## Ghulfan Grammar Sketch

Ghulfan - IDS
Grammatical Sketch
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## 1. Introduction

This grammar sketch represents preliminary descriptive and analytical work of the Ghulfan Documentation Project (GDP), an international language documentation team funded by the Hans Rausing Endangered Language Fund (HRELF) as a Major Documentation Project. The GDP is also supported by the American University in Cairo and the Max Planck Institute for Evolutionary Anthropology.

The sketch presented here is not meant to provide a full account of Ghulfan grammar, but is intended rather to augment the Ghulfan Intercontinental Dictionary Chapter. As such, this sketch represents a work in progress. Most of the data on which the sketch is based come from Ghulfan-speaking refugees who live in Cairo, Egypt. Thanks to HRELF funding, project members will, over the period June 1, 2008 - May 31, 2011, be doing field work in Sudan, both in Khartoum and in the Nuba Mountains.

## 2. Glossing

nnw = no native word
? - consultants think there is a word but don't know it
/ - separates singular from plural
: - denotes vowel length
v́ - denotes high tone
numbers in parentheses beside data - indicated the IDS chapter and item number
SG - singular
PL - plural
DEM - demonstrative
ACC - accusative case
GEN - genitive
PRS - present tense
PST - past
IRR - irrealis
POSS - possessive
ACN - deverbal action noun
AGN - deverbal agentive noun
DVA - deverbal adjective
DVINS - deverbal instrumental noun

## 3. The Ghulfan language

Ghulfan is an under documented and endangered dialect spoken in the Nuba Mountains, an ethno-linguistically heterogeneous region in the center of Sudan. Ghulfan is most likely an Arabic xenonym for the Ghulfan-speaking people, who call themselves Wunci and refer to their dialect as Wuncu and the language to which it belongs as Ajang. Ghulfan is a member of the Kordofan Nubian ${ }^{1}$ dialect group and shares a large lexical base with and is mutually intelligible, at least for older speakers, with the other members of this dialect group. The Ethnologue (Gordon 2005) cites Ghulfan speaker numbers as 16,000 (Stevenson 1984). Bender (2005: 2) estimates there to be 25,000 speakers of the entire Kordofan Nubian dialect cluster.

Many indigenous dialects and languages of Sudan, the Kordofan Nubian group among them, are under documented and under described. This is due to various geographical and political factors. Firstly, the Kordofan Nubian dialects are spoken in remote and difficult to access rural areas. Moreover, during the past twenty years, the civil war in southern Sudan has spread to the Nuba Mountains, making linguistic fieldwork in the area nearly impossible. This conflict has forced tens of thousands of Sudanese people to migrate, many of them to Cairo. Among these refugees are many who are fluent in not only their native languages, but also English and Arabic. This presents an opportunity to carry out linguistic work on Sudanese languages in Cairo.

### 3.1. Genetic classification of Ghulfan

There is general agreement that Ghulfan is an Eastern Sudanic language, more specifically a Nubian language. (Eastern Sudanic is assigned by Greenberg (1971 and elsewhere) to Nilo-Saharan, although this higher level grouping is controversial; this controversy is not relevant to the present project.) There is, however, some disagreement as to classification of Kordofan Nubian within Nubian.

The first classification of Ghulfan as a Nubian language is found in Lepsius' Nubische Grammatik of 1880, where he presents data based on comparative word lists of the Nile Nubian language Dongolawi and of four Kordofan Nubian dialects, "Kargo", "Koldagi", "Nuba", and "Kulfán", the latter being identical to Ghulfan. The first subclassification of Ghulfan and the other Kordofan Nubian dialects is suggested by Stevenson (1956/57), who proposes two subgroups, one formed by Ghulfan, Dair, Kadaru and El Hugerat, the other by Dilling, Western Kadaru, Karko and Wali. This classification differs from the Ethnologue, which puts Ghulfan and Kaduru into one Hill family sub-branch (Kaduru-Ghulfan) and lists Dilling, Dair, El Hugeirat, Karko, and Wali as unclassified Hill languages.

Rilly (2003: 264) provides the most recent subclassification of the Kordofan Nubian dialect cluster in relation to other Nubian languages, whereby the cluster, along with the Birgid and Midob languages of Darfur, form the western branch of the Nubian language family, with the eastern branch consisting of the Nile Nubian languages, KenziDongolawi and Nobiin with its medieval predecessor Old Nubian.

[^0]Figure 1 - Rilly's classification of Nubian languages.


Jakobi (personal communication, August 26, 2006) provides a classification of the Kordofan Nubian dialect cluster based on a lexical comparison. She argues that these languages form a dialect continuum that can be divided into an eastern and a western group, with Ghulfan, Kudur, Dilling, Dair, Kururu, Kadaru, Dabatna, and Debri forming the eastern branch of Kordofan Nubian and accordingly, Abu Jinuk, Karko, Kujuria, Fanda and Wali the western. Jakobi's comparison shows that these dialects share about 95 to $98 \%$ of their vocabulary, so there is a high degree of mutual intelligibility among them. However, Abdelbagi Daida (personal communication, August 20, 2006), a native speaker of Ghulfan, along with one younger speaker each of Tagle and Dilling, report a lack of mutual intelligibility within the cluster for younger speakers.

### 3.2. Geographic distribution of the Nubian languages

The Nubian languages are scattered over a vast area of northern Sudan and Southern Egypt. According to their geographic distribution, three branches may be distinguished: 1) Nile Nubian, which includes Nobiin, its medieval predecessor Old Nubian, and Kenzi-Dongolawi; 2) Darfur Nubian, including Midob and the extinct Birgid language; and 3) Kordofan Nubian, (to which Ghulfan belongs) a cluster of some 15 mutually intelligible dialects, including the now extinct Haraza language west of Khartoum (see Map 1).


The Kordofan Nubian dialect cluster in the northern Nuba Mountains forms a flat triangle with its apex in the south and its left and right corners pointing to the southwest and northeast, respectively (see Map 2). At these latter extremes there are two dialects, Al Hujerat and Dair. They are separated by a distance of about 250 km . The apex of the triangle lies in the south of the Kordofan Nubian area and is represented by Debri, at a distance of about 140 km from Dair and 125 km from Al Hujerat. Ghulfan is spoken in two areas in the center of the triangle, Ghulfan-Kurgul and Ghulfan-Morung.

## 4. Field Site and Consultants

The fieldwork upon which this chapter is based is being carried out among Ghulfanspeaking refugees in Cairo, Egypt, though we expect to begin fieldwork in Sudan sometime in 2008.

We have worked with five consultants in Cairo, but this list is primarily based on data provided by Abdelbagi Daida, the Ghulfan-speaking consultant and main translator for our project. Abdelbagi is a 34 -year old male who is from the Nuba Mountain village of Angarko, situated between the larger towns of Dilling and Kadugli in the Sudanese state of South Kordofan. Ghulfan is his first language, and he is also a fluent speaker of Sudanese Arabic and English.

Like most of our other consultants, who are also similar in age to Abdelbagi, he spoke mostly Ghulfan until entering school at age seven, at which time had to learn Arabic, which was the medium of instruction for primary, middle, and secondary schools. Abdelbagi spoke Ghulfan regularly until he moved to Khartoum to enter university. His university used English and Arabic as mediums of instruction.

## 5. Phonetic Inventory

### 5.1. Vowels

Ghulfan has what appears to be a ten-vowel system. In all sections but the midcentral, there are +ATR/-ATR contrasts as well as length contrasts for +ATR vowels, yielding a total of 15 vowel phonemes. The -ATR vowels can be lengthened by phonological processes but length on -ATR vowels is not contrastive.

Figure 2 Ghulfan vowels

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High front: i, i:, I
High back: u, u:, u
Mid front: e, e:, \(\varepsilon\)
Mid back: o, o:, 〕
Low back: a, a:
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### 5.2. Consonants

There are 18 consonant phonemes in Ghulfan, with voicing contrasts only found in coronal, retroflex, palatal, and velar plosives.

Figure 3 - Ghulfan consonants

|  | bilabial | coronal | retroflex | palatal | velar |
| :---: | :---: | :---: | :---: | :---: | :---: |
| nasal | m | n |  | л | $\eta$ |
| plosive | b | t d | t d |  |  |
| affricate |  |  |  | č j |  |
| fricative |  |  |  | J |  |
| approximate | w | r | 「 | y |  |
| lateral |  | 1 |  |  |  |

### 5.3. Syllable template and phonotactic constraints

A majority of Ghulfan syllables are of the CV or CVC type, as shown in Figure 1 below. Syllables consisting of only a nucleus are also attested in the data, but do not appear with high frequency. Ghulfan also allows CCVC syllables, but in this case, the first member of the cluster must be an obstruent and the second an approximate, though we have yet to attest to a bilabial plosive/labial approximate cluster.

Figure 4 Ghulfan syllable template


All consonants and vowels segments are found in onset position except for the voiceless bilabial plosive [p]. Since coda consonants are not released, it may be that [p], only found in coda position, is an allophone of [b]. However, word-initial onsets are more

[^1]restricted in that neither rhotic [r and r] appears word initially, nor does the alveolar lateral [1] or the voiceless palatal affricate [č], which in any case is rare in our data.

The following segments are not allowed in the coda, either in word medial or word final position: $[k],[g],[]],[t],[d],[r],[b],[n],[w],[y]$, and [j]]. In the case of [b] and [y], it appears that the coda position might prohibit release of plosives and affricates, as the resyllabification processes in (1) and (2) indicate.

| 1)Igič <br> liver.SG | $\rightarrow$ | igiǰ-ano <br> liver-PL |
| :--- | :--- | :--- | :--- |
| ip | $\rightarrow$ | ib-anú <br> ip-ail-PL |
|  | tail.SG |  |

As of yet, we have no explanation why this process doesn't apply to [d], which does appear in coda position.

Ghulfan allows for long vowels in the nucleus but not diphthongs and has no syllabic consonants.

## 6. The tone system

Ghulfan is a tone language. At this point in our analysis, we assume that it has a twotone system, either low and high tone or unspecified, defaulting to low, and high. We mark high tones with an acute accent diacritic mark and leave low tones unmarked. Tone distinctions in Ghulfan are both lexical and grammatical, as in examples (3a and b) and ( 4 a and b ) below.

3a) kól (7.3)
hut
4a) íntay (2.26)
sibling.SG
5a) to Jún
1SG go.3SG.PRS
'He is going.'
6a) yo-moz wajat-niy
DEM-banana rotten-3SG.PRS
'This banana is rotten. '

3b) kol
stick
4b) intáy
sibling.PL
5b) to $\int$ û: y
1sG go.3sG.PST
'He went.'
6b) yo-moz wajat-ni'y
DEM-banana rotten-3sG.PRS.NEG
'This banana isn't rotten. '

Examples ( 4 a and $\mathrm{b}, 5 \mathrm{a}$ and b, 6a and b) show some uses of grammatical tone in Ghulfan, where it is used to mark plurality, tense, and negation.

Ghulfan also has contour tones, which result from contiguous high and low tones on long vowels.

## 7. Syntax

Ghulfan is an SOV language with an accusative case marking system, where accusative case, but not nominative, is marked. Accusative marking appears to be optional, at least in the contexts we have investigated so far.
7) tono or-gi $\quad$ i:l-in
boy wood-obJ burn-PRS
'The boy is burning the wood.'

## 8. Nominal Morphology

### 8.1. Number Marking

Ghulfan exhibits a rich number marking system involving a tripartite division between singulative, plural, and replacive markers on nouns (Jakobi \& Williams 2007). Nouns exhibiting the replacive pattern mark both the singular and plural form. Number markers are usually expressed by suffixes - with the exception of kinship terms that distinguish their singular and plural forms by tone only.

Ghulfan appears to have a prototypical Nilo-Saharan number marking system as described Dimmendaal (2000: 214-261).

Table 1-Ghulfan number marking

| Type | Singular | Plural |
| :--- | :--- | :--- |
| Singulative <br> $(3.84)$ | brrke-tu Jer-dú <br> worm-SG short-SG <br> 'short worm' | birké <br> worm.PL short-PL <br> 'short worms' |
| Plural | bórul úr-i |  |
| (3.74) | fox.SG black-SG | 'black fox' | | boru-dé ur-é |
| :--- |
| fox-PL black-SG |
| 'black foxes' |
| Replacive |
| (4.852) | | dék-atu kél-i |
| :--- |
| bruise-sg red-sg |
| 'red bruise' |

As can be seen in Table 1, adjectives agree in number with the nouns they modify. Tone shift is also found in number marking, whereby a high tone on the penult or anti penult in the singular form shifts to the final syllable in the plural form.

The distribution of the number markers is partly semantically motivated. The singulative marker -to, -tu, for instance, is found with an individuated item from a natural collective, group, or pair, as in (8).
8) kwár-tu
shoe-SG

### 8.2. Possession

Ghulfan marks possession with a variety of linguistic devices, including possessive adjectives, possessive pronouns, genitive case, and a have predicate construction. Most
relevant to the IDS chapter, and thus presented first here, is a process of compounding using a possessive interfix.

### 8.2.1. Compounding

Compound nouns are constructed in Ghulfan with the nasal possessive interfix $-N-$, which binds the possessor (dependent) and possessed (head) nouns into a compound, as in (9) and (10).
9) Idu-n-uju
body-poss-heat
'fever'
10) ufi-n-iniy
hand-poss-mother
'thumb'

### 8.2.2. Phonology of compounding

The phonology of compounding in Ghulfan is quite complex, involving progressive and regressive assimilation, as well as segment deletion, and is conditioned mostly by the phonetic properties of the initial segment of the head noun. In all cases, the interfix N - assimilates to the place of articulation of the following segment, as in examples (11 and 12).

|  | $\rightarrow$ | tini-m-bol <br> place assimilation | $\rightarrow$ | tini-m-ol <br> segment deletion |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 12) mî:nu }+\mathrm{N}+\text { y̆adu } \\ & \text { cat + poss + tongue } \\ & \text { 'cat tongue' } \end{aligned}$ | $\rightarrow$ | mî:nu-n-ǰadu <br> place assimilation | $\rightarrow$ | mînu-n-adu segment deletion |

The possessive interfix is most likely and underlying /-n/, since it takes such a form before vowels, as in example (13).
13) ondu $+\mathrm{N}+\mathrm{il} \quad \rightarrow$ ondunil
donkey + poss + body
'donkey body'
With one exception, the head-initial consonant is deleted after the process of nasal place assimilation. When the word-initial segment of the head is an alveolar or retroflex stop then it remains in the compound, as in (14).
14) koč-n-dul $\quad \rightarrow$ kočndul
horse-poss-neck
'horse neck'

In the case of a word-initial /t/ and /t/, the segment undergoes regressive voicing assimilation, conditioned by $-N$, illustrated in examples (15) and (16).

| 15)orti $+\mathrm{N}+$ tono   <br> lamb + poss + thigh   |  | orti-n-dono <br> voicing assimilation |
| :--- | :--- | :--- |
| 'lamb thigh' |  |  |
| 16)orti $+\mathrm{N}+$ terdu <br> lamb + poss + girl <br> 'lamb girl' | $\rightarrow$ | orti-n-derdu |

Table 2 shows examples of some other compounds.
Table 2 - Phonological changes in the compounding process

| kwalan + N + miinu | $\rightarrow$ kwalanmiinu |
| :--- | :--- |
| cut + Poss + puss | $\rightarrow$ 'cut puss' |
| ti + N + noni | $\rightarrow$ tinoni |
| cow + Poss + horn | $\rightarrow$ 'cow horn' |
| iri + N + nalum | $\rightarrow$ irinalum |
| water + Poss + whirlpool | $\rightarrow$ 'water whirlpool' |
| idu + N + yalum | $\rightarrow$ iduyalum |
| woman + poss + sugar | $\rightarrow$ 'woman's sugar' |
| sti- + N + kaltu | $\rightarrow$ stinaltu |
| water + Poss + eye | $\rightarrow$ 'spring' |
| kini + N + girjulu | $\rightarrow$ kininirjulu |
| clothes + poss + money | $\rightarrow$ 'clothes money' |
| idu + N + Sal | $\rightarrow$ idunal |
| woman + poss + house | $\rightarrow$ 'womens' house' |
| kwaje + N + wa: | $\rightarrow$ kwajema |
| meat + Poss + broth | $\rightarrow$ 'soup' |

### 8.2.3. Using compounding to mark gender

Gender marking on nouns is commonly formed in Ghulfan by compounding with the words idu 'female' and kortu 'male'.
16) orti $+\mathrm{N}+\mathrm{idu} \quad \rightarrow \quad$ orti-n-idu
sheep + poss + female
‘ewe’

> 17) $\begin{aligned} & \text { orti }+\mathrm{N}+\text { kortu } \\ & \text { sheep }+ \text { poss }+ \text { male }\end{aligned}$ 'ram'

### 8.2.4. Complex compounds

It is also possible to form complex compounds, as in (18 and 19).
18) oti-y-ortu-ŋ-ame
sheep-POSS-male-POss-foot
'ram's foot'
19) korol-n-It-y-ol
fish-POSS-person-POSS-stick
'fisherman's stick'

### 8.2.5. Partitive constructions

Partitive constructions in Ghulfan can be made in two ways, either with compounding or by use of the genitive, as in (20a and b and 21a and b), respectively.

| 20a) | kame-n-dway <br> food-poss-plat <br> 'plate of food' | 20b) |
| :--- | :--- | :--- | | kame = na tway |
| :--- |
| food = GEN plate |
| 21a) | | sti-y- kosolay | 21b) | sti=na kosolay |
| :--- | :--- | :--- |
|  | water-poss-cup food' |  |
|  | 'cup of water' | water = GEN cup |

It seems to be possible to use either compounding or the genitive to mark possession in all cases, though we have yet to investigate the discourse pragmatic effects of choosing one or the other.

### 8.2.6. Have constructions

The verb 'have' has two forms in Ghulfan, kon for inalienable possession and kwal for alienable possession. The alienable 'have' varies depending on whether the subject is singular or plural.

Table 3 - Inalienable have


Table 4 - Alienable have
HAVE - alienable

|  | present | past | future |  |
| :---: | :---: | :---: | :---: | :---: |
| 1sg | kwal-uré kwal-ere | kwal-e kwal-ere | kwal-Seré <br> kwal-éfere | $\begin{aligned} & \text { obj.sg } \\ & \text { obj.pl } \end{aligned}$ |
| 2sg | kwal-uruy <br> kwal-erup | kwal-on <br> kwal-eróy | kwal-Jeron <br> kwal-éferon | obj.sg obj.pl |
| 3sg | kwal-uy <br> kwal-ध! | kwal-lúy <br> kwal-ध́y | kwal-fay <br> kwal-éfan | $\begin{aligned} & \text { obj.sg } \\ & \text { obj.pl } \end{aligned}$ |
| 1pl | kwal-uró <br> kwal-eró | kwal-ó <br> kwal-eró | kwal-Soró <br> kwal-eforó | $\begin{aligned} & \text { obj.sg } \\ & \text { obj.pl } \end{aligned}$ |
| 2pl | kwal-urún <br> kwal-erún | kwal-ón <br> kwal-eróy | kwal-furúg <br> kwal-efurún | $\begin{aligned} & \text { obj.sg } \\ & \text { obj.pl } \end{aligned}$ |
| 3pl | kwal-uy <br> kwal-ध! | kwal-ay <br> kwal-eran | kwal-far <br> kwal-efár | $\begin{aligned} & \text { obj.sg } \\ & \text { obj.pl } \end{aligned}$ |

## 9. VERBAL MORPHOLOGY

Ghulfan verbs in the IDS chapter are cited using the command form for a singular subject and a singular object, which generally takes the form verbstem + I, verbstem+iri or verbstem+eri.

### 9.1. Verb Stems in Ghulfan

Verb stems in Ghulfan are monosyllabic and can be light or heavy with CV stems being rare.

Table 5 - Verb stems

| 'fix' | ton | 'write' | kel | 'dig' | kwaj̆ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 'hate' | mon | 'clean' | id | 'tie' | twak |
| 'plant' | tir | 'cook' | mart | 'throw' | ert |
| 'sew' | dǔ̆ | 'ripen' | kar | 'drink' | di |
| 'like' | war | 'tear' | ber | 'wash' | eb |
| 'see' | nel | 'stab' | jerg | 'die' | ti |
| 'eat' | kam | 'weave' | Jart | 'forge' | ed |
| 'laugh' | dit | 'stretch' | Surt | 'listen' | ki |

### 9.2. Deverbal processes

Ghulfan has a regular and productive process for deriving nouns and adjectives from verbs. Table 6 shows different nouns and adjective types that can be derived from verb stems.

Table 6 - Deverbal nouns and adjectives

| verb stem: bod 'paint' |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| Word type | Suffix | Ghulfan example | Gloss | Section |
| action noun | -e | bod-e | 'painting' | 2 |
| agentive noun | -ar | bod-ar | 'painter' | 3 |
| deverbal adjective | -at | bod-at | 'painted' | 4 |
| instrumental noun | -atu | bod-atu | 'paintbrush' | 5 |

The following four sections will describe each of these forms more in depth.

### 9.2.1. Action nouns

Action nouns are productively derived from verbs and express the action itself. From a verb stem the action noun is formed using the suffix -e. In most cases these correspond to either a gerund or infinitive form in English. The following sentences show some of the cases where the action noun is used.
22) ye war-e-gi yer-e

1SG.SUBJ sing-ACN-ACC can-1SG.PRS
'I can sing' or 'I know how to sing'
23) a

2sg.subj
dū̆-e-gi
yer-a
'Do you know how to sew ?'
24) weya ed-e-nıŋ
that forge-ACN-PRS
'That is forging'
25) mart-e ana key-a
cook-ACN 1PL.POSS good-Q.PRS
'Is our cooking good ?'
26) dit-e bad-iol-uy
laugh-ACN begin-PROG-3SG.PRS
'The laughing is beginning.'

## 27

| kol-la | id-e | ufu | kom-min |
| :--- | :--- | :--- | :--- |
| house-GEN | clean-ACN | interest | have-NEG.3sG.PRS |

'Cleaning the house is not interesting'
28) kini-na eb-e Il-l-alč-e-mıŋ
cloth.PL-GEN wash-ACN body-poss-rest-ACN-NEG.3sG.PRS
'Washing clothes is not relaxing'
29) $\int$ irtu-n-ondu $=$ na
metal-poss-donkey $=$ GEN
'Riding a bicycle is nice'

The object of the action noun receives genitive case marking (=na) as opposed to the object of a verb that receives objective case marking (-gi).
30) daldu $=$ na od-e key-ŋıŋ
daldu-GEN play-ACN good-PRS
'Playing daldu is fun'
31) to daldu-gi od-uy

3sG.SUBJ daldu-ACC play-3SG.PRS
'He is playing daldu'

These genitive objects can form compounds with the action noun as the head.

Table 7 - Compounds with action noun heads

| COMPOUND | GLOSS | DEPENDENT | HEAD |
| :--- | :--- | :--- | :--- |
| wii-n-dug-e | 'seed-threshing' | wii 'seed' | dug-e 'threshing' |
| kitu-n-duǰ-e | 'clothes-sewing' | kitu 'cloth' | duǰ-e 'sewing' |
| kaal-m-art-e | 'asida-cooking' | kaal 'asida' | mart-e 'cooking' |
| kwi-n-and-e | 'horn-playing' | kwi 'horn' | and-e 'playing' (instrument) |
| kól-y-waj-e | 'hut-building' | kól 'hut' | kwaj-e 'building' |
| andıč-n-art-e | 'rug-weaving' | andıč 'rug' | Sart-e 'weaving' |

Alternatively, the Action noun can be the dependent in compounds to describe an object which is used for a specific purpose

Table 8 - Compounds with action noun dependents

| COMPOUND | GLOSS | DEPENDENT | HEAD |
| :--- | :--- | :--- | :--- |
| di-ye-n-dway | 'drinking-cup' | di-ye ‘drinking' | tway 'bowl' |
| obuk-e-ŋ-itu | 'swimming-clothes' | obuk-e 'swimming' | kitu 'cloth' |
| dwad-e-ŋ-ware | 'running-shoes' | dwad-e 'running' | kware ‘shoes' |
| eb-e-n-dway | 'bathtub' | eb-e 'bathing' | tway 'bowl' |

When the action noun is the object of another verb it receives accusative case marking.

| 32) ye | dit-e-gi | war-ere |
| :--- | :--- | :--- |
| 1SG.SBJ | laugh-ACN-ACC | like-1SG.PRS |

'I like to laugh' or 'I like laughing'
33) ye id-e-gi war-min-de

1sG.SBJ clean- ACN-ACC like-NEG-1SG.PRS
'I don't like to clean'

The action noun is sometimes interchangeable with its cognate object as in the following examples:

Table 9 - Action nouns and cognate objects

| war | 'sing' | ware | 'singing' or 'song' |
| :--- | :--- | :--- | :--- |
| ork | 'urinate' | orke | 'urinating' or 'urine' |
| ul | 'choose' | ule | 'choosing' or 'choice' |
| dit | 'laugh' | dite | 'laughing' or 'a laugh' |
| yaj | 'walk' | ⿹aje | 'walking' or 'a walk' |
| ber | 'harvest' | berfe | 'harvesting' or 'a harvest' |

### 9.2.2. Agentive nouns

Agentive nouns are productively derived from verbs and describe a person who habitually performs an action or has it as their profession. From a verb root the agent of the verb is formed using the suffix -ar (singular), -ar-i (plural). The following table shows some common examples Agentive Nouns.

Table 10 - Agentive nouns

| VERB ROOT | GLOSS | SINGULAR | PLURAL |
| :---: | :---: | :---: | :---: |
| Jor | 'farmer' | Sor-ar | Sor-ar-i |
| kay | 'hunter' | kay-ar | kay-ar-i |
| Ojoij | 'maid' | ojijij-ar | ojijion-a |
| turg | 'driver' | turg-ar | turg-ar-i |
| duj̆ | 'tailor' | duj̆-ar | duj-ar-i |
| Sok | 'carpenter' | Jok-ar | Sok-ar-i |
| عd | 'blacksmith' | ed-ar | $\varepsilon \mathrm{d}$-ar-i |
| ir | 'beggar' | ir-ar | ir-ar-i |
| kow | 'ironer' | kow-ar | kow-ar-i |
| koǰ | 'musician' | koǰ-ar | koj-ar-i |
| nel | 'witness' or 'fortune teller' | nel-ar | nel-ar-i |

These nouns can occur as either the subject or object of a verb as in the following examples.
34) Sor-ar bele tir-uy
farm-AGN sesam plant-3SG.PRS
‘The farmer is planting sesam’
35) duy̆-ar kitu-gi duy̌-ug
sew- AGN cloth-ACC sew-3SG.PRS
'The tailor is sewing the cloth'
36) tit-ar kume-gi tir-en
trap-AGN mouse-ACC trap-3sG.PRS
'The trapper is trapping the mouse'
37) Jantu turg-ar-gi bid-uy

Shantu drive- AGN-ACC follow-3SG.PRS
'Shantu is following the driver'
38) to

Jok-ar-gi
id-uy
3sG.SUBJ carve-AGN-ACC marry-3SG.PRS
'She is marrying the carpenter'
39) ye

1sG.SUB.
'I am watching the dancer'

Agentive nouns can also be compounded with other nouns to create a more specialized meaning.

Table 11 - Compounds with agentive noun heads

| COMPOUND | GLOSS | DEPENDENT | HEAD |
| :--- | :--- | :--- | :--- |
| mart-e-n-war-ar | 'lover of cooking' | mart-e 'cooking' | war-ar 'lover' |
| ili-n-war-ar | 'lover of women' | ili 'women' | war-ar 'lover' |
| ore-n-on-ar | 'liar' | ore 'lie' | kon-ar 'sayer' |
| orti-n-el-ar | 'sheep watcher' | orti 'sheep' | nel-ar 'watcher' |
| utetul-n-oǰ-ar | 'flute player' | utetul 'flute' | koy̌-ar 'player' (inst.) |
| koč-n-wab-ar | 'stud' | koč 'horse' | wab-ar 'impregnator' |

### 9.2.3. Deverbal adjectives / patient nouns

Deverbal adjectives are productively derived from verbs and describe the state of having received/experienced the verb. From a verb stem the deverbal adjective is formed using the suffix -at (singular), -ani (plural).
40) akodo
chair
non-at or-niy
break-DVA wood-PRS
'The broken chair is wood'
41) noni
watermellon.pL
ripen- DVA
ı-
taste-3sG.PRS
'The ripe watermelons taste (good)'
42) kol
kurur-at til-lın
stick hollow- DVA light-PRS
'The hollow stick is light'

43) | kukúr | urg-at | I卫-uy |
| :--- | :--- | :--- |
| chicken.SG | roast- DVA | taste-3SG.PRS |
| 'The roasted chicken tastes (good)' |  |  |.

Often the subject can be omitted and the verbal adjective can behave as a patient noun. These nouns can occur as either the subject or object of a verb as in the following examples.
44)

| anč-at | kare $=\mathrm{n}$-dur | kwan-uy |
| :--- | :--- | :--- |
| capture-DVA | prison $=$ GEN-in | located-3SG.PRS |

'The captive is in prison.'
45) Sek-at ore kun-un
accuse-Dva lie say-3sG.PRS
'The accused is lying.'
46) ti-yat
die- DVA
or-g
blood-ACC leak-3sG.PRS
'The dead (person or thing) is bleeding.'
47) to
kay-at-di
ur-muy
3SG.SUBJ
hunt. DVA- ACC
kill-3sG.PST
'He killed the hunted (person or thing)'
48) ti

| noy-ani-gi | Swak-en |
| :--- | :--- |
| break- DVA.PL-ACC | pick up-3PL.PRS |

3PL.SUBJ break- DVA.PL-ACC pick up-3PL.PRS
'They are picking up the broken (things)'
49) kortu
man
'The man is hitting the married (person)'
50) Zeinab

Zeinab
it-at-di
dug-un
hit-3SG.PRS
'Zeinab is watching the bewitched (person)'

### 9.2.4. Instrumental nouns

Instrumental nouns are derived from verbs and describe an instrument with which the action is performed. This process is not as productive as the others described above and often has a fossilized meaning referring to a specific tool related to the action. From a verb stem the instrumental noun is formed using the suffix -atu.

Table 12 - Instrumental Nouns with Fossilized Meanings

| VERB STEM | GLOSS | INS. NOUN | GLOSS |
| :--- | :--- | :--- | :--- |
| $\varepsilon d$ | 'forge' | $\varepsilon d-a t u$ | 'anvil' |
| duǰ | 'sew' | duǰ-atu | 'sewing machine' |
| mart | 'cook' | mart-atu | 'cooking pot' |
| tit | 'trap' | tit-atu | 'a trap' |
| id | 'sweep' | id-atu | 'broom' |
| eb | 'wash' | eb-atu | 'washing machine'' |
| Sor | 'weave' | Sor-atu | 'loom' |
| kug | 'cover' | kug-atu | 'blanket' |
| tur | 'fan' | tur-atu | 'a fan' |
| kum | 'make go' | kum-atu | 'a whip' |
| kel | 'tatoo' | kel-atu | 'tool used to make tattoos' |

For many verb stems however the -atu suffix can refer to any tool/object used to perform the action

Table 13 - General use of -atu suffix

| VERB STEM | GLOSS | INSTRUMENTAL NOUN | GLOSS |
| :--- | :--- | :--- | :--- |
| od | 'play' | od-atu | 'any toy or game'' |
| ut | 'bore a hole' | ud-atu | 'anything used to bore a hole' |
| Sok | 'farm' | Sok-atu | 'any tool used to farm' |

Below are some examples of Instrumental Nouns used in a sentence.
51) duy̌-ar duy̌-atu-ko duǰ-en
sew-AGN sew-Dvins-with sew-3SG.PRS
'The tailor sews with a sewing machine'
52) bod-ar bod-atu-ko bod-at-di bod-uy
paint-AGN paint-DVINS-with paint-DVA-ACC paint-3sG.PRS
'The painter is painting the painting with the paintbrush'

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[^0]:    ${ }^{1}$ Kordofan Nubian is not to be confused with Kordofanian, a primary branch of the Niger-CongoKordofanian phylum (Williamson 1989).

[^1]:    ${ }^{2}$ Ghulfan roots do have clusters in the coda position. However, morphophonological processes ensure that no coda clusters ever surface.

