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Reconstructing the Verbal Morphology of Written Jurchen: A Corpus-Based Analysis with Tungusic Comparative Insights

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Abstract: Written Jurchen, the earliest attested Tungusic language with a dedicated script, provides crucial insights into Tungusic linguistic history. While previous research has focused on phonology and nominal morphology, its verbal system remains underexplored. This study offers the first corpus-based comprehensive analysis of Jurchen verbal morphology, including finite forms, participles, converbs, and deverbal stems. Drawing on authentic texts and recent advances in Tungusic comparison, it presents new functional interpretations and identifies previously unrecognised morphological categories. The findings demonstrate that, unlike Manchu, Written Jurchen retained features more typical of the wider Tungusic family than previously acknowledged.

Keywords: Written Jurchen; Jurchen script; Tungusic languages; verbal morphology; historical linguistics; morphosyntactic reconstruction

I. INTRODUCTION

Jurchen was the historical language of the Jurchen people in Northeast China, written in a dedicated script. According to Chinese historical records, the script was created by *Wanyan Xiyin* 完顏希尹 in 1119 (Jin 金 Tianfu 天輔 3), making Written Jurchen the earliest attested Tungusic language. This study focuses on Written Jurchen, defined as authentic Jurchen texts from the Jin 金 to early Ming 明 dynasties. It is distinct from the scriptless variety documented in the *Sino-Jurchen Vocabulary of the Bureau of Interpreters* (Jurchen B)¹ of the late Ming period (Kane 1989), which shows closer lexical and morphosyntactic affinities with Manchu than with Written Jurchen (Joseph 2018). While dialectal and diachronic variation likely existed within Written Jurchen (Kiyose 1998), internal consistency is relatively high, particularly since the most extensive sources are from the Jin dynasty. Hence, it is methodologically justifiable to treat Written Jurchen as a coherent object of study, given current evidence.

Although historical records mention both a large and small Jurchen script—paralleling the Khitan system—the extant corpus is written in a single set of characters. The precise classification of the surviving script remains debated: some scholars identify it as the small script (Burykin 1999; Pevnov 2004), others as the large script (Jin 1962; Mu 1994; Aisin-Gioro 2009a), and still others suggest it represents a hybrid form (Chimeddorji 1980). This paper adopts the neutral term Jurchen script to refer to the form preserved in the surviving inscriptions.

¹ The terms Jurchen A and Jurchen B are adopted in the field to refer to two distinct Jurchen varieties (e.g. Hölzl 2021; Kane & Miyake 2024). Jurchen A (Kiyose 1977) denotes Written Jurchen, attested in the Jurchen script. It is the focus of the present study. Jurchen B (Kane 1989) refers to a scriptless Jurchen variety documented in the Late Ming *Sino-Jurchen Vocabulary of the Bureau of Interpreters*.

The study of Written Jurchen has important implications for historical and comparative Tungusic linguistics. However, due to the limited corpus, research progress has been slow. Scholarly work has long concentrated on script decipherment and phonological reconstruction (Grube 1896; Ligeti 1953; Kiyose 1977; Mudrak 1988; Pevnov 2004; Chimeddorji 2023), drawing primarily on the *Sino-Jurchen Vocabulary of the Bureau of Translators* (hereinafter SJ), i.e. a bilingual word list accompanied by mechanically translated tributary memorials, which therefore provides limited access to clause-level syntax and inflection. Similarly, Sun (2004) relied mainly on Chinese historical sources, yielding useful lexical data but relatively little grammatical analysis. Kane (1989) discusses several Written Jurchen texts largely in an orienting and contextual manner; the book's main aim, however, is the analysis of scriptless Jurchen through the late-Ming vocabulary of Jurchen B, rather than a systematic grammatical treatment of the inscriptional corpus.

Work engaging more directly with morphology has often been mediated through Manchu. Burykin (1999) made early contributions to Jurchen morphology, including verb forms, but relied heavily on Manchu parallels, and a corpus-based approach emerged with Jin Guangping and Jin Qizong (Jin & Jin 1980; Jin 1984), whose analyses likewise remain strongly influenced by Manchu. Notably, such Manchu-based comparisons typically default to the classical written standard and largely ignore modern spoken varieties (especially Bala and Alchuka), despite their vocabulary and grammatical relevance (Mu 1986, 1987). More systematic efforts were made by Aisin-Gioro Ulhicun and Yoshimoto Michimasa (Aisin-Gioro 2002, 2009a, 2009b; Aisin-Gioro & Yoshimoto 2011, 2017), who conducted detailed textual analyses and significantly advanced our understanding of Jurchen grammar, including verb morphology. Kane and Miyake (2024) recently revisited Jurchen grammar, distinguishing between Written Jurchen (Jurchen A) and Jurchen B, though their treatment of Written Jurchen verbal morphology remains largely dependent on Kiyose (1977). The challenge lies in the complexity of verbal morphology and the fragmentary nature of the sources. Yet, given the central role of verbs in grammar, this represents a major gap in our understanding of Jurchen. While prior research has yielded important insights, an approach grounded in attested texts and cross-Tungusic comparison is necessary for more reliable morphological reconstruction.

This study systematically analyses the verbal morphology of Written Jurchen using a corpus-based approach, with emphasis on its relationship to other Tungusic languages, including modern Manchu varieties like Bala and Alchuka. The dataset comprises all attested Jurchen inscriptions. To ensure analytic reliability, only structures with sufficiently preserved and interpretable syntactic contexts are examined; texts with eroded forms, significant editorial discrepancies, or unclear meanings are excluded.

The texts mentioned in this paper are listed in Table 1, along with abbreviations and citations for their edited transcriptions.

The paper is structured as follows. Section 2 discusses the transcription system used in the paper. Section 3 examines copular and negative constructions and then turns to connegative forms. Section 4 investigates aorist-derived forms. Section 5 explores past-related forms. Section 6 covers the remaining finite forms. Section 7 analyses converb forms. Section 8 addresses deverbal verb formations. Section 9 discusses stem forms. Section 10 concludes with a summary table of verbal morphology.

Table 1. Jurchen texts mentioned in the current paper with abbreviations and edition citations.

Chinese Title	Abbr.	English Title	Year	Edited Versions
<i>Qingyuán Jùn</i> <i>Nǚzhēn Guóshū Bēi</i> 慶源郡女真國書碑	QING	<i>Stele in Jurchen Script from Kyongwon County</i>	Early Jin	Jin & Jin (1980); Aisin-Gioro & Yoshimoto (2011)
<i>Hǎilóng Nǚzhēn Guóshū Móyá</i> 海龍女真國書摩崖	HAI	<i>Cliffside Inscription in Jurchen Script at Hailong</i>	1167	Sun (1979); Jin & Jin (1980)
<i>Dàjīn Déshèngtuó Sòng Bēi</i> 大金得勝陀頌碑	DE	<i>Memorial Stele of Great Jin Victory over Liao</i>	1185	Tamura (1937); Chimeddorji & Qosigu (1984); Aisin-Gioro (2002)
<i>Jīn Shàngjīng Nǚzhēnwén Quànxié Bēi</i> 金上京女真文勸學碑	QUAN	<i>Jurchen Encouragement of Learning Inscription from the Jin Upper Capital</i>	Middle Jin	Aisin-Gioro & Jin (2009)
<i>Jiǔfēng Shíbì Jìgōng Bēi</i> 九峰石壁紀功碑	JIU	<i>Commemorative Merit Inscription on the Jiufeng Cliff</i>	1196	Mu & Sun (2004); Aisin-Gioro (2009a)
<i>Àotún Liángbì Shī Bēi</i> 奧屯良弼詩碑	SHI	<i>Poetry Inscription of Autun Liangbi</i>	ca. 1200	Luo <i>et al.</i> (1982); Aisin-Gioro (2002)
<i>Hēishuǐchéng Nǚzhēnwén Mòshū</i> 黑水城女真文墨書	HEI	<i>Ink Manuscripts in Jurchen Script from Heishuicheng</i>	ca. 1211	Aisin-Gioro (2009a)
<i>Běiqīng Nǚzhēn Guóshū Móyá</i> 北青女真國書摩崖	BEI	<i>Cliffside Inscription in Jurchen Script at Pukchong</i>	1218	Aisin-Gioro (2002)
<i>Nǚzhēn Jīnshì Tíming Bēi</i> 女真進士題名碑	JIN	<i>Stele of the Names of Jurchen Presented Scholars</i>	1224	Jin & Jin (1998)
<i>Shénmù Huāshíyá Tíkè</i> 神木花石崖題刻	SHEN	<i>Inscription at Huashi Cliff in Shenmu</i>	1226	Aisin-Gioro & Yoshimoto (2017); Sun (2018)
<i>Wútǐ Hébi Yèxún Pái</i> 五体合璧夜巡牌	WU	<i>Pentagraphic Night Patrol Badge</i>	Yuan period	Yoshimoto (2014)
<i>Yǒngníng Sì Jì Bēi</i> 永寧寺記碑	YONG	<i>Record Stele of Yongning Temple</i>	1413	Jin & Jin (1980); Aisin-Gioro (2009b)

II. RECONSTRUCTION AND TRANSCRIPTION IN THIS STUDY

Since morphological analysis is sensitive to phonological shape, this section briefly outlines the phonological reconstruction of Written Jurchen assumed in this study. There is no consensus on Jurchen phonology, and the transcriptions used here therefore reflect the author’s working reconstruction. Full argumentation lies outside the scope of this paper, but several points are noted to make the transcriptional choices transparent.

The approximate phonetic values of certain transcription symbols used in this paper are as follows: *e* [ə], *i* [i], *z* [dz], *j* [dʒ], *c* [tʃ], *š* [ʃ], *y* [j], *ǵ* [ɣ]. The IPA values of the remaining transcription letters correspond to their Latin shapes, except *h* (see below).

Two systematic features characterise the present reconstruction. First, it does not posit phonemes *ü* or *ö* (e.g. Kiyose 1977; Kane & Miyake 2024). Second, it introduces a hypothetical *h* phoneme to represent a contrast supported by distributional and comparative evidence.

First, no reconstruction has yet systematically identified a set of dedicated Jurchen characters that contain phonemes *ü* or *ö*. In Jin-period texts, characters such as *un* 𐰺², *pu* 𐰽, and *ju* 𐰾 occur in both [+RTR] and [–RTR] environments, without convincing evidence for a consistent distributional split of graphemes. The main motivation for positing [+RTR]/[–RTR] pairs *u* ~ *ü* and *o* ~ *ö* is the observation that some suffixes have [–RTR] allomorphs written with special graphemes. Specifically, the causative-passive marker *-bu* and the dative marker *do* show [–RTR] allomorphs written as 𐰽 and 𐰾. These two graphemes, however, can be handled without introducing additional vowel phonemes. In particular, in the present transcription, 𐰽 is transcribed as *bwe* and 𐰾 as *deu*.

Second, the transcription uses the letter *h* to mark a special contrast supported by distributional and comparative evidence but often downplayed in other reconstructions. Accordingly, a set of distributionally marked graphemes (e.g. *ha* 𐰺, *hwe* 𐰽, *hai* 𐰾, *hu* 𐰾) is transcribed with *h*. Here *h* is a series label (not [h] or [x]) assigned to graphemes whose distribution is velar-correlated, since the words written with them either (i) have Tungusic cognates reconstructing initial *x-, (ii) have Manchu cognates with velar stops or fricatives at corresponding positions, or (iii) exhibit Jurchen-internal spelling alternations with velar graphemes. Typically, the evidence converges.

The contrast is illustrated by *we* 𐰽 vs. *hwe* 𐰽. *hetu-hwe* 𐰽 𐰽 (JIN.3), *hetu-ku* 𐰽 𐰽 (YONG.9), and *hetu-hu-ku* 𐰽 𐰽 𐰽 (YONG.8) are spelling variants of one word (cf. Manchu *etuku* ‘clothes’), indicating occasional interchangeability between *-ku* and *-hwe*. Additionally, SJ has *tu-hwe-* 𐰽 𐰽 ‘to fall’ whose Manchu cognate is *tuhe-* with a velar fricative. An etymological support comes from *hwe-xe* 𐰽 𐰽 ‘stone’ (cf. Manchu *wehe*), which is connected to Nanaic **xöre/n* ‘mountain’ (Janhunen 2024a) with word-initial velar fricative *x-. Moreover, DE.27 writes the interrogative ‘who’ as *hwei* 𐰽 𐰽 < **ɣii* (where *ei* 𐰽 also appears in *ke-ei* 𐰽 𐰽 in JIU as the Chinese loanword *kāi* 開), and this initial *h* may be analogical on the model of ‘what’, written *hai* 𐰽 < **xai*, another velar-correlated grapheme opposed to *ai* 𐰽; a comparable development is Alchuka’s generalisation of *k-* from (*k*)*ai* ‘what’ to words

² The Jurchen script font used in this paper was provided by *Gǔjīn Wénzì Jíchéng* 古今文字集成 (<http://www.ccamc.co/>). Certain glyphs were adjusted. The font is used with authorisation for the purpose of this study. I gratefully appreciate their permission.

like *ker* ‘this’, which etymologically begins with a vowel (cf. Uilta *eri* ‘this’). By contrast, plain *we* 冬 appears in non-velar-related contexts, such as the personal name *bu-jur-we* 丕久冬 (*Bozhulun* 丕久論), and the common word *we-ǵi* 冬辰 ‘above’ (cf. Evenki *ügi-*; Uilta *ui-*).

A parallel contrast holds for *u* 丕 vs. *hu* 方. 方 occurs in *ul-hu-* 斗方 ‘to understand’ (cf. Manchu *ulhi-*) and *hu-xun-mei* 方乐右 ‘to wrap’ (cf. Manchu *uhu-*; Nanai *xuku-*), again pointing to a velar-correlated status. The *a* 𪛗 vs. *ha* 𪛘 contrast behaves similarly. 𪛗 corresponds to positions where Manchu and other Tungusic have *a*, whereas 𪛘 occurs in words like *ha-buxa* 𪛘𪛚 ‘leaf’, whose Nanaic cognates retain initial velar fricative **x-* (cf. Nanai *xabdata*; Uilta *xamdatta*). SJ provides an internal transcription cue. In *šya(n)-ha* 舍𪛘 ‘ear’, 𪛘 is transcribed as *ha* 哈 instead of the more usual *a* 阿, which is unlikely to be a random scribal mistake.

The *h*-series graphemes are attested with *u*, *a*, *ai*, *ya*, *we*, etc., but *h* is not posited before the monophthong *i* because Proto-Tungusic **xi-* and **i-* are written identically (e.g. *iši* 𪛗 covers both Proto-Tungusic **isi-* ‘to arrive’ and **xisi* ‘larch, cypress’). Evidence before *e* and *o* is unclear, though given its robust presence before *a/u*, we could provisionally extend the same analysis (e.g. *hedun* 𪛗𪛚 ‘wind’, *hošixa* 朱𪛗 ‘star’) unless contradicted by future data.

The phonetic realisation remains uncertain: given the graphemic inventory, it is unlikely to be [x~χ] (*xa* 𪛗/𪛚), [ǧ~ɣ] (*ǧa* 𪛗; also *ǧ* is not word-initial), [g~ɣ] (*ga* 𪛗), or [k~q] (*ka* 𪛗). I tentatively interpret the *h*-series graphemes as reflecting a glottal stop [ʔ], as a compromise between velar etymology and zero-initial Chinese transcription.

Finally, there are other reconstruction details about specific graphemes. Where relevant, they are discussed in the main text or in a footnote.

III. COPULAR AND NEGATIVE CONSTRUCTIONS

Jurchen verbs—illustrated by typical action roots such as *buce-* 𪛗𪛚 ‘to die’—are morphologically distinct from nouns (e.g. *alin* 𪛗𪛚 ‘mountain’) and adjectives (e.g. *amban* 𪛗𪛚 ‘big’) in taking a wider range of suffixes and participating in more complex derivational and inflectional paradigms. Notably, similar to Manchu but unlike most Tungusic languages, Jurchen verbs lack person endings.

1. Copulas and Negation Words

A clear entry point into Jurchen verbal morphology is provided by copulas and negation words, especially in relation to connegative constructions—a domain typologically informative across Tungusic languages.

Jurchen uses both zero and copula strategies for nonverbal predication. The main copula is *bye-* 𪛗 ‘to be’. This form is distinctive in that its cognates in other Tungusic languages are consistently *bi-*. The Jurchen sound is clearly transcribed in SJ as *bie* 𪛗 rather than *bi* 𪛗 (the usual transcription for grapheme *bi* 𪛗). It may reflect an irregular merger and subsequent fossilisation of either **bi-xe-* or **bi-re-*. Supporting evidence includes its imperfective finite form *byen* (written *bye-yen*; see Section 4.3; cf. Kilen *biren* and *bixen*) and a parallel development in the Bala past participle *bie* < **bihe* (Mu 1987). In equative sentences, the copula is typically omitted (1), and when present, often expresses existential meaning (2):

(1) ...夷狄邕而

... *cyenši* *dağa*
... Chan.master[C] leader

‘Master [personal name] was the leader.’ (QING.I.5)³

(2) 五番仔阜泉更仑

mingan ---*cun* *hwexe* *bye-n*
thousand [...] stone exist-NPFV

‘There are thousand [...] stones.’ (BEI.3–4)

Copula 𡗗 *o-* ‘to become’ (Manchu *o-*), denotes change or resultative states (3):

(3) 五十𡗗𡗗

susai *anya* *o-xu*
fifty year become-PF

‘It has been fifty years.’ (YONG.3) (五十年矣)

The copula *bye* also appears in compound constructions. One such form is a bare stem followed by *bye* (4), reminiscent of the Manchu present *-mbi* (possibly derived from the Manchu copula *bi*), although the Jurchen form likely retains a stative nuance.

(4) 此𡗗𡗗𡗗... 𡗗𡗗𡗗

alin *ba* *sar---* ?*semei* *se* *bye*
mountain ACC [...] QUOT say COP

‘(People) call this mountain ---’ (JIU.9) (山名曰……)

The negative copula for equative predications is *gwaiyu* 𡗗𡗗 ‘not to be’, which also has verbal uses (see example 11 in Section 4.1). For existential *bye-* constructions, the negative counterpart is *hain* 𡗗𡗗/𡗗𡗗 ‘not to exist’ (5). Its function is comparable to Evenki *aacin*, Ulcha *kewe/n*, Uilta *anaa* and Manchu *akû*, though the initial *h* is hard to explain, possibly influenced by *hai* 𡗗𡗗/𡗗𡗗 ‘what’. Its parallel usage with *bye-* is attested in Jin-period texts, where both can take the transitiviser *-pu* 𡗗 to form *bye-pu-* and *hain-pu-*, meaning ‘to have’ and ‘not to have’, respectively.

³ Wordforms are transcribed as wholes, with hyphens marking morpheme boundaries. Square brackets [] indicate plausible reconstructions supported by visible traces and corroborating evidence. ... marks irrelevant surrounding text. [...] indicates unrecoverable text or meaning. --- represents an unknown sound. A leading question mark (?) signals uncertainty. [C] after the gloss marks a Chinese loanword. Where available, the corresponding Chinese original is cited alongside the Jurchen text.

(5) 条件反单利

aci nyalma adi hain
waver person several not.exist

‘There were no hesitant people.’ (YONG.9) (無一人梗化不率者)

While adjectives generally use copula *bye-* or zero copula in positive predication, their negation employs the imperfective negation verb *ešin* 為利/串列 ‘not’ (6):

(6) 垂为利

bangin ešin
slack NEG.NPFV

‘Not slack’ (QUAN)

For verbal negation, attested negation words include: *ešin* ‘do/did not’ (NEG.NPFV), *eswi* 為委 ‘did not’ (NEG.PST.PTCP), *eixe/eiğe* 非臭/非史 ‘not yet; never’, *ume*⁴ 尙 ‘do not’ (PROH), *eiñisa* 非宋 (unattested in texts but listed in SJ with Chinese gloss 不可 ‘should not’, though see Section 7.4). All appear to derive historically from the Tungusic negation verb **e-*. For example, *ešin* may originate from **e-si-n* (NEG-AOR-3SG) (Kane & Miyake 2024), though synchronically it functions as a fossilised form with no remaining 3SG meaning. Additionally, SJ records a negator *asui* 为卅 glossed as Chinese 無 *wú* ‘not to exist’. Though it is unattested in inscriptions, its morphology is transparent (Section 5.4). This form also appears in Bala as *asai* (Mu 1987).

2. Connegative Forms

In many Tungusic languages, verbal negation involves a special verb form—commonly called a connegative—used with a negation verb. Its grammatical status varies: Pakendorf and Aralova (2020) treat it as a converb; Janhunen (2024a) as a participle. Hölzl (2015) classifies Tungusic connegative constructions into three types based on the structure of ‘I don’t know’:

Table 2. Connegative constructions in Tungusic languages (Hölzl 2015: 133).

Language	‘(I) don’t know’	Description	Type
Solon	<i>e-si-m saa-ra</i>	NEG-AOR-1SG know-CNEG	A
Evenki (Khamnigan)	<i>e-si-m saa-ra /</i> <i>saa-ra-si-m</i>	NEG-AOR-1SG know-CNEG / know-CNEG-NEG-1SG	A / B
Nanai	<i>saa-ra-se-i</i>	know-CNEG-NEG-1SG	B
Manchu	<i>sa-r-kû</i>	know-NPFV-NEG	C

In SJ, the Jurchen phrase glossed as 不知 ‘do not know’ is *ešin sa-xi* 串列兄屏, seemingly fitting Type A. However, SJ multiword entries were compiled by Ming-dynasty

⁴ The prohibitive marker *ume* probably has *u-me* (NEG-SIM) as its historical source considering its syntactic position before the prohibited verb. In Jurchen, though most of the simultaneous converbs end with *-mei* and *-mai*, some of them do end with *-me* and *-ma*, see Section 7.1 for examples. The stem *u-* is likely to be a fossilised variant of *e-*, the negation verb.

(7) 𠂇戈耒杀伐受巾天缶南卓丰丢卓刌

(8) 奎 俊 爻 戈 朱 右 关 亩 雋 妥 [...]

(9) 奎 戌 肖 辛 丈 屎 晃 丈 泝 丈 爻 又 丰 屯 丈 泝 丈

‘(We) would cause the people of the region to be no longer cold or hungry.’ (YONG.10)

8

1. Imperfective Participle

Among the forms with [r] sound, the imperfective participle is the most clearly attested and functionally transparent. It appears in the graphic forms *-ru* 叻, *-bu-ru* 叻 in causative-passive verbs ending in *-bu*, and *-deru* 叻 after [–RTR] consonant stems. The pronunciation of these graphemes is generally agreed upon (Kiyose 1977; Jin 1984; Mudrak 1988), though Pevnov (2012) has proposed alternatively that 叻 may represent only a consonantal [r]—a somewhat unusual proposal given the phonetic values assigned to other graphemes.

This form has been labelled as the ‘present-(future) participle’ by Jin (1984), Aisin-Gioro (2002), and Pevnov (2012), and as the ‘aorist participle’ by Burykin (1999). In the corpus, this participle most frequently introduces relative clauses in adnominal modification (10), but also occurs as a complement clause (11), or as a predicate (12):

(10) 空吏 片吳 叻

[*dolwor*⁵ *sonu-ru*]_{RC} *pai*
 night patrol-NPFV.PTCP badge[C]
 ‘Night patrol badge’ (WU) (夜巡牌)

(11) 乎 至 叻 叻 先 老

[*xwosun bu-ru*]_{CC} *be gwaiyu*
 force give-NPFV.PTCP ACC not.be
 ‘(Our) force shall not be spent’ (YONG.12)

(12) 叻 叻 叻 叻 右 关 叻 叻

--- *ba daši-mei dyen-deru*
 ?land ACC cover-SIM be.able-NPFV.PTCP
 ‘Being able to cover the land.’ (YONG.1) (故能覆幬)

These examples point to a generic or habitual reading rather than referring to a specific time-bounded event. In corpus, it is most frequently adnominal, but it also appears in argument and predicative positions. When introducing a relative clause, the Jurchen participle generally imposes no restrictions on the grammatical role of the head noun within the clause’s argument structure (though see Section 5.2).

Importantly, the imperfective participle is morphologically distinct—at least partially—from the connegative form (CNEG *-ra/-da* vs. NPFV.PTCP *-ru/-dAru*). This distinction mirrors other Tungusic languages (excluding Manchu). For example, Uilta marks connegatives as *-ra* ~ *-si* ~ *-da*, while present participles appear as *-ri* ~ *-si* ~ *-ji* (Tsumagari 2009). Janhunen (2024a) reconstructs the Proto-Tungusic participle as **-rII*, derived from the aorist **-rA* with an added formative **(y)I*. Although this exact form is not found in the Jurchenic branch, two parallels in Jurchen are noteworthy: (i) the clear morphological distinction between connegative and participial forms, and (ii) the participle’s function aligning with those derived

⁵ The grapheme 空 is pronounced *dolwo* according to SJ, while 吏 is pronounced *or* (Aisin-Gioro 2009b, Gioro & Yoshimoto, 2011). In many respects, Written Jurchen does not appear to be the direct ancestor of Written Manchu. For instance, the Manchu word for ‘night’ is *dobori* (< Proto-Tungusic **dolbo*); this form not only features a supporting [i] due to Manchu phonotactics but also retains a [b], which corresponds to [w] in several Jurchen words.

from **-rII* in other Tungusic languages. Still, the vowel [u] of Jurchen *-ru* remains unexplained.

2. Sequential Converb

The aorist system in Tungusic languages also includes converbs in adverbial function, often formally identical to the aorist stem (Benzing 1955; Janhunen 2024a). In Jurchen, a small number of forms with [r] sound appear to serve this function. These forms mark temporally or logically sequenced actions (13–14).

- (13) 𐄂𐄃𐄅𐄆𐄇[...]𐄈𐄉𐄊𐄋𐄌𐄍𐄎𐄏𐄐𐄑𐄒[𐄓]𐄔𐄕𐄖
tixe lexi [...] *urhunje-re* *goron loxi nyalma [---]*⁶ *daxa-ra*
near DEL [...] rejoice-SEQ far DEL person [return] follow-NPFV
‘Those nearby rejoice, and those from afar willingly submit.’ (YONG.2) (悦近而服遠)
- (14) 𐄂𐄃𐄅𐄆𐄇𐄈𐄉𐄊𐄋𐄌𐄍𐄎𐄏𐄐𐄑𐄒𐄓𐄔𐄕𐄖𐄗𐄘𐄙𐄚𐄛𐄜𐄝𐄞𐄟𐄠𐄡𐄢𐄣𐄤𐄥𐄦𐄧𐄨𐄩𐄪𐄫𐄬𐄭𐄮𐄯𐄰𐄱𐄲𐄳𐄴𐄵𐄶𐄷𐄸𐄹𐄺𐄻𐄼𐄽𐄾𐄿𐅀𐅁𐅂𐅃𐅄𐅅𐅆𐅇𐅈𐅉𐅊𐅋𐅌𐅍𐅎𐅏𐅐𐅑𐅒𐅓𐅔𐅕𐅖𐅗𐅘𐅙𐅚𐅛𐅜𐅝𐅞𐅟𐅠𐅡𐅢𐅣𐅤𐅥𐅦𐅧𐅨𐅩𐅪𐅫𐅬𐅭𐅮𐅯𐅰𐅱𐅲𐅳𐅴𐅵𐅶𐅷𐅸𐅹𐅺𐅻𐅼𐅽𐅾𐅿𐆀𐆁𐆂𐆃𐆄𐆅𐆆𐆇𐆈𐆉𐆊𐆋𐆌𐆍𐆎𐆏𐆐𐆑𐆒𐆓𐆔𐆕𐆖𐆗𐆘𐆙𐆚𐆛𐆜𐆝𐆞𐆟𐆠𐆡𐆢𐆣𐆤𐆥𐆦𐆧𐆨𐆩𐆪𐆫𐆬𐆭𐆮𐆯𐆰𐆱𐆲𐆳𐆴𐆵𐆶𐆷𐆸𐆹𐆺𐆻𐆼𐆽𐆾𐆿𐇀𐇁𐇂𐇃𐇄𐇅𐇆𐇇𐇈𐇉𐇊𐇋𐇌𐇍𐇎𐇏𐇐𐇑𐇒𐇓𐇔𐇕𐇖𐇗𐇘𐇙𐇚𐇛𐇜𐇝𐇞𐇟𐇠𐇡𐇢𐇣𐇤𐇥𐇦𐇧𐇨𐇩𐇪𐇫𐇬𐇭𐇮𐇯𐇰𐇱𐇲𐇳𐇴𐇵𐇶𐇷𐇸𐇹𐇺𐇻𐇼𐇽𐇾𐇿𐈀𐈁𐈂𐈃𐈄𐈅𐈆𐈇𐈈𐈉𐈊𐈋𐈌𐈍𐈎𐈏𐈐𐈑𐈒𐈓𐈔𐈕𐈖𐈗𐈘𐈙𐈚𐈛𐈜𐈝𐈞𐈟𐈠𐈡𐈢𐈣𐈤𐈥𐈦𐈧𐈨𐈩𐈪𐈫𐈬𐈭𐈮𐈯𐈰𐈱𐈲𐈳𐈴𐈵𐈶𐈷𐈸𐈹𐈺𐈻𐈼𐈽𐈾𐈿𐉀𐉁𐉂𐉃𐉄𐉅𐉆𐉇𐉈𐉉𐉊𐉋𐉌𐉍𐉎𐉏𐉐𐉑𐉒𐉓𐉔𐉕𐉖𐉗𐉘𐉙𐉚𐉛𐉜𐉝𐉞𐉟𐉠𐉡𐉢𐉣𐉤𐉥𐉦𐉧𐉨𐉩𐉪𐉫𐉬𐉭𐉮𐉯𐉰𐉱𐉲𐉳𐉴𐉵𐉶𐉷𐉸𐉹𐉺𐉻𐉼𐉽𐉾𐉿𐊀𐊁𐊂𐊃𐊄𐊅𐊆𐊇𐊈𐊉𐊊𐊋𐊌𐊍𐊎𐊏𐊐𐊑𐊒𐊓𐊔𐊕𐊖𐊗𐊘𐊙𐊚𐊛𐊜𐊝𐊞𐊟𐊠𐊡𐊢𐊣𐊤𐊥𐊦𐊧𐊨𐊩𐊪𐊫𐊬𐊭𐊮𐊯𐊰𐊱𐊲𐊳𐊴𐊵𐊶𐊷𐊸𐊹𐊺𐊻𐊼𐊽𐊾𐊿𐋀𐋁𐋂𐋃𐋄𐋅𐋆𐋇𐋈𐋉𐋊𐋋𐋌𐋍𐋎𐋏𐋐𐋑𐋒𐋓𐋔𐋕𐋖𐋗𐋘𐋙𐋚𐋛𐋜𐋝𐋞𐋟𐋠𐋡𐋢𐋣𐋤𐋥𐋦𐋧𐋨𐋩𐋪𐋫𐋬𐋭𐋮𐋯𐋰𐋱𐋲𐋳𐋴𐋵𐋶𐋷𐋸𐋹𐋺𐋻𐋼𐋽𐋾𐋿𐌀𐌁𐌂𐌃𐌄𐌅𐌆𐌇𐌈𐌉𐌊𐌋𐌌𐌍𐌎𐌏𐌐𐌑𐌒𐌓𐌔𐌕𐌖𐌗𐌘𐌙𐌚𐌛𐌜𐌝𐌞𐌟𐌠𐌡𐌢𐌣𐌤𐌥𐌦𐌧𐌨𐌩𐌪𐌫𐌬𐌭𐌮𐌯𐌰𐌱𐌲𐌳𐌴𐌵𐌶𐌷𐌸𐌹𐌺𐌻𐌼𐌽𐌾𐌿𐍀𐍁𐍂𐍃𐍄𐍅𐍆𐍇𐍈𐍉𐍊𐍋𐍌𐍍𐍎𐍏𐍐𐍑𐍒𐍓𐍔𐍕𐍖𐍗𐍘𐍙𐍚𐍛𐍜𐍝𐍞𐍟𐍠𐍡𐍢𐍣𐍤𐍥𐍦𐍧𐍨𐍩𐍪𐍫𐍬𐍭𐍮𐍯𐍰𐍱𐍲𐍳𐍴𐍵𐍶𐍷𐍸𐍹𐍺𐍻𐍼𐎁𐎂𐎃𐎄𐎅𐎆𐎇𐎈𐎉𐎊𐎋𐎌𐎍𐎎𐎏𐎐𐎑𐎒𐎓𐎔𐎕𐎖𐎗𐎘𐎙𐎚𐎛𐎜𐎝𐎞𐎟𐎠𐎡𐎢𐎣𐎤𐎥𐎦𐎧𐎨𐎩𐎪𐎫𐎬𐎭𐎮𐎯𐎰𐎱𐎲𐎳𐎴𐎵𐎶𐎷𐎸𐎹𐎺𐎻𐎼𐎽𐎾𐎿�0𐏁𐏂𐏃𐏄𐏅𐏆𐏇𐏈𐏉𐏊𐏋𐏌𐏍𐏎𐏏𐏐𐏑𐏒𐏓𐏔𐏕𐏖𐏗𐏘𐏙𐏚𐏛𐏜𐏝𐏞𐏟𐏠𐏡𐏢𐏣𐏤𐏥𐏦𐏧𐏨𐏩𐏪𐏫𐏬𐏭𐏮𐏯𐏰𐏱𐏲𐏳𐏴𐏵𐏶𐏷𐏸𐏹𐏺𐏻𐏼𐏽𐏾𐏿𐐀𐐁𐐂𐐃𐐄𐐅𐐆𐐇𐐈𐐉𐐊𐐋𐐌𐐍𐐎𐐏𐐐𐐑𐐒𐐓𐐔𐐕𐐖𐐗𐐘𐐙𐐚𐐛𐐜𐐝𐐞𐐟𐐠𐐡𐐢𐐣𐐤𐐥𐐦𐐧𐐨𐐩𐐪𐐫𐐬𐐭𐐮𐐯𐐰𐐱𐐲𐐳𐐴𐐵𐐶𐐷𐐸𐐹𐐺𐐻𐐼𐐽𐐾𐐿𐑀𐑁𐑂𐑃𐑄𐑅𐑆𐑇𐑈𐑉𐑊𐑋𐑌𐑍𐑎𐑏𐑐𐑑𐑒𐑓𐑔𐑕𐑖𐑗𐑘𐑙𐑚𐑛𐑜𐑝𐑞𐑟𐑠𐑡𐑢𐑣𐑤𐑥𐑦𐑧𐑨𐑩𐑪𐑫𐑬𐑭𐑮𐑯𐑰𐑱𐑲𐑳𐑴𐑵𐑶𐑷𐑸𐑹𐑺𐑻𐑼𐑽𐑾𐑿𐒀𐒁𐒂𐒃𐒄𐒅𐒆𐒇𐒈𐒉𐒊𐒋𐒌𐒍𐒎𐒏𐒐𐒑𐒒𐒓𐒔𐒕𐒖𐒗𐒘𐒙𐒚𐒛𐒜𐒝𐒞𐒟𐒠𐒡𐒢𐒣𐒤𐒥𐒦𐒧𐒨𐒩𐒪𐒫𐒬𐒭𐒮𐒯𐒰𐒱𐒲𐒳𐒴𐒵𐒶𐒷𐒸𐒹𐒺𐒻𐒼𐒽𐒾𐒿𐓀𐓁𐓂𐓃𐓄𐓅𐓆𐓇𐓈𐓉𐓊𐓋𐓌𐓍𐓎𐓏

In (13), the *-re* form of the verb *urhunje-* clearly does not function as a finite verb; rather, it describes a situation that is structurally parallel to the following finite clause. In (14), it describes sequential actions by a single subject.

Earlier studies (Pevnov 2004: 158; Aisin-Gioro 2009b: 187) identified *-rA* as alternative participial ending. However, this raises several problems: First, it is unclear why Jurchen would possess two sets of ‘present-future participles’ (i.e. *-ru* and *-rA*) without any clear phonological or morphological distribution criteria (e.g. vowel harmony). Second, forms in *-rA* are rare in surviving texts compared to the *-ru* participle, and none function as adnominal modifiers or nominal elements, unlike true participles. All attested *-rA* forms occur in clause-linking adverbial usages. The Jurchen *-rA* forms are more plausibly understood within the broader Tungusic typology of aorist-derived converbs. For example, in Nanai and Ulcha, such forms—called anterior converbs (Kazama 2024a, 2024b)—express sequential actions and co-occur in event chains. Kilen also has this converb:

Kilen (An 1986: 56)

si jox-dule ene-re maci teine-re teni eme
 2SG house-LOC go-ANT a.while rest-ANT then come.IMP
 ‘Go home and rest for a while before coming back.’

⁶ Although Jin (1984) regards grapheme 𐰇 as a variant of *ili* 𐰇 ‘to stand’, it is better analysed as an independent grapheme. The two forms co-occur within the same inscriptions, and 𐰇 is used exclusively in ‘return-related’ contexts. Furthermore, 𐰇 exhibits [–RTR] phonotactics (see (25) in Section 5.3), whereas *ili* is typically [+RTR]. It is likely cognate with Manchu *bedere-* ‘to return’.

If the analysis of Jurchen examples above as sequential converbs is valid, then these forms could be morphologically identical to the connegative (Section 3.2) as connegative forms precede negation words in a similar way as sequential converbs precede the next clause. This possibility suggests a potential existence of aorist-derived converbs within the Jurchenic branch.

The most complex aorist-derived form in Jurchen is the finite verb ending in *-ra(n)*.

However, one possible formal distinction between the Jurchen imperfective finite and sequential converbs⁷ occurs with causative verbs, which end with 支 *-bu-ran* and 号 *-bwe-ren* (16–17), according to the SJ transcription *bulian* 卜連 as the verb ending for both.

- ⁷ In (25) of Section 5.2, 𐰚 also appears as a causative connegative ending, without the final *-n* (i.e. as *-bura*). This reconstruction is supported by two observations. First, in SJ, 𐰚 receives a secondary transcription *bule* 卜勒 in some cases, as in *buraki* 𐰚𐰢 ‘dust’. Second, in other Tungusic languages, converbial uses of aorist stems never end in *-n*, but always in *-ra* alone. This suggests that the Jurchen imperfective finite endings for causative verbs with final *-n* are likely a peculiarity. It remains possible that in the official Jin Jurchen language, imperfective finite endings for causative stems did not include this *-n*; however, this cannot be assumed without direct evidence.

(17) 反史史杀奎单早炭[杀久]天卓佐右更南阜奥写吏

nuruḡe ni buḡa deu hyon[niŋ] taira jisū-mei byeyi hwexe
 Nurgan GEN place DAT Yongning temple make-SIM stele[C] stone
ili-bu-ran
stand-CAUS-NPFV

‘In the land of Nurgan, the Yongning Temple was built and a stele was erected.’ (YONG.1)

In (15), *-ra* marks a habitual past action. In (16), *-bu-ran* and *-bwe-ren* occur in succession, separated by the conjunctive converb *-ši*, which is notable for its ability to follow finite forms (see Section 7.5). The second verb *dyen-bwe-ren* is unambiguously finite. The context of a rhetorical question (introduced by *hai jaligi* ‘for what’) supports an interpretation of *-ren* as expressing present habitual meaning. In (17), it appears in an introductory statement narrating an event. These data suggest that *-ra* and *-bU-rAn* serve as finite verbal endings with flexibility in temporal scope, mostly expressing either past or present habitual actions depending on context. For this reason, I tend to call this form imperfective finite.

Earlier analyses have diverged. Jin (1984), followed by Aisin-Gioro (2002), classified 𐰺-(a)ra and 𐰺-re as present-future endings. Aisin-Gioro (2009b: 172) translated *ili-bu-ran* in (17) with the Japanese present-tense form *tateru*. However, the parallel Middle Mongolian text in the same inscription has the past finite form *bayi-’ul-ba* (stand-CAUS-PST) ‘made stand’, supporting an aspect-oriented interpretation, instead of tense-oriented one.

Historically, this form is another form derived from the aorist paradigm in Proto-Tungusic, though the term ‘aorist’ may not be so appropriate for Jurchen if understood as non-future only, because typologically aorist means perfective past (Dahl 1985). The final *-n* in Jurchen causative stems may be of historical origin. For instance, the Jurchen imperfective finite negation verb *ešin* may derive from **e-si-n* (NEG-AOR-3SG) (Kane & Miyake 2024), with *-n* tracing back to a fossilised subject indexation marker (< **-nI*, cf. Benzing 1955; Janhunen 2024a). This *-n* survives as a finiteness marker for some verbs in at least some dialects of Jurchen, for example, the SJ one.

Additional support comes from the copula *bye-* ‘to be’ (see (2) in Section 3.1), which includes an imperfective finite form written *bye-n* 更𐰺⁸. In that example, *bye-n* expresses a finite present habitual statement. Notably, *bye-n* does not contain the expected *-ši* found in the negation verb *ešin* from historically the same group of aorist stems (cf. Manchu *bi-si-re*). This split is not unique and also attested in some other Tungusic languages like Oroch, where the negation verb *e-* is also more conservative than copula verb *bi-* (Kazama 2024b).

⁸ Again, the *-n* coda in *yen* 𐰺 is not reflected in SJ transcriptions but is directly attested in Jin-dynasty inscriptions, where the phonetic translation of Chinese *guo shi yuan* 國史院 ‘Institute of National History’ is *gui šī hweyen* 𐰺𐰺𐰺𐰺. The relevant finite marker in 更𐰺 is the final *-n* alone, not the entire grapheme 𐰺 *yen*. The element *ye* is an orthographic device aligning with the vowel of 更 *bye*, consistent with a general strategy in Written Jurchen (cf. *dolwo-or* 𐰺𐰺, i.e. *dolwor*).

4. The Prohibitive Use of the Imperfective Finite

The imperfective finite form also occurs in prohibitive constructions following the prohibitive marker *ume* (‘do not’), which can be analysed as *u-me* (NEG-SIM; see Section 3.1):

- (18) 内夷爰厖色尺商斥内[...]未厖色芊无卓
 ume surtu-re *tara* ---*da* *gi*, *ume* [...] muhu-r *tara*
 PROH ?wander-CNEG that idleness INS, PROH ?indulge-CNEG that
 dirğan *do*
 pleasure DAT
 ‘Do not wander idly; do not indulge in pleasure.’ (JIN.3)

This line reflects the Old Chinese 罔遊于逸, 罔淫于樂 from the *Book of Documents*, with word order adapted to match the source. What is notable here is the choice of graphemes. Instead of using 斥 or 条 for *-re* directly in the first verb *surtu-* ‘to wander’, the writer employed *sur-tur* 夷爰 plus *e* 厖, which makes the form appear to be a past finite (see Section 5.3). The second verb, although written with the grapheme *ur* 厖, in fact ends in *-r* alone. This possibly reflects a provisional variant of *-rA* in connected speech, with the *u-* belonging to the stem. The prohibitive construction is thus a finite use of the verb and is semantically compatible with the imperfective. The same construction is also attested in Manchu (Hölzl 2015).

V. PAST-RELATED FORMS: PERFECT FINITE, PERFECTIVE PARTICIPLE AND PAST TENSE FORMS

A notable feature of Jurchen verbal morphology—also seen in some other Tungusic languages such as Udihe—is the likely presence of two sets of past-related forms. These forms, termed preterit I and preterit II by Benzing (1955), are labelled perfect and past by Nikolaeva and Tolskaya (2001), and preterit and past by Perekhvalskaya and Janhunen (2024). For consistency, this study adopts the terms perfect and past.

The contrast between these two past categories primarily involves present relevance. The perfect appears in contexts with speaker involvement, such as personal experience or evaluative judgement, while the past conveys more detached narration. For example, In Bybee *et al.*’s (1994: 53–55) terminology, the Udihe perfect covers completive, anterior, and resultative situations, whereas the past denotes perfective and past situations.

1. Perfect Finite

Only two clear instances of the perfect finite are attested in extant Jurchen texts, both from YONG of early Ming. These forms end in *-xu* 尙 (3) (Section 3.1) and *-xa* 付 (19):

- (19) 岸丈右龙关亩丈斥更付
 jobe-mei *hwon* *dyen-deru* *gi* *bye-xa*
 obstruct-SIM how be.able-NPFV.PTCP INS exist-PF
 ‘It has remained, as it cannot be obstructed.’ (YONG.12) (永無異意矣)

Notably, both corresponding Chinese lines end with the modal particle *yǐ* 矣, indicating anterior (3) and resultative (19) situations.

While rare in inscriptions, the perfect finite form is supported by many SJ entries ending in *-xA*, such as *jalu-xa* 尾弓申 ‘to be full’, *hete-xe* 育兒 ‘to win’, and *sohto-xo* 汎劣支 ‘to be drunk’. A variant suffix *-kA* also appears (e.g. *ala-ka* 尙由 ‘to defeat’, *xula-ko* 尙友帀 ‘to change’). The vowel *e* is the [–RTR] counterpart to *a* [+RTR], and *o* for rounded stems⁹. The scarcity of perfect forms in epigraphs is unsurprising, given their semantic association with speaker perspective, which is less typical in epigraphic contexts where authors often aim for a more formal and detached narrative stance.

In Manchu, past finite verbs share morphology with the perfective participle (*-hA/-kA*), commonly translating the Chinese *le* 了—a colloquial equivalent of *yǐ* 矣. Its form is evidently cognate with the Jurchen perfect finite marker.

A further Jin-dynasty example may attest another perfect-like form *-hu* 𠬞, in:

(20) 周主[乘]升舟𠬞久天丰戈卦友卓太𠬞森立友

hujei *[pude]-xei* *simin* *taiyoi* *yahu* *do* *yongke*
respectfully send-PFV.PTCP Ziming[C] grand.marshal[C] [...] DAT [...]
dulen-hu
pass-PF

‘(I) have passed by ... at ... Grand Marshal Ziming, to whom I have respectfully dedicated (this poem).’ (SHI.2)

This form appears in the preface to a poem and expresses a personally relevant, recent action—consistent with perfect semantics. Its relation to the *-xe* finite form is further supported by the pair *eihu* 𠬞友 from SHI and *eixe* 𠬞兒 from SJ, both meaning ‘not yet; never’. However, due to limited data, the precise function of *-hu* and its relation to *-xA* remain uncertain.

2. Perfective Participle

Unlike the rare perfect finite, its participial counterpart—the perfective participle—is one of the most frequently attested verb forms in the Jurchen corpus, with over 50 clear examples. The term perfective is used here advisedly, as it encompasses a wider range of past-related meanings than perfect, particularly in perfective situations in Bybee *et al.*’s (1994) term.

This participial form appears in several suffixal variants: *-xai* 兒/尺, *-xei* 升, and the consonant-conditioned *-gai* 可. Like the imperfective participle, it frequently introduces relative clauses (*ara-xai nyalma* ‘people who wrote’ in example 21), but it can also function as the head of complement clauses (22), and more rarely, as a converb predicate indicating prior action (23).

⁹ The YONG form *o-xu* in (3) should probably be treated as a spelling variant of the theoretical form **o-xo* (cf. Manchu *o-ho*). No verb forms in SJ end in *-xu*.

(21) 天尺伴戈矢斐乘压使单天尺更仑

ara-xai nyalma i gebu-se¹⁰ xan bitxe¹¹ deu
 write-PFV.PTCP person GEN name-PL Chinese[C] text DAT
ara-xai bye-n
 write-PFV.PTCP COP-NPFV

‘The names of the people who wrote have already been written in the Chinese text.’
 (YONG.15)

(22) 乘哭弔史岸笈可仔尼米支牀史

[seŋiŋei be jon-gai]_{CC} bwa jalan-bu-ra eiǵe
 [filial.pietty ACC think-PFV.PTCP]_{CC} ACC be.interrupted-CAUS-CNEG not.yet

‘The thought of filial piety has not been interrupted.’ (DE.17) (孝思不忘)

(23) 岸盍屏仔忠是斗育宋...

bahjuxi bwa ala-xai tauda-ŋisa ...
 enemy ACC defeat-PFV.PTCP return-CTM ...

‘Having defeated the enemy, when returned in triumph ...’ (YONG.12) (師勝而還)

As can be seen from the comparison of example (21) with (10) in Section 4.1, different from the imperfective participle, the perfective participle nominalises events occurring at a specific time. The converb usage in (23) is supported by the Chinese connective particle *ér* 而, as well as by the Jurchen suffix *-ŋisa* 宋 marking *tauda* ‘to return’ as a contemporaneous converb (Section 7.4), thereby excluding adnominal interpretations of *-xai*. Such examples blur the boundary between Jurchen participles (with adjectival/nominal nature) and converbs (adverbial nature), but these extensions are well attested cross-linguistically.

Although Jurchen participles generally place no syntactic constraints on the grammatical role of the head noun in the relative clause, a specialised form *-wa-xai* 斧是 restricts the interpretation of the head noun to its semantic object (24). The [–RTR] counterpart **-we* is unattested.

(24) 子弓斧是夹素得刺

ilu-wa-xai širǵa morin
 ride-PASS-PFV.PTCP reddish.white horse

‘The reddish-white horse ridden (by the emperor)’ (DE.9) (所乘赭白馬)

Jurchen *-xai* also resembles the Manchu perfective participle *-hA* in compound tense constructions with the copula. These constructions express anterior situations, as in the sentence-final *ara-xai bye-n* in example (21). Here, *bye-n* marks a present state, while *ara-xai* expresses a completed prior action—together forming an anterior reading. Unlike the Manchu

¹⁰ The reading *ger* for 矢 cannot be excluded and could, like *ge* 戾, be transcribed with SJ *ge* 革. Nevertheless, the evidence favors *ge*. 矢 is likely a semantic grapheme, as it only appears as the first syllable of ‘name’, and its close resemblance to 戾 further supports *ge* over *ger*.

¹¹ The SJ transcription for 使 is *bitehei* 必忒黑 (not *bitihei* 必替黑), suggesting a reading closer to *bitxe* (Written Manchu, Sanjiazi Manchu, Sibe) rather than *bitixe* (Bala and Alchuka; Mu 1987).

Scholars have long recognised *-x*Ai** as a past participle (Jin 1984; Pevnov 2004; Aisin-Gioro 2002, 2009b). A comparison with Manchu reveals that the latter's *-h*A** subsumes the functions of both the Jurchen perfect finite (*-x*A**) and perfective participle (*-x*Ai**). The cognacy is clear, but *-x*Ai** is likely a Jurchen innovation from *-x*A**. However, the exact diachronic source of the formative *-i* remains an open question.¹²

Jurchen exhibits a distinct verbal form that slightly violates typical phonotactic constraints by allowing hiatus, i.e. sequences of adjacent vowels. These sequences, shaped by vowel harmony and suffix selection, are exemplified by *se'e* 乗厓 from *se-* ‘to say’ and *sa'a* 允东 from *sa-* ‘to know; to see’.

Based on observations of verbs ending in the [+RTR] suffix *-a* 𐰽 (25) and the [–RTR] suffix *-e* 𐰾 (26), it appears reasonable to conclude that these forms likely represent Jurchen past finite verb forms.

- ‘The reddish-white horse ridden (by the emperor) was seen like a hill.’ (DE.9) (所乘赭白馬亦如岡阜之大)

- ‘On the same day, (they) returned to the Hall of Great Achievement.’ (JIN.14–15)

¹² This situation may call to mind an apparently similar difficulty for sentence-final *-xei* in Sibe, but the distribution there is reversed: Sibe finite forms take *-i* while participles do not. Furthermore, Sibe *-i* likely derives from a weakened *-bi* (i.e. *-xebi* > *-xei*; Zikmundová 2024: 494).

not by continued narration but by a list of presented scholars. This strongly supports the identification of *-a* and *-e* as past finite markers.

While this form is absent in SJ except perhaps in a multiword entry whose first word corresponds to the Chinese gloss *jié* 捷 ‘to triumph’—*xalalu’o* 凌弓斥, whose final *-o* might reflect a past finite variant, this remains unconfirmed.

Jin (1984) and Aisin-Gioro (2002) interpret this form as the Jin-era counterpart of the imperfective *-ra*, which they label as ‘present-future’. However, this interpretation raises issues in terms of tense semantics and the distribution of forms in the corpus: *-a* and *-ra* co-occur in DE inscription from the Jin period, and a likely causative form of *-a* is attested in YONG from the Ming period, alongside *-bu-ran*, the causative equivalent of *-ra* (27):

- (27) 威屯关休屏南戾示仓伴单无并金帛并夷利史此秀
mederin tyulixi kuyi adi xaxa xexe nyalma deu hetuku
 sea outside Ainu[C] several man woman person DAT clothes
baitaga ulin be ali-b-a
 tool money ACC receive-CAUS-PST
 ‘(The officials) offered clothes, tools, and money to the Sakhalin people over the sea.’
 (YONG.9) (及海外苦夷諸民賜男婦以衣服器用給以谷米宴以酒饌)

The reading of 秀 is widely accepted as *ba*. The verb *ali-* ‘to receive’, common across Tungusic languages, must be understood as ‘to offer’ or ‘to cause to receive’ here. Thus, *-ba* is likely the contracted form of the causative *-bu* < **-bU* and with the past finite *-a*.

Further variants of this past finite form are attested, including *-yo* 丰 (28), *-ye* 类 (29) and *-hwe* 阜 (30):

- (28) 奈米尔申见并赤头月卓[...]片毕英土尧余斥丰
amban namxaxai nadan anya ilan byağa do [...]soŋ wun
 great(Da) stable(Ding) seven year three month DAT [...] text[C]
nonwongi-yo
add-PST
 ‘... text was added in the third month in Dading 7.’ (HAI.5)

- (29) ...束史兄尺毛屋史兄屏亲受更类
... julge sa-xai irgen be sa-xini ?semei ?uŋgi-ye
 ... before know-PFV.PTCP people ACC know-OPT QUOT send-PST
 ‘... people were sent and let associate with those they had formerly known.’ (YONG.8)
 (收集舊部人民使之自相統屬)

- (30) 让商牟[...]东史舌令史存状[...]阜父更东阜
šanday [...] puđe gyuŋ aciburu bwa mer[...] huŋ
 Shangdang[C] [...] old palace[C] holy ACC ?recording ode
bye-pu-hwe
exist-TR-PST
 ‘In Shangdang, (Emperor Xuanzong of Tang) had the *Ode to the Emperor in the Old Palace*.’ (DE.18–19) (過上党有舊宮述聖頌)

The distribution of the suffixes appears to align with stem types: *-a* with [+RTR] stems, *-e* with [–RTR], *-ye* with [–RTR] *i*-stems, *-yo* with [+rounded] *i*-stems, and *-hwe* with [–RTR] *u*-stems.

4. Potential Past Participle Forms

In addition to the past finite, a form ending in *-wi* 委 is also attested, where the action forms a complement clause marked with the accusative:

- (31) 爰杀叁肉[...] 爰受中先乘市貝糸房杀布更东委史受斗左岳升
šun ni šu ume [...] ?derei daxa-bya, mita-xai
 Shun[C] GEN 2PL PROH [...] ?in.front follow-SUC, retreat-PFV.PTCP
hamyar ni xelse bye-pu-wi be ?semei
 back GEN word exist-TR-PST.PTCP ACC QUOT
ulhu-bwe-xei
 understand-CAUS-PFV.PTCP
 ‘Shun’s admonishment: “You shall not obey in front while having words after turning away.”’ (JIN.3–4)

This line, a Jurchen translation of 汝無面從, 退有後言 from the *Book of Documents*, begins with *šun* ‘2PL’ and ends with *bye-pu-wi* (have-TR-PST.PTCP), forming the accusative-marked complement of *se-* ‘to say’.

The semantics of *-wi* can also be observed in (32):

- (32) [阜] 阜单玖毕史决卓 焉委更更厝... 阜单玖毕朱
[hwe]xe deu poŋ-bu-ru daği-ra es-wi bye-cibal
 stone DAT carve-CAUS-NPFV.PTCP prepare-CNEG NEG-PST.PTCP COP-CONC
 ... hwexe deu poŋ-šyu
 ... stone DAT carve-CAUS
 ‘Although (we) had not prepared to have (the text) carved into the stone ... (we) had (it) carved into stone.’ (QING.III.4–5)

In (32), the *-wi* participle denotes a counterfactual past event, followed by the concessive converb form of the copula *bye-*, forming a compound construction reminiscent of the *-xai bye-* sequence discussed in Section 5.2. This is best translated as a pluperfect (‘had done’), confirming its past temporal reference. In (8) of Section 3.2, *es-wi* negates a modal verb and precedes an eroded grapheme, likely an auxiliary or finite ending, with the clause clearly conveying a past state. Significantly, the corresponding Middle Mongolian passage uses *yada-ba* (be.unable-PST), reinforcing the past reading of *-wi*.

Although *-wi* is not attested in adnominal contexts, its usage confirms its nominal nature with past semantics, which suggests it might represent a kind of past participle.

Another attested participial form is with the suffix *-sui* 𐰆/𐰇. It appears in both adnominal (33) and nominal ((16) in Section 4.3) functions.

(33) [...] 岸舍卓舟升五杀風他
 [...] [gašyan]¹³ do tege-sui_{RC} mingan ni beğile
 [...] [village DAT live-PST.PTCP]_{RC} chiliarchy GEN commander
 ‘The chiliarch who lived in the village of ...’ (QING.III.1)

In (33), from an inscription describing temple construction, *teḡe-sui* ('living') refers to a residence, but probably from a detached perspective. In (16), *-sui* appears with the anterior *-xei bye-*, indicating an anterior result. The form also occurs in SJ entries, e.g. *peḷi-sui* 𐰺𐰆𐰽 'to walk' (Manchu *feliye-*), and *a-sui* 𐰺𐰆𐰽 'not to exist'. The tense-aspect interpretation from these few attestations remains tentative, yet Bala provides strong evidence: it has a negator *asai* 'not to exist' that can also serve as a verbal suffix meaning 'did not, have not', compared with Manchu *-hAkû* (Mu 1987). This surviving evidence strongly favours a past-relevant interpretation of Written Jurchen *-sui*. Another indirect piece of evidence is that, despite its close phonetic similarity to *-wi*, the two never occur on the same stem in extant texts. Thus, *-sui* may be a lexically conditioned variant of *-wi* (for example, *-sui* as the general ending, with *-wi* limited to a few stems like *es-* and *byeḡu-*).

Pevnov (2004: 349) identifies *-sui* as a participial marker, while Aisin-Gioro (2002: 109) interprets it as a past participle. The latter view aligns with our tentative analysis, which treats *-wi* as a reliable past participle and *-sui* as its possible allomorph. Nevertheless, given the scarcity of extant Jurchen texts and the opaque Tungusic origin of these forms, their specific functions cannot be determined at present.

VI. VOLITIVE, OPTATIVE AND IMPERATIVE FORMS

Beyond the indicative finite forms discussed above, several non-indicative finite forms are also attested in Jurchen. Some are relatively well understood, while others remain less certain.

The first such form is the volitive *-xi* expressing wishes, and clearly corresponding to the Manchu volitive *-ki*, as seen in example (34):

(34) 尙戎五单朱老夷佬主夷戈玖卓条屏盍巫卓朱屏受
gwepa mɪŋɡan deʊ iʃi-bya milei ?putixi i podo
 Guopa chiliarchy DAT arrive-SUC Maitreya[C] Buddha GEN [...]
angau juŋu do iʃi-xi ?semei
 [...] way DAT arrive-VOL QUOT
 ‘Having arrived at the Guopa chiliarchy, (I) wish to reach the way of Maitreya Buddha’s ...’
 (BEI.2–3)

¹³ It is possible that the SJ transcriptions reflect a dialectal layer, which irregularly lacks some final nasals of the Jin-dynasty dialect, for which the script was devised. For instance, 𪛗 and 𪛘 are both transcribed as *sha* 沙, but cognate comparison suggests that 𪛗 is *šya*, while 𪛘 is *šyan* (Mudrak 1988). This reading is also confirmed in a historical transcription of *gašyan* ‘village’ as *gexian* 歌仙 (Middle Chinese: *ka sien*) in the *History of Jin* (Aisin-Gioro & Yoshimoto 2011: 163).

Although the grapheme 𐰚, not occurring in SJ, is of unknown phonetic value, its syntactic behaviour as a quotative marker and its ability to take an accusative complement support its association with Manchu *se-me* (say-SIM) (Aisin-Gioro 2009b: 186–187). In Manchu, *-ki se-* and finite *-ki* conveys desire and is often translated as ‘want’, which aligns with the interpretation here. Thus, *-xi* can be identified as the Jurchen volitive marker.

Further evidence comes from the form *-xini* in (29) of Section 5.3, which parallels the Manchu optative *-kini*. In Manchu, this form typically means ‘let (him/them) ...’ and is often described as an optative. The same interpretation applies to the Jurchen example (29), where *sa-xini ?semei ?unggi-ye* indicates that the officials sent the local people with the instruction ‘let them associate with those whom they had formerly known.’

It is tempting to associate Jurchen *-xi* and Manchu *-ki* with a Proto-Tungusic imperative marker **-gI* (as suggested by Janhunen 2024a: 65). However, even if this is accepted, the special sound change involved would be irregular and remains to be explained. Regardless of whether this etymology is correct, the element *-ni* in Jurchen *-xini* and Manchu *-kini* is likely derived from the reconstructed third-person marker **-nI*, which is less controversial.

In addition to these two morphologically related forms, second-person imperatives are not directly attested in surviving inscriptions. However, SJ includes some *u*-final forms that may represent imperatives, such as *jepu* 𡵓𡵓 ‘to eat’, likely analysable as *jep-u* (eat-IMP), corresponding to Manchu *jefu* (Kiyose, 1977).

Another potential imperative form is the suffix *-sun* ~ *-sun* 欠, attested in (35):

(35) 布亨屋文东屏孟岁更更床竿判金看欠亩画吴布亩禾麦升支受伎房吞岁更更床竿判
金看欠亩画先冬吴

xelse merġen --- ?pudarašixon bye-ci --riye baica-sun juġu-ŋu,
 word mind LOC against COP-COND surely seek-IMP way-NMZ,
xelse juhte-xei --- daxala-yar yamxon bye-ci --riye
 word respect-PFV.PTCP LOC follow-RES [...] COP-COND surely
baica-sun juġu gwaiyu-ŋu
 seek-IMP way NEG.COP-NMZ

‘If some word goes against your mind, you must examine whether it accords with the Way. If some word aligns with your will, you must examine whether it does not accord with the Way.’ (JIN.4)

This is a Jurchen rendering of the admonition 有言逆于汝心, 必求諸道; 有言遜于汝志, 必求諸非道 from the *Book of Documents*. The *-ŋu* probably functions as a quality nominaliser, corresponding to Manchu *-ngge*¹⁴ (cf. Manchu *eldengge* ‘bright’ from *elden* ‘light’, and expression ... *akû-ngge* ‘something without ...’). Word order is adjusted to reflect

¹⁴ The Manchu suffix *-ngge* is complex functionally. It has a quality-nominalising / superlative vowel-harmonic variant *-ngga* (with numerous exceptions) following nominals. It also has a possessive invariant *-ngge* (with its independent counterpart *ningge*), which occurs after pronouns and participles. Comparative Tungusic evidence suggests alienable possession markers of the type **-ŋU* and possessive suffixes of the type **-ŋII* in related languages, and there have been attempts to tentatively connect **-ŋU* with **-ŋII*, *-ngge* with **-ŋU*, and Manchu *-i* with **-ŋII* (Janhunen 2024a: 48–49). On the basis of the current hapax evidence, Jurchen *-ŋu* can be interpreted in a way reminiscent of Manchu *-ngga*, but the exact historical relationship between Jurchen *-ŋu*, Manchu *-ngge*, and the reconstructed possessive markers lies beyond the scope of this paper.

(38) 天卓米写为文委击升而

tairan ili-bu-ma mute-bwe-xei dağa
 temple stand-CAUS-SIM succeed-CAUS-PFV.PTCP leader
 ‘The leader who built the temple’ (QING.III.5)

In (38), *-ma mute-* ‘to succeed in doing’ is cognate with Manchu *-me mute-* ‘to be able to’, forming a complex predicate. A further form *-me* recorded in SJ *bye-pu-me* 更𐰚 (exist-TR-SIM) ‘to have’ should also be a variant of the simultaneous converb suffix. The Jurchen *-mAi/-mA* derives from Proto-Tungusic **-mII* (Janhunen 2024a), with a cognate *-me* in Manchu.

While *-mai* and *-mei* generally follow vowel harmony, exceptions occur. In both inscriptions and SJ, about 2 of 34 [–RTR] stems take *-mai* (e.g. *hujebi-mai* 周柁矣 ‘to respect’), and about 12 of 58 [+RTR] stems take *-mei* (e.g. *daxa-mei* 受申右 ‘to follow’). These are likely not lexically specific exceptions, as several stems occur with both forms in the same text (e.g. *daxa-mei* 受申右 in DE.6 vs. *daxa-mai* 受申矣 in DE.8), possibly reflecting indistinct vowel contrasts in running speech.

2. Successive Converb

Successive converbs (also called perfective converb, consecutive converb, and past converb) in Jurchen are primarily marked by the suffixes *-bye* 更 and *-bya* 𐰚. While *-bya* was once equated with the Manchu finite marker *-mbi* (Jin 1984), later studies (Aisin-Gioro 2009b; Pevnov 2004: 108–109) correctly interpret it as a converb suffix. The form *-bye* is homophonous with the copula *bye-*.

The distribution of *-bye/-bya* shows patterns similar to that of *-mai/-mei* (Section 7.1). In SJ entries, both *-bye* and *-bya* follow the verb stem *teḡe-* ‘to sit; to live’, just as both *-mai* and *-mei* attach to *daxa-* ‘to follow’ in DE. Despite such overlaps, statistical tendencies suggest vowel harmony remains the default: in both SJ and inscriptions, only about 2 of 25 [–RTR] stem tokens take *-bya*, and about 1 of 13 [+RTR] stems take *-bye*. This low occurrence supports the hypothesis that *-bye* and *-bya* are not distinct morphemes but allomorphic variants of the same converb suffix.

In addition to these two forms, a third variant *-pya* 𐰚 appears in both SJ and the inscriptions, though only with the stems *o-* ‘to become’ and *ortyan-* ‘to lead’. A further rare form *-pi* 𐰚 occurs once in SJ in *jaši-pi* ‘to order’, but not in the inscriptions, and is evidently cognate with Manchu *-fi/-pi*. As a successive converb, these *-pi* forms are widely attested across Tungusic languages, and its origin can be reconstructed as Proto-Tungusic **-pII* (Janhunen 2024a). The problem is that in the inscriptions the vast majority of successive converbs appear as *-byA*, rather than the expected *-pi* or even *-pya*. This pattern may reflect a replacement that arose from the historical paraphrastic construction **-bi-xe* ‘having done’ following the verb stem (see Sections 3.1 and 4.3 for similar speculations). The form then began to overlap functionally with the original *-pi* and came under vowel harmony, so that by the Jin dynasty only a few verbs preserved the older pattern. This is only one possible explanation, proposed specifically to avoid a simplistic derivation of *-byA* from **-pII*. Additionally, the complex causative-passive form *-bu-wi* 𐰚, attested after *-bu* stems, may also be a variant.

conditional-converb usage, where *-ci* likewise permits an immediative reading. For example, in Qing dynasty documents, the common expression *baica-ci* (investigate-COND), followed by the results of the investigation, can be translated as ‘upon investigation’ or ‘according to our investigation’. Written Jurchen converbs in *-ši* may therefore also represent an allomorph of the conditional converb *-ci*.

An alternative analysis is to treat this form as a participle, inspired by the productive suffix *-zi < *-si* in Alchuka (Mu 1986; Hölzl 2020), which in several constructions functions similarly to Written Manchu imperfective *-ra*. However, this participial analysis, though formally compatible, seems to be functionally less plausible than the converbial one.

The second usage, as a conjunctive converb following an imperfective finite form, is seen in (44) and also (16) in Section 4.3:

- (44) [...] 艾曷史飛庫盆中戈卓早卦爻[走]孟秀立盆邕栗刈无更庵走右写屏昆 [...]
 [...] *xenje-ru doro cauxa i dolo yabu-[bu-ran]-ši*
 exorcise-NPFV.PTCP ritual army GEN inside walk-[CAUS-NPFV]-CONJ
geren cauši ucin hetu-bye nobura-mei ili-yar-xai [...]
 each troop armor wear-SUC ?be.orderly-SIM stand-RES-PFV.PTCP [...]
 ‘Purification ritual was performed in the army. Then each troop, having donned armor, stood in formation.’ (DE.12) (時又以禳禱之法行于軍中諸軍介而序立)

In (16), *-ši* introduces a conjunct clause with the same subject as the main clause. In (44), the converbial clause with *-ši* has a different subject from the clause after it, reflecting a disjunct usage, though the temporal sequence (‘after’) is maintained. It is particularly noteworthy that in both cases, *-ši* follows an imperfective finite form (i.e. *-bu-ran*), which is unusual for converb suffixes.

This apparent irregularity may nevertheless find a parallel in Udihe, where the converb *-si* similarly follows finite forms and conveys a ‘subsequently/after’ meaning in both conjunct and disjunct contexts (Perekhvalskaya & Janhunen 2024). Although it is tempting to posit a historical connection between the Jurchen *-ši* and the Udihe *-si*, the available evidence remains insufficient to confirm this.

6. ANTERIOR CONVERB

The converb suffix *-xar* 全 is attested in Jurchen texts, with confirmed examples including *hain-pu-xar* 卓刈存全 (not.exist-TR-ANT) (JIN.3–4; SHEN.4–5), *sa-xar* 先全 (see-ANT) (SHEN.16), and an eroded form *xan[...]-xar* 压[...]全 probably meaning ‘to approach’ (JIU.6), all following [+RTR] stems. Its use supports a converbial interpretation:

- (45) 蚩夷...休史子存矣民商存卓刈存全早戈...戛文刮齿升
di šun ... --- be ilbwa-mai, ---da bwa
 emperor[C] Shun[C] ... [...] ACC dislike-SIM, idleness ACC
hain-pu-xar; ih i ... ?semei mu---bwe-xei
 not.exist-TR-ANT, Yi[C] GEN ... QUOT [...] -CAUS-PFV.PTCP
 ‘Emperor Shun ... disliking ..., and having no leisure; there was thus Yi’s admonishment: ...’
 (JIN.3)

In the above example, the omitted content of the admonishment is (35) of Section 6. The verb form in *-xar* denotes an anterior situation of the main clause. Like the successive, conditional, and contemporaneous converbs, it does not require subject coreference with the main predicate. In Aisin-Gioro's (2009a) edition of JIU, there is repeated use of *-xar* for sequential events, supporting the interpretation of *-xar* as an anterior converb.

This function resembles the Evenki anterior converb *-ksA ~ -ksAA* (dialectally *-xA ~ -xAA*), which expresses anterior completed action (Janhunen 2024b). However, even if *-xar* is indeed related to the Evenki anterior converb, its final *-r* still has no obvious historical explanation.

7. Terminative Converb

The Jurchen terminative converb is marked by *-dala* 尙友 (in Jin-period inscriptions) and *-tala* 弔友 (in early-Ming inscription YONG). It consistently follows the verb *iši-* 'to arrive' and conveys the meaning 'until'. Kane and Miyake (2024) identify *-dala* as a native Tungusic suffix (cf. Nanai *-dAlA*) derived from Proto-Tungusic **-dAA-lAA*, while *-tala* reflects a Mongolic borrowing from **-tAl-A* (cf. Manchu *-tAlA*).

VIII. DEVERBAL VERB FORMS

In Tungusic languages, aspect and voice markers traditionally occupy the morphological slot between the verb root and the finite, participial, or converb endings. A verb root, functioning as a stem, can combine with such markers—for instance, aspectual ones like the durative or voice markers like the passive—to form a derived stem, referred to here as a deverbal verb form. However, in Jurchen, due to the multifunctionality of bare stem forms (Pevnov 2012; see Section 9.1), aspect and voice markers may also occur in final position within a verbal predicate. Among the deverbal suffixes, three particularly important forms will be discussed: the causative-passive *-bu/-bwe* 𐰆/𐰇, the causative *-šyu* 𐰇, and the resultative *-yar* 𐰇.

1. Causative-Passive *-bu/-bwe* and Causative *-šyu*

The Jurchen causative-passive suffixes *-bu* 𐰆 [+RTR] and *-bwe* 𐰇/𐰈 [-RTR] derive from the Proto-Tungusic **-bU*. These forms are cognate with Manchu causative-passive *-bu* and with the *-bU* element in the complex causative-passive *-bU-kAAAn* seen in many other Tungusic languages.

This suffix is also found in contracted graphemes as discussed in earlier sections, including: connegative/sequential converb: *-bura* 𐰆 / *-bwere* 𐰇 / *-buru* 𐰆, imperfective participle: *-buru* 𐰆, imperfective finite: *-buran* 𐰆 / *-bweren* 𐰇, past finite: *-ba* 𐰆, simultaneous converb: *-buma* 𐰇, successive converb: *-buwi* 𐰇. Its status as a deverbal suffix is widely acknowledged in the literature (Kiyose 1977; Jin 1984; Aisin-Gioro 2002; Pevnov 2004).

A detailed analysis of *-šyu* in context confirms its transitivity and causative function:

- The coexistence of two causative markers in Jurchen is not exceptional. Solon, for example, possesses both *-wU/U-* ~ *-gUU-* and *-xAAn-* as causatives (Baek 2024). A semantic contrast between *-bu/-bwe* and *-šyu* is suggested by the ordering in forms like *tapa-bu-šyu* (DE.18), where morphemes nearer the root are generally more lexically integrated (Bybee 1985). This suggests that *-bu/-bwe* expresses more direct causation, often implying physical involvement, while *-šyu* may denote indirect causation, where the initiator acts through intermediaries. Although the historical origin of *-šyu* remains unclear, its status as a productive causative marker in Jurchen is well supported by the available data.

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2. Resultative *-yar*

In this paper, *-yar* 孛 is reconstructed as a resultative aspect marker in Jurchen. Its placement within the aspect slot is supported by attestations such as *doldi-yar-xai* (listen-RES-PFV.PTCP). This form occurs frequently in SJ and other Jurchen texts, though all documented instances involve [+RTR] stems; the existence of a [–RTR] counterpart remains uncertain.

While Jin (1984) and Aisin-Gioro (2009b) reconstruct 孛 as *lu*, several factors challenge this. First, 孛 is phonetic in nature, yet *lu* is already unambiguously represented by 𡗗. Second, if this form were indeed *-lu*, it resembles the Tungusic inchoative **-lU*, yet no attested uses in Jurchen reflect similar semantics. Third, some SJ transcriptions render 孛 as *er* 兒, and its exclusive occurrence within [+RTR] words further weakens the *lu* hypothesis. A word with Tungusic cognates is *ham-?-gai* 𡗗孛𡗗 ‘back, after’—transcribed as *amu-lu-gai* 阿木魯該 in SJ—corresponds to Proto-Tungusic **xama-rī-gī* (Doerfer 2004: 69), whose stem developed allomorphs with [ia] or [i] alongside [a] across branches: Solon *amīa-* (Hu & Chog 1986), Udihe *amia-* (Girfanova 2002), Nanai *xami-* (Onenko 1980), Kilen *ami-* (An 1986). Because *ar* is already unambiguously represented by 𡗗, 孛 likely denotes *-ari* or *-yar*. Phonotactics favor *yar*: 孛 follows [i] in 14 cases, but other segments in 9. Crucially, the verb ‘to carve’ in YONG uses *poyo ~ poy* 𡗗 rather than the nasal *pon-* found in JIN and QING. This suggests nasal stems lose nasal codas before this suffix, with the final *-y* reflecting the suffix’s onset—pointing to *yar* as the sound value. This reconstruction was first proposed by Mudrak (1988), and remains the plausible solution across all available evidence.

Scholars have proposed differing functions for this suffix. Jin (1984) interpreted *-yar* as the counterpart of the causative *-šyu*, functioning as an intransitive or self-initiated action marker. Aisin-Gioro (2002) regarded it as a perfect aspect marker, evidenced by parallels in Ming-dynasty *laiwen* 來文 ‘tributary memorials’, such as the correspondence between *?hodi-yar*¹⁷ 𡗗孛 (finish-RES) and the Chinese particle *liǎo* 了 (particle of completed actions). While this interpretation is possible, I refrain from labelling *-yar* a perfect marker, as that term is generally reserved in Tungusic linguistics for elements occupying a later position in the verbal template. Furthermore, Tungusic linguistics typically restricts the category of aspect to markers like durative, inchoative, and reciprocal—excluding categories like perfect and perfective, which are more closely tied to temporal reference than to lexical or event-structure-based distinctions.

Based on inspection of verb stems containing this suffix, I argue that *-yar* functions as a resultative marker:

¹⁷ This grapheme only occurs in tributary memorials without transcriptions. The sound is putative based on its semantics, cf. Manchu *waji-*, Bala *ordi-*, Alchuka *odi-* (Mu 1987), Uilta *xojji-* (Ikegami 1997).

(48) 天禾崗崗迨姜弔关伟更写房...

taisū --- *degei*¹⁸ *deu* *tyuti-bye* *ili-yar* ...
Taizu[C] first high.place DAT go.out-SUC stand-RES ...

‘Taizu, first having gone up to a high place and stood there ...’ (DE.18) (太祖先據高阜)

(49) 喜屯及史切房矣秀古函中着米市北房尺姜[及]阜奥并致毕索

jweringi *be* *doldi-yar-mai* *geren* *jaxa* *saiḡyan* *ai*
instruction ACC listen-RES-SIM many thing good ?item
ali-yar-xai *buḡur* *hwexe* *deu* *poŋ-šyu*
receive-RES-PFV.PTCP also stone DAT carve-CAUS

‘Hearing the instruction, (we) received many good items, and had (the text) carved into stone.’ (QING.III.4–5)

(50) 写函升方赤卓岸丈夫房

ili-bwe-xei *tumen* *anya* *do* *jo-bu-ru*
stand-CAUS-PFV.PTCP ten.thousand year DAT think-CAUS-NPFV.PTCP
po-yar ...
carve-RES ...

‘An erected inscription that evokes remembrance for ten thousand years.’ (YONG.12) (故爲文以記庶萬年不朽云爾)

The verb forms *ili-yar* (stand-RES) in (48) is not followed by additional participial markers and leads an adverbial clause (see Section 9.1 for details). Here, it conveys not only the action of standing, but also its result—the state of having taken a position—as suggested by the Chinese parallel *jù* 據 ‘to occupy’. Similarly, in (49), *doldi-yar-mai* (listen-RES-SIM) and *ali-yar-xai* (receive-RES-PFV.PTCP) indicate resulted states—more akin to ‘hearing’ and ‘having in possession’—rather than simply the base actions of ‘listening’ and ‘receiving’. In (50), *po-yar* functions as a nominal referring to the inscription, the result of carving, rather than the action (Section 9.1). Moreover, these examples confirm that *-yar* does not serve an anti-causative or detransitivising function. In (49), the root *ali-* ‘to receive’ is originally transitive, and the derived form *ali-yar-* remains transitive, taking a direct object. The interpretation that best fits both the morphological structure of the verbal template and the observed usage patterns is therefore a resultative one.

A potential [–RTR] variant of *-yar* is attested as *-yer*¹⁹ 余 in JIN:

(51) 夙侂余夙禿爰與卓斥去丙爰爰

¹⁸ The phonetic grapheme 姜 is transcribed as *ge* 革 in SJ. Based on Chinese historical phonology, 革 in SJ should represent either *ge* or *gei* (cf. 黑 for both *xe* 奥 and *xei* 升). Since *ge* is assigned to phonetic 戛, 姜 is best read as *gei*. In (48), *degei* is thus a noun with *-i*, an attested Written Jurchen nominal formative (e.g. both *dixa* and *dixai* ‘ship’ function as predicate arguments in YONG).

¹⁹ The grapheme 余 is transcribed as *e* 厄 in SJ, but SJ transcriptions often ignore the coda [r], as seen in *ge* 戈 for both *gor* 倭 and *go* 气 (Aisin-Gioro & Yoshimoto 2011). The grapheme occurs in 氣余 ‘water spring’ (cf. Manchu *šeri*). 氣 is phonetic: in JIN, it represents the initial of *shan* 瞻 followed by *yan* 爰 representing its final. This indicates that 氣 is closer to *šye* instead of *še*—since, according to Jurchen spelling conventions, *še* would have required *en* rather than *yan* (cf. *byen* in Sections 3.1 and 4.3). Therefore, the value of 余 should be closer to *yer*, a reconstructed reading adopted here. It parallels the [+RTR] *-yar*.

beği-le-yer *xağan* --- *tondo* *gi* *takora-bu-ru* *ši*
official-VBZ-RES emperor LOC loyal INS send-CAUS-NPFV.PTCP poem[C]
 ‘Poems sent to the emperor out of loyalty by those who become officials’ (JIN.7)

This example is controversial because *beğile* (‘commander; minister’) is itself a noun, which led Jin and Jin (1980) to interpret *-yer* (romanised by them as *-e*) as a plural marker. However, this analysis is not convincing. First, *-yer* or *-e* is not attested elsewhere as a plural suffix in Jurchen, and vowel-final nouns like *beğile* typically take *-se* or *-(e)l* as the plural marker. Furthermore, the semantics is not very natural: *beğile* (‘commander; minister’) is not fully equivalent to *beğin* (‘official’). In the context of imperial examination, it is unlikely that the poems were written or sent by commanders or ministers. A more plausible interpretation is that *beği-* is a nominal stem meaning ‘official’ (cf. *beği-se*, the plural of *beğin*), followed by the well-attested verbaliser *-le*, yielding a verbal stem meaning ‘to become an official’. The addition of the resultative suffix *-yer* then produces a resulted state as being official. This resulting stem can function nominally, but with a nuance that emphasises the duty of taking office (cf. Chinese *wéi guān de* 爲官的 ‘those being officials’), rather than merely denoting the static identity of an official.

IX. STEM FORMS

A striking feature of extant Jurchen texts is the pervasive use of stem verbal forms functioning both as nominals and as verbal predicates. This phenomenon is unusual when compared with the rest of the Tungusic languages—even Manchu does not permit verbal stems to function directly as finite predicates (except in the imperative). Pevnov (2012) explicitly discusses the usage of stem forms in Written Jurchen. He concludes that their function remains unclear, although they can appear as finite predicates or as converbs.

A closer examination of stem forms used predicatively suggests that their primary function is adverbial, as seen in the following example, where causative stems are used adverbially:

- (52) 入烈条南中单舟画反丈丈杀奎单受更并舟戈戾支写画...²⁰
horin šunja amba dixa deu tege-bwe, nuruḡe ni buḡa deu
 twenty five big ship DAT sit-CAUS, Nurgan GEN place DAT
uṅgi-bye, duṣi i xapan ili-bwe, ...
 send-SUC, military.commission[C] GEN government.office stand-CAUS, ...
 ‘(The emperor had eunuch Yishiha and others ...) embark on twenty-five great ships, and sent them to the land of Nurgan, where they went on to establish the Military Commission Office...’ (YONG.6) (特遣内官亦失哈等率官軍一千餘人巨船二十五艘復至其國……)

When used finitely, stem forms most often occur at the end of poetic lines (53) or at the conclusion of inscriptions indicating the date (54):

- (53) 金中元亦舍丈夺帛父杀并委画勇忠

²⁰ The whole sentence of (52) is followed by (29) of Section 5.3, and ends with a past finite *-ye*.

*cauxa sa-a aciburu beiye, xoldon ni duwi degere*²¹ *ala*
 army see-PST holy body, pine.tree GEN top [...] resemble
 ‘The army saw the holy body, like ... the top of a pine tree.’ (DE.24) (人仰聖質凜如喬松)

(54) 条米尔申見天弘癸丑月天无日写索

amban namxaxay horin šunja anya nadan byağa horin jakun
 great(Da) stable(Ding) twenty five year seven month twenty eight
ineŋi ili-šyu
 day stand-CAUS

‘Erected on the 28th day of the 7th month in Dading 25.’ (DE.33) (大定二十五年七月二十八日立石)

In (53), the word order in the first clause is modified to fit the metrical structure of the verse. The second clause contains *ala-*, a verbal stem, glossed in the SJ dictionary under *ala-mai* ‘to resemble’. In (54), *ili-šyu*, a causative stem meaning ‘to erect’, appears as a final verb form without any additional suffixes, which is typical for concluding inscriptions in Jurchen.

Since stem forms lack additional suffixation, their function in such contexts appears primarily conjunctive. When used finitely, they may contribute to a more formal or elevated register. In this respect, the Jurchen stem form may be loosely compared with the Japanese conjunctive base (*ren’yōkei*), though the Jurchen form appears to be more multifunctional, including occasional finite usage.

Pevnov (2012) argues that the usage of stem forms in Jurchen is unlikely to be a Chinese-inspired innovation. However, given the influence of Chinese on Jurchen syntax (for instance, the word order in many examples in this paper), it is not surprising that the stem form may also develop predicative or nominal uses.

X. CONCLUSION

To conclude, this paper emphasises both usage and form, and it explores potential Tungusic cognates where relevant. It offers a comprehensive account of Written Jurchen verbal morphology based on extant authentic texts. A systematic overview of the principal verbal suffixes discussed throughout is presented in Table 3.

Rather than merely summarising existing interpretations, the study presents original findings, including evidence for several key categories in Written Jurchen such as connegative forms and a range of converbs. It also proposes new functional interpretations for other forms, including past finite and participles as well as the secondary causative and resultative stems. A major contribution is the demonstration that Written Jurchen verbal morphology differs from Manchu more than has generally been assumed. These findings suggest that the

²¹ The grapheme 秀 is phonetic in nature and should be read *gere*. It appears in words such as *geren* 秀立 ‘many’ and *šingere* 利秀 ‘mouse’. In example (53), *degere* likely represents a stem form of a verb or a sequential converb in *-re* rather than a noun meaning ‘high’ or ‘height’ (which would be expected as *dege* ~ *dege*).

Jurchenic branch of the Tungusic family once shared significantly more features with other Tungusic languages than previously recognised.

Finally, it must be mentioned that this study builds upon the foundational work of previous scholars in Jurchen language and script, to whom it is deeply indebted. While the limited corpus and edition inconsistencies leave many questions unresolved, this study presents one interpretation and welcomes further discussion and collaboration aimed at deepening our understanding of this extinct and enigmatic language.

Table 3: Reconstructed verbal morphology of Written Jurchen (as discussed in this paper).

Finite Forms	
Indicative	<i>-rA</i> , <i>-rAn</i> (after causative <i>-bu</i>), <i>-n</i> (with <i>bye-</i> ‘to be’), <i>-šin</i> (with <i>e-</i> ‘not’)
Imperfective	
Indicative Perfect	<i>-xA/-kA</i> , <i>-xo/-ko</i> (rounded stems), <i>?-hu</i>
Indicative Past	<i>-A</i> , <i>-yA</i> (<i>-i</i> stems), <i>-o/-yo</i> (+RTR rounded stems), <i>-hwe</i> (–RTR <i>-u</i> stems)
Volitive	<i>-xi</i>
Optative	<i>-xini</i>
Imperative (2SG)	<i>?-u</i>
Imperative (2PL)	<i>-sun</i>
Participles	
Imperfective	<i>-ru</i> , <i>-dAru</i> (consonant stems)
Perfective	<i>-xAi</i> , <i>-gAi</i> (consonant stems)
Past	<i>-sui</i> , <i>-wi</i> (e.g. <i>es-</i> ‘not’, <i>bye-<i>pu</i></i> ‘to have’)
Converbs	
Sequential (and CNEG)	<i>-rA</i> , <i>-ru</i> (rounded stems), <i>-dA</i> (consonant stems)
Simultaneous	<i>-mAi</i> , <i>-ma</i> (after causative <i>-bu</i>), <i>-me</i> (after transitiviser <i>-pu</i>)
Successive	<i>-byA</i> , <i>-pya</i> (e.g. <i>o-</i> ‘to become’, <i>ortyan-</i> ‘to lead’), <i>?-pi</i> , <i>-wi</i> (after causative <i>-bu</i>)
Conditional	<i>-ci</i> , <i>?-ši</i> (e.g. <i>turğa-</i> ‘to see’)
Concessive	<i>-cibal</i>
Contemporal	<i>-ŋisa</i>
Conjunctive	(finite form)- <i>ši</i>
Anterior	<i>-xar</i>
Terminative	<i>-dala</i> > <i>-tala</i>
Deverbal Verb Stems	
Primary Causative	<i>-bu</i> (+RTR stems), <i>-bwe</i> (–RTR stems)
Secondary Causative	<i>-šyu</i>
Resultative	<i>-yar</i> (+RTR stems), <i>?-yer</i> (–RTR stems)

ABBREVIATIONS

1	first-person	DAT	dative	PROH	prohibitive
2	second-person	DEL	delative	PST	past
3	third-person	GEN	genitive	PTCP	participle
ACC	accusative	IMP	imperative	QUOT	quotative
ANT	anterior	INS	instrumental	RC	relative clause
AOR	aorist	LOC	locative	RES	resultative
CAUS	causative	NEG	negative	SEQ	sequential
CC	complement clause	NMZ	nominaliser	SG	singular
CNEG	connegative	NPFV	imperfective	SIM	simultaneous
CONC	concessive	OPT	optative	SUC	successive
COND	conditional	PASS	passive	TR	transitiviser
CONJ	conjunctive	PF	perfect	VBZ	verbaliser
COP	copula	PFV	perfective	VOL	volitive
CTM	contemporal	PL	plural		

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