## Unicode Technical Note \#21: Tamil Numbers <br> Michael Kaplan

Originally, Tamils did not use zero, nor did they use positional digits (having separate symbols for the numbers 10, 100 and 1000). Symbols for the numbers are similar to other Tamil letters, with some minor changes.

For example, the number 3782 is not written as Ћஎஅஉ as in modern usage. Instead it is written as $\boldsymbol{\hbar}$ கத $\boldsymbol{\pi}$ กा $\boldsymbol{\omega}$ உ. This would be read as they are written as Three Thousands, Seven Hundreds, Eight Tens, Two; or in Tamil as மூன்று-ஆயிரத்து-எழு-நூற்று-எண்-பத்து-இரண்டு. [1]

Reference [1] uses Tamil numerals for Chapter numbers. This usage is based on modern practice, using both positional digits and zero.

Reference [2] gives a list of numerals in the ancient format, with some equivalents in modern format, some in Arabic numerals, and a few in words. The list is reproduced below with Arabic equivalents, and a few modern word equivalents.

க = 1
உ $=2$
$\mathfrak{l} / 2=3$
ச $=4$
(I) $=5$

க几 $=6$
எ $=7$
அ $=8$
கூ = 9
$\omega=10$
$\omega$ = 11
$\omega$ Н = 12
$\omega{ }_{W}=13$
$\omega$ Н゙ $=14$

$$
\begin{aligned}
& \omega \text { I }=15 \\
& \omega \mathrm{\omega}_{2}=16 \\
& \omega \sigma=17 \\
& \omega \text { Н = } 18 \\
& \omega \text { Нூ = } 19 \\
& உ \omega=20 \\
& \mathrm{nT}=100 \\
& \text { உ } \pi T=200
\end{aligned}
$$

$$
\begin{aligned}
& \text { ாருமகூ = } 156 \\
& \text { ठத }=1000 \\
& \text { தூக }=1001 \\
& \text { தூச' } \omega=1040 \\
& \text { அசெ }=8000 \\
& \omega \text { Нத }=10,000 \\
& \text { எ } \omega \text { தg }=70,000 \\
& \text { கூமகத = 90,000 } \\
& \text { חाகத = 100,000 (lakh) } \\
& \text { அாाகத = 800,000 } \\
& \text { जగाகத = 1,000,000 (10 lakhs) } \\
& \text { கூ由ாாகத = 9,000,000 } \\
& \text { пாாகத }=10,000,000 \text { (crore) } \\
& \text { जாாாகத = 100,000,000 (10 crore) } \\
& \text { आாாாாதத }=1,000,000,000 \text { (100 crore) } \\
& \text { கதாாாகத }=10,000,000,000 \text { (thousand crore) } \\
& \text { जகதாாாகத }=100,000,000,000 \text { (10 thousand crore) } \\
& \text { आகதளாாகத }=1,000,000,000,000 \text { (lakh crore) } \\
& \text { пாாகதாாாகத }=100,000,000,000,000 \text { (crore crore) }
\end{aligned}
$$

[1] mozi varalARu, by munucAmi varatarAcan, published by The South India Saiva Siddhanta Works Publishing Society, Tinnevelly, Limited, November 1954, p. 357-358 (page numbers from 14th Edition, December 1996).
[2] iniya tamiz ilakkaNam by yokisri cuttAnan~ta pAratiyAr, published by Kavitha Publications, p. 201-204. Scanned source from URL:
http://www.geocities.com/Athens/5180/numeral.html

