

Ethiopic Numeral Names

By Dr. Aberra Molla

አብቸደገፍ፣ገሀጸጸክሉመኖኛ፣ፕቀረሰተጠሸወጠየዘጳ...

- ፬ ፣ አልቦ ፣ (0) Albo
- ፭ ፣ አሐዱ ፣ (1) Ahadu
- ፮ ፣ ክልዔቱ ፣ (2) Klietu
- ፯ ፣ ሠልስቱ ፣ (3) Selstu
- ፱ ፣ አርባዕቱ ፣ (4) Arbaetu
- ፳ ፣ ኃምስቱ ፣ (5) Hamstu
- ፶ ፣ ሥለስቱ ፣ (6) Slestu
- ፷ ፣ ሠባቱ ፣ (7) Sebatsu
- ፸ ፣ ሠመንቱ ፣ (8) Sementu
- ፿ ፣ ተሥዓቱ ፣ (9) Tesiatu

Old Ethiopic Digits

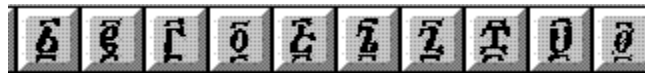
- ፲ ፣ ዓሠርቱ ፣ (10) Asertu
- ፳ ፣ ዕሥራ ፣ (20) Esra
- ፴ ፣ ሠላሳ ፣ (30) Selasa
- ፵ ፣ አርብዓ ፣ (40) Arbea
- ፶ ፣ ሃምሳ ፣ (50) Hamsa
- ፷ ፣ ስሳ ፣ (60) Sisa
- ፸ ፣ ሰብዓ ፣ (70) Sebea
- ፹ ፣ ሠማንያ ፣ (80) Semanya
- ፿ ፣ ተስኖ ፣ (90) Tesea
- ፻ ፣ ምዕት ፣ (100) Miet
- ፻፱ ፣ እልፍ ፣ (10,000) Elf

Ethiopic Numeral Names

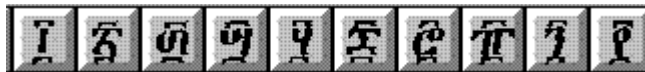
Ethiopic is one of the ancient alphabets that did not have the zero (0) number. I have modified the shape of the Arabic (Latin) zero to a novel Ethiopic zero and added the new character to our

standard Ethiopic sets since 1987. Like all the Geez numbers, the digit has two horizontal strokes. Digitizing the Geez was not a problem considering the limited pixels that were available for displaying the Ethiopic alphanumeric characters on the computer screen adapters. (It was the figure eight that was difficult to fit as the number of pixels was reduced.)

The Ethiopic zero numerals were mapped to the zero positions or ASCII 048 in ModEth and EthioWord and were added for their mathematical uses and to make the sets complete. Their positions in the GeezEdit fonts have continued to be arbitrary, mainly because priority was given to the Arabic numerals and due to lack of interest in using the Ethiopic zeros. The Ethiopic character sets include the Arabic numerals that I have always also left in their ASCII positions in all our software. In the EthioWord and GeezEdit programs, these numbers are typed with one keystroke per digit.



The gif above is that of Geez digits 1, 2, 3, 4, 5, 6, 7, 8, 9 and 0. The gif below is that of Geez numerals 10, 20, 30, 40, 50, 60, 70, 80, 90 and 100.



Ten thousand has its own number and a hundred million is represented by two of them (፳፻፲፱).



Ethiopia has the word, ገዢ, but not the symbol for infinity. However, I was reluctant to modify the infinity since Geez could use the Latin symbol, though the option is available for it and others.

The Ethiopic numeral names above are the actual Geez names of the numbers in the ancient Geez language. *Albo* is my addition of an [Amharic](#) word. Unlike the Egyptian and Greek independent numerals for 200, 300, etc., Ethiopic has only the 10⁴ solitary character for numbers above one hundred, while the older [Abege](#) is a numeric alphabet. It is possible that the absence of zero necessitated the creation of different sets of numbers above nine in ancient character sets. The difficulty of accepting zero, a number that did not represent something to count, by past civilizations, is understandable. The absence of zero might have also made it difficult to comprehend negative numbers. A millennium has passed since Indians created the zero decimal system. For four centuries many have recognized and accepted zero. It also seems that Ethiopians have adopted the Latin numerals while hanging onto the old numbers. The longevity of the Geez numerals may also have been because their major problem is still the absence of zero, if we compare them with others like the Roman numerals, acrophonic Greek and Babylonian cuneiforms. The Amharic typewriter has only the Arabic numerals and the exclusion of the Ethiopic numbers may have been because of the lack of Geez zero and the subsequent mechanical difficulties to include twenty zeroless digits. I recently came across a reference where Aleqa Kidane Wold Kifle proposed the use of Ethiopic number ten as zero, though he had the Arabic and the twenty Ethiopic numbers in the proposed [keyboard](#).

Character spaces and mechanical problems are no more excuses for missing Geez zero in the computer age. Neither is zero the only novelty I added to the sets. There is nothing wrong with the Ethiopic digits one to nine though some could use improvement. (For instance, the lower bars could be removed to reduce strokes in handwriting.) But, Ethiopic zero (፳) should be utilized to avoid confusion and to correct ancient mistakes involving the extra eleven Ethiopic numbers. This

does not necessarily mean the elimination of the zillions of the Ethiopic old figures above nine and below minus nine that could be displaced by the efficiency of the Geez zero. However, I would rather see these symbolic numbers avoided if they continue to stand in the way of the Geez zero. The new zero empowers the Geez with a complete set of base 10 digits. Thus, 2001 would be typed as ፳፻፳፩ with the new zero from within a set just like the Arabic with four digits, instead of ፳፻፳ (twenty hundreds and one) using three numbers from two fonts. The Geez ፳፻፳ may appear as 201 on the Net to those who do not have our fonts because of the fact that the old Geez numbers are not positional and the character maps of the Ethiopic 20 and 100 are the same with those of 2 and 0 respectively. The current Ethiopian calendar year ፲፱፻፺፫ (1993) appears as 19093 to those without the fonts. The old ፲፩ or ten and one for eleven could be written as ፩፩ or two 1's, eliminating discrepancies between those who have and do not have the fonts on their computers. It is also difficult to calculate with a number system without zero.

If Ethiopic users ignore the *albo*, all the Geez counters may continue to lose for the wrong reasons. For instance, the Ethiopic numerals are letters, rather than numbers in the [GeezEdit](#) fonts and the Amharic zero is in Alt 095 position in our 1994 [free](#) font. This is because the standard positions were given to the Arabic numerals. On the other hand, in the ModEth and [EthioWord](#) fonts, the Ethiopic zeros and the other nine digits are mapped to the same, but secondary positions, and can be used with or instead of the Arabic numerals in the default positions. Considering that I made the Ethiopic zero available and continue to advocate its inclusion, its absence in the new proposed Ethiopic Unicode standard should not be acceptable.

References

Arsham H., [The Zero Saga](#)

O'Conner, J.J. and Roberts E.F., [History Topics Index](#)

ሰዋሰወ ግእዝ (Amharic መጽሐፍ) አሳታሚ:- ትንግሜ ማሳተሚያ ድርጅት፣
አዲስ አበባ፣ ፲፱፻፹፯ ዓ.ም.

URL of this site is:

<http://www.ethiopic.com/ethiopic/numerals.htm>

4/10/2001

<http://www.ethiopic.com/ethiopic/numerals.pdf>

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[ስመ አጋዝ](#)



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