

"TERRACES" AND "TERRACED FARMS" IN THE LANGUAGES OF THE TANGALE-WAJA UPLANDS

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Introduction

The mountains of the Tangale-Waja Uplands are inhabited by a number of small ethnic groups. They speak different languages which belong to two unrelated linguistic stocks. The Afroasiatic stock is represented by Chadic languages, especially Tangale, but also Pero and Kushi (further to the south along the slopes of the Muri Mountains) of the Bole-Tangale Group. But the majority of the languages belong to the Adamawa branch of the Niger-Congo stock. Most of these Adamawa languages (namely Tula, Waja, Kamo, Awak, Bangwinji, Tso, Dadiya, and Cham) are rather closely related forming one single group: the Waja Group. The remaining Adamawa languages spoken in this area are the dialects of the Longuda Group (we quote only from Guyuk/Wala and Gwaanda (= Nyuwar) dialects) and to the south in and beyond the Muri Mountains the languages of the Bikwin Group of which Burak is spoken within the former administrative unit Tangale-Waja.¹

The study of the vocabulary, technical terms and expressions relating to farming in general and 'farming on terraces' in particular constitutes another important aspect of our multidisciplinary research project providing us with valuable information about the history of the settlements and cultures of the entire region.

In this communication we will restrict ourselves to a few general observations which are mainly based on the comparison of selected items of the farming vocabularies of those communities which used to farm the slopes of the mountains in our research area. We want to focus on the various designations for "terraced farms" and "terraces" including any arrangement or setting of stones on farms to enhance and support the production of the staple food: guinea corn (sorghum) and/or millet (pennisetum).

¹ Hausa, a widely spread Chadic language spoken all over Northern Nigeria, has become the *lingua franca* of this region as well. Furthermore there are Fulbe (Fulani) communities settling in the area; their language (Fulfulde) belongs to another branch of Niger-Congo, namely West-Atlantic. For classifications of the languages see CROZIER & BLENCH 1992, JUNGRAITHMAYR & IBRISZIMOW 1994, and KLEINWILLINGHÖFER 1993. For the references see p. 172

"Terraces" and "terraced farms"

The examples under (1) and (2) show for the languages of this area a considerable variety of different mostly unrelated expressions for "terraced farms or plots" and "terraces (on farms)". There seems to be no common word nor any generally or widely distributed expression or root, shared by a larger number of the communities. We rather find a few different roots each of them being restricted to just two or three of the languages or dialects.

(1) (terraced) farm, plot²

Bangwinji	<i>také̌₂ , také̌₂ é̌₂</i>
Tula	<i>takà</i>
Tso-Suwa	<i>kii</i>
Cham	<i>kúú</i>
Tula	<i>kúú; bálál kúwál̂ (plot)</i>
Dadiya	<i>twam tó̌₂ é̌₂ ; twàm</i>
Tso-Gusobo	<i>tâm</i>
Waja	<i>kó̌₂ ndó̌₂ ú̌₂</i>
Kamo	<i>bó̌₂ é̌₂ rě̌₂ , bó̌₂ é̌₂ rě̌₂</i>
Awak	<i>îaré̌₂</i>
Longuda	<i>mó̌₂ wá, mààwà, màwà</i>
Tangale ³	<i>lú̌₂ gó̌₂ ; yaya</i>
Pero	<i>kúúri</i>
Burak	<i>dààshàk yúu; shàk yuù</i>
Jalaa ⁴	<i>màr</i>

² The tonemarking is tonetic: high [á̌], falling [â̌] and low tones [à̌] are marked, mid and low mid tones remain unmarked. Several languages cited here possess a vowel harmony system, where two vowel sets are differentiated by tongue root position or pharynx width (LINDAU 1974). The non-low -ATR (non-Advanced Tongue Root) vowels are marked with a dot underneath; the low +ATR vowel and the lower centralized vowel are both written [á̌]. The non-low centralized vowel [@̌] is not marked for tongue root position, although it occurs in some languages in both vowel sets. Most of the data presented are my own notes. Pero words are usually quoted from FRAJZYNGIER (1985), other sources are indicated.

³ The Tangale are subdivided into a western (Billiri) and eastern group (Kaltungo, Ture and Shongom). The Tangale words cited here are from the eastern groups of Kaltungo and Ture.

⁴ Jalaa has not been classified yet. This language is almost extinct and given up in favour of Cham.

(2) farming terrace, terrace wall

Tula-Wange	<i>k@díí</i>
Tula-Yiri	<i>k@d@í</i> (built with soil) <i>kùli</i> (built with stones)
Cham	<i>k@tǝ₂ ; t@k</i>
Dadiya	<i>k'@í, k@í</i>
Awak	<i>yeg delí; kank@laí</i>
Bangwinji	<i>bime</i>
Waja	<i>kwaa</i>
Hill-Waja	<i>kwaakǝ₂</i>
Tso-Suwa	<i>tǝ₂ lalǝ₂</i>
Tso-Gusubo	<i>bwà</i>
Tangale (east)	<i>pǝ₂ -kǝ₂ lǝ₂ ǝ₂ , pǝ₂ - kwǝ₂ lǝ₂ ǝ₂</i>
Jalaa	<i>bǝ₂ tǝ₂ ; látǝ₂</i>
Longuda-Guyuk	<i>kwacinaká; thèthàwà</i>
Longuda-Gwaanda	<i>kàànkǝ₂ ràwà; sǝ₂ ǝ₂ nthǝ₂ wá</i>
Burak	<i>shǝ₂ ǝ₂ tá!; jet</i>
Pero	<i>ceda</i> (GEBAUER 1995)

If we allow for semantic shifts, deviations in the meaning of the words, we find that some of the expressions under (1) and (2) which seem to be peculiar to one language or even only one dialect have probable cognates in other languages. Yet, the distribution of these roots is still very limited. Examples are:

(3)

Tula-Yiri	<i>kǝ₂ kwaa</i>	pile of stones
Waja	<i>kwaa</i>	stones arranged for farming
Kamo	<i>bǝ₂ ǝ₂ rǝ₂ , bǝ₂ ǝ₂ rǝ₂</i>	any farm
Waja	<i>baarǝ₂</i>	place cleared for farming
Dadiya	<i>twam tǝ₂ ǝ₂ ; twàm</i>	(terraced) farm
Tso-Gusobo	<i>tám</i>	(terraced) farm
Pero	<i>tám</i>	open field for dancing, building ⁵

⁵ The Pero had to build terraces in their settlements on the slopes of the Muri Mountains to create level areas/places for buildings etc.

Jalaa	<i>tá'k</i>	resting place (built with stones)
Tso-Gusubo	<i>tágò</i>	resting place (built with stones)
Cham	<i>t@k</i>	terrace wall
Kamo	<i>tǝ½ kǝ½</i>	settlement terrace
Tula-Yiri	<i>k@bwá;</i> <i>k@tǝ½ ǝ½</i>	step in between the walls
Tso-Gusubo	<i>bwà</i>	terrace on farm
Cham	<i>k@tǝ½</i>	terrace on farm

Most languages do not seem to have different expressions for farms with terraces (on a slope) and farms without terraces (in the plains). But what they usually distinguish verbally are "infields", which are the farms around the compound and "outfields", farms which are farther away. Since most former settlements used to be situated on the slopes of the hills, mountain ranges, and plateaus (many are now deserted, but some are still inhabited), the infields were on slopes and thus predominantly terraced, while outfields were often in the plains of the wider neighbourhood where terracing was not considered necessary. The variety of expressions recorded in the various languages for "infield" and "outfield" is even larger than what has been shown for "farm" in general under (1). ("Infield" and/or "outfield" are often compounded with "compound, house" or "bush" respectively; in some of the cases the translation is given).

(4) infield, homestead field

Awak	<i>âarǝ½ burkumí</i>	
Bangwinji	<i>bwii lǝ½ m</i>	next to the house
Dadiya	<i>tall½</i>	<i>lǝ½ î;</i>
	<i>tàkwàl½</i>	
Kamo	<i>bǝ½ ǝ½ rǝ½ l</i>	<i>díí</i> farm behind the house
	<i>lǝ½</i>	
Tso-Suwa	<i>súú kwàtù</i>	
Tula	<i>búú taba</i>	
Tula-Baule	<i>lùùrè</i>	
Tula-Wange	<i>tá'rá'í</i>	
	<i>kúú lǝ½ ǝ½</i>	farm of house
Tula-Yiri	<i>bààtà; kùtè lóó</i>	
Ture	<i>p½ l½ mánà</i>	behind the house
Waja	<i>kǝ½ ndǝ½</i>	<i>wǝ½</i> farm of house
	<i>la½</i>	
Waja	<i>gǝ½ rǝ½ káárǝ½</i>	behind the house

Burak	<i>yúu mál dìt</i>	farm behind house
Longuda-Guy	<i>matergáwá</i>	
Longuda-Gwa	<i>ta anzikè</i>	
Tangale-Ture	<i>lú₂ gó₂ ; ta para</i>	

(5) outfield

Awak	<i>îaré₂ toonjiní</i>	a far farm
Bangwinji	<i>také₂</i>	
Dadiya	<i>twám; tó₂ ó₂ tà̀m</i>	
Tso-Suwa	<i>kííní kukúrtù</i>	
Tula-Wange	<i>kuu kl₂ l₂ ró₂</i>	bush farm
Tula-Yiri	<i>kwaí@n</i>	
Waja	<i>kó₂ ndó₂ wú₂ gú₂ láú₂</i>	bush farm
Burak	<i>yúú dàà vùm</i>	farm appropriated in battle
Burak	<i>yúú lóó dǒ₂ í</i>	farm on clay soil
Longuda-Guy	<i>mau kwinyewé</i>	farm in the bush
Longuda-Gwa	<i>kwíni</i>	bush ?
Tangale-Ture	<i>kó₂ ró₂ k</i>	farm, grass
Tangale-Kalt.	<i>(kaa) yaya</i>	

The apparent lack of common words or roots for "terrace", "terraced farm" (and even, what has not been shown, for the "action of terracing") allows us to make at least two assumptions, which are supported by other evidence as well. First: it is unlikely that any of the groups presently occupying the Tangale Waja Uplands can be regarded as the one having started terrace farming in this area and from which all other groups might have copied or adopted it.

The second assumption is restricted to the languages of the Waja Group (Waja, Tula, Awak, Kamo, Cham, Tso, Bangwinji, Dadiya) which are spoken by the majority of the communities in this area. These languages are so closely related that a common origin has to be expected. Therefore the number of different unrelated denotations recorded for "terrace" no matter what type or for what purpose they are built could mean that unlike "wall", "hoeing", "granary", "millet", "guinea-corn", "yam" and so forth "farming on terraces" did not belong to the common cultural heritage of the speakers of these languages. What is further remarkable is that only less than half of the languages of this group have retained the Niger-Congo root for "stone", which is still found in other Adamawa languages of the Muri Mountains (e.g. Burak, Leemak) as well as in Adamawa languages spoken along and south of the

Benue (e.g. Jen, Mumuye and Yandang). Waja, Tula, Cham, Tso (and probably also Longuda) on the other hand seem to have adopted/acquired new words for "stone" for reasons presently not known to us, most likely after the languages started to split up. Stones are as a matter of fact fundamental requisites for this type of agricultural technology.

(6)

stone	*-thála, -tháli	Proto-Western Nigritic (MUKAROVSKY 1976-77)	
	*-tádè	Common Bantu (GUTHRIE 1967-71)	
Awak	tǝ½ ǝ½ r		
Bangwinji	tǝ½ r		
Dadiya	tél, téèl		
Kamo	tyǝ½ r		
Burak	tál	Mumuye	tara
Leemak	tal	Yandang	tárí
Jen	tée		
Waja	swǝ½ lǝ½ i ½		
Tula	kalǝ½ , kàlǝ½		
Cham	wǝ½ r		
Tso-Suwabou	wǝ½ n		
Tso-Gusubo	labí	Jalaa	lar
Longuda	guba-la	Kanakuru (NEWMANN 1974)	gúwát
Tangale	pàndǝ½		
Pero	pándi	(boulder, stone)	

However, the importance of stones in this area is not restricted to their functions on farms, but stones are also used to build houses, shrines, walls, and so forth.

Variations in the degree of differentiating "stone settings"

Tula

The extent to which the Tula have incorporated stones into their way of live exceeds what has been found for any of their neighbours. They differentiate

stone settings also verbally which in other languages may bear only one name. Examples are two types of "terraces", of which one may be called a "settlement terrace" being much taller in size but very similar to the terraces on farms. In their settlements such terraces are built to create flat and level areas to construct rooms and granaries or even to provide a dance floor for the clan. The expression for this type of construction carries the notion "one may fall down and get hurt", while the denotation used for the smaller farming terraces as found all around their hill settlements comprises the whole arrangement including the soil in between the steps where the crops are planted. The Tula further differentiate "line of stones" which is called the same as an ordinary "wall", and "pile of stones" collected to clear the farm or for future use in terracing. The latter is even called differently in each of the three dialects:

(7)

Tula-Wange	<i>sáre;</i> <i>sə̀ ́ rə̀</i>	<i>bee</i> settlement terrace
Tula-Wange	<i>k@dí</i>	farming terrace
Tula-Wange	<i>kù ́ ̀ ̀ sə̀</i>	pile of stones (on farms)
Tula-Wange	<i>kwalə̀</i>	stone wall, line of stones
Tula-Wange	<i>k@sèrà</i>	wall of stone or rock face (when seen from top)
Tula-Baule	<i>kù ́ ̀ ̀ lə̀</i>	pile of stones (on farms)
Tula-Yiri	<i>k@d@í</i>	terrace built with soil
Tula-Yiri	<i>kùli</i>	terrace built with stones
Tula-Yiri	<i>kù ́ ̀ kwaà</i>	pile of stones
Tula-Yiri	<i>lə̀ ́ ̀ rə̀</i>	settlement terrace, resting place

Waja

The language spoken by the Waja is undoubtedly rather closely related to the one of the Tula but culturally the differences are remarkable. The Waja who used to rear horses are not so much concerned with stones, although terraced farming was and in some areas still is extensively practised. Yet, the Waja use only one single word to denote such different arrangements of stones like terraces, lines of stones, and even where in a rocky place stones have been removed here and there to create "pockets" and give seeds a chance to grow in the soil between the stones. *Kwaa*, as the Waja call all these arrangements, and *kwaarə̀* meaning any "pile of stones" are even based on the same word stem.

(8)

Waja	<i>kwa</i> , pl. <i>kwa</i> - <i>nd</i> ^{1/2}	terrace, line of stones, stones arranged for farming
Waja	<i>kwa</i> - <i>r</i> ^{1/2} , pl. <i>kwa</i> - <i>nd</i> ^{1/2}	pile of stones (gen.)
cf. Tula-Yiri	<i>k</i> ^{1/2} <i>kwa</i>	pile of stones

Tangale

Until some decades ago the Tangale, whose language is not related to Waja and Tula, used to construct settlement terraces in some of their settlements. In addition and where necessary they also used to arrange stones to protect their farms from soil erosion. For both arrangements Tangale of Kaltungo and Ture use the same denotations.

(9)

Tangale	<i>p</i> ^{1/2} - <i>k</i> ^{1/2} <i>l</i> ^{1/2} <i>é</i> ^{1/2} , <i>p</i> ^{1/2} - <i>kw</i> ^{1/2} <i>l</i> ^{1/2} <i>é</i> ^{1/2}	settlement or farming terrace, line of stones on farms
cf. Tangale	<i>k</i> ^{1/2} <i>é</i> ^{1/2} <i>l</i> ; <i>k</i> ^{1/2} <i>é</i> ^{1/2} <i>l</i> <i>k</i> ^{1/2} <i>m</i> ^{1/2} <i>é</i> ^{1/2}	corral of logs, fence to keep goats
Dadiya	<i>k</i> ^{1/2} <i>é</i> ^{1/2} <i>l</i> ^é	fence for farms, defending by fence
Bangwinji	<i>k</i> ^{1/2} <i>é</i> ^{1/2} <i>l</i> ^é	cleared area (see n. 5)

Considering the amount of probable borrowings within the farming vocabulary of the Kaltungo and Ture dialects of Tangale, (cf. KLEINWILLINGHÖFER 1994), this word may be a loan as well, yet the source has not been clearly identified. Possible other sources could be Tula *kwer* or Dadiya *kwaal*, designating stone arrangements which are usually built to sit and rest on. More remarkable is, however, that the Tangale of Kaltungo and Ture use a verb "build a thick wall" (cited in the form of the verbal noun), which is almost identical with the word for "stone wall" in Tula, Dadiya and Tso. Stone walls are built to surround and protect compounds.

(10)

Tangale	<i>kwál</i> ^{1/2} (v.n.)	build a (thick) wall, plaster
Tula	<i>kwál</i> ^{1/2}	stone wall
Dadiya	<i>kwál</i> ^{1/2} , <i>kwál</i> ^{1/2}	stone wall
Tso-Gusobo	<i>kwál</i> ^{1/2}	stone wall

Tangale compounds are usually fenced with corn stalks or grass mats, a custom which they share e.g. with the Waja. It is remarkable that the words denoting these fences seem to be of a common origin as well.

(11) fence

Tangale	<i>kàrgə̀</i>	to fence, to enclose with a wall or fence
Waja	<i>karga-rə̀</i>	(mat) fence
Hill-Waja	<i>kàrkàr</i>	fence
Longuda Guy	<i>karga-lá</i>	fence, stone wall
Tula	<i>kaarə̀</i>	fence made with stalks
Tangale	<i>kàrà</i>	zana mat used for fencing a compound

Conclusion

The vocabulary presented here was selected to support and illustrate the points we want to contribute towards the discussion of the history and development of terraced farming in the settlements and cultures of this area. The comparison of further items of the farming vocabularies of these languages such as crops, tools, seasons, etc. reveals a significant amount of common vocabulary (see KLEINWILLINGHÖFER 1994, and forthcoming), which indicates a considerable influence of the languages on each other, evidence for considerable interactions of the speakers.

So far, we found no clue that terraced farming in the Tangale Waja Uplands originated in the recent past from a single source neither from one autochthonous group nor from any migrant group bringing this farming technique along with them. We rather have to assume that terracing of the slopes is older in this area than most of (if not all) the languages which are spoken here today. Traditions of most of the groups tell about their own migrations; some also report of people they met when coming to their present sites. These former occupants usually ceased to exist as independent linguistic or ethnic communities since, although some of their descendants are most likely still to be found in the various communities. One of the former occupants of this area are for example the Jalabe who have no knowledge of any migration from somewhere else and whose language and identity is presently given up in favour of Cham. That Jalaa, the former language of the Jalabe, may be a language isolate, related to no other of the languages presently spoken in the area is argued in KLEINWILLINGHÖFER (forthcoming). It is further argued there that Jalaa may be a remnant of a formerly larger language group, of which one other member might have been spoken in the area presently occupied by the Tsobo. If we look at the relevant terms in the

farming vocabulary of Tso and Cham we find indeed some words resembling the Jalaa terminology, but we have to be careful with the interpretation, since these terms may have been acquired out of taboo reasons (cf. KLEINWILLINGHÖFER 1995). Many of the clans constituting nowadays the Tso and Cham speaking communities probably came from areas where they farmed already the slopes by terracing. However, we found no clue either that "terrace farming" was already practised by their earlier ancestors at the time before the Waja Group started splitting up into the various languages. This event must have happened somewhere else, since almost all communities concerned have traditions that they migrated to the Tangale Waja area.

Considering the geographical position of the Tangale Waja Uplands, bordering on (or being protected by) the River Gongola to the east and the River Benue to the south, and the natural shelter the area provides to possible refugee groups, we have to expect a complex settlement history, to which groups must have contributed which may only have survived in memory, in tales, or in myth. GEBAUER (1995) reports a tradition of the Tula that they were given the technique of terraced farming by a woman called Kwanlere. Hence the Tula consider farming on terraced farms the domain of women, a restriction which is not observed by other groups around. The men of Tula-Wange and Tula-Baule used to go far to the plains adjacent to the Tula Plateau to farm there. Peculiar to Tula women seemed to be also the cultivation of cocoyam on terraces (involving the technique of mulching), although the neighbouring communities know cocoyam as well. Since Tula clans have traditions reporting migrations to their present site, they may have met a people on "their" plateau with these particular customs. It is interesting to note that the neighbouring communities to the south (especially Longuda, Cham and Tso) consider matrilineal descent in many aspects of their social organisation more important than the patrilineal. Clan membership may even be counted on the mother line. This custom is not found with the newcomers to the Tangale Waja Uplands especially the two largest groups, which gave the name to this area, the Waja and Tangale speaking peoples.

The Waja occupying the northeastern part of the area say they came from the northeast, from Shani, nowadays a Dera (or Kanakuru) town south of the Biu Plateau. They must have incorporated a considerable number of migrants, among them probably also refugees which fled the expansion of the Kanuri empire of Borno. Apart from Waja traditions claiming an earlier migration to Shani from Gazargamu, a former capital of Borno, we also find Kanuri words and greetings like: *ji* *rə* "truth", *kanad* "patience", *laalé* "hello!, welcome!", in the Waja language. WOODHOUSE (1923-24) reports another Waja tradition telling about a group called Diyo settling on the mountain, the lower parts of which became occupied by the core group of the Waja. From there the major Waja settlements were founded. The Diyo - their name is probably a Waja word derived from *diyoyu* "top, above" and thus referring to "those up there, hill dwellers" - are now extinct, but nevertheless they may have passed on their farms and how to maintain them. Yet, to many Waja

terraced farming never became as important as to the Tula on their plateau. They had and have easy access to fertile plains at the foot of their mountains, although the predominantly loamy or clayey soils of these plains are difficult to farm when using only hoes.

That the Tangale might have been one of the last groups coming to the Tangale Waja Uplands is also confirmed by their own traditions, which have already been written down in a number of publications (cf. BRUNK 1994). Traditions of the Eastern Tangale tell of a people called Komda which used to live in the hills to which they (the Tangale) migrated and which became part of their present settlement area. The Tangale claim to have defeated the Komda and later on absorbed the last survivor(s): "they told him" (a man of Komda, who was still living and hiding high up on the hill) "they would not harm him; ... they just desired that he might come down and show them the ways of his people, that they might learn and adopt them." (HALL 1994:6). The farming vocabulary of the (eastern) Tangale comprises a considerable number of probable loans from and/or common vocabulary with neighbouring Adamawa languages (e.g. Tula, Awak, Dadiya, Waja) (KLEINWILLINGHÖFER 1994). This could result from a recent adoption of certain aspects of the life styles prevailing in this area by the Tangale, and it may also be caused by an heavy influx of speakers from the surrounding tongues into the Tangale linguistic community. The latter assumption is further supported by the fact that Tangale is the only language of the Bole-Tangale Group of Chadic with a vowel harmony system, which - as we suppose (cf. KLEINWILLINGHÖFER 1990) - was acquired by contact with Adamawa languages like those spoken by the neighbouring peoples (e.g. Tula, Awak, Burak, Waja). If the Komda were speaking an Adamawa language as well and if they used to terrace their farms is however not known.