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THE GENETIC RELATIONSHIP OF THE AINU LANGUAGE.

UNIVERSITY OF HAWAII, PH.D., 1978

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THE GENETIC RELATIONSHIP OF THE AINU LANGUAGE

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAII IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN LINGUISTICS

DECEMBER 1978

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ABSTRACT

This dissertation investigates the genetic relationship of the Ainu language. Chapter 1 presents an overview of the history of the investigation of the Ainu language and the various theories hypothesized as to its origin. It is noted that the current state of language typology maintains that Ainu is a language isolate.

Chapter 2 presents phonological evidence relating Ainu to the Altaic language family. The primary source of the Altaic data is Poppe (1960). Recurring sound correspondences are hypothesized and a total of 167 Ainu lexical items are presented as having Altaic origins. Chapter 3 further pursues the question of Altaic features in the Ainu language by noting various similarities in lexical and morphological categories between Ainu and Altaic.

Chapter 4 presents phonological evidence relating Ainu to Japanese and Korean. Recurring sound correspondences are hypothesized and a total of 200 Ainu lexical items are presented as being of common origin with Japanese or Korean lexical items.

Chapter 5 discusses whether the similarities in phonology and morphological and lexical patterning between Ainu and the Altaic langauges can be attributed to

borrowing or to common genetic origin. The author concludes that the nature of the evidence presented suggests that common origin is the correct explanation. Similarly, in the case of the relationship of Ainu, Japanese, and Korean, the author concludes that these languages are descended from a Proto-Korean-Japanese-Ainu. A further conclusion, not dependent on the borrowing or common origin controversy, is that the Ainu were originally on the Asiatic mainland and later migrated to the Japanese archipelago.

An appendix containing a grammatical sketch of the Ainu language is based primarily on Japanese sources and is included for the benefit of those who do not have access to the Japanese material.

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LANGUAGE ABBREVIATIONS

alt.	Altai Turkic
AT	Old Turkish
az.	Azerbaijani
bar.	Baraba
baš.	Bashkir
bur.	Buriat
čag.	Chagatai
chuv.	Chuvash
dag.	Dagur
ew.	Evenki
go.	Goldi (Nanai)
jpnse.	Japanese
kalm.	Kalmuck
karak.	Karakalpak
kas.	Kazakh
kh.	Khalkha
kha.	Khakas
kir.	Kirghiz
ko.	Korean
koib.	Koibal
küär.	Küärik
kum.	Kuman
lam.	Lamut
leb.	Lebed
ma.	Manchu
mko.	Middle Korean
mmo.	Middle Mongolian
mngr.	Monguor
mo.	Mongolian
mong.	Written Mongolian

mtk.	Middle Turkish
nko.	North Korean (Modern)
oir.	Oirat
oj.	Old Japanese
ok.	Old Korean
ol.	Olcha
ord.	Ordos
oroč.	Orochi
osm.	Osmanli
pA	Proto-Altaic
pKJ	Proto-Korean-Japanese
pKJA	Proto-Korean-Japanese-Ainu
sag.	Saga
šor.	Schori
tat.	Tatar
tel.	Teleut
tk.	Turkish
tkc.	Turkic
tkm.	Turkmen
tung.	Tungus
tuv.	Tuvinian
uig.	Uigur
yak.	Yakut

CHAPTER 1

Introduction

1.1 Background

Ainu, the speech of the aboriginal people of the northern part of the Japanese archipelago, is virtually a dead language. Although an estimated twenty thousand Ainu descendants are living in Japan (primarily in the northernmost island of Hokkaido)[1], they are completely assimilated, both culturally as well as linguistically, to the Japanese.

The Ainu language was once spoken in the Tohoku area of northern Honshu and as far north as Kamchatka (refer to map, page 2). Corresponding to the three main geographic areas in which the Ainu lived, three major dialectal divisions have arisen: 1) Hokkaido, 2) Karafuto (Sakhalin), and 3) Kurile. The remaining Ainu in the Kurile Island chain were evacuated in 1884 to Habomai, a small island of the Kurile chain just off the coast of Hokkaido. The last known speaker of this dialect died more than twenty-five years ago[2]. Furthermore, with the reversion of the island of Karafuto to the Soviet Union at the end of the Second World War, the Ainu living there, being Japanese citizens, were transported to Hokkaido at that time. Thus, with the exception of some place names and terms for hunting that are still used by Japanese speakers in the Tohoku

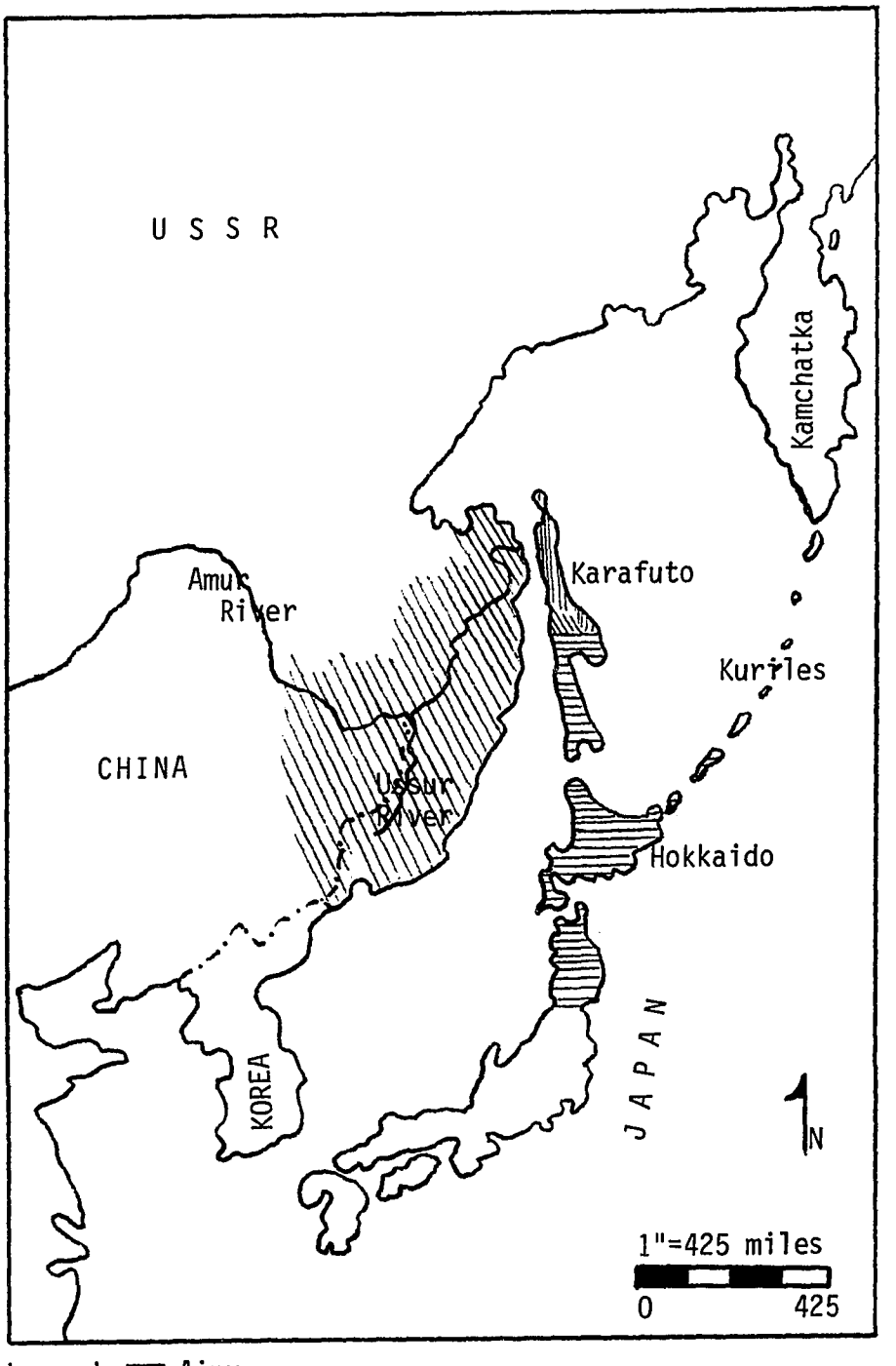


Figure 1

North-East Asia

region, all remaining traces of the Ainu language are to be found in Hokkaido. Even in Hokkaido, however, the few remaining speakers of the language number less than a handful and are generally characterized as being old, in some cases senile, and remembering only fragments of songs and folk epics.

By the beginning of the Meiji Era in Japan in 1868, the population of the Ainu was already in sharp decline as a result of the ravages of disease and economic exploitation on the part of both the Russians and the Japanese. Up until this period, the Ainu were referred to as ezo, an old Japanese name referring to the 'barbarians' who inhabited the Western part of Japan. The word ezo is hypothesized[3] to be the end-product of a series of sound changes: ezo < ebisu < emishi < emush < yumasa. This last word is supposedly an old Ainu word meaning 'sword' and thus the use of this term by the Japanese to designate the Ainu is a reference to their ferocity and is indicative of the type of relationship that the Ainu have had with the Japanese over the centuries. The word ainu (aino in some early texts), the native word meaning 'man' or 'human', was eventually adopted by the Japanese and the term ezo began to be used to designate the geographic regions in which the Ainu lived.

In the south, the immediate neighbours of the Ainu were the Japanese. In the north, the Ainu shared the island of Karafuto with the Gilyak, a Paleosiberian tribe of undetermined origin. The Ainu occupied the southern half of the island and the Gilyak, the northern. In addition to these two groups, a small group of Goldi, a Tungusic tribe that had migrated from the mainland, had established itself in the central regions of Karafuto.

In addition to the above groups, various Gilyak and Ainu legends refer to a group of people by the name of Tonchi[4], an extinct people who were supposedly the original inhabitants of the islands of Karafuto and Hokkaido. These legends claim that the Ainu vanquished the Tonchi, forcing them to flee the islands. With the exception of Piłsudski[5], few scholars have given credence to these legends. Giving support to them, however, are Aleut[6] legends which describe their tribe's eviction from an island in the west[7]. If these legends are true, from a geographic point of view, the most likely island from whence they were evicted would be either Karafuto or Hokkaido.

1.1 Linguistic Investigation of the Ainu

Linguistic descriptions of the Ainu language can be said to have begun with the work of the missionary, John Batchelor, in the late nineteenth century. Most efforts

before this, as well as much of what has come later, were done by laymen who lacked linguistic training and who were primarily concerned with geographic place name etymology or the Ainu folk epics.

Batchelor's dicitionary (An Ainu-English-Japanese Dictionary, first edition 1889) and his later writings formed a significant part of the resource data of subsequent researchers. Later Japanese investigators, notably Kindaichi, Hattori, and Chiri (himself a native Ainu) discredited Batchelor's works as containing too many inaccuracies. More accurate sources of data are Chiri's Bunrui Ainu-go Jiten ('A Classificatory Dictionary of the Ainu Language', 3 volumes: vol. 1 (1953), 2 (1962), 3 (1954)), and Hattori's Ainu-go Hoogen Jiten ('An Ainu Dialect Dictionary', 1964).

Originally inspired by the efforts and scholarship of the late Kindaichi Kyōsuke, research focusing on a synchronic description of Ainu is currently in a relatively peak period. Perhaps the most zealous, and certainly one of the most productive of these current investigators, is Tamura Suzuko (née Fukuda) of Waseda University, herself a former student of Hattori.

1.2 Genetic Affiliation of the Ainu Language

As to the origins of the Ainu and the affiliations of their language, there have been many hypotheses, but little proof to substantiate any claim. The major hypotheses as to the genetic affiliation of the Ainu language are outlined in the sections to follow.

1.2.1 Ainu and Japanese

It has been early noticed that there are some obvious lexical similarities between the Ainu and the Japanese languages. Many of these common items can be readily identified as having a Japanese source and being borrowed into Ainu. The reverse situation also holds true, particularly in the case of names for various flora and fauna restricted to the northern regions of the Japanese archipelago. For other items, however, if the similarity is due to borrowing, the source language can not be easily identified. One such example in this category is Jpnse. kami 'god' and Ainu kamui 'id.'. As both the Ainu and the Japanese maintain distinct religious ceremonies and beliefs, it is difficult to discern which language was the source of borrowing if the item was borrowed at all.

The Ainu and the Japanese languages have many features which are not common to each other. For this reason, as well as because of the fact that many of the

obvious commonalities can be traced to borrowing, it was early noted that Japanese and Ainu appear to be unrelated languages[8]. Ohno (1970) cites various nonlinguistic evidence, including the lack of a Mongolian spot by the Ainu, taste ignorance of a specific chemical, and fingerprint and blood typology, to further verify the distinctness of the Japanese and Ainu peoples.

A further problem dealing with the relationship of the Japanese and the Ainu is the question of to what extent the Ainu occupied the Japanese archipelago. Theories range from Chamberlain's (1887) hypothesis that the Ainu were indigenous to the entire archipelago (that is, from Kyushu in the south to Hokkaido in the north) to the opposite opinion that the Ainu were never further south than the Tohoku area of northern Honshu[10].

Chamberlain has little evidence to justify his hypothesis. Various archeological and anthropological evidence has been inconclusive to this date, and has, at times, yielded conflicting results.[11] For linguistic evidence, Chamberlain is reduced to fanciful etymologies for place names. The validity of items like these rests solely with the imagination of the person who proposes them; they can never be proven or disproven.

Place name etymology does, however, yield conclusive results verifying the existence of Ainu settlements in

the Tohoku region. As in Hokkaido, various place names end in -nai or -betsu. These are clearly from the Ainu words for 'stream' and 'river'; nai and pet, respectively.

In conclusion, both linguistic and nonlinguistic evidence up to this point suggests the the Ainu and the Japanese are distinct peoples and that the commonalities between them are attributable to centuries of contiguity. As the origins of both the Ainu and the Japanese are obscure, however, evidence elucidating the origin of one will surely be of importance for the study of the other.

1.2.2 Indo-European Hypothesis

One of the traits of the Ainu which first impressed early Western explorers and traders in far east Asia was their non-oriental appearance. The Ainu are indeed clearly physically distinct from the Japanese; perhaps their most apparent attribute is their extreme hirsuteness. Their non-oriental traits, however, were exaggerated and stories reached Europe of a blonde, blue-eyed race inhabiting northern Japan. This immediately set the stage for the hypothesis that the Ainu were a European race.

Primarily because so little literature dealing with the Ainu is available in languages other than Japanese, this very fanciful theory has had remarkable persistence, even though very little truly scientific literature has

appeared on the subject. A notable example of a proponent of the Indo-European theory is the work of Ivar Lindquist (1960) that attempts to add veracity to an earlier proposal by one Pierre Naert who claimed to offer conclusive evidence for an Indo-European origin of the Ainu language. Naert regards the most conclusive evidence in support of this theory to be a list of fourteen Ainu words having a common semantic basis in that they are all related to phenomena of 'light' or 'darkness'. Evidence is cited attempting to show that these items are of Indo-European origin.

Needless to say, a conclusion based on fourteen lexical items hardly seems warranted. As there is no attempt at finding recurring sound correspondences, the evidence rests on the lexical items as a whole. Thus the value of this study is very minimal. In addition, Hamp (1968b) rejects Lindquist's proposal by showing errors in his interpretation of both the Ainu and the Indo-European data as well as by illustrating inadequacies in his theoretical approach.

1.2.3 Austronesian Hypothesis

Sternberg (1929 and earlier writings) proposes that the Ainu are of Southern origin, migrating upwards from an Austronsian homeland to the Japanese archipelago. The

only linguistic evidence cited in support of this hypothesis is that the Ainu language appears to have no genetic relationship with its present geographic neighbours. Sternberg's primary evidence is anthropological. He cites commonalities in various designs, articles of clothing and tools, and physical appearance between the Ainu and an assortment of Austronesian tribes. All his evidence, at best, is highly inconclusive, and many of his commonalities, particularly in the area of designs, can also be found in the works of peoples of other regions of the world.

Thus the theory of the Austronesian origin of the Ainu appears to be on academic par with the Indo-European hypothesis. Unfortunately, it can not be as readily dismissed due primarily to the puzzling fact that some segments of Soviet scholarship appear to have accepted Sternberg's hypothesis as proven.[12]

The reason for this Soviet stance is a classic example of a case where politics affects scholarship. The island of Karafuto (Sakhalin) as well as the Kurile Island chain has been a hotbed of territorial claims between Russia and Japan since the eighteenth century with each side claiming these territories as integral parts of their homeland.[13] The Yalta Confernece of the Allied Powers in

1945 agreed to the Soviet claims, and these territories have been in Soviet possession since the end of the Second World War.

That the Ainu are indigenous to the island of Hokkaido is without dispute. That Hokkaido is an integral part of Japan also can not be disputed. To maintain that the Ainu migrated to Japan via the island of Karafuto would be tantamount to saying that both Hokkaido and Karafuto are essentially one territory. And since Hokkaido is without question Japanese territory, it would follow that Karafuto is likewise. Thus to avoid even the possibility of this rather embarrassing conclusion, some Soviet scholars seized upon the southern origin hypothesis. They thus maintain that the Ainu are but recent interlopers to the island of Karafuto[14]. Until, however, firm linguistic evidence is presented to justify the hypothesis of Austronesian origin, it must also be dismissed.

1.2.4 Paleosiberian Hypothesis

The most commonly accepted hypothesis concerning the affiliation of the Ainu language ties it with Gilyak and Yukagir, languages of neighbouring tribes, into the broad family of Paleosiberian[15]. This nomenclature, however, specifies a geographic language grouping and not a language family in the normal sense of genetic affiliation. Thus

language isolates such as Gilyak and Ainu are grouped together with languages where there is sufficient evidence to hypothesize a genetic relationship (Chukchee, Koryak, and Kamchadal, for example)[16].

1.2.5 Altaic Hypothesis

Hypotheses concerning the affinity of the various Altaic languages were proposed as early as the middle of the eighteenth century[17]. With the development of the Neogrammarian school in Germany, historical-comparative linguistics received a firm foundation, and scholars began to apply the Neogrammarian principles to languages outside the Indo-European family. Linking the various Turkish, Mongolian, and Tungusic families, however, presented far more difficulty than did the situation in Indo-European. There simply were not readily apparent large bodies of cognate words and paradigms on which to base reconstructions. What was readily apparent were typological similarities, and, unfortunately for Altaic studies, investigators seized on these characteristics as necessary and sufficient for positing genetic relationships.

The two most striking typological features common to Turkic, Mongolian, and Tungusic are vowel harmony and agglutination. Oblivious to the fact that the vowel harmony

systems in these language groups are not identical[18], investigators lost sight of the Neogrammarian principles and there appeared a spate of hypotheses linking not only these language families, but anything else that exhibited these two typological features. Not only was Dravidian included in this broad linguistic unity, but so also were some of the African and American Indian languages.[19] The Ural-Altaic hypothesis, an attempt to genetically relate the Uralic and Altaic families, suffers from the same deficiency as it is based almost entirely on typological similarities.

It is safe to say that Altaic studies is still suffering from this period of overzealousness and Altaic researchers are still on the defensive.[20] Despite definitive works such as Poppe (1965), the fact remains, however, that the existence of Proto-Altaic has been by no means as justified to the extent that Proto-Indo-European has. Krueger (1973:578) sums up the Altaic comparative picture as:

> 'a strong patterning in the syntactic (typological) arrangement, a noticeable amount of identical morpheme behaviour, if not of morphemes identical through derivation; a niggardly amount of shared lexical items found system-wide; and a respectable amount of phonological correspondence.'

Without evidence of recurring sound correspondences, genetic affiliation can never be supported. Typological similarities by themselves can only support an areal grouping at best, but cannot be used to justify a proto-language. Krueger (1965:575), however, draws a distinction between a 'linguistic family' and a 'linguistic phylum'. A linguistic family is a group of languages exhibiting a large number of recurring sound correspondences from which a proto-language can be reconstructed with relative ease based on the systematic procedures established by the Neogrammarians. A phylum relationship, on the other hand, is 'the next higher order beyond family' (p.575) and the same degree and type of regularity can not be maintained. Krueger concludes that Altaic linguistics must be considered phylum linguistics. Thus typological similarities, although without importance by themselves, can be used as evidence along with phonological correspondences to support an Altaic phylum.[21]

Krueger's distinction, however, seems difficult to maintain, and, further, I question its necessity. The distinction between 'phylum' and 'family' seems little more than a terminological smokescreen created, on the one hand, as an explanation for the relative sparseness of evidence available, and, on the other, as a sort of

apology to the critics of the Altaic theory. The Altaic languages are either genetically related or they are not. The field of Altaic studies is more recent than that of Indo-European, and, further, does not have as early written records as does Indo-European. It is thus not at all surprising that the evidence justifying an Altaic proto-language is not as clear-cut as the case for Proto-Indo-European.

The Altaic language family is a broad grouping incorporating the Turkic languages in the extreme West, the Mongolian languages in the approximate geographic center, and the Manchu-Tungus grouping in the East. Korean and Japanese have also been hypothesized to be Altaic languages. The tree diagram on the following page (page 16) has been adapted from Miller (1971:44). Other than for the inclusion of Japanese and Korean, it can be considered to be the 'standard' Altaic tree.

There are no a priori grounds against the possibility of an Ainu-Altaic relationship. The Ainu on the islands of Hokkaido and Karafuto are separated by only a narrow body of water from the Altaic peoples on the Asiatic mainland. Furthermore, the Goldi, a Tungusic tribe, are the immediate neighbours of the Karafuto Ainu. Thus when one considers the genetic affiliation of the Ainu language, the Altaic family should be a likely target of

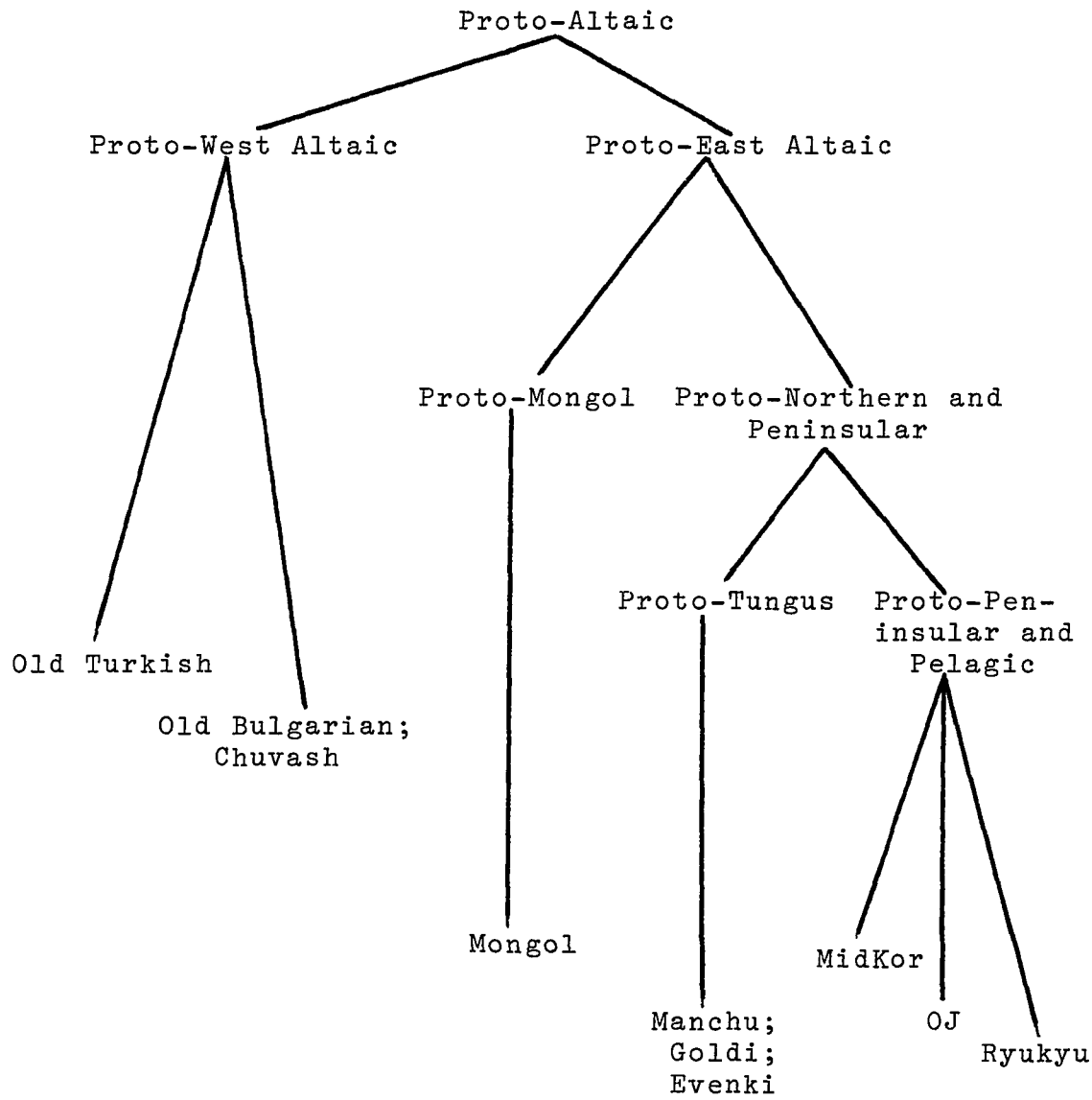


Figure 2

The Altaic Family Tree

investigation.

Very few hypotheses, however, have even been put forth to suggest an affiliation between Ainu and the Altaic language family. There are a variety of reasons for this. Japanese scholarship, on the one hand, has wisely devoted its energies to a synchronic analysis of Ainu, and has, as a whole, abstained from any genetic affiliation hypothesis. Soviet scholarship, on the other hand, is less than eager to approach anything which may have repercussions on Soviet territorial claims. As for Altaic scholars, they are still working to justify the existence of a Proto-Altaic linguistic unity. Attempting to incorporate languages on the fringe of the Altaic geographic sphere into the Altaic family opens Altaicists up to their detractors' charges that their theory is too flimsily based. Thus not only has Ainu been avoided, but also Korean and Japanese. As a final point, it must be noted that the inability of most Western scholars to handle the Japanese reference materials on Ainu (or indeed even be aware of it) has hampered them from presenting any viable hypothesis, Altaic or otherwise.[22]

Street (1962) does suggest the possibility of a distant Altaic-Ainu relationship by hypothesizing a Proto-North-Asiatic language family which split into

Proto-Altaic and another, unspecified proto-language (Figure 1.3, page 19). He does not, however, cite any evidence in support of this hypothesis. His claim is that even if Ainu is related to Altaic, the relationship is a very distant one. It follows that Altaic-Ainu cognates would be very few.

1.3 Statement of Purpose

The geographic proximity between Ainu and the Altaic languages (Manchu and Tungus as well as Japanese and Korean) suggests that even if these languages did not have a common origin, extensive borrowing could have taken place and be traceable within these language systems. The main purpose of this dissertation is thus to examine the possibility of Ainu-Altaic linguistic relations; that is, whether there are Altaic loanwords in Ainu, or the possibility that Ainu is genetically related to Altaic.

Geographically, the availability of river transportation was vital in the history of the island of Karafuto. The Sungari, Ussuri, and Amur rivers on the Asian mainland provided a direct and easily navigable route from the mainland interior to Karafuto. The very earliest evidence of Chinese influence is Sui (AD 581-618), T'ang (618-907), and Sung (920-1279) glass beads and earrings excavated on Karafuto.[23] These articles found their way to the island

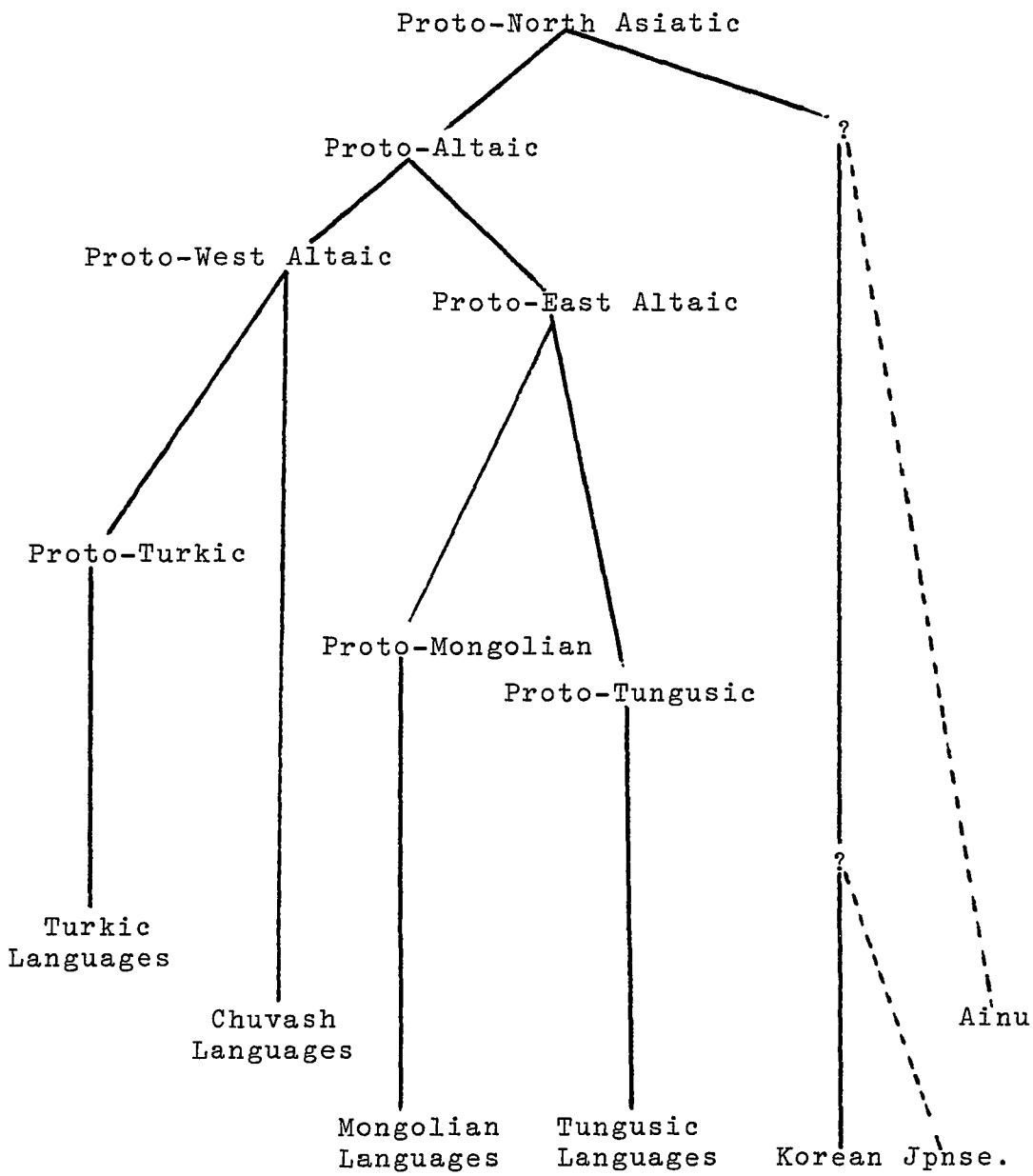


Figure 3

Altaic Hypothesis of Street (1962)

via mainland tribes who had first obtained them from China and then traded them to Karafuto's indigenous peoples. Further evidence of early mainland contacts with the Ainu is found in Chinese documents of the Han Period (202 B.C.-220 A.D.) which make reference to 'hairy people' who wore fish skins and lived in the far north-east.[24] This presumably refers to the Ainu.

Mainland contacts with Karafuto increased in frequency with the Mongolian conquests and the establishment of the Yüan Dynasty in China (1279-1368).[25] In the early seventeenth century, Manchu forces established contact with the island of Karafuto, subduing the Tungus, Gilyak, and Ainu in 1644. Towards the end of the eighteenth century, Manchu influence began to wane due to the increasing interests of the Japanese in that area.

The above paragraph clearly states that all documented contact between the Ainu and Altaic peoples (the Manchu-Tungus and the Mongolians, in this case) was restricted to the Karafuto Ainu. It further states that this contact was relatively recent. It thus follows that Altaic influences in the Ainu language should consist almost wholly of loan words into the Karafuto dialect. This would not bar the possibility of the appearance of these same Altaic loans in the Hokkaido dialect, but it

would follow that the Karafuto dialect would have a greater abundance of such loans. It should be noted that if Japanese is Altaic, the Altaic items in Ainu may have entered Ainu via Japanese. The evidence presented in this dissertation, however, will show that, by and large, the Altaic cognates shared by Ainu are not found in Japanese.

The evidence further shows that similarities between Ainu and Altaic are by no means restricted to the Karafuto dialect. The similarities, furthermore, will be shown to be a of a number and complexity that indicates a time depth unexplained by the history of documented contact. Two possible explanations will be considered. The first, or strong hypothesis, is that Ainu is part of the Altaic language family. As such, recurring sound correspondences as well as structural similarities exist between it and the Altaic languages. A second, more cautious hypothesis, is that massive borrowing from an Altaic source or sources has taken place and that this borrowing occurred at an early stage in the history of the Ainu language. I will attempt to show that it is the first hypothesis that must be favoured; that is, that Ainu is an Altaic language.

The second major purpose of this dissertation is to

present evidence justifying a Korean-Japanese-Ainu subgrouping. It must be noted that it does not necessarily have to follow that this is an Altaic subgrouping. In fact, many of hte cognate sets presented to justify Proto-Korean-Japanese-Ainu do not appear to share membership with any other Altaic languages. It is for this reason that I deal with this data in a separate chapter. It should be stressed, however, that I consider the two conclusions to be both compatible as well as integrally related.

FOOTNOTES

1. Peng and Brainerd (unpublished ms.), page 2.
2. ibid.
3. Takakura (1960:7-8).
4. Stephan (1971:12).
5. Piłsudski (1912).
6. A group inhabiting the northern Kuriles, Kamchatka, and the Aleutian Islands. They are of the Eskimo-Aleut language family.
7. Stephan (1971:15).
8. Batchelor (1938) and Chamberlain (1887) are clearly of this opinion.
9. A person incapable of a bitter taste sensation from a small concentration of the chemical Phenylthiocarbamide is said to be taste-ignorant. As this trait has been shown to be based on heredity, it is sometimes held to be relevant in anthropological studies. Ohno (1970: 10-11) maintains that the taste-ignorance among the Ainu is among the lowest in the world and as low as one-third that of the Japanese.
10. Ohno (1970:7).
11. Ohno (1970) presents an overview in English of much of the Japanese scholarship in this area.
12. Levin (1963), and Levin and Potapov (1964), for example.

13. Stephan (1971), (1974) presents perhaps the best treatment of this complex historical issue.
14. Throughout this work, the Japanese word Karafuto will be used in place of Sakhalin.
15. Alternately called Paleoasiatic and Hyperborean.
16. Worth (1963).
17. Poppe (1965) gives a good account of both past and present-day researchers in the Altaic field.
18. Vago (1973).
19. Krueger (1973).
20. Witness Poppe's care in mentioning the possibility of the Altaic origins of the Korean language in his 1965 Introduction.
21. It is interesting to note that Miller (1971) based his hypothesis of the Altaic origins of the Japanese language solely on phonological and morphological grounds.
22. The works of Simeon (1968) and Rahder (1951-54) are examples where the authors have been hampered by inability to handle Japanese source materials.
23. Stephan (1971:20).
24. Stephan (1971:20).
25. Stephan (1971:21).

CHAPTER II

Phonological Evidence Relating Ainu and Altaic

2.0 Introduction

The sound correspondences among the various Altaic languages have been accounted for by the reconstruction of eighteen distinct consonants in the proto-language (Poppe 1965:197-199):

p	t	č	k
b	d	ǰ	g
	s		
	y		
m	n	ñ	ŋ
	l^1	l^2	
	r^1	r^2	

In addition, Poppe (1965:202) reconstructs eighteen vowel phonemes: /i,ĭ,e,ë,a,u,ü,o,ö/ plus the long counterpart of each of these.

In this chapter, the Altaic data is primarily from Poppe (1960). To ensure accuracy, the German glosses used by Poppe have been retained in this work. English glosses, however, have been added in parentheses. The Ainu data comes primarily from Chiri (1953, 1954, 1962) and Hattori (1964). The contribution by the author has been to match the Ainu data with Poppe's (1960) cognate sets. Specific

mention is made of any proposed etymology that differs from that given in Chiri or elsewhere.

2.1 Proto-Altaic Initial /p-/

Proto-Altaic initial /p-/ no longer remains as such in any of the Turkic or Mongolian languages. It has remained intact only in three languages: Goldi, Olcha, and Oroki of the Tungus branch of Altaic. Evidence from the other Altaic languages suggests a gradual lenition of $p > \beta > h > \emptyset$. Two kinds of evidence can be offered to support the reconstruction of initial /p-/ in Altaic. First, the initial series /t:d/ and /k:g/ by analogy suggest /p:b/. Secondly, Tungus words cognate with vowel-initial Mongolian and Turkic lexical items have [h-]~[x-] and [f-]~[p-] in initial position.

Some of the more convincing items exhibiting this correspondence are:

1. mo. oroi 'top': tung. horon: ma. foron: olča poro 'id.'
2. mo. aluqa 'hammer': ma. folgo: oroč. xaluka: go. palũ 'id.'
3. mo. ünür 'scent', ünüs- 'to scent': ma. funsun: oroč. xunke 'perfume': olča pũnše- 'to scent'

Consider now the following items:

2.1.1 Ainu para 'palm of the hand'

mo. alaga 'Handfläche' ('palm of the hand')

kh. alʊgʊ

mmo. halaqan < *palakan

ma. falaŋgu

go. paiŋa < *pal'ŋa

ew. haɱ̀ŋa/hanŋa 'all id.'

2.1.2 Ainu -pa '(counter for) year'

mo. fän 'year'

west mo. on 'id.'

kh. oŋ 'id.'

ma. fon 'time'

ko. pom 'spring'

2.1.3 Ainu pake 'head'

mo. ekin 'id.'

mmo. hekin < *pekin 'Kopf, Anfang' ('head, beginning')

ma. fexi < *peki(n) 'Gehirn' ('brain')

go. peyé < *pegi < *peki 'Stirn' ('forehead')

2.1.4 Ainu pa(ye) 'to go, to proceed'

ko. pālp- 'to tread on, to walk on'

ryukyuan par~war~har 'to go'

tkc. bar~var 'to go, to walk'

jpnse. has- < *pas- 'to run'

2.1.5 Ainu puwar∿purar∿puray∿puyar∿piyar 'window'

ko. pāraži 'a window; a fanlight'

go. pa 'a window' (<pawa?)

olča pawa 'id.'

ma. fa 'id.'

negidal paga∿paha 'id.'

2.1.6 Ainu pirka 'good (not bad)'

mo. irüge- 'segnen, einen Segensspruch sprechen' ('bless, to give a blessing')

mmo. hirü'e- < *pírügē- 'id.'

ew. hirugē- 'segnen, beten' ('pray')

ma. firu- 'id.'

2.1.7 Ainu piru 'to wipe'

mo. ürü- 'reiben, feilen' ('to rub, to file')

mmo. hürü- < *pürü- 'schärfen, schleifen' ('to sharpen, to hone')

ma. fura- < *pürü- 'in kleine Stücke schneiden' ('to cut into small pieces')

furuku 'Reibeisen, Feile' ('grater, file')

AT üz 'zerreißen' ('to tear apart')

2.1.8 Ainu oposore 'to filter, strain it'

mo. üsür- 'besprengen, bespritzen' ('to sprinkle, to spray, to splash')

mong. fuʒuru- 'gießen' ('to pour')

ma. fusu- 'besprengen, streuen' ('to strew')

go. pise̯jni/pisiuni 'id.'

ol. pisūri 'begießen' ('water, baste')

oko. pi̯s 'gießen' ('to pour')

2.1.9 Ainu ori 'to dig'

jpnse. horu

tungus ul-

ryukyuan puruŋ 'all id.'

2.1.10 Ainu ho~o 'anus, vagina'

mo. oni < mmo. honi 'Kerbe am Pfeilende' ('notch in the end of an arrow'

ew. hoño < *poñĭ 'Ritze, Gabelung' ('crack, forking')

oj. pötö 'vagina'

2.1.11 Ainu húra 'smell (noun)'
húra nú 'to smell'

mo. ünür 'scent'

ma. funsun 'perfume'

oroč. xunke 'id.'

olča pūnsé- 'to scent'

2.1.12 Ainu hure 'red'

mngr. fulān

mmo. hula'an

dagur χulā

ma. fulgiyan

west mo. ulaʏan 'all id.'

mko. pĭrk 'fiery'

2.1.13 Ainu opke 'to fart'

mo. uŋga-, mmo. huŋqa 'furzen' ('to fart')

<vmo. *puŋka- 'id.'

ko. pa̬ngui/pa̬nge 'Furz' ('fart')

pongui- 'furzen'

2.1.14 Ainu hu 'fresh'

ko. phul 'grass'

tungus huli 'fresh'

mo. ölü~öle 'id.'

tkc. öl 'id.'

2.1.15 Ainu uku 'to blow (with the lips)'

oj. Fuk-

mo. ülije

ma. fulgije-

ko. pĭl 'all id.'

2.1.16 Ainu ure 'foot' (used only in compounds)

ma. fatxa < *padakai 'paw'

mo. adag 'end, the lower course of a river'

chuv. ura < *adak 'foot, leg'

AT aðaq 'foot, leg'

2.1.17 Karafuto Ainu unci 'fire'

trkm. ōt

yakut uot

khalaj hū^{o}t 'all id.'

jpnse. fuji 'proper name of a volcano'

OJ *ponopo 'flame'

ko. pul 'fire'

2.1.18 Ainu uyna~una 'ashes'

go. puñakta < *pünekte

mo. ünesün

mmo. hünesun

mngr. funieʒe̯ 'all id.'

2.1.19 Ainu urayni 'a type of stake placed standing in a river to catch fish'
< uray (?) + ni 'tree'

mo. urga/uraga 'Fangstange' ('snaring pole')

mmo. huraqa < *puraka 'Falle' ('trap')

bur. uriχa 'Falle'

kalm. urχɒ 'Falle, Schlinge' ('noose')

ma. χurqa 'Falle'

lam. hurka 'Schlinge, Falle'

2.1.20 Ainu ur 'furcoat'

mo. ürtesün 'Lappen, Flicken' ('rag, cloth, patch')

mmo. hürtesün < *pürte-sün 'Seidenlappen' ('silk cloth')

ma. furdexe 'Pelzware' ('furs')

2.1.21 Ainu ur 'hill'

mo. oroi, mmo. horai < *porai 'Kopfscheitel, Oberteil des Kopfes, Gipfel' ('crown of the head, top or upper part of the head, summit')

mo. orgil < *horgĭl < *porgĭl 'Gipfel'

ma. foron 'Scheitel' ('apex, parting')

go. porrō 'id.'

ew. horōn 'Scheitel, Oberteil' ('top, upper part')

If one accepts the above items as cognate with Altaic, it can be seen that the development of proto-Altaic initial /p-/ in Ainu is somewhat more conservative than within the Altaic family. Initial /p-/ has been completely lost before the high back vowel, /u/, (2.1.15-2.1.21). Numbers 2.1.11, 2.1.12, and 2.1.14 suggest that this sound loss was gradual; the bilabial stop first changed to /h/ before disappearing completely.

Evidence of a similar development of initial /p-/ before the mid, back vowel /o/ appears to be lacking. 2.1.10 and 2.1.13 suggest a loss of /p-/ in this environment. Preservation in 2.1.8 is presumably accounted for by the affixing of an /o-/ element (semantics unknown) so that the bilabial stop is no longer in word initial position. The large number of dictionary entries beginning with the sequence /po-/, however, suggests that

the /p-/ has been preserved in this position. In contrast, the occurence of initial /pu-/ is extremely limited. Hattori (1964) lists 45 occurences of initial /pu-/, but 187 of initial /po-/. Of the 45 instances of /pu-/, four are immediately identifiable as recent loan words:

1. pukuru < Jpnse. fukuro 'bag'
2. puta < Jpnse. buta 'pig'
3. puta < Jpnse. futa 'lid'
4. puturuhka < Russian butylka 'bottle'

In addition, Chamberlain (1887) cites the following item:

5. puri < Jpnse. furi 'custom'

Of the 187 /po-/ entries, only one is readily perceived as a loan:

1. potoki < Jpnse. hotoke 'Buddha'

2.2 Proto-Altaic Initial /t-/

Unlike the divergent development of Altaic /p-/, the development of Altaic initial /t-/ has been uniform in the various branches of the Altaic family. Without exception, Proto-Altaic /t-/ has been preserved before all vowels except /i/ and /ĭ/, in which cases the various dialects of Manchurian, Mongolian, and Chuvash have developed a /č-/. An examination of the following data reveals a similar development in Ainu:

2.2.1 Ainu tuk 'to extend upwards, to arise, to come up, to project'

mo. tujila- 'mit den Füßen ausschlagen (Pferd)' ('to kick with the feet (horse)')

kh. tuil- 'id.'

mmo. *tugĭla- 'id.'

sag. tuɣula- 'id.'

OJ tog- 'to protrude'

2.2.2 Ainu tuš 'animal pelt'

mo. tulum 'groβer Sack' ('large bag')

ko. turumagi < *tulumaki 'Mantel' ('cloak')

kas. tulup 'Ledersack' ('leather sack')

2.2.3 Karafuto Ainu tuhse 'to jump'

mo. taulai < *tawlai < *tablai 'Hase' ('hare')

kh. tūlai

AT tabĭšɣan

yak tabĭšχan

čag. tawušuqan

osm. tavšan 'all id.'

jpnse. tob- 'to jump'

2.2.4 Ainu top 'bamboo'

mo. tojig < towīg < tobīk 'Kniescheibe' ('kneecap')

kh. toig 'id.'

ma. tobgija 'Knie' ('knee')

yak. tobĭq

AT tobĭq 'all id.'

2.2.5 Ainu toy 'earth'

jpnse. tuti 'id.'

ko. tutuk, tutëng 'bank, levee, ridge'

tk. toz 'dust'

mo. toɣosun < *towārsun < *topārsun 'Staub, Erde'
('dust, earth')

mmo. to'osun 'id.'

AT topraq 'id.'

2.2.6 Ainu to 'lake'

tung. tongi 'id.'

2.2.7 Ainu tok 'to peck (as a bird)'

tkc. tik~tuq~tok 'to pierce, to peck'

jpnse. tsuk- 'to pierce, to prick'

2.2.8 Ainu tem 'the arms'

mo. teberi- 'umarmen, in die Arme nehmen'
('embrace, hug; to take into one's arms')

ma. tebelije- 'id.'

lam. tẹ̆wẹ̆l- 'id.'

ko. tẹ̆bir- 'am Armfassen, führen' ('grasp the arm; to lead, to guide')

2.2.9 Ainu tek 'hand(s)'

kogurye̬ tek '10'

AT toquz 'id.'

2.2.10 Ainu teur 'entrails of fish'

mo. türüsün 'Laich' ('spawn, fish roe')

ew. tirēkše̬ 'id.'

2.2.11 Ainu tapkir 'the skinned foreleg of an animal'

mo. takim 'die Stelle unter d. Knie'
('the spot below the knee')

takij- < *takĭ-jĭ- 'gebogen sein, krumm werden'
('to be bent, to become crooked')

ma. takija 'Knie eines Haustieres oder eines Vogels'
('knee of a pet or a bird')

olča tahi̬ 'Kniescheibe' ('kneecap')

AT taqĭ 'Teil des Beines' ('part of the leg')

kas. taqim 'der untere Teil des Oberschenkels' ('the lower part of the thigh')

bar. taɣĭm 'Knie, die Stelle unter d. Knie'

2.2.12 Ainu tara 'bare'

tara sekuma 'bare mountain ridges'

mo. tar 'Grindkopf' ('scabhead')

taraqai 'grindköpfig' ('scabheaded')

ew. taraka 'kahlköpfig' ('bald')

kum., kas., tat. taz 'kahlköpfig'

2.2.13 Karafuto Ainu tanku 'hundred'

ma. tanggû 'id.'

2.2.14 Ainu cikiri 'leg (including foot)'

mo. čigirag < *tĭgīrak 'dick, massiv' ('thick, massive')

kh. čirʊg 'stark, solide' ('strong; solid, substantial')

AT tĭɣraq 'aktiv, energisch, tätig' ('active, energetic')

2.2.15 Ainu cip 'boat'

mo. čibki- < *tipke- 'untertauchen, ins Wasser tauchen, hineingesteckt werden' ('dive, dip; to plunge into the water; to be put into')

ew. tipkę- 'hineinstoßen' ('to push into')

tipkęn- 'id.'

tipkęn 'Pfropfen' ('stopper, cork, plug')

2.2.16 Ainu cikóykip 'beast'

mo. činar < *tīnar 'Natur, Wesen, Wesensart, Eigenschaft' ('nature, personality, characteristic, feature')

mmo. činar 'Liebe, Zuneigung' ('love, affection')

AT tĭn < *tīn 'Atem' ('breath')

tin- 'atmen' ('breathe')

tĭnlĭɣ 'Lebewesen' ('living being, creature')

oir. tĭn- 'atmen'

tĭn 'Seele' ('soul')

yak. tīn 'Seele, Atmen'

oir. tĭnarlĭq 'Tier, Lebewesen' ('animal')

Despite the paucity of /c-/ initial lexical items cited here as well as the poor semantic fit of items 2.2.14 and 2.2.15, the change of Ainu /ti-/>/ci-/ is a likely historical development since /ti-/ is an unallowable segment sequence.

In reference to item 2.2.16, Chiri (1962) derives Ainu cikóykip from ci 'we' + koyki 'take' + p 'thing'. Now consider the following Ainu lexical items and the derivations proposed by Chiri:

1. cikap 'bird'

   There is no derivation given for this item.

2. cep 'fish'

   < ciep < ci 'we' + e 'eat' + p 'thing'

3. cironnup 'fox'

   < ci 'we' + ronnu 'kill' + p 'thing'

4. cirayci 'Harbor Seal (Phoca Vitulina)'

   < ciraycip

   < ci 'these' + rayci 'kill' + p 'thing'

Chiri's derivations seem semantically implausible. There seems to be little motivation for designating 'fish' as a 'we-eat-thing' when countless other items of both flora and fauna would fit into the same semantic designation. Furthermore, the semantic derivation of both 'fox' and

'Harbor Seal' is virtually identical despite the fact that these two are entirely unrelated animals.

Note that Ainu 'bird', cikap, is considered by Chiri to be a single morpheme. If, however, it is considered with the other forms discussed above, it is possible to isolate the /ci-/. The cognates in set 2.2.16 permit an interpretation of this prefix as an Altaic morpheme meaning 'life' or 'animal, beast'. This hypothesis would call for a reanalysis of the derivations of the above items as well as give a plausible and compatible explanation for the derivation of cikap.

Item 2.2.13, Karafuto tanku, is likely to be a loan from Manchu as no other Altaic cognates can be found. Not only does this item not appear in the Hokkaido dialect, but it is also seen as being a lexical item pertinent to the vocabulary of trade. It is thus reasonable to conclude that borrowing from Manchu occured in this case.

2.3 Proto-Altaic Initial /k-/

Proto-Altaic initial /k-/ was preserved before front vowels in all branches of the Altaic family. Before the back vowels, however, /k-/ became /q-/ in Mongolian and Turkic, and /x-/ in Chuvash while remaining /k-/ in Manchu-Tungus. Similar to Manchu-Tungus, the evidence for Ainu indicates preservation of initial /k-/ in all environments.

2.3.1 Ainu kiki 'to scratch'

ma. karka 'to scratch, to play the violin'

mo. qar 'to dig, scratch'

chuv. xĭr- 'to dig'

AT qaz 'id.'

2.3.2 Ainu kirpo 'fat' (<kir 'fat' + po 'diminutive marker')

mo. qarbiŋ 'Hängebauch, Bauchfett' ('potbelly, belly fat')

ma. qalbi 'die fleischigen Teile an den beiden Seiten des Bauches' ('the fleshy parts on both sides of the belly')

ew. kalbiŋ 'Fettpolster unter der Brust' ('layers of fat below the chest')

ko. kalbi 'Rippen' ('ribs')

nko. karbi 'id.'

tsch. jur < *x́ur < *q^{i}ar < *kaŕ 'Fett' ('fat')

oir. qazĭ 'Fett, Schmalz' ('fat, lard')

sag. qazĭ 'Bauchfett des Pferdes' ('bellyfat of horses')

2.3.3 Ainu kisma 'to press down on'

mo. kisa- 'unterdrücken, drücken' ('oppress; squeeze, press')

chuv. qĭs- 'zu en sein, drücken' ('to be too tight')

AT qĭs- 'zwingen' ('to force')

yak. kĭhan- 'Not leiden, in Bedrängnisein' ('to suffer from hardship; to be in a predicament')

2.3.4 Ainu ki 'to do it'

mo. ki- < *kĭ- 'tun, machen, hineinlegen' ('do, make, place into')

ew. kẹ̆- 'tun, machen'

yak. kĭn- 'id.'

AT qĭl- < *qĭ-l- 'tun'

2.3.5 Ainu kim 'mountain'

tung. kuma 'bare mountain peak'

kamni-ga 'steep height, hill, rock'

mong. qubu-ri 'mountain, hill'

2.3.6 Ainu kisar 'ear'

OJ kik- 'to hear'

ko. kui 'ear'

tung. kui-ki 'deaf'

ma. galbi 'keen ear'

AT qulaq 'ear'

2.3.7 Ainu kema 'foot'

OJ kubo 'heel'

mong. köm 'thick hide'

2.3.8 Ainu ker 'shoe'

mo. kerü < *ker-ü 'wandern, sich umhertreiben' ('to wander, to roam around')

ok. ker- 'gehen' ('go, walk')

ko. keni- < ker-ni- 'hin und hergehen' ('to pace back and forth')

AT käz- 'reisen' ('travel')

osm. gäz- 'spazieren' ('to take, go for a walk')

jpnse. ker- 'to kick'

2.3.9 Ainu kewre 'to shave it, to whittle it, to plane it'

mo. kir-ga- 'to clip, to shave'

osm. qĭr- 'to shave, scrape'

ma. giri- 'to cut'

go. geri- 'to cut out'

jpnse. kir- 'to cut'

ko. kal- 'to whet, grind'

mko. kɔl- 'id.'

PKJ (Martin 1966) *kyɔr-

2.3.10 Ainu kes 'end, edge'

mo. kiǯaryar 'Grenze, Rand' ('border, limit')

AT, chuv. qĭdĭɣ 'Rand'

2.3.11 Ainu kewe 'to expel, drive out'

mmo. kere- 'kämpfen' ('fight, combat')

mo. kereldü- 'zanken, streiten' ('quarrel, dispute')

kerčegei < *kerečekei 'grausam' ('cruel, terrible')

ew. kerčeme < *kere-če-me 'zornig, wütend' ('angry, enraged')

čag., oir. käriš- < kär-i-š- 'zanken' ('quarrel')

2.3.12 Ainu kara~kura 'to speak against, to speak evil of'

OJ kata- 'to tell, narrate'

ko. kut 'shaman's practices; magic'

go. xase, xĭse, xösö 'word, talk'

ma. xese 'command of heaven or emperor'

2.3.13 Ainu kasu 'a ladle, a large spoon'

OJ kasiFa 'vessels for eating and drinking'

ew. kalbaka 'spoon'

mo. qalbuɣa 'id.'

2.3.14 Ainu kam 'muscle'

mo. qoŋdulai < *koŋdulai 'Lenden, Oberschenkel' ('loins, thigh')

qonǯijasun < *koŋdĭgāsun 'der Hintere' ('the rump')

ma. qonsun 'After' ('anus')

ew. kundukĭ 'Kreuz' ('small of the back')

ko. kuŋduŋi 'Nates' ('the rump')

2.3.15 Ainu kap 'skin, bark, outer cover'

mo. qabturga 'Börse, Tasche, Sack' ('purse, pocket, pouch, sack')

qabqag 'Deckel' ('lid, cover')

ko. kạphi 'skinny, peeling'

tung. qap 'Behälter, Eierschale' ('container, egg shell')

jpnse. kawa < *kaPa 'skin, bark'

tuv. xap 'Sack'

2.3.16 Ainu kar 'to peel; drill fire'

mo., mmo. qar-u- 'graben, kratzen' ('dig, scratch')

kh. xar 'id.'

ma. qarqa- 'kratzen, die Fiedel mit dem Bogen streichen' ('to stroke the fiddle with the bow')

ko. kalk- 'kratzen, schaben' ('grate, scrape')

AT qaz- < *qar^2- 'graben'

yak. xas- 'id.'

gilyak kar 'shovel'

2.3.17 Ainu kapke 'flat'

mo. qabtagai < *kaptagai 'flach' ('flat')

qabtaji- 'flach werden' ('become flat')

mmo. qabtasun 'Brett' ('board')

ma. qapaχun 'flach'

qapara- 'flach werden'

ew. kaptama 'breit, flach, Brett' ('broad, wide')

lam. kaptačā 'eingesunken, eingedrückt' ('sagging, pressed in')

2.3.18 Ainu kararak 'type of crow (Corvus Corone Orientalis)'

jpnse. karasu 'crow'

ko. kač'ičak 'id.'

tkc. qarγa 'id.'

ma. karaki 'id.'

mo. käriyä 'id.'

2.3.19 Ainu koro 'while, when'

jpnse. koro 'id.'

tkc. qolu~kur 'id.'

2.3.20 Ainu kosina 'to fasten, to tie to'

mo. küli- 'to bind'

trkm. güyl- < *kül- 'to bind the hands and feet'

2.3.21 Ainu komo 'to bend' (verb intrans.)

mo. kömöri- < *köm- 'sich umdrehen, umfallen, mit den Boden nach oben fallen' ('to turn around; to fall down; to fall top to bottom')

ew. kumtẹw- 'umfallen'

oir. kömkör-/köŋkör- 'umwerfen' ('upset, overturn')

kömölö- 'id.'

yak. kömölȫ- 'überfallen' ('to attack suddenly')

2.3.22 Ainu koysum 'bubble, foam'

mo. köpē- < *köwē- < *köge- 'schwellen, schäumen' ('to swell, foam, froth')

kalm. kösn̥ 'id.'

ma. kubsuxun 'geschwollen, fett, dick' ('swollen, fat')

ew. kẹpẹ- 'schwellen'

lam. kẹbdurẹn- 'id.'

ko. kẹphum 'Schaum'

AT köpük 'Schaum'

osm. köpür- 'schäumen'

kha., oir. köp- 'schwellen'

2.2.23 Ainu kotan 'village, town'

mo. qota 'Schafshürde, Stadt' ('sheep pen; town')

kalm. χot^{o} 'Zaun, Umzäunung' ('fence, enclosure')

ew. gōta 'Zaun'

gōta- 'umzäunen' ('to enclose, to fence in')

ko. kot 'place, locality, site'

2.2.24 Ainu kuy 'to chew'

mo. kebi-de-sün 'des Wiederkäuen, das Wiedergekäute' ('rumination of cud')

kas. küjse- 'kauen, wiederkauen' ('to chew')

karak. güjseü 'das Wiedergekäute'

baš. köjös 'id.'

osm. gevič 'id.'

chuv. kavle 'id.'

2.2.25 Ainu kut 'throat'

ko. kut 'opening, mouth'

jpnse. kuči 'mouth'

mngr. guǰi 'neck, throat'

2.3.26 Ainu kur 'shadow'

niskur 'cloud' (<nis 'sky' + kur 'blackness')

kunne 'black'

ekurok 'dark'

jpnse. kurasi 'dark'

kuru 'to get dark'

kuro 'black'

kumo 'cloud'

ko. kurɯm 'cloud'

kurim 'soot'

kərimca 'id.'

kɯrimca 'shadow'

kəm 'black'

tung. kurunyuk 'soot'

komnomō 'black'

mo. kara 'black'

küräng 'brown'

tkc. kurɨm 'soot'

kara 'black'

hungarian korom 'soot' (?<tkc.)

2.3.27 Ainu kur 'person'

mo. kümün 'id.'

2.3.28 Ainu kut 'a girdle'

mo., mmo. quči- 'bedecken, verdecken' ('to cover, conceal, hide')

AT, čag., osm. quč- 'id.'

oir. qučaq 'Armvoll' ('armful')

2.3.29 Ainu kopeca '(wild) duck'

mo. köbbü- < köb-ü- < *köp- 'emporschwimmen, aufschwimmen, ins Wasser tauchen' ('to surface, to plunge into water')

ew. kẹpẹn- 'emporschwimmen, an die Oberfläche getrieben werden' ('to float to the surface')

kẹwkẹ̄n- 'id.'

lam. kẹwuŋči- 'schwimmen' ('to swim')

The regularity of the development of Altaic initial /k-/ in Ainu is particularly striking. It is, in fact, more conservative than the development in the majority of the other Altaic languages:

Manchu Tungus	Mongolian	Chuvash	Turkic	Proto-Altaic
k	k	k	k	*k/__front vowels
k	q	x	x	*k/__back vowels

Thus only in the Manchu-Tungus branch of Altaic was /k-/ preserved before both front and back vowels; in other branches, there was a divergent development in these two environments.

It does not have to be maintained that the existence of Ainu /k-/ before a back vowel in the correspondences cited above must be a result of borrowing from a Manchu-Tungus language since this was the only group that preserved /k-/ in this environment. Note that the voiceless uvular stop /q/, the regular development of /k-/ before back vowels in Mongolian and Turkish, and the voiceless velar fricative, /x/, the regular development in this environment in Chuvash, do not appear in the phonemic inventory of Ainu. If an item with one of these phones in the initial position were to have been borrowed into Ainu, it is very reasonable to assume that they would appear as /k-/. There is thus no basis for identifying a source language for the cited items in the event that they are borrowings.

2.4 Proto-Altaic Initial /b-/

2.4.1 Ainu seske 'to cover, close something'

mo. büri- 'bedecken, verhüllen' ('to cover, to veil')
büri jesün 'Bedeckung, Dach' ('covering, roof')

kalm. bürɛ̄sn̥ 'id.'

yak. bür- 'mit irgend etwas einfassen' ('to border with something')
bürüj- 'verdecken' ('to cover')
bürün- 'sich ein hüllen' ('to seal oneself up')

az. bürün- 'sich einwickeln' ('to wrap oneself up')

2.4.2 Ainu serema 'god, guardian'

mo. belen 'fertig' ('ready, finished')
beled- 'fertig machen, vorbereiten' ('prepared')
beleg 'Geschenk' ('present, gift')

ma. belxe- 'vorbereiten'

ew. bẹ̬lẹ̬n 'fertig'

bẹ̬lẹ̬- 'helfen' ('to help')

bẹ̬lẹ̬gẹ̄ 'Dienst, Gunst' ('duty, favor')

?ko. paražǐ 'Hilfe, Beistand' ('help, assistance')

2.4.3 Ainu sine 'number one'

mo. bi 'I, self'

ew. bi

go. mi

tsch. ɛ-Bi 'all id.'

2.4.4 Ainu sirokari 'round'

mo. bile 'Handgelenk' ('wrist')

bileče̬g 'Ring, Armband' ('ring, circle; bracelet')

kalm. bilcəG 'id.'

ew. bīlḛ̬n 'Handgelenk'

lam. bīlḛ̬pe̬n 'Armband'

az. biläk 'Handgelenk'

2.4.5 Ainu suye 'to shake'

mo. begere- < *bégēre- 'vor Kälte erstarren, zittern' ('to freeze up from the cold; to tremble, to shake')

ew. be̬gin 'das Beben, Zittern vor Kälte' ('shiver, to shiver from the cold')

ma. beje- < *bégi- 'erfrieren, zittern' ('to freeze to death')

2.4.6 Ainu sut 'the base, foot of'

ma. buten 'id.'

mo. bučа 'zurückkehren' ('give back')

ew. mučū- < *mučа-wu- 'id.'

čag., osm. buč-maq 'Winkel' ('angle, corner')

osm. bužaq < *bučqaq 'id.'

2.4.7 Ainu susu 'willow tree'

mo., mmo. burgasun 'Weidengebüsch, Zweige' ('willow bush, branch')

bur. burgāhaŋ 'id.'

ma. bužan < *burgan 'Wald' ('wood, forest')

ew. burgan 'ein Flußufer, das jedes Jahr überschwemmt wird' ('an annually flooded riverbank')

yak. burān/murān 'Hügel, Berg' ('hill, mountain')

The development of Altaic /b-/ in the various branches is quite regular: /b-/ remained as such in all cases except in Chuvash where it was devoiced into /p-/. As voiced obstruents do not appear phonemically in Ainu, it follows that all such segments entering the Ainu language must be modified into permissible phones. In the case of the voiced bilabial stop, /b/, the above evidence suggests that the regular reflex is /s-/.

A recent loan from Japanese, buta 'pig', however, appears in Ainu as puta. That is, /b-/>/p-/. Despite

the relatively large number of correspondences relating proto-Altaic /p-/ to Ainu /p-/, not a single correspondence can be found that relates proto-Altaic /b-/ to Ainu /p-/. The fact that the latter development, that is, devoicing, appears to be the phonological mechanism most recently utilized when Ainu borrowed words with a word-initial voiced bilabial stop, indicates that the items cited above, if borrowed at all, cannot represent recent borrowings. Thus once again we have evidence for a development which presumably occured before the documented history of the Ainu.

2.5 Proto-Altaic Initial /d-/

2.5.1 Ainu rakko 'otter'

mo. daqu < *daku 'Pelzjacke' ('fur coat')

mmo. daqu 'Pelz' ('pelt')

(>ew. daku 'Frauen pelzjacke'('woman's fur coat'))

oir. jaqĭ/jaqa 'Pelzjacke'

tuv. čayĭ 'id.'

2.5.2 Ainu rar 'edge of a sword guard'

mo. dalda 'geheim, imstillen, unbemerkt' ('secret, secretly, unnoticed')

mmo. dalda 'Schirm, Schutz' ('screen, protection')

ma. dali- 'zudecken, verdecken, verbergen' ('to hide, to cover up')

ma. daliqu 'Verdeckung, Wand' ('covering, wall, screen')

ew. dal- 'zudecken'

dal'it- 'verdecken'

AT jašur- 'zudecken, verdecken, verbergen'

jašin- 'sich verstecken, sich verbergen' ('to hide, to conceal oneself')

2.5.3 Ainu rari 'to press down on'

mo. daraγa 'der folgende, darauf, sofort' ('the following, next, at once')

mmo. daru- 'drücken, pressen' ('to press')

kh. darā 'hintereinander' ('successively')

ma. dara- 'hinterherjagen' ('to chase after')

ew. daran 'Reihe, neben' ('row, beside, next to')

lam. daran 'neben'

AT jarĭn 'morgen, am folgenden Tage' ('morning, the following day')

2.5.4 Ainu rik 'above, over, high'

mo. degde- 'auffliegen, sich erheben' ('to fly up, to rise')

pre-classical mo. degedü 'ober, oben befindlich, erhaben, hoch' ('upper, high, situated above, sublime, high')

kalm. degž- 'auffliegen, sich erheben'

ma. deje-/degi- 'fliegen' ('to fly')

ew. deg- 'id.'

lam. deg- 'fliegen, sich erheben'

ew., lam. dẹ̆gī 'Vogel' ('bird')

AT jäg 'Wohl, Güte, das Gute, gut' ('well-being, kindness, the good, good')

2.5.5 Ainu re 'soft part in the head of a fish'

mo. žiluɣa < *žĭlugā < *dĭlugā 'Schläfe, Zügel' ('temple; rein, bridle')

bur. žolō 'Fontanelle' ('fontanel')

ew. dẹ̆l 'Kopf' ('head')

2.5.6 Ainu rera 'wind'

mo. debi- 'schwingen, die Flügel schwingen, flattern, wehen' ('to swing; to flap the wings; to flutter; to blow')

debigür 'Fächer' ('fan')

ma. deberen 'Vogeljunges' ('young bird')

debdere 'fliegen lernen' ('to learn to fly')

debsi- 'schwingen'

lam. dẹ̆wūl- 'wehen, verwehen (Schneesturm), toben (Sturm)' ('blow; to blow away, to drift (snowstorm); to roar (storm)')

dẹ̆wū 'Wind' ('wind')

2.5.7 Ainu ru 'to melt (intrans.)'

mo. dulaɣan < *dulĭgān 'warm' ('warm')

kh. dulāŋ 'id.'

ew. dul- 'erwärmen' ('to warm up')

chuv. jĭlĭɣ 'warm'

2.5.8 Ainu ruki 'to swallow, to gulp down'

mo. doluɣa- < *dolugā- < *daluga 'lecken' ('to lick')

mmo. dolā- 'id.'

lam. dal- 'lecken, auslecken' ('to lick up')

ew. dalaǯa- 'lecken'

AT jalɣa-/jalqa- 'lecken'

2.5.9 Ainu ruwe 'marks, traces, tracks'

mo. düri 'Aussehen, Form, Gestalt' ('appearance, form, shape')

dürsün 'Figur, Gestalt, Aussehen' ('figure')

ma., go. durun 'id.'

AT jüz 'Gesicht' ('face')

The development of Proto-Altaic initial /d-/ has been quite varied:

Manchu-Tungus	Mongolian	Chuvash	Turkic	Proto-Altaic
ǯ (ma.)	ǯ	ś	y	*d/___[i]
d	d	ś	y	*d elsewhere

In light of such developments, the change of Proto-Altaic /d-/ into Ainu /r-/ seems strikingly uniform and simple. Certainly the change is phonetically plausible. We can easily envision a change from a voiced alveolar stop into

a tap and then into an /r-/. In an intervocalic position, this is precisely the development of Altaic intermediate /-d-/ in Chuvash.

2.6 Proto-Altaic Initial /g-/

2.6.1 Ainu her 'beam of light; to shine brightly'

mo. gerel 'Licht, Strahl' ('light, ray, beam')

mmo. gere 'Glanz' ('brightness')

ma. gere- 'hell werden' ('to get light')

ew. ŋ̬ērī < *gērei < *gēre-i 'hell' ('clear, bright')

The change of Proto-Altaic /g-/ to Ainu /h-/ is phonetically plausible. The Ainu alternants <u>eroki</u> ~ <u>heroki</u> 'herring' indicate that there may be a development of */g-/ > /h-/ > /Ø/.

2.7 Proto-Altaic Initial /s-/

2.7.1 Ainu sir 'earth, land'

mo. širuɣai 'Staub, Erde' ('dust, powder')

mmo. širo'ai 'Erde' ('earth, soil')

kh. šoroi 'id.'

ew. s̬irug̬ī 'Sand, Sandbank in einem Fluβ' ('sand, sandbank in a river')

chuv. šur < *šar 'Sumpf' ('swamp')

čag., kum. saz 'Sumpf'

2.7.2 Ainu sirotke 'to stick, pierce'

mo. šibüge < *sibüge 'Ahle' ('awl')

mmo. šibüge 'Bohrer, Pfriemen' ('drill, awl, punch')

mo. šibüger 'spitz' ('pointed')

chuv. šəvər < *sibür 'scharf' ('sharp')

osm. sivri 'id.'

kas. süjrü 'id.'

oir. sīrü 'id.'

tuv. sīr 'id.'

2.7.3 Ainu siru 'to polish'

tkc. sil < sür 'to rub, to polish'

ko. sōl 'brush'

jpnse. sur- 'to rub; to grind'

2.7.4 Ainu sirka 'the right or front side of a house'

sirpok 'the back side of a house'

mo. šili 'Nacken, Bergrücken' ('nape of the neck, mountain ridge')

mmo. šil 'äußere Erscheinung' ('outer appearance')

kh. šili 'Nacken, Bergrücken'

ew. sil 'Hinterkopf' ('back of the head')

2.7.5 Ainu sipi 'to refine'

mo. šigür < *šiwür < *sipür 'Besen' ('broom')

from šigü- < *šiwü- < *sipü- 'durchsieben, durchkämmen' ('to sieve, to screen')

mmo. ši'ü- 'schöpfen (mit dem Netz), fischen' ('to scoop (with a net), to fish')

kh. šü- 'sieben' ('sift')

ew. sippij- 'fegen' ('sweep, clean')

čag. süp 'Besen'

süpsä 'id.'

sipür 'id.'

AT sipir- 'fegen'

2.7.6 Ainu siki 'a large kind of reed'

mo. šigui 'Hain' ('grove, wood')

mmo. šiqui 'id.'

kh. šugui 'id.'

ew. s̬g̬ 'Busch, Büsche, Gebüsch, Gestrüpp, dichter' ('bush, shrub, thicket')

lam. hi̯gi̯ 'dicht bewachsene Gegend, Gestrüpp, Gebüsch Unterholz' ('densely overgrown region, brushwood, underwood')

2.7.7 Ainu sikai 'peg, pin'

mo. šiɣa- 'hineinschlagen, hineintreiben' ('pound in, drive in')

kh. šā- 'id.'

AT sïɣïš 'Keil' ('peg, dowel, wedge')

2.7.8 Ainu sik 'eye (n.)'

mo. šigaɣa- < *sïgïgā- 'durch ein Loch sehen, belauern' ('to peep through, to lie in wait for, to spy on')

kalm. šaɣā- 'id.'

ew. si̯gi̯n- 'id.'

2.7.9 Ainu siski 'to urinate'

mo. šige- 'harnen' ('to urinate')

mmo. ši'e- 'id.'

mo. šigesün 'Harn' ('urine')

kh. šēs 'id.'

bur. šeheŋ 'id.'

ma. sike 'Harn'
site- 'harnen'

chuv. šə̂r- sigd- 'harnen'

osm. sig- 'harnen'

2.7.10 Ainu sippo 'salt, brine'

oj. siwo 'salt'

tung. siyu 'id.'

2.7.11 Ainu usi 'to smear'

si 'fecal matter, dung'

mo. šiba- 'beschmieren, auftragen' ('besmear, to put on, to lay on')

šibar 'behm, Schmutz, Schlamm' ('mud; dirt, filth; mud')

mmo. šibar 'Schlamm, Schmutz'

kh. šawar 'id.'

ew. si̬wā- 'schmieren, zuschmieren' ('to smear')

si̬war 'Sumpf' ('swamp')

lam. hi̬bā- 'auftragen, beschmieren'

osm. sĭva- 'beschmieren, auftragen'

2.7.12 Ainu sunke 'a lie, a falsehood'

mo. sun- 'sich ausdehnen' ('to spread')

suŋga- < *sun-ga- 'dehnen, strecken' ('to extend, expand, stretch')

ew. sūnŋĭ̬ža- 'dehnen, spannen' ('to strain')

sūnŋĭ̬- < *sūn-gĭ̬ 'ausdehnen'

AT sun- 'ausstrecken' ('to spread out, to extend')

2.7.13 Ainu sum 'oil (obtained from animal fat)'

mo. semeži 'imeres Fett, Bauchfett' ('internal fat, bellyfat')

bur. hemže 'id.'

ew. semesik 'Bauchfleisch mit Fett' ('belly meat with fat')

ma. semsu 'Bauchfett'

chuv. samər < *sämir 'fett, feist'

AT sämiz 'Fett'

sämri- 'fett werden' ('to become fat')

2.7.14 Ainu us 'to go out, to die out'

mo. sönü- < sön-ü 'to be extinguished'

söni 'night'

ew. sī- < *söi- 'to extinguish'

tkc., čag. sön- 'id.'

2.7.15 Ainu cup 'sun'

ma. šun

go. sium

ol. siu^{n}

udehe sū

orochi siu^{n}

solon $šigu^{n}$ 'all id.'

2.7.16 Ainu sa 'a space, an interval'

ko. sabok 'the space between'

mo. saba 'the uninhabited frontier land between two districts or countries; no man's land'

2.7.17 Ainu saye 'a coil of rope'

ko. sarai- 'one round, one turn (said of ropes or similar things)'

tung. sar- 'to wind around'
sary- 'id.'

mo. sarigu 'curved, winding'

kalm. sarū, sarǖ 'id.'

2.7.18 Ainu caʌsa 'seashore; low bank of a river'

mo. sajir 'ein trockenes und steiniges Flußbett'
'a dry and rocky riverbed'

kh. sair 'id.'

čag., oir. saj 'trockenes und Flußbett, seicht'
'shallow, low'

tat. sajïq- 'seichtsein' ('to be low')

2.7.19 Karafuto Ainu ciire 'to roast, broil'

mo. šira- 'braten' ('roast, grill, bake, broil')

mmo. šira- 'id.'

kalm. šar- 'id.'

ew. sila- 'auf einem Spieß braten' ('to roast on a spit')

lam. helat- 'auf einem Spieß braten'

The development of Proto-Altaic /s-/ is quite regular in the various branches of Altaic: /s-/ is preserved as such, except in Manchu, Mongolian, and Chuvash where it is palatalized before /i/. As /si-/ freely alternates with /ši-/ in Ainu (Appendix 6.2.2), the correspondences presented here reveal a similar development in Ainu with the exception of 2.7.15 and 2.7.19, and the variation in 2.7.18.

Item 2.7.17, Ainu sikai 'peg, pin', exhibits a correspondence which supports the entry of this item into Ainu at an early stage in the development of both Ainu and the Altaic languages. If it were the case that this item were borrowed into Ainu, the source of borrowing would have had to have been from a language that was contiguous to Ainu or with which Ainu had some contact. As Manchu-Tungus does not enter into this set of correspondences, the source of borrowing would be presumably Mongolian. Note, however, that the Mongolian gloss is not identical to the Ainu form, but that that AT gloss is. This gap offers support for the common origin of this item; that is, Ainu and AT had preserved the original meaning, and that this original meaning was somewhat modified in the development of Mongolian.

2.8 Proto-Altaic Initial /č-/

2.8.1 Ainu čima 'boil, eruption, scab'

mo. čigiqan< *čīwīkan < *čīpīkan 'Geschwür, Furunkel' ('abcess, ulcer; boil')

bur. šiχaŋ 'id.'

classical mo. čibil < *čīpīl 'Schmutz, Sünde, Scham, Unreinheit' ('dirt, filth, shame')

tel. čībīryan 'Pickel' ('pimple')

čag. čīpqan 'Furunkel'

trkm. čīban 'id.'

2.8.2 Ainu ko'ocis 'to hate'
<ko '?' ocis 'get extremely angry'

mo. ös < *ōč 'Rache, Haß' ('revenge, hatred')

ösije 'Haß'

mmo. öš 'Feindschaft, Rache' ('hostility')

kalm. öšētē 'verhaßt'

trkm. öc 'Rache'

AT öč 'id.'

2.8.3 Ainu čiw 'river current; tidal current'

ko. čolčol 'bubbling, flowing, running of water (onomat.)'

tung. čurgi čorgi 'to drop, to drip, to flow'

mo. čorkira- 'to bubble up'

ma. ǯolχo- 'to bubble up (as a spring)'

2.8.4 Ainu ci 'penis'

ko. čāǰi

go. čilču

ol. čiču

ma. čočo 'all id.'

2.8.5 Ainu cik 'time; when'

ko. cëk 'id.'

jpnse. toki 'id.'

mo., čag. 'Zeit' ('time, era, age')

mmo. čaq

AT čaq

yaḵ saχ 'all id.'

go. toǧo 'interval'

2.8.6 Ainu ci 'ripe; grow old'

kalm. čili- 'anschwellen' ('to swell up')

trkum. čīš- 'schwellen'

2.8.7 Ainu čuk 'autumn'

čukpa 'id.' (< <u>čuk</u> + <u>pa</u> 'season, time')

ko. čuk- 'to die, to expire, to be weak'

tung. čuku- 'not to know or understand'

mon. čöke, čökü- 'to abandon all hope, to despair of, to be unable to'

uig. čök- 'to sink, to decline'

2.8.8 Karafuto Ainu caake 'edge, border'

mo. čaʻada < *čagāda 'bei, jenseits' ('at on the other side, beyond, across')

kh. cāna 'jenseits'

caiši < čagāši 'in jener Richtung, weiter dorthin' ('farther, there, that way')

ma. časi 'dorthin'

čala 'jenseits'

čargi 'id.'

ew. čāgū 'entfernt' ('distant')

čagīdāku 'fern, hinter, jenseits' ('far, behind')

lam. čāskī 'ferner, künftig' ('farther, future')

2.8.9 Ainu čača 'old person'

mo. čaji- < ča-ji- 'weiβ werden' ('become white')

časun < čā-l-sun 'Schnee' ('snow')

čal 'weiβhaarig, grauhaarig' ('white, gray-haired')

ma. čalfa < čālbān 'Bast, Birkenbast' ('bast, birch bast')

ew., lam. čālbān 'Birke' ('birch')

AT čal 'grauhaarig'

The development of Proto-Altaic initial /č-/ has been quite regular: /č-/ has remained /č-/ in all branches of Altaic except Chuvash where it has emerged as /ś-/. The items listed above indicate a similar conservatism in Ainu;

that is, /č-/ has remained /č-/.

2.9 Proto-Altaic Initial /ǰ-/

2.9.1 Ainu čip 'boat'

mo. ǰabi 'Boot' ('boat')

ma. ǰaja < *ǰaji < *ǰăwi 'ein aus Birkenrinde verfertigtes Boot' ('a boat made of birch bark')

ew. ǰaw 'id.'

ǰawkān 'Nachen, kleines Boot' ('skiff, small boat')

2.9.2 Ainu tu 'two'

tura 'accompany'

ko. tul 'two'

mo., mmo. ǰirin 'zwei' ('two')

ew. ǰūr 'id.'

ǰūrktē̬ 'beide' ('both')

ma. ǰuru 'Paar' ('pair, couple')

ǰuwē̬ 'zwei'

2.9.3 Ainu soya 'bee'

mo. ǰögei 'Biene' ('bee')

ew. ǰugukte 'id.'

lam. ǰē̬wē̬t 'Wespe' ('wasp')

The reflexes of Proto-Altaic initial /ǰ-/ vary within the major branches of the Altaic family. /ǰ-/ lenited to /y-/ in Turkic, /ś-/ in Chuvash, but remained /ǰ-/ in Tungus and Mongolian. The three items cited above are far too few and represent divergent developments so that any regularity of the development of this phone in Ainu remains a mystery. Both the phonetic and semantic correspondences in all these forms are particularly striking, however. The devoicing of a non-allowable voiced segment, namely */ǰ-/ > /č-/ (2.9.1 čip 'boat'), is certainly phonetically plausible. The development from affricate to stop as exemplified by 2.9.2 (tu 'two') is also plausible. The development from affricate to fricative (2.9.3 soya 'bee') has precedence in the attested development of Proto-Altaic /ǰ-/ to Chuvash /ś-/.

While not denying the motivation of any of the above three possibilities of development, the Altaic origins of any or all of the Ainu forms cited must be ruled out unless a hypothesis specifying unique environments can be established to explain the different developments. Needless to say, the extremely limited data base provided will make any such hypothesis extremely tentative. An examination of the three forms does permit the hypothesis that Altaic /ǰ-/ developed into Ainu /t-/ when followed by a long vowel, Ainu /č-/ before */-a/, and perhaps /s-/

elsewhere. As this hypothesis is extremely tentative and has little to defend it, no further time will spent on its discussion.

2.10 Proto-Altaic Initial /y-/

2.10.1 Ainu ya 'interrogative marker'

mo. yaɣun < *yāgūn 'was' ('what')

yambar < *yān-bar 'welcher' ('which one')

mmo. yan 'was für ein' ('what kind of')

ma. ya 'wer, was' ('who, what')

yade 'wo' ('where')

ew. ēma < *yāma 'was für ein'

ēdu < *yādu 'warum' ('why')

ēlā 'wo'

lam. yāk/ēk 'was für ein'

yādu 'warum'

yā- 'was tun' ('what can be done')

yāgāi 'warum'

go. xaidu <*yādu 'wo'

2.10.2 Ainu yap 'to ascend, go up (pl.)'

mo. yabu- < *yapu- 'gehen' ('to go')

ma. yafa- 'id.'

The development of Proto-Altaic initial /y-/ in the various branches of Altaic has been relatively conservative; */y-/ remains /y-/ except in Chuvash which has developed a palatalized /ś-/. Forms 2.10.1 and 2.10.2 cited above would seem to indicate similar conservatism in Ainu; that is, Altaic */y-/ remained /y-/ in Ainu. The two forms, however, are insufficient to justify positing a regular sound law despite the very accurate phonetic and semantic fit.

2.11 Proto-Altaic Initial /m-/

2.11.1 Ainu mim 'flesh of fish'

mo. miqan, mmo. mĭqan < *mĭkan 'Fleisch' ('flesh, meat')

kh. maχa 'id.'

oir. bĭqĭn 'Lenden' ('loins')

oj. mi 'flesh, fruit'

2.11.2 Ainu mempiru~mempiro 'a kind of wild onion'

mo., mmo. maŋgirsun 'wilde Zweibel' ('wild onion')

kalm. maŋgrsn̥ 'id.'

ko. manĭl 'Knoblauch' ('garlic')

2.11.3 Ainu meri 'a twinkle; a bright flash of light or fire'

mo. merijen 'bunt, scheckig, Schecke' ('spotted, colorful')

ew. merimẹ̆ 'bunt'

AT bäzän- < *mäzän- 'sich schmücken' ('to adorn decorate oneself')

osm. bäzä- 'schmücken'

bäzäk 'Schmuck, Verzierung' ('ornament, decoration')

2.11.4 Ainu mošir 'island'

< mo + šir 'land'

? ma 'to swim'

mo., mmo. mören 'Fluß' ('river')

mmo. also 'Meer' ('sea, ocean')

ma. muke 'Wasser' ('water')

ew. mū <*mō̄ 'id.'

ko. mul < *mur < *mör 'id.'

2.11.5 Karafuto Ainu manka 'strong'

mo., mmo. möŋke 'ewig' ('eternal, everlasting')

ko. mango 'Ewigkeit' ('eternity')

AT bäŋgü 'ewig'

osm. bäŋgi 'id.'

2.11.6 Ainu moro 'house, pit dwelling'

tung. malu 'sacred place in house for ancestor worship'

silla mari 'elevated place in house'

mko. mɔlɔ 'floor'

oj. muro 'protecting shed, house, cave'

2.11.7 Ainu mun 'a drop (of water), a ball'

mo. mončog < *mončak 'Halsschmuck eines Pferdes' ('neck decoration for a horse')

bur. monsogor < *mončagar 'rund' ('round')

monsori- < *mončajĭ- 'rund werden' ('become round')

ko. muŋ 'Kugel, rund' ('ball')

osm. bonžuq 'Perlen, Halsperlen' ('pearls, pearl necklace')

kha. monžĭχ 'id.'

Proto-Altaic initial /m-/ has remained /m-/ in all branches of Altaic except Turkic where it has denasalized into /b-/. The above evidence indicates that Altaic */m-/ has also remained unchanged in Ainu.

2.12 Proto-Altaic Initial /n-/

2.12.1 Ainu mi 'to wear'

mo. nemüre- 'bedecken, ein Kleidurgsstück überwerfen' ('to cover, to slip on a piece of clothing')

nemürge 'Bedeckung, Mantel' ('covering, coat')

mmo. nemür- 'überdecken'

ew. nēm̆ew- 'sich bedecken' ('to cover oneself')

nēm̆elē- 'satteln' ('to saddle')

ma. nemergen 'Mantel aus Gras' ('coat made of grass')

2.12.2 Ainu -ni~-niw 'counter for people'

ko. nä 'man, person'

go. nai 'man'

2.12.3 Ainu noye 'to twist'

jpnse. nawa 'rope'

ko. no 'id.'

tung. nēm 'id.'

2.12.4 Ainu mopi 'sleepy, slow'

mo. nojir < *nowīr < *nobīr 'Schlaf' ('sleep')

kum. jovaš 'friedlich' ('peaceful')

2.12.5 Ainu mem 'lake, swamp'

mo. namug < namuk 'Sumpf' ('swamp')

ew. namargan 'Sumpf'

lam. nāwukta 'Moos' ('moss')

2.12.6 Ainu ni 'to suck, to sip'

go. luŋbe̬- 'verschlucken' ('swallow')

ma. nuŋge- 'id.'

ew. nimŋe̬- 'id.'

ko. ne̬mgu- 'id.'

2.12.7 Ainu numa 'hair'

mo. noɣosun < *nuŋā-r-sun 'Wolle' ('wool')

ma. nungari < *nuŋā-ri 'id.'

küärik juŋ < *juŋa < *nuŋā 'Haar, Wolle' ('hair')

2.12.8 Ainu nuy 'flame'

mo. nölüge 'Flamme' ('flame, blaze')

ew. nul- 'Feuer machen' ('to light a fire')

lam. nulul- 'flammen' ('to flame, to blaze')

ko. nul- 'brennen' ('to burn')

The development of Proto-Altaic initial /n-/ was such that it was modified into /y-/ in Turkic, /ś-/ in Chuvash, but remained unchanged in Mongolian and Tungus. The above forms indicate a similar conservatism in Ainu. For a discussion of the [m-] ~ [n-] alternation, refer to Section 4.19, page 170.

2.13 Proto-Altaic Initial /ń-/

2.13.1 Ainu nun-pe 'paste, glue'

mo. niɣa- < *nīwā- < *ńapā- 'kleben, ankleben' ('to glue, to glue to')

mmo. ni'a- 'zusamenleimen' ('to glue together')

lam. nabgata 'klebrig' ('sticky')

AT japĭš- 'haften bleiben' ('to remain stuck to')

japšĭn- 'kleben bleiben' ('to remain glued to')

2.13.2 Ainu nu- 'eye' (used only in compounds)

nupe 'tear' (<nu 'eye' + pe 'water')

nukar 'to see' (<nu 'eye' + kar 'to have')

mo., mmo. nidün < *ńündün 'Auge' ('eye')

ew. ńundun 'id.'

ko. nun < *nundun < *ńündün 'id.'

?oj. nem- 'to glare at'

?jpnse. namida 'tears'

? < na 'eye' + midu 'water'

2.13.3 Ainu (Shiraura dialect) nikax 'to go bad, turn sour'

mo. niqu- < *ńĭk-u- 'kneten' ('knead, massage')

ma. niqča- 'zerfallen' ('fall to pieces; to decay')

ko. nigi- 'kneten'

jpnse. niga- 'bitter'

AT jĭq- 'schlagen, vernichten' ('to strike, destroy')

As is seen in the above set of correspondences, the alveolar nasal was the regular Ainu development of the palatal nasal stop that existed in Proto-Altaic.

2.14 Proto-Altaic Liquids

2.14.1 Ainu os- 'inner'

oske~ospe 'inner part' (ie. 'stomach')

ew. ur < *ör 'stomach of an animal'

mo. örö < *öre 'the inside, the aorta'

chuv. var < *ör 'center, middle'

AT öz 'oneself'

2.14.2 Ainu kosina 'to fasten, tie to' (X-ref. 3.3.20)

mo. küli- 'to bind'

trkm. güyl- < *kül 'to bind the hands and feet'

2.14.3 Ainu kasu 'a ladle, a spoon' (X-ref. 3.3.13)

oj. kasiFa 'vessels for eating and drinking'

ew. kalbaka 'spoon'

tkc. kašuk 'spoon'

mo. qalbuγa 'id.'

2.14.4 Ainu assap 'oar, paddle'

mo. ele- 'sich durchreiben/sich abnutzen' ('to rub through, to wear out')

chuv. al- 'pflügen, eggen' ('plow, harrow')

osm. äš- 'Kratzen, Rudern' ('scratch; oar, rudder')

jpnse. usu 'a mortar'

usu- 'thin'

As Proto-Altaic liquids never appeared word-initially, all instances of their reflexes in the Altaic languages are normally expected to be word-internal. Miller (1971:124) posits that the development of the Proto-Altaic liquids is the same for Korean and Japanese, thus confirming the status of these two languages within the Altaic unity. It has been well-attested early in the history of the Altaic theory that the major division between proto-Western Altaic (ie. Turkish) and proto-Eastern Altaic (ie. Mongolian and Tungus) is on the basis of the development of the liquids: in proto-Western Altaic, $*r_2$ and $*l_2$ developed into /s/; in proto-Eastern Altaic, they didn't.[4] Miller's theory posits that Korean-Japanese is somewhere in the middle: pA $*r_2$ remains /r/ similar to proto-Eastern Altaic languages, but pA $*l_2$ develops into /s/, similar to proto-Western Altaic languages. Correspondences 2.14.1-2.14.4 cited above support the hypothesis that Ainu was part of the same development, thus providing some evidence for an earlier Korean-Japanese-Ainu proto-language.

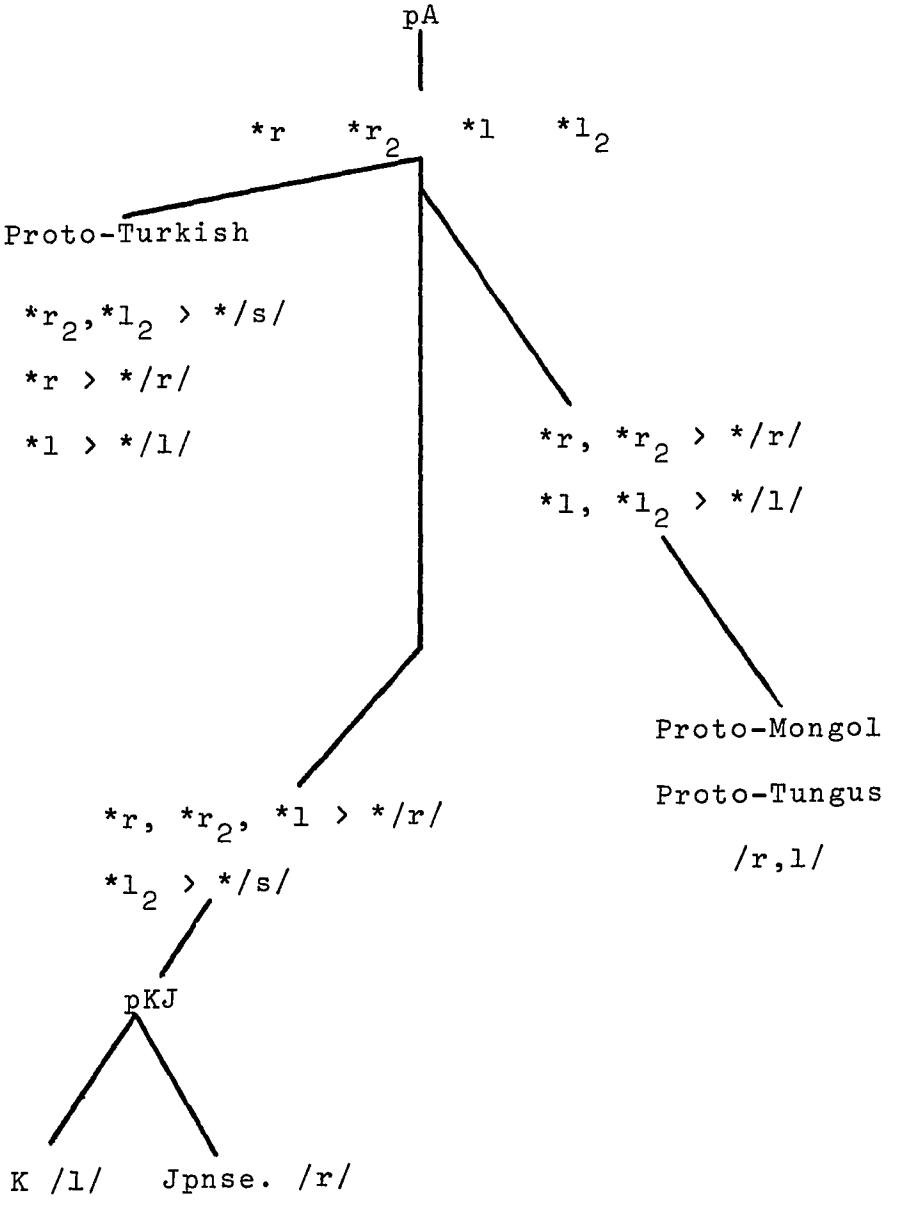


Figure 4

Proto-Altaic Liquids[5]

The establishment of an $*/l_2/ > /s/$ development now can be used to support the Altaic origin of the following Ainu item[6]:

2.14.5 Ainu isepoᵕosopo 'rabbit'

(< oso/ise + po 'diminutive marker')

osukep 'id.' (Taraika dialect)

osukex 'id.' (Shiraura, Aihama, Tonnai, Tarankomari dialects)

mo. taulai < *tawlai < *tablai 'Hase' ('hare')

kh. tūlai 'id.'

AT tabĭšγan

yak. tabĭšχan

čag. tawušuqan

osm. tavšan 'all id.'

jpnse. usagi < *wosagi 'rabbit'

The cited Ainu and Japanese forms in 2.14.5 above appear to have little resemblance to the Altaic items other than an /s/:/r/ correspondence. Miller (1971:116-7), however, very cleverly analyzes the Japanese form to be of direct Altaic descent. It is fairly easy to model his derivation of the Japanese form and posit an identical etymology for the Ainu form.

Miller begins by isolating the word-initial morpheme /ta-/ from these items. He maintains that this element was prefixed to the form for 'rabbit' in all the various

Altaic languages with the exception of Japanese. It did, however, survive in Japanese and was used as a prefix in the sense of 'wild' or 'untamed' in certain lexical items; for example, tasigi 'snipe'. In Ainu, this morpheme appears to have left no traces and it can be assumed that it was not prefixed to the proto-Ainu form for 'rabbit'. By isolating out this prefix, the original phoneme sequence in proto-Altaic for 'rabbit' is thus */-bl$_2$g-/, and, as with Japanese, this can be traced step by step to the Ainu form.

It was stated earlier that proto-Altaic */b-/ developed into Ainu /s-/ (Section 2.4). Note, however, that the phone in question here was not in initial position in proto-Altaic due to the prefixed element. The regular Ainu correspondence of internal */-b-/ appears to be /-w-/ (cf. Ainu iwor, item 2.16.1). The proto-Ainu form can thus tentatively be reconstructed as *wosVke. As there are no phonemic voiced obstruents in Ainu, it is furthermore reasonable to assume on the basis of the Japanese evidence that the final consonant was voiced, thus: *wosVge. The resemblance at this point between the Ainu and the Japanese forms should leave little question as to their original unity. Upon retracing the sound shifts of proto-Altaic /-b-/ to Japanese-Ainu /-w-/ and proto-Altaic /l$_2$/ to Japanese-Ainu /-s-/, we arrive at a

one-to-one identity with the reconstructed proto-Altaic form.

Now consider the development of proto-Altaic /-l_1-/:

2.14.6 Ainu hure 'red'

mo. ulaɣan

mmo. hulàan

kh. ulāŋ < *pulagān

ma. fulgijan

ew. hulama

lam. hulatį̆ 'all id.'

The above correspondence (cited earlier as 2.1.12) is the only one the data yielded for the development of proto-Altaic /-l_1-/ in Ainu. The phonetic and semantic match of this item, however, are so great as to leave little doubt as to the cognate relationship of these forms.

Ainu reflexes of proto-Altaic /-r_2-/ can be found in the following items:

2.14.7 Ainu kar 'to peel'

mo., mmo. qar-u- 'graven, kratzen' ('dig, scratch')

kh. xar 'id.'

ma. qarqa- 'kratzen, die Fiedel mit dem Bogen streichen'

ko. kalk- 'kratzen, schaben'

AT qaz- < *qar_2- 'id.'

yak. xas- 'id.'

2.14.8 Ainu uturu 'to put in between, to insert'

mo., mmo. düru- < *düre- 'hineinstecken' ('insert')

dürüge < *düreŋè 'Steigbügel' ('stirrup')

kh. dörō 'id.'

ew. durḛki 'id.'

chuv. jêrana < *üräŋi < *$jür_2äŋi$ 'id.'

tel., kum. üzäŋgi 'stirrup'

jpnse. ir- 'insert'

Ainu kar 'to peel' (cited earlier as 2.3.16) corresponds both in semantic and phonetic form to the Altaic items, leaving little doubt in regards to the Altaic origin of this item. Item 2.14.8, Ainu uturu, is probably formed by the prefixation of the Ainu reciprocal marker /u-/ (ref. Section 6.9.1.3, page 231) to the stem. This conclusion would maintain that, whereas proto-Altaic initial /d-/ developed into Ainu /r-/, proto-Altaic intervocalic /-d-/ devoiced into /-t-/ in the development of Ainu while remaining [-d-] allophonically.

2.15 Proto-Altaic Vowels

Poppe (1960) proposes that proto-Altaic was characterized by an underlying eighteen vowel system. There existed both long and short varieties of each of the following nine vowels: *i, *ĭ, *u, *ü, *e(=ä), *ė, *o, *ö, *a. The following data reveals that Ainu has greatly simplified this vowel system by neutralizing the long/short contrast as well as by eliminating the front-rounded vowels.

2.15.1 Proto-Altaic /a-/

2.15.1.1 Ainu aye 'to be called or named'

mo. ajiburči 'Schwätzer, schwatzhaft' ('chatterer, talkative, loquacious')

ajižim < *ajĭdĭm 'ein altes episches Lied' ('an old epic story')

AT ajĭ- 'sprechen, sagen' ('to talk, to say')

ajĭt- 'sprechen lassen' ('to let talk')

trkm. ajdĭm 'Gespräch' ('talk, conversation')

2.15.1.2 Ainu atte 'to suspend, to hang up'

mo. asa- 'haften bleiben, sich anhängen, sich aufdrängen' ('to remain stuck to; to hang on; to impose on')

kalm. as- 'sich anzünden, Feuer fassen' ('to fire up oneself; to catch on fire')

ew. asaktaža- 'verfolgen' ('to pursue')

asasin- 'die Verfolgung aufnehmen' ('to take up the pursuit')

ko. atta 'entreiβen' ('snatch away')

AT as- 'aufhängen' ('to hang up')

trkm. as- 'id.'

2.15.1.3 Ainu ar- 'one side/part of'

mo., mmo. ala 'die Stelle zwischen den Beinen' ('the area between the legs')

ew. alas 'Schenkel' ('calf, thigh')

aldan 'id.'

AT al 'Vorderseite' ('front part')

alĭnda 'vor (irgend etwas)' ('in front of something')

alt., tel., leb., šor. alĭn 'Unterteil, unter' ('lower part, under')

tat., kum., osm. alt 'Unterteil, unterhalb' ('below, underneath')

2.15.1.4 Ainu ak 'younger brother'

mo., mmo. aqa < *akā 'älterer Bruder' ('older brother')

kalm. aχʊ 'id.'

ew. akā 'jüngerer Bruder des Vaters od der Mutter' ('father or mother's younger brother')

lam. akan/akka 'der ältere Bruder, Onkel' ('older brother, uncle')

yak. aɣa 'Vater' ('father')

ko. akki 'younger brother'

2.15.1.5 Ainu apa 'door, doorway'

ew. amŋa < *amga < *amgai < *amagaj 'Mund' ('mouth')

mo. ama 'Mund, Öffnung' ('opening')

go. aŋma 'Mund'

ma. aŋga < *amŋa < *anga 'id.'

alt., kas., kir. am < *ama 'die weiblichen Geschlechtsorgane' ('the female sex organs')

2.15.1.6 Ainu ar 'that (over there)'

mo. aru 'Hinterteil, Rücken, Norden' ('hindpart, back, the North')

lam. arkan/arkun <*árukan 'Oberteil des Rückens' ('upper part of the back')

AT arqa < *áru-ka 'Rücken'

2.15.1.7 Ainu apo^hapo 'mother'

mo. ebei < *epei < *epè-i 'Mutter, Mütterchan' ('mother, little old woman')

chuv. appa < *äpă 'ältere Schwester' ('older sister')

2.15.1.8 Karafuto Ainu ham 'not'

ko. an(i) 'id.'

go. ana 'id.'

2.15.1.9 Ainu apa 'relative'

ko. aba- 'father'

mo. aba 'id.'

kalm. āwa 'id.'

2.15.1.10 Ainu amam 'rice (or other cereal grain)'

mo. amusun 'grits, pap, porridge'

2.15.2 Proto-Altaic /i-/

2.15.2.1 Ainu itako 'female shaman'

mo. udagan 'Schamanin' ('shaman')

ew. i̬dokon 'id.'

2.15.3 Proto-Altaic /u-/

2.15.3.1 Ainu nupuri 'moutain'

< nup 'high' + uri 'hill'

ew. urə 'id.'

negidal urə 'id.'

solon urə 'id.'

ok. mure 'mountain'

paekche nop^{h} 'high'

2.15.3.2 Ainu upas~opas 'snow'

mo. oua < owa < *upà 'weiβe Schminke' ('white make-up')

ma. ufa < *upà 'Stärke, Puder' ('starch, powder')

kir., čag. opa 'weiße, Schminke, Kreide'

šor. oba 'Kreide' ('chalk, white powdery substance')

2.15.3.3 Ainu ut 'rib'

mo. učig < *učĭk 'Ende eines Fadens, Fadenende' ('end of a thread')

oir., šor., čag. uč 'Ende' ('end')

trkm. ūč 'Ende'

2.15.3.4 Ainu ururu 'river bank'

mo. urus- 'fließen' ('flow')

lam. ūru- 'herausfließen' ('to flow out')

koib. ur- < *ūru- 'fließen'

2.15.3.5 Ainu umen 'to tire (of some activity)'

mo. unta- < *umta- 'schlafen' ('to sleep')

untara- 'erlöschen' ('expire, go out')

umarta- 'vergessen' ('to forget')

ew. omŋo- < *omgo- < *umga 'Verge lichkeit, Vergessenheit' ('forgetfulness, oblivion')

lam. omŋa- 'vergessen'

yak. u 'Schlaf'

AT unĭt- < *unt- < *umt- 'vergessen'

2.15.3.6 Ainu uto 'door of house or pit dwelling'

mo. örüke 'Rauchöffnung in der Jurte' ('smoke opening in the yurt')

mmo. örüge 'Deckenfenster' ('skylight')

ew. urkẹ̆ 'Tür' ('door')

ma. uče̊ < *urke < *örke 'Tür'

2.15.3.7 Ainu utakararip ~ otakarip 'starfish'

kogurye̊ utu 'five'

??jpnse. itu-(tu) 'id.'

Note that items 2.1.21 and 2.15.3.1 appear to be in disagreement. It appears that it is possible to reconstruct either *pur- or *ur- as the original Ainu form for 'hill'.

Chiri (1962:80) derives 2.15.3.7 utakararip 'starfish' from uta 'sand' + ka 'above' + rari 'pushing against' + p 'thing'. It is difficult for me to see the semantic connection between a starfish and a 'pushing against the sand thing'. If anything, Chiri's derivation more aptly describes a crab; certainly not a starfish. The variant from, otakarip, forces Chiri (1962:80) to posit an entirely different etymology for that form: ota 'sand' + karip 'round dish'. The semantic absurdity of this latter derivation needs no further comment. If we accept the Kogurye̊ form as cognate, a more plausible etymology emerges; namely, uta '5' + kara 'made from' + p 'thing'. It is semantically plausible for a starfish to be designated as a 'made from five thing'. It should be noted, however, that Ainu no longer employs uta in the numeral system, but

appears to have replaced it with the morpheme for 'fingers', <u>ašik</u>.

2.15.4 Proto-Altaic /e-/

2.15.4.1 Ainu epara 'to condemn, to injure'

mo., mmo. ebde- < *epde- 'zerbrechen, zerstören' ('to break to pieces, destroy')

kh. ewdə- 'id.'

ew. ẹw- 'id.'

2.15.4.2 Ainu i'unin 'to be sick' (Obihiro dialect)

mo. enel- 'unglücklich sein, trauern, traurig sein' ('to be unhappy, to mourn, to be sad')

ew. ẹnūnil- 'krank werden' ('to become sick')

lam. ẹńčī < *enčī 'Schmerz' ('pain')

ẹnẹk 'Krankheit' ('illness')

ew. ẹnẹlil- 'überdrüssig werden' ('to get tired of')

sag. enig 'Mühe, Qual' ('pain, torment')

2.15.4.3 Ainu ekaši 'old man, an ancient'

mo., mmo. eke 'Mutter' ('mother')

ew. ẹkẹ̄ 'ältere Schwester' ('older sister')

ẹkī 'Tante' ('aunt')

lam. ẹkẹn 'ältere Schwester'

chuv. akka < *äkä 'ältere Schwester'

2.15.4.4 Ainu ek 'to come'

mngr. s̈z̈i- 'gehen' ('to go')

mo. ečі- 'id.'

dag., ord. ičі- 'id.'

2.15.4.5 Ainu isam 'is not'

mong. ese- 'id.'

ew. ẹ̈sin- 'id.'

2.15.5 Proto-Altaic /o-/

2.15.5.1 Karafuto Ainu ociw 'to have sexual intercourse'

mo. əǰu- 'to -iss, to have sexual intercourse'

kir. əjun 'game'

ma. ojombi 'to kiss'

2.15.5.2 Ainu otakina 'type of wild grass (Mertensia Asiatica)'

< ota 'plant name' + kina 'grass'

mo. otačі < ota-čі 'Arzt, Kräuterarzt' ('doctor, herb doctor')

kalm. otac^{i} 'id.'

ot^{o} < *ota 'Kraut, Heilkraut' ('herb, healing plant')

trkm., yak. ət 'Gras, Kraut, Heu' ('grass, hay')

2.15.5.3 Ainu om 'thigh'

mo. omoruɣun 'Brustbein (eines Pferdes)'
('breastbone (of a horse)')

mmo. omori'ud 'Brustknochen'

bur. omoŏūŋ 'Brustbein eines Pferdes'

osm. omuz 'Schulter' ('shoulder')

2.15.5.4 Ainu ok 'sense, feelings'

tkc. uq 'to understand, to know'

In all the above correspondences, both the semantic and phonetic fit is good thus leaving little doubt as to the common origin of these items.

2.16 Proto-Altaic Non-initial Consonants

The cognate sets listed throughout this chapter for initial consonants have also exemplified the development of the non-initial consonants. They will thus not be treated in a separate category. Only one additional correspondence set will be cited in this section, namely that of proto-Altaic internal /-b-/.

2.16.1 Ainu iwor 'cave, place where a bear or deity lives'

mo. uɣurqai < *uwūqai < *ubūrkai 'Loch, Grube, Schact' ('hole, pit, shaft')

ew. uwur ubūr 'Vertiefung' ('hollow')

This correspondence set suggests that /-b-/, rather than devoicing to bilabial /-p-/, lenites into a glide that agrees in backness. Although the initial vowel in the Ainu item differs from that of the other items in the correspondence set, the change is not that phonetically extreme as both the rounding and the backness of the original vowel are still preserved in the glide of Ainu iwor.

2.17 Summary of Correspondences

The following is a summary of the Ainu reflexes of the various proto-Altaic phonemes based on the data presented in this chapter.

Proto-Altaic	Ainu
*p	p
*b	s word-initially w internally
*t	č/___[i] t elsewhere
*d	r word-initially t internally
*k	k
*g	h∿ ∅ ?
*s	s
*ǰ	č /___[a] ? t /___long vowels? s elsewhere?
*y	y

Summary of Correspondences continued:

Proto-Altaic	Ainu
*m	m
*n	n
*ń	ń
$*l_1$	r
$*l_2$	s
$*r_1$	r
$*r_2$	r
*a	a
*i	i
*u	u
*e	e
*o	o

FOOTNOTES

1. Aalto (acknowledging Ramstedt) 1955:09.
2. Aalto (acknowledging Pelliot's citing of Ramstedt) 1955:09.
3. It should be noted that Hattori (1964) lists dialectal variations of the same morpheme as separate lexical items. Thus the actual number of distinct morphemes in both the /po-/ and the /pu-/ categories is somewhat reduced.
4. Refer to Figure 4, page 81.
5. Adapted from Miller (1971:124).
6. Note that these forms have been cited in 2.2.3 as cognate with Karafuto Ainu tuhse 'to jump'. The acceptance of the etymology hypothesized for 2.14.5 would appear to invalidate this.

CHAPTER III

Morphological and Lexical Evidence Relating Ainu and Altaic

3.1.0 Interrogatives

3.1.1 Ainu Interrogatives

Refer to Appendix for an outline of the various interrogative markers and interrogative formations in the Ainu language.

3.1.2 Proto-Altaic Interrogative Markers

The proto-Altaic interrogative marker has been reconstructed as *yā- (Poppe 1965). It appears with various suffixed elements, the exact semantic values of which are unclear, in secondary formations such as: *yāg-, *yān-, and *yādu. Miller (1971:190) culls the following etymologies from Poppe's various works to illustrate the appearance of these formations:

pA *yā- 1. yāg-: mo. yaɣun 'what'

2. yān-: mo. yambar, mmo. yan 'what kind, what sort of'

3. yām-: ew. ēma 'id.'

4. yādu: ew. ēdu; lam. yādu 'why'

go. xaidu 'where'

Miller (1971:191) summarizes the development of this morpheme by stating:

> 'The best attested (and for that reason we must also necessarily conclude the most widespread) type of interrogative in the original proto-Altaic linguistic unity consisted of various secondary formations resulting from suffixation onto the original interrogative root pA *yā-; of this there can be little doubt. But early in the history of the Altaic linguistic community, and before the goegraphical and linguistic separation of proto-Tungus and proto-Peninsular and Pelagic from the other languages, i.e., more or less at the time of the proto-Northern and Peninsular Altaic unity, this root itself subdivided into two different varieties, one continuing the original proto-Altaic shape unchanged as *yā- and its related forms, the other showing an early Northern and Peninsular innovation as a root *xa- (xā-?); and it was this second form that next served as the root morpheme in numerous secondary and tertiary formations in the Northern and Peninsular languages.'

The precise conditioning factor(s) for this subsequent development were later lost, but this loss was still at an early stage in the division of Proto-Northern and Peninsular Altaic. The expected result is thus that both interrogative morphemes would appear in the subsequent branches of this Altaic subdivision.

There is some evidence suggesting that the regular development of proto-Altaic */y-/ is Ainu /y-/ (Section 2.10.0). If this is the case, then the Ainu interrogative marker ya can be matched with the reconstructed proto-Altaic marker *ya-.

Another interrogative morpheme in Ainu is he (Section 6.10.3). As the following examples show, it can function both as a prefix and an enclitic:

e-korpe he	'is it her thing?'
hemanta	'who?'
humna	'what?'
hunak	'where?'
hempar	'when?'
hempak	'how many?'

Can Ainu he be related to the proto-Northern and Peninsular interrogative marker *xa? As Ainu does not have a velar fricative in its inventory of phones, it is phonetically plausible for the reflex of this segment to be /h/ in Ainu. In fact, this appears to be the regular reflex of the voiced velar stop /g-/ (Section 2.6.0). The vowel correspondences, however, cannot be as facilely handled. There appears to be little justification for pA */a/ to have an /e/ reflex in Ainu.

The remaining Ainu interrogative marker, ne- (Appendix, Section 6.10.3), can also be shown as possibly having Altaic origin. Recall that evidence was given showing the regular Ainu reflex of pA */n-/ to be /n-/. Consider now the AT form nä 'what'. Its function as an interrogative morpheme in Old Turkish is seen by the the following paradigm:

1. näkä 'why?'
2. näčä 'how?; somehow'
3. nämän 'how?'
4. nälük 'why then?'

In addition to the above-cited Old Turkish forms is the Old Japanese morpheme nani 'what'. It appears that this may also be related to both the Ainu and the Old Turkish forms. The semantic match is acceptable and the nasal consonant correspondence is regular.

Also supporting the cognate relationship of the Ainu, Old Turkish and Old Japanese forms is the vocalism involved. As there are no variants in the Ainu data, the reconstructed proto-Ainu form must be *ne-; that is, the vowel must be non-back. The frontness of the vowel is in agreement with the Old Turkish form. In the case of Old Japanese, Miller (1971:194) states that the

quality of the epenthetic vowel in OJ nani was governed by the rules of vowel harmony. The epenthesis of a front /-i/ as opposed to a back vocalism such as /-u/ thus indicates that the vowel of the root was originally front. There is thus a convincing match both semantically and phonetically for the Altaic origin of these items.

3.1.3 Indefinites Derived from Interrogatives

An interesting feature of some Altaic languages (but by no means unique to them) is the addition of further compounding layers of interrogatives with a resulting semantic sense of indefiniteness. Consider the following data:

1. Japanese: dare 'who'
   dare ka 'someone'
   nani 'what'
   nani ka 'something'
   doko 'where'
   doko ka 'somewhere'
   itu 'when'
   itu ka 'sometime'
   ikura 'how much'
   ikura ka 'some amount'

2. Korean: moës 'what'
moësitĭnči 'something/whatever'

ëdi 'where'
ëditĭnči 'somewhere/wherever'

nugu 'who'
nugutĭnči 'someone/whoever'

ënče 'when'
ënčetĭnči 'sometime/whenever'
ënčena 'id.'

ček 'book'
čekitĭnči 'whichever book/book or something'
čekina 'id.'

3. Ainu: nen 'who'
nen-ka 'someone/whoever'
nen-neyakka 'id.'

nep 'what'
nep-ka 'something/whatever'
nep-neyakka 'id.'

nekon 'how'
nekon-ka 'somehow/however'

hempar 'when'
hempar-ka 'sometime/whenever'
hempar-neyakka 'id.'

Thus in Japanese, Korean, and Ainu, the compounding of an interrogative marker to an interrogative word results in a new category labelled 'indefinites'. It is interesting to note that Japanese grammarians label this entire category of forms as 'indefinites' and not 'interrogatives' thus showing that the indefinite semantic sense is somehow more basic than the interrogative sense.[1]

Consider now the specific forms of the interrogative markers involved in the derivation of these indefinite constructions:

Japanese:	/-ka/
Korean:	/-(i)na/; /-(i)tĭnčĭ/
Ainu:	/-ka/; /-neyakka/

It is readily apparent that the alternative Ainu interrogative marker /-neyakka/ can be decomposed into /-ne-yak-ka/ revealing it to be a compounding of interrogative markers:

1. /-ne-/ (Section 3.1)
2. /-yak-/ (Section 6.7.0)
3. /-ka/ (present section)

The similarity between Ainu /-ka/ and Japanese /-ka/ in both form and grammatical function is hard to dismiss as a coincidence. The only puzzle is why Korean would appear to have a unique interrogative marker considering the precise similarity of the Japanese-Ainu reflexes.

Korean has an interrogative marker /-kka/. Although its use does not carry over into the derivation of indefinites as with the case of Japanese and Ainu /-ka/, it would be hard to argue that it is not a cognate form. In addition, Korean has the morpheme /-ya/ in the interrogative sense of 'whether'. Ramstedt (1949:74) considers this Korean form to be cognate with /-ya/ ('id.') in Manchu, Tungus, and Mongolian. Ainu /ya/ 'interrogative marker' (Section 2.10.1) has also been hypothesized to be cognate with the Altaic forms. It thus can be hypothesized that all the Ainu interrogative markers are of Altaic origin.

3.2 Plural Formation

As discussed in Appendix Section 6.3.2, nouns in Ainu are normally not inflected for number. However, a plural morpheme /-(u)tar/ does appear in a limited number of cases when the plurality of the noun is being emphasized.

Menges (1968:111) states that the reconstructed plural suffix for common Altaic, */-lar/, is actually a combination of two suffixes: /-l-ar/. Other plural markers exhibited by Altaic languages are /-t/ in Mongolian, and /-ta/ in Tungus and Manchu. Menges (1968:111) also notes that evidence from tribe names suggests that /-t/ as a plural marker survives as a relic in Turkish. It is thus possible to reconstruct an additional plural morpheme, */-t/.

With the above information, it is possible to view the Ainu plural morpheme as a combination of the two proto-Altaic plural markers; that is, /-t-ar/. Note that there is nothing irregular in the phonetic development of this form. Proto-Altaic */t/ corresponds to Ainu /t/ (Section 2.2) and Proto-Altaic*/r_1/,*/r_2/ correspond to Ainu /r/ (Section 2.14). The combination of two plural morphemes appears to be a regular Altaic pattern as evidenced by the previously cited Tkc. /-lar/. Note

also the similarity in both phonetic form and semantic value between Ainu /-(u)tar/ and Korean /-tĭl/. Both function as a plural marker and both have the same restricted usage. It is thus possible to postulate that the Korean and Ainu forms are cognate items, and, further, that they are of Altaic origin.

3.3.0 Case Particles

Section 6.3.3 of the Appendix outlines various post-positions that are used to express case in the Ainu language. Three of these particles appear to have reflexes in Altaic.

3.3.1 Locative

Ainu /ta/ 'locative marker'

ma. /-te/ ~ /-de/

jpnse. /de/

mo. /-ta/ ~ /-da/

AT /-ta/ ~ /-da/

chuv. /-ra/ ~ /-da/ all 'id.'

jpnse. to- 'site, place' (cf. <u>koko</u> 'here'
<u>soko</u> 'there')

ko. /t^he/ 'site, place'

3.3.2 Instrumental

Ainu /ani/ 'instrumental marker'

AT /-yn/

yak. /-nan/

chuv. /-ăn/ all 'id.'

3.3.3 Ablative/Directional

Ainu /or(o)/ 'from the point of'

ko. /-ro/ 'to the point of (illative marker)'

mo. /-ra/ ~ /-rä/

tung. /-la/; /-lo/

Tkc. /-ra/

chuv. /-alla/ all 'id.'

The sound correspondences posited in Chapter 2 support a cognate relationship of these forms as they all illustrate a regular sound development.

Although by no means as supportive of an Altaic origin of the case particles, the lack of a nominative marker in Ainu does offer some similarity with the Altaic languages as this is a regular feature of Altaic (Menges 1968:109).

3.4 Causative Suffix

Causative verbs in Ainu and the various Altaic languages are regularly derived by the suffixation of a causative morpheme. The form and function of this morpheme in Ainu appears to be identical with those in the Altaic languages. Consider the following data:

Ainu /-re/ 'causative marker' (Section 6.8.1.1)

Tkc. /-r-/ 'causative marker'

eg. qara 'black'

qara-r 'to blacken'

käk 'hatred'

käk-rä- 'to make angry'

Manchu /-ra/ 'causative marker'

eg. mū 'bad'

mū-ra 'to make bad'

altan 'golden'

alta-ra 'to gild'

Tungus /-l-/ 'causative marker'

eg. hawa 'work'

hawa-l- 'to work'

nama 'warm'

nama-lo- 'to make warm'

Japanese /-r-/ 'causative/transitive marker'

eg. sema- 'narrow'

sema-r- 'to press; urge'

kubi 'neck'

kubi-r- 'to strangle'

kusa- 'ill-smelling'

kusa-r- 'to rot; corrupt'

3.5 Pronouns

Poppe (1965:194) concludes that correspondences in both phonetic and semantic form among the pronominal systems in Old Turkish, Chuvash, Mongol, and Tungus are so exact that they could not possible be a result of a borrowing. The proto-Altaic pronoun paradigm reconstructed by Poppe is cited by Miller (1971:156) as follows:

	Singular		Plural	
1-p	nominative	*bi	nominative and oblique	*bir
	oblique	*män		
2-p	nominative	*si	nominative and oblique	*sir
	oblique	*sän		
3-p	nominative	*i	nominative and oblique	*ir
	oblique	*än		

Possessive affixes (Section 6.3.4) and pronouns (Section 6.6.0) of Ainu do yield some possible similarities in form when compared with the above chart. Ainu first person marker /čі-/ and second person marker /e-/ may be matched with the proto-Altaic forms for second and third person, respectively. In regards to the difference in person categories in this comparison, Miller (1971:173) confronts a similar problem in his treatment of Japanese but concludes:

> 'This inevitably confronts us with one of the most perplexing problems in the entire history of the pronoun forms in Japanese, and indeed in all the Altaic languages, namely the shifting back and forth in semantic category from one person to another which such forms appear to have undergone from time to time--and sometimes even more than once during their history. Common to all these examples of semantic interchange between first-person and second-person are two socio-linguistic elements--the self-deprecatory employment of a pejorative second-person in the resultant sense of a humble first-person; and the converse employment of a humble, self-deprecatory first-person in the sense of a particularly pejorative second-person.'

Perhaps more plausible than the possible correspondences mentioned above, is the Ainu form /si-/ 'one'. Evidence (Section 2.4.0) suggests that the regular development in Ainu of Altaic */b-/ is /s-/. There is thus a direct correspondence in both semantic category and phonetic form between the reconstructed Altaic */bi-/ 'first person, singular nominative pronoun' and Ainu /si-/ 'one'.

A trait of the pronominal systems of some of the Altaic languages is the existence of an inclusive/exclusive distinction for the category of first person plural. As this distinction is not evidenced in all the Altaic languages, it can not be held that such a distinction did definitely exist in proto-Altaic. As this contrast appears prominently in the various Mongol and Tungusic languages, however, it can be safely stated that, if an inclusive/exclusive contrast was not a feature of proto-Altaic, then this distinction arose shortly after the division into proto-Eastern and proto-Western Altaic.

An inclusive/exclusive distinction clearly exists in Ainu (Section 6.6.0):

1-p plural exclusive ci'okay (Ishikari dialect)

1-p plural inclusive anokay

From these forms, /čі-/ can be readily isolated and identified as the 1st person marker. The /an-/ of the inclusive category can be as readily isolated, but it does not seem to match with anything else within the Ainu system of pronouns or pronominal inflections unless we assume it to be identical with the first person (both singular and plural) pronominal inflection /a-/ which underwent a drop of the morpheme-final nasal. Such an identification is particularly appealing as we than have a possible direct match with the reconstructed proto-Altaic oblique form */(C)än/.

The above evidence suggests that it is possible that Ainu maintains some traces of a proto-Altaic pronominal system.

3.6 Numerals

The lack of similarity amongst the numeral systems of the various Altaic languages has often been cited as one of the major stumbling blocks of the Altaic theory (Miller 1971:219). Miller (1971:219), on the other hand, maintains that this state of affairs is not at all damaging, being the result of widespread borrowing and a propensity towards numeral taboos such as Japanese yoji 'four o'clock' in place of the expected *shiji. He

furthermore states that simply because the Indo-European languages have a common numeral system is no reason to impose this characteristic upon other language families.

As shown in Appendix, Section 6.9.0, the Ainu language has a vigesimal numeral system; that is, based on the unit '20'. Thus 40=2X20; 60=3X20 and so on. Traces of such a system are found in the English expression 'score' as well as in the French quatre-vingt '80' (lit. '4X20'). A further unique principle of the Ainu numerals is that of the operation of subtraction. The numerals from 1 to 5 and the numeral for 10 are basic, with the intervening numerals being formed by subtracting these basic units from the numeral '10'. The numeral '6' is literally expressed as '4 from 10'; '7' as '3 from 10'; '8' as '2 from 10'; and '9' as '1 from 10'. Higher numerals call for the operation of both the vigesimal and the subtraction principles. The number '36', for example, is:

iwan ikasma wan e tu hot ne

(lit. '6 plus (10 from (2X20))'

A comparison of the Ainu numeral system with that of Korean reveals many striking similarities:

Ainu		Middle Korean
sine	1	hana
tu	2	tul
re	3	sëy(s)/sëk
ine	4	nëy(s)/nëk
asikne	5	tas(ës)
iwan	6	yës(ës)
arwan	7	ilkop
tupesan	8	yëtëlp
sinepes	9	ahop
wan	10	yël

Ainu sine '1' is apparently the regular development of the proto-Altaic first person singular pronoun (Section 3.2) and thus it would not be expected to be in correspondence with the Korean form. The forms for the numerals 2,3, and 4, however, show striking phonetic similarities. The numeral 5, asikne, is apparently a semantic transfer from the morpheme 'finger'. 2.15.3.7 suggests Ainu uta- as being cognate with Koguryŏ utu '5'.

Also of note is that the Korean numeral system appears to be based on a similar principle of subtraction of basic numerals from the unit '10'. Miller (1971:243-4) credits both Ramstedt and Ohno Susumu as maintaining the following hypothesis for the formation of Korean

numerals:

7: yël '10' + *ɣu '3' + ëp(s) > ilkop

8: yël '10' + tul '2' + ëp(s) > yëltëlp

9: yël '10' + hɔnah '1'+ëp(s) > ahop

In the above formulation, [ëp(s)] is a morpheme meaning 'non-existence'. Thus the phonetic similarity as well as the similarity in method of construction between Korean and Ainu numerals seems to lead to the conclusion that the two are cognate systems. It is interesting, further, to note that traces of a subtractive system have been hypothesized[2] for Old Turkish where säkiz '8' seems to incorporate the form iki '2'.

Extending our comparison of numeral systems to other Altaic languages, the following tabulation (Hamp 1970:190) is instructive:

	AT	Chuvash	Bolgar	p-Mong.	p-Tungus
1	bĭr	pĕr	bir	niken	ämün
2	eki	ikĕ	eki	goyar	ǰŏr
3	üč	viśĕ	vüč	gurban	ĭlan
4	tört	tăvata	tüät	dörben	dügin
5	bäš	pilĕk	bel,biäl	tabun	tuńga
6	altĭ	ultă	altĭ	jirguɣan	ńöŋün
7	yeti	śićĕ	ǰiäti	doluɣan	nadan
8	säkiz	sakăr	säkir	naiman	ǰapkun
9	toquz	tăhăr	toχur	yisün	χüyägün
10	ön	vună	van, vän	parban	ǰuwan
100	yüz	śĕr	ǰüz, ǰür	ǰaɣun	ńamā, taŋgu

Ainu wan '10' was the only numeral of the six basic forms where a correspondence could not be found in Korean (excluding Ainu /si-/ '1' which appears to have a unique Altaic origin). The above chart, however, does provide an Altaic basis for this as it is in basic phonetic agreement with the forms for '10' in the above-cited languages. We can thus conclude that all the Ainu basic numerals can be traced to Altaic origins.

FOOTNOTES

1. Miller (1971:218).

2. Miller (1971:225).

CHAPTER IV

Evidence Relating Korean, Japanese, and Ainu

4.0 Introduction

Chapter 2 presented phonological evidence supporting the hypothesis that the Ainu language is composed of items of Altaic origin. The purpose of the present chapter is to provide a justification for a Korean-Japanese-Ainu subgrouping. Some of the evidence that follows has appeared in Chapters 2 and 3. In such cases, the necessary cross-referencing is given. In the majority of cases, however, no other cognates other than the given Korean and/or Japanese forms appear. Thus, while the given evidence supports a Korean-Japanese-Ainu relationship, it cannot necessarily be concluded that this relationship represents an Altaic subgrouping. It is for this reason that this evidence is presented in a separate chapter. Martin (1966) and Ramstedt (1949) are the principle sources of data for the material that follows.

The arrangement of the data presented here is roughly based on the style of Martin (1966). Martin divided his lexical pairs of Japanese and Korean items into the following three categories:

I. Those items with a regular phonetic match and a good semantic match.

II. Those items having an identical semantic match,

but only a partial phonetic fit.

III. Those items with a good phonetic match but somewhat divergent semantics.

To exactly parallel Martin's procedure, however, is impossible since what is being compared in this case is three languages, not two. It is for this reason that such an analysis was not even attempted for the data presented in Chapter 2 as the complete membership of all the Altaic languages was possible sources of data for comparison. To overcome this complication in the present chapter, a lexical set will be assigned membership into one of the three categories on the basis of whether either Ainu and Korean, or Ainu and Japanese meets the requirements specified above. In determining the closeness of the phonetic fit, a certain knowledge of historical development is assumed; namely, Modern Japanese h < *p, and Ainu *p > ∅.

Each section deals with a unique reconstructed phoneme or phoneme sequence. Following this are the reflexes in the given order of Korean:Japanese:Ainu. Discussion of motivation for the reconstruction as well as a discussion of specific etymologies follows each section.

4.1.0 *p- p:p:p

Class I: 4.1.1 Ainu paki 'time'
ko. pak 'id.'
in tan-pak 'a single time'
(Ramstedt 1949:183)

4.1.2 Ainu pas~cas 'to run'
oj. pas- 'id.'

4.1.3 (X-ref. 2.1.10)
Ainu ho~o 'anus, vagina'
oj. pötö 'vagina'

4.1.4 (X-ref. 2.1.17)
Karafuto Ainu unci 'fire'
jpnse. fuji 'proper name of a volcano'

4.1.5 (X-ref. 2.1.15)
Ainu uku 'to blow (with the lips)'
oj. Fuk- 'id.'

4.1.6 (X-ref. 2.1.9)
Ainu ori 'to dig'
jpnse. hor- 'id.'
Ryukyuan puruŋ 'id.'

4.1.7 Ainu pone 'bone'

ko. ppyë 'id.'

jpnse. hone 'id.'

pKJ (Martin) *pYenye

4.1.8 Ainu po 'a child; diminutive marker'

ko. -po 'person, fellow'

cf. mëkpo 'a deaf person'

nĭlbo 'an ilder, a lazy fellow'

jpnse. -po 'person, fellow'

cf. akanbo 'baby'

dorobo 'thief'

noppo 'a tall person'

sakuranbo 'a cherry'

4.1.9 Ainu piye-kina 'chickweed (Stellaria Radians)'

ko. pilĭm < pilɔm 'pigweed'

oj. píyu 'id.'

pKJ (Martin) *piřɔm

4.1.10 Ainu poro 'large'

mko. pulo- 'be inflated'

jpnse. putó- < púto- 'fat'

pKJ (Martin) *pulo

Class II: 4.1.11 (X-ref. 2.1.12)

Ainu hure 'red'

mko. pĭrk 'fiery'

4.1.12 (X-ref. 2.1.5)

Ainu puwar~purar~puray~puyar~piyar 'window'

ko. pāraž̆i 'window, fanlight'

4.1.13 Ainu -p(e) 'thing'

ko. pa 'the thing, that which, what'

?jpnse. wa 'topicalization marker'

4.1.14 Ainu pi 'seed, kernel'

jpnse. po 'ear of grain'

ko. pyë 'riceplant, kernel of rice'

pKJ (Martin) *pYe

4.1.15 (X-ref. 2.1.1)

Ainu para 'palm of hand'

ko. patak 'sole of foot; palm of hand'

4.1.16 (X-ref. 2.1.4)

Ainu pa(ye) 'to go; to proceed'

ko. pālp- 'to tread on; to walk on'

Ryukyuan par~war~har 'to go'

4.1.17 (X-ref. 2.1.13)

Ainu opke 'to fart'

ko. pängui~pänge 'fart'

Class III: 4.1.18 (X-ref. 2.1.8)

Ainu oposore 'to filter, strain it'

ok. pĭs 'to pour'

4.1.19 Ainu poka 'by some means or other; somehow'

jpnse. hoka 'other'

ko. pakk < pask 'id.'

pKJ (Martin) *pǒska

4.1.20 (X-ref. 2.1.14)

Ainu hu 'fresh'

ko. phul 'grass'

4.1.21 Ainu aram~harm~hariyam 'lizard'

jpnse. hebi 'snake'

oj. hami 'poisonous snake'

Ryukuan habu 'id.'

ko. päm < pɔy'yam 'snake'

4.1.22 Ainu par~car 'mouth'

oj. FoFo 'cheek'

ko. pol 'id.'

pKJ (Martin) *pol

Discussion:

4.1.0 As there is no alternation in any of the reflexes, there is no question about the reconstruction of pKJA *p-.

4.1.2 If Ainu pas were a borrowing from Old Japanese, then it would be expected to be in the contiguous dialect (that is, Hokkaido). As this is not the case, a borrowing relationship from Japanese into Ainu seems doubtful. Unexplained, however, is the [p]~[c] alternation in the Ainu form. Note that the same alternation appears in 4.1.22, Ainu par~car 'mouth'.

4.1.4 Although the Ainu form has a nasal consonant and the Japanese form does not, this set is still included in category I as it is assumed that prenasalization of obstruents existed at an earlier stage of Japanese (Miller 1967: 220-224). Further note that unci appears in the Karafuto dialect only, thus making a borrowing relationship more difficult to maintain.

4.1.9 Chiri (1954:155) derives the Ainu form as 'fat-grass'; the semantics of which bears no relation to reality. The hypothesis given here is that Ainu <u>piye</u> referes to a specific type of grass or weed.

4.1.20 Although the semantic match between 'fresh' and 'grass' appears to be quite poor, a comparison with the Altaic cognates cited in 2.1.14 suggests that 'fresh' can be taken as the meaning of the proto-form. Thus Korean has undergone a semantic shift with this item whereas Ainu has preserved the original meaning.

4.1.21 The presence of [-r-] in the Ainu form suggests a reconstructed pKJA *pɔyrm(am).

4.2.0 *d- (?) p:p:r

Class I: 4.2.1 Ainu ra 'blade of grass'

jpnse. ha 'leaf of a plant'

4.2.2 Ainu ruyé~rué 'thick, large'

ko. $pu^{l}/_{t}$- ? < *pĭl 'swell, increase'

pulĭ- < mko. pĭlĭl- 'be full, inflated'

4.2.2 (continued)

jpnse. pûy(e)- 'swell, grow'

puyás- 'increase it'

pKJ (Martin) *pɔř-

4.2.3 Ainu rit 'sinew, tendons'

jpnse. hiǰi 'elbow, arm'

??ko. ppi-(da) 'to dislocate, to put out of joint'

4.2.4 Ainu ru 'ice'

jpnse. fuyu 'winter'

ko. purĭlĭl 'to be shivering, chattering'

4.2.5 Ainu rek 'beard'

jpnse. hige 'id.'

4.2.6 Ainu rek-(te)- 'to play a musical instrument'

jpnse. hik- 'id.'

4.2.7 Ainu rap 'feathers'

jpnse. ha 'id.'

cf. <u>hane</u> 'id.'

<u>haoto</u> 'flapping of wings'

(<<u>ha</u> 'feathers' + <u>oto</u> 'sound')

4.2.8 Ainu rar 'edge of a sword guard'

ko. ha 'edge, blade'

4.2.9 Ainu rara 'naked'

jpnse. hada 'skin, bare'

cf. hadaka 'naked'

hadasi 'barefooted'

ok. patta 'to take off; to strip off; to make naked'

4.2.10 Ainu rára 'to make fun of, to mock'

ko. patčhi 'a clown; an actor'

4.2.11 Ainu rarí 'to press down on'

jpnse. har- 'to stick; affix'

ko. parï- 'to plaster, to paste on, to anoint'

pKJ (Martin) *pár-

4.2.12 Ainu raš 'to chip, break off'

raš-ke 'to shave'

jpnse. hasam- 'to clip; cut off'

ko. pasjë- 'to crumble; to go to pieces'

4.2.13 Ainu ratpo 'a bunch of anything'

(<rat 'bunch' + po 'diminutive')

ko. pari 'a numerative of loads for beasts of burden'

4.2.14 Ainu réra 'wind'

??jpnse. hirahira 'to flutter, to flap in the wind (onom.)'

ko. param 'wind'

4.2.15 Ainu reyé 'to creep, to crawl'

jpnse. hai- < *haw- 'id.'

4.2.16 Ainu rur 'the sea'

ko. pada < *parar 'the sea, the ocean'

Class III: 4.2.17 Ainu rori 'head of a water current in a river'

jpnse. hori 'moat, canal ditch'

4.2.18 Ainu ri 'high'

cf. rik 'above'

rikop 'a star' (lit. 'above-thing')

riwak 'to burst forth from above as the sun from the clouds; the shining forth of the sun' (Batchelor 1938:425)

4.2.18 (continued)

jpnse. hi 'the sun'

??ko. pjël 'a star'

4.2.19 Ainu ra 'below, under'

jpnse. her- 'to decrease'

ko. pat 'the outside; the exterior'

4.2.20 Ainu rak 'to smell of'

jpnse. hak- 'to emit; send forth'

ko. pak- 'to kick; to kick out; to drive off'

4.2.21 Ainu ram 'spirit, mind, soul'

jpnse. hana 'flower, essence, spirit'

4.2.22 Ainu rat 'to feel disappointed; to miss (something)'

ko. parĭ 'to be short; lacking'

4.2.23 Ainu retár 'white'

ko. pjët 'light of the sun (as opposed to the shade); sunshine; brightness'

Discussion:

4.2.0 Ainu /r-/ clearly corresponds to Japanese /h-/ < */p-/ and Korean /p-/. It is highly unlikely that fortuitous correspondences could be so numerous. Recall now that, as far as is known, proto-Altaic had no word-initial liquids (Section 2.14). All instances of the occurence of liquids were internal. Ainu, however, does not have this restriction, and, unlike the Altaic languages (Japanese and Korean included), a representative part of the Ainu lexicon is /r/-initial. If Ainu is indeed Altaic, these word-initial occurences of /r-/ must be derivable from a source other than Altaic */r/. The only other possibility would be to maintain that /r-/-initial segments in Ainu were at one time in medial position. There is no motivation for this in the data given.

Section 2.5.0 presented evidence suggesting that proto-Altaic /d-/ developed into Ainu /r-/. The evidence presented in this section clearly shows another source of Ainu /r-/; that is, as a reflex of proto-Korean-Japanese /p-/. Thus a problematic area in Ainu comparative phonology has been effectively accounted for.

4.2.1 Note that Ainu ham 'leaf of a tree' could also be cognate with the cited Japanese form.

4.2.4 Ainu ruč̌up is composed of ru, presumably of uncertain meaning, and č̌up, readily identified as 'moon'. The etymology is now explained as the month of 'cold' or 'ice'. The final syllable of Japanese fuyu seems problematic, however, as it has no reflex in the Ainu form. Compare this with Japanese tsuyu 'rainy season', however, and a possible etymology presents itself. Interpreting /-yu/ to mean 'season' or 'time of', fuyu can now be decomposed into 'cold-time' and its composition is similar to that of the Ainu word.

4.2.10 Modern Ainu also has hasami 'scissors' which appears to be a direct and recent borrowing from Japanese.

4.2.18 Martin (1965) cites Korean pjël 'star' as being cognate with Japanese hosi 'id.' and posits pKJ *pYeš̌yi.

4.3.0 *t- t:t:t

Class I: 4.3.1 Ainu tara 'an appendage; affixed to; holding on to; dangling from'
ko. tal- < tɔl- 'hang'
jpnse. tur-, tur(e), turus- 'hang it up; balance it out'
pKJ (Martin) *tɔr-

4.3.2 Ainu -utar 'plural marker'
(<u 'reciprocal marker' + tar 'plural marker')
(ref. Section 3.2)

4.3.3 Ainu tura 'with, accompanying'
ko. teli- < tali- < tɔli- 'accompany'
jpnse. tur(e)- 'id.'
pKJ (Martin) *tɔry-

Class II: 4.3.4 Ainu tarara 'hold up'
jpnse. tor- 'hold in the hand'
ko. tĭl- 'id.'
pKJ (Martin) *tɔ́r-

4.3.5 (X-ref. 3.3.1)

Ainu -ta ~ -te 'locative marker'

ko. thë 'site, place'

jpnse. to(ko) 'id.'

pKJ (Martin) *tɔ́

4.3.6 Ainu turu 'dirt, earwax'

ko. ttä 'dirt'

tëlë^{w}, -tala^{w} 'be muddy'

jpnse. doro 'mud'

pKJ (Martin) *ter(e)

4.3.7 (X-ref. 2.2.8)

Ainu tem 'arms'

ko. tëbir- 'grasp the arm; to lead, to guide'

4.3.8 (X-ref. 2.2.1)

Ainu tuk 'to extend upwards, to arise, to come up, to project'

oj. tog- 'to protrude'

4.3.9 (X-ref. 2.2.5)

Ainu toi 'earth'

jpnse. tuti 'id.'

ko. tutuk, tutëng 'bank, levee, ridge'

pKJ (Martin) *tut(i)

4.3.10 (X-ref. 3.2.3)

Karafuto Ainu tuhse 'to jump'

jpnse. tob- 'id.'

ko. tëmpi- 'rush, jump, fly at'

pKJ (Martin) *teNbi-

Class III: 4.3.11 (X-ref. 2.2.2)

Ainu tuš 'animal pelt'

ko. turumagi < *tulumaki 'cloak'

4.3.12 (X-ref. 2.2.6)

Ainu to 'lake'

jpnse. minato 'harbor, port'

<mina '?' + to 'body of water'

(Hagenauer 1956:408)

4.3.13 (X-ref. 2.2.9)

Ainu tek 'hand(s)'

kogurye̬ tek 'ten'

Discussion:

4.3.0 As there is no alternation in any of the reflexes, there is no question about the reconstruction of pKJA *t-.

4.3.9 The Ainu evidence suggests that the brackets are no longer necessary in Martin's reconstruction; thus, *tuti in place of *tut(i).

4.4.0 *c- č:t:t

Class II: 4.4.1 Ainu tus 'rope'
tu 'a line, a bow string'
jpnse. turu 'string, cord'
ko. cul 'id.'

4.4.2 Ainu to ~ totto 'breasts'
jpnse. titi 'id.'
ko. cëc 'id.'
pKJ (Martin) *cyic(yi)

4.4.3 (X-ref. 2.2.7)
Ainu tok- 'to peck (as a bird)'
jpnse. tuk- 'to pierce, to prick'
ko. ččo- 'to peck, to peck out'

4.4.4 Ainu to 'that'

oj. sö 'id.'

ko. čö 'id.'

4.4.5 Ainu tu 'verbal intensifier'

ko. čit (stressed čäit, čät) 'id.'

4.4.6 Ainu (h)očaki 'diarrhea'

(<ho 'anus' + čaki)

ko. čičhi- 'id.'

Class III: 4.4.7 Ainu tak 'short'

ko. čak- 'to be small'

4.4.8 Ainu teine 'to get damp; wet'

ko. čin- 'to be soft; to be watery, wet'

4.4.9 Ainu tokon 'a small mountain peak'

ko. čjoktori 'a woman's cap worn at weddings or on festive occasions' (<čjok + tol 'to turn around')

4.4.10 Ainu tara 'a dream'

ko. čōl- 'to be sleepy, drowsy'

4.4.11 Ainu tum 'strength'
ko. čum 'the fist'

Discussion:

4.4.6 Chiri (1954:237) derives Ainu (h)očaki as o 'anus' + čak 'onomatopoeia' + o 'to do'. The cognate set presented here suggests that this derivation is incorrect.

4.5.0 *čY- č:t:č

Class I: 4.5.1 Ainu čuk 'autumn'
čukpa 'id.'
(<čuk 'autumn' + pa 'season, time')
ko. čuk- 'to die; to expire; to be weak'

Class II: 4.5.2 Ainu ci 'penis'
ko. čāǰi 'id.'

4.5.3 Ainu cik 'time, when'
ko. cëk 'id.'
jpnse. toki 'id.'
pKJ (Martin) *cekyi

Class III: 4.5.4 Ainu čiw 'river current, tidal current'
??ko. čolčol 'bubbling; flowing; running of water (onom.)'

Discussion:

4.5.1 Chiri does not offer a derivation for this item. Taking into account the Korean form, Ainu čukpa is readily (and credibly) analyzed as 'dying time'.

4.6.0 *ǰ- č:-:y

Class II: 4.6.1 Ainu ya 'a net'
ko. čhe, čhä <*čhĭ-e 'a sieve'

4.6.2 Ainu yak 'interjection; expression of disgust'
(<ya 'interrogative marker' + k)
ko. čjakhi 'is it not so?; indeed!'

Class III: 4.6.3 Ainu yar 'to tear, to rend'
yasa 'id.'
ko. čari- 'to cut off, to squeeze apart; to extort'
??jpnse. tat- 'id.'
pKJ (Martin) *cál-

4.6.4 Ainu yom 'to shrink'
ko. čom 'a little, a few, some'

4.6.5 Ainu yorun 'to beg'
ko. čorĭ- 'to annoy; to pester; to tease'

4.6.6 Ainu yaku 'tribute paid in furs or fish; a tax'
ko. čagä, čägä 'mother of pearl; value; valuable; valued article'

4.7.0 *pč-?? p:p:č

Class I: 4.7.1 (X-ref. 2.2.16)
Ainu či- 'wild; untamed'
ko. pi- 'id.' (Ramstedt 1949:200)

Class II: 4.7.2 Ainu časi 'a fence, a wall'
ko. param 'a wall'

Class III: 4.7.3 Ainu čaipuni 'a large boat of Japanese make; a cargo boat'

(<čai + puni (jpnse.) 'boat')

ko. pai 'boat, ship, junk'

jpnse he <*pai 'ship'

cf. hesaki 'bow of a boat or ship'

(<he 'ship' + saki 'tip, end')

Discussion:

4.7.1 The Korean data offers further indication that Chiri's etymology (refer to discussion of 2.2.16) is in error.

4.8.0 *pX- č:-:p

Class I: 4.8.1 Ainu pi 'animal fat'
ko. či- 'fat, fleshy'

Class II: 4.8.2 Ainu patče 'to fly about as snow or dust or spray; to explode as a volcano'
ko. čajirë(tterida) 'to give a start; to jump with fear'

Discussion:

4.8.0 As only two sets illustrate this correspondence, the phonetic reconstruction can not be defended in detail. The [X] thus represents some unspecified, arbitrary element.

4.9.0 *s- s:s:s

Class I: 4.9.1 Ainu sus 'to bathe'

ko. sis 'to wash'

oj. sösög- 'id.'

4.9.2 Ainu siw 'to be bitter tasting'

ko. sĭ 'acid, vinegar'

jpnse. su 'id.'

4.9.3 Ainu -sok 'breathe (out)'

cf. mausok 'to yawn'

(<mau 'breath, air' + sok)

ko. sak- 'to exude, to effervesce'

ssak ssak 'breathing heavily (onomat.)'

4.9.4 Ainu samampe 'flatfish; turbot'

ko. sam-chi 'mackerel'

jpnse. saba 'id.'

4.9.5 Ainu sime 'to dye using tree bark'

(Soya dialect)

ko. sĭmi- <*sĭ́mĭy- 'to permeate it'

jpnse. som(e) 'dye it'

pKJ (Martin) *sǒmy-

4.9.6 (X-ref. 2.7.3)

Ainu siru 'to polish'

ko. sōl 'brush'

jpnse. sur- 'to rub; to grind'

4.9.7 (X-ref. 2.7.10)

Ainu sippo 'salt, brine'

oj. siwo 'id.'

4.9.8 (X-ref. 2.7.16)

Ainu sa 'a space; an interval'

ko. sabok 'the space between'

4.9.9 (X-ref. 2.9.3)

Ainu soya 'bee'

ko. ssoa 'a bee's sting'

4.9.10 (X-ref. 2.7.17)

Ainu saye 'a coil of rope'

ko. saräi 'one round, one turn (said of ropes or similar things)'

Discussion:

4.9.0 As the reflex in all three languages is [s], there is no question about the reconstruction of pKJA *s.

4.9.4 Chiri (1954:23) derives Ainu samampe from a combination of the morphemes saman 'lie down' and -pe 'thing'. The resulting phonetic match is, of course, very accurate, but the semantics of the resulting combination is completely unacceptable. Only by an extreme flight of the imagination can a turbot be envisioned as a 'lying down thing'. The Korean and Japanese forms suggest that an explanation in the direction of Chiri's etymology is unwarranted as sama(m) can be reconstructed as the morpheme for 'turbot/mackerel'.

4.10.0 *tsY- ?? č:s:s

Class I: 4.10.1 Ainu sama 'to lie along; to lie stretched out'
ko. čam 'to lie abed; to lie down'
čа- 'to sleep'

4.10.2 Ainu sapke 'to try the taste or flavor of anything'
ko. čapsu- 'to eat; to drink; to partake (honorific)'

Class II: 4.10.3 Ainu se 'to carry on the back'
ko. či- 'id.'
jpnse. se/so 'back'
pKJ (Martin) *tsye

4.10.4 Ainu ši- 'true, very, great, main, chief'
ko. čin- 'true, real'

4.10.5 Ainu sorma 'a kind of edible fern'
ko. čol 'id.'

4.10.6 Ainu sar 'tail'

ko. choli; kkoli 'id.'

??jpnse. siri 'backside; the hips'

Class III: 4.10.7 Ainu širen 'to lead away; to entice; to lead to; to take with one (used both in a good and evil sense)'

ko. čirë- 'a short way; the direct way'

4.10.8 Ainu sir 'the weather'

ko. čirĩ(ptë-) 'to be cloudy'

4.11.0 *S_1- s:-:h

Class I: 4.11.1 Ainu haro 'fat (adj.)'
ko. sal 'to be fleshy; to be fat'

Class III: 4.11.2 Ainu hok 'to buy'
ko. sak 'wages, pay, hire, salary'

4.11.3 Ainu hai 'a large leaved nettle'
ko. sä < *säi 'a variety of coarse reed grass; hay'

4.11.4 Ainu hanko 'navel, umbilical cord'
ko. sam 'id.'

Discussion:

4.11.0 Section 4.9 demonstrated that the regular reflex of pKJA *s- was Ainu [s-]. In the present case, however, the Ainu reflex is [h-] and thus a unique element must be reconstructed. */S_1-/ is an arbitrary symbol used to designate this element.

4.12.0 *S_2- h:-:s

Class I: 4.12.1 Ainu ser 'to catch the breath'

ko. hël(ttërgërida) 'to pant, to puff, to breathe heavily'

hël hël 'with heavy panting onomat.)'

cf. tung. ërĭ- 'to breathe'

go. ëri-si- 'to pant'

Class III: 4.12.2 Ainu sirar 'the tide'

ko. hĭrĭ(da) 'to flow, to glide, to run (as water)'

cf. tkc. süz 'to flow, to swim with the water on the surface'

Discussion:

4.12.0 The reflexes here are the opposite of those in 4.11. It is interesting to note that no putative Japanese cognate forms can be found for either of these two sets. As 4.11 involves a development before back vowels only and 4.12 involves a development only before front vowels, it might be possible to collapse these two sets and posit one unique proto-form for both cases. As the data base is relatively limited, however, I have decided to keep these two sets separate.

4.13.0 *k- k:k:k

Class I: 4.13.1 Ainu kumi 'mold, mildew'

ko. kom(phangi) 'id.'

jpnse. kabi 'id.'

pKJ (Martin) *kwɔmbyi

4.13.2 (X-ref. 2.3.15)

Ainu kap 'skin, bark, outer cover'

ko. kap 'covering, container'

jpnse. kaFa 'skin, bark'

pKJ (Martin) *kap(a)

4.13.3 (X-ref. 2.3.19)

Ainu koro 'while, when'

jpnse. koro 'id.'

4.13.4 (X-ref. 2.3.26)

Ainu kur 'shadow, dark'

ko. kur- 'id.'

jpnse. kur- 'id.'

4.13.5 Ainu -kar- 'family; relative'

cf. karku 'nephew'

matkarku 'niece' (mat- 'female')

4.13.5 (continued)

ahupkar 'to marry'

(<ahup 'to enter' + kar 'family')

oj. -kara 'family' (ref. Miller 1967:76)

Class II: 4.13.6 Ainu kusu 'because'

ko. kës 'thing'

jpnse. koto 'id.'

4.13.7 Ainu hacikonkon 'spider' (Soya)

hacikonkom 'id.' (Karafuto)

ko. komĭi 'id.'

jpnse. kumo 'id.'

pKJ (Martin) *kɔmo

4.13.8 Ainu kararak 'type of crow (Corvus Corone Orientalis)'

ko. kač'ičak 'crow'

jpnse. karasu 'id.'

4.13.9 (X-ref. 2.3.22)

Ainu koysum 'bubble, foam'

ko. kephum 'foam'

Class III: 4.13.10 (X-ref. 2.3.2)

Ainu kir- 'fat'

ko. kalbi 'ribs'

4.13.11 Ainu kero 'sea urchin'

ko. kul 'oyster'

jpnse. kaki 'id.'

pKJ (Martin) *kwalǧyi

4.13.12 Ainu kar 'type of elm tree'

(also used to mean 'tinder')

ko. kal 'oak'

jpnse. kasi 'id.'

pKJ (Martin) *kašyi

4.13.13 (X-ref. 2.3.6)

Ainu kisar 'ear'

ko. kui 'id.'

jpnse. kik- 'to hear'

4.13.14 (X-ref. 2.3.7)

Ainu kema 'foot'

jpnse. kubo 'heel'

4.13.15 (X-ref. 2.3.8)

Ainu ker 'shoe'

ko. kër- 'go, walk, pace back and forth'

jpnse. ker- 'to kick'

4.13.16 (X-ref. 2.3.9)

Ainu kéwre 'to shave it, to whittle it, to plane it'

ko. kal- 'whet, grind'

jpnse. kir- 'to cut'

pKJ (Martin) *kyɔr-

4.13.17 (X-ref. 2.3.12)

Ainu -kara, -kura 'to speak against; speak evil of'

ko. kut 'shaman's practices, magic'

jpnse. kata- 'to tell, narrate'

4.13.18 (X-ref. 2.3.13)

Ainu kasu 'a ladle, a large spoon'

oj. kasiFa 'vessels for eating and drinking'

4.13.19 Ainu kam 'muscle'

ko. kuŋduŋi 'buttocks'

4.13.20 (X-ref. 2.3.16)

Ainu kar 'to peel, drill fire'

ko. kalk- 'grate, scrape'

4.13.21 Ainu kut 'throat'

ko. kut 'opening, mouth'

jpnse. kuti 'mouth'

pKJ (Martin) *kutyi/kusyi

4.13.22 Ainu kotan 'village, town'

ko. kot 'place, locality, site'

Discussion:

4.13.0 As the reflex is the same in all three languages, there is no question about the reconstruction of pKJA *k-.

4.13.6 As both the Korean and the Japanese forms may be used to mark reason, cause, or motivation, the semantic match with Ainu kusu 'because' is plausible.

4.13.7 Chiri's etymological dictionary offers no explanation of the etymology of Ainu hacikonkon/hacikonkom 'spider'. It is possible that the reduplicated morpheme is cognate with the Korean and Japanese forms. If this is the case, this form is of particular interest as, if it is a borrowed item, it should appear in the Hokkaido dialect. It appears, however, in the non-contiguous Karafuto dialect.

4.13.8 Chiri (1954:179) derives Ainu kararak 'type of crow' as onomatopoetic from the sound of the crow's cry. The resemblance with the Korean and Japanese forms, together with the Altaic items, however, suggests that there may be a unique morpheme for 'crow' which is shared by all these languages. The English word 'crow', however, also appears to be 'cognate' with these forms, but it would be foolish to venture that the English and Ainu forms are indeed cognate. This therefore gives credence to the view that there may be some linguistic universal factors in regards to onomatopoeia, and the resemblance of the word for 'crow' in the many languages of the world may be a result of these factors. For this reason, Chiri's view that this item is of onomatopoetic origin may be correct.

4.14.0 *K_1- h:-:k

Class II: 4.14.1 Ainu ka 'to make or do'

ko. hä- < sä~së < *so-

'to do, to act, to intend'

Class III: 4.14.2 Ainu kan 'up, top, over'

??kamui 'God'

ko. hānäl- 'the heaven'

hāna-nim 'God'

4.14.3 Ainu kurimkere 'to hide, to do away with, to make away with'

ko. huri- 'to allure, to lead away'

Discussion:

4.14.0 As the regular Korean reflex of pKJA */k-/ is /k-/ in Ainu (Section 4.13), an arbitrary element, *K_1-, has been reconstructed for this category.

4.15.0 *K_2- k:k:h

Class II: 4.15.1 Ainu ha 'empty'

ko. kophu- < kophĭ < kol-phɔ

'be empty'

jpnse. kara 'id.'

pKJ (Martin) *kwɔr(?x)(a)

4.15.2 Ainu hura 'smell'

hura-at 'to stink'

ko. koli-, kuli- 'be smelly'

jpnse. kusa- 'id.'

pKJ (Martin) *kuš̆ya-

4.15.3 Ainu am 'finger or toe nail'

ko. khom < ?*kum 'fingernail'

Class III: 4.15.4 Ainu ha 'to ebb (as the tide); to diminish; to grow less (as water in a river); to go down a river into the sea (as fish)'

ko. kā 'the bottom of a river'

Discussion:

4.15.0 This development illustrates the opposite reflexes of those in 4.14.

4.15.2 Ainu hura 'smell' has been entered in 2.1.11 as cognate with Altaic items of *p- origin. Problematic with this placement is the internal nasal which is present in all the Altaic items but which is not found in the Ainu form.

4.15.3 The match here implies an earlier Ainu form *ham.

4.16.0 m- *m:m:m

Class II: 4.16.1 (X-ref. 2.11.4)

Ainu mo- 'water'

cf. mosir 'island'
< mo 'water' + sir 'land'

??ma 'to swim'

ko. mul < *mur < *mör 'water'

jpnse. midu 'id.'

pKJ (Martin) *myaldu

4.16.2 (X-ref. 2.11.6)

Ainu moro 'house'

Silla mari 'elevated place in a house'

4.16.3 (X-ref. 2.11.7)

Ainu mun 'a drop (of water); a ball'

ko. muŋ 'ball'

4.16.4 Ainu mui 'to tie; to wrap; to make into a bundle'

ko. mëi- ~ mäi- ~ mä- 'to tie, to wrap'

jpnse. mak- 'id.'

pKJ (Martin) *mäx(y)-

4.16.5 Ainu mat 'woman, female'

jpnse. -me 'id.'

cf. musume 'daughter'

mesu 'female'

hime 'princess'

4.16.6 (X-ref. 2.11.2)

Ainu mempiru ~ mempiro 'a kind of wild onion'

ko. manĭl 'garlic'

Class III: 4.16.7 Ainu mure 'a pair'

ko. muri 'a company, a number of, an ending marking plurality'

jpnse. mure 'a group, a crowd'

pKJ (Martin) *mur(ye)

4.16.8 Ainu mak- 'to withdraw, go back'

ko. mak- 'block, obstruct, hold off, prevent, defend against'

jpnse. mak(e)- 'be defeated'

makas- 'defeat, vanquish, beat'

pKJ (Martin) *mak-

4.16.9 Ainu muk 'stopped up, bunged up'
ko. muk- 'to stay, to remain; to be
be old, to be stale'

4.16.10 (X-ref. 2.11.5)
Ainu manka 'strong'
ko. mango 'eternity'

4.16.11 (X-ref. 2.11.1)
Ainu mim 'flesh of fish'
oj. mi 'flesh, fruit'

Discussion:

4.16.0 As the reflex is the same in all three languages, there is no question about the reconstruction of pKJA *m-.

4.17.0 *b- ?? m:m:w > Ø

Class I: 4.17.1 Ainu ok 'the neck; the nape of the neck'

ko. mok 'the neck, the throat'

jpnse. muk- 'to turn one's head, face etc.'

pKJ (Martin) *muk-

Class II: 4.17.2 Ainu u- 'no, not'

cf. utek 'not to know'
uwa 'id.'

ko. mot < *mō- 'not, impossibly'

4.17.3 Ainu oa- 'very'

ko. mäu, mäo 'id.'

4.17.4 Ainu ota ~ osa 'sand'

ko. morä ~ mosä 'id.'

Class III: 4.17.5 (X-ref. 2.15.5.3)

Ainu om 'thigh'

ko. mōm 'the body, the person, the form'

4.17.6 Ainu wan 'ten'

ko. mān 'amount, size, measure, worth'

??on 'hundred'

4.17.7 (X-ref. 4.16.1)

Ainu wor- 'water'

cf. <u>worun-cikap</u> 'duck'
(lit. 'water-in-bird')

<u>worumpe</u> 'harbor seal'
(lit. 'water-in-thing')

<u>woro</u> 'damp, wet, softened by wetting')

ko. mul 'water'

<u>Discussion</u>:

4.17.0 Perhaps this category can be subsumed into section 4.16 by maintaining that there is a tendency for the bilabial nasal to lenite to [w] before back vowels. As there are many items in 4.16 that have back vowels, however, I feel that it is safer to posit a unique proto-form.

4.17.4 Note that a very similar alternation is found in both Ainu and Korean.

4.17.7 Note that Ainu <u>mo-</u> was cited (4.16.1) as being cognate with Korean <u>mul</u>, Japanese <u>midu</u> 'water'. This would suggest a different etymology. It could also be maintained that the two Ainu forms

represent different stages of the same morpheme; that is, the original bilabial nasal has for some reason been preserved in the form mosir 'island', but has lenited to [w-] in the other cases.

Note further that both the Ainu forms mo- and wor- are not the regular morphemes for 'water' and that they occur in an extremely limited number of compounds as bound morphemes. The Korean and the Japanese forms, however, are the regularly used forms for the morpheme 'water'.

4.18.0 *w- w > Ø:w > Ø:w

Class III: 4.18.1 Ainu wara 'the youngest'
warapo 'young child'
ko. ol 'young' < *or, *ol 'male child'??

4.18.2 Ainu wakka ~ akka 'water'
jpnse. aka 'bilge water'

4.18.3 Ainu wen 'bad, adverse, evil'
ko. oin 'left side, reverse, wrong'
north ko. wän, wen 'id.'

4.19.0 *n- n:n:n

Class I: 4.19.1 Ainu noma ~ numa 'a morass'

ko. nĭph 'swamp, marsh, quagmire'

jpnse. numa 'id.'

pKJ (Martin) *nɔmpxa

4.19.2 Ainu ni- 'tooth'

cf. nirus 'gums'

< ni 'tooth' + rus 'skin'

ko. ni 'id.'

4.19.3 Ainu nai 'mountain stream' (Hokkaido)

ko. nai 'river'

Class II: 4.19.4 Ainu na 'and, also, again'

ko. nainai 'again and again'

mko. nɔoy 'again, further'

nawi '(not) enough to; more'

<*nap

jpnse. nao < napo 'again, still more, further'

pKJ (Martin) *nap

4.19.5 Ainu nup- 'high'

cf. nupuri 'mountain' (ref. 2.15.3.1)

Paekche nop^{h} 'high'

jpnse. nop- 'id.'

cf. noppo 'tall person'

??nobi- 'to lengthen'

??nobor- 'to climb, go high'

4.19.6 Ainu ne 'becomes, is'

ko. na- 'become'

jpnse. nar- 'id.'

pKJ (Martin) *na-

4.19.7 (X-ref. 2.13.2)

Ainu nu- 'eye'

ko. nun 'eye'

oj. nem- 'to glare at'

jpnse. namida 'tears'

?? < na 'eye' + midu 'water'

4.19.8 Ainu ni 'tree'

ko. namu 'id.'

4.19.9 Ainu -ni, -niu 'counter for persons'

ko. nä 'man, person'

4.19.10 (X-ref. 2.12.8)

Ainu nuy 'flame'

ko. nul- 'to burn'

4.19.11 (X-ref. 2.12.4)

Ainu mo 'gentle, peaceful'

ko. nōl- 'to take leisure, amuse oneself'

jpnse. nora 'an idler, a profligate'

noro-i 'slow, tardy'

pKJ (Martin) *nɔ́r-

Class III: 4.19.12 (X-ref. 2.12.3)

Ainu no(ye) 'to twist'

ko. no 'rope'

jpnse. nawa 'id.'

pKJ (Martin) *nap

4.19.13 Ainu nam 'fresh, cool'

cf. nam wakka 'fresh water'

ko. nal < nɔl 'raw thing'

jpnse. nama 'raw'

4.19.14 (X-ref. 2.12.6)

Ainu ni 'to suck, to sip'

ko. nëmgu- 'to swallow'

4.19.15 (X-ref. 2.13.3)

Ainu nikax 'to go bad, turn sour'

ko. nigi 'to knead, massage'

jpnse. niga-i 'bitter'

Discussion:

4.19.0 As there is no alternation in the reflexes of any of the three languages, *n- is reconstructed.

4.19.1 As Ainu noma ~ numa 'swamp' is found only in Batchelor (1938) and significantly not in Chiri's Geographical Dictionary, there is a strong possibility that the Ainu form has been borrowed from Japanese.

4.19.8 To make the phonetic match plausible, a development of: *namu > *?nabu? > *nawu > *nau > ni must be hypothesized.

4.19.11 Examples of an [m] ~ [n] alternation in Ainu are:

1. mike ~ nike 'to slice; thin slices'
2. motarap ~ notarap 'cheeks of fish'
3. mimak ~ nimak 'tooth'
4. mike ~ nike 'to shine, to sparkle'

As examples of such an alternation exist, it is hypothesized that the Ainu form mo 'gentle, peaceful' was originally *no.

4.19.15 The semantic match becomes more plausible upon considering the other Altaic forms (2.13.3).

4.20.0 *y- y:y:y

Class III: 4.20.1 Ainu ya 'land (as opposed to sea); a high rock'
ko. yẽ̬ 'a reef, a rock in the sea'

4.20.2 Ainu ya 'a net'
ko. yëk- 'to plait, to weave'

4.20.3 Ainu yar 'bark of trees sometimes used in thatching'
ko. yël 'hemp'??
cf. yël-ssi 'hempseed'

4.20.4 Ainu yasitoma 'to be ashamed'
< yasi '?' + toma 'appearance'
ko. yẽ̬ppoda < *yẽ̬sẽ̬ poda 'to pry into, to look secretly, to spy out'

4.20.5 Ainu yu 'sulphur springs, mineral water'
jpnse. yu 'boiled water'

4.20.6 Ainu yarui-čup 'summer; month of August'
ko. yël- 'to form (of fruit)'
yëlĭm < nyël 'summer'
jpnse. natu 'id.'
pKJ (Martin) *nYalɔm

Discussion:

4.20.0 As there is no alternation in the reflexes of any of the three languages, *y- is reconstructed.

4.20.6 This item is of interest as it provides a very plausible etymology for the Ainu form. Despite the fact that Ainu -čup is readily identifiable as the morpheme 'month', I have not found anywhere even a suggested etymology for the Ainu form. It can now be hypothesized to be 'time of ripening'. Martin's reconstruction seems unquestionable on the basis of the Middle Korean form, and thus it may be assumed that *nyar- was an earlier Ainu form.

4.21.0 *a- a:a:a

Class I: 4.21.1 (X-ref. 2.15.1.4)
Ainu ak 'younger brother'
ko. akki 'id.'

4.21.2 Ainu ara 'to be pretty, beautiful'
ko. arĭ- 'to be beautiful, admirable, fine'

4.21.3 Ainu ar^{a}- 'sickness'
cf. araka 'to fall ill, get sick'
< ar 'sickness' + ka 'verb derivation'
ko. al 'sickness'

4.21.4 Ainu atu 'to vomit'
ko. ath- 'to throw out; to spit out'

Class II: 4.21.5 Ainu apto 'rain'
ko. pi 'id.'
jpnse. ame 'id.'
pKJ (Martin) *(a-)mpye

4.21.6 (X-ref. 2.15.1.8)

Ainu ham 'not' (Karafuto)

ko. an(i) 'id.'

4.21.7 (X-ref. 2.15.1.10)

Ainu amam 'rice (or other cereal grain)'

ko. ām-žjuk 'gruel for nursing children'

< ām 'cereal grain' + žjuk 'gruel'

Class III: 4.21.8 (X-ref. 2.15.1.5)

Ainu ap 'doorway, entrance'

ko. aph < alph 'front'

jpnse. mape < ?*ma-ape 'id.'

pKJ (Martin) *alpxye

4.21.9 (X-ref. 2.14.4)

Ainu assap 'oar, paddle'

jpnse. usu 'a mortar'

usu-i 'thin'

4.21.10 (X-ref. 2.15.1.2)

Ainu atte 'to suspend, hang up, cling to'

ko. atta 'snatch away'

4.21.11 (X-ref. 2.15.1.9)

Ainu apa 'relative'

ko. aba- 'father'

Discussion:

4.21.5 Martin (1965:246) lists this correspondence in his supplementary list of correspondences; that is, those items about which he has strong doubt. The Ainu form, apto, lends support to his reconstruction.

4.22.0 *e- ë:-:e

Class II: 4.22.1 Ainu ekai 'round, round about'

ko. ēda < *ëgë- 'surrounding'

Class III: 4.22.2 Ainu etomočine 'stupid, silly, imbecile, absurd'

ko. ëdup- 'to be dark, dim'

ëdūn-i 'a fool, an idiot'

4.22.3 Ainu ererašuye 'to totter; to shake (as in the wind); to be unable to stand (as a drunken man)'

<erera '?' + šuye 'shake, tremble'

ko. ē̬l- 'to get drunk'

4.22.4 Ainu ene 'somewhere'

ko. ënä- 'what, some'

4.23.0 *i- i:i:i

Class I: 4.23.1 Ainu -i 'nominalizer for adverbs and adjectives'

ko. -i 'id.'

Class III: 4.23.2 Ainu (i)ye 'to say, to speak'

ko. ip 'mouth'

mko. ip(h)- 'to chant, to recite; to compose poems'

oj. ip- 'to say'

pKJ (Martin) *yalpx-

4.24.0 *o- o:-:o

Class II: 4.24.1 Ainu o 'to bore; to open'

ko. obĭi- 'to bore into; to scratch out'

4.25.0 *u- u:u:u

Class I: 4.25.1 Ainu u- 'marker of reciprocity or mutuality'

oj. u- 'id.'

cf. ukara 'common descent group'

< u + kara 'family'

4.25.2 Ainu uk 'to take, to acquire, to accept'

jpnse. uke- 'to receive'

??ko. ukkhĭm 'a handful'

< uk-khĭm

Class III: 4.25.3 (X-ref. 2.15.3.7)

Ainu utakararip/otakarip 'starfish'

< uta '5' + kararip

Koguryę utu '5'

jpnse. itu-(tu) 'id.'

4.26 Summary of Findings

#	Korean	Japanese	Ainu	Proto-KJA
1.	p-	p-	p-	*p-
2.	p-	p-	r-	*d- ??
3.	t-	t-	t-	*t-
4.	č-	t-	t-	*č-
5.	č-	t-	č-	*čY- ??
6.	č-	--	y-	*ǰ-
7.	p-	p-	č-	*pč- ??
8.	č-	--	p-	*pX- ??
9.	s-	s-	s-	*s-
10.	č-	s-	s-	*tsY- ??
11.	s-	--	h-	*S_1- ??
12.	h-	--	s-	*S_2- ??
13.	k-	k-	k-	*k-
14.	k-	--	h-	*K_1- ??
15.	h-	--	k-	*K_2- ??

Summary of Findings (continued):

#	Korean	Japanese	Ainu	Proto-KJA
16.	m-	m-	m-	*m-
17.	m-	m-	w,Ø	*b- ??
18.	w,Ø	--	w-	*w-
19.	n-	n-	n-	*n-
20.	y-	--	y-	*y-
21.	a-	--	a-	*a-
22.	ë-	--	e-	*e-
23.	i-	--	i-	*i-
24.	o-	--	o-	*o-
25.	u-	--	u-	*u-

4.27 Breakdown of Correspondences

#	Class			TOTAL	Correspondences		
	I	II	III		KJA	AK	AJ
1.	10	7	5	22	8	9	5
2.	6	10	7	23	9	5	9
3.	3	7	3	13	7	4	2
4.	-	6	5	11	4	7	-
5.	1	2	1	4	1	3	-
6.	-	2	4	6	1	5	-
7.	1	1	1	3	1	2	-
8.	1	1	-	2	-	2	-
9.	4	6	-	10	5	4	1
10.	2	4	2	8	2	6	-
11.	1	-	3	4	-	4	-
12.	1	-	1	2	-	2	-
13.	5	4	13	22	12	6	4
14.	-	1	2	3	-	3	-
15.	-	3	1	4	2	2	-
16.	-	6	5	11	4	5	2
17.	1	3	3	7	1	6	-
18.	-	-	3	3	-	2	1
19.	3	8	4	15	9	6	-
20.	-	-	6	6	1	4	1
21.	4	3	4	11	2	8	1
22.	-	1	3	4	-	4	-
23.	1	-	1	2	1	1	-
24.	-	1	-	1	-	1	-
25.	2	-	1	3	1	1	1
	46	76	78	200	71	102	27

4.28 Conclusions

No firm claim is being made about the membership of the correspondence sets into the three possible categories (that is, Classes I, II, or III). Suffice it to say that the majority of the correspondences are not in Class I. The overall total of 200 correspondences is, however, vast enough to support the hypothesis that the Ainu language is integrally a part of the North-East Asian linguistic community. It is no recent interloper in that area. Correspondences of this complexity can only be explained by one of two possibilities: borrowing or common heritage.

Of the correspondences themselves, in 34% of the cases, reflexes could be found in all three languages: Korean, Japanese, and Ainu. And whereas reflexes between only Ainu and Japanese were found in 13% of the total number of correspondences, reflexes between only Korean and Ainu were found in 52% of the cases. This is a totally unexpected result. It has long been documented that the Ainu and the Japanese have had direct contact, but it has never been hypothesized that the Ainu and the Koreans have had any interrelationship. The evidence presented in this chapter conclusively shows otherwise. A discussion of the possible nature of this relationship is reserved for the concluding chapter.

CHAPTER V

Conclusions and Implications

5.1 Introduction

This dissertation has shown various phonological, morphological, and structural similarities between Ainu and the Altaic languages. The question this chapter addresses is whether these similarities can be attributed to borrowing or whether a genetic relationship can be concluded.

Borrowing can be readily identifiable if a sound change is exhibited that is aberrant from the regular development. Thus Poppe (1975:177) illustrates that Mongolian boγos < boγas 'pregnant (said of an animal)' is a borrowing from Turkic boγaz as the regular correspondence to Turkic /z/ is Mongolian /r/. None of the cognate sets proposed in this work can be eliminated in this fashion. Ainu puta 'lid, cover' was cited (page 33) as a loan from Japanese futa 'id.'. That this is a loan can be seen from the fact that the regular development of /p-/ is /Ø/ before the high back vowel in Ainu.

Another argument against the borrowing hypothesis is the specific lexical items themselves. It has been commonly recognized that, whereas cultural items are readily susceptible to borrowing, certain vocabulary items exhibit

a marked resistance to borrowing. Based on this concept, Morris Swadesh proposed a 200 item word list (later shortened to 100 items) that supposedly consisted of those vocabulary items which were most resistant to borrowing. Other than Item 2.15.2.1, Ainu itako 'shaman', the lexical items presented in this work are not those that can be associated with religion or some similar aspect of culture that is susceptible to borrowing. Some of the items, in fact, do appear on the word lists. Once again, borrowing is not supported.

Borrowing is also apparent when there is incomplete accomodation of a lexical item to the synchronic phonology of the borrowing language. In this way, items beginning with voiced obstruents in Japanese are recognized as loan words since the native Japanese lexicon has a very restricted occurence of voiced initial obstruents. None of the items cited in Chapter 2 or Chapter 4 would fall into this categoy. Thus, if any of the items are loans, they are completely assimilated.

Let us assume, however, that the phonological correspondences and typological similarities cited in this work can be attributed to borrowing. It would then follow that that the borrowing occured from Altaic peoples who presently are, or were at one time, contiguous to the Ainu.

In order for a language to borrow from another language, there must not only have been contact, but also contact conducive to borrowing. Such a situation would be one where the speakers of the borrowing language actively promote the borrowing, or a reverse situation where the speakers of one language suppress another linguistic group. I will attempt to show that neither has been the case with the Ainu.

A prime example in the former category is the Japanese language which has borrowed extensively from Chinese during successive historical periods, and more recently from European languages, primarily English. Buddhism was the major impetus for the borrowing from Chinese. The Japanese actively sought knowledge of Buddhist teachings as well as of the Chinese script via which the Buddhist doctrine was transmitted. Borrowings from European languages entered Japanese at a later date and came as a result of an intense desire on the part of the Japanese to understand (and, in some cases, adapt) the concepts related to Christianity, technology, and popular culture.

The situation with the Ainu has been fundamentally different from that of the Japanese. The Japanese borrowed both a writing system and a religion from the

Chinese; the Ainu language has never had a writing system and the Ainu people were not literate in any language until after the Meiji Restoration in Japan (1868) when compulsory education (in Japanese) was established. The Japanese people, furthermore, have shown themselves remarkably amenable to borrowing in all areas, both linguistic and non-linguistic. This has not been the case in the documented history of the Ainu.

Furthermore, in this documented history of the Ainu[1], the most prolonged contact was with the Japanese. This was by no means a close relationship, however, nor one conducive to borrowing. The two groups remained warring factions until the final (and gradual) submission of the Ainu in the nineteenth century. Nonetheless, the most facile explanation would maintain that, other than recent borrowings as a result of trade contact with Manchu and Mongolian peoples, all Altaic features in Ainu came via Japanese.

One of the main problems with this approach is that it accepts as proven the Altaic origin of the Japanese language. Miller (1971) has made a good attempt at demonstrating that Japanese is Altaic, but most other researchers have not been completely satisfied with this hypothesis.[2] With the publication of Martin's (1966) landmark article demonstrating the relationship between

Japanese and Korean, Japanese has been, by virtue of this affiliation, incorporated under the Altaic umbrella. Therefore, since the status of Japanese itself as an Altaic language is open to question, it follows that it is only on tenuous grounds that it can be maintained that the Altaic features in Ainu entered via Japanese.

Furthermore, verification of the above hypothesis appears relatively simple as the vast majority of the Ainu lexical items presented in Chapter 2 should have Japanese reflexes. If the form was never present in Japanese, it is impossible to maintain that the source of borrowing was Japanese. A mere 30 items are in this category. This is thus sufficient basis for concluding that the Altaic features present in Ainu are not attributable to borrowing from Japanese. It may be the case, however, that these items were indeed present in an earlier form of Japanese but then disappeared from the language. The great statistical majority of these items 'surviving' in Ainu, but not so in Japanese, would argue against this.

The situation in far different in the case of Tungus and Mongolian. The majority of the items presented in Chapter 2 do contain reflexes in either the Tungusic or Mongolian languages; in many cases, members of both language families are represented. It is thus possible

to attribute the Altaic features in Ainu to a borrowing relationship from a Tungusic/Mongolian source.

It is interesting to note, however, that the documented history of the Ainu does not lend this conclusion any support. As outlined in Chapter 1, there was indeed contact between the Mongolians and the Ainu, and subsequently the Manchu, over a period dating from the thirteenth century until the latter part of the eighteenth century. Despite these centuries of contact, there is little record of any close relationship between the two peoples: the mainland groups came regularly to Karafuto for trade and tribute, and departed soon after their mission was accomplished. They did not stay; they did not intermarry. Stephan (1971:29) aptly describes the situation by stating:

> 'China's seven-century association with Sakhalin left no lasting influence. Successive expeditions and tribute missions had only a local significance except for a trickle of Chinese goods into Japan, a cartographic expedition, and scattered monuments attesting to a long-dead sovereignty.'

On the basis of this information, it is difficult to find support for the conclusion attributing the Altaic features

in Ainu to borrowing from Mongolian/Tungusic peoples.

It should further be noted that the above trade contacts were between the Mongolian/Tungus and the Karafuto Ainu only. The Hokkaido Ainu not only did not have direct contact with the mainland tribes, but they also had little contact with the Karafuto Ainu. If it were a case of borrowing as a result of this trade, then the data should clearly show a greater proportion of loanwords into the Karafuto dialect of Ainu. It would further be expected that only a small proportion of these would have been further transmitted to the Hokkaido dialect group. The data clearly does not support this as the majority of the items presented occur in the vocabulary common to both the Hokkaido and the Karafuto groups.

Note that this evidence does not necessarily argue against a borrowing relationship, but against borrowing having occured after the thirteenth century. It is possible that a borrowing relationship existed sometime in the earlier, undocumented history of the Ainu. Further, as the Altaic evidence is present in both the Karafuto and the Hokkaido dialects, it must be assumed that, if borrowing took place, then it occured at a stage of the language prior to this dialectal division; that is, proto-Ainu.

To recapitulate, the following points have been established:

1. the Ainu language contains many features in common with Altaic. These features are primarily shared lexical items exhibiting recurring phonological correspondences,
2. most of these features must have been present at the proto-Ainu stage,
3. in order for borrowing to occur, contact between the proto-Ainu and an Altaic people is assumed.

The establishment of the first two points in this dissertation as well as the acceptance of the third leads immediately to an hypothesis of the origin of the Ainu: specifically, that the Ainu are of mainland origin.

It must be assumed that the Ainu were on the mainland and that the contact took place at that time. If this were not assumed, then there is no source of borrowing. Further, the diffusion of the Altaic features throughout the Ainu dialects can not be explained. Thus the evidence conclusively supports the mainland origin of the Ainu. It is obvious, furthermore, that this conclusion stands whether the Altaic features in Ainu are attributed to borrowing or to a genetic relationship. The Austronesian-origin hypothesis is thus firmly negated.

It is now established that the proto-Ainu were on the Asiatic mainland, and, further, that the Altaic features were present in their language at that stage. For the sake of argument, let us assume that the Ainu are of some unspecified, but non-Altaic origin and examine the implications of this position.

To assume the above would be to maintain that, while on the Asiatic mainland, the Ainu had contact with an Altaic people or peoples and then migrated, presumably via the Amur River, to Karafuto and then subsequently further down the Japanese archipelago, first to Hokkaido and then later down to Honshu. It would follow that increasing contact between the Ainu and the Japanese would result in a small number of mutual borrowings which, because of fairly recent origin, would be traceable to either an Ainu or a Japanese source.

The 200 cognate sets presented in Chapter 4 are, however, by no means a small number. The divergent nature of some of the reflexes (4.2 [p]:[r], for example) indicates that this contact was by no means recent. The morphological and lexical evidence presented in Chapter 3 further supports this conclusion. Also arguing against recent borrowing is the fact that it is impossible to trace the shared lexical items to either an Ainu or a Japanese source.

It thus must be concluded that the Ainu language had early contacts with both Korean and Japanese. In order to account for the fact that both the Karafuto and the Hokkaido dialects of Ainu share the lexical items that exhibit the recurring phonological correspondences with Japanese and Korean, it must once again be concluded that the contact took place at the proto-Ainu stage, and thus that it occured on the Asiatic mainland. It also follows that the contact was between proto-Ainu and proto-Korean-Japanese.

At this point, we are reduced to pure speculation. Other than the fact that Middle Korean is a direct descendant of the Silla language[3], the relationship between Silla and the various other languages occupying the Korean Peninsula (Puyo, Koguryŏ, Mahan) has not been determined. Because these languages were all located in the relatively small confines of the Korean Peninsula, it must be assumed that they had mutual influences on each other even if they were not necessarily genetically related. Is it not possible that the Ainu were one of these groups in the Korean Peninsula? A migration upwards to the Sungari River and thence to the Amur and over to Karafuto is surely very feasible.

In conclusion, it should now be apparent that, while a genetic relationship does not necessarily have to

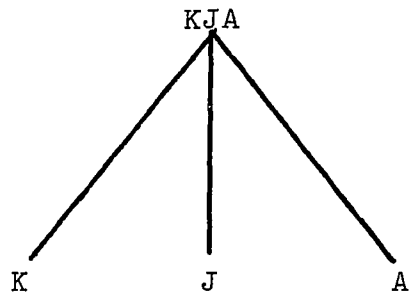
be concluded, it can be concluded. Ainu thus neatly fits Krueger's summation of Altaic studies[4]. There is a 'respectable amount' of phonological correspondences; a total of 167 possible cognates exhibiting recurring sound correspondences between Ainu and Altaic have been proposed in this work. Some amount of identical morpheme behaviour as well as identity of morphemes has also been proposed (Chapter 3). For typological similarities, evidence has been cited (Appendix) for the existence of a limited vowel harmony system as well as data to show the basic agglutinative structure of Ainu. In these two respects, Ainu agrees with the Altaic languages. The body of the dissertation, however, rests on the sound correspondences, and I have tried to demonstrate that the semantic and phonetic fit of the lexical sets presented is precise enough to lead to the conclusion that the Ainu items are cognate with the Altaic forms.

For the reasons cited in this chapter as well as for the reasons discussed in the various sections of Chapters 2, 3, and 4, the borrowing hypothesis does not receive support. The Altaic features in Ainu are thus seen as being a result of the fact that Ainu is genetically related to Altaic. The commonalities among Korean, Japanese and Ainu are seen as being a result of the fact that these three languages are genetically related.

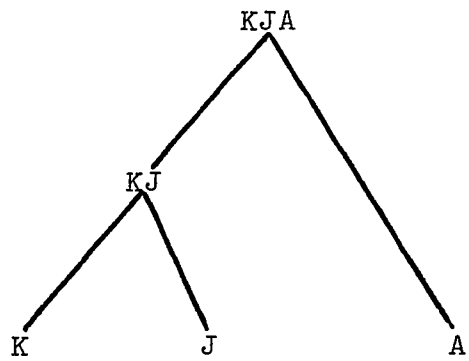
5.4 Areas for Further Study

One of the conclusions of this dissertation is that Korean, Japanese, and Ainu are genetically related. The nature of this relationship, however, has not been dealt with. There are four logically possible family tree diagrams which could correctly schematize the relationship:

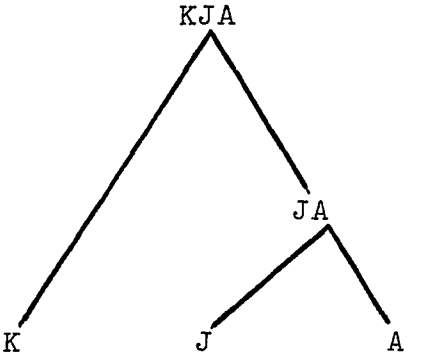
1)



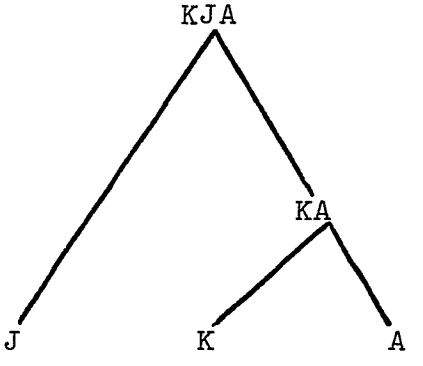
2)



3)



4)



The nature of the evidence presented in this dissertation would suggest that the fourth possibility correctly describes the relationship; that is, the initial split was between Korean-Ainu and Japanese. That Korean and Ainu are more closely related is supported by the fact that these two languages share a greater number of cognates (Chapter 4) than Ainu does with Japanese. Further, Ainu and Korean have some recurring sound correspondences that are not shared with Japanese. In addition, there is

also a close identity in the numeral systems of Ainu and Korean (Section 4.6).

Such a conclusion, however, is premature. The relationship between Korean and Japanese has been quite strongly documented. Commonalities in areas of syntax, vocabulary, and accentual systems between the two languages support the claim that Korean and Japanese are closely related. Martin particularly notes the close resemblances in the pitch accent systems of the two languages and concludes (1975:48):

> 'this is the most compelling argument for feeling that the two eastern languages must be more closely related to each other than either is to any other language.'

Thus Martin would find only the second possible tree diagram (p.195) acceptable.

In Martin's discussion (1975:47) of the problems in vowel harmony commonalities between Korean and Japanese, however, he concludes with the statement:

> 'And I suspect that no one has closely examined the resemblances of Korean to the Paleosiberian languages.'

Martin is indeed correct in this statement and he is further correct in his assumption that this will be a

revealing area of investigation. This is precisely the area that I have begun to investigate in this dissertation.

Further research will thus be centered on the nature of the relationship of Korean, Japanese and Ainu. By arriving at an answer to this question, one of the results should be a body of proto-forms for much of the basic vocabulary of Proto-Korean-Japanese-Ainu. These reconstructions will then be a sound body of data for comparison with the Altaic reconstructions and thus a possible resolution to the question of the nature of the relationship of KJA to Altaic.

FOOTNOTES

1. Refer to Chapter 1.
2. Ramstedt (1924); Hattori (1948).
3. Lee (1973:38).
4. Refer to quote, page 13.

APPENDIX

A Grammatical Sketch of Ainu

6.0 Introduction

This sketch deals primarily with Ainu phonology, morphology and word classes. Although a large amount concerning Ainu has been written in the Japanese language, the little that has appeared in English is totally inadequate and must not be relied on. Simeon (1968), for example, appears to be completely unaware of any of the Japanese literature. It is for this reason that this sketch has been included as an appendix to this dissertation. I have translated, collated, and summarized the data from the various works of Chiri, Tamura, Kindaichi, and Hattori. The various analyses presented in this chapter are basically those of these scholars.

Because of the paucity of data (particularly from the Kurile dialect) as well as the limited scope of this chapter, unless otherwise stated, the information contained herein refers to the Hokkaido dialect. The reader is cautioned, however, that this is by no means a completely homogeneous grouping in itself. The Hokkaido dialect is subclassified by Tamura (1972) into the following major subdivisions: i) Northern, ii) Southern, iii) Eastern, and iv) Western. The Karafuto dialect is

assumed to be similarly subdivided, but due to insufficient data, a subgrouping schema has not yet been posited. Whenever dialectal differences arise within the material presented in this chapter, the necessary information will be provided.

6.1 Folklore and Speech Styles

As well as being aware of dialectal differences, the researcher must also be conscious of various stylistic differences. As there is no written language, most research must center on the Ainu folklore which differs in many aspects from the ordinary conversational style. Two of the most apparent differences are that the folklore genre is more polite and utilizes auxilliary verbs, whereas conversational style tends to use word suffixes. As the folklore genre occupies such an important place in Ainu culture[1] as well as being a major source of our linguistic data, a short description of the major categories follows. The following are the main classifications and their identifying traits[2]:

1. isotak (< iso 'hunting/fishing', itak 'story')
   -a story of one's own personal experience related to a hunting or fishing episode.

2. upaškuma (učyaškuma Karafuto)
   -an old tale with a moral.

3. yukara
   -the story of some hero or incident,
   -the most well-known type of Ainu folktale;
   this name is commonly used in Japanese literature
   to refer to Ainu folktales in general.

4. kamuiyukara
   -a type of yukara dealing with the various gods
   of the Ainu pantheon,
   -this type of tale is always sung.

5. onia
   -one type of kamuiyukara
   -more deeply religious than the kamuiyukara
   and deals with the founding of the Ainu nation.

6. uepekere
   -original meaning of 'to inform' or 'news'
   -always spoken in the first person although it
   does not relate a personal matter.

In relation to the topic of speech style, Hattori (1957) has reported on a special language among the older generation of the Ainu. People after the age of thirty replaced many basic content words with new items. This new lexicon was said to constitute a special 'language' which was used amongst those above thirty and which could not be understood by the younger generation.

6.2.0 Ainu Phonology

6.2.1 Phonemes

C: /p,t,k,č,s,m,n,r,w,y,h/

V: /i,e,a,o,u/

6.2.2 Allophonic Variants

1. Voiced counterparts of the obstruents appear allophonically in intervocalic position and after nasal segments in all dialects of Ainu.[3]
2. In Hokkaido dialects, [s] alternates freely with [š].
3. Syllable-final /r/ has a vowel off-glide echoing the immediately preceding vowel. Thus [r^{a}], [r^{i}], [r^{u}], [r^{e}], and [r^{o}] are allophonic variants of /r/. Whereas phonetically all occurences of syllable-final [r] are followed by a vowel off-glide, this not true phonemically. Thus the Ainu words [kukor^{o}] 'I have', [poro] 'big' and [oar^{a}] 'completely' are phonemically /kukor/, /poro/, and /oar/, respectively. Two phonemic minimal pairs exemplifying this distinction are <u>retara</u> 'white' vs. <u>re tara</u> '3 sacks', transcribed phonemically as /retar/ vs. /retara/, respectively.[4]

The second minimal pair[5] is [uker^{e}] 'to be sore, to fester' vs. [ukere] 'rub together'. These are phonemically /uker/ and /ukere/, respectively. Perhaps the strongest support in favor of this distinction is that the Ainu speakers are unconscious of these epenthetic vowels.

6.2.3 Syllable Structure

$$(C_1)V(C_2)$$

C_1: /p,t,k,č,s,m,n,r,w,y,h/

V: /i,e,a,o,u/

C_2: /p,t,k,s,m,n,r,w,y/ in Hokkaido dialects
/s,m,n,w,y,h/ in Karafuto

6.2.4 Permissible Open Syllables

A total of fifty-six possible open syllables are as follows:

	a	i	u	e	o
-	a	i	u	e	o
k	ka	ki	ku	ke	ko
s	sa	si	su	se	so
t	ta	--	tu	te	to
č	ča	či	ču	če	čo
n	na	ni	nu	ne	no
h	ha	hi	hu	he	ho
p	pa	pi	pu	pe	po
m	ma	mi	mu	me	mo
y	ya	--	yu	ye	yo
r	ra	ri	ru	re	ro
w	wa	--	--	we	wo

Note that as in the Japanese language, [ti], [yi], [wi], and [wu] are not permissible sequences. However, the sequences [tu], [ye], [we], and [wo] do occur.

6.2.5 Morphophonemics

Whether or not the final syllable of a base form is open or closed is often the conditioning factor in the choice of allomorphs which are affixed to this base. For example:

i) nominals are derived from verbs by the addition of /-p/ after an open syllable, but /-pe/ after a closed syllable[6]:

arpa-p (go-thing) 'a thing that goes'

soyne-p (go outside-thing) 'a thing that goes outside'

či-ke-p (we-drink-thing) 'a thing that we drink' i.e. 'liquor'

pase-p (heavy-thing) 'a heavy thing'

ek-pe (come-thing) 'a thing that comes'
ahun-pe (enter-thing) 'a thing that enters'
pon-pe (small-thing) 'a small thing'
wen-pe (bad-thing) 'a bad thing'
retar-pe (white-thing) 'a white thing'[7]

ii) a bound morpheme with the meaning of 'person' has two allomorphs: /-n/ if suffixed to open syllables, but /-iw/ if suffixed to closed:

sine-n 'one person'
tu-n 'two people'
re-n 'three people'
ine-n 'four people'
ašikne-n 'five people'

iwan-iw 'six people'
arwan-iw 'seven people'
tupesan-iw 'eight people'
sinepesan-iw 'nine people'
wan-iw 'ten people'

iii) there are two causative affixes: /-re/ which is added to open syllables, and /-te/ which is added to closed:

arpa	'to go'
arpa-re	'to send'
hekatu	'to be born'
hekatu-re	'to cause to be born'
oma	'to be inside'
oma-re	'to cause to be inside'
e	'to eat'
e-re	'to feed'
aš	'to stand'
aš-te	'to set up'
čiš	'to cry'
čiš-te	'to cause to cry'
oman	'to go away'
oman-de	'to send away'
rikin	'to ascend'
rikin-de	'to cause to ascend'

6.2.6 Accent and Tone

Unlike English accent which is characterized as a strong-weak opposition (that is, stress accent), Ainu accent is characterized as a high-low opposition. That is, similar to the Japanese language, Ainu has a pitch accent system. Most Hokkaido dialects maintain a phonemic accent distinction as the following minimal pairs show:

1.	torí	'bird'
	tóri	'stay over; sojourn'
2.	umá	'together'
	úma	'horse' (<Jpnse.)

3. kerá 'straw raincoat'
   kéra 'flavor'
4. iká 'never'
   íka 'overflow'
5. monák 'especially'
   mónak 'to be awake'
6. niná 'to knead'
   nína 'to gather firewood'
7. nisáp 'thin'
   nísap 'sudden'
8. utúr 'between; interval'
   útur 'hearth'

In addition, two minimal pairs can be found in the Karafuto dialect of Ainu:

1. umá 'together'
   úma 'horse'
2. etúhka 'to thrust out'
   étuhka 'a type of crow'

In general, accented vowels in Hokkaido correspond to long vowels in Karafuto:

	Karafuto	Hokkaido	
1.	paase kotan	páse kotan	'capital city'
2.	paa	pá	'age'
3.	siisam	sísam	'Japanese person'
4.	siimon	símon	'right side'
5.	weeci	uwéci	'chilblains'
6.	reera	réra	'wind'
7.	etooro	etóro	'snore'
8.	nuuman	núman	'yesterday'
9.	tuunas	túnas	'night'

In addition to phonemic stress, some researchers have also remarked on a quality of 'musical tone' which appears in some dialects. Unfortunately, these researchers have offered no formal definition of this feature. Batchelor (1938:19), in a discussion of the dialectal differences of Ainu, remarks that:

> 'The chief difficulty in a Yezo (Hokkaido [jtp]) Ainu understanding a man from Saghalien . . . arises from the marked tones the people impose upon their words . . . (they) emphatically intone or accent every syllable.'

and further (p.19):

> 'There are in many villages in Yezo, more formerly than now, quite a number of people who speak their words with a slight *tonic* (Batchelor's emphasis [jtp]) accent as though the language was originally connected with Chinese or some kindred tongue.'

In the first quote, Batchelor implies that it is the Karafuto dialect that has the tone; in the second quote, it is stated that the Yezo (Hokkaido) dialect is the one that exhibits this feature. Despite this apparent contradiction, it is indeed the Karafuto dialect that has this musical quality. This feature does, however, exist in some parts of Hokkaido, primarily those closest to the island of Karafuto and it is to these dialects that Batchelor was referring in his second quote. Other investigators, notably Piłsudski (1912:10-11) have also remarked on the 'musical quality' of the Karafuto dialect.

6.2.7 Vowel Harmony

Chiri (1952) claimed to have discovered the process of vowel harmony in operation in a limited part of the lexicon of Ainu. Lexical derivation is often the source of transitive verbs; possessed forms of nouns are formed by inflection. In both cases, the result is achieved by appending a single vowel to the word stem. The quality of the suffixed vowel appears to be dependent on the quality of the vowel in the stem. Chiri concludes that, in these two cases, Ainu vowels can be classified into three groups: (1) /a,u/, (2) /o/, and (3) /i,e/. Vowel harmony restrictions maintain that classes (1) and (3), or classes (2) and (3) may co-exist, but that classes

(1) and (2) may not appear together.

Chiri's analysis, however, is based on statistical evidence only. That is, examples of the combinations (1) and (3) and those combining (2) and (3) are merely in greater abundance than those where (1) and (2) co-exist. Chiri concludes that this statistical majority indicates a period in the history of the language when the latter combination was not allowed, and that Ainu phonology and word formation were governed by vowel harmony restrictions similar to those present in the Uralic and Altaic languages. Other than this analysis by Chiri, however, no other evidence has been posited for the existence of vowel harmony in the Ainu language.

6.3.0 Lexical Composition

Root morphemes in Ainu may be independent or may appear with prefixes or suffixes, or both. Because of the possibility of prefixation, some researchers (Austerlitz, 1970:2-3, for example) have maintained that Ainu is not an agglutinative language. Consider, however, the following example (Batchelor 1938:9) which is typical of Ainu lexical formation:

eyaiepirikarep 'that which one causes himself to gain for himself'

pirika 'good'

pirikap 'a good thing'

pirikare 'to better'

epirika 'to gain'

epirikap 'something gained'

epirikare 'to make another gain'

yaiepirika 'to gain by one's self'

yaiepirikare 'to make one's self gain'

eyaiepirikare 'to make one gain something for himself'

eyaiepirikarep 'that which one causes himself to gain for himself'

Thus words in the Ainu language consist of a single root plus additional affixes which may either be prefixes or suffixes. As can be seen in the above example, the resulting word may be of considerable length. The morphemes are invariable in form and the boundaries between them are clear. Furthermore, each morpheme has a single function. It is for these reasons that it will be maintained that Ainu is an agglutinative language.

6.4.0 Nouns

6.4.1 Gender

Nouns in Ainu are not inflected for gender.

6.4.2 Number

Nouns in Ainu are normally not inflected for number. A singular/plural distinction can be obtained, however, by the addition of the suffixes /-utar/ or /-čin/~/-šin/. The latter appears only in the Karafuto dialects. Consider the following examples:

ainu	'man'
ainu-utar	'men'
kamui	'god'
kamui-utar	'gods'
čise	'house'
čise-utar	'houses'
matnepo	'girl'
matnepo-čin	'girls'
saha	'elder sister'
saha-šin	'elder sisters'

There are also some cases where plurals are formed by reduplication:

čaičai	'twigs'
kaukau	'hailstones'

kaikai	'breakers (waves)'
kankan	'intestines'
merimeri	'sparkles/flashes of light'
paspas	'cinders'
pisepise	'a kind of seaweed'
ramram	'fish scales'
taktak	'testicles'
tuntun	'fish embryo'
toitoi	'clods of earth'

6.4.3.0 Case

Case relationships in Ainu are expressed by various postpositions and by word order when there is no overt case marker.

6.4.3.1 Unmarked Forms

When a noun serves as a subject or direct object in an Ainu sentence, it takes no marker. The relationships are expressed by Subject-Object-Verb word order. Consider the following sentences:

ainu ek	'a person came'
šisam arpa	'a Japanese went'
huči mina	'grandmother laughed'
ekaši iruška	'grandfather got angry'
wakka ku	'(I) drank water'
seta kira	'a dog escaped'

seta ainu nospa 'the dog chased the man'

ainu seta nospa 'the man chased the dog'

kamui umma raike 'the bear killed the horse'

When a noun serves as an indirect object in an Ainu sentence, it also takes no marker. It is distinguished from a direct object by the context of the sentence. Consider the following examples:

tampe huči ku-kore na (this/old woman/1st person singular-gave/ sentence final particle)

'(I) gave this to the old woman'

huči matkači paškuma (old woman/young girl/ told a folkstory)

'the old woman told a tale to the young girl'

6.4.3.2 /ta/

The particle /ta/ (variant /te/) shows location in time or space, as well as destination with verbs of motion. Examples:

oro ta 'in that place'

kotpoki ta 'in the front of'

kotčake ta 'in the front place'

sa ta ek '(he) came to the hearth'

piš ta san '(he) went down to the beach'

kotan ta hošipi '(he) returned to the village'

ahun kamui mau čise-upšot ta uwešinoye
(enter/great/wind/house-inside/locative/race around)
'the entering great wind raced around the house'

The particle /un/ can be substituted for /ta/ with no apparent change in meaning:

Poropet kotan un arpa	'(he) went to Poropet village'
hunak un arpa	'where did (he) go?'
te un ek	'come here!'

6.4.3.3 /or(o)/, /(or)wa(no)/

The above particles express the point in time or space from which an action originates. They appear to be interchangeable. Consider the following examples:

ainu uturu wa soikosanu	'(it) flew out from amongst the people'
naata oro e-nu	'from whom did you hear it?' (Karafuto)
šisam oro an-nu	'(I) heard it from a Japanese' (Karafuto)
Poropet orwano širawoi orpakno	'from Poropet to Shirawoi'
kotan-pa wa kotan-keš pakno	'from the top of the village to the bottom of the village'

6.4.3.4 /tura(no)/

The particle /tura(no)/ denotes the sense of 'with' or 'accompanied by' (comitative case). Consider the following examples:

yupo tura ku-oman '(I'll) go with my brother'

akot tureš turano oka-an ike
'he lived together with his younger sister, but . . . '

The morpheme /new(a)/ expresses the meaning 'and':

okkay newa menoko 'men and women'

miči new hapo 'father and mother'

6.4.3.5 /pak(no)/

The particle /pak(no)/ expresses the meaning of 'to the point of'. Consider the following examples:

kotan-pa wa kotan-keš pakno
'from the top of the village to the bottom of the village'

ta pakno 'up to that point'

6.4.3.6 /ari/~/ani/

The particles /ari/ and /ani/ denote the instrument or means through which or by which an action is performed. Consider the following examples:

emuš ani tuye	'cut with a knife'
op ani čep raige	'(he) killed a fish with a spear'
tek ari kar-pe	'an item made by hand'

6.4.3.7 /-(h)V/

There is no postposition comparable to the above markers to express the possessor in Ainu. The possessed nouns, however, must be inflected with a suffixed possessive marker and may further be prefixed with the appropriate person marker. If the noun root is consonant-final, the possessive marker is /-V/; if vowel-final, then /-(h)V/. This unspecified vowel mirrors the last vowel of the root (Section 6.2.7). Consider the following examples:

nea ainu mačhi	(that/person/wife-possessed) 'that person's wife'
hučhi šiki-hi	(grandmother/eye-possessed) 'grandmother's eyes'
ekašhi sapa-ha	(grandfather/head-possessed) 'grandfather's head'
hekačhi teke-he	(child/hand-possessed) 'the child's hands'

The following charts display the prefixed person-marker paradigms:

	SINGULAR	PLURAL
1st person	ku-	a- (incl.) čʼi- (excl.)
2nd person	e- a-(honorific)	ečʼi- a- (honorific)
3rd person	ø	ø

Example: sik 'eye'

sik-i 3rd person sing.
sik-i 3rd person plural
e-sik-i 2nd person sing.
ečʼi-sik-i 2nd person plural
a-sik-i 2nd person sing. polite
a-sik-i 2nd person plural polite
ku-sik-i 1st person sing.
a-sik-i 1st person plural incl.
čʼi-sik-i 1st person sing. excl.

Hero epics (yukara) display a somewhat simplified system of inflection[8]:

	SINGULAR	PLURAL
1st person	a-	a-
2nd person	e-	ečʼi-
3rd person	ø	ø

The religious chants (oina and kamuiyukara) display a yet different paradigm:

	SINGULAR	PLURAL
1st person	čі-	čі-
2nd person	e-	eči-
3rd person	ø	ø

6.4.3.8 /kasuno/, /akkari/

A comparative relation is expressed in Ainu by the morphemes /kasuno/ and /akkari/. They appear to be in free variation with each other. The word order for the comparison relation is Standard-Marker-Adjective. Consider the following examples:

menoko kasuno ainu okirašnu
(women/comp. marker/men/strong)
'men are stronger than women'

tampe akkari toampe pirka
(this thing/comp. marker/that thing/good)
'that thing is better than this thing'

seta kasuno neko pirka
(dog/comp. marker/cat/good)
'a cat is better than a dog'

6.5.0 Verbs

6.5.1 Verb Inflection for Person

As is the case with nouns, verbs in Ainu are also inflected for person of subject. The inflection, however, differs depending on whether or not the verb is transitive or intransitive. The following are the inflection paradigms:

Transitive verbs:

	singular	plural
1st p.	č̌i-	č̌i-
2nd p.	e-	eč̌i-
3rd p.	∅	∅

Intransitive verbs:

	singular	plural
1st p.	-as	-as
2nd p.	e-	eč̌i-
3rd p.	∅	∅

6.5.2 Verb Inflection for Number

Although verbs are generally not inflected for number, to clearly indicate plurality, either of subject or object, the affix /-pa/ is added. Consider the following:

kor	'to have'
kor-pa	'2 (or more) have'
kor-pa	'have 2 (or more) things'
mina	'to laugh (sg.)'
mina-pa	'to laugh (pl.)'
sini	'to rest (sg.)'
sini-pa	'to rest (pl.)'
čis	'to cry (sg.)'
čis-pa	'to cry (pl.)'

The following verbs form the plural by dropping the final vowel before affixing the /-pa/ affix:

hosipi	'to return (sg.)'
hosippa	'to return (pl.)'
turi	'to stretch something (sg.)'
turpa	'id. (pl.)'
kiri	'to turn something over (sg.)'
kirpa	'id. (pl.)'
hetuku	'to produce/give rise to (sg.)'
hetukpa	'id. (pl.)'
situri	'to extend/lengthen (sg.)'
siturpa	'id. (pl.)'
sikiri	'to turn over (sg.)'
sikirpa	'id. (pl.)'
atusa	'to become naked (sg.)'
atuspa	'id. (pl.)'

A third, very limited category of verbs maintains a number distinction by affixing /-n/ to the base form for the singular, and /-p/ for the plural. The following seven lexical items comprise the complete set of verbs in this category:

san/sap	'to leave to the beach (from a mountain area)'
ahun/ahup	'to enter (from the outside)'
asin/asip	'to go outside (from the inside)'
ran/rap	'to go down (from a high place)'
rikin/rikip	'to go up (from a low place)'
makan/makap	'to go to the mountain area (from the beach)'
yan/yap	'to go onto the land (from the sea)'

It appears that this above category of verbs constitutes a special class as its members are derived from nominal elements. Consider the following nouns:

aw	'inside'
soy	'outside'
ra	'low place'
rik	'high place'
sa	'front/beach area'
mak	'back/mountain area'

rep	'open sea'
ya	'land'

The following verbs have suppletive singular and plural forms:

1.	oman	'to go (sg.)'
	arpa	'to go (sg.)' (Saru dialect)
	paye	'to go (pl.)'
2.	ek	'to come (sg.)'
	arki	'id. (pl.)'
3.	a	'to sit (sg.)'
	rok	'to sit (pl.)'
4.	as	'to stand (sg.)'
	raski	'id. (pl.)'
5.	rayke	'to kill one thing'
	ronne	'to kill more than one thing'
6.	an	'to have (sg.)'
	okay	'id. (pl.)'
	oka	'id. (pl.)' (Saru dialect)
7.	oma	'to be there (sg.)'
	o	'id. (pl.)'

6.5.3 Verb Tense

Verbs in Ainu are not inflected for tense.

6.6.0 Adjectives

Adjectives in Ainu are inflected in the same manner

as intransitive verbs. Thus, similar to their treatment in the Japanese language, adjectives are considered to be essentially a subclass of the category of verbs.

6.7.0 Pronouns

Personal pronouns form a separate grammatical class in the Ainu language. They are often omitted when such omission does not result in the loss or confusion of semantic information; thus, on the surface, person is frequently indicated only by the personal affix inflection of the verb. Tamura (1970 and 1972) investigated two representative Hokkaido dialects and recorded the following pronoun paradigm:

	Ishikari Dialect	Saru Dialect
1st person sg.	ku'áni	káni
1st person pl. exclusive	ci'ókay	cóka
1st person pl. inclusive	anokáy	a'oká
1st person sg. folktales	anokáy	asinúma
1st person pl.	anokáy	a'oká
2nd person sg.	e'áni	e'áni
2nd person pl.	esokáy	ečí'oká
2nd person honorific	anokáy	a'oká
3rd person sg.	aníhi	sinúma
3rd person pl.	okáy	oká

6.8.0 Sentence and Clause Final Particles

The following particles can occur sentence or clause finally in Ainu:[9]

1) /wa/ 'soft narration particle'. This particle strongly resembles, both in form and

function, the sentence-final particle /wa/ in women's speech of Japanese.

eg. pirka wa 'it's okay'

2) /so/ 'now . . . '

eg. tane karpa so 'now I'll go'

3) /ro/ 'let us . . . '; 'how about . . . '

eg. ipe an ro 'let's eat'

4) /nek/ 'I am sure'

eg. ek tas ki nonkon nek 'he will come, I am sure'

5) /oka/ 'wish'

eg. čep ruru ta a'e oka 'I wish I could eat fish soup'

6) /yan/ 'command to more than one'

eg. te'un arki yan 'you (pl.) come here!'

7) /na/ 'you see'

eg. ape us na 'the fire is out (and therefore you should light it again)'

8) /ya/ 'interrogative particle'

eg. tane karpa yakka pirka ya
(now/I go/even if/good/particle)
'may I go now'

9) /un/ 'soft address'

eg. seta un '(it's) a dog'

10) /he/ 'the question is . . . '

eg. topen uske uyna rusuy kusu he
(sweet/part/get/to want to/because/particle)
'are they doing so because they want to get to the sweet part?'

11) /an/ 'intensity of emotion'

eg. hunna an 'who is that?'

12) /tapan/ 'expression of politeness'

eg. kukor hapo orowa kanpi ek ruwe tapan
(my/mother/from/letter/come/fact/particle)
'a letter came from my mother'

6.9.0 Derivations

The following sections contain some of the most common and productive derivations; that is, affixes which relate one class of lexical items to another.

6.9.1 Verb Derivations

6.9.1.1 Causativization

The causative allomorphs are: /-re/, /-te/, and /-ke/:

a) verbs which take /-re/:

arpa	'to go'	arpare	'to send'
hekatu	'to be born'	hekature	'to cause to be born'
hetuku	'to grow'	hetukure	'to make grow'

oma	'to be inside'	omare	'to put inside'
ru	'to melt'	rure	'to cause to melt'
e	'to eat'	ere	'to feed'
ku	'to drink'	kure	'to make drink'
ki	'to do'	kire	'to make do'
ta	'to draw water'	tare	'to cause to draw'

b) verbs which take /-te/:

aš	'to stand'	aště	'to set up'
čiš	'to cry'	čište	'to cause to cry'
oman	'to go away'	omande	'to send away'
rikin	'to ascend'	rikinde	'to cause to ascend'

c) verbs which take /-ke/:

ahun	'to enter'	ahunge	'to put in'
rai	'to die'	raige	'to kill'
ran	'to come down'	range	'to let down'
san	'to go down'	sange	'to send down'
yan	'to go up'	yange	'to take up'

There is evidence that some double causatives are permissible. Consider the following items:

ahun	'to enter'
ahunge	'to send in'
ahungere	'to cause to send in'
aš̌	'to stand'
aš̌te	'to set up'
aš̌tere	'to cause to set up'
ibe	'to eat'
ibere	'to feed'
iberere	'to cause to feed'
san	'to go down'
sange	'to send down'
sangere	'to cause to send down'

Sentence examples:

1. kamui / ne yakka / ainu / ne yakka / omau-nu-re /
   (god / both / men / both / flavor-detect-causative /
   gusu / šomo / e / ruwe / ne na.
   because / neg. / eat / verbal marker / conclusion particles)
   'both gods and men were made to recognize the flavor by tastin'
2. moyuk raige
   (badger / die-causative)
   '(he) killed a badger'

6.9.1.2 Reflexivization

Reflexivization in Ainu is formed by prefixing the morpheme /yai-/ to the verb. Consider the following examples:

yai-kik	'to strike oneself'
yai-eoripakka	'to humble oneself'
yai-raige	'to commit suicide'
yai-tui	't cut oneself'
yai-tunaš̌ka	'to hurry oneself'
yai-etokoiki	'to prepare oneself'
yai-kannekara	'to reform oneself'
yai-katande	'to refresh oneself'
yai-uitek	'to go to relieve oneself'

Sentence examples:

1. awa, ramač̌ihi yai-kara katu-enei-ani
   (now/soul/reflexive-change/in this way)
   'now, the soul changed itself thus'
2. tambe-gusu š̌isam yai-kara katu-ne
   (therefore/Japanese/reflexive-change/copulative marker)
   'inasmuch as the Japanese changed himself'

6.9.1.3 Reciprocal Formation

The reciprocal in Ainu is expressed by prefixing the morpheme /u-/ to the verb. Consider the following examples:

čiškara	'to bewail the dead'
u-čiškara	'to weep together for the dead'
e	'to eat'
u-e	'to eat together'
ekap	'to salute'
u-ekap	'to salute one another'
keške	'to persecute'
u-keške	'to persecute one another'
paste	'to make run'
u-paste	'to chase one another'
ekote	'to tie up'
u-ekote	'to tie together (as string)'
erangara	'to greet'
u-erangara	'to greet each other'
emik	'to bark at'
u-emik	'to bark at each other'
ekuba	'to bite'
u-ekuba	'to bite each other'

Sentence examples:

1. u-kotumi koro u-ronnup ne rure ne
   (reciprocal-fight/with/reciprocal-kill/verbal markers)
   'they fought together and killed one another'

2. tun newa u-reš̆pa wa okai ruwe ne
   (two people/locative/reciprocal-live/professive/dwell/
   verbal markers)
   'they were living there together'

6.9.1.4 Passivization

Passives in Ainu are expressed by prefixing the morpheme /a-/ to the verb. Consider the following examples:

nu	'to hear'
a-nu	'to be heard'
nuye	'to write'
a-nuye	'to be written'
raige	'to kill'
a-raige	'to be killed'

Sentence examples:

1. š̆omo a-e ya
   (negative/passive-eat/conclusive emphatic marker)
   'you cannot be eaten (said to a fish)'

2. pet otta san wa č̆ep a-nukara
   (river/to/descend/progressive/fish/passive-see)
   'going down to the river, a fish was seen (by someone)'

3. umma a-o wa oman
   (horse/passive-ride/progressive/go)
   'he went by horse'

4. č̆ep a-sata-ke otta neyakka a-iwan-ge
   (fish/passive-dry-causative/purpose/also/passive-
   use-causative)
   'it is also used for fish to be dried'

6.9.1.5 Derived Verbs[10]

a) e + ADJ → Verb

Examples:		
	hapuru	'soft'
	e-hapuru	'to be unable to endure'
	niše	'hard'
	e-niše	'to be able to endure'
	pirka	'good'
	e-pirka	'to gain'
	wen	'bad'
	e-wen	'to lose'

b) ADJ + ka → Verb

Examples:		
	fure	'red'
	fure-ka	'to dye red'
	moire	'slow'
	moire-ka	'to slacken speed'
	nam	'cold'
	nam-ka	'to cool'
	nisap	'quick'
	nisap-ka	'to quicken'
	nupuru	'black'
	nupuru-ka	'to blacken'
	ramutui	'frightened'
	ramutui-ka	'to frighten'
	retar	'white'
	retar-ka	'to whiten'
	riten	'soft'
	riten-ka	'to soften'

sarak	'troubled'
sarak-ka	'to trouble'
tumsak	'weak'
tumsak-ka	'to weaken'
usak	'dry'
usak-ka	'to dry'

6.9.2 Nominalizations

a) $\{^{ADJ}_{V}\}$ + i → Noun

Examples:		
	nupeki	'bright'
	nupeki'i	'brightness'
	oupeka	'upright'
	oupeka'i	'uprighteousness'
	pirka	'good'
	pirka'i	'goodness'
	retar	'white'
	retari	'whiteness'
	wen	'bad'
	weni	'badness'
	ešokor	'to believe'
	ešokori	'belief'
	itak	'to speak'
	itaki	'speech'
	okere	'to finish'
	okere'i	'the finish'
	yainu	'to think'
	yainu'i	'thought'

b) $\begin{Bmatrix} \text{ADJ} \\ \text{V} \end{Bmatrix}$+ p(e) → Noun

Examples:		
	pase	'heavy'
	pasep	'a heavy thing'
	pirka	'good'
	pirkap	'a good thing'
	poro	'large'
	porop	'a large thing'
	e	'to eat'
	ep	'food'
	ese	'to answer'
	esep	'an answer'
	kotčane	'to mediate'
	kotčanep	'a mediator'
	munnuye	'to sweep'
	munnuyep	'a broom'
	nuye	'to write'
	nuyep	'a pen'

6.9.3 Adjective Derivations

a) N + o → ADJ 'infestation'

Examples:		
	ki	'a louse'
	ki-o	'lousy'
	kikiri	'an insect'
	kikiri-o	'swarming with insects'
	oaikančci	'an earwig'
	oaikančci-o	'swarming with earwigs'

taiki	'a flea'
taiki-o	'full of fleas'
uruki	'a nit'
uruki-o	'full of nits'

b) Noun + <u>uš</u> → ADJ

Examples:

ai	'thorn'
ai-uš	'thorny'
kem	'blood'
kem-uš	'bloody'
koponči	'dust'
koponči-uš	'dusty'
kumi	'mould'
kumi-uš	'mouldy'
numa	'hair'
numa-uš	'hairy'
ota	'sand'
ota-uš	'sandy'
šippo	'salt'
šippo-uš	'salty'
šum	'oil'
šum-uš	'oily'
toi	'earth'
toi-uš	'earthy'
upa	'soot'
upa-uš	'sooty'
wakka	'water'
wakka-uš	'watery'

Although all the above examples seem to indicate that the morpheme /-uš/ has a negative connotation, the following cases do not bear this out:

1. apa-uš kamui — 'the god of the doorways' (lit. 'doory god')
2. abe-uš kamui — 'the god of fire' (lit. 'the fiery god')
3. čup or-uš guru — 'the man in the moon' (lit. 'the moon inny man')
4. sar-uš čikoikip — 'an animal with a tail' (lit. 'a taily animal')

c) N + sak → ADJ 'lacking' (privative suffix)

Examples:

ikkewe-sak	'unreliable' (lit. 'without backbone')
ramu-sak	'foolish' (lit. 'without mind')
šik-sak	'blind' (lit. 'without eyes')
tum-sak	'weak' (lit. 'without strength')
yainu-sak	'thoughtless' (lit. 'without thought')

d) N + kor → ADJ 'possessing'

Examples:	haro-kor	'fat' (lit. 'possessing fat')
	hon-kor	'pregnant' (lit. 'possessing stomach')
	ikkewe-kor	'strong' (lit. 'possessing backbone')
	kewtum-kor	'of strong mind' (lit. 'possessing mind')
	pawetok-kor	'eloquent' (lit. 'possessing learning')
	sakanram-kor	'quarrelsome' (lit. 'possessing a scolding heart')

6.9.4 Adverb Derivations

a) ADJ + no → ADV

Examples:	aširi	'new'
	ašin-no	'newly'
	hošike	'previous'
	hošike-no	'previously'
	oupeka	'upright'
	oupeka-no	'in an upright fashion'
	pirka	'good'
	pirka-no	'well'
	ramu-an	'wise'
	ramu-an-no	'wisely'

tuima	'far'
tuima-no	'far'
tunaš̌i	'quick'
tunaš̌i-no	'quickly'

Sentence examples:

1. tunaš̌i-no paye yan
   (quick-adverb/go/imperative)
   'go quickly'
2. š̌ine ainu moire-no ek
   (one/man/late-adverb/came)
   'one man came late'

6.10.0 Numerals

The vigesimal nature of the Ainu numeral system has been recognized as early as 1847 by the philologist A.F. Pott[11] and has often been commented upon in the literature concerning the Ainu language. Another striking characteristic of the Ainu numeral system is that the numbers one to five are basic as is the number 'ten', whereas the intevening numerals are formed by a process of subtraction from the numeral '10'. The numbers and their formulation are as follows:

1	šine	
2	tu	
3	re	
4	ine	
5	ašikne	
6	iwan	(ie. 4 from 10)
7	arawan	(ie. 3 from 10)
8	tupesan	(ie. 2 from 10)
9	šinepes	(ie. 1 from 10)
10	wan	
11	šine ikašma wan	(1 plus 10)
12	tu ikašma wan	(2 plus 10)
13	re ikašma wan	(3 plus 10)
14	ine ikašma wan	(4 plus 10)
15	ašikne ikašma wan	(5 plus 10)
20	hot(-ne)	
40	tu hot(-ne)	(2 X 20)
60	re hot(-ne)	(3 X 20)
80	ine hot(-ne)	(4 X 20)
100	ašikne hot(-ne)	(5 X 20)

The numerals '30', '50', '70', and '90' are formed on the basis of subtraction from the above forms:

30	wan e tu hot	(10 from (2 X 20))
50	wan e re hot	(10 from (3 X 20))

70 wan e ine hot (10 from (4 X 20))

90 wan e ašikne hot (10 from (5 X 20))

Although traces of a decimal system (as opposed to a vigesimal system) have been recorded for some Kurile dialects, this is presumably a result of the influence of the Russian traders and is not regarded as a native Ainu system.

6.11.0 Sentence Types

6.11.1 Imperative

Imperative verbs are not inflected for person. Consider the following examples:

ek 'come!'

ek wa inkar 'come and see!'

en-nure 'listen to me!'

arpa wa inkar wa ek 'go and see and come!'

Although verbs stems without a special imperative marker may have imperative force, the morphemes hani (kane in Karafuto) may follow to emphasize the imperative:

ek hani 'come!'

inkar hani 'look!'

Plural imperative is formed by the morpheme yan immediately following the verb:

inkar yan 'look!' (pl.)

The morpheme yan also expresses politeness, and may be used in either a plural or singular context. Consider the following examples:

arki yan	'welcome!'
rok yan	'sit down (honorific)!'
inkar yan	'(you-sg.) look (honorific)!'
inkar yan hani	'(you-pl.) look (honorific)!'

To express first person plural propositions, the particle ro is attached:

paye-an ro	'let's go'
a-nukan ro	'let's look at it'
inkar-an ro	'let's sightsee'
hopumpa-an ro	'let's get up'
mokor-an ro	'let's rest'

6.11.2 Negative

The negative morpheme somo~šomo immediately precedes the verb or adjective. Consider the following examples:

somo ek	'doesn't come'
somo oman	'doesn't go'
šomo pirka	'not good'
tampako anakne šomo ku-ku	'(I) don't smoke tobacco' (anakne 'emphatic marker')

In the Karafuto dialects, ham (in free variation with hane) functions as the negative morpheme:

ham čі-wante 'I don't know'

hane auwante 'id.'

In the case of negative imperatives, the morpheme itek (also iteki) appears preceding the verb. In Karafuto, hanke (also hanka) is the negative-imperative morpheme. Consider the following examples:

iteki iku 'never drink liquor!'

itek čiš 'don't cry!'

itek čiš yan 'don't cry (honorific)!'

hanka čiš hanka čiš 'don't cry, don't cry!'

6.11.3 Interrogative

All sentences in Ainu may be made interrogative by the use of rising intonation. In addition to this device, the morphemes ya and he function as interrogative markers. Consider the following examples:

eči-ye ya 'did she say it?'

e-korpe he 'is it her thing?'

pirkpe he, wenpe he 'a rich man, or a poor man?'

tampe he, toampe he 'this one or that one?'

The following are a list of interrogative words with an example for each case:

1. humna 'who'
   ex. humna ečine ya 'who is she?'
2. hemanta 'what'
   ex. hemanta ečinu rusui ya
   'what does she want to hear?'
3. hunak(ta) 'where'
   ex. hunak ta an ruwe 'where is it?'
   hunak pak earpa 'up to where is she going?'
4. makan 'what sort of'
   ex. maka kat korpe 'what sort of shape did it have?'
5. inan-pe 'which'
   ex. inan-pe pirka 'which is good?'
6. inanike 'which (of two)'
   ex. inanike pirka 'which (of two) is better?'
7. hempar 'when'
   ex. hempar e-arpa 'when is she going?'
8. hempak 'how many'
   ex. hempak an 'how many are there?'

FOOTNOTES

1. The importance of the folk-tale is observed to occur as a common trait among many of the Paleo-Asiatic tribes. One explanation for this would be that engaging in these tales is an ideal way to pass the time during a dreary and prolonged winter.
2. Kindaichi (1960:303-307).
3. Chiri (1952:125) labels this voicing process as 'Japanized Ainu' (wajinka shita ainu). This term is inappropriate for two reasons. Firstly, it implies that such voicing is a result of the influence of the Japanese language, an assertion that is totally false. Voicing has been noted for all dialects of Ainu, even the Kurile dialect which had had little contact with the Japanese. The second reason why this term is inappropriate is that it suggest that the voicing process in the Ainu language is identical to the 'rendaku' or sequential voicing of Japanese. Voicing in Ainu is a completely productive process: consonants may become voiced intervocalically or after voiced obstruents. Japanese rendaku, on the other hand, is a very limited prccess which occurs obligatorily only to those morphemes lexically marked as undergoing this process. Furthermore, voiced consonants are already

in the phonemic inventory of Modern Japanese, but they appear only allophonically in Ainu.

4. Example from Peng (1969-70:96).

5. Tamura (1972:46).

6. This gives justification for Chiri's (1952) treatment of diphthongs as closed syllables, and thus their orthographic representation as /aw/, /uy/, /ey/ etc. If these were open syllables, the nominalizer would be /-p/, but, instead, /-pe/ is affixed to the stems ending in these diphthongs.

7. This constitutes further evidence for the allophonic status of the vowel off-glide in [r^{a}] (Section 6.2.3). If 'white' were phonemically /retara/, that is, ending in an open syllable, the expected shape of the nominalizer morpheme would be /-pe/, yielding the unacceptable *[retarape].

8. In Ishikari, Tokachi, Kushiro, Kitami, Teshio, and the Karafuto dialects, /an-/, as opposed to /a-/ is the first person morpheme.

9. Data from Fukuda (1961).

10. Note that Section 6.6.0 (page 223) stated that adjectives are inflected in the same manner as verbs and are therefore considered to be a subclass of verbs. It is therefore technically incorrect to have a rule

that derives verbs from adjectives as there appears to be no distinction between the two categories. The rules have been formalized, however, in such a manner so as to agree with the terminology used by Chiri and Kindaichi.

11. Laufer (1917:192).

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