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Tone in Saxwe

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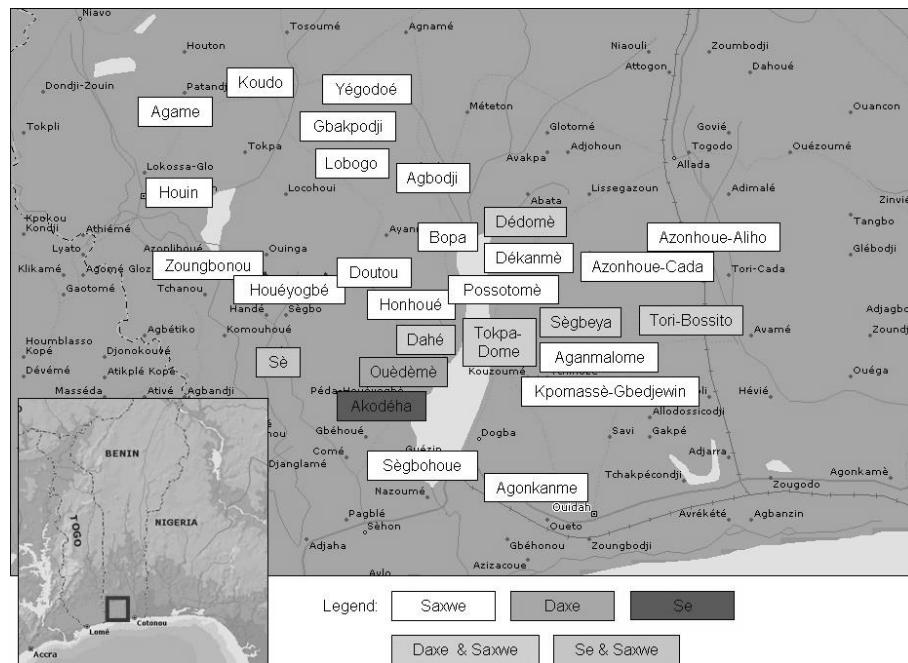
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Appendix A: Map of Saxwe speakers

The following figure is included by permission of Kluge and Johnson, editor and author respectively of an SIL Electronic Survey Report (Johnson & SIL International, 2011) on the Saxwe language. As the legend indicates, the towns framed in white boxes are reported by members of the local population as being places where Saxwe is spoken.

Figure 1: Map of the Saxwe, Daxe, and Se language areas (based on Microsoft Corporation 2002)¹²⁶



¹²⁶ The data contained in this map represent the perceptions of Saxwe, Daxe, and Se speakers and have not been otherwise confirmed. This map displays those places known to [Microsoft Encarta's "World atlas"](#) (Microsoft Corporation, 2002), and Google's [Map data](#) (Google Maps, 2009).

Appendix B: Monomorphemic verbs

The following is a list of the monomorphemic verbs that were used for the analysis of verb tone patterns. Recordings are available online at the following site: <https://drive.google.com/open?id=1Lsu0ipaXPX8yb7DGoF7dH57S73NoSpBQ>.

The file name for each recording can be obtained by substituting the appropriate list number and gloss given below in the following formula: `sxw-[List number]-verbs-[gloss]-un.wav`.

L0162	cold (be)	fa	[H]	L0156	take, choose	sɔ	[H]
L0182	embrace	fã	[H]	L0141	leave	sõ	[H]
L0143	wake up	fõ	[H]	L0188	run away	si	[H]
L0165	burn	fjɔ	[H]	L0190	respect	si	[H]
L0161	tight (be)	fjõ	[H]	L0185	go and	sĩ	[H]
L0163	press	fjõ	[H]		arrive		
L0173	shell	fle	[H]		somewhere		
L0167	fall	fle	[H]	L0189	crawl	ta	[H]
L0164	displace,	fli	[H]	L0198	fabricate	ta	[H]
	overturn			L0203	draw	ta	[H]
L0175	scatter	fu	[H]	L0197	begin	tɔ	[H]
L0172	pulverize	fū	[H]	L0202	touch	tɔ	[H]
L0181	lift up	kɔ	[H]	L0144	go out	tõ	[H]
L0170	skin an	kõ	[H]	L0186	pierce	tõ	[H]
	animal			L0187	turn on,	tɛ	[H]
L0171	remove the	kɛ	[H]		light		
	innards			L0178	join	tʃa	[H]
L0154	bid fare-	klã	[H]		together		
	well to			L0179	choose	tʃã	[H]
L0151	clean	klɔ	[H]	L0174	watch over	tʃɔ	[H]
L0157	shine	klẽ	[H]	L0168	cover	tʃõ	[H]
L0158	end	kpa	[H]	L0176	remain	tʃi	[H]
L0177	end	kpa	[H]		somewhere		
L0145	close to (be)	kpɔ	[H]	L0184	turn off	tʃi	[H]
L0199	see	kpõ	[H]	L0152	explain	tĩ	[H]
L0180	meet	kpe	[H]	L0148	pound	to	[H]
L0183	suffice	kpe	[H]	L0149	turn sth	tɾo	[H]
L0169	learn, teach	kplã	[H]	L0221	stop	tre	[H]
L0166	put together	kple	[H]	L0159	rip	trẽ	[H]
L0146	bring	kpli	[H]	L0153	interweave	tro	[H]
	together			L0192	vomit	tru	[H]
L0142	die	ku	[H]	L0196	close	tu	[H]

L0201	untie	t̩	[H]	L0132	cloudy (be)	ɦlu	[L]
L0194	bend	xa	[H]	L0074	kill	ɦu	[L]
L0195	rolled up	xa	[H]	L0080	open	ɦũ	[L]
	(be)			L0055	move	ɦwã	[L]
L0200	climb	xɛ	[H]	L0069	missing	ɦwe	[L]
L0193	tickle	xjɔ	[H]		(be), few		
L0155	dry (be)	xu	[H]	L0083	grill	ɦwi	[L]
L0160	bend down	xwi	[H]	L0133	fight over	ɦwl̩	[L]
L0191	dry	xwja	[H]	L0068	buy a liquid	jɛ	[L]
L0120	rent	da	[L]	L0036	make	va	[L]
L0130	weigh	da	[L]		seedling,		
L0134	throw	da	[L]		transplant		
L0135	pull	dʒ	[L]	L0001	finish	vɔ	[L]
L0076	last long	dɛ	[L]	L0010	at ease (be)	vo	[L]
L0002	remain	dʒɔ	[L]	L0038	comb one's	vũ	[L]
L0127	stretch out	dʒɛ	[L]		hair		
L0125	rain	dʒa	[L]	L0063	sweep	za	[L]
L0073	happen, occur	dʒɔ	[L]	L0015	fly, hop, walk	zɔ	[L]
L0126	upright (be)	dʒɔ	[L]	L0112	saw	zɛ	[L]
L0059	fall	dʒe	[L]	L0101	intelligent	zĩ	[L]
L0092	suit	dʒe	[L]		(be)		
L0084	give birth	dʒi	[L]	L0045	lean against	zjɔ	[L]
L0124	remove	gã	[L]	L0042	insult	zũ	[L]
	kernels			L0066	become	zũ	[L]
L0081	break, shatter	gba	[L]	L0058	blessed (be)	cɛ	[L]
				L0082	knead sth	fã	[L]
L0013	breathe	gbɔ	[L]		moist		
L0014	return	gbɔ	[L]	L0061	find, happen	fɔ	[L]
L0060	pass by	gbɔ	[L]		upon		
L0094	pick	gbɛ	[L]	L0070	steal	fĩ	[L]
L0086	knock	gbla	[L]	L0095	blow one's	fĩ	[L]
	against				nose		
L0140	too big (be)	gbla	[L]	L0018	walk briskly	fja	[L]
L0129	lukewarm	gblo	[L]	L0131	itch	fjɔ	[L]
	(be)			L0139	troubled	fjɛ	[L]
L0121	cut	gbo	[L]		(be)		
L0011	cease	gɔ	[L]	L0138	throw	fl̩	[L]
L0136	heal	gɔ	[L]	L0017	remember	flĩ	[L]
L0056	rub	glĩ	[L]	L0075	travel in	fo	[L]
L0012	fat (be)	glo	[L]		spirit		
L0087	examine	glo	[L]	L0054	concern	kã	[L]
L0122	rip up, dig	fɔ	[L]	L0079	look for	kã	[L]
	up			L0008	light up	kɔ	[L]
L0085	carry	fɛ	[L]	L0090	pour	kɔ	[L]

L0067	big (be)	kε	[L]	L0118	thick (be)	tri	[L]
L0091	open	kε	[L]	L0047	buy	xɔ	[L]
L0106	open with	klε	[L]	L0064	burp	xɔ	[L]
	care			L0026	hit, beat	xo	[L]
L0113	hit against	klɛ̃	[L]	L0050	hit	xo	[L]
L0072	scratch skin	klu	[L]	L0110	plant	xwa	[L]
L0078	mock	ko	[L]	L0102	bargain	xwle	[L]
L0033	praise	kpa	[L]	L0150	shave	xwle	[L]
L0114	peel, remove outside	kpa	[L]	L0273	draw up, pour out liquid	ba	[L]
L0077	carry on back	kpā	[L]	L0276	meet together	bɔ	[L]
L0009	cheap (be)	kpo	[L]	L0272	hide, be	bε	[L]
L0034	weed	kpo	[L]		hidden		
L0007	heavy (be)	kpɛ̃	[L]	L0274	burn	bi	[L]
L0089	hang up	kpla	[L]	L0278	ripe (be)	bja	[L]
L0108	lead, accompany	kplɔ	[L]	L0275	roll	bli	[L]
L0111	dull (be)	kpo	[L]	L0277	think	bu	[L]
L0115	poke	kpo	[L]	L0123	cook	qɑ	[L]
L0103	drive	kū	[L]	L0057	remove	qε	[L]
L0107	dig	kū	[L]	L0062	harvest	qε	[L]
L0041	knot	sa	[L]	L0071	marry	qε	[L]
L0099	sell	sa	[L]	L0096	draw	qε	[L]
L0040	filter	sɔ	[L]	L0137	bury	qj	[L]
L0020	hear	se	[L]	L0128	eat	qju	[L]
L0031	sense, feel	se	[L]	L0093	yawn	ya	[L]
L0028	worship	sɛ̃	[L]	L0025	go	ji	[L]
L0049	harvest (by cutting)	si	[L]	L0116	tell, say	lo	[L]
L0016	mature	sĩ	[L]	L0021	accept	lɔ̃	[L]
L0100	stubborn (be)	sjã	[L]	L0035	weave	lɔ̃	[L]
L0117	have diarrhea	sra	[L]	L0005	be at, exist	le	[L]
L0006	numerous (be), suffice	su	[L]	L0030	wet oneself, sprinkle oneself	lε	[L]
L0052	sift	ta	[L]	L0003	grind	li	[L]
L0027	sew	tɔ	[L]	L0037	grind	li	[L]
L0051	fry in oil	tɔ	[L]	L0269	grill	mɛ̃	[L]
L0019	limp	tɔ̃	[L]	L0270	sting, bite	mɛ̃	[L]
L0109	swollen (be)	tɛ	[L]	L0271	swallow	mĩ	[L]
L0097	sew	tʃi	[L]	L0279	fall over, demolished (be)	mũ	[L]
L0039	organize	to	[L]				

L0029	wash	jã	[L]	L0204	ruined (be)	gu	[L ^R]
L0032	knead	jã	[L]	L0231	in need of	hjã	[L ^R]
L0044	chase	jã	[L]		(be)		
L0098	rest, lie on	nõ	[L]	L0239	scatter	flẽ	[L ^R]
L0046	rotten (be)	jõ	[L]	L0260	acid (be)	fwã	[L ^R]
L0104	wet (be)	jõ	[L]	L0247	lend,	fwẽ	[L ^R]
L0022	bad (be), ugly (be)	jnã	[L]		borrow		
L0024	drink	nũ	[L]	L0243	smell	fwẽ	[L ^R]
L0043	do	wa	[L]	L0245	mature	fwẽ	[L ^R]
L0119	pierce	wɔ	[L]	L0240	hide	fwla	[L ^R]
L0023	forget	wõ	[L]	L0208	come	va	[L ^R]
L0004	black (be)	wi	[L]	L0229	afraid of	võ	[L ^R]
L0048	sneeze	wĩ	[L]	L0222	(be)	ve	[L ^R]
L0065	do animal	wĩ	[L]		expensive		
	husbandry			L0261	(be)	ve	[L ^R]
L0105	write	wlã	[L]	L0224	bitter (be)	vlu	[L ^R]
L0210	sleep	dɔ	[L ^R]	L0217	unfold	vũ	[L ^R]
L0234	command, order	dõ	[L ^R]	L0223	rip	zã	[L ^R]
				L0211	mistreat	ze	[L ^R]
L0205	missing (be)	dẽ	[L ^R]		appear		
L0216	succeed	dĩ	[L ^R]	L0284	suddenly	be	[LH]
L0246	dress	do	[L ^R]	L0285	begin	be	[LH]
	oneself			L0290	gather up	bi	[LH]
L0253	plant	do	[L ^R]	L0291	cooked (be)	bjɔ	[LH]
L0252	cut into	dʒa	[L ^R]	L0286	ask for sth	bla	[LH]
	pieces			L0215	attach	bla	[LH]
L0258	busy (be)	dʒã	[L ^R]	L0256	pieces	qa	[LH]
L0244	swell up	dʒi	[L ^R]	L0235	sharp (be)	qa	[LH]
L0241	publish	dʒla	[L ^R]	L0238	have	qo	[LH]
L0237	measure	dʒle	[L ^R]	L0249	put in piles	qo	[LH]
L0233	desire	dʒlo	[L ^R]	L0230	pronounce	qo	[LH]
L0255	saved (be)	gã	[L ^R]	L0250	enter	dje	[LH]
L0254	build	gba	[L ^R]	L0268	scrape	ya	[LH]
L0259	wrap a skirt	gba	[L ^R]	L0214	hurry up	ja	[LH]
L0209	refuse	gbɛ	[L ^R]	L0264	call	jo	[LH]
L0206	break, ruined (be)	gble	[L ^R]	L0263	receive	ji	[LH]
				L0226	bless	jra	[LH]
L0232	bark	gbo	[L ^R]		hit and carry	lo	[LH]
L0236	full (be)	gɔ	[L ^R]		off		
L0257	half close	gla	[L ^R]	L0267	swell up	lõ	[LH]
L0242	twist	glõ	[L ^R]	L0213	leave	le	[LH]
L0248	avoid	glo	[L ^R]	L0220	level (be)	li	[LH]
L0251	impossible (be)	glo	[L ^R]	L0262	stack wood	li	[LH]
				L0281	divide	mã	[LH]
				L0283	force-feed	mõ	[LH]

L0288	deny	mð	[LH]	L0147	white (be)	we	[LH]
L0289	bald (be)	mð	[LH]	L0265	break, crack	wẽ	[LH]
L0280	clean (be)	mẽ	[LH]	L0225	fold	wlã	[LH]
				L0228	catch	wle	[LH]
				L0219	germinate,	wu	[LH]
L0282	fine (be)	mẽ	[LH]		grow		
L0287	tighten	mjð	[LH]				
L0218	give	nã	[LH]				
L0207	good (be)	jð	[LH]				
L0212	know	jð	[LH]				
L0266	be	jñ	[LH]				
L0227	wet, soak	jnrð	[LH]				

Appendix C: Monomorphemic nouns

The following is a list of the monomorphemic nouns that were used for the analysis of noun tone patterns. Recordings are available online at the following site: <https://drive.google.com/open?id=1muj7g8mvBq33Fyq5c2-4XkEdiNPXs8xB>.

The file name for each recording can be obtained by substituting the appropriate list number and gloss given below in the following formula: sxw-[List number]-VCV nouns-[gloss]-un.wav.

L0051	arm	abɔ	[M.H]	L0106	gunpowder	ɛwɛ	[M.H]
L0050	soap	ad̩i	[M.H]	L0220	harmattan	obja	[M.H]
L0052	tooth	ađu	[M.H]	L0045	amulet	obo	[M.H]
L0104	comb	aja	[M.H]	L0221	silence	ođa	[M.H]
L0215	foreskin	aju	[M.H]	L0187	dirt	ođju	[M.H]
L0053	coal	akā	[M.H]	L0163	error	ofɛ	[M.H]
L0057	fist	akɔ	[M.H]	L0082	place	ofi	[M.H]
L0055	boat	aklo	[M.H]	L0081	ashes	offi	[M.H]
L0107	type of porridge	akpli	[M.H]	L0105	dry season	ofjo	[M.H]
L0046	liver	al̩i	[M.H]	L0222	fur	ofū	[M.H]
L0054	corn dish	amā	[M.H]	L0170	call	ojɔ	[M.H]
L0223	raw food	amū	[M.H]	L0101	sweet	ojwe	[M.H]
L0102	crab (sp)	asɔ	[M.H]	L0236	potato	oka	[M.H]
L0103	hand (archaic)	asi	[M.H]	L0137	calabash	okə	[M.H]
					neighbor-	okɔ	[M.H]
					hood		
L0056	beauty	atʃɔ	[M.H]	L0139	sand, earth	okɔ	[M.H]
L0061	debt	axɔ	[M.H]	L0142	stomach	okɔ	[M.H]
L0219	tongue	ɛfɛ	[M.H]	L0171	termite	okɔ	[M.H]
L0216	washing powder	ɛfɛ	[M.H]	L0296	woven	okɛ	[M.H]
					pouch		
L0059	thanks	ɛkpɛ	[M.H]	L0240	enclosure	okpa	[M.H]
L0109	rock	ɛkpɛ	[M.H]	L0047	meeting	okpli	[M.H]
L0217	cough	ɛkpjɔ	[M.H]	L0048	widow	okpo	[M.H]
L0108	dry season	ɛku	[M.H]	L0228	mountain	okpo	[M.H]
L0188	mosquito	ɛmwĩ	[M.H]	L0168	death	oku	[M.H]
L0164	spirit	ɛsɛ	[M.H]	L0083	grain	okũ	[M.H]
L0058	gazelle	etjɛ	[M.H]	L0235	crocodile	olo	[M.H]
L0060	water-born parasite	et̩e	[M.H]	L0239	proverb	olo	[M.H]
				L0227	path	omɔ	[M.H]

L0143	thing	onū	[M.H]	L0255	pocket	akpo	[M.M]
L0165	goodness	oŋwẽ	[M.H]	L0245	hand	alɔ	[M.M]
L0231	horse	oso	[M.H]	L0241	incest	ale	[M.M]
L0084	law, interdiction	osẽ	[M.H]	L0248	benefit	ale	[M.M]
				L0301	kidneys, waist, hips, lower back	alĩ	[M.M]
L0234	boulder	oso	[M.H]	L0266	toothpick	alo	[M.M]
L0238	thorn	oso	[M.H]	L0264	oil	amĩ	[M.M]
L0226	husband, male	osu	[M.H]	L0173	diarrhea	asra	[M.M]
L0140	saliva	otã	[M.H]	L0287	hive	ato	[M.M]
L0230	father	oto	[M.H]	L0176	red monkey	ato	[M.M]
L0172	grinding stone	ote	[M.H]	L0149	raindrop	atrɔ	[M.M]
L0218	cadaver	otʃɔ	[M.H]	L0044	clothing	awu	[M.M]
L0166	tree	otĩ	[M.H]	L0131	ocean, sea	axu	[M.M]
L0169	hill	oto	[M.H]	L0175	hernia	axu	[M.M]
L0233	ear	oto	[M.H]	L0130	wing	axwe	[M.M]
L0237	group	oto	[M.H]	L0148	nail, claw	ɛfẽ	[M.M]
L0136	gun	otu	[M.H]	L0145	theft	ɛfĩ	[M.M]
L0049	caterpillar (sp)	owã	[M.H]	L0146	destiny	ɛjɛ	[M.M]
L0225	odor	owã	[M.H]	L0147	person	ɛmẽ	[M.M]
L0167	corn flour	owɔ	[M.H]	L0099	water	ɛsĩ	[M.M]
L0144	caterpillar (sp)	owe	[M.H]	L0080	straw	ɛtɛ	[M.M]
L0284	white	owe	[M.H]	L0127	announce- ment	ewẽ	[M.M]
L0138	bee	owĩ	[M.H]	L0110	sea, ocean	ɛxu	[M.M]
L0085	broom	oxa	[M.H]	L0174	hair	oɖa	[M.M]
L0232	word, news	oxo	[M.H]	L0129	bean (sp)	ofjo	[M.M]
L0224	bone	oxu	[M.H]	L0263	memory	oflĩ	[M.M]
L0141	corn worm	oxwi	[M.H]	L0259	rope, cord	okã	[M.M]
L0249	forked branch	aba	[M.M]	L0150	neck	okɔ	[M.M]
L0243	wound	abi	[M.M]	L0251	hole	oklo	[M.M]
L0247	shot, syringe	abwi	[M.M]	L0151	panther	okpɔ	[M.M]
L0242	anger	adj	[M.M]	L0258	whistle	okpẽ	[M.M]
L0267	leg	afɔ	[M.M]	L0100	meat, animal	olã	[M.M]
L0128	suffering	aja	[M.M]	L0292	millet	oli	[M.M]
L0126	bean	aji	[M.M]	L0153	cow	oŋĩ	[M.M]
L0244	butterfly	akɔ	[M.M]	L0254	interdiction	osu	[M.M]
L0265	paternal lineage	akɔ	[M.M]	L0253	lake	oto	[M.M]
L0092	pocket	akpo	[M.M]	L0256	shrew	otɔ	[M.M]
				L0261	mortar	oto	[M.M]
				L0268	village, geographic region	oto	[M.M]

L0246	palm grub	otrã	[M.M]	L0177	corn	adã	[M.L ^R]
L0155	bachelor	otrẽ	[M.M]		porridge		
L0097	hole, piercing	otro	[M.M]	L0279	palm kernel	adi	[M.L ^R]
L0152	bush animal (sp)	owɔ	[M.M]	L0132	commerce	adʒɔ	[M.L ^R]
L0096	danse	owe	[M.M]	L0180	wasp	agbɔ	[M.L ^R]
L0260	necklace	owlɔ	[M.M]	L0179	knot	agbi	[M.L ^R]
L0252	room, house	oxɔ	[M.M]	L0288	navel	ago	[M.L ^R]
				L0063	mist	aħð	[M.L ^R]
L0262	bird	oxε	[M.M]	L0124	breast	afū	[M.L ^R]
L0257	wild grass (sp)	oxo	[M.M]	L0274	date	azā	[M.L ^R]
L0118	first growing season	oxwe	[M.M]	L0078	palm nut	edɛ	[M.L ^R]
				L0042	sweat	edẽ	[M.L ^R]
				L0276	cock's	edẽ	[M.L ^R]
L0156	rainy season	oxwe	[M.M]		comb		
				L0079	palm nut	enẽ	[M.L ^R]
L0250	year	oxwe	[M.M]		center		
L0154	market	oxwi	[M.M]	L0275	monkey	ezĩ	[M.L ^R]
L0014	descent	aklɔ	[M.M°]	L0272	work	odā	[M.L ^R]
L0008	fish (sp)	akpa	[M.M°]	L0074	frog	odĩ	[M.L ^R]
L0010	peel, bark	akpa	[M.M°]	L0070	armoire	odrɔ	[M.L ^R]
L0009	leaf	amã	[M.M°]	L0280	dream	odrɔ	[M.L ^R]
L0012	left side	amjɔ	[M.M°]	L0133	tomato, oil	odʒa	[M.L ^R]
L0013	divination tool	ekple	[M.M°]		condiment		
				L0075	flea, louse	odʒɔ	[M.L ^R]
L0015	corn starch dish	odju	[M.M°]	L0073	animal fat	odʒu	[M.L ^R]
				L0043	chief	oga	[M.L ^R]
L0006	root	okjɔ	[M.M°]	L0125	box for valuables	ogba	[M.L ^R]
L0002	stick	okpo	[M.M°]				
L0016	chair	okpo	[M.M°]	L0065	goat	ogbɔ	[M.L ^R]
L0283	mother	onɔ	[M.M°]	L0277	menstrual	ogbe	[M.L ^R]
L0001	mouth	onũ	[M.M°]		period		
L0007	wife, female	osi	[M.M°]	L0278	grass	ogbe	[M.L ^R]
				L0077	eggplant	ogbo	[M.L ^R]
L0005	manioc	ote	[M.M°]		(sp)		
L0003	cloth roll to protect head	otu	[M.M°]	L0281	pocket	ogo	[M.L ^R]
				L0134	millipede	ofã	[M.L ^R]
				L0269	hawk	ofɔ	[M.L ^R]
L0011	black	owi	[M.M°]	L0270	money	oho	[M.L ^R]
L0095	board	oxwlɛ	[M.M°]	L0076	vehicle, car	ofū	[M.L ^R]
L0018	soul	okla	[M.HL]	L0271	drum	ofū	[M.L ^R]
L0229	day	oklo	[M.HL]	L0069	projectile	ofwã	[M.L ^R]
				L0135	knife	ofwi	[M.L ^R]

L0068	hoe	olī	[M.L ^R]	L0098	cane rat	azo	[M.L]
L0123	excrement	omĩ	[M.L ^R]	L0119	horn	azo	[M.L]
L0072	intestinal	ovõ	[M.L ^R]	L0121	life	egbɛ	[M.L]
	worm			L0200	beard	egẽ	[M.L]
L0088	monitor	ovɛ	[M.L ^R]	L0193	blood	ɛfū	[M.L]
	lizard			L0192	scar	ɛhwɛ	[M.L]
L0067	child	ovi	[M.L ^R]	L0122	dispute	evũ	[M.L]
L0064	dog	ovũ	[M.L ^R]				
L0066	night	ozã	[M.L ^R]	L0093	manioc	oba	[M.L]
L0071	clay jar	ozẽ	[M.L ^R]		dish		
L0294	invisibility	ozĩ	[M.L ^R]	L0197	crossbow	oda	[M.L]
	powers			L0039	snake	odã	[M.L]
L0295	short dry	ozo	[M.L ^R]	L0203	fishing net	odɔ	[M.L]
	season			L0091	border	ode	[M.L]
L0184	cooked	abɔ	[M.L]	L0111	land	odo	[M.L]
	beans				boundary		
L0212	sickness	adɔ	[M.L]	L0181	underside	odo	[M.L]
L0112	cat	ade	[M.L]	L0211	straw mat	odʒã	[M.L]
L0086	cage	adʒa	[M.L]	L0205	long thin	odʒɔ	[M.L]
L0289	agricultural	adʒi	[M.L]		insect (sp)		
	abundance,			L0209	salt	odʒɛ	[M.L]
	yield			L0206	heart	odʒi	[M.L]
L0214	load	agbã	[M.L]	L0208	dispute,	odʒle	[M.L]
L0189	underside	ago	[M.L]		fight		
L0302	tardiness	ago	[M.L]	L0195	hour, time	ogã	[M.L]
L0286	palmyra	agɔ	[M.L]	L0196	proclama-	ogã	[M.L]
	palm fruit				tion		
L0158	jaw	aglã	[M.L]	L0213	iron	ogã	[M.L]
L0178	crab	aglã	[M.L]	L0087	animal	ogbã	[M.L]
L0113	group	agũ	[M.L]		footprint		
L0157	drink	aħã	[M.L]	L0190	language	ogbe	[M.L]
L0182	marrow	aħɔ	[M.L]	L0090	bean fried	ogbo	[M.L]
L0183	brain	aħɔ	[M.L]		snack		
L0185	snake (sp)	aħɔ	[M.L]	L0199	field	ogle	[M.L]
L0191	locust bean	afiwa	[M.L]	L0040	wall	ogli	[M.L]
	pod			L0120	hole	ogũ	[M.L]
L0094	war	aħwã	[M.L]	L0115	pig	oħa	[M.L]
L0198	granary	ava	[M.L]	L0116	song	oħã	[M.L]
L0202	cloth	avɔ	[M.L]	L0204	forest	oħɔ	[M.L]
L0290	palm leaf	azã	[M.L]	L0207	door	oħɔ	[M.L]
	bud			L0210	throat	ohlo	[M.L]
L0114	smoke,	azɔ	[M.L]	L0291	religion of	oħu	[M.L]
	haze				some		
L0194	tobacco	azɔ	[M.L]		Saxwe		
L0201	egg	azĩ	[M.L]	L0161	machine	omɔ	[M.L]

L0089	kola nut	ovi	[M.L]	L0285	red	ovε	[M.L°]
L0162	ax	ovja	[M.L]	L0186	penis	ada	[L.LH]
L0160	fire	ozo	[M.L]	L0038	nest	adɔ	[L.LH]
L0117	insult	ozũ	[M.L]	L0030	red dirt	ado	[L.LH]
L0026	genie	agja	[M.L°]		wall		
L0020	side	aħa	[M.L°]	L0031	dish	agbã	[L.LH]
L0029	rabbit	azwi	[M.L°]	L0159	ram	agbo	[L.LH]
L0027	black snake	egle	[M.L°]	L0062	tofu	amo	[L.LH]
L0028	squirrel	odwɛ	[M.L°]	L0032	disabled	obo	[L.LH]
L0025	bottle	ogo	[M.L°]		person		
L0024	corn weevil	ofjã	[M.L°]	L0036	trash	odũ	[L.LH]
L0021	fish	ofwe	[M.L°]	L0037	desire	odʒlo	[L.LH]
L0023	sun	ofwe	[M.L°]	L0033	rain	odʒu	[L.LH]
L0004	spider	oje	[M.L°]	L0035	hat	ogba	[L.LH]
L0022	fishhook	omlɛ	[M.L°]	L0034	evil	ovwɛ	[L.LH]
L0019	head	ota	[M.L°]				

Appendix D: Nouns recorded for phonetic implementation discussion

The following is the list of nouns recorded by four speakers as the basis for the description of the phonetic implementation of V.C(C)V nouns (section 7.5). Six tone patterns were selected for recording.

/M.H/	/M.M/	/M.L/	/M.M ^H /	/M.L ^H /	/M.LH/
oka 'calebash'	aq̩i 'anger'	agbā 'baggage'	owi 'black (NOM)'	ogo 'bottle'	ohū 'car'
akā 'charcoal'	alɔ 'hand'	ɛg̩ɛ 'beard'	akpa 'carp'	ofjā 'corn weevil'	ovi 'child'
aja 'comb'	ɛfɛ 'fingernail'	ɛfū 'blood'	ote 'yam'	omlɛ 'fishhook'	ovū 'dog'
okɔ 'dirt'	oqa 'hair'	añɔ 'brain'	amā 'leaf'	ota 'head'	ogbɔ 'goat'
ofɛ 'error'	afɔ 'leg'	avɔ 'cloth'	onɔ 'mother'	azwi 'rabbit'	ohɔ 'hawk'
ofū 'fur'	axu 'ocean'	azī 'egg'	onū 'mouth'	ove 'red (NOM)'	olĩ 'hoe'
ɛkpɛ 'rock'	amĩ 'oil'	ava 'granary'	otu 'rag'	afia 'side'	ofíwi 'knife'
ad̩i 'soap'	aja 'suffering'	oba 'manioc porridge'	okjɔ 'root'	oje 'spider'	oho 'money'
ɛdɛ 'tongue'	ɛfí 'theft'	odʒā 'mat'	okpo 'stick'	odwɛ 'squirrel'	ozā 'night'
adu 'tooth'	ɛsĩ 'water'	odʒɛ 'salt'	osi 'wife'	ofwe 'sun'	azī 'peanut'

Appendix E: Text with underlying and surface tones

The following text is found in its entirety at the site:

<https://drive.google.com/open?id=1LDp4U5nDEMB1XbSvZKiq-YHvivjvaS>

The filename for the recording of this text is: `sxw-T0002-texts-un.wav`, and excerpts of this text with free translations in French are found in the recordings within the same folder running from: `sxw-T0022-texts-un.wav` to `sxw-T0028-texts-un.wav`.

lé	ná	M- jé H	ná	gbé	ájí	dó	M- xé	L%
lé	ná	jé	ná	gbé	ájí	dó	↓xé	
how	SUB	3PL	HAB	pick	beans	how:PART	this	

nā	H	ájī	lá	sjé	vò	L	H%
nā		ájí	lá	sjé	vò:		
SUB	FUNCTION.UNKNOWN	beans ¹²⁷	DET	harden	COMPL	TOP	
When the beans have finished growing,							

M-	jē	H	nā	vā	jī	gbé	–V	L%
	jē		nā	vā	jī	gbé:		
3PL		FUT	come	go		pick-3SG		
they will	go	pick	them.					

M- jé H gbɛ-́V L H%
 jé gbɛ̄:
 3PL pick-3SG TOP
 When they have picked them

¹²⁷ Note that /aji/ 'beans' is a mass noun in Saxwe.

M- é bā xú L%
é bá ↓xú

3SG CONJ:DS be.dry
and they will dry,

M- jē H bā bé dō átī m̄s L%
jē bā bé dō átī m̄s
3PL CONJ:DS gather at sack in
and they will gather [them] in a sack,

á bō tó-Ṅ L%
á bō ↓twē:
CONJ:SS CONJ pound-3SG
and pound them.

M- jē H tó-Ṅ vò L H% M- jē H nā fú-Ṅ L%
jē twē: vò°: jē nā fw̄i:
3PL pound-3SG COMPL TOP 3PL FUT winnow-3SG
When they've finished pounding them, they will winnow them,

á bō dō-Ṅ M- dò-kpō Hω m̄s L%
á bō dwē: dò-kpō m̄s
CONJ:SS CONJ put-3SG stomach-pouch in
and put them in a sack.

Appendix F: Locations of audio files

The audio files which accompany this study are located at the following sites. This table gives the location of audio files referred to in all chapters except chapter 7, which deals with phonetic implementation. (Those audio files are listed further in this appendix.)

Zipped file related to:	URL
Alternate reduplication	https://drive.google.com/open?id=1vhq94YfLA9BtPkDog3D58v2lanqHp93U
Associative construction	https://drive.google.com/open?id=1sWYrpvJXdq1O8DxYY05ynoql49S-Q6RR
Auxiliaries	https://drive.google.com/open?id=1jRcLhyU95g2dhpGC6PYg93wO2XgCvP1E
Borrowed words	https://drive.google.com/open?id=1k5e5UA29N9_T27pTOEgbmxDXdLuCeEUy
Clause connectives	https://drive.google.com/open?id=1vCT-wa3OtnacyLfBK0-CdNay00_K6uo
Clause frames	https://drive.google.com/open?id=11_hAvJveshfLpQDFaxhNdrEgXA37SA7y
Connective plus jussive	https://drive.google.com/open?id=16hw050WCEEul9tdDEyerJKhCifmC6_-F
Effect of emotion	https://drive.google.com/open?id=1r1pdhrza8lIN6RvisfW0E4Z59F5QqmuD
Exceptional tone patterns	https://drive.google.com/open?id=1oy-iVVc-ecFYkEcd3pitYtJzhqvj0Ud
Final fall tests	https://drive.google.com/open?id=1EmtyActo9ayfGN90HlhtEpQsTLQo87-Y
Focus markers	https://drive.google.com/open?id=1SGlytjM83sk9ygTdjtB2tMYQQ02NCI0x
Ideophones	https://drive.google.com/open?id=1UmEUJ7cKtV5EhAz64QpXPKZeSjJCOKJC
Left boundary	https://drive.google.com/open?id=1MORckJXc7J911yRV5LFm4fV7mvuFjJar

Low spread tests	https://drive.google.com/open?id=1NIANCcRohlbEkHSPyEvn0nwYmyPTQx8F
Multi-clause utterances	https://drive.google.com/open?id=1t4iZCyPILxIepKXN1fQ1RCgkDaW_iSwO
Negation	https://drive.google.com/open?id=1AGWvnXCtXsPX8EuLAGjidLJVu7UnemkW
Noun phrases	https://drive.google.com/open?id=1efM_N1AFgLyolxzP5qMhZL5iPrYaZhao
NP boundary tests	https://drive.google.com/open?id=1j0R1M4eIavI-u_efWsfRCKpV227J6oZg
Numbers	https://drive.google.com/open?id=1cs8dsYGKGU8JItAyq9cq7yafWY4vxzPI
Other clauses	https://drive.google.com/open?id=1B0ndj34Rkoeujh8NSrh8R_8_gHATqMBO
Other nouns	https://drive.google.com/open?id=1-UpNONf043Yop6zvf0uHlsYFy628HG1
Other verbs	https://drive.google.com/open?id=1Xn3qdIoobLDhmF7RDZmj39WcLhEt5vjt
Polymorphe mic nouns	https://drive.google.com/open?id=1LC-xwQhbaeSWo_zPOW1fpAvMdg8XxhG
Possessive pronouns	https://drive.google.com/open?id=19MTVziZe-NKKfXygnvOuwpGx2pW73kJ
Postpositions	https://drive.google.com/open?id=1v5LSA_l9l0pi1lFCQ07ec1QzBx-SpGo7
Preposition na	https://drive.google.com/open?id=13veH2TyOfUS0xJ0y8iQ0qBPycKzwIkxY
Prepositions	https://drive.google.com/open?id=1AxNRtIkOQ_wSbw83dDZO_1DOlwRUnEmc
Presentatives	https://drive.google.com/open?id=1DJ_dxslLIE6k9Cm6NrOH82JOlyhAID8N
Pronouns	https://drive.google.com/open?id=1J7IrrOL54erMX9btQIhisi- FELE9hLC
Questions	https://drive.google.com/open?id=1YfN0k-SlivLxvDxTmLK3v7Unwybi2o9C
Register tests	https://drive.google.com/open?id=1nA_Z9DcHIQV9nGXGmoYfz-f2gBFVSMj
Right H boundary	https://drive.google.com/open?id=1XFgTkCrAZ_CTDzTn8SL_ulccrf_YsMLr

Serial verbs	https://drive.google.com/open?id=1LAzn7vAcoQ5XTakfz17nijyjZsVhzAvc
Subordinating morpheme	https://drive.google.com/open?id=1UtHvbSXbIHZzFVRzmZ1DL_aUm3WEmV2k
Texts	https://drive.google.com/open?id=10LDp4U5snDEMBIXbSvZKiq-YHvivjvaS
VCV nouns	https://drive.google.com/open?id=1muj7g8mvBq33Fyq5c2-4XkEdiNPXs8xB
Verb plus pronoun	https://drive.google.com/open?id=1090PyvMeXZNbSfykGk9ZBVeKCRzPYviS
Verb reduplication	https://drive.google.com/open?id=1nS9RAGSEm8Ql-dUGbNBI76jdtHvdSSpP
Verbs	https://drive.google.com/open?id=1Lsu0ipaXPX8yb7DGoF7dH57S73NoSpBQ
Ynquestions	https://drive.google.com/open?id=1H-RKnk0ba-77_6D-lNfIEaGvfotjFlvZ
Abbreviations, speaker bio, permissions, date and time	https://drive.google.com/open?id=1zljxMrVa5XhY8okiStHsdgXUDxdEojqY

Below are the locations of the audio files which support the findings described in chapter 7, which deals specifically with phonetic implementation.

Zipped file related to:	URL
Downstep	https://drive.google.com/open?id=1II_jzULj4t1gujRGxtT7OkrFc_0vazFB
Non-Hs between Hs	https://drive.google.com/open?id=19443iT0WLYBuUgbhr1ES5qDcQaNzoKfr
One tone	https://drive.google.com/open?id=1NNs-KZnIpen4ix5OjRECeKNRVPjq2B2o
VCV nouns	https://drive.google.com/open?id=1lqDmGsM9RRJsl-0SlqwhGA-twiyXQ8-8
Permissions	https://drive.google.com/open?id=1qUAS_IejRtIPoR3zCNY2qNVwb9ch8Diq

