ISO/IEC JTC1/SC2/WG2 N4179
L2/12-024
**2012-01-27**

Universal Multiple-Octet Coded Character Set
International Organization for Standardization
Organisation Internationale de Normalisation
Международная организация по стандартизации

**Doc Type:** **Working Group Document**
**Title:** **Preliminary proposal for Early Dynastic Cuneiform**
**Source:** **UC Berkeley Script Encoding Initiative (Universal Scripts Project)**
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**Status:** **Liaison Contribution**
**Date:** **2012-01-27**

This is a preliminary proposal for encoding Early Dynastic Cuneiform. It is a work in progress and additional characters are expected to be added. In the code charts a number of characters are given with a single wedge glyph; this is a place-holder glyph pending further font design.

**1. Introduction.** For an overview of cuneiform writing diachronically, see the previous Sumero-Akkadian Unicode proposal, N2786.

During the Early Dynastic (2900–2335 BCE) period of cuneiform writing, the writing system evidences a higher degree of rebus principles from its more pictographic nature in the archaic period. Presumably also during this time, the script orientation was shifted ninety degrees, mainly due to the types of tablets and scribal writing practices. Moreover, the repertoire of signs diminished from its greatest extent in the archaic period of some 1200 signs to perhaps 800 different signs. The writing of this period is attested primarily from two sites, Fāra and Tell Abū-Ṣalābīkh, both in the southern part of modern Iraq. The texts from this period include administrative, legal, lexical, and literary texts. The literary texts provide the first-known evidence of connected discourse in the region (archaic Sumerian being largely notational). However, understanding of the texts from this period remains obscure due largely to the non-linear ordering of signs (robbing the scholar of contextual clues), minimal morphological marking, and the lack of translation into a better-known language (such as in later periods of cuneiform). The lexical texts (comprising lists of both signs and words) are largely responsible for the proliferation of signs in this proposal. Many signs found in these lists do not appear in other contexts. The lists of signs, for example, exercise the writing of various complex signs; thus, these signs appear exclusively in that text.

**2. Character set.** The proposed glyphs have been compiled primarily from the modern Assyriological sign list of the Early Dynastic period, *Liste der archaischen Keilschriftzeichen aus Fara* (henceforth *LAK*), in conjunction with the Oracc Global Sign List (www.oracc.org/ogsl). Every sign in *LAK* was carefully considered and collated by available photographs (provided by the Cuneiform Digital Library Initiative www.cdli.ucla.edu) and hand copies. If the sign was determined to have been incorporated in the original Sumero-Akkadian Unicode proposal, N2786, it was not included in this proposal. Also not included are glyphs given in *LAK* which do not derive from the Early Dynastic period, but rather only from later periods such as Ur III or Old Babylonian. Moreover, numerals have been omitted due to the complexity of numeral signs from this period. An expert in the metrology of this period must be consulted before these can be properly included. Decisions regarding the understanding of the proposed glyphs have been made on an individual

basis, incorporating the most recent published discussions of signs from this period, including the major scholarly reappraisal (Manfred Krebernik, *Orbis Biblicus et Orientalis* vol. 160/1) and assertions made of individual glyphs within scholarly publications (e.g. Miguel Civil, *Archivi Reali di Ebla Studi* vol 4). Additionally, glyphs discovered in two publications since *LAK*, Robert D. Biggs *Oriental Institute Publications* vol. 99 and Miguel Civil *Cornell University Studies in Assyriology and Sumerology* vol. 12, have been incorporated.

The conventions in the earlier cuneiform proposal regarding mergers and splits (§3.3) are followed here. Where there is ambiguity or too much scholarly dissension regarding the relationship of two or more signs, both signs are included. This principle of maximal differentiation is notable for two sign groups, cuneiform sign LAK617, cuneiform sign GISHGAL, and complex signs which use these as their primary. It was determined that the sign LAK617 needed to be differentiated from EZEN (x120A1 and its derivatives). Similarly, the sign GISHGAL has been differentiated from URU (x12337 and its derivatives).

The order provided here is alphabetical, following the convention in the earlier cuneiform proposal (§3.9). Where the transliteration is unknown, the sign has been given a name based on its number in *LAK*, the convention followed in Assyriological works.

**3. Unicode Character Properties.** Character properties are proposed here.

TBD

**4. Bibliography.**


CUSAS 12 — M. Civil 2010 *The Lexical Texts in the Schøyen Collection*. Cornell University Studies in Assyriology and Sumeriology 12. Bethesda, MD. CDL Press

DP — M. F. Allotte de la Fuÿe 1908 *Documents présargoniques*. Paris. Ernest Leroux

HSS 3 — M. I. Hussey 1912 *Sumerian tablets in the Harvard Semitic Museum*. Parts I and II. Cambridge, MA. Harvard University Press

ITT — F. Thureau-Dangin 1910-1912 *Inventaire des tablettes de Tello*

LAK — A. Deimel 1922 *Liste der archaischen Keilschriftzeichen von Fara*. Wissenschaftliche Veröffentlichung der Deutschen Orient- Gesellschaft 40

Nik — M. V. Nikol'skij 1908-1915 *Drevnosti Vostocnyja*. St. Petersburg.

OIP 99 — R. D. Biggs 1974 *Inscriptions from Tell Abū Ṣalābīkh*. Oriental Institute Publications 99. Chicago. University of Chicago Press

SF — A. Deimel 1923 *Schultexte aus Fara*. Wissenschaftliche Veröffentlichung der Deutschen Orient-Gesellschaft 43

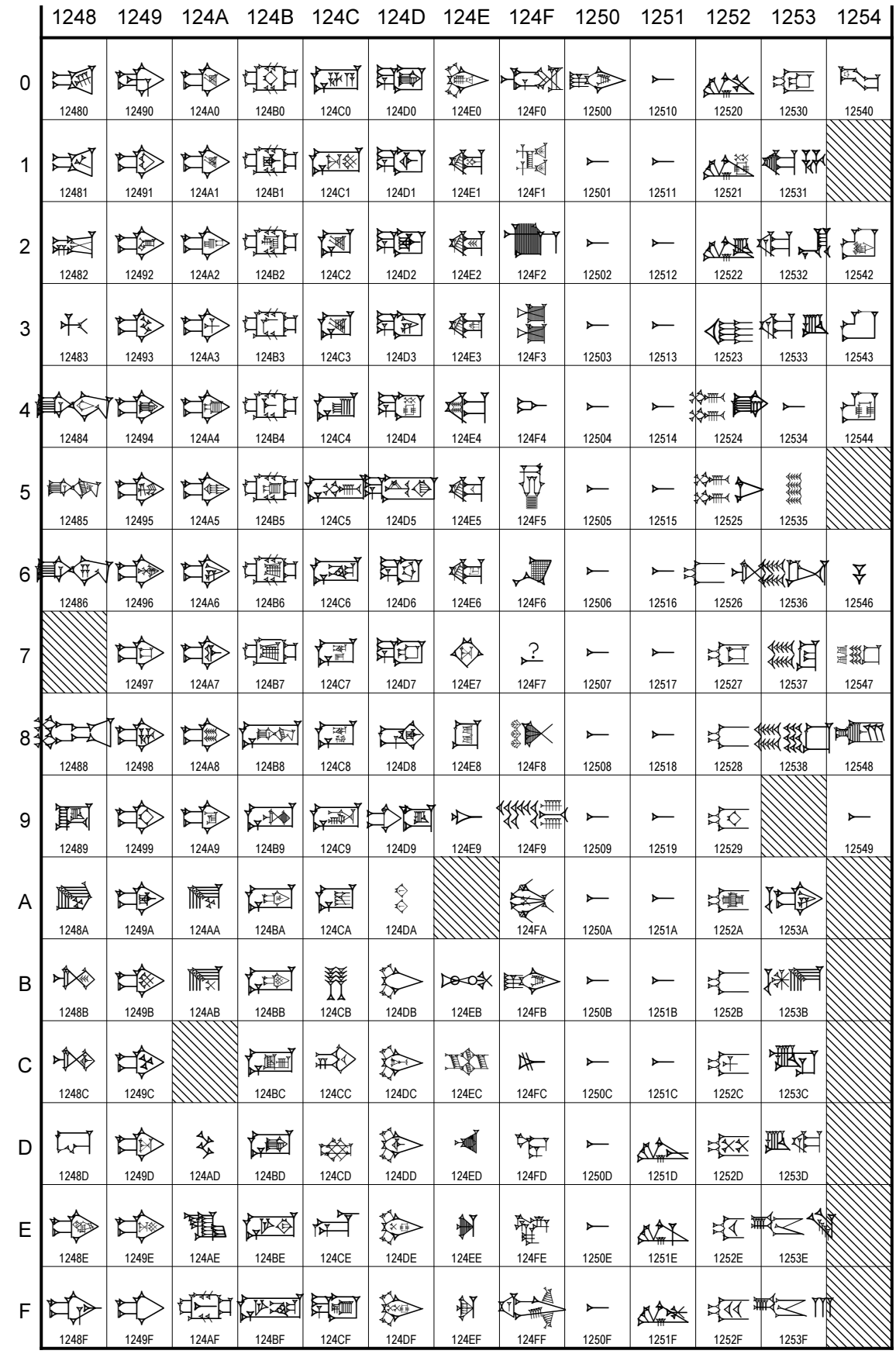
TSS — R. Jestin 1937 *Tablettes sumériennes de Shuruppak conserves au Musée de Stamboul*. Paris

WF — A. Deimel 1924 *Wirtschaftstexte aus Fara*. Wissenschaftliche Veröffentlichung der Deutschen Orient-Gesellschaft 44

YOS 1 — A. Clay 1915 *Miscellaneous Inscriptions in the Yale Babylonian Collection,* Part I. Yale Oriental Series I. New Haven



**5. Acknowledgements.** This project was made possible in part by a grant from the U.S. National Endowment for the Humanities, which funded the Universal Scripts Project (part of the Script Encoding Initiative at UC Berkeley) in respect of the Cuneiform encoding. Any views, findings, conclusions or recommendations expressed in this publication do not necessarily reflect those of the National Endowment for the Humanities.


1248 1249 124A 124B 124C 124D 124E 124F 1250 1251 1252 1253 1254
0 12480 12490 124A0 124B0 124C0 124D0 124E0 124F0 12500 12510 12520 12530 12540
1 12481 12491 124A1 124B1 124C1 124D1 124E1 124F1 12501 12511 12521 12531
2 12482 12492 124A2 124B2 124C2 124D2 124E2 124F2 12502 12512 12522 12532 12542
3 12483 12493 124A3 124B3 124C3 124D3 124E3 124F3 12503 12513 12523 12533 12543
4 12484 12494 124A4 124B4 124C4 124D4 124E4 124F4 12504 12514 12524 12534 12544
5 12485 12495 124A5 124B5 124C5 124D5 124E5 124F5 12505 12515 12525 12535
6 12486 12496 124A6 124B6 124C6 124D6 124E6 124F6 12506 12516 12526 12536 12546
7 12497 124A7 124B7 124C7 124D7 124E7 124F7 12507 12517 12527 12537 12547
8 12488 12498 124A8 124B8 124C8 124D8 124E8 124F8 12508 12518 12528 12538 12548
9 12489 12499 124A9 124B9 124C9 124D9 124E9 124F9 12509 12519 12529 12549
A 1248A 1249A 124AA 124BA 124CA 124DA 124FA 1250A 1251A 1252A 1253A
B 1248B 1249B 124AB 124BB 124CB 124DB 124EB 124FB 1250B 1251B 1252B 1253B
C 1248C 1249C 124BC 124CC 124DC 124EC 124FC 1250C 1251C 1252C 1253C
D 1248D 1249D 124AD 124BD 124CD 124DD 124ED 124FD 1250D 1251D 1252D 1253D
E 1248E 1249E 124AE 124BE 124CE 124DE 124EE 124FE 1250E 1251E 1252E 1253E
F 1248F 1249F 124AF 124BF 124CF 124DF 124EF 124FF 1250F 1251F 1252F 1253F

## Signs

12480 CUNEIFORM SIGN AB TIMES ASH2 TENU
= lak-541
12481 CUNEIFORM SIGN AB TIMES SHU2
= lak-542
12482 CUNEIFORM SIGN AD TIMES ESH2
12483 CUNEIFORM SIGN BAD TIMES DISH TENU
= lak-045
12484 CUNEIFORM SIGN BAHAR2 TIMES AB2
= lak-743
12485 CUNEIFORM SIGN BAHAR2 TIMES NI
= lak-745
12486 CUNEIFORM SIGN BAHAR2 TIMES ZA
= lak-746
12487 <reserved>
12488 CUNEIFORM SIGN BU OVER BU TIMES NA2
12489 CUNEIFORM SIGN DA TIMES TAK4
= lak-145
1248A CUNEIFORM SIGN DAG TIMES KUR
= lak-741
1248B CUNEIFORM SIGN DIM TIMES U U U
1248C CUNEIFORM SIGN DIM TIMES IGI
= lak-054
1248D CUNEIFORM SIGN DIM2 TIMES UD
1248E CUNEIFORM SIGN DUG TIMES ANSHE
= lak-583
1248F CUNEIFORM SIGN DUG TIMES ASH
= lak-562
12490 CUNEIFORM SIGN DUG TIMES ASH AT LEFT
= lak-561
12491 CUNEIFORM SIGN DUG TIMES DIN
= lak-585
12492 CUNEIFORM SIGN DUG TIMES DUN
= lak-582
12493 CUNEIFORM SIGN DUG TIMES ERIN2
= lak-580
12494 CUNEIFORM SIGN DUG TIMES GA
= lak-573
12495 CUNEIFORM SIGN DUG TIMES GI
= lak-571
12496 CUNEIFORM SIGN DUG TIMES GIR2 GUNU
= lak-569
12497 CUNEIFORM SIGN DUG TIMES GISH
= lak-578
12498 CUNEIFORM SIGN DUG TIMES HA
= lak-581
12499 CUNEIFORM SIGN DUG TIMES HI
= lak-584
1249A CUNEIFORM SIGN DUG TIMES IGI GUNU
= lak-586
1249B CUNEIFORM SIGN DUG TIMES KASKAL
= lak-566
1249C CUNEIFORM SIGN DUG TIMES KUR
= lak-577
1249D CUNEIFORM SIGN DUG TIMES KUSHU2
1249E CUNEIFORM SIGN DUG TIMES KUSHU2 PLUS KASKAL
= lak-568
1249F CUNEIFORM SIGN DUG TIMES LAK-020
= lak-564
124A0 CUNEIFORM SIGN DUG TIMES LAM
= lak-576
124A1 CUNEIFORM SIGN DUG TIMES LAM TIMES KUR
= lak-575
124A2 CUNEIFORM SIGN DUG TIMES LUH PLUS GISH
= lak-565
124A3 CUNEIFORM SIGN DUG TIMES MASH
= lak-570
124A4 CUNEIFORM SIGN DUG TIMES MES
= lak-579
124A5 CUNEIFORM SIGN DUG TIMES MI
= lak-574
124A6 CUNEIFORM SIGN DUG TIMES NI
= lak-588
124A7 CUNEIFORM SIGN DUG TIMES PI
= lak-567
124A8 CUNEIFORM SIGN DUG TIMES SHE
= lak-563
124A9 CUNEIFORM SIGN DUG TIMES SI GUNU
= lak-572
124AA CUNEIFORM SIGN E2 TIMES KUR
= lak-738
124AB CUNEIFORM SIGN E2 TIMES PAP
= lak-736
124AC <reserved>
124AD CUNEIFORM SIGN ERIN2 X
124AE CUNEIFORM SIGN ESH2 CROSSING ESH2
= lak-278a
124AF CUNEIFORM SIGN EZEN SHESHIG TIMES ASH
124B0 CUNEIFORM SIGN EZEN SHESHIG TIMES HI
124B1 CUNEIFORM SIGN EZEN SHESHIG TIMES IGI GUNU
124B2 CUNEIFORM SIGN EZEN SHESHIG TIMES LA
124B3 CUNEIFORM SIGN EZEN SHESHIG TIMES LAL
124B4 CUNEIFORM SIGN EZEN SHESHIG TIMES ME
124B5 CUNEIFORM SIGN EZEN SHESHIG TIMES MES
124B6 CUNEIFORM SIGN EZEN SHESHIG TIMES SU
124B7 CUNEIFORM SIGN EZEN TIMES SU
124B8 CUNEIFORM SIGN GA2 TIMES BAHAR2
= lak-706
124B9 CUNEIFORM SIGN GA2 TIMES DIM GUNU
= lak-685
124BA CUNEIFORM SIGN GA2 TIMES DUG TIMES IGI GUNU
= lak-702
124BB CUNEIFORM SIGN GA2 TIMES DUG TIMES KASKAL
= lak-703
124BC CUNEIFORM SIGN GA2 TIMES EREN
124BD CUNEIFORM SIGN GA2 TIMES GA
= lak-684
124BE CUNEIFORM SIGN GA2 TIMES GAR PLUS DI
= lak-687
124BF CUNEIFORM SIGN GA2 TIMES GAR PLUS NE
= lak-690
124C0 CUNEIFORM SIGN GA2 TIMES HA PLUS A
= lak-694
124C1 CUNEIFORM SIGN GA2 TIMES KUSHU2 PLUS KASKAL
= lak-700
124C2 CUNEIFORM SIGN GA2 TIMES LAM
= lak-705
124C3 CUNEIFORM SIGN GA2 TIMES LAM TIMES KUR
= lak-704
124C4 CUNEIFORM SIGN GA2 TIMES LUH
= lak-707
124C5 CUNEIFORM SIGN GA2 TIMES MUSH
= lak-696
124C6 CUNEIFORM SIGN GA2 TIMES NE
= lak-688
124C7 CUNEIFORM SIGN GA2 TIMES NE PLUS E2
= lak-692
124C8 CUNEIFORM SIGN GA2 TIMES NE PLUS GI
= lak-689

124C9 CUNEIFORM SIGN GA2 TIMES SHIM
= lak-701
124CA CUNEIFORM SIGN GA2 TIMES ZIZ2
= lak-677
124CB CUNEIFORM SIGN GABA ROTATED NINETY DEGREES
124CC CUNEIFORM SIGN GESHTIN TIMES U
= lak-631
124CD CUNEIFORM SIGN GISH TIMES GISH CROSSING GISH
= lak-277
124CE CUNEIFORM SIGN GISHGAL
= lak-648
124CF CUNEIFORM SIGN GISHGAL TIMES DUB
= lak-717
124D0 CUNEIFORM SIGN GISHGAL TIMES GA
= lak-714
124D1 CUNEIFORM SIGN GISHGAL TIMES IGI
= lak-650
124D2 CUNEIFORM SIGN GISHGAL TIMES IGI GUNU
= lak-651
124D3 CUNEIFORM SIGN GISHGAL TIMES NI
= lak-715
124D4 CUNEIFORM SIGN GISHGAL TIMES PAP PLUS PAP PLUS LU3
= lak-720
124D5 CUNEIFORM SIGN GISHGAL TIMES SHESH PLUS KI
= lak-719
124D6 CUNEIFORM SIGN GISHGAL TIMES UD
= lak-718
124D7 CUNEIFORM SIGN GISHGAL TIMES URUDA
= lak-716
124D8 CUNEIFORM SIGN GU2 TIMES IGI GUNU
= lak-547
124D9 CUNEIFORM SIGN GUD PLUS GISH TIMES TAK4
= lak-590
124DA CUNEIFORM SIGN HI TIMES ASH OVER HI TIMES ASH
= lak-362
124DB CUNEIFORM SIGN HUBUR
= lak-449
124DC CUNEIFORM SIGN HUBUR TIMES GU
= lak-455a
124DD CUNEIFORM SIGN HUBUR TIMES IGI
= lak-455
124DE CUNEIFORM SIGN HUBUR TIMES PAP PLUS LU3
= lak-454
124DF CUNEIFORM SIGN HUBUR TIMES PAP PLUS PAP PLUS LU3
= lak-453
124E0 CUNEIFORM SIGN HUBUR TIMES U2 PLUS BA
= lak-452
124E1 CUNEIFORM SIGN KA TIMES BU
124E2 CUNEIFORM SIGN KA TIMES U U U
= lak-328
124E3 CUNEIFORM SIGN KA TIMES KA
124E4 CUNEIFORM SIGN SANG TIMES SHE AT LEFT
124E5 CUNEIFORM SIGN KA TIMES U
= lak-319
124E6 CUNEIFORM SIGN KA TIMES UR
124E7 CUNEIFORM SIGN KUSHU2 TIMES SAL
= lak-446
124E8 CUNEIFORM SIGN LAGAB TIMES ZU OVER ZU
= lak-788
124E9 CUNEIFORM SIGN LAK-003
= lak-003
124EA <reserved>
124EB CUNEIFORM SIGN LAK-021
= lak-021
124EC CUNEIFORM SIGN LAK-025
= lak-025
124ED CUNEIFORM SIGN LAK-030
= lak-030
124EE CUNEIFORM SIGN LAK-050
= lak-050
124EF CUNEIFORM SIGN LAK-051
= lak-051
124F0 CUNEIFORM SIGN LAK-062
= lak-062
124F1 CUNEIFORM SIGN LAK-079 OVER LAK-079 GUNU
= lak-079a
124F2 CUNEIFORM SIGN LAK-080
= lak-080
124F3 CUNEIFORM SIGN LAK-081 OVER LAK-081
= lak-081a
124F4 CUNEIFORM SIGN LAK-092
= lak-092
124F5 CUNEIFORM SIGN LAK-130
= lak-130
124F6 CUNEIFORM SIGN LAK-142
124F7 CUNEIFORM SIGN LAK-210
= lak-210
124F8 CUNEIFORM SIGN LAK-219
= lak-219
124F9 CUNEIFORM SIGN LAK-220
= lak-220
124FA CUNEIFORM SIGN LAK-225
= lak-225
124FB CUNEIFORM SIGN LAK-228
= lak-228
124FC CUNEIFORM SIGN LAK-238
= lak-238
124FD CUNEIFORM SIGN LAK-265
= lak-265
124FE CUNEIFORM SIGN LAK-266
= lak-266
124FF CUNEIFORM SIGN LAK-343
= lak-343
12500 CUNEIFORM SIGN LAK-347
= lak-347
12501 CUNEIFORM SIGN LAK-348
= lak-348
12502 CUNEIFORM SIGN LAK-383
= lak-383
12503 CUNEIFORM SIGN LAK-384
= lak-384
12504 CUNEIFORM SIGN LAK-390
= lak-390
12505 CUNEIFORM SIGN LAK-441
= lak-441
12506 CUNEIFORM SIGN LAK-450
= lak-450
12507 CUNEIFORM SIGN LAK-457
= lak-457
12508 CUNEIFORM SIGN LAK-470
= lak-470
12509 CUNEIFORM SIGN LAK-483
= lak-483
1250A CUNEIFORM SIGN LAK-490
= lak-490
1250B CUNEIFORM SIGN LAK-492
= lak-492

1250C CUNEIFORM SIGN LAK-493
= lak-493
1250D CUNEIFORM SIGN LAK-495
= lak-495
1250E CUNEIFORM SIGN LAK-550
= lak-550
1250F CUNEIFORM SIGN LAK-608
= lak-608
12510 CUNEIFORM SIGN LAK-617 TIMES ASH
= lak-618
12511 CUNEIFORM SIGN LAK-617 TIMES BAD
= lak-619
12512 CUNEIFORM SIGN LAK-617 TIMES KU3
= lak-620
12513 CUNEIFORM SIGN LAK-617 TIMES LA
= lak-621
12514 CUNEIFORM SIGN LAK-617 TIMES MIR
= lak-622
12515 CUNEIFORM SIGN LAK-617 TIMES TAR
= lak-626
12516 CUNEIFORM SIGN LAK-617 TIMES TE
= lak-624
12517 CUNEIFORM SIGN LAK-617 TIMES U2
= lak-625
12518 CUNEIFORM SIGN LAK-617 TIMES UD
= lak-623
12519 CUNEIFORM SIGN LAK-617 TIMES URUDA
= lak-627
1251A CUNEIFORM SIGN LAK-636
= lak-636
1251B CUNEIFORM SIGN LAK-724
= lak-724
1251C CUNEIFORM SIGN LAK-749
= lak-749
1251D CUNEIFORM SIGN LU2 GUNU TIMES ASH
= lak-339
1251E CUNEIFORM SIGN LU2 TIMES DISH
= lak-338
1251F CUNEIFORM SIGN LU2 TIMES HAL
= lak-340b
12520 CUNEIFORM SIGN LU2 TIMES PAP
= lak-340a
12521 CUNEIFORM SIGN LU2 TIMES PAP PLUS PAP PLUS LU3
= lak-341
12522 CUNEIFORM SIGN LU2 TIMES TAK4
= lak-342
12523 CUNEIFORM SIGN MI PLUS ZA7
= lak-393
12524 CUNEIFORM SIGN MUSH OVER MUSH TIMES GA
12525 CUNEIFORM SIGN MUSH OVER MUSH TIMES KAK
12526 CUNEIFORM SIGN NINDA2 TIMES DIM GUNU
= lak-097
12527 CUNEIFORM SIGN NINDA2 TIMES GISH
= lak-116
12528 CUNEIFORM SIGN NINDA2 TIMES GUL
= lak-112
12529 CUNEIFORM SIGN NINDA2 TIMES HI
= lak-114
1252A CUNEIFORM SIGN NINDA2 TIMES KESH2
= lak-115
1252B CUNEIFORM SIGN NINDA2 TIMES LAK-050
= lak-098
1252C CUNEIFORM SIGN NINDA2 TIMES MASH
= lak-110
1252D CUNEIFORM SIGN NINDA2 TIMES PAP PLUS PAP
= lak-113
1252E CUNEIFORM SIGN NINDA2 TIMES U
= lak-102
1252F CUNEIFORM SIGN NINDA2 TIMES U PLUS U
= lak-103
12530 CUNEIFORM SIGN NINDA2 TIMES URUDA
= lak-111
12531 CUNEIFORM SIGN SAG GUNU TIMES HA
= lak-309
12532 CUNEIFORM SIGN SAG TIMES EN
= lak-311
12533 CUNEIFORM SIGN SAG TIMES TAK4
12534 CUNEIFORM SIGN SAG9 TENU
12535 CUNEIFORM SIGN SHE OVER SHE
= lak-200
12536 CUNEIFORM SIGN SHE PLUS HUB2
= lak-207
12537 CUNEIFORM SIGN SHE PLUS NAM2
12538 CUNEIFORM SIGN SHE PLUS SAR
= lak-216
12539 <reserved>
1253A CUNEIFORM SIGN SHU2 PLUS DUG TIMES NI
= lak-396
1253B CUNEIFORM SIGN SHU2 PLUS E2 TIMES AN
= lak-358
1253C CUNEIFORM SIGN SI TIMES TAK4
= lak-85
1253D CUNEIFORM SIGN TAK4 PLUS SAG
= lak-310
1253E CUNEIFORM SIGN TUM TIMES GAN2 TENU
= lak-497b
1253F CUNEIFORM SIGN TUM TIMES THREE TIMES DISH
= lak-497a
12540 CUNEIFORM SIGN UR2 TIMES UD
= lak-480
12541 <reserved>
12542 CUNEIFORM SIGN URU TIMES DARA3
= lak-592
12543 CUNEIFORM SIGN URU TIMES LAK-668
= lak-600
12544 CUNEIFORM SIGN URU TIMES LU3
12545 <reserved>
12546 CUNEIFORM SIGN ZA7
= lak-798
12547 CUNEIFORM SIGN ZU OVER ZU PLUS SAR
= lak-218
12548 CUNEIFORM SIGN ZU5 TIMES THREE DISH TENU
= lak-118
12549 CUNEIFORM SIGN ZUBUD GUNU
= lak-354

## A. Administrative

1. Title

**Preliminary proposal for Early Dynastic Cuneiform**

2. Requester's name

**UC Berkeley Script Encoding Initiative (Universal Scripts Project)**

3. Requester type (Member body/Liaison/Individual contribution)

**Liaison contribution.**

4. Submission date

**2012-01-27**

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

**No.**

6b. More information will be provided later

**Yes.**

## B. Technical – General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)

**No.**

1b. Proposed name of script

1c. The proposal is for addition of character(s) to an existing block

**Yes**

1d. Name of the existing block

**Early Dynastic Cuneiform**

2. Number of characters in proposal

**23 (9, 14).**

3. Proposed category (A-Contemporary; B.1-Specialized (small collection); B.2-Specialized (large collection); C-Major extinct; D-Attested extinct; E-Minor extinct; F-Archaic Hieroglyphic or Ideographic; G-Obscure or questionable usage symbols)

**Category F.**

4a. Is a repertoire including character names provided?

**Yes.**

4b. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?

**Yes.**

4c. Are the character shapes attached in a legible form suitable for review?

**Yes.**

5a. Who will provide the appropriate computerized font (ordered preference: True Type, or PostScript format) for publishing the standard?

**Michael Everson.**

5b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:

**Michael Everson, Fontographer.**

6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

**Yes.**

6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?

**No.**

7. Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?

**Yes.**

8. Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at http://www.unicode.org for such information on other scripts. Also see Unicode Character Database http://www.unicode.org/Public/UNIDATA/UnicodeCharacterDatabase.html and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

**See above.**

## C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before? If YES, explain.

**No.**

2a. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?

**Yes.**

2b. If YES, with whom?

**Steve Tinney.**

2c. If YES, available relevant documents
3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?
**Sumerologists.**
4a. The context of use for the proposed characters (type of use; common or rare)
**Used historically and in modern editions.**
4b. Reference
5a. Are the proposed characters in current use by the user community?
**Yes.**
5b. If YES, where?
**Scholarly publications.**
6a. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?
**No.**
6b. If YES, is a rationale provided?
6c. If YES, reference
7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?
**No.**
8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?
**No.**
8b. If YES, is a rationale for its inclusion provided?
8c. If YES, reference
9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?
**No.**
9b. If YES, is a rationale for its inclusion provided?
9c. If YES, reference
10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?
**No.**
10b. If YES, is a rationale for its inclusion provided?
10c. If YES, reference
11a. Does the proposal include use of combining characters and/or use of composite sequences (see clauses 4.12 and 4.14 in ISO/IEC 10646-1: 2000)?
**No.**
11b. If YES, is a rationale for such use provided?
11c. If YES, reference
11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?
**No.**
11e. If YES, reference
12a. Does the proposal contain characters with any special properties such as control function or similar semantics?
**No.**
12b. If YES, describe in detail (include attachment if necessary)
13a. Does the proposal contain any Ideographic compatibility character(s)?
**No.**
13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?