phrases can function as adverbial expressions in active and stative clauses. In such cases the (non-interrogative) directional phrase encodes the location of the event or the goal or source of motion, depending on the type of the predicate. The interrogative directional phrases turn such clauses into questions, as in (204).

(204)  *Halon bōsabo?*

```
halō–n
where–LOC.WHR
b–o:sa–bo
2SGA–go–PRG
```

‘Where are you going?’

In (204), the location and goal directionality marker is used, which due to the motion semantics lexicalized in the main verb receives a goal interpretation. In this case, the atelic suffix could also be added to the directional phrase, if the question is about the atelic direction of movement rather than the telic goal. If the question is about the source of movement, the directional phrase *halo wäya* ‘from where’ is used instead. The via directionality equivalent *halondi* ‘through where’ was not attested in the natural data that I collected, but I assume that given the right context it could also be used in such interrogative locative clauses.