A Proposed Resolution to the Problem of Geographical Inversion in Japanese Language Origins[*]

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Abstract
This paper concerns the odd absence of Japanese-like words in areas of ancient Korea where pre-Japanese peoples lived, the so-called problem of geographical inversion. I discuss some of the models proposed for the linguistic prehistory of Korea, and show why Unger's (2009) "para-Japanese" theory is the better model of pre-Japanese linguistic origins on the peninsula. Building on this, I propose a "Pre-Yayoi" model of para-Japanese that explains the geographical inversion of Japanese-like place names that draws on the linguistic dynamics of cultural conflict between pre-Korean and pre-Japanese populations. This resolves one of the most significant problems in understanding the origins of Japanese language on the peninsula.

Key words
Yayoi, Proto-Japanese, Japanese, Korean, historical linguistics

1. Introduction

The Korean historical record *Samguk Sagi* (Record of the Three Kingdoms, compiled 1147 CE) purports to describe events and locales of the Three Kingdoms Period, traditionally 57 BCE - 668 CE, but more likely beginning around the fourth century. In Chapter 37 of *Samguk Sagi* are transcribed a set of place names attributed to the kingdom of Koguryo, many of them written phonographically. The so-called Koguryoan toponym corpus has been the object of speculation for decades, in large part because some names resemble Korean but others resemble Japanese (Beckwith 2007; Unger 2009; Lee and Ramsey 2011; Whitman 2011; Nam 2012). Although there has been considerable debate about the classification and even the existence of a Koguryoan language, it is now clear that the toponymic material in *Samguk Sagi* indicates the prehistoric presence of a language related to Japanese on the Korean peninsula prior to the 8th century CE (Whitman 2012). The Koguryo corpus likely reflects two distinct languages – a pre-Japanese language and a pre-Korean language – that diachronically contributed lexical material to the names of places in central Korea. Notably Beckwith (2007) has published extensively on this material, proposing phonological reconstructions of Koguryoan words and ruminations on its genealogy. Many have recognized flaws in Beckwith's analysis, but an alternative broad picture of linguistic prehistory on the Korean peninsula has not been proposed.

The existence of Japanese-like toponyms in ancient Korea has clear significance for the origin of the Japanese language. Japanese culture and ethnicity today were formed by the melding of two distinct populations, the Jōmon and the Yayoi. While the Jōmon were indigenous peoples, probably quite diverse, who inhabited the Japanese archipelago from at least 12,000 BCE, the Yayoi were a group who migrated from the southernmost part of the Korean peninsula to the Japanese archipelago starting at around 800 BCE until around 400 BCE. It is now virtually incontrovertible that the language of the Yayoi was an early form of Japanese language, which is generally accepted without question in historical linguistic circles. This naturally raises the possibility that the Japanese-like language found in the Koguryoan toponym corpus is related in some way to the language of the Yayoi.

2. The problem of geographical inversion

If the language of the Yayoi was an earlier form of Japanese, then we would expect to find Japanese-like place names in the parts of the peninsula that were most recently inhabited by the Yayoi, namely the southeast and far south of the Korean peninsula. However, Japanese-like toponyms are instead found in central Korea, ranging from present-day Gyeonggi Province (near Seoul) in South Korea to present-day North Hwanghae Province in the central-west part of North Korea. There are no traces of Japanese-like toponyms in the far south or southeast as recorded in *Samguk Sagi* (compiled 1147 CE but referencing earlier sources), the areas that were controlled by the kingdoms of Silla and Kaya during the Three Kingdoms Period. The absence in *Samguk Sagi* of Japanese-like toponyms in areas where the Yayoi most recently lived, combined with the oddity of finding Japanese-like toponyms in areas that were not the most recent home of the Yayoi, has been dubbed the problem of "geographical inversion" (Hudson 1999: 97). The problem of geographical inversion has spawned several competing theories on the origins of Japanese-like

toponyms in ancient Korea. Drawing on a novel examination of the data and on the sociology of language contact, I propose an amendment to Unger's (2005, 2009) theory of para-Japanese that resolves the problem of geographical inversion, which I will call the "Pre-Yayoi" model of peninsular linguistic prehistory.

3. Para-Japanese and Puyo-Koguryoic

Two competing theories have been put forward that address the existence of pre-Japanese language on the peninsula, Unger's (2009) theory of "para-Japanese" and Beckwith's (2005) theory of "Puyo-Koguryoic / Mumun-Wa." Unger proposes that not all of the Yayoi who settled in Japan migrated to the archipelago, and that remnants of the Yayoi remained in the peninsula after the Yayoi Migrations (800 - 400 BCE). Unger calls this remnant Japanese-like population "para-Japanese," whose language constitutes a sister branch to the Japanese-Ryukyuan language group. Unger explains the existence of Japanese-like words in ancient Korea by hypothesizing that para-Japanese constitutes a linguistic *sub*stratum in the Korean peninsula, having been spoken there before the arrival of Old Korean groups who eventually replaced the para-Japanese.

By contrast, Beckwith's (2005) theory postulates not one but two distinct lineages of pre-Japanese on the Korean peninsula, one in the south (which he calls "Mumun-Wa") and one in the north (which he calls "Puyo-Koguryoic"). The Mumun-Wa group, like Unger's para-Japanese, is the lineage that eventually gave rise to Yayoi culture and Japanese-Ryukyuan language, and possibly other subgroups in the south that disappeared without a trace. The northern Puyo-Koguryoic group, however, is not postulated in Unger's model. In Beckwith's model, we might well call the Puyo-Koguryoic branch a cousin of Japanese as opposed to a direct sister, as Puyo-Koguryoic and Mumun-Wa diverged significantly before the Yayoi Migrations. Beckwith theorizes that Puyo-Koguryoic was the spoken language of the Koguryo elite during the Three Kingdoms Period, and it is this language that is recorded in the Koguryoan toponyms corpus. Puyo-Koguryoic thus constitutes a linguistic *super*stratum in parts of Korea where Japanese-like toponyms are found.

3.1 Problems with Beckwith's (2005) model

Beckwith's theory of language prehistory, if correct, resolves the problem of geographical inversion by postulating two lineages of pre-Japanese on the Korean peninsula, a northern lineage (Puyo-Koguryoic) and a southern lineage (Mumun-Wa). For Beckwith, Japanese-like toponyms in *Samguk Sagi* come from the northern lineage, the result of a dominant Puyo-Koguryoic group from the north imposing their Japanese-like language on Korean-speaking people of central Korea. However, Beckwith's model suffers from several implausibilities. First, the idea that Puyo-Koguryoic was a socially dominant language appears to be false, which we can see from analyzing the fragments of Paekchean language in *Nihon Shoki* (Historical Record of Japan). Alongside obviously Old Korean words like *nirimu* 'lord' (MK *ni:m* id.), Paekchean words transcribed in *Nihon Shoki* include *wosa* 'interpreter,' *no* 'load,' *oto* 'lower,' and *poka* 'outside,' words that have no corresponding form in attested Korean but that do strongly resemble Japanese (compare Old Japanese *wosa* 'interpreter, *ni* 'burden, load,' *oto*- 'younger,' and *poka* 'outside'). However, titles

of nobility in the Paekchean corpus of *Nihon Shoki* all resemble Korean: Pk *nirimu* 'lord, master' *kisi* 'lord,' *koni-kisi* 'king,' *koni-oruku* 'queen'. Each of these royal and aristocratic titles has a plausible Korean origin, and none has a clear connection to Japanese. Data from the kingdom of Koguryo is almost non-existent, but refugees who fled Koguryo for Japan in the 7th century are named in Japanese texts with titles such as *koni-kisi*, suggesting that Old Korean was the language of the Koguryo aristocracy as well. This suggests that Old Korean has contributed words relating to aristocratic culture, contradicting Beckwith's theory that the Japanese-like Puyo-Koguryoic language was a socially dominant speech variety in areas where the two languages co-existed.

A second argument against Beckwith's theory is that Japanese-like words in Koguryo and Paekche are too similar to Japanese for Beckwith's model of separate northern and southern lineages to be plausible. Koguryoan toponyms are transcribed in a crude and imprecise manner that makes it nearly impossible to reconstruct with precision, and intense controversy surrounds the question of how to reconstruct phonological forms from this corpus. No spoken language exists against which we can compare the sounds of Koguryoan words; Beckwith and others believe that Old Chinese (or some variety thereof) can be employed as a phonetic reference point for the Koguryoan material, but this falls prey to the flawed assumption that phonographic transcriptions are sound-for-sound equivalences with contemporary Chinese pronunciations. This has never been true of phonographic transcriptions in Japanese or Korean. Japanese Man'yōgana phonograms bear striking similarities to Koguryoan and other Old Korean phonograms, and this system wassuccessfully decoded not by utilizing reconstructions of contemporary Chinese, but by understanding phonemic categories of the system and then comparing them against a known language (Middle Japanese). Worse still, we have no idea when the Koguryoan transcriptions were first coined, so the idea of employing contemporary Chinese pronunciations espoused by Beckwith and others is nonsensical and self-refuting. No approach to the Koguryoan material is without some assumptions and bias; because all scholars who have studied this material agree that some part of the Koguryoan corpus is related to Japanese, the only sensible lens through which to interpret Koguryoan material is the Proto-Japanese-Ryukyuan reconstruction, which is likely to be the closest known related language to the language of the Koguryoan toponym corpus. For this reason, the consonant values I assign to transcriptions follow other scholars, but vocalic values are assumed to be those of cognates in the Proto-Japanese-Ryukyuan (PJR) reconstruction.

Using this methodology, it is clear that Koguryoan / para-Japanese is strikingly similar to Proto-Japanese-Ryukyuan. For example, forms like Koguryoan 買 *me 'water' (cf. PJR *me id.), 要隱 *jan 'willow' (cf. PJR *jana id.), and 密 *mi(t) '3' (cf. PJR *mi, *mi-tu id.) are extremely similar to Japanese. Some words in Koguryoan / para-Japanese that differ from the Proto-Japanese-Ryukyuan (PJR) reconstruction – such as Kog. final *r (Kog. 斤 *kər 'tree') corresponding to Proto-Japanese-Ryukyuan final *j (PJR *kəj 'tree') – nevertheless display sound correspondences that have already been hypothesized in the prehistory of Japanese independently of the Koguryoan data (see Frellesvig 2010). The para-Japanese language underlying the Koguryoan corpus thus looks more like a direct precursor or close sister to Proto-Japanese-Ryukyuan, not a distant cousin of it as Beckwith's model suggests. The same is true of Paekchean para-Japanese words transcribed

in *Nihon Shoki*, which attest to so strong a resemblance to Old Japanese that a linguist could easily mistake them for mutually intelligible dialects. These include Paekchean *poka* 'outside' (cf. OJ *poka* id.), *oto* 'lower' (cf. OJ *oto* 'younger'), *no* 'load, burden' (OJ *ni* id., from earlier **noy*), *kuma* 'bear' (cf. OJ *kuma* id.), *sema* 'island' (cf. OJ *sima* id.), *kuti* 'falcon' (cf. OJ *kuti* 'mouth,' likely via synecdoche), and *ki* 'fortress' (cf. OJ *kwi* id.). The Paekchean lexicon is extremely limited, but the Japanese-like material is so strikingly similar to Old Japanese as to suggest a close common origin, contradicting Beckwith's theory of Puyo-Koguryoic being a distant cousin of Japanese.

Finally, Beckwith's model is less parsimonious than Unger's para-Japanese model. Both theories are in agreement that the Yayoi who settled in Japan constitute a lineage of pre-Japanese language in the southern parts of the peninsula; Beckwith, however, proposes an additional northern lineage of pre-Japanese simply to account for toponyms in central Korea. There is no evidence for two distinct Japanese-like populations or Japanese-like languages on the peninsula. Although Unger's model does not provide all of the details necessary to understand the prehistory of the Korean peninsula, it accounts for the same data without reconstructing additional lineages of pre-Japanese on the Korean peninsula. Without strong evidence for more branches of pre-Japanese, we ought to account for the presence of Japanese-like words in the Korean peninsula by reference to the only pre-Japanese-speaking community that we are sure must have existed, namely the ancestors of the Yayoi. For these reasons, Beckwith's model is not a satisfactory explanation for Japanese-like words on the Korean peninsula, nor does it resolve the problem of geographical inversion.

4. Resolving the geographical inversion problem

I will advance a possible explanation for the absence of para-Japanese toponyms in the post-Three Kingdoms records in precisely the areas where para-Japanese populations remained the longest.

4.1 Evidence for para-Japanese in southern Korea

Central to the problem of geographical inversion is the absence of Japanese-like toponyms in *Samguk Sagi* attributed to Silla or Kaya, and this observation constitutes one of the pillars of Beckwith's (2005) argument against Japanese as a linguistic substratum for the Korean peninsula. The kingdoms of Kaya and Silla were founded in the south and southeast parts of the peninsula respectively, and are precisely the areas that the Yayoi inhabited and where para-Japanese speakers would have remained the longest. The apparent absence of a Japanese-like substrate in the toponyms of the south and southeast seems problematic for Unger's (2005) theory of para-Japanese.

First, as Whitman (2012) notes, the Koguryo corpus only describes the names of locales that were controlled by the Kingdom of Koguryo before its demise; Japanese-like toponyms in the far south are simply not in view in this corpus. The lack of evidence for para-Japanese words in the south may simply be due to omission. More importantly, however, traces of toponyms that resemble Japanese language are attested in earlier Chinese records that describe the pre-Three Kingdoms statelets of Pyŏnhan and Chinhan, southern polities of the Samhan period (traditionally 1st century BCE to 4th century CE). The so-called Pyŏnhan confederacy lay far in the southern

end of the peninsula, in an area later controlled by the kingdom of Kaya and subsequently annexed by Silla. The Chinhan confederacy occupied the southeast area of the peninsula, later becoming a core part of the kingdom of Silla. As Whitman (2012) points out, the transcription 邪馬 is found as a suffix in Pyŏnhan place names in the Chinese gazette *Wei Shu* (Book of Wei), a text compiled in the mid-6th century CE and providing accounts of events as early as the 4th century. This transcription 邪馬 is identical to the way that contemporary Chinese sources transcribe the first two syllables *Yama* of the Japanese ethnonym *Yamato*, which likely incorporates OJ *yama* 'mountain'. The word *yama* is a very common element in Japanese place names; there is no known Old Korean word that corresponds to this form. Whitman concludes that 邪馬 probably transcribes a suffix related to OJ *yama* (pJ *jama) 'mountain,' which I accept. This is significant, as it attests to Japanese-like toponyms in an area that later shows no trace of them in Three Kingdoms period sources. Whitman further notes that the Chinese sources *Wei Shu* and *Hou Han Shu* (Book of Latter Han, compiled 5th century CE) describe Pyŏnhan and Chinhan as multi-ethnic states, and that some groups in these confederacies resembled the "Wa," an ethnonym that almost certainly refers to Japanese people and culture, though the two sources differ as to which confederacy is more similar to Wa people. This suggests that there were places in far southern Korea that were multiethnic and multilingual in the 3rd century CE. The best interpretation is that pre-Korean and para-Japanese communities were living side by side in at least some areas of the south.

Identifying para-Japanese toponyms and names in the south of the peninsula contradicts Beckwith's (2005) claim that no Japanese-like toponyms can be found in the areas controlled by Kaya or Silla, and points to a Japanese-like language as having been a substratum across the southern Korean as well as central Korea. This also provides important evidence that the replacement of para-Japanese (that is, non-Korean) place names took place not only in former Koguryo in the 8th century, but must have also taken place *earlier* in areas controlled by Silla and Kaya (and possibly Paekche). Vovin (2013) presents evidence that pre-Japanese speakers inhabited areas later occupied by each of the Three Kingdoms, that is to say much of the central and southern peninsula prior to the ascendance of Old Korean culture, which I accept.

4.2 A Pre-Yayoi model of para-Japanese

The Koguryoan toponyms in *Samguk Sagi*, the Paekchean corpus in *Nihon Shoki,* and the Japanese-like toponyms in *Wei Shu* all show that para-Japanese language once existed not just in southern Koguryo but also in Paekche, Silla, and Kaya, all across the south of the peninsula. Following Vovin (2013), the evidence indicates that a form of Yayoi or pre-Yayoi language was once spoken from central Korea (today's Gyeonggi and Hwanghae Provinces) to southern Korea (today's South Gyeongsang Province) in the early 1st millennium BCE. I term this the "Pre-Yayoi" model of para-Japanese due to the proposed timeline. Whereas Unger (2009) pictures para-Japanese language during or immediately prior to the Three Kingdoms Period, I propose that the pre-Yayoi community of pre-Japanese speakers began to name peninsular locales long before the founding of the Three Kingdoms, during or before the Yayoi Migrations (800 BCE to 400 BCE). Reconstructing Japanese-like names as having existed in the 1st millennium BCE better fits the

identification of Japanese as the language of the Yayoi people who migrated to Japan, which indicates that a precursor to Japanese was already spoken in Korea before the Yayoi Migrations began. Pre-Japanese toponyms must already have been attached to some peninsular locales before the Yayoi began to migrate to Japan.

In order for the Pre-Yayoi model to fully resolve the problem of geographical inversion, it must answer one remaining question: if Japanese-like toponyms once existed throughout all of central and southern Korea, why are the Japanese-like toponyms in *Samguk Sagi* found almost entirely in central Korea (former Koguryo) but not in the south? If the Yayoi remained longest in the far south, then why is it that Japanese-like toponyms have not survived there? I propose that, contrary to Beckwith (2005), an isogloss for Japanese-like toponyms that distinguishes central from southern Korea is exactly what we expect if the program of renaming non-Korean places began much earlier in the south. I will argue that a pattern of cultural friction between Old Korean and para-Japanese in the centuries prior to the 8th century elegantly explains the inverted distribution of Japanese-like toponyms in the peninsula.

4.3 Prehistoric cultural contact as an explanation for geographical inversion

In this "Pre-Yayoi" model of Korean prehistory, I propose that para-Japanese was once spoken in both the central and southern regions of the Korean peninsula, areas that later became overlaid with an Old Korean superstratum. I further propose that Old Korean culture was not just dominant but hostile towards para-Japanese language and culture when the two cultures came into direct contact. From this, we can explain both the presence and absence of para-Japanese toponyms in ancient Korea as arising from the cultural dynamics of conflict observable elsewhere in the world. As noted earlier, the *Wei Shu* and *Hou Han Shu* give indications of Japanese-like groups and para-Japanese toponyms in the far south of the peninsula in the 3rd century CE (the so-called Samhan Period). They do not tell us of Japanese-like peoples living in central or northern Korea. I take this to mean that by the 3rd century CE, the para-Japanese groups that once lived in central and southern Korea remained only in the far south of the peninsula, the rest having already assimilated to Old Korean. It makes sense that para-Japanese groups on the southern coast of Korea would have survived for the longest time, as they could have been sustained by trade and relations with their island cousins. The coastal region would have been a natural refuge for para-Japanese groups who faced an increasingly hostile landscape elsewhere in the peninsula.

Thus, as Old Korean groups consolidated power and formed states throughout the Korean peninsula in the early first millennium CE, they would have likely encountered different linguistic and cultural landscapes depending on where they lived. The Old Koreans who would eventually found Silla and Kaya in the far south settled in areas with para-Japanese toponyms and where real communities of para-Japanese speakers remained, as indicated by Chinese sources. The presence of para-Japanese communities in the far south would certainly have colored Old Korean perceptions of para-Japanese toponyms. Names can become the target of xenophobic opposition when their connection to a foreign culture is made salient, especially when groups have a recent history of conflict. There are many examples of this throughout the world, one clear example being in the Canadian province of Quebec, where names have become a flashpoint of cultural sensitivity.

The presence of a culturally distinct, French-speaking Quebecois population in majority English-speaking Canada has heightened the salience of name origins for both French-speaking and English-speaking groups. This has sparked social controversies over the use of French and English names, including laws mandating the use of French names in Quebec and restricting the use of English names for businesses (National Post 2016, Éducaloi 2020). Another example is the cultural animus felt by Jewish settlers and later by the Israeli government towards Arabic place names in Palestine and the Negev. This led to a policy of Hebraizing originally Arabic names, an effort that was explicitly rooted in the desire to eliminate the Arabic cultural heritage of these places. In a contemporary American context, one example of this is the controversy surrounding the renaming of Mount McKinley to Denali, which was opposed by many Americans on the political right, first in 1975 and then again in 2015. In this case, an indigenous American name became a flashpoint, likely because of the perception that an indigenous name (Denali) was supplanting a white American name. One strongly suspects that there would have been no controversy had its original name been an indigenous word. Thus in the far south, where Old Korean groups lived alongside para-Japanese communities for generations, para-Japanese toponyms would have been saliently "foreign" for Old Korean speakers. Just like English names in Quebec and Arabic names in the Negev, para-Japanese toponyms could easily have been deemed intolerably alien to the dominant Korean-speaking communities of the south. I hypothesize that cultural friction between Old Korean and para-Japanese groups in the south precipitated an attitude, and later a policy, of cultural hostility towards non-Korean languages and cultures in the area that would later become the kingdom of Silla. The first fruit of this attitude was the replacement of para-Japanese toponyms in the south and southeast of the peninsula some time before the conclusion of the Three Kingdoms Period.

On the other hand, Old Korean groups who formed states in northern and central Korea came to occupy areas that possessed para-Japanese names, but were not likely to have had much direct interactions with actual para-Japanese communities, which had already disappeared in central Korea by the 3rd century CE. The Old Korean speakers of central Korea may not have understood what the names of these places meant, but the absence of a culture with which they could associate these names meant that Old Korean speakers may have felt no cultural animus towards these (foreign) linguistic elements in their language. Indigenous names are often not treated as foreign elements if the language and culture associated with those names no longer exist. This describes the situation in much of the United States today. Since the arrival of white settlers, the native peoples of the United States have mostly been exterminated or forcibly assimilated; those that remain continue to face racism in their everyday lives in the broader white-dominated culture. However, in most of the United States today, indigenous toponyms like Massachusetts or Ohio belonging to native languages are scarcely regarded as alien elements in the contemporary American English lexicon. Many English-speaking Americans cannot identify whence these toponyms originate – many would be hard-pressed to even identify them as not English! – and even the most xenophobic of nationalists and cultural purists in the United States do not generally take issue with such words. The reason for this should be obvious – it is difficult if not impossible

to feel hostility towards a "foreign" place name if the people of that language and culture no longer exist. In such cases, indigenous toponyms cease to be saliently "foreign" and become assimilated to the dominant culture. I hypothesize that in areas where Old Korean culture did not synchronically contend with contemporaneous para-Japanese culture, place names of para-Japanese origin simply became relics with no connection to an alien culture. Old Korean communities had little trouble assimilating these names to their own culture.

Identifying a negative correlation between the (later) presence of para-Japanese toponyms and the (earlier) presence of para-Japanese communities provides a plausible and realistic account for the "geographical inversion" problem. An inversion of para-Japanese place names in the 8th century with the locations where para-Japanese populations remained longest is precisely what we might expect if a culturally xenophobic superstratum has been layered on top of a para-Japanese substratum on the peninsula. Locations with more para-Japanese remnant culture had their toponyms targeted for assimilation first; locations with no para-Japanese remnant culture did not. The "Pre-Yayoi" model thus resolves the most significant problem with the para-Japanese model of peninsular pre-history, and helps to set a historical context for Sillan antipathy towards para-Japanese toponyms. Some para-Japanese who faced assimilation or extinction may have fled to Japan, which raises the intriguing possibility that para-Japanese refugees fleeing Old Korean hegemony may have been significant vectors in the spread of Kofun (Tumulus) culture in the Japanese archipelago in the third through the fifth centuries CE (for a recent overview of Japanese-Korean cultural transmission in the Kofun period, see Duthie 2014). The role that para-Japanese communities played in the shaping of pre-Korean and pre-Japanese cultures deserves further study.

5. Discussion and Conclusion

While it is admittedly speculative, the Pre-Yayoi model is less extravagant than the Mumun-Wa / Puyo-Koguryoic model of Beckwith (2005), and it offers an explanation for the observed geographical inversion that is rooted in the sociocultural dynamics of intergroup conflict that can be observed elsewhere in the world. Moreover, the Pre-Yayoi model also suggests tentative explanations for other odd observations in ancient Korea. In the south and southeast (later Silla), I have proposed that para-Japanese toponyms were replaced early on with Old Korean and Chinese names. This reflects the attitude of cultural and linguistic assimilation of para-Japanese to Old Korean that existed in Silla, which eventually manifested into an official policy in the newly conquered territories in the 8th century. I have hypothesized that this attitude was precipitated by friction with extant para-Japanese communities in the far south, which led to the stigmatization of para-Japanese linguistic elements in Sillan areas. In the southwest (later Paekche), para-Japanese toponyms must also have been replaced at an early date. However, the Old Korean ruling elites must not have entirely purged their society of para-Japanese culture, which explains the presence of para-Japanese words in the Paekchean lexicon found in *Nihon Shoki*. Here, I note Unger's (2009) hypothesis that friendlier relations existed between para-Japanese and Old Koreans in Paekche, which would fit the Pre-Yayoi model well. This may explain the prevalence of para-Japanese elements in Paekchean names in *Nihon Shoki*, the lack of any mention in Japanese sources of *wosa* (translators) in contacts between Paekche and Yamato, and the otherwise inextricably strong

political ties between Paekche and Japan (Unger 2009). In central Korea (later Koguryo), toponyms reflecting para-Japanese language were not replaced by Old Korean. I have proposed that this is due to the absence of contemporary para-Japanese communities in central Korea during the formation of the Three Kingdoms, which relegated para-Japanese toponyms to the status of relics. The inversion of para-Japanese toponyms in central Korea with Yayoi people having lived in the south, long considered the most problematic aspect of a peninsular origin of Japanese, is what we predict if the substratum of para-Japanese became overlaid with an Old Korean superstratum that was hostile towards it in the southernmost part of the peninsula. The Pre-Yayoi model proposed in this paper, in addition to explaining some of the oddest observations about para-Japanese and Yayoi language, should be explored in future research as a possible broad framework for understanding more about the linguistic prehistory of Korea and Japan.

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