To: UTC  
From: Deborah Anderson, SEI, UC Berkeley  
Subject: Anatolian RA or RI  
Date: 8 May 2013

0. Background  
At the January 2013 UTC meeting, the following action item (134-A42) was assigned to myself and Michael Everson:

Examine the Anatolian Hieroglyphs sign list in L2/12-213 for any other possible signs making use of the combining ra/ri.

The action item was created in the context of discussion about canonical decompositions for three Anatolian hieroglyphs, which were included in the Anatolian Hieroglyphs proposal (U+144F0 ANATOLIAN HIEROGLYPH A209A, U+145B9 ANATOLIAN HIEROGLYPH A389 and U+145F8 ANATOLIAN HIEROGLYPH A450a).

In the ballot comments on the CD, document WG2 N4398, Ireland proposed four additional decompositions, 144A0 ANATOLIAN HIEROGLYPH A134, 14546 ANATOLIAN HIEROGLYPH A290, 14562 ANATOLIAN HIEROGLYPH A315, and 145A4 ANATOLIAN HIEROGLYPH A371A.

1. Comments on this List  
The list below includes characters showing possible signs which contain a stroke that could contain RA/RI. Note the long list of characters at that have no established value as yet, particularly at the end of the list.

The combining character RA/RI can be attached on the side, as in Figure 2 of the proposal:

or, as in Figure 7, on the left (reversed because it is read R to L).

RA/RI can become part of the body of the base character, as in the case of U + RA/RI

shown in Figure 6:

The mark can also be attached below, as in Figure 7 for tú + ra/ri:

This list has not been run by experts, but contains characters whose glyphs contained a small horizontal or vertical stroke, including strokes that appear as an integral part of the character. It also includes characters which have been identified as an object (such as an ax), just to provide a full list.
A few of the glyphs have a small vertical stroke that has been identified in the annotation as being the “MINUS” character.

The names list entry for 145AE MINUS is:

145AE  ANATOLIAN HIEROGLYPH A381
       = minus

“Minus” appears in the following annotations (and appear in section 2, below):

1444 ANATOLIAN HIEROGLYPH A062
       = longus, manus+minus?

1451 ANATOLIAN HIEROGLYPH A245
       = vacuus, aedificium+minus

1451 ANATOLIAN HIEROGLYPH A248
       = delere, domus+minus

145AF ANATOLIAN HIEROGLYPH A381A
       = mori, vir2.minus

The “MINUS” vertical bar tends to reinforce the case that a small vertical bar on a character could have a different interpretation from RA or RI.

2. LIST OF CHARACTERS WITH STROKE
* indicates this character is included with canonical decomposition in the proposal (WG2 N4282)
** indicates this character is included as part of ballot comments on the CD, WG2 N4398

1440E ANATOLIAN HIEROGLYPH A014
       = prae
       = logosyllabic pari

14413 ANATOLIAN HIEROGLYPH A019
       = syllabic á
14416  ANATOLIAN HIEROGLYPH A022
= loqui

1441E  ANATOLIAN HIEROGLYPH A029
= syllabic tá

14429  ANATOLIAN HIEROGLYPH A039A
= pugnus+x

(Cf. 14428  ANATOLIAN HIEROGLYPH A039
= pugnus)

14435  ANATOLIAN HIEROGLYPH A047

1443E  ANATOLIAN HIEROGLYPH A056
= syllabic ká
→1443F  anatolian hieroglyph a057

1443F  ANATOLIAN HIEROGLYPH A057
= infra, sub
= syllabic ká

14440  ANATOLIAN HIEROGLYPH A058
= cum

14444  ANATOLIAN HIEROGLYPH A062
= longus, manus+minus?

1444C ANATOLIAN HIEROGLYPH A067

1444D ANATOLIAN HIEROGLYPH A068
→14444  anatolian hieroglyph a062

3
1444F  ANATOLIAN HIEROGLYPH A070
= super
= logosyllabic sara/i

14450  ANATOLIAN HIEROGLYPH A071

14456  ANATOLIAN HIEROGLYPH A077

1445A ANATOLIAN HIEROGLYPH A081
= Sarma2

14496  ANATOLIAN HIEROGLYPH A125
= syllabic lí

14498  ANATOLIAN HIEROGLYPH A126
→14496  anatolian hieroglyph a125

**144A0 ANATOLIAN HIEROGLYPH A134
= syllabic ara/i
→1449F  anatolian hieroglyph a133

144A8 ANATOLIAN HIEROGLYPH A141

144AB  ANATOLIAN HIEROGLYPH A144

144AE  ANATOLIAN HIEROGLYPH A147

144B8  ANATOLIAN HIEROGLYPH A157
→144BB  anatolian hieroglyph a160
→144EF  anatolian hieroglyph a209
→14599  anatolian hieroglyph a363
144BA  ANATOLIAN HIEROGLYPH A159

144BB  ANATOLIAN HIEROGLYPH A160
= vitis
= syllabic wi(ya)

144BC  ANATOLIAN HIEROGLYPH A161

144C3  ANATOLIAN HIEROGLYPH A168
→14570  anatolian hieroglyph a329

144C4  ANATOLIAN HIEROGLYPH A169
→145B0  anatolian hieroglyph a382

144C5  ANATOLIAN HIEROGLYPH A170
→14452  anatolian hieroglyph a073

144C6  ANATOLIAN HIEROGLYPH A171

144CC  ANATOLIAN HIEROGLYPH A177
= lingua+clavus

144CD ANATOLIAN HIEROGLYPH A178
= syllabic la+ra+a
[Note: Per Craig Melchert, the "a" part of the sign is the two little strokes at the bottom. The RA/RI element is the diagonal mark attached to the two little strokes.]

144E0 ANATOLIAN HIEROGLYPH A197
= Hatti+li, Hattusili
= logosyllabic há-li
144EE  ANATOLIAN HIEROGLYPH A208

144F0  ANATOLIAN HIEROGLYPH A209A
= syllabic i+ra/i, ri+i

144F4  ANATOLIAN HIEROGLYPH A213
→ 144F3  anatolian hieroglyph a212

144F5  ANATOLIAN HIEROGLYPH A214
= syllabic ní

14504  ANATOLIAN HIEROGLYPH A227
= urbs+ra/i?+li, urbs+ra/i?-li
[Note: There is a version with a little ra/i tab below urbs (see p. 52 Marazzi 1998).]

14517  ANATOLIAN HIEROGLYPH A245
= vacuus, aedificium+minus

(Cf. 14516  ANATOLIAN HIEROGLYPH A244
= aedificium)

1451A  ANATOLIAN HIEROGLYPH A248
= delere, domus+minus

(Cf. 14519  ANATOLIAN HIEROGLYPH A247
= domu)

1452F  ANATOLIAN HIEROGLYPH A268
= scalprum

1453B  ANATOLIAN HIEROGLYPH A280
= malleus
= syllabic wa/i9

1453C ANATOLIAN HIEROGLYPH A281
= ascia

1453D ANATOLIAN HIEROGLYPH A282

14546 ANATOLIAN HIEROGLYPH A290
= syllabic hara/i

14549 ANATOLIAN HIEROGLYPH A293

14555 ANATOLIAN HIEROGLYPH A303
= syllabic sara/i?
[Note: Per Craig Melchert, this one has been re-interpreted to be SA5 + RA/RI by Marazzi 1998 pp. 205-205]]

1455E ANATOLIAN HIEROGLYPH A311

14562 ANATOLIAN HIEROGLYPH A315
= syllabic kar

14563 ANATOLIAN HIEROGLYPH A316
= syllabic sa7

14564 ANATOLIAN HIEROGLYPH A317

14568 ANATOLIAN HIEROGLYPH A321
1456D ANATOLIAN HIEROGLYPH A326
= scriba
= syllabic tù

14570 ANATOLIAN HIEROGLYPH A329
= relative
= syllabic kwi/a

14571 ANATOLIAN HIEROGLYPH A329A
→14630 anatolian hieroglyph a508

14574 ANATOLIAN HIEROGLYPH A332A
= negative

14576 ANATOLIAN HIEROGLYPH A332C
= negative3

14584 ANATOLIAN HIEROGLYPH A343
= pithos

1458B ANATOLIAN HIEROGLYPH A350

14591 ANATOLIAN HIEROGLYPH A356

14592 ANATOLIAN HIEROGLYPH A357
14595  ANATOLIAN HIEROGLYPH A359A
→14517   anatolian hieroglyph a245

*Cf. 14594  ANATOLIAN HIEROGLYPH A359
→14593   anatolian hieroglyph a358

1459D  ANATOLIAN HIEROGLYPH A366
= omnis(+mi)

1459E  ANATOLIAN HIEROGLYPH A367
= logosyllabic tala

**145A4 ANATOLIAN HIEROGLYPH A371A
= iudex+ra/i, tara/i-x

145A9  ANATOLIAN HIEROGLYPH A376
= syllabic zi, zi/a

*145B9 ANATOLIAN HIEROGLYPH A389
= tara/i

145E1  ANATOLIAN HIEROGLYPH A428
(Cf. 145E0  ANATOLIAN HIEROGLYPH A427)

145E4  ANATOLIAN HIEROGLYPH A431
(Cf 145E3  ANATOLIAN HIEROGLYPH A430)

145E6  ANATOLIAN HIEROGLYPH A433
= syllabic sá
* 145F8 ANATOLIAN HIEROGLYPH A450A
= a+ra/i, ra+a

(Cf. 145F7 ANATOLIAN HIEROGLYPH A450)

145F9 ANATOLIAN HIEROGLYPH A451
= logosyllabic huru

145FD ANATOLIAN HIEROGLYPH A455
= syllabic la-x

14603 ANATOLIAN HIEROGLYPH A460

14606 ANATOLIAN HIEROGLYPH A463

1460F ANATOLIAN HIEROGLYPH A472

14615 ANATOLIAN HIEROGLYPH A478

14617 ANATOLIAN HIEROGLYPH A480

1461B ANATOLIAN HIEROGLYPH A484

14629 ANATOLIAN HIEROGLYPH A501

1462B ANATOLIAN HIEROGLYPH A503

1462C ANATOLIAN HIEROGLYPH A504
<table>
<thead>
<tr>
<th>ANATOLIAN HIEROGLYPH A505</th>
</tr>
</thead>
<tbody>
<tr>
<td>currere</td>
</tr>
<tr>
<td>syllabic hwi/a</td>
</tr>
<tr>
<td>ANATOLIAN HIEROGLYPH A513</td>
</tr>
<tr>
<td>ANATOLIAN HIEROGLYPH A514</td>
</tr>
<tr>
<td>ANATOLIAN HIEROGLYPH A515</td>
</tr>
<tr>
<td>ANATOLIAN HIEROGLYPH A520</td>
</tr>
<tr>
<td>ANATOLIAN HIEROGLYPH A521</td>
</tr>
<tr>
<td>ANATOLIAN HIEROGLYPH A522</td>
</tr>
</tbody>
</table>