

## OUTLINE: A comparative study of phonetic complements in Near Eastern cuneiform and Jurchen siniform

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### *Category and Characteristics of phonetic complement in cuneiform paleography*

1. Definition: Phonetic indicators which are attached to a basic sign to facilitate its reading
  - I. Sum. 𒀭\*an “heaven [god]” / \*diĝir “god” > Akk. 𒀭𒀭\*AN-ú (= šamû) “sky” – semantic differentiation
  - II. Sum. 𒀭\*é “house” > Akk. 𒀭𒀭\*É-tim (= bītim) “house (gen.)” – morphological determination
  - III. Akk. 𒀭𒀭\*<sup>d</sup>UTU-ši (= Šamši) “Shamash, sun god” – specific complementation
  - IV. Sum. 𒀭\*lugal “king” > Akk. 𒀭\*šār (< šarru “king” truncated) – truncated syllabification
2. Paleographic features
  - I. To determine nearly one exact reading for which the entire graphic sign series can stand
  - II. Attached to the basic logograms, usually immediately after them
  - III. Quiescent in the entire graphic series when pronounced
  - IV. To reduce the basic signs to shorter values during the diachronic development and thereafter to become affixal signs
3. Practical features
  - I. To determine the reading in the cases of polyphonous signs
  - II. To note the value of the medial vowel(s) in some phonetic frames expressed as simply as possible
  - III. To evade the confusion between two graphically similar signs

### *Historical background of Jurchen writing system*

1. Internal development: Chinese transcription parallel in Ming glossary is the only direct phonetic reflection of Jurchen language, besides some few transcribed items sporadic in Chinese historiography
  - I. Sino-Jurchen Glossary in early Jin (12<sup>th</sup> century): mainly logography (< Khitan macroscript < vulgar Chinese characters)
  - II. Jin Jurchen epigraphy (12<sup>th</sup> – 13<sup>th</sup> century): logosyllabography (influenced by Mongolic languages)
  - III. Ming Jurchen inscription and documents (14<sup>th</sup> – 16<sup>th</sup> century): mainly syllabography (developed into Manchu language)
2. Internal features of siniform: Origins of Chinese and Khitan scripts (siniform character as homophonous as possible)
  - I. Syllabic expression: consonants without vowels combined unavailable to graphic expression; actual syllables in Jurchen lexemes, rather than in Jurchenograms, transcribed by Chinese characters
    - A. 𐰉𐰺\*we-lu “jujube” with Chi. 𐰉-lǔ
    - B. 𐰉𐰺\*pe-reġe “to gather” with Chi. 𐰉-è; 𐰉𐰺\*sa-ŋan “white, smoke” with Chi. 𐰉-jiāng (cf. Jur. 𐰉𐰺\*sa-hi “to know”)

- C. 先米\*DIL<sup>o</sup>G-an “fame” with Chi. *dí-lè-àn* (cf. Ma. dilgan)
- D. 司\*ERU “ugly” with Chi. *è-wú* (cf. Ma. ersun); 帝元央\*ta’-ma-gi “fog” with Chi. *tá-mǎ-jí* or *tá-ér-mǎ-jí* (cf. Ma. talman)
- II. Graphic series based on monographic, instead of syllabic, spelling:
- A. 颶屯\*METE-erin “sea”, 吉屯右\*jū-eri[n]-mei “to announce” – logographic 屯\*ERIN used as dissyllabic phonogram
- B. 先夹侏\*ŠIRA-aya=ti “old[-time] (abl.)” – dissyllabic logogram 夹 used as phonogram likewise
- C. 奚屯升\*PENIR-ir-he “hair” cf. Ma. feniyehe, 來朶\*pe-reḡe “to gather” with Chi. *fēn-è* – internal syllables truncated graphically
- D. 圭元天\*i[m]-ma-la “mulberry” (cf. Ma. nimala), 叟圭右\*tom-so[n]-mei “to collect” – succeeding nasal-initials used as preceding finals
- Common roots expressed by different characters:
- A. 奚\*ŃENEN “spring” ~ 希弓申\*ñon-ñe-ḡa “goose”
- B. 俊\*TOQO “outer garment” ~ 番侏\*TULI-le “outside, foreign”
- C. 付\*DOQO “lining” ~ 尊早\*do-lo “inside”
- D. 式斥\*ΓO’MI-gi ~ 爨斥\*ΓO’MI-gi “long, extended”
- Syllabication – roots truncated graphically:
- A. 亨圭\*hu-sun “strength” < Khi. ??\*hus “strong” with Chi. *hǔ-sī* (vs. 玺早\*OMO-lo “grandson” [cf. Ma. omolo > omoši (pl.)] & 龙支\*yan-ma “sword” < Chi. 鋼 *gang* [cf. Sibe. ganfi “pen” < Chi. 鋼筆 *gangbǐ*])
- B. 昊森\*ši’-seri “evening” (cf. Ma. šikseri)
- III. Modern examples of phonetic complements in Chinese transcription:
- A. Tom > 湯姆 *tang-mu*, Beckham > 貝克漢姆 *bei-ke-han-mu* – in Mandarin without m-final syllables
- B. Thatcher > 戴卓爾 *tai-cheuk-yi*, Juventus > 祖云達斯 *cho-wan-tat-sei*, Beckham > 碧咸 *pik-ham* – in Cantonese with stop-final and m-final syllables

### Classifications of Jurchen phonetic complements

#### 1. Compatibility with Chinese transcription

I. Incompatible: 申米\*WIXAN-an “ox, cow” – Chi. *wěi-hǎn*, 國土\*GURUN-un “country, dynasty, state” – Chi. *guó-lún*, 得列\*MORIN-in “horse” – Chi. *mù-lín*, 致發阜\*po-on=do “time (loc.)” – Chi. *fú-wān-dō*; 哩夭\*XADU-we “clothes” – Chi. *hā-dū*; 罔主\*UJE-e “heavy” – Chi. *ù-zhě*

II. Segmental: 斥土\*ALČUN-un “gold” – Chi. *ān-chūn-wēn*; 東列\*U’ČIN-in “armor” – Chi. *wù-chēn-yīn*; 風元\*XAGAN-ŋan “king” – Chi. *hǎn-ān*; 庇守\*JUI-i “son” – Chi. *zhuī-yī*; 舍少\*ŠA-a “ears” – Chi. *shā-ā*

III. Compatible (in majority): 胤土\*EDU-un “wind” – Chi. *è-dū-wēn*; 此列\*ALI-in “mountain” – Chi. *ā-lǐ-yīn*; 娑卒\*MUDU-ur “dragon” – Chi. *mù-dù-ér*; 𠵹戎\*MODŊO-ul “Mongol” – Chi. *méng-gǔ-lǚ*; 邑米\*ŠODQO-an “peregrine falcon” – Chi. *shēn-kē-àn*

#### 2. Morphological orientation

I. Prefixal: 少夭\*a-BUQA “leaf” (cf. Ma. abduka), 守戛\*i-L<sup>o</sup>QA “flower” (cf. Ma. ilha)

II. Suffixal (in majority): 壘央\*PULE-ŋi “ashes” (cf. Ma. fulenggi); 叟友\*MAHI-la “Jurchen hat” (cf. Ma. mahala); 屨前\*XALA-ku “trousers” (cf. 屨朶\*XALA-bi “to change”);

係臭\*ŠIŠI-he “mattress” (cf. 係\*ŠIŠI “hazel seed”); 写为\*ILI-bun “to erect, erected” (cf. 写未是\*ILI-šu-γai “to establish”)

III. Questionable: 窀\*PAMA-a “country”, 窀\*PA-a “window”

### 3. Phonetic orientation

I. Syllabication of ultimate phonemes: 米 / 片\*an, 壺\*en, 列 / 夬\*in, 夂\*on, 土 / 天\*un; 甬\*ar, 厚\*ar, 旱\*ir, 犖\*ur, 戎\*ul; 夂\*m[u], 奚\*am, 未\*im

II. Expression of ultimate syllables: 夂\*a, 夂 / 羊 / 余\*e, 雨 / 寸\*i, 斥\*o, 生\*u; 豸\*ηa, 屮 / 叀\*ηe, 夂\*ηi, 气\*ηo, 夂\*ηu; 元\*ηan, 夂\*ηun; 皂\*γa, 斥\*gi, 夂\*γo, 重 / 受\*gu

III. Expression of beginning syllables – 夂\*a, 寸 / 夂\*i, 夂\*he, 來\*pe, 夂\*ši; no such type in cuneiform but in Egyptian and Maya hieroglyphics

### *Paleographical description of Jurchen phonetic complements*

#### 1. Theoretical features

I. Primary implication: quiescence equivalent to the canonical phonetic complements in cuneiform paleography – 中米\*WIXAN-an “ox, cow”, 囿土\*GURUN-un “country, dynasty, state”, 得列\*MORIN-in “horse”, 屮夂\*XADU-we “clothes”, 冏羊\*UJE-e “heavy”

II. Secondary implication: pronounced used as phonetic complementation and pioneering for syllabic truncation – 斥土\*ALČUN-un “gold”, 東列\*UČIN-in “armor”, 夂元\*XAĞAN-ηan “king”, 屮寸\*JUI-i “son”, 舍夂\*ŠA-a “ears”

III. Derivative implication:

##### A. Graphic affixation –

1) 夂\*SARDAN (in Jin glossary, with Chi. *sà-nà-hǎn*) > 夂元\*SARDAN-ηan (in Ming glossary, with Chi. *sǎ-lǐ-ān*) – “wife”

2) 夂\*APIA (in Jin glossary) > 夂宋\*a-fi[’a] (in Ming vocabulary, with Chi. *ā-fēi[-ā]*) – “lion”

3) 夂\*PENIR > 夂毛\*PENIR-ir > 夂毛升\*PENIR-ir-he “hair”

3) 夂夂余\*BEĞI-le-we (in Jin epigraphy, with Chi. *bó-jí-liè*) > 夂夂\*BEĞI-le (in Ming glossary, with Chi. *bèi-lè*) – “official”

4) 夂夂\*ČAU’XA-ši “army, soldiers (pl.)” (in Jin epigraphy & with Chi. *chāo-hā-shī* in Ming glossary of Peking version) > 夂夂\*ČAU’[XA]-γa “army” (in Jin epigraphy & Ming glossary with Chi. *chāo-hā*) > 夂夂斥\*hu-čau-gi “glory” (in Ming glossary), 夂夂夂\*čau-la-mai “to present” (in Ming memorials)

##### B. Spelling contraction used as finals –

1) 夂夂片\*du-ta-an “chief censor; Chi. 都堂 *du-tang*”

2) 夂休夂\*ki-li-in “Chinese unicorn; Chi. 麒麟 *qi-lin*”

3) 夂夂夂\*su-un=bi-in “brigade general; Chi. 總兵 *zong-bing*”

#### 2. Practical features

I. Graphic differentiation of expressions: both against logography and against phonography

A. 夂夂\*XO’DON-on (in Jin epigraphy) ~ 夂\*XO’DON (in Ming glossary) – “pine”

B. 夂米\*YARA-an (in Jin epigraphy) ~ 夂\*YARA (in Ming glossary) – “leopard”

C. 夂夂命\*ΓAXŪN-hun(?) (in Jin epigraphy) ~ 夂土\*ΓAXŪN-un (in Ming glossary) – “eagle, hawk”

D. 夂夂升\*HEČE-če=he (in Jin epigraphy) ~ 夂夂夂\*HEČE-čen=ni (gen. in Ming

glossary) – “castle”

E. 備\**h̄en-yen* (in Ming glossary with Chi. *xian-yuan*) ~ 備夫\**h̄en-yan* (in Ming memorials with Chi. *xuan*) < Chi. 玄 *xuan*

F. 天卓\**tai-ira-an* (in Jin epigraphy) ~ 天卓\**tai-ira* (in Ming glossary) – “monastery” > 夫卓\**OMI-[i]ra* “to drink” / 叢卓\**DAŠI-[i]ra* “to overwhelm” / 爾刻卓\**i-ja-ra* “to assemble” (in Ming glossary)

G. 此列\**ALI-in* “mountain” (in Jin epigraphy & Ming glossary) ~ 北丈\**ULI-e* “north” (in Jin epigraphy) < Khi. 比 / 此 < Chi. 北 *bei*

## II. Radical-homophonous differentiation

A. 東侏\**JULE-le* “front” ~ 東孟\**JULE-ši* “east”

B. 夆\**AMBAN-an* “big, great” ~ 夆友\**AMBA-la* “much”

C. 飛斥\**DORO-o* “law, logos” ~ 飛士\**DORO-un* “seal”

D. 反叟\**TUR-ra* “pillar” ~ 反申\**TUR-ɣa* “lean, thin” (with Chi. *tū-hā*)

E. 並土\**bun-un* “from” ~ 並父\**bun-mu* “lips”

## III. Implementation to graphic evolution from logography to phonography

A. 𪛗\**ŠUMU* “sparrow hawk” ~ 𪛗余\**ŠE'E-e* “spring, fountain”

B. 夾\**ŠIRXA* “roebuck” ~ 夾與\**ŠIRHE-he* “sand”

C. 𪛗\**TIQO* “fowl” ~ 𪛗乐\**ETUKU-hun* “to wear”

D. 有\**TANDŪ* “hundred” ~ 有芳\**TO'GIN-gin* “dream”

## *Values of phonetic-complement interpretation for Jurchen writing system*

### 1. Phonetic revision of some Jurchenograms

I. 夾: \**aɣa* rather than \**a* and \**ɣa*

II. 勿: \**amur* rather than \**amu*

III. 𪛗: \**reḡe* rather than \**he* and \**riye*

IV. 𪛗: \**we ~ he* rather than \**he, \*e, \*u, \*we*

### 2. Tentative reconstruction of some Khitan macroscripts

I. Ethnonym: 𪛗𪛗\**QITA-ta-in* “Khitan”

II. Official title: 𪛗𪛗\**ŠARI-ri* “郎君 *lang-jun*” (with Chi. 沙里 *sha-li*, cf. Khi.mi. 𪛗为夫\**š-a-ri*) – 𪛗\**ŠARI* > Jur. 𪛗\**ŠIRI* “copper”, \**先\*ŠIRA* “old”; vs. Jur. 𪛗休\**ša-li* “office”

III. Personal names: 𪛗𪛗\**XAILI-in* “Chi. 孩鄰 *hai-lin*, Chi. 解里寧 *xie-li-ning*”, cf. Jur. 𪛗夫\**XAILA-la* “elm” – Khi. 𪛗\**XAILI* > Jur. 𪛗\**XAILA*, 何至𪛗\**ɣa-an-[n]in* “Chi. 韓寧 *han-ning*”

### 3. Significances to logosyllabic writing system

I. Phonetic complements in a writing system resulting also from some shortage of syllables in the relevant lingual phonology

II. Khitan macroscript, just as Jurchen writing, logosyllabic; whereas Khitan microscript, just as Persian cuneiform, syllabophonemic with few logograms

III. Some universals contained in graphic development and borrowing, just as in language evolution and contacts

## ABBREVIATIONS

Akk. – Akkadian, Chi. – Chinese, Jur. – Jurchen, Khi. – Khitan, Khi.mi. – Khitan microscript, Ma. – Manchu, Mo. – Mongol, Sum. – Sumerian

— Completed on 7<sup>th</sup>, May, 2007.