(let G stand for the velar nasal.)

Plural formation in Luo is done by a variety of methods. Some of the plural morphology is quite opaque. In other cases, the morphology has been reduced to null or "mere" phonological alternation. Not all plural formation can be reduced to a reasonable number of regular phenomena. Leaving the irregular plural formation as a class by itself, there are four basic methods of pluralization.

The largest group of plurals are formed with the addition of the / -e / morpheme to the singular bare root of a noun. An example of this in its simplest form is the word for "tooth": / lak / + / -e / $\Rightarrow$ [lake]. The morpheme is added directly to the singular form with no alternations.

Many other nouns, however, undergo certain phonological changes when the / -e / is added. There is a rule of word-final consonant devoicing, so there is a voiceless-voiced alternation in some forms: "neck" / Gut / + / -e / $\Rightarrow$ [Gude]. This is an extremely common alternation. There are some unusual alternations that superficially follow this pattern as well. Some of the forms that end in the singular in the alveo-palatal affricate alternate with the palatal glide in the plural: "head" / wich / + / -e / $\Rightarrow$ [wiye]. These forms are illustrative of the need to know both the plural and the singular forms of nouns in order to know what phonological alternations occur. They are not entirely predictable from the singular forms, since a final palatal affricate may alternate with the palatal glide, the voice palatal affricate or the voiceless palatal affricate in the plural forms. The phonological alternations that are seen in the plural forms with this morpheme are similar to the phonological alternations that nouns undergo when affixed with the possessive pronouns.

Related to the addition of the / -e / plural morpheme are those nouns whose singulars end in vowels. These nouns also take the / -e / morpheme and in doing so replace the final vowel of the singular with the / -e / of the plural morpheme: "window"

/ drisa / + / -e / $\Rightarrow$ [drise]. These forms, too, may undergo certain phonological changes. The consonants that precede the final vowel may undergo devoicing in the plural, in opposition to the behaviour of consonant-final singulars mentioned above: "rock, stone" / kidi / + / -e / $\Rightarrow$ [kite]. As with the alternation of glides with obstruents in the form for "head", labial off-glides likewise alternate with obstruents under devoicing: "flower" / mawwa / + / -e / $\Rightarrow$ [mawpe].

These vowel-final forms may undergo yet another alternation related to the addition of the plural morpheme / -e /. Some nouns will form their plural and preserve the final vowel of the singular by inserting a stop between the otherwise adjacent vowels. As my field notes have been concentrating recently on verb morphology, I have not been able to elicit very many nouns that fall into this group, so it is difficult for me to make generalizations. However, from the forms available to me, nasals and obstruent stops seem to be the consonants that show up in this alternation. An example: "lung" / obo / +

/ -e / $\Rightarrow$ [oboke].

Many more nouns have no overt plural marker at all. Parts of the body are particularly susceptible to the / ∅ / plural marker, but not only these nouns are subject to this marking and not all body parts use the zero-marker: "intestines" / ðok lochin / + / ∅ / ⇒ [ðok lo± in] (the question of whether this is one phonological word or two is another sticky problem I will address in my final project). Typically, there are no phonological alternations associated with the zero plural marker. However, that is not exclusively the case. In some cases there are some phonological alternations that are similar to the changes that take place with the addition of the / -e / marker, but without the / -e /. So: "tongue" undergoes the same glide-obstruent alternation as "flower" noted above: / lew / + / ∅ / ⇒ [lep]; also seen are loss of singular-final vowels in "hen" as seen in "window": / gweno/ + / ∅ / ⇒ [gwen]. The relationship of the sound changes seen in these forms to the sound changes seen in the e-marked forms are still to be determined. Are the behaviours common historically? Or is the behaviour related to classes or some other phonological or morphological behaviour? Perhaps some of these forms are doubly marked for plurality (at least historically), as though it were analogous to English "feets", particularly those e-marked forms noted above that undergo vowel-loss and devoicing in the plural.

I should note here that context plural marking with null can be done in many cases, it seems, with the use of the possessive pronouns. Plural pronoun suffixes may contextually mark a noun as plural without any additional overt marking. For nouns that may take overt marking, this may also be done in addition to the pronoun marker to clarify, but this is by no means required. So [ðodwa] may indicate "our door" (our one door that we share) or "our doors" (the door(s) that each of us has separately), and the precise meaning may be determined contexually or be left necessarily vague. On the other hand, [ðodewa] would be only the second case.

One apparently "regular" morphological alternation is seen with the nouns forms with the agentive prefix / ja- /. Nouns formed with this prefix, form their plurals with an alternative of the agentive prefix itself, rather than by adding a suffix: "servant" /ja-/ + / tich / + /plural/ ⇒ [jotich]. This seems to be true of all noun forms with this prefix. One question that remains is: if there are other nominalizing prefixes, do the prefixes themselves also undergo alternations to mark plurality or are there forms with mixed marking?

A fourth form of overt plural marking are some irregular cases. These forms are difficult to explain without more investigation. Some are surely the result of borrowing from neighboring languages such as Swahili. Some are probably irregular forms native to the language, however. How these forms arose would be an interesting question to study. If phonological regularity exists in these forms, much more data would be required to even begin to suggest answers. Some examples: "cat" / baka / + /plural/ ⇒ [pekni]; "tree" / iæ¸ / + /plural/ ⇒ [iien]. Irregular "plurals" also come in the suppletive variety: "man/people" / ðano / + /plural/ ⇒ [ji].

Luo plural formation has large areas of regularity, but also many small phonological irregularities that make the system rather difficult. One possible explanation might be the existence of noun classes, but broad, inclusive classes are not immediately apparent, and teasing out these classes, if indeed they exist, would require more data. The overlapping character of the zero-marked plurals and the e-marked plurals suggest some underlying connection, and the devoicing behaviour suggests that these devoiced consonants may have once been final in all the forms. This would mean that the forms that currently do not undergo the devoicing were not final

and belie their historical connection. Working on this problem from the standpoint of internal reconstruction would be an interesting challenge. And I can only stress again that the paucity of data available to me makes any effort at this time difficult at best. More examples of the alternations described might help tease out if there are any other triggers to the phonological alternations taking place. And more knowledge of related languages and languages that Luo has had contact with, would also help extract native data from recent borrowings and give some clue as to how the irregular alternations arose. Much more needs to be done.