SMALL LINGUISTICS:

PHONOLOGICAL HISTORY AND LEXICAL LOANS

IN NAKIJIN DIALECT OKINAWAN

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Linguistic research is only as good as the data that undergoes analysis. I have been very fortunate to enjoy access to the *Nakijin hōgen jiten*, Nakasone Seizen's carefully recorded and highly detailed monument to his native dialect, and an incomparable resource for the study of that dialect. Dr. Nakasone passed away in 1996, leaving an estimable body of work and inspiration for numerous linguists in Okinawa, Japan, Hawai'i and elsewhere.

And beginning researchers are only as good as the senior scholars who guide them. I am greatly indebted, of course, to my eminently patient advisor, Dr. Leon Serafim, without whom this dissertation would never have happened. It was he who, when this writer was flailing about for a term paper topic in a graduate course on Japanese language history, handed over a hefty tome—the Nakijin dictionary—loaded with words featuring exuberantly long vowels, recorded in a (then-) arcane transcription system, and suggested that accent and vowel length in the dialect might indeed provide sufficient fodder for a paper. It did, and for a couple of others as well. Dr. Serafim's detailed review of progress on the present work has been invaluable in making it a readable thing, though he is surely not to be held accountable for any of this writer's mistakes, inaccuracies, odd conclusions, or gaps in logic.

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On a somber note, I must mention the passing of Dr. Mitsugu Sakihara, specialist in Okinawan history and a member of the original committee formed to oversee this work. Dr. Sakihara passed away in January 2000, without ever being able to see the current work despite his expressed wish to do so. My example in failing to deliver it in a timely fashion should stand as a warning to procrastinating graduate students everywhere.

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ABSTRACT

This dissertation presents a phonological and lexical history of Nakijin, a northern Okinawan dialect. It consists of three major parts: 1) the regular phonological history of the dialect, 2) a brief history of the Nakijin polity, and 3) a discussion of the various irregularities in the phonology and lexicon of Nakijin, with particular attention to those relatable to external influences as identified in the historical sketch.

In tracing the regular phonological development of Nakijin, a set of sound changes is described that allows the derivation of modern Nakijin forms from proto-Ryūkyūan forms as reconstructed by Thorpe (1983). Reference is also made to comparative evidence from modern Japanese, as well as both Old Japanese and proto-Japanese as described by Martin (1987). In some cases alternative reconstructions based on hitherto unrecognized Nakijin phenomena are proposed as well. In the course of describing the regular phonological history of Nakijin, a number of exceptions to regular rules and other remarkable features are identified; this section often provides some accounting of the reasons for such irregularities, but in general defers the greater part of those arguments to the final section.

The human history of Nakijin is considered in order to inform the discussion of external influences, in particular lexical loans and lexical-phonological loans, on the Nakijin language. In this brief sketch, a contrast is drawn between Nakijin as a self-contained locale and independent petty state on the one hand, and Nakijin as an outpost of the centralized Okinawan and later Ryūkyūan kingdom on the other. In that latter part of Nakijin history, the populace and language of Nakijin are seen to undergo considerable influence from southern Okinawa, in particular, though not exclusively, in areas that can generally be identified with political factors and state-level economic concerns.

In the final section of the dissertation, an evaluation of exceptional Nakijin phonological and lexical phenomena is presented. The generalizations reached by Dorian (1981) on language death, Clyne (2003) on language contact and convergence, and Thomason and Kaufman (1988)

on language contact in the historical context are referenced, and specific Nakijin lexical items are considered in light of the influence of the Shuri (southern Okinawa) dialect on them. The items considered for analysis in this section are identified both through the exceptional phonology they demonstrate, as well as through a parsing along semantic lines that identifies areas of the lexicon that might have been susceptible to external influence.

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INTRODUCTION

1.1 Okinawa-Nakijin dialect and the purpose of this study

The subject of this study is the phonological history, including extra-linguistic influences, of Nakijin (沖縄今帰仁方言 [Okinawa-Nakijin hōgen]), a Northern Ryūkyūan language. Specifically, we intend to sketch an outline of the phonological history of the dialect, identify problem areas, and look at the history of the Nakijin people and polity to identify circumstances of language contact that may account for apparent aberrations in its phonological development. The study will comprise basically three parts: 1) examining the regular historical phonology of the language and noting how and where items seem to fail to fit in; 2) outlining the cultural and political history of the Nakijin area, beginning from late prehistory and continuing through relatively recent developments; and 3) examining the connections between language contact circumstances and lexical items in Nakijin with historically aberrant phonology.

For the most part, highly technical discussions of phonology and phonological phenomena are avoided here. On these issues, the more capable work of other writers is referenced and in many cases the judgments and insights of these works have been adopted in the current study. Martin (1987), Thorpe (1983), Shimabukuro (2003) and Lawrence (1990), among others, fall into this category. In particular, we do not propose to interest ourselves greatly in the minutiae of accent and other suprasegmental phenomena; historically these are typically the most stable part of phonology[1] and the least susceptible to external influences (Ono 1985:182[2]). While the bulk of Chapter 2 is a discussion of the phonology and phonological

[1]Hirayama (1968:79) holds that while accent systems have the possibility of changing internally, losing distinctions between classes, for example, the distinction between the accent types across dialect lines has largely been maintained over time.

[2]Ono was looking at the effects of "standardization" on local varieties of language in Japan, that is, the influence of Standard Japanese (共通語 [kyōtsūgo], roughly equivalent to the variety used in Tokyo but used throughout Japan in arenas such as education and

history of Nakijin dialect, the current study is not a reconstruction exercise per se; it is intended, rather, that the discussions of what lies outside the neatly wrought reconstructions and regular sound changes through history be the more interesting and significant portion of this work. In a way, therefore, the current study properly belongs neither to history (though we provide a historical sketch) nor linguistics (though we gladly use the conventions of that science); it hovers, rather, in a grey area between the two. The best label for it is perhaps "practical historical linguistics," a bit of nomenclature that is appropriately mundane and basic for a work that will often rely more on historical implications, impressions, and circumstantial evidence than on hard, objective, algebraic expressions of phonological and lexical development. In our title, we have used the term "small linguistics" to capture the flavor of a study that in large part progresses word by word, with considerable attention not just to the trees of the forest, but to the bugs nibbling the moss on the bark of those trees.[3]

We have relied on Dorian (1981) and the field of language death, as well as studies of language contact situations such as Clyne (2003) and Thomason and Kaufman (1988) for the methodological background of the current work. In contrast to some of these estimable studies, however, we do not here enjoy direct access to the specific social-historical milieu we are seeking to address. Dorian did her own fieldwork in Scotland, interacting face to face with informants and having at hand a great deal of demographic information on the speaker communities under consideration. Clyne as well studies language use situations that are either contemporary or of fairly limited time depth. On the other hand, the various studies that make up Thomason and Kaufman 1988 cover a huge geographic, linguistic, and temporal range, in

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broadcasting) on local dialects such as Kansai Japanese (関西弁 [kansai-ben]). His comments about the areas of language susceptible to outside influence hold true for other contact situations as well.

[3]The phrase "small linguistics" echoes the baseball reference "small ball," a description attached to a style of baseball play that relies on a series of small successes—a walk, a stolen base, a single—combining to result in a run scored. The alternative to such play is to go for the "long ball," a single swing of the bat for a home run. See Lacques 2004.

some cases reaching back several hundred years; in particular their treatment of English language history (1988:263–342) closely parallels the current work both in time depth and also in certain historical themes.[4]

This introductory chapter will serve to outline the general geographic, historical, and linguistic situation for the current study, provide a brief sketch outlining the problems of transcribing Nakijin and establishing the conventions to be employed in this work, review in brief previous works of interest that have considered Nakijin dialect, and last, survey the conceptual background provided in Dorian 1981, Clyne 2003, and Thomason and Kaufman 1988.

1.2 Identifying the geographical scene[5]

The Ryūkyū archipelago, a part of modern Japan, arcs for 600 miles across the western Pacific between 24 and 28 degrees north latitude, stretching from just south of Kyūshū to within view—on a good day—of Taiwan. In Map 1 (following page) modern Japan is portrayed; the Ryūkyū archipelago will be found to the extreme lower left. Some 161 islands in all, ranging in size from tiny rocky specks to the 488 square miles of the main island of Okinawa, comprise the archipelago; it can be divided by geography and history into four main groups: Amami-Ōshima in the north, part of modern Kagoshima Prefecture; Okinawa and its nearby islands in the center of the arc; and the Miyako and Yaeyama (sometimes referred to

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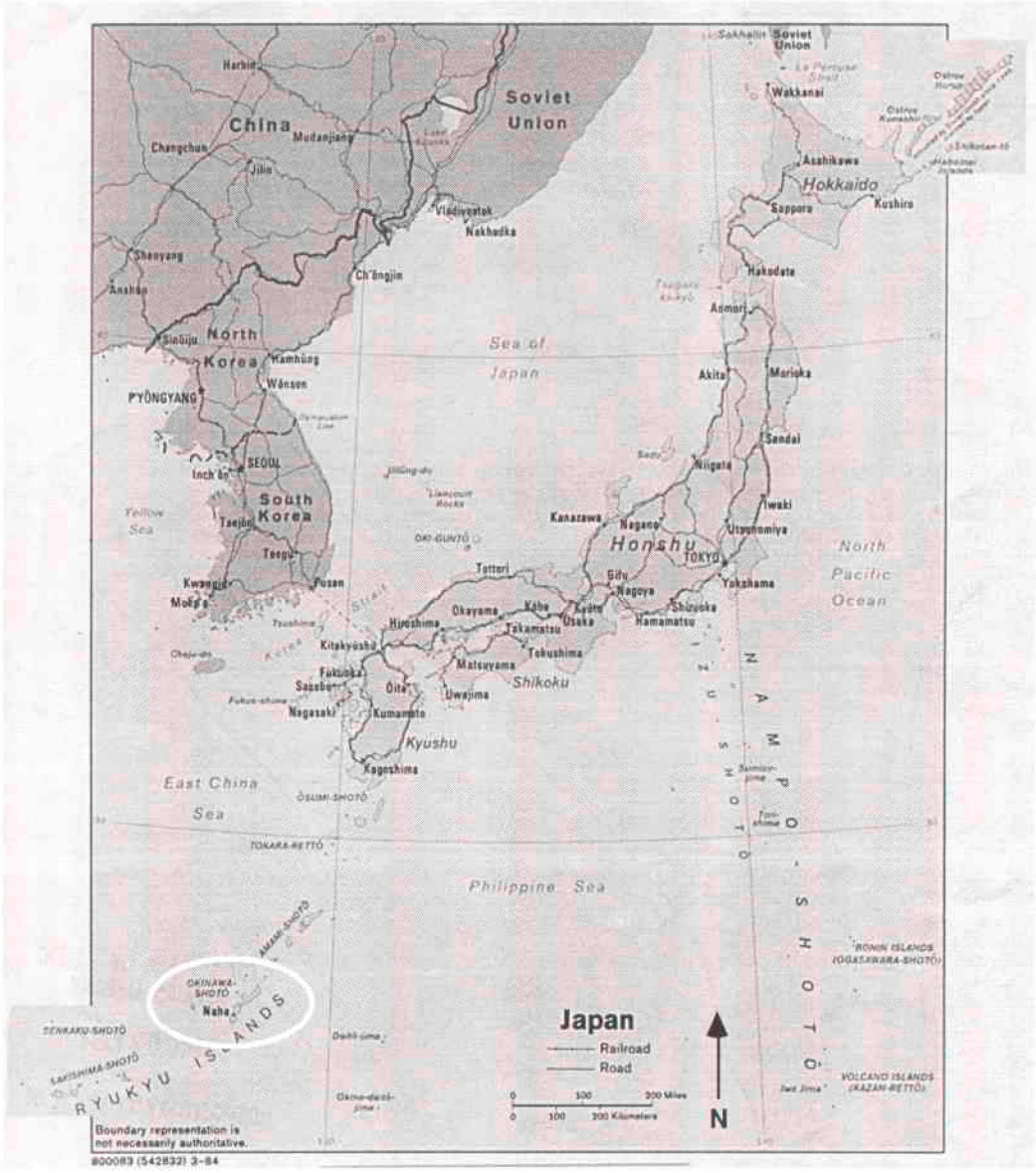
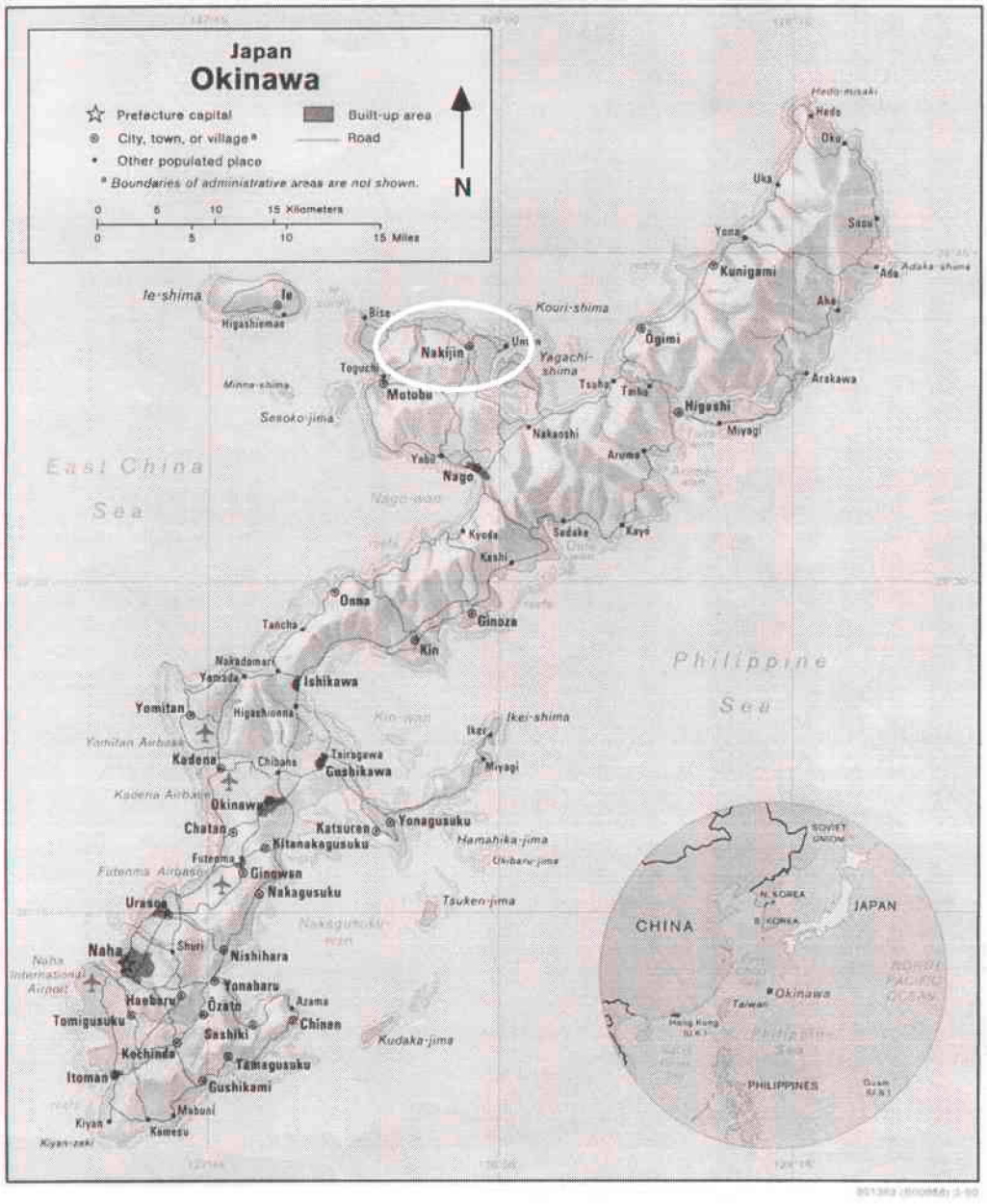
[4]Thomason and Kaufman look at Old, Middle, and early Modern English, specifically a time window of 900–1500 AD (1988:263). In this look at Nakijin we refer to events in Nakijin history (though the earlier part of this range is, strictly speaking pre-history) from 900 (or perhaps a bit earlier) to 1700 AD (though occasionally later events will be mentioned). England in the period addressed by Thomason and Kaufman was subject to outside influence, both linguistic and sociopolitical, from Norman French and Norse sources; Nakijin underwent similar pressure from central Okinawa, most particularly the Ryūkyūan kingdom centered in Shuri, as well as Satsuma (Kyūshū) and later Japan.

[5]Maps 1 and 2 on the following pages inform this discussion. The island of Okinawa is circled on Map 1; the general location of Nakijin is similarly highlighted on Map 2.

MAP 1: Japan (Courtesy of The General Libraries, The University of Texas at Austin)



MAP 2: Okinawa (Courtesy of The General Libraries, The University of Texas at Austin)



jointly as Sakishima) groups to the southwest.[6] The islands from Okinawa to the south and west make up modern Okinawa Prefecture. Forty-four of the islands are inhabited, some but minimally; the large majority of the population—something over 1.2 million—is found on Okinawa itself.

The main island of Okinawa (see Map 2), center of power for the Ryūkyūan kingdom that thrived for the greater part of 500 years in its varying degrees of independence,[7] is long and narrow, with a surprisingly diverse topography for its somewhat limited area. About two miles across at the narrow isthmus joining the northern and southern parts of the islands, and with no part more than five or six miles from the ocean, Okinawa is just over 65 miles long on its roughly north-south axis. The coast line is complex, with numerous bays and coves; in addition, two small peninsulas jut from the southeastern coast of the island, and the Motobu Peninsula, a mountainous extension of the ridges of northern Okinawa, stabs westward into the China Sea. There are also many small outlying islands. The topography of central and southern Okinawa is relatively gentle, with generous (in the Ryūkyūan context) flat areas and some hilly ground, an arable and quite liveable landscape that has historically supported the bulk of the island's population. The somewhat less forgiving topography of Northern Okinawa is marked by rugged terrain with steep ridges separating narrow valleys. A general (and until recently, well-deserved) reputation of inaccessability and isolation has long been associated with the north.

The geographical distinction between north and south on Okinawa has carried over to the people and economies of the areas as well, at least in the conventions of tradition and regional pride. The people of northern Okinawa, even up to the current time, are sometimes

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[6]Tiny Yonaguni, the westernmost outpost of the Ryūkyū chain, is in many ways both linguistically and culturally distinct from the rest of the islands, but its relative smallness forces us to group it with the Sakishima islands for purposes of geography.

[7]A unified state on the island of Okinawa took shape in the early 1400s, spread to become the kingdom of the Ryūkyūs in the 1500s, and lasted at least in name until 1879.

regarded as something akin to country bumpkins by southern-area (in particular Shuri, or capital) dwellers with a penchant for appreciating their own level of sophistication (Kerr 1958:394). In addition, there have historically been limited economic opportunities available to those living in the north. While the area was valued for its forest products and agricultural output, transportation inadequacies never allowed a full exploitation of the area's potential, and economic marginalization accompanied its physical liminality. Poor, and regarded as somewhat backward, the people of northern Okinawa have historically been as separate and different from their southern relatives as their rugged ridges are from the gentle undulations of the south.

Nakijin Village,[8] the locus for our subject dialect, is on the northern side of the Motobu Peninsula. Historically the center of a petty kingdom, Hokuzan, that antedates the unified Ryūkyūan kingdom, Nakijin Village is now a municipal entity of no particular prominence.[9] It occupies an area of approximately 15 square miles, from a narrow area of flatter terrain along its roughly east-west coastline to the steep terrain of the spine of the peninsula behind; the village includes as well Kourishima, a small island about one mile offshore. Two small, mostly unnavigable rivers run through the village. The remains of Nakijin castle occupy a steep limestone upland, woods stretch up the slopes behind the village, and the built-up area is interspersed with trees, as well as small agricultural undertakings such as rice and sugar cane plantings. Compared to the historical extent of the village, the modern community expands further afield and into the hills; in addition, due to shoreline filling, the line traced by the historical seashore is now roughly a mile inland.[10] Similarly, the mix of vegetation and

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[8]In Japanese, the locale is termed 今帰仁村 Nakijin-son, literally Nakijin Village. The designation -son is an official term, identifying a minimal conurbation (smaller, that is, than a -shi 'city' or -chō/-mati 'town', but somewhat more built-up than a -gun 'rural district, county'. Villages are subdivided into a number of aza, conventionally translated 'hamlet'.

[9]Nakijin "Village" is, in fact, bordered by a "city" (名護市 Nago-shi) on one side, and a "town" (本部町 Motobu-chō) on the other, despite its central role in history.

[10]The anchorage in the Hokuzan era [1322–1416] was below Nakijin castle.

agricultural plantings includes modern introductions such as tropical fruits; eucalyptus trees now grow on the hills where bamboo and the Japanese cypress once dominated.

The village supports a modern population of about 9,500 persons in approximately 3,000 households. In times past, being a castle town, Nakijin probably had a not-insignificant population; however, demographic information for historical Okinawa is speculative at best. The earliest estimates date from the early 1800s, when the entire island was likely home to not more than 125,000 people (Kerr 1958:187). Extrapolating from the ratio of the modern Nakijin population to that of the island as a whole suggests that the population of historical Nakijin was never more than a couple of thousand at most, and that of the Hokuzan kingdom no more than a couple tens of thousands.

1.3 Identifying the historical scene

There is compelling cultural and linguistic commonality between Japan and the Ryūkyūs that goes far deeper than the political realities of the last few centuries. Recent work in history and archeology (Hudson 1999, Asato and Doi 1999) holds that the island chain was populated until roughly 900 AD by a Jōmon-type population akin to that occupying the main Japanese islands until the beginning of the Yayoi period there, when Japonic-speaking rice-growing peoples began arriving there from the Asian mainland. Some evidence for southern peoples (perhaps Melanesian, Polynesian, or Micronesian) enjoying the pervasive Black Current ride north, either purposefully or not, and contributing to the pre-Japonic population is posited as well. This pre-Ryūkyūan population seems to have had a certain amount of trade contact with the Japonic population of Kyūshū, and indirectly with points beyond, and these early connections no doubt involved some movement of Japonic speakers into the islands, but a significant influx of Japonic speakers—agricultural settlers, likely from somewhere in Kyūshū—began a southward push around 900 AD, carrying with them their agricultural practices, including metal tools and the cultivation of rice and millet, and their language, to form the nucleus of what would become the Ryūkyūan language and culture (Serafim 2003).

That in matters of language and material culture the Japanese-like elements of Ryūkyūan existence became completely dominant over the earlier foraging inhabitants of the islands speaks to the numerical advantages of agricultural populations in comparison with the prior groups (Renfrew 1987:125). How significant non-Japanese-like populations are as a linguistic and cultural substratum presence in the Ryūkyūs is not clearly known, though the later spread of Ryūkyūan culture southwest into the Sakishima group and Yonaguni gives some hints. Some aspects of Ryūkyūan physical culture, such as domestic architecture, point to connections that might be made with early cultures in Taiwan and elsewhere.

Historical Japan and Ryūkyū moved in parallel in their political development, with the southern islands lagging behind the Japanese mainland by a few hundred years. That is, a recognizable historical Japan in the form of the early Yamato political/cultural entity is in place beginning from the 4th century AD, and a centralized state (Nara and Heian Japan) from the 8th, with "history" in the sense of written materials dating from about the same time; the beginnings of state-like political development in the Ryūkyūs are found from the 11th century, with some measure of centralization from the 14th, and "history" from the 16th. Both nations conducted extensive trade with China and other areas further asea as well as between themselves throughout the historical period (and to some extent before), although only the Ryūkyūs entered into a formally subservient tributary relationship with the Chinese kingdom. The Ryūkyūs were always, of course, significantly smaller and less powerful militarily than Japan; their extensive trade relations, however, made the island kingdom a viable state entity that eventually attracted the attention of potential Japanese conquerors. Restive military figures from Satsuma (southern Kyūshū), with the blessing of the Tokugawa regime, succeeded in gaining control of the Ryūkyūs in 1609, ruling it more or less directly for the next two-and-a-half centuries, though they kept a puppet Ryūkyūan government in place; the eventual hypercentralization of Japanese power from the time of the Meiji Restoration in 1867 led ultimately to the abolishment of the Ryūkyūan kingdom and creation of Okinawa

Prefecture in 1879. Practically speaking, the Ryūkyūs had been part of Japan since the Satsuma takeover; official annexation would ultimately lead to large-scale Japanization of the islands, both culturally and linguistically as well as in political reality.

1.4 Identifying the linguistic scene

That Japanese and the various Japanese main island dialects are related to the languages of the Ryūkyūs is obvious enough from a casual glance, much in the same way that is generally recognized for, say, the various Romance languages. The political realities of the past 150 or so years, with Japanese authority over the whole of Japan and the Ryūkyūs (post-WWII American occupation in Japan until 1952 and in Okinawa until 1972 excepted), have led, however, to a popular conception of the term "Japanese and Japanese dialects" to refer to all the varieties of Japanese-like languages in (modern political) Japan. That the Ryūkyūs no longer had independent status meant, for sake of political expediency, that its languages, despite their mutual unintelligibility with main island Japanese, were simply dialects of Japanese with a great amount of divergence from the standard language. Educational and other policies contributed much to the denigration of the status of non-standard varieties of language in Japan, as well as to the virtually universal diffusion of a more-or-less standard Japanese throughout the country. Speakers of non-standard varieties of language became, in effect, bilingual in both the national standard and their local language variety, with a growing popular sense that any transaction of real significance would take place in the standard language, with local varieties reserved for domestic and casual use. The extreme result of this trend is dialect levelling or displacement, a type of language death; in some cases only purposeful resurrection or resuscitation of local language by linguistic activists has brought about any ongoing currency for local language. This is a trend manifested in many countries with diverse linguistic situations; modern Japan is in no way remarkable here.

Stripping away political concerns about the unity of the modern Japanese nation, we see in Japan and the Ryūkyūs a rich, complex family of languages whose synchronic description and classification presents relatively few difficulties. In Serafim's (1993) view, the genetically related languages of Japan[11] are five[12]: Central Japanese, Northern Ryūkyūan, the two Sakishima languages Miyako and Yaeyama, and Yonaguni, with these latter four making up the Ryūkyūan side of the language family and indeed sharing much in the way of phonology, morphology, and lexical features. Central Japanese can be identified fairly closely with the political development and geographic extent of the early Yamato state, while areas outside that polity to the south, beginning from Amami-Ōshima, became the areas where the various Ryūkyūan languages developed. In a diachronic view, the situation is somewhat more complex than this, with the language varieties of southern Kyūshū and the islands between Kyūshū and Amami bearing many similarities to Ryūkyūan but being mostly Japanized due to early inclusion in the Yamato sphere (or perhaps due merely to a fundamental closeness to the dialects of Kyūshū, whence the first Japonic-speaking settlers in the Ryūkyūs); in addition, Ryūkyūan can be shown to share some features with Eastern Japonic (i.e., northern Honshū dialects), which is in keeping with the spread of Central Japanese, resulting in the displacement and marginalization of the earlier varieties in peripheral areas.

In terms of intra-Ryūkyūan language development, Serafim (1993) sees a northeast to southwest spread of early Ryūkyūan concomitant with a certain amount of population movement and (likely greater amount of) cultural and technological diffusion, with the four synchronically distinct languages attaining their essential characteristics due to geographic isolation and the possible presence of various substrates. Hudson (1999) sees both the Ainu

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[11]This list excludes Ainu, which is of unknown genetic affiliation (Hudson 1999:97). Some scholars contend it is (distantly) related to Japanese (and in some views, the [other] Altaic languages); others claim for it an affiliation with Austronesian.

[12]Thorpe puts the number of Ryūkyūan languages at a minimum of twelve (Thorpe 1983:4).

remnant and early Ryūkyūan substrate as part of a Jōmon periphery that remained following the significant population influx and culture shift characterizing Yayoi Japan; for both, of course, later waves of central Japanese influence (earlier in the Ryūkyūs, rather later in the Ainu areas of the north) accounting for the current situation.

Ryūkyūan as a whole shares at least two large-scale phonological features that identify it as a group distinct from Central Japanese: a pervasive phenomenon of vowel raising, with *e and *o going to i and u, (though subsequent developments in particular dialects make the actual situation somewhat more complex, with, for example, vowel sequences levelling to produce "new" e and o and original *i undergoing changes that leave it distinct from *e > i; in addition, in some areas [Yonaguni] a double layer of raisings has occurred [Serafim 2003]), and progressive palatalizations affecting velar and alveolar stops. Northern Ryūkyūan as distinct from the Sakishima languages and Yonaguni is seen to have somewhat different historical development of vowels, and an aspiration distinction in certain consonants, among other phenomena (Thorpe 1983:32ff).

1.5 Transcribing Nakijin and other Ryūkyūan languages

This section will address the challenges presented by the task of transcribing Nakijin and the solutions reached by scholars who have treated the dialect and whose works are referred to in the current study. In addition, we will establish the conventions to be employed here for transcribing both Nakijin and other languages and dialects.

1.5.1 Nakijin Transcription

Nakijin, like most other northern Okinawan and Amami dialects, has a distinction between 1) glottalized (also termed deaspirated or unaspirated) and aspirated voiceless obstruents and 2) glottalized and regular nasals. For vowel and semi-vowel initials as well, glottalized onset is distinguished from smooth onset (Nakasone 1983:633ff). In addition to these fairly exotic (in the overall Japonic context) segmental features, Nakijin also has a

complex accent system. Transcribing Nakijin in a way that accurately represents its features thus presents a certain challenge.

Nakasone (1983) transcribes these distinctions using Greek letters and diacritics. (He also uses a parallel transcription system based on the Japanese kana syllabaries.) Specifically, he carefully notes all occurrences of the glottalized (deaspirated) / aspirated pairs π/p, τ/t, κ/k, c/ç, μ/m, and ν/n, even when the deaspiration is predictable (as in medial position [Martin 1987:363]). For [semi-]vowels, glottalized onset is marked with ?, opposing smooth onset marked with ' (single quote). The main entries in Nakasone's dictionary, as well as the Nakijin correspondents in the Japanese-to-Nakijin appendix, are given in a specialized Japanese syllabary transcription that employs katakana (angular syllabic symbols) for the aspirated series opposite hiragana (cursive symbols) for the glottalized series.

Martin (1987:363) takes the essence of Nakasone's transcriptions but simplifies the system (and type entry) by substituting CAPITALS and digraphs: P for Nakasone's π, T for τ, K for κ, C for c (and small c, parallel to p-t-k, for ç), qm for μ, and qn for ν. Martin also maintains Nakasone's scrupulous recording of predictable deaspiration.

Curry (1990, 1991a & b, 1993) used a Martin-style transcription for Nakijin items. However, in order to increase phonological transparency and to extend the notation to respect the fundamental differences in character between glottalized nasals and glottalized/deaspirated voiceless consonants (the etymological origins of which differ greatly), Nakijin items in this work will be transcribed using the following conventions:

a) glottalized/de-aspirated segments with **p'**, **t'**, **k'**, and **c'** (Nakasone's hiragana/Greek; Martin's CAPS)
b) (regularly) aspirated segments with **ph**, **th**, **kh**, and **ch** (Nakasone's katakana/Roman; Martin's lower-case)
c) glottalized nasals with **qm**, **qn** (as in Martin 1987)
d) glottal onset with **q**, as in Martin (1987) (though there will be no special mark for smooth onset; note that "smooth onset" covers a wide range of phonetic possibilities (Nakasone 1983:630). Capital **Q** will be used to mark geminate consonants, cf. Nakasone (1983:629-32) and Martin (1987:363, where Martin, exploiting the complementary phonotactics of glottal onset and consonant gemination, used **q** to stand for both).

Transcription of Nakijin accent likewise poses difficulties. Nakasone uses a traditional device of Japanese linguists, which transparently marks rises and falls of pitch with rising and falling hook marks; plateaus of high pitch are assumed following rises, preceding falls, and in between the two if both occur. Martin, eschewing the typographical troubles of these conventions, separately sketches out the pitch patterns with a mora-by-mora H(igh) or L(ow) indication. For purposes of comparison, the item Nakasone transcribes /⌜bo⌝o/ ends up in Martin as **HL boo.** Curry 1990 and 1991a & b used a system that marked high pitch by overlaying shading on high-pitched morae; this approach, while graphically clear, did little in the way of streamlining the typing process, and also lacked any means of marking a word-final fall in pitch (this is a shortcoming in Martin's scheme as well). The example above would have been rendered boo in those works. Curry 1993, aiming toward typing ease, used CAPITAL vowels for high-pitched syllables. This scheme lacked graphic distinctness, since intervening lower case consonants tended to detract from the visual impact of the CAPS; it also suffered from potential confusion with Martin's use of CAPS to transcribe glottalized/deaspirated consonants. The current study will employ essentially the same device as Nakasone, but with one concession to ease of data entry: a rise in pitch will be marked with a slash / preceding the relevant mora; a fall will be marked with a backslash \ following the relevant mora. That is, /bo\o, in a direct transliteration of Nakasone's hooks. To avoid confusion with slashes delineating phonemic (as opposed to phonetic) transcription, all transcriptions will be unmarked, except when the distinction is particularly salient, in which case phonetic transcriptions will be set off with the traditional [square brackets] and phonemic transcriptions, when necessary, will be identified as such in order that their slashes are not mistaken for accent marks. Thus, the Nakijin citations in the current work may be considered more or less phonemic, though strictly speaking (recalling Nakasone's and Martin's [1987:363] recording of predictable medial deaspiration, a convention continued here) they are not.

The list below provides the complete phoneme-by-phoneme and mora-by-mora set of Nakijin transcription symbols used in this work, and provides the equivalents in Nakasone (both Western and Japanese syllabary versions) and Martin notations. Arranged by phoneme, as presented in Nakasone 1983, the list also gives the approximate phonetic values identified by Nakasone for each mora associated with the respective phonemes.[13]

LIST (1): Nakijin mora transcription[14]

phoneme /X/	mora [xV]	Curry 2004	Nakasone	Martin
/ʔ/	[ʔi]	qi	ʔi い	qi
	[ʔe]	qe	ʔe え	qe
	[ʔa]	qa	ʔa あ	qa
	[ʔo]	qo	ʔo お	qo
	[ʔu]	qu	ʔu う	qu
	[ʔwɛ]	qwe	ʔwe ゑ	qwe
	[ʔwa]	qwa	ʔwa わ	qwa
	[ʔja]	qja	ʔja や	qya
	[ʔjo]	qjo	ʔjo よ	qyo
	[ʔju]	qju	ʔju ゆ	qyu
	[ʔN]	qN	ʔN ん	qN
/h/	[hi~çi]	hi	hi ヒ	hi
	[hɛ]	he	he ヘ	he
	[ha]	ha	ha ハ	ha
	[ho]	ho	ho ホ	ho
	[hu~φu]	hu	hu フ	hu
	[φa]	hwa	hwa ファ	hwa
	[ça]	hja	hja ヒャ	hya

[13]Thorpe's (1983) transcription of Nakijin forms is both idiosyncratic and inconsistent and is not included here; where reference is made to his data, the forms have been regularized and/or corrected as necessary.

[14]Based on Nakasone 1983:10–11 and Martin 1987:363; the first column is Nakijin phonemes, the second, phonetic values for each attested mora based on that phoneme.

/'/	[ji]	i	'i イ	i
	[je]	e	'e エ	e
	[ɦa][15]	a	'a ア	a
	[wo]	o	'o オ	o
	[wu]	u	'u ウ	u
	[wɛ]	we	'we ヱ	we
	[wa]	wa	'wa ワ	wa
	[ja]	ja	'ja ヤ	ya
	[jo]	jo	'jo ヨ	yo
	[ju]	ju	'ju ユ	yu
	[m̩, n̩, ŋ̩, N̩][16]	N	'N ン	N
/k'/	[k'i]	k'i[17]	ĸi き	Ki
	[k'ɛ]	k'e	ĸe け	Ke
	[k'a]	k'a	ĸa か	Ka
	[k'o]	k'o	ĸo こ	Ko
	[k'u]	k'u	ĸu く	Ku
	[k'wɛ]	k'we	ĸwe くヱ	Kwe
	[k'wa]	k'wa	ĸwa くヮ	Kwa
/k‘/	[k‘i]	khi	ki キ	ki
	[k‘ɛ]	khe	ke ケ	ke
	[k‘a]	kha	ka カ	ka
	[k‘o]	kho	ko コ	ko
	[k‘u]	khu	ku ク	ku
	[k‘wa]	khwa	kwa クヮ	kwa
/g/	[gi]	gi	gi ギ	gi
	[gɛ]	ge	ge ゲ	ge
	[ga]	ga	ga ガ	ga
	[go]	go	go ゴ	go
	[gu]	gu	gu グ	gu
	[gwɛ]	gwe	gwe グヱ	gwe
	[gwa]	gwa	gwa グヮ	gwa

[15]There apparently is indeed a voiced glottal fricative in this slot, though it seems to be reflected in only the single token a/a [ɦa:] 'interjection of disgust, annoyance'.

[16]These represent syllabic (or, rather, moraic) nasals; the phonetic realizations vary according to environment.

[17]The typeface employed in the current study has but a minimal shape distinction between ['] (['']) and [‘] ([‘']). However, this need not cause problems in the main body of the text, as only ['] ['']) is used in transcriptions there. In this transcription list only, in particular in representations of forms as used by Nakasone 1983, we have used ['] and [‘] to ensure that the difference is clear.

/p'/	[p'i]	p'i	πi ぴ	Pi
	[p'ɛ]	p'e	πe ぺ*[18]	Pe
	[p'a]	p'a	πa ぱ	Pa
	[p'o]	p'o	πo ぽ	Po
	[p'u]	p'u	πu ぷ	Pu
	[p'ja]	p'ja	πja ぴゃ	Pya
	[p'jo]	p'jo	πjo ぴょ	Pyo
	[p'ju]	p'ju	πju ぴゅ	Pyu
/p‘/	[p‘i]	phi	pi ピ	pi
	[p‘ɛ]	phe	pe ペ	pe
	[p‘a]	pha	pa パ	pa
	[p‘o]	pho	po ポ	po
	[p‘u]	phu	pu プ	pu
	[p‘ja]	phja	pja ピャ	pya
/b/	[bi]	bi	bi ビ	bi
	[bɛ]	be	be ベ	be
	[ba]	ba	ba バ	ba
	[bo]	bo	bo ボ	bo
	[bu]	bu	bu ブ	bu
	[bja]	bja	bja ビャ	bya
	[bjo]	bjo	bjo ビョ	byo
	[bju]	bju	bju ビュ	byu
/ʔm/	[ʔmɛ]	qme	μe め	qme
	[ʔma]	qma	μa ま	qma
	[ʔmo]	qmo	μo も	qmo
	[ʔmjo]	qmjo	μjo みョ	qmyo
/m/	[mi]	mi	mi ミ	mi
	[mɛ]	me	me メ	me
	[ma]	ma	ma マ	ma
	[mo]	mo	mo モ	mo
	[mu~m̩][19]	mu	mu ム	mu
	[mja]	mja	mja ミャ	mya
	[mjo]	mjo	mjo ミョ	myo
	[mju]	mju	mju ミュ	myu

[18]Nakasone uses an asterisked ぺ, representing the glottalized mora p'e, to ensure a graphic distinction from ぺ, representing aspirated phe.

[19]A syllabic [m̩] segment, ostensibly distinct from the [m̩] allophone of /N/ in that it alternates with [mu], is found for the item /qa\mu 'mother', pronounced [/qa\m]. Lawrence's informants, however, did not corroborate the information of Nakasone 1983 for this item(Lawrence 1990:47–48).

/tʼ/	[tʼi]	tʼi	ʈi てィ	Ti
	[tʼɛ]	tʼe	ʈe て	Te
	[tʼa]	tʼa	ʈa た	Ta
	[tʼo]	tʼo	ʈo と	To
	[tʼu]	tʼu	ʈu とゥ	Tu
/tʻ/	[tʻi]	thi	ti ティ	ti
	[tʻɛ]	the	te テ	te
	[tʻa]	tha	ta タ	ta
	[tʻo]	tho	to ト	to
	[tʻu]	thu	tu トゥ	tu
/d/	[di]	di	di ディ	di
	[dɛ]	de	de デ	de
	[da]	da	da ダ	da
	[do]	do	do ド	do
	[du]	du	du ドゥ	du
/ʔn/	[ʔna]	qna	va な	qna
/n/	[ni]	ni	ni ニ	ni
	[nɛ]	ne	ne ネ	ne
	[na]	na	na ナ	na
	[no]	no	no ノ	no
	[nu]	nu	nu ヌ	nu
/r/	[ri]	ri	ri リ	ri
	[rɛ]	re	re レ	re
	[ra]	ra	ra ラ	ra
	[ro]	ro	ro ロ	ro
	[ru]	ru	ru ル	ru
/cʼ/	[tʒʼi~tʃʻi̥]	cʼi	ci ち	Ci
	[tʒʼɛ]	cʼe	ce ちェ	Ce
	[tʒʼa]	cʼa	ca ちャ	Ca
	[tʒʼo]	cʼo	co ちョ	Co
	[tʒʼu~tʃʻu̥]	cʼu	cu ちュ	Cu
/cʻ/	[tʃʻa]	cha	ça チャ	ca
	[tʃʻo]	cho	ço チョ	co
/z/	[dʒi~ʒi]	zi	zi ヂ	zi
	[dʒɛ~ʒɛ]	ze	ze ヂェ	ze
	[dʒa~ʒa]	za	za ヂャ	za
	[dʒo~ʒo]	zo	zo ヂョ	zo
	[dʒu~ʒu]	zu	zu ヂュ	zu

/s/	[ʃi]	si	si シ	si
	[ʃɛ]	se	se セ	se
	[sa]	sa	sa サ	sa
	[ʃo~so]	so	so ソ	so
	[ʃu~su]	su	su ス	su

1.5.2 Other Ryūkyūan dialects

The standard reference for the Shuri-Naha dialect of Okinawan, generally termed Shuri (Sr) in this work, is the *Okinawa-go jiten* {Dictionary of the Okinawan language} (hereafter OGJ), which makes use of a fairly transparent romanization, though an extensive table comparing that scheme to various others is provided in the forematter of the dictionary (OGJ 93–98). Citations here will make use of the romanized transcriptions found in that work, with a couple of modifications due to typographical limitations: the s-cedille (cf. c-cedille, ç) and z-cedille of OGJ are rendered using S and Z respectively, (the letter ç remaining ç), and the glottal stop ʔ is transcribed with q.

Citations of Proto-Ryūkyūan forms appear following Thorpe's reconstructions (1983).

Citations of other dialects, when used, follow the system(s) employed in source materials, with phonetic equivalents, transliterations, or clarifications given where relevant.

1.5.3 Japanese

(Standard) Japanese (J) forms cited as lexical data are given in modified Yale romanization, after Martin, as are Old Japanese (OJ) forms when used. When reference is made to Proto-Japanese (hereafter PJ) forms, this should be understood to reflect the reconstructions of Martin 1987, specifically the extensive word lists of chapters 5, 6, and 7 of that work. Notation of the kō-otsu (type A-type B) distinction in certain vowels in earlier varieties of Japanese is also done according to the conventions established by Martin. Japanese words used in the body of the text (such as kō-otsu above) are rendered in a modified Hepburn style.

On occasion, we have cited certain place names, lexical items, and bibliographical titles in Japanese native script; when this is done, transcriptions are presented in [brackets]

following. Japanese place names and other terms which have been conventionalized in English are given in their customary English forms, as in Tokyo (instead of Yale-style Tookyoo or Hepburn Tōkyō).

The indication SJ is used to mark Japanese terms of ultimate Chinese origin (or at least those composed of Sino-Japanese morphological elements).

1.6 Previous looks at Nakijin

Nakijin has received a large amount of attention since the publication of Nakasone 1983. Though no dialect or language of any description need be considered unworthy of inspection, one does have to wonder whether the interest in Nakijin is the result of its inherent utility for particular areas of inquiry or rather the huge amount of detailed data available to researchers in the form of Nakasone 1983 (and its online derivation NHOD). Most looks at Nakijin have concentrated on its accent system (discussed below), which has a general reputation for being "complicated" (Lawrence 1990:43), and its value for either reconstructions of historical Japanese accent (Martin 1987, Shimabukuro 2002) or for suprasegmental phonology in general (Lawrence 1990). Thorpe (1983) makes sporadic use of Nakijin[20] forms in his reconstruction of proto-Ryūkyūan. In addition, there are many shorter sketches, mostly by Japanese scholars, such as Nakasone 1985 and Uemura 1983; these are generally looks at the Nakijin accent system.

1.6.1 Nakasone

Nakasone 1983 (*Okinawa-Nakijin hōgen jiten* 沖縄今帰仁方言辞典 {Okinawa-Nakijin dialect dictionary}) is Nakasone Seizen's careful and highly detailed lexicon and grammar survey of his native dialect. Specifically, he is treating the variety of Nakijin dialect used in Yonamine, one of 19 'hamlets' (J aza, Nk qazaa) of Nakijin Village. The work of a lifetime, his

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[20]Thorpe prefers "Yonamine" dialect for what we are calling here "Nakijin." Nakasone does point out in his survey material that what he is actually treating is the variety of language used in Yonamine Hamlet (of Nakijin Village), but he consistently uses "Nakijin" to refer to the dialect.

studies of his native dialect began in 1930 during his time at Tokyo University, where he was a contemporary of Hattori Shirō, continued through a career of teaching and research in the Ryūkyūs (and briefly in Hawaii). The dictionary project finally got under way around 1963, after the publication of the OGJ, reaching completion and publication in 1983.

Nakasone's dictionary includes introductory remarks on the layout of the work, transcription schemes employed, terminological conventions, and references. The main body of the dictionary has roughly 15,000 entries, arranged in kana order (since they are recorded in Nakasone's kana-based transcription system) and is followed by appendices detailing Nakijin phonology, behavior of verbs and adjectives, and accent, as well as tables of verbal and adjectival forms and accent patterns. The dictionary concludes with a Japanese-Nakijin glossary, and lists of specialized lexical items such as interjections, onomatopoeia, affixes, particles, and last, place names and geographical/demographic information about Yonamine hamlet.

The present work is mostly concerned with the lexical items of the main body of Nakasone's dictionary. This is not to deny the value of the information on grammar and phonology;[21] however, grammar (morphological issues) per se will be reserved for later studies.[22]

Nakasone's outline of Nakijin phonology is detailed and highly descriptive, and makes some reference to historical origins of some of the dialect's peculiarities. In the main, however, it consists of phonotactical information, a list of phonemes and word citations, and three notes on salient "phonological characteristics" of Nakijin, discussed to a certain extent in section 2.1: deaspiration/glottalization of consonants, vowel lengthening (Curry 1990), and word-initial vowel aspiration (Nakasone's "devoicing"). Nakasone's discussion of accent is essentially a list

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[21]In fact, Nakasone's remarks on the latter inform a portion of this work's treatment of that subject; likewise, his information on accent will be invaluable here.

[22]See Curry 1991a for a brief discussion of Nakijin verbal morphology.

of possible accent patterns with lexical examples; Martin 1987 and Curry 1990 both look at Nakijin accent with something of a "forest" treatment of Nakasone's "trees."

One of Nakasone's favorite topics is the "phonological characteristics" of his native dialect, and it is his careful recording of distinctions, including those predictable for surface forms, that in part makes working with the corpus of Nakijin material such a joy.

Nakasone also published a number of smaller treatises on various aspects of Nakijin (as well as Ryūkyūan in general, though these concern us less here). Nakasone 1985 ("Nakijin hōgen ni tsuite" 今帰仁方言について{Concerning Nakijin dialect}) provides in summary form a good deal of the phonological information also found in Nakasone 1983; it also describes in outline form, with numerous examples, the verb conjugation system of the dialect. Nakasone 1972 ("Ka-gyō henkaku 'kuru' no Kunigami hōgen no katsuyō ni tsuite" 加行変格「来る」の国頭方言の活用に就いて {On the conjugation of the k-irregular 'come' in the Kunigami dialects}) covers the interesting stem consonant alternations[23] and other details of the title verb in northern Okinawan[24] dialects (a group that includes Nakijin). In addition, Nakasone 1995 (*Ryūkyū-go no utsukushisa* 琉球語の美しさ {The beauty of the Ryūkyūan language}) mentions a number of Nakijin forms in its various (highly personal) essays, though none that directly inform the current study.

1.6.2 Lawrence

Lawrence (1990) uses the Nakijin corpus to analyze issues of accent and tone. Strictly speaking, it belongs less in a compendium of works on Nakijin than in a collection of treatises on suprasegmental phonology. A technical discussion, much of the study is beyond the scope of our comparatively non-technical consideration here, but the work nonetheless has a wealth of lexical and other information that will be of use, including anecdotal reference to certain of

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[23]The citation form of 'to come' in Nakijin is su/N, but the s alternates with c', kh, and h.

[24]The "Kunigami" of the title refers to northern Okinawa (coterminous with Hokuzan) after the unification of the Okinawan kingdom.

the pecularities of the historical development of Nakijin. Lawrence's fieldwork in Nakijin also gives evidence of numerous alternative word forms not listed in other published works, and these have been incorporated into our database. Furthermore, where accent as an issue in the historical phonology of Nakijin is treated, this work will rely heavily on Lawrence's insights and contributions in this area.

1.6.3 Martin

Martin 1987 contains several references to Nakijin and one subchapter section detailing the historical accent developments in the dialect. In it, Martin establishes that in some contrast to most dialects of Ryūkyūan, which require only two accent patterns, corresponding to historical high and low registers, Nakijin requires three, corresponding to the historical high register and the atonic and tonic varieties of the historical low register (Martin 1983:262ff). Given that Martin's main interest in this chapter is the taxonomy of accent types across Japan and the reconstruction of earlier accent, his treatment of overall historical phonological change in Nakijin is but broadly sketched, but many of the issues considered or implied (interplay between accent and vowel length, for example) proved useful in Curry 1990. The main thesis of the current work, however, where language contact and sociolinguistic issues comprise the bulk of the argument, means that details of accent will inform our discussion but that we shall not be primarily concerned with advancing any particular view of an earlier accent system for either Nakijin or Japonic as a whole; on these issues we gladly defer to Martin (and others, as noted below).

Martin's treatment occasionally makes use of Nakijin forms that do not appear in Nakasone 1983. In some cases as well, Martin's citations differ from Nakasone's treatment of the same items,[25] though it is unclear whether these represent oversights on the part of Martin

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[25]Nakasone, for example, has /na\haa 'inside', while Martin records /na\ha(a), an alternating form rendered /na\ha in isolation and /na\haanu with subject particle nu appended.

or access to an additional source of Nakijin data that may reflect variations from the language of Yonamine Hamlet specifically treated by Nakasone.

1.6.4 Thorpe

Thorpe (1983) sketches an outline of Ryūkyūan language history that is stunning in breadth and represents a valuable concentrated source of comparative information for 41 dialects,[26] from Amami in the north to Yonaguni in the southwest. All the Nakijin lexical items considered in Thorpe have been included in this study as well, and much of the evidence from other dialects, especially those in the southern portion of Okinawa, will play a role here.

Unfortunately—though perhaps it is easy to understand how the recording of the minutiae of minor dialect forms might suffer in a study with the admirable scope of Thorpe's—citations there of Nakijin lexical items lack a certain precision, often failing to correspond segmentally very well to listings in Nakasone 1983. Where differences are found, the Nakasone information is preferred here.

1.6.5 Shimabukuro

Shimabukuro (2002) reconstructs the accent system of the Japonic languages, working from data in a number of mainland and Ryūkyūan dialects. Nakijin accent history is considered in the context of reconstructing proto-Okinawan accent—not necessarily something that will bear greatly on the overall purpose of this work, but Shimabukuro does present with considerable insight and precision conclusions regarding the interaction of original vowel length and initial aspiration in Nakijin, drawing on comparative data from Shuri and other dialects. Shimabukuro likewise has been able through comparative analysis to identify original vowel length in a number of Nakijin items that previous treatments (including those by the present author) had analyzed as the results of a lengthening process. A number of insights gained from Shimabukuro 2002 will be referred to in section 2.1.1 and elsewhere below.

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[26] "No adequately described Ryūkyūan language or dialect has been knowingly omitted from the study..." (Thorpe 1983:29–30)

1.6.6 Others

A number of smaller works on Nakijin are available. Among these are Sakimura 1985 ("Nakijin-hōgen no akusento taikei, tsuikō" 今帰仁方言のアクセント体系・追考 {Additional thoughts on the accent system of Nakijin dialect}), Uemura 1983 ("Tango no rizumu akusento-teki kōzō no bunseki-hōhō ni tsuite—Nakijin-Yonamine hōgen o rei to shite" 単語のリズムアクセント的構造の分析方法について—今帰仁与那嶺方言を例として {On methods of analysis for the rhythm accent structure of words—with examples from Nakijin-Yonamine dialect}), Shinkawa 1988 ("Nakijin-Yonamine hōgen ni okeru tango akusento no taikei ni tsuite—Nakijin hōgen jiten o shiryō toshite" 今帰仁与那嶺方言における単語アクセントの体系について—今帰仁方言辞典を資料として {On the word-accent system of Nakijin-Yonamine dialect—based on the Nakijin dialect dictionary}). The titles of these works indicate well the general interest in the accent system of Nakijin (as well as the value of Nakasone 1983 in conducting such studies). However, we have relied primarily on Martin 1987, Shimabukuro 2002, and the Nakasone 1983 data itself for the accent information herein.

1.7 Methodological Background

We alluded above to three studies—Dorian 1981, Clyne 2003, and Thomason and Kaufman 1988—that have provided the general methodological background for the analysis of irregularities in Nakijin historical phonology that we will undertake in detail in Chapter 4. In addition, the sketch of regular phonological development that makes up Chapter 2 occasionally references some of these concepts. By way of making the remainder of this work readily accessible, we discuss here the findings of these three studies and their implications for the current work.

1.7.1 Language Death—Dorian 1981

Dorian 1981 is the classic long-term study of the extreme effects of language contact and cultural pressure on East Sutherland Gaelic, a Scottish Gaelic dialect, by English. As mentioned in 1.1, it is informed by a great deal of detailed sociological, historical, and

idiosyncratic information regarding specific situations and speakers, thus attaining a level of precision unimaginable in the current study, but the manner in which Dorian treats the concept of semantic domain and social and community roles as impinging on language change are useful generalizations for the examination of a Nakijin speaker community in touch with a Shuri speaker community. Naturally, the scenario Dorian portrays of a minor language being largely pushed aside, and eventually replaced, by a competitor with greater currency, is not wholly applicable to Nakijin, which, at least in the context under discussion here, is a viable, if obscure, dialect; despite a fairly lengthy history of contact between Nakijin and Shuri, the sorts of pressures involved in the Gaelic-English competition in East Sutherland simply do not occur in Nakijin, nor are Nakijin and Shuri so typologically distinct as to be mutually exclusive. In other words, a hypothetical Nakijin speaker choosing to use a Shuri lexical item in a particular situation would not have been making a choice likely either to compromise understanding or to have large social implications (beyond such comments as Lawrence's [1991:46] regarding Nakijin speakers' awareness of dialect mixture), whereas for a speaker of East Sutherland Gaelic, the switch to English is one with dramatic comprehensibility repercussions as well as political and social overtones. (As acknowledged before, we lack concrete sociological information about Nakijin in the primary contact period, though some speculation is possible.)

In the area of linguistic domains, Dorian's recognition of distinctions between home and public arenas, as well as arenas identified by social roles, such as particular workplaces, is useful in terms of categorizing the lexical items under consideration in our study. Though her categories are well-defined in comparison to the fairly loose correlations we make in this work, the idea that, for instance, 'sword' connoting a military association should have linguistic implications is something we owe to Dorian's work. We also take advantage of her observations that while domain can influence (in the case of the Gaelic-English example) language choice, it does not necessarily require a particular choice to be made (1981:111); in the Nakijin context we will see that our ability to associate particular loan phenomena with

particular semantic domains is somewhat limited. Secondly, we note from Dorian's observations that certain flows of linguistic influence are defined mainly by the nature of the relationship between the two language varieties in question; in Dorian's study the position of English as an ascendant language is clear not only from the sociological and political situation, but also from such linguistic evidence as which direction predominates for lexical loans (i.e., there are more English loans in the Gaelic than the other way around) (1981:113). This sort of observation underlies our assumption that in the case of Nakijin and Shuri, the latter, as the language of a military and political intruder in the Nakijin area, as well as being the metropolitan language of the larger political entity of which the Nakijin locale was a part, would have a certain influential capacity despite the greater numbers of Nakijin speakers in the community.

1.7.2 Language Contact—Clyne 2003, Thomason and Kaufman 1988

These two studies, also introduced in 1.1, look respectively at immigrant languages in contact with English (Clyne) in Australia in the 20th century, and historical language contact situations in widely varying temporal and geographical circumstances (Thomason and Kaufman). Both present summary statements of the effects of language contact; we review briefly here the findings of each, with an aim of employing their generalizations in our examination of language contact in the history of Nakijin dialect.

1.7.2.1 Clyne 2003

Clyne's broad and insightful study of language contact focuses on immigrant language communities in Australia, with primary data drawn from eight different languages (in addition to English), in two- and three-language groupings of the immigrant languages and English. Addressing lexical and phonological transference, morphological transference, and syntactical transference in the contact scenarios, these effects of contact are analyzed in terms of linguistic typology, psycholinguistics, and the pragmatic and cultural value aspects associated with the changes. For the most part, the study is outside the field of historical

linguistics in scope and purpose, belonging properly to language contact as a field unto itself, and the ways in which models may be constructed of the sociolinguistic, grammatical, and language-processing aspects of the phenomena. Nevertheless, generalizations made about the results of contact in given situations can be extrapolated, it is hoped, to comment upon historical circumstances of linguistic contact and the results thereof.

We are interested in particular in Clyne's treatment of "[d]ynamics of transference and convergence"[27] in which he offers specific examples of language use with elements traceable to the two (or three) distinct linguistic sources available to the speakers whose data comprise his corpus. His generalizations in two specific subcategories of the inquiry interest us here: lexical transference and phonological transference.

In the area of lexical transference, Clyne identifies six types of transfer between languages. These can be summarized as follows ("first language" here refers to the immigrant languages, "second language" to English):

1) borrowing of expressions that have no direct equivalent in the first language;
2) interpenetration of domains (the use of borrowed items from one domain in the context of another);
3) borrowing to fill holes left by attrition;
4) borrowing a single item to cover a concept expressed by a variety of highly specified terms;
5) borrowing an item with less complex syntactic behavior;
6) quoting a second language item in a first language context (and vice-versa). (Clyne 2003:111–114)

In the situation of contact between Nakijin and Shuri that we are presuming to be relevant to our look at Nakijin phonological history, we suspect the first type of lexical borrowing (and perhaps the second, as a subcategory of the first[28]) to be the most likely, given the cultural gap implicit between Nakijin and Shuri (local relevance contrasting with metropolitan status

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[27]This is the title of his chapter 4.

[28]In the absence of a corpus of sociolinguistically quantified utterances, it is hard to imagine how the current study would access lexical transfer of Clyne's type (2)—not to mention type (6).

[within the Okinawan context]), though of course (3) is possible for late borrowings (of Japanese items; here, however, we verge into standardization influences, an area beyond the scope of the current study). While Clyne's category (4) is also possible, the closeness of the two dialects in question makes it seem unlikely, and a similar lack of likelihood will attend category (5) as well.

Clyne discusses phonological transference as well, citing examples of phonological and prosodic features of Australian English appearing in the various immigrant languages under consideration. He qualifies the presentation by noting the difficulty of ascribing phonological change to outside influence when language-internal circumstances could be a possible source of change. In the current study, phonological transference is suspected in certain cases, but the fact that nowhere have new phonological entities been introduced, we have not gone further than noting outside phonological phenomena as influencing the retention of certain features and the expansion of phonotactical range of others.

1.7.2.2 Thomason and Kaufman 1988

Thomason and Kaufman 1988 is the landmark work on language contact in historical contexts, covering the possible results of such contact, including (though it does not directly inform the current study) the formation of pidgins and creoles. The study establishes paradigms for the effects of contact and presents numerous case studies of the language contact scenarios from which the paradigms are derived. These studies range from the obscure (Aleut and Russian on Mednyj [island in the Bering Sea]) to the well-known and historically richly documented (English in contact with French and Norse), and cover the range of possible influences from lexical and phonological transference (the effects of a relatively mild amount of contact between groups of speakers) to the large-scale morphological and syntactical effects (in addition to lexical and phonological) that characterize language shift (where a population of speakers in a heavy contact situation essentially adopt a second language).

We are primarily interested in Thomason and Kaufman's qualification of borrowing effects, as opposed to the cases of language shift, mainly because in our study we have no historical circumstances that call for assuming the sort of extreme language replacement that occurs in shift situations. For borrowing situations, they detail five levels of language contact intensity and note the effects of each:

1) casual (manifested in lexical borrowings only)
2) slightly more intense contact (slight structural[29] borrowing)
3) more intense contact (slightly more structural borrowing)
4) strong cultural pressure (moderate structural borrowing)
5) very strong cultural pressure (heavy structural borrowing) (Thomason and Kaufman 1988:74–76)

Given the close genetic relationship documented for Nakijin and Shuri, the detection of borrowing of any sort involves making some fairly subtle distinctions. Here, as we are concentrating on phonological history, the key areas of difference in the phonologies of the two dialects, such as the obviously disparate respective developments for pRk *k and *p, will comprise the bulk of our discussion, and reference will be made to the lexical borrowing of Thomason and Kaufman's level (1) as well as the phonological transference of level (2). There are some hints that heavier structural borrowing, such as polite verbal constructions, may have occurred as well, but these are beyond the scope of the current study.

[29]"Structure" in Thomason and Kaufman is to be understood as phonological, syntactic, and, though rare, morphological features.

CHAPTER 2:

NAKIJIN PHONOLOGY SYNCHRONICALLY AND DIACHRONICALLY

2.1 Features of Nakijin phonology

List (1) (in section 1.5 above) shows all the morae of Nakijin, following Nakasone's descriptions, and includes the phonetic realizations of each phoneme in particular environments. List (2) below provides a succinct presentation of the phoneme inventory of the dialect (following Lawrence 1990:45; transcription following Curry, with phonetic values as noted in List [1]):

LIST (2): Nakijin segment inventory

consonants	**labial**	**apical**	**palatal**	**velar**	**glottal**
voiceless					
aspirated stop	ph	th	ch	kh	
glottalized[30] stop	p′	t′	c′	k′	ʔ
fricative			s		h
voiced					
stop	b	d		g	
fricative			z		
nasal	m	n			
liquid/glide	w	r	j		

vowels	**front**		**back**
high	i		u
mid	e		o
low		a	

What follows is a brief tour of some of the more distinctive aspects of Nakijin phonology: aspiration, medial glottalization, vowel lengthening, and the accent system. In the case of accent, the discussion is somewhat more substantial, as accent per se is not treated elsewhere in this study in terms of its historical development (though reference to accentual features and phenomena often figure in discussions of other historical changes). Our main purpose in this

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[30]The terms "glottalized", "unaspirated", and "deaspirated" refer to the same phenomenon and are used more or less interchangeably in this work (and in most of the others as well).

section is to provide a basic introduction to the phonological features of Nakijin that are most essentially Nakijin, and to thus make discussions elsewhere more accessible.

2.1.1 Aspiration and Devoicing in Nakijin word-initial vowels

The appearance of initial h in certain Nk words where we would otherwise expect an initial glottal stop (expect, that is, in the sense of this glottal initial being a regular Ryūkyūan correspondent of Japanese vowel-initial syllables) has been succinctly dealt with by Nakasone: "Words beginning with an initial qa, qi, or qu that is unaccented[31] and followed by /p'/, /t'/, /k'/, /c/, or /s/ undergo a devoicing[32] in which qa, qi, and qu become /ha/, /hi/, and /hu/" (1983:634).

Some fifteen or so examples of this phenomenon are presented, more or less one for each possible combination of initial vowel and following requisite glottalized/deaspirated consonant. Of interest in these examples, which if taken at face value unambiguously demonstrate the phenomenon as quoted above, is the definitely ambiguous, or at least non-committal, rendering of phonemicization and "official" word forms. While the body of the dictionary lists invariably the forms with h, this section gives examples such as the following:

/ʔaπeeraa/ [ʔap'ɛ:ra:] → /haπeeraa/ [a̯p'ɛ:ra: → ha̯p'ɛ:ra:] (あひる)

No explanation is given of the apparently competing phonemicizations; furthermore, the intent behind the right arrows is left unstated, allowing us to assume some kind of synchronic rule or

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[31]Shimabukuro (2002:207) views the items excluded from initial aspiration as reflecting original first-syllable vowel length, which is realized as accent in modern surface forms; the segmental difference in initial consonant follows from original length blocking the aspiration process. Curry (1990:14–15), following Martin 1987 (247), came to a similar conclusion regarding underlying vowel length being reflected in accent developments, but failed to note the segmental ramifications thereof. This issue is further discussed in 2.2.2.2.5.

[32]The auditory impression of these "aspirated/devoiced" syllables (NHOD, listings for hap'ee/ra\a 'duck', ha/t'aaru\N 'to hit [target]', ha/k'iiru\N 'to open', etc.) is that the initial, devoiced syllables are so devoiced as to be very nearly inaudible except to the most scrutinizing of listeners.

derivation process, though perhaps nothing more than a statement of correspondence (or, in the case of [ą̥p'ɛ:ra: → hą̥p'ɛra:], a presentation of alternate or competing forms) is intended.

2.1.2 Medial glottalization/deaspiration

A deaspiration process (or perhaps an aspiration constraint) affecting medial voiceless consonants in Nakijin is apparently an automatic, rather surface phenomenon. Martin (1987:363) notes, for example, that "a voiceless obstruent is always unaspirated when medial within a morpheme." Nakasone on this subject states that "aside from compounds and newly borrowed words, in medial position all [voiceless obstruents] have deaspirated" (1983:633).

Of interest here is the fact that the medial deaspiration (or aspiration constraint) would feed the devoicing (or rather, devoicing plus h excression) process discussed above. Attitudes about the nativeness of the medial aspiration constraints and vowel devoicing with h growth—that is, notions of how compelling it is to have unaspirated segments medially, and to have in turn initial hV̥ when a voiceless deaspirated obstruent follows—may have some connection to separating original Nakijin forms from relatively new additions to Nakijin. That is, if new items are not subject to regular medial deaspiration, the presence or lack of this is perhaps a good diagnostic device; similarly, occurrence or non-occurrence of initial hV̥ might help separate native Nk from other items. If however, both processes are of fairly recent provenance, and affect (or, rather, are found in) items universally, then neither will prove to be of much use in classifying items for nativeness. Some discussion of the presence of contrastive evidence for this phenomenon will be noted below in 2.2.2.2.4.

2.1.3 Vowel lengthening

The vowel-lengthening tendency of Nakijin is one of the first interesting features of the language to strike the observer.[33] Nakasone (1983:633) presents a taxonomy of the issue, with multiple examples, describing it as a "tendency for the vowels of the second and fourth

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[33]Curry 1990, in fact, was in many ways motivated by notice of this very phenomenon.

syllables to lengthen." He notes that the vowel a demonstrates the greatest tendency to lengthen, followed by u and i, and that when the syllable in question is the only accented syllable in the word, all a, u, and i show similar tendencies to lengthen.[34] Many examples are cited, including extravagant verbal structures such as pha/t'aarak'uu\na ('work [negative imperative]').

Martin presents the issue of vowel lengthening in conjunction with hints about its correlation with accent types (Martin 1987:262, Curry 1990:2) It is worth noting that what both Nakasone 1983 and Curry 1990 (and others) term "vowel lengthening" is referred to as "conflation" by Martin.

Curry 1990, building on the inspiration of Martin's succinct discussion, examined in comparative depth the accent-lengthening correlation in certain Nakijin nouns. That pitch issues and vowel length interact in a complex fashion is perhaps the best (briefest and least incomprehensible) way to sum up the conclusions of Curry 1990; specifically, the basic positional (second and fourth syllables) and segmental (e.g., the strong tendency of the vowel a to lengthen) factors of Nakasone account for much lengthening, while the presence of high pitch ('accented syllables") unrelated to historical accent seems to underlie other examples of the phenomenon. Lawrence 1990 and Shimabukuro 2002 give this aspect of Nakijin phonology a far more complete and elegant treatment than those attempted by this author; where accent, pitch, and lengthening are crucial to reconstructive accuracy the current work draws on the work of these scholars.

2.1.4 Accent and Pitch

In this section we will briefly address the accent system of Nakijin, and the various ways in which accent and pitch assignment are manifested. Accent and pitch are related to a

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[34]As Lawrence aptly notes (1990:53), "tendency to lengthen" here must be taken to refer not to the actual duration of the long vowel, but rather the frequency with which such vowels are found to lengthen.

fair degree to the Nakijin-distinctive behavior of vowel-lengthening, discussed elsewhere; the issues involved in those interactions are considered in 2.2.2.2.1. As mentioned previously (on numerous occasions), Nakijin accent is fairly complex and has been the subject of numerous studies and descriptive exercises. Martin, Lawrence, Shimabukuro and other keen observers have done a great deal of work in this, and we rely heavily on their insights for the description offered here. In terms of accent history, there have been numerous changes documented for Nakijin (Shimabukuro 2002); that is, the accent patterns and actualizations have not themselves been stable over time, but as a system distinct from the systems of other dialects, we presume it has maintained its identity, at least insofar as Nakijin can be identified as Nakijin over time (Hirayama 1968:79). We shall here discuss accent for nouns, verbs, and adjectives not really as an analysis of historical development,[35] but rather as a taxonomy, so that references made to accent in the current work will be accessible. We have, though, occasionally referenced accentual developments over time, particularly when relevant to changes in segmental phonology.

Nakijin accent for nouns is more complex than that for verbs or adjectives, very likely, as Martin points out (1987:264), because verbal and adjectival structures can be traced back to compounding operations that tended to level out distinctions. In Nakijin nouns, both register (pitch level) and locus (place of a fall in pitch) are necessary to fully account for the system, but much of the descriptive discussion of various accent/pitch phenomena in Nakijin seems to make little distinction between high pitch and accent. In most of Nakasone 1983, for example, accent (アクセント [akusento]) seems to refer to the presence of high pitch in a word, without making reference to whether or not there is a distinctive fall in pitch that makes the word "accented" or "tonic" in the sense that either Martin or Shimabukuro would describe it. In this work we have used the term "accent" much as Nakasone does, to refer to areas of high pitch,

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[35]For this, see Shimabukuro 2002.

but have employed "accented" and "unaccented" (or, "tonic" and "atonic") to distinguish items having a distinctive fall from those lacking one.

Nouns in Nakijin fall into three types, labelled type A, B, and C by Martin (1987:363), nomenclature that has been echoed in a number of works since. Type A is high register atonic, and has a surface contour with a plateau of high pitch and predictable low pitch on initial and/or final syllables of items that are sufficiently long (two or more syllables). That is, type A patterns as follows, on a mora-by-mora basis, with syllable boundaries as indicated by periods:[36]

HH L.HH L.HH.L(L), etc.

Type B is low register atonic, characterized by a spreading initial low and a predictable final high pitch mora (rather than syllable)[37] in shorter items (one or two syllable[s]) or final syllable in longer items (three or more syllables) that gets shifted to any postpositions that might be added to the items. That is, the patterns develop in this fashion:

LH L.LH L.L(L).H(H), etc.

Type C is termed "penultimate accent" by Shimabukuro and features a high-low contour on the last two morae of items of this type; for longer items (in practice, these are mostly disyllabic items) there is an initial low that spreads to cover any morae preceding the final two. The type C items we have considered in the current study have the following patterns:

H.L(L) L(L).HL

Martin (1987) has suggested, and Shimabukuro's research (2002) has borne out, that type C is related to underlying length, as we have discussed elsewhere, and to which generalization we

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[36]L and H in these schemas represent [L]ow and [H]igh pitch. Morae in parentheses indicate variability in the mora-per-syllable count across the lexicon (rather than in particular individual items). In Nakasone 1983 (as well as other works) citations of some type C items have a parenthesized mora that appears when certain postpositions are added to the item. For example, the word 'boat' is listed as /phu\ni(i); in isolation it is /phu\ni, but when nu '[subject marker]' is added, it becomes /phu\nii nu.

[37]Shimabukuro (2002:180) points out that the TBU (tone-bearing unit) of Nakijin is the mora, as long syllables (two-plus morae) can be split between high and low pitch.

will shortly add some additional comments. In compound items and items of longer than four syllables, where compounding is usually a factor, accent patterns can be considerably complex; as Sakimura 1985 treats such items in depth and Nakasone 1983 presents examples of all possible pitch patterns as well, we will not treat them here except to mention that accentually complex longer items exist and that they have been treated more fully elsewhere.[38]

Below we present a brief list of nouns of various lengths in each accent pattern:[39, 40]

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[38]Just by way of example, a brief look at adjectives that involve a compounding process is instructive. (We could have equally well chosen verbs; the point is to begin such a discussion from the relatively uncomplicated confines of the two-way distinction in such items; we have included compounds that include type C noun elements, though).

Nakijin compounded adjective accent

A+A	khu/c'iqubu(u)\seN 'slow of speech'	LHHH(H)LL	khu/c'ii + qu/buuse\N
B+A	c'iraaqu/buu\seN 'heavy-faced'	LLLLHHL	c'ira/a + qu/buuse\N
C+A	duuqu/buu\seN 'heavy-bodied'	LLLHHLL	/du\u + qu/buuse\N
A+B	/qjuukhusaa\seN 'fishy'	HHHHHLL	/qjuu\ + khusaa/se\N
B+B	c'imugu/ruu\seN 'pitiable'	LLLHHLL	c'imu/u +guru(u)/se\N
C+B	/qi\c'ikhusaaseN 'bad-breathed'	HLLLLLL	/qi\c'i + khusaa/se\N

What seems to obtain in compounding situations is a deferential hierarchy of accent types. That is, high register participants tend to retain some basic high register contour characteristics (their central high plateau, in other words), even in some cases to spread their contours over the entire compound, and low register participants tend to give up their low register contour characteristics (their basic LH shape) when in combination with high register items. The type C subclass of low register nouns does seem to dominate when in combination with another low register item, keeping its distinctive accent fall while the type B item never asserts its non-distinctive final rise.

[39]Lists in this section are adapted from Martin (1987:263), and Nakasone (1983:651–661).

[40]For all three lists in this section, information is presented as follows: item, gloss, accent contour in Martin notation (a transparent adaptation of the moraic circles used in many Japanese works, including Nakasone 1983; H is to be understood as the filled circle ●, L as ○), historical accent class (for nouns), and pRk form or other comparative form, and Shuri cognate (when available) with accent notation per OGJ.

LIST (3): Nakijin noun accent patterns

monosyllables[41]

A	/c'ii 'blood'	HH	1.1	*ti	cii 1
A	/p'ii 'day'	HH	1.2	*pi	hwii 1
B	p'i/i 'fire'	LH	1.3	*pi	hwii 0
C	/p'i\i 'water pipe'	HL	1.3	J hi	hwiizaa 0

disyllables

A	pha/naa 'nose'	LHH[42]	2.1	*pa'na	hana 1
A	pha/t'aa 'flag'	LHH	2.2	J hata	hata 1
B	jama/a 'mountain'	LLH	2.3	J yama	jama 0
C	/na\haa[43] 'inside'	HLL	2.4	J naka	naaha 0
C	/hu\k'i(i) 'bucket'	HLL	2.5	*woke	wuuki 0
C	khaa/sa\a 'sore'	LLHL	2.1	J kasa	kasa 0
C	mii/du\i 'hen'	LLHL	3.7	J mendori	miidui 0

trisyllables

A	kha/t'aa\c'i 'shape'	LHHL	3.1	J katati	kataci 1
A	khu/saa\bi 'wedge'	LHHL	3.2	J kusabi	kusabi 1
A	khu/gaa\ni 'gold'	LHHL	3.3	J kogane	kugani 1
B	kuyu/mii 'calendar'	LLHH	3.4[44]	J koyomi	kujumi 0
B	qinu/c'ii 'life'	LLHH	3.5	J inoti	qinuci 1[45]
B	husaa/zi 'rabbit'	LLLH	3.6	J usagi	qusazi 0
B	khabuu/t'u 'helmet'	LLLH	3.7	J kabuto	kabutu 0
C[46]	/c'i\gaa 'measure'	HLL	3.7		

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[41]Mono-, di-, and tri-, etc. in this list should be understood to represent modern Nakijin forms. The counts refer to syllables rather than morae, though the pitch patterns are done by mora; note that mora counts can vary greatly according to lengthening and/or stretching, with historical disyllables having as many as four morae, for example. Due to segmental developments such as consonant loss and assimilation, syllable counts for many items have changed through history. Take, for example, pRk *kawa > Nk /haa, where loss of the medial *w has resulted in a monosyllabic type A contour for a historical accent class 2.2 item.

[42]Martin (1987) records this item and the next as HHH.

[43]Martin (1987) records this item as /na\ha(a), as does Nakasone (1983) in his list of accent patterns; it is /na\haa (that is, without length variation in the second syllable) in the main dictionary listing of Nakasone 1983.

[44]Some items associated with this historical class end up differently: thak'aa/ra 'treasure' LLLH (type B) and phak'aa/maa 'split skirt' LLLHH (type B) are the two other attested patterns.

[45]In OGJ, this item is marked as literary. The colloquial item is nuci 0.

[46]Martin (1987) cites /c'i\gaa 'measure' as a type C trisyllable of historical class 3.7. It is unclear to what other forms this corresponds, or why it is cited as a trisyllable. Japanese masu and Shuri maSi in this meaning both belong to a different etymological complex. The

Brief though these lists are, a few useful observations can be made regarding them. Perhaps of most use to the current study is the observation that as a general rule, Nakijin high register atonics correspond (perhaps not surprisingly) to Shuri high register items (OGJ's "1", which have an initial high, followed by a drop to low pitch to the end of words), while Nakijin low register atonics correspond to the Shuri low register (OGJ's "0", which are manifested as a low, level pitch contour). There is a split, naturally, where the Nakijin type C is found: these correspond to the Shuri low register, but the accented syllables correspond with few exceptions to long-vowel syllables in Shuri; from this observation, Shimabukuro (2002:203) reconstructs original length, with a Nakijin-specific rule that changes this length to accent. As we have pointed out elsewhere (2.2.2.2.2) there is also for certain words of this type a gemination of second-syllable initial consonants.

From a historical perspective, we can note that historical accent classes have undergone a number of mergers and the occasional split. For Nakijin monosyllables, class 1.1 yields type A, class 1.2 and some 1.3 type B, and the remaining 1.3, type C. This is perhaps not surprising given the Shuri correspondence pattern that links type C to low register, though the specific motivation for the split in class 1.3 does not readily present itself. Based on evidence for changes in other items, we can guess that underlying items of the type /p'i\i is something with a long vowel (an original long monosyllable, but there seems to be little ready comparative evidence for this.) Similarly, we have a fairly clean set of mergers for Nakijin trisyllables, with classes 3.1, 3.2, and 3.3 yielding high atonic type A, while 3.4, 3.5, 3.6 and some 3.7 yield low atonic type B. The type C item cited in this list is a compound, but apparently of sufficient antiquity to be treated as a historical trisyllable of class 3.7; in the Ryūkyūan context the length in the first syllable may reflect a lengthened monosyllable mii (< *me 'female') transparently participating in the compound. In any case, the length in the first syllable of mii/du\i, and the hard length (dui < *tori 'bird', with *r loss) means we have two modern Nakijin long syllables, a situation unlike anything else in our trisyllable list here, and

no doubt the source of the interesting accentuation of the item; the contour is the same as certain type C disyllables that we will look at shortly.

For Nakijin disyllables, we see a similarly interesting set of developments from the historical classes: 2.1 and 2.2 yield Nakijin type A, 2.3 yields type B, and 2.4 and 2.5, type C. The atypically shaped khaa/sa\a is something of a puzzle, requiring a split in historical 2.1, but its patterning is shared by other four-mora items: saa/ru\u 'monkey' and muu/ci\i 'mochi [rice confection]', both historic disyllables, and mii/du\i 'hen', historically a trisyllable. There are Shuri correspondents of these items with first-syllable length (saaru 0, muucii 0[47]) although it remains unclear why these all should surface in Nakijin in a way different from typical type C items. It is possible that vowel length in class 2.1, or perhaps underlying older forms with two long vowel syllables, yields items of the shape khaa/sa\a, while length in class 2.4 and 2.5, in a single syllable, yields the somewhat more widely attested contour seen in /na\haa. That is, *CVVCVV leads to items of the khaa/sa\a shape, while *CVVCV leads to /na\haa types. That these forms are identical to the CVVCVV shape of mii/du\i and share the same accentuation is surely not coincidental.

Having presented the above taxonomy for Nakijin nouns, we must also note that there are several accent doublets in Nakijin. We list some representative items here (last column is Shuri forms):

LIST (4): accent doublets

hi/c'ii\zi~hic'ii/zi 'Sheep'[48]	J hituzi	hwiçizi 1
si/gaa\t'a~sigaa/t'aa 'form'	J sugata	Sigata 1
hu/sii~husa/a 'behind'	J kosi	kusi 1~kusjaa 0[49]
/si\baa~suba/a 'lip, tongue'	pRk *suba	Siba 0

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other items of historical class 3.7 listed in Martin's implied C category are all type B.

[47]This item is a bit of a stretch; the normal word for 'mochi' is Sr muci 1. The item muucii refers to a festival that involves preparation of mochi. We suspect this is actually the correct Shuri term, and that muci, with accentuation that does not correspond to the Nakijin item, may be a Japanese loan.

[48]That is, the Chinese zodiac term.

[49]Sr kusi 'back [body part]' is semantically distinct from kusjaa 'behind'.

All the items on this list save the last pair represent high atonic (type A) versus low atonic (type B) varieties of the same segmental item, although the vowel quality in the two variants hu/sii~husa/a 'behind' differs somewhat more dramatically than anything in the other items. For /si\baa~suba/a, the first item is tonic (penultimate accent, type C), and the second low atonic (type B).

Certainly the fact that hi/c'ii\zi~hic'ii/zi is a loan item (see 4.3.3) has some connection to the accent variation. In Shuri, the corresponding item hwiçizi is accented, with a contour quite similar to hi/c'ii\zi; we presume on this basis that the hic'ii/zi form is the more historically correct Nakijin form,[50] at least insofar as historical correctness can be ascertained for a loan item,[51] (though the lack of stretching in the high pitch final syllable of hic'ii/zi is atypical). Similar to the 'Sheep' pair, the correspondence between si/gaa\t'a and sigaa/t'aa is one of accented versus unaccented, with the corresponding Shuri form being accented again as well. However, in this case the si/gaa\t'a variant is the primary listing in Nakasone 1983. Interestingly, the historical accent patterns of the items corresponding to 'Sheep' (3.1) and 'form' (3.5) are different; following the connections cited by Shimabukuro (2002:186), 'Sheep' should be Nk phi/c'ii\zi,[52] while 'form' should be sigaa/t'aa, exactly the opposite of what we have suggested based on comparing the Nakijin forms with the Shuri form here. Perhaps the

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[50]It is also the primary term in Nakasone 1983. However, the length in the second-syllable for hic'ii/zi seems to run counter to the tendency of non-high pitch syllables in i and u to stay short (though length there is perfectly normal for hi/c'ii\zi, with accent). Perhaps the two competing forms have compromised in the area of segmental shape, despite the lingering accent discrepancy.

[51]Indeed, the historical changes that are attested in a documented loan can give excellent clues about the relative date of the borrowing, at least when it can be shown they are actual changes as opposed to apt adjustment on the part of borrowers who are aware of the way their language tends to treat words from others.

[52]Nakijin ph would represent a historically correct initial reflex of pRk *p.

alternate forms are late conscious reactions on the part of speakers who recognize loans and look askance at their having appropriate accentuation.[53]

For /si\baa~suba/a 'lip, tongue' we have again an accented-unaccented pair, with the added difference in vocalization in the first syllable. The sequence *su is correctly reflected in the si of /si\baa, unless the u reflex in suba/a is the result of an optional or now-delinquent labial conditioning environment for retention of the u. The accentuation of /si\baa also implies a long original first syllable, though unlike many other examples of this type, it has a Shuri correspondent Siba with a short rather than long vowel; it is however unaccented like other correspondents of type C Nakijin items.[54] The u in Nk suba/a is, however, more troubling than any accentual variation, as the only other dialects with u reflexes for pRk *suba are in Kikai (unless we count Taketomi sjuba); nor is there any convenient Japanese analog for the Ryūkyūan forms. Short of suba/a being an item with an as yet unnoted blocking environment for *u-fronting, or suggesting it represents a non-*u-fronted survivor of an earlier stage of Nakijin, there seems to be no way to account for it.

Last, hu/sii~husa/a 'behind', both unaccented, probably are variants of the same item, husa/a with a fused postposition of some sort that forces the regular final pitch rise one mora further to the right. There is a similar correspondence in Shuri kusi~kusjaa; the palatalized latter Sr item suggests the postposition in question is Sr -ja/Nk -ja, a topic marker. Alternatively, the 'behind' items, in fact, while synonyms in Nakijin, may be separate words that have converged semantically, with hu/sii representing an extension of hu/sii 'back [body part]'; certainly the Shuri equivalents seem to hint at this.

Finally on the matter of accent, there is a pattern of semantic derivation in Nakijin that utilizes accent as a morphophonemic marker, or at least seems to. In this pattern, which is

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[53]As we lack the tools to examine speaker motivation in this issue, we leave the idea as merely a suggestion here.

[54]However, Shuri atonics can correspond to Nakijin type B items as well.

roughly analogous to the agentive suffix -er as in English 'worker',[55] items of accent type A or B carrying the base meaning shift to type C patterning, with the shift evidently carrying the load of semantic derivation. However, though the accent pattern in such words corresponds to type C accentuation in nouns, it is not clear if these derived items belong to that category; there is a group of words semantically related to the accentually derived ones here that utilize a suffix -jaa[56] (k'wee/ja\a 'fat guy', p'izaa/ja\a 'left-handed person'; both are type C patterning) in much the same way as the accent shift. If both are indeed the same basic derivation, then the accent contour is due to the effects of compounding rather than some amount of inherent type C quality to the pattern itself. In any case, as the segmental realization of the terms is often identical to the base forms of the words in question, it is clear that synchronically at least the accent variation is crucial to distinguishing the two forms.[57,58] Some examples of accent-based agent derivation include:

LIST (5): Accent as a derivational marker

k'uru/maa 'cart'	k'uru/ma\a 'rickshaw man'
qamee/ri\k'aa 'America'	qameeri/k'a\a 'American'
qi/naa\k'a 'countryside'	qi/naak'a\a 'bumpkin'[59]
thak'aa-~thaa- 'tall'[60]	tha/k'a\a, thak'a/a 'tall guy'

Accounting for these forms as a suffixal reduction requires a derivation that both eliminates the glide of -/ja\a, and reduces the vowel sequence to a phonotactically regular length; in this analysis, kuru/maa + /ja\a would yield kuru/ma\a in that way, although glide loss is not

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[55]As well as, for that matter, to the long a syllables in Japanese naitaa 'nighter = night [baseball] game', arubaitaa 'part-time worker', and others.

[56]The suffix may be related to ja/a 'house'; it is given a separate entry in Nakasone (1983:570). Thorpe (1983:261) has *wa , however, a diminutive suffix; this would surface as ja(a) if appended to an *i- or *e-final item.

[57]Though syntactic context will naturally play a role as well, we presume.

[58]If suffixing is the ultimate origin of items like k'uru/ma\a, there would have to be some sort of contraction that works to eliminate the glide of -/ja\a and reduce the total number of vowels to a manageable figure.

[59]Also the somewhat more transparent qinaa/k'aNc'u\u 'country person'.

[60]The adjective forms are suffixed in -/se\N.

otherwise a normally attested change.[61] The synchronic recognition of a -jaa suffix in Nakijin may not actually be at issue here: if pRk *-wa 'diminutive suffix' is the actual form underlying such things as k'uru/ma\a, then no loss of the segment j is necessary, only routine medial loss of *w.

Next, we turn our attention to accent in Nakijin verbs and adjectives. For these, as Martin (1987:264) points out, only two accent types are necessary. All examples except certain longer compounds, which can have quite complex structures (Sakimura 1985:106ff), fall into either type A or B, with the types manifested in contours at least superficially similar to those of nouns of the same types. Adjectives in Nakijin have a formant -seN, which can be split between high and low pitch (especially in shorter items) though the final N is always low. (That is, adjectives always end in either -\seN or -se\N.) Verbs in the citation form end in a formant -N, which can carry high pitch either as a mora or as part of a final syllable in shorter verbs, whereas in longer ones it is consistently (non-distinctively) low. (That is, ...V/N#, .../VN#, and ...V\N are found.) For the various forms of verbs (some are mentioned in 2.2.2.2.2, following the descriptions in Nakasone [1983:663ff]), accent contours vary somewhat from one form to another; the seven basic forms of huzu/N 'to row', for example, have three separate patterns among them.[62] Note that we could go into considerable detail in the discussion of accent in verbs; for example, comparison of citation forms with uncompounded

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[61]What is unclear is why the suffix would remain in examples such as p'izaa/ja\a (presumably from *pidari + ja). That *r-loss is involved in this last item may play a role; we must also note that the syllable boundary before the suffix had to remain in place at least long enough to allow rhythmic lengthening of the second syllable.

[62]The seven basic forms are as follows:

intentional	huga/a
irrealis	hugaa-/ (affixes will carry the high pitch)
substantive	hugu/u (used adnominally)
realis 1	hugii-/
realis 2	huge/e-
imperative 1	/hu\gi(i)(-) (second [i] varies depending on affixation)
imperative 2	huge/e

The imperative 1 form, with initial accent, has type C patterning.

forms (such as the stem form) would yield insights into both the actual underlying accent of the verbs as well as the process by which compounding affects the overall contour. As our purposes here are somewhat more modest, we reserve such a discussion to subsequent studies.

We present here a representative sampling of accent in verbs, with comments following. (The final column is, as before, equivalent Shuri forms.)

LIST (6): Nakijin verb accent patterns

monosyllables				
A	/naN 'to sound'	HH	J naru	najuN 1
A	/suN 'to do'	HH	J suru	sjuN 1
B	na/N 'to become'	LH	J naru	najuN 0
B	su/N 'to shave'	LH	J soru	sujuN 0
disyllables				
A	thu/biN 'to fly'	LHH	J tobu	tubuN 1
A	na/c'uN 'to cry'	LHH	*naki	nacuN 1
A	/hooru\N 'to buy'	HHHL	J kau	koojuN 1
A	/muiru\N 'to burn'	HHHL	*mUje	meejuN 1
B	numi/N 'to drink'	LLH	*nomi	nunuN 0
B	hac'u/N 'to write'	LLH	J kaku	kacuN 0
B	bui/ru\N 'to bark'[63]	LLHL	J hoeru	
B	thuu/ru\N 'to pass'	LLHL	J tooru	tuujuN 0
trisyllables				
A	kha/zaaru\N 'to decorate'	LHHHL	J kazaru	kaZajuN 1
A	ha/siibi\N 'to play'	LHHHL	*asUbi	qasibiN 1
A	pha/ziimi\N 'to begin'	LHHHL	J hazimeru	hazimijuN 1
B	thanu/mi\N 'to request'[64]	LLLHL	J tanomu	tanunuN 0
B	siraa/bi\N 'to check'	LLLHL	J siraberu	sirabijuN 0

For the monosyllabic verbs, the situation is clear enough: high register accentuation yields two-mora all-high contours, while low register places high pitch on the final available mora. We note that Shuri correspondents for most of these short verbs are actually disyllables, due to differing implementation of the historical compounding that underlies modern verbs. As the details of these derivations necessitate getting into some rather intricate morphological territory, we here note simply that a process of r-loss related to a following j, together with some vowel truncations to insure compliance with Nakijin phonotactics, has led to the forms

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[63]Martin (1987:264) has hui/ru\N for this item.

[64]Martin (1964:264) has thanuu/mi\N for this item.

we see, and that these do not in any case greatly affect the points to be made about accentuation. In addition, we note that there is a regular correspondence of Nakijin and Shuri accent types in these verbs despite the differentiation in syllable count, with the Nk type A lining up with Sr 1, and type B with Sr 0, as expected.

For disyllables, thu/biN 'to fly' and na/c'uN 'to cry' parallel more or less the type A nouns of the same mora contour. For the two type A verbs with long-vowel initial syllables, /hooru\N 'to buy' and /muiru\N 'to burn', however, the initial low (which is non-distinctive) seems to be precluded from applying to only the first mora of the long syllable. Why this is the case is unclear, as certainly a *fall* in pitch will readily occur in the middle of a long syllable; note that had /muiru\N (< mwoyey < PJ *modaCi), for example, remained a trisyllabic verb instead of losing the intervocalic consonant between the first two (original) syllables, its modern shape would be CV/CVVCV\N, a modern type A trisyllable shape. That is, segmental change (in this case a loss) has led to a redistribution of accent for the item; the syllable collapse, we should note, seems to have occurred before the establishment of the eventual overall accent contour. A number of items with such consonant loss have patterns identical to these two verbs:

LIST (7): Accent spread in high-register verbs[65]

A	/haaga\N 'to get bright'	HHHL	J kagari[-bi][66]	[tira]cagajuN 1[67]
A	/quiru\N 'to plant'	HHHL	*Uwe	qwiijuN 1
A	/p'iQt'u\N 'to take over'	HHHL	J hikitoru	hwicitujuN 1
A	/mooru\N 'to dance'	HHHL	J mau[68]	moojuN 1
A	/qoose\N 'unripe'[69]	HHHL	*aU[70]	qoosaN 1 'blue'
A	/haase\N 'bright'	HHHL	J aka[ru]-	qaka- 1 (?)

Similarly, type B disyllabic verbs have the same basic mora and pitch contour as nouns of the same class. And, as with nouns and monosyllabic verbs, there is a clean correlation between Nakijin type A and B accent and Shuri 1 and 0, respectively. Nakijin bui/ru\N 'to bark' and thuu/ru\N 'to pass' have, in contrast to the other type B disyllables, accent contours that correspond to type B trisyllables; as historically these two are trisyllables (bui/ru\N < *podaCi,[71] thuu/ru\N < *topori-) this is a reasonable state of affairs.

For trisyllables, no surprises present themselves, although it is of interest that, somewhat in contrast to the type B high-pitched final mora of disyllables (which cleanly paralleled disyllabic type B nouns), for these verbs the predictable word-final high pitch lands on the mora before the final -N of the verb. That -N can carry pitch is demonstrated by the disyllabic type B items, but for three-syllable and longer verbs (cf. quduru/c'u\N 'to be

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[65]There are a couple of adjectives listed as well; the principles involved are essentially the same as those affecting the verbs.

[66]The Japanese term is 'bonfire', the first element of which seems to be related semantically to the Nakijin term (J -bi < hi is 'fire'). J kagayaku 'to shine, glimmer' is probably related as well.

[67]The Shuri term is 'to shine brightly'.

[68]The lost consonant here is clear from traditional orthography, as well as comparative forms: Martin reconstructs mau < mafu < *mapa.

[69]Etymologically, this item is related to 'blue, green'. As much is indicated by the Shuri cognate, as well as the pRk form.

[70]The lost consonant is not found in pRk, but is apparent in Martin's PJ reconstruction: J ao < awo < *abo.

[71]The b initial is an odd reflex of *p, but is shared with several other Ryūkyūan dialects. The same phenomenon that yields voiced initials in several animal-connected words (pRk *Gani 'crab', *gara'su 'crow', for example) in the Ryūkyūs is no doubt present here as well, not to mention whatever underlies J buta 'pig'.

surprised'), that "final" high pitch is, rather, penultimate, if considered in terms of mora count. Noun trisyllables often spread this final high pitch across two (stretched) morae,[72] as in qinu/c'ii 'life'; the behavior of the verbs, then in retaining a (non-distinctive) fall is reminiscent of adjectives, which apparently never have high pitch on the final N of adjective formant -seN. Interestingly, deverbals associated with low register verbs seem to behave as normal low-register nouns: compare, for example, thanu/mi\N (B) 'to request' and thanu/mii (B) '[a] request'. As we mentioned before, the compounding process that underlies verb (citation) forms yields this sort of variation in the accent contours.

Turning now to adjectives, we see some interesting behavior, especially among shorter items, and especially among those that are short (or rather, have become short) due to changes in their segmental characteristics.[73] We present disyllabic[74] adjectives here:

LIST (8): Nakijin disyllable adjective accent patterns

A	/qoose\N 'unripe'	HHHL	*aU[75]	qoosaN 1
A	/haase\N 'bright'	HHHL	J aka[ru]-	qaka- 1 (?)
A	/miise\N 'new'	HHHL	*mii[76]	miisaN 1
A	/khuuse\N 'dense'	HHHL	J koi	Naha kuusaN[77]
A	/huuse\N 'small'	HHHL	J ko-	kuusaN 1
B	thuu/se\N 'far'	LLHL	J tooi	tuusaN 1
B?	/waQ\seN 'bad'	HHLL	J warui	waQsaN 0
B?	/jaQ\seN 'cheap'	HHLL	J yasui	jaQsaN 0

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[72]"Often spread the pitch over two morae" refers not to avoiding a drop within the two-mora sequence but rather the spreading of pitch over two morae in contrast to the syllable remaining one mora in length, as in garaa/si 'crow' or husaa/zi 'rabbit'.

[73]There are few shorter adjectives that are not the result of some kind of segmental reduction: Nakijin has a single-syllable adjective stem related to J ko- (< kwo) 'dense' (Nk /khuuse\N) and J ko- 'small' (Nk /huuse\N), but for yo- 'good', there is disyllabic stem jut'aa/se\N, and related to J na- 'not, does not exist' Nakijin has the (defective) verb nee/nu 'to not be'.

[74]The adjectival -seN formant means there are no monosyllabic adjective forms.

[75]The lost consonant is not found in pRk, but is apparent in Martin's PJ reconstruction: J ao < awo < *abo.

[76]A medial consonant for this item can be recovered from OJ niFi 'new'.

[77]Shuri has a non-cognate form in this meaning, katasaN 1. The Naha form is cited in Martin 1987 (832).

What should be clear from this list is that the accent situation for disyllable adjectives is far from clear, at least as far as the low-register items are concerned. For the type A items, /qoose\N 'unripe', /haase\N 'bright', and /miise\N 'new', we see the expected plateau of high pitch with the non-distinctive final low, and as in the case of verbs such as /muiru\N 'to burn', the high plateau has spread to subsume the initial mora, which we would expect to be low had the segmental integrity of the stem been maintained.

For /khuuse\N 'dense' and /huuse\N 'small' on the other hand, no consonant loss factors have contributed to the first syllable length; as alluded to elsewhere, these are rare in their monosyllabicity. Despite these unique origins, /khuuse\N and /huuse\N share a perfectly inoffensive mora and pitch shape for disyllable Nakijin adjectives. Why this should be the case is not clear. Possibly the original stems are inherently long, or the adjective stems themselves have been styled as free-standing monosyllabic items and lengthened according to the regular occurrence of that phenomenon in the Ryūkyūan languages. Alternatively, these adjectives could have been analogically altered to conform to a perceived "short adjective" template—all two-syllable adjectives in Nakijin have a heavy syllable plus -seN structure (CVVseN or CVQseN)—independent of any underlying structural length.

The type B items are likewise something of a mixed bag in the variance of pitch patterns from what might be expected. The first item cited, thuu/se\N 'far' has a low-register pitch profile, but nevertheless is seen to correspond to a high-register Shuri item. The expected pitch contour for this item, assuming a regular application of high-register patterning, would be /thuuse\N, which it is not. What we do see in the extant form, however, is a shifting of accent off the half-syllable (single mora) that would have constituted an independent high pitch carrying syllable had the medial consonant of the stem not been lost. In this respect, thuu/se\N is doing something very similar notionally, though with dramatically different actualization, to the accent shift seen in /qoose\N 'unripe' and similar items. That is, the apparent inability of the dependent mora (half-syllable) to carry independent high pitch in that

word resulted in a spread over the entire syllable; to eliminate the same offending half-syllable high pitch in thuu/se\N, the accent retreated off the syllable entirely.

For the other two type B adjectives, /waQ\seN 'bad' and /jaQ\seN 'cheap', likely a similar explanation could be made to work, although why the penultimacy for the penultimate low typical of, for example, longer type B adjectives and verbs would here be calculated in terms of syllables rather than morae is not clear. The situation becomes further muddled when we look at the other five examples of adjectives of this shape in Nakijin (for ready reference purposes we have repeated our previous two):

LIST (9): CVQseN adjectives in Nakijin

B?	/waQ\seN 'bad'	HHLL	J warui	waQsaN 0
B?	/jaQ\seN 'cheap'	HHLL	J yasui	jaQsaN 0
B?	/p'iQ\seN 'thin'	HHLL	*pisu~*pesu	hwiQsaN 0
	phisi/se\N			
B?	/phuQ\seN 'want'	HHLL	J hosii	husjaN 0
B?	/quQ\seN 'happy'	HHLL	J uresii	quQsjaN 0
B?	/qaQ\seN 'shallow'	HHLL	J asai	qaQsaN 1
				qasasaN 1
B?	/gaQ\seN 'light'	HHLL	J karui	gaQsaN[78] 1
A?	ha/ruuse\N 'light'			

That all these adjectives represent the same surface pitch pattern is amply apparent; that they all share this pattern due to fundamental similarities of segmental and accentual structure is most assuredly not. We have termed these adjectives type B on the basis of Martin's implied categorizations (1987:264), and certainly for the items which correspond to Shuri low-register (0) items, this is an apt classification. However, the specific mechanism by which the surface pitch pattern is realized remains unclear. We do have a hint that given the right circumstances—namely a lack of the segmental alterations (vowel loss and assimilation) that leads to the modern forms, all of which involve either -sVs- or -rVs- yielding -Qs-—these adjectives would yield proper (if longer) type B patterning, as is demonstrated in the alternate form phisi/se\N 'thin' which has the expected spreading initial low and high penultimate

[78]In Shuri, an alternate form of this adjective, kaQsaN, refers to a figurative lightness, as in a light illness, while gaQsaN refers to weight.

mora. However, as mentioned above, for adjectives of the CVQseN shape, syllables, rather than morae, seem to be the crucial unit for placing pitch, and while the waQ- of /waQ\seN, for example, does represent accurate pitch placement for type B if one counts syllables, it is unclear why the change in units should necessarily come about.

The situation becomes even murkier when we consider /qaQ\seN 'shallow' and /gaQ\seN 'light'. In contrast to virtually all other accent correspondences evidenced between Nakijin and Shuri, here the Nakijin forms, while sharing pitch contours with items that are indeed likely type B (despite the unconventional surface forms), correspond to Shuri high register (1) items. An odd bit of internal evidence, in fact, corroborates a high register identity for at least /gaQ\seN in the form of the very typically type A patterning related item ha/ruuse\N, 'light' which not only overtly features the assimilated r of related form /gaQ\seN, but also demonstrates a lengthened second syllable u that follows from the high pitch of the type A plateau on that syllable. (However, we are not prepared to claim typical Nakijin behavior for ha/ruuse\N, for a variety of reasons, though it does demonstrate—or has been made to demonstrate—certain typically Nakijin features.[79])

What we are left with, then, is a collapse of distinction between register types for the shortened versions of certain adjectives, namely those in which a vowel loss process has led to a medial assimilation of earlier r or s to the s of the formant -seN, resulting in a geminate -Qs-. These adjectives in this accent contour are strikingly reminiscent of the medially geminating words discussed in 2.2.2.2.2 (some of these adjectives were indeed mentioned there as being potentially considered to be medially geminating, though of course their segmentally derived Q is quite different from the metrically related Q of those nouns and verbs). That both these

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[79]The h of ha/ruuse\N could represent a regular reflex of an underlying *k, much as the second-syllable length makes this word look more or less native, but, the retained medial r, full vocalization of u, and the semantic distinction between this item and the related /gaQ\seN makes us suspect that despite all appearances, ha/ruuse\N is a borrowing into Nakijin, perhaps from Japanese.

adjectives and the nouns and verbs with rhythmic gemination are all low-register—save /qaQ\seN 'shallow' and /gaQ\seN 'light', which we have identified as possibly conforming to the /CVQ\CVX pattern for non-historical reasons—we may in words of this type have evidence of the need for a type C accentuation in words that are not nouns. That a need for the third register may indeed occur for verbs and adjectives in addition to nouns is in some contrast to the suggestions of most observers.

Unlike the utter hash that is the rule of the day for disyllable adjectives, once they attain three or more syllables, adjectives for the most part do exactly what well-behaved adjectives should do, absent any perturbations wrought by compounding issues. We present the following examples:

LIST (10): Nakijin trisyllable and longer adjective accent patterns

trisyllables

A	ha/c'i(i)se\N 'thick'	LH(H)HL	*atu-	qaçisaN 1
A	qa/k'aase\N 'red'	LHHHL	J aka	qakasaN 1
B	hac'i/se\N 'hot'	LLHL	*atu	qaçisaN 0
B	nagaa/se\N 'long'	LLLHL	*naga	nagasaN 0

longer adjectives

A	mu/c'iik'ase\N 'difficult'	LHHHHL	J muzukasii	muçikasjaN 1
B	phazi/k'a\seN 'ashamed'	LLHLL	J hazukasii	hazikasjaN 0
B	hut'uu/ru\seN 'horrible'	LLLHLL	J osoroshii	uturusjaN 0
B	namaagu/saa\seN 'fishy'	LLLLHHLL	J namagusai	

And having presented them, note that correspondences in accent type A and B to Shuri 1 and O are cleanly represented across the board, as is the very regular distinction in Nakijin contours themselves, with high register adjectives showing the non-distinctive initial and final low morae (as well as vowel lengthening in the metrically appropriate syllables affected by the presence of high pitch), and low register adjectives uniformly having their initial spreading low and penultimate non-distinctive high mora. There is still in adjectives of these longer lengths the need to adjust the metrical unit to account for the behavior: in the trisyllables, the mora is the unit, with the non-distinctive highs and lows occupying just single morae, but for the longer low register items, penultimate high pitch requires us to count back one syllable.

2.2 Nakijin historical phonology

Curry (1991b) used comparative and internal evidence to develop a sketch of the correspondences between Proto-Ryūkyūan (as reconstructed in Thorpe 1983) and Nakijin. The current section is a revision and expansion of that preliminary sketch.

2.2.1 Overview of Ryūkyūan phonology and Nakijin's place there

As noted above, Nakijin is a more or less typical Northern Okinawan dialect. Similar phonological developments are found in many nearby dialects, as well as in a few further afield; a quick glance at Thorpe's (1983) summary charts of historical phonological changes suffices to show that its phoneme inventory and modern word forms bear some similarity to those of a number of the Amami dialects and other locations in Northern Okinawa (following Thorpe 1983:29-109, in particular his summary tables of segmental developments).

Most descriptions of the classification in more general works on the overall dialect situation in the Ryūkyūs (and/or in Japan as a whole) vary slightly compared both to each other and to those offered in later works such as Thorpe 1983, and Serafim 1993, as well as the taxonomies implicitly accepted as basic background by Shimabukuro 2002. Hokama (1971:48-49) presents three overviews, as shown below. While we are unwilling to commit ourselves to any particular taxonomy, we offer the following by way of noting the general circumstances for the dialect under consideration here; however, it is not clear to what extent these schemas are meant to reflect historical relationships as opposed to synchronic typological affinities.

LIST (11): Ryūkyūan Language Classification (following Hokama 1971)

per Nakasone:[80]	Amami-Ōshima	Ōshima	
		Kikai	
		Tokunoshima	
		Okinoerabu	
		Yoron	
	Okinawa	Northern Okinawa (Nakijin)	
		Southern Okinawa	
	Miyako	Miyako	
		Irabu	
		Tarama	
	Yaeyama[81]		
per Uemura:[82]	Amami-Okinawa	Kikai	
		Amami Ōshima	Northern
			Southern
		Tokunoshima	
		Okinoerabu	Eastern
			Western
		Yoron	
		Northern Okinawa (Nakijin)	
		Southern Okinawa	
	Sakishima	Miyako	Miyako
			Irabu
			Tarama
		Yaeyama	
	Yonaguni		
per Hirayama:[83]	Amami-Okinawa	Amami	
		Okinawa	
	Sakishima	Miyako	
		Yaeyama	
		Yonaguni	

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[80]Adapted from Nakasone 1961.

[81]Apparently Yonaguni and Hateruma are to be understood as distinct dialects within the Yaeyama dialect division.

[82]Uemura Yukio. 1963. "Ryūkyū hōgen gaisetsu" {Outline of the Ryūkyūan dialects}, in OGJ.

[83]Adapted from Hirayama 1966.

We do note, however, that all three classification schemes listed here place, either overtly or implicitly, the dialects of Northern Okinawa (which includes Nakijin) with the dialects of Southern Okinawa (which includes the Shuri dialect we will be returning to as a possible source of loans for Nakijin).

Thorpe (1983:2-3) proposes a classification of the Ryūkyūan languages that makes a three-fold distinction, namely: Amami-Okinawa, Sakishima, and Yonaguni. These three main divisions have subcategories as noted in the following list.[84]

LIST (12): Ryūkyūan Language Classification (following Thorpe 1983)

Amami-Okinawa	North Amami	Kikai
		North Ōshima
		South Ōshima
		Tokunoshima
	South Amami-North Okinawa	Oki[no]erabu
		Yoron
		North Okinawa (Nakijin)
		Motobu
		Ieshima
		Izena, Iheya
		Kudaka
	Central and South Okinawa	Central Okinawa
		Kume, Aguni, Kerama
		South Okinawa
Sakishima	Miyako	North Miyako
		Ikema, Irabu
		South Miyako
		Tarama
	Yaeyama	Ishigaki
		Kobama, Aragusuku
		Hatoma, Kuroshima
		Iriomote
		Hateruma
	Taketomi	
Yonaguni		

[84]Thorpe notes (1983:3) that Yonaguni "may eventually be recognized as the modern descendant of an early Okinawa area dialect" but places it in its own separate division due to the inconclusiveness of available data.

Thorpe notes (1983:4) that some observers would accord "separate language status" to each of the divisions of the Amami-Okinawa group; Serafim (1993) lists Miyako and Yaeyama as separate languages, as noted above in 1.4. In addition, Serafim's observations about the extent of main island Japanese influence on northern Amami dialects tends to confirm a distinction between these and the rest of the Amami-Okinawa (i.e., northern Ryūkyūan) part of the Ryūkyūs; this is reflected in Thorpe's summary with somewhat more precision than the classification schemes of earlier scholars.[85] Presumably, Serafim's (1993:1) "Northern Ryūkyūan" subsumes the three "languages" of Thorpe; however, Shimabukuro (2003:contents) seems to accept a five-fold division in Ryūkyūan that has Okinawa as a unified subgroup: he refers to the Amami, Okinawa, Miyako, Yaeyama, and Yonaguni varieties of Ryūkyūan, including within Amami Ryūkyūan three dialects (Naze, Kametsu, and Kamishiro) and within Okinawa Ryūkyūan another three (Shuri, Nakijin, and Aguni). In Thorpe's classification, Naze and Kametsu would belong to North Amami, Kamishiro and Nakijin to South Amami-North Okinawa, and Shuri and Aguni to Central and South Okinawa. It is unclear whether Shimabukuro's divisions here are meant as anything other than a statement of general geographic and/or linguistic affinity, or whether they do indeed represent a rejection of Thorpe's divisions.

2.2.2 Historical changes from proto-Ryūkyūan to Nakijin

In order to account for the relationship of Nakijin surface forms to Thorpe's proto-Ryūkyūan forms[86] and the cognate relationship of Nakijin forms to forms from other dialects, a number of sound changes must be posited. In many cases the ordering of these changes is not

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[85]It is interesting that Nakasone, as both a native speaker of Nakijin and its most keen observer, would nonetheless not see fit in his classification to reflect either its fundamental differences from southern Okinawa or its affinity to southern Amami dialects.

[86]In general, we rely on Thorpe for reconstructed Proto-Ryūkyūan forms; when necessary we will refer to revisions by Serafim and Shimabukuro.

strictly clear except for pairs and small groups of rules, but the following accounts for the greater part of the historical development of Nakijin phonology.

2.2.2.1 Sound changes shared with other Ryūkyūan dialects

As noted previously, Nakijin is a fairly typical Ryūkyūan dialect in many of its features. The changes in this section are general Ryūkyūan developments that distinguish Nakijin and other Ryūkyūan languages from main island varieties of Japanese. Not all the changes listed affect all Ryūkyūan languages in the same way, however; they are, rather than pan-Ryūkyūan, generally Ryūkyūan.

2.2.2.1.1 Vowel Raising

As a general statement, Serafim (1993:2) notes a "wholesale vowel raising" in the Ryūkyūs of mid-vowels *e and *o to i (sometimes ï) and u respectively. In front vowels in particular, however, the situation is somewhat more complex, with *e moving to *ï, then to merger with reflexes of original *i in some areas, while in others *e raising forced a systematic rearrangement of the vowel system with i from *e displacing earlier *i, which moved to a more central articulation ï.[87] Likewise, some original *u in some dialects moved to a more central articulation, while some merged with u from *o.

In Nakijin, the situation is largely free from the complications seen in dialects with more large-scale changes, and can be described thus:

V[-high -low] > V[+high]

In raising, vowels maintain both their front/back features and non-round or round characteristics (though u is but minimally rounded). Here are a few examples, with pRk and Japanese forms for comparison:

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[87]Though the temporary effect of these raisings may have been a reduction in the vowel inventory of some dialects of Ryūkyūan, later diphthong levelling (see below, 2.2.2.1.6) served to create "new" e and o, albeit only as long vowels, though as Serafim notes [1993:2], these are shortened in some dialects. These "some" dialects include Nakijin, at least for a few words.

LIST (13): Vowel raising in Nakijin

mi/i	'eye'	*me	me
ha/zii	'wind'	*ka'ze	kaze
huzu/u	'last year'	*kozjo	kozo[88]
/hu\i	'voice'	*ko(w)e'	koe
khi/i	'tree'	*ke	ki
mi/zii	'water'	*mezu	mizu
/mu\hu(u)	'bridegroom'	*moko	muko

We note that in some cases, Nk i and u from raised *e and *o correspond to i and u in Japanese rather than the otherwise expected e and o. This is perhaps related to the Old Japanese distinction in i-, e- and o-like vowels (which is referenced again in 2.2.2.2.3);[89] there seems to be little connection between the older vowel distinctions and modern Nakijin forms, however, either in terms of the vowel reflexes or the aspiration distinctions to be discussed below. Note the following Nakijin i reflexes relatable to no less than four (five?) separate OJ vowels:

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[88]This term is an archaism in modern Japanese.

[89]"Extra" vowels in earlier Japanese are generally taken to refer to the kō-otsu (type A versus type B) distinction in certain vowels (yielding a total of eight vowels, rather than the five of modern Japanese) first noted in the philological treatments of Old Japanese texts by Hashimoto Shinkichi. Though the exact nature of this contrast remains a subject of some controversy—in some treatments it is a height distinction, in others roundness; other treatments appeal to palatalized versus non-palatalized vowels or a tense-lax distinction—it is nonetheless apparent for vowels i (≠ ï), e (≠ ë) and *o (≠ ö), at least in some environments. Traditionally the otsu vowels are transcribed with umlauts to distinguish them from kō vowels (though, as Martin [1987:50] notes, the umlaut is not meant to specifically imply the unrounding of back and rounding of front vowels). Martin uses yi for i, iy for ï, ye for e, ey for ë, wo for o, and o̲ for ö, (and also makes the point of encoding unattested/unknown cases as well as neutralized cases), and we have used this transcription scheme when necessary.

LIST (14): Nakijin i compared to OJ yi, iy, ye, and ey[90]

/p'ii	'day'	fyi (J hi)
phi/ruu	'garlic'	fyiru (J hiru[91])
p'i/i	'fire'	fiy (J hi)
khi/i	'tree'	kiy (J ki)
p'i/i	'flatus'	fe[92] (J he)
mii-[93]	'female'	mye (J me)
mi/i	'eye'	mey (J me)
mi/zii	'water'	myidu (J mizu)

That all the OJ vowels in question should correspond to Nakijin i is not entirely surprising, though the lack of any correlation with aspiration features of the preceding consonants is, perhaps; given the relative paucity of vowels in Nakijin, the notion that earlier distinctions should be preserved in the preceding consonant is an appealing one, though apparently untenable.

In Nakijin, unlike dialects with system-wide shifts as described above, the mid-vowel raisings lead to *e merging with *i and *o merging with most *u.[94] Vestiges of the earlier height distinction can still be seen in the reflexes of preceding word-initial[95] voiceless obstruents, as seen below in 2.2.3.2, with (in general) original mid-vowels being reflected in aspiration of such consonants, and original high vowels in the glottalization of same. In the case of the i < *e contrasted with original *i, the glottalization-aspiration reflexes related to vowel height will be seen only following original *p, and will not be seen in reflexes of *t and *k due to further changes in the consonants preceding *i (specifically, varying degrees of lenition, as discussed in 2.2.2.1.5 and 2.2.2.2.3); for *o and *u, according to Nakasone (1983:633), the aspiration-glottalization contrast that develops is regular and easily ascertained, though it is sometimes

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[90]Transcriptions of OJ following Martin 1987.

[91]This term is an archaism in modern Japanese.

[92]The OJ evidence for the e-vowel here is inconclusive.

[93]The citation here is mii- as in mii/du\i 'hen' (< 'female' + 'bird').

[94]Original *u after coronal obstruents *s, *z, *t, and *d fronts to i, however, before the raising of *o. In these environments, therefore, no *o-*u merger has occurred.

[95]In medial position, all voiceless consonants are regularly glottalized in Nakijin.

masked by low-level reaspiration of glottalized segments in certain environments (see 2.2.2.2.6 below). As a brief introduction to the sorts of issues that arise in the interaction of vowel height and aspiration, we present the items below. For complete information, refer to the sections mentioned above (comparative forms are pRk unless noted otherwise):

LIST (15): Vowel raising and aspiration

p'i/i	'fire'	*pi
phi/saa	'knee, leg, foot'	*pisa
phi/ruu	'garlic'	*peru[96]
k'uru/se\N	'black'	*kuro-
khusa/a	'grass'	*kusa
khu/ru(u)su\N	'to kill'	J korosu

Here we see in p'i/i and k'uru/se\N glottalization reflecting original high vowels, but in phi/saa and khusa/a the expected initial glottalized segment has been reaspirated in the conditioning environment of the voiceless consonant in the following syllable. In contrast, the ph of phi/ruu reflects original mid-vowel *e; the kh of khu/ru(u)su\N ostensibly reflects a mid-vowel o, though there are other issues, which will be examined elsewhere, involved in examples such as this item.[97]

As a general statement, long vowels in Nakijin are not seen to raise, suggesting that there is either a constraint on the raising rule that excludes long vowels, or that the vowel-sequence levellings (following consonant loss in some cases) that produced many surface-attested long vowels followed raising. For a certain group of items that correspond to modern Japanese items with long oo sequences, we consistently find raising has occurred in the Nakijin forms. Note the following:

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[96]But note the unexpected glottalization in p'i/i 'flatus', from pRk *pe.

[97]Following Nakasone's account, this is a regular correspondence, though it is never presented in historical terms. As the regular Nakijin of pRk *ko sequences is hu (see 2.2.2.2.3), it is probably better to treat examples of Nakijin khu corresponding to Japanese ko as something other than a regular historical development. We return to this is 2.2.2.3.2.

LIST (16): Raising of long vowels in Nakijin

thuu/se\N	'far' (J too-, PJ *topo-)
thuu/ru\N	'to pass' (J tooru, PJ *topo-)
/khuu\ri-	'ice' (J koori, PJ *kop-)
/thuu	'ten' (J too, PJ *towo)

Whether this raising occurred before or after the loss of the consonants that led to the long vowels is not immediately clear, though the pervasiveness of the consonant loss in Japonic points to its being a shared inheritance, or at least a common drift tendency, with the Ryūkyūan high vowels indeed representing a raising of the resulting sequence.

2.2.2.1.2 Monosyllable Lengthening

Throughout the Ryūkyūan languages we find two-mora lexical items that correspond to monomoraic items in many varieties of mainland Japanese. As a general convention, the phenomenon can be qualified as follows:

#(C)V# > #(C)VV#

We should note, however, that a number of mainland Japanese dialects[98] display similar behavior, so while the phenomenon is clearly a pervasive feature of Ryūkyūan, it can hardly be said to be a Ryūkyūan distinctive. In any case, as a development across the island chain, it must be seen to have taken place fairly early, likely even before Ryūkyūan split from main island Japonic.

2.2.2.1.3 Progressive Palatalization

Progressive Palatalization refers to a phenomenon noted across the Ryūkyūs but found most pervasively in the dialects of the northern areas.[99] As a general statement, consonants

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[98]Mostly in Western Japan, such as when mee 'eye' is found for Tokyo me in Kansai dialects. It should also be noted that Standard Japanese as well will occasionally demonstrate such lengthening, as in listing situations (such as NJ kaamoku 'Tues[day and] Thurs[day]' ← ka 'Tues[day]' + moku 'Thurs[day]', where the lengthening seems to occur to provide balance in the number of morae in list items.)

[99]Serafim notes (1993:3) that progressive palatalization seems to be a mostly lexical phenomenon, rather than a phonetic process, in the southern Ryūkyūs, perhaps as a result of borrowing palatalized items from northern dialects.

following high front vowel *i[100] palatalize to some extent, varying according to the dialect in question; the specific consonants affected vary from dialect to dialect as well. Affrication is also found in some dialects. In Nakijin this process can be phrased as follows:

{*k, *t} > c'/*i__ and {*g, *d} > z/*i__

That is, only the velar and apical stops undergo the change, and they affricate in addition to moving to a palatal point of articulation.

Nakijin shares this version of progressive palatalization for *k and *g with other dialects on Okinawa, Ieshima, parts of Okinoerabu and Kikai, and a couple of Miyako dialects. For *t and *d the range of dialects that the change is shared with is similarly wide.

In the following list we note some compelling examples of progressive palatalization in Nakijin. In some cases, the conditioning environment will have been obscured by subsequent developments, such as the loss of *i and i < *u in certain situations.

LIST (17): Progressive Palatalization in Nakijin[101]

/c'aa	'how' (J ika-)
/c'uu\	'person' (J hito)
/qiQ\c'u[102]	'silk' (J ito 'thread')
p'iza/i	'left' (J hidari)
qee/zaa	'interval' (J aida, pRk *aFida)
phi/c'ai	'forehead' (J hitai)
sic'aa/se\N	'near' (J tika-)
zaa/se\N	'bitter' (pRk *niga-)
si/c'aa	'down, below' (J sita)
sic'a/a	'tongue'[103] (J sita)

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[100]However, in Nakijin at least, neither i deriving from raising *e, nor i deriving from *u-fronting (see 2.2.2.1.4), condition the palatalization process.

[101]In some cases, it is unclear whether the palatalization of a segment is due to the progressive or regressive variety of the change. We have listed here only those where the direction of the conditioning is clearly progressive.

[102]The geminate medial consonant in this item is troublesome, though prosodic concerns seem to account for it. Nakijin does have the alternate forms /qi\t'u (with aberrant t, perhaps indicating a borrowing) and /qi\c'u, the expected reflex based on comparison with Sr qiicu (recalling that Sr length can correspond to Nk accent [Shimabukuro 2002:206]). We will treat the subject of medial consonant gemination at some length in 2.2.2.2.2 below.

[103]This form is not the typical shape for Ryūkyūan words meaning 'tongue'.

Despite the wide-scale manifestation of the progressive palatalization rule in Nakijin, there is no small number of items that seem to indicate contrary tendencies. See our discussion of si/k'aa\ra 'strength' presented in 4.1.4 below for a review of an atypical lack of progressive palatalization and some of the implications of the absence of this pervasive phenomenon.

2.2.2.1.4 Fronting of *u

Fronting of *u refers to a forward articulation shift for *u to i, ï, or I following apical obstruents, and resulting in a merger of *u and *i in certain dialects. For Nakijin the change can be formalized as

*u > i/{*t, *s, *z}__

and does indeed negate the contrast between reflexes of *i and *u in those environments. The resulting i in Nakijin does not, however, feed Progressive Palatalization, and must therefore follow that development. It does, on the other hand, feed rules that further alter the consonants of the conditioning environments, as we explore in our discussion of Palatalization/Affrication (2.2.2.1.5), lenitions of various sorts for *k (2.2.2.2.3) and *t (2.2.2.2.7), and the distinction between c' and ch (2.2.3.2.4). The *u-fronting rule must also precede vowel raising, as *o > u does not feed it (as demonstrated, for example, by thu/N 'to take', corresponding to J toru).

While the phenomenon of *u-fronting is found in nearly all Ryūkyūan dialects,[104] the *u-*i merger seen in Nakijin occurs in a more limited, though widely distributed, area. Nakijin and other northern Okinawan dialects share the merger in common with certain southern Amami dialects, as well as some Sakishima dialects and Yonaguni. Southern Okinawan dialects show a merger as well, though in the aristocratic speech of Shuri the original distinction was transferred to the preceding consonants (yielding the c-ç-type distinctions still recorded in OGJ) (Thorpe 1983:65-66).

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[104]Kikai is a notable exception (Thorpe 1983:65).

We present below a few examples of *u-fronting in Nakijin:

LIST (18): *u-fronting in Nakijin

si/k'eN	'to use' (J tukau)
hi/c'uN~si/c'uN	'to stab' (J tuku)
/ma\c'i(i)	'pine' (J matu)
haraa/zi	'hair' (pRk *karazu)
/ha\zi(i)	'number' (J kazu)
si/N	'to rub' (pRk *suri)
si/i	'vinegar' (J su)
hic'u/N~sic'u/N	'to like' (J suku)

Note in particular in the above list how particularly in the case of *t, and to a certain extent for *s as well, the fronting of *u has led to sometimes rather extreme consonant lenitions.

There is at least one notable exception to the rule of *u fronting in Nakijin: Nk /zuu deriving from pRk *zu(wo). Tentatively we propose that this item reflects a pre-vowel raising early vowel assimilation (to oo) after loss of the medial *w, with the subsequent raising accounting for the modern form.[105, 106] A number of dialects have *zu(wo) surfacing as something with zu rather than with fronting, so Nakijin is not unique in the interesting behavior of this item.

2.2.2.1.5 Palatalization/Affrication

Palatalization (accompanied by affrication in Nakijin as well as in a number of other dialects) here refers to a palatal shift for velar and apical obstruents when followed by *i. The rule can be expressed as

{*k, *t} > c'/__*i and {*g, *d} > z/__*i

This change is quite similar in nature to the progressive palatalization mentioned in 2.2.2.1.3, and in some cases identifying which rule operated to produce a given reflex will be impossible, though it is not clear that making the distinction will be necessary.

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[105]However, pRk *zu(wo) has a number of reflexes with *u fronting, many from Ōshima, but elsewhere as well: Naze zibu, Yuwan zĩboo, Kobama zii (Thorpe 1983:338).

[106]Note that so claiming requires the possibility of long vowels undergoing raising, which seems sparsely attested otherwise.

Nakijin shares this variety of palatalization for *k/*g with a number of dialects in Amami and most of those on Okinawa, including Shuri. Interestingly, for initial *k different behavior is found in the northern Okinawan dialects of Hentona and Oku and most of the Amami dialects, where the reflex is k rather than c. For *t/*d the palatalization rule is more or less the same across the entire range of dialects excepting only Yonaguni, where de-affrication (fortition) is a late change. (Thorpe 1983:65-66, 80, 84).

We present some examples of Palatalization/Affrication below:

LIST (19): Palatalization/affrication in Nakijin

c'i/bii	'buttocks' (pRk *tube)
c'i/zii	'top' (pRk *tuzi)
c'inu/u	'horn' (pRk *tuno)
sic'i/i	'moon' (pRk *tuki[jU])
c'i/N	'to cut' (pRk *kiri)
c'imu/u	'liver, heart' (pRk *kimo)
zi/rii	'right' (pRk *nigi[re]~*migi[ri])

No Nakijin examples of *d > z are found, though Thorpe holds, at least by implication (1983:66), that this segment does indeed undergo palatalization/affrication in some varieties of Ryūkyūan.

The Palatalization/Affrication rule in Nakijin is apparently sufficiently compelling to register as an active correspondent pattern even for some items likely non-original to the language. Take, for example, Nk hi/c'ii\zi 'Sheep [Chinese zodiac])' (corresponding to J hituzi): the h in the Nakijin form clearly identifies it as a loan,[107] yet the t segment of the Japanese term corresponds to a c' in Nakijin. This c' would derive either from the (imaginarily) fronted u of the medial syllable, or, alternatively, from the i of the first syllable via a variety of the progressive palatalization rule.

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[107]The expected form is phi/c'ii\zi, or some variety of p'ii/za\a 'goat', akin to Sr meenaahwiizaa, a compound where the meenaa- reflects the meaning 'sheep'. The specialized semantics involved here likewise mark the item as being outside the regular course of lexical and phonological development.

2.2.2.1.6 Vowel Sequence Levelling

Vowel Sequence Levelling refers to an assimilation process in adjacent vowels, seen in a number of dialects, whereby height distinctions in the vowel sequences are evened out, resulting in long mid-vowels ee and oo (and occasionally, uu). Note that this levelling must either follow vowel raising or be excluded from it, for we do not see these long vowels participating in that process: /se\e 'crayfish' (< pRk *sae), for example, is not found in the form /si\i; the ee sequence in that item could derive from either the *ae sequence, or a post-raising ai. In addition, sequences of vowels resulting from medial consonant loss seem to feed this rule, as seen in examples such as qee/zaa 'interval', (PJ *apida). Serafim (1993:2) notes that the levelling phenomenon is found in almost all Ryūkyūan dialects, though Thorpe found some original sequences recoverable thanks to their retention in some dialects for some words, such as *saU 'pole' which has the diphthongal reflex sau in certain outlying islands (Thorpe 1983:318).

For Nakijin, the following examples of vowel sequence levelling (among many others of the same basic pattern) can be cited:

LIST (20): Vowel sequence levelling in Nakijin

/se\e	'crayfish' (pRk *sae)
/c'eesu/N	'to extinguish' (pRk *kijasi)
/me\e	'front' (pRk *mae)
qe/e	'indigo' (J ai)
qee/zaa	'interval' (OJ afyida)
/k'we\e	'manure' (J koe)
c'uN/p'ee	'saliva, spit' (pRk *tu[to]Npa[i])
qoo	'blue' (J ao)
k'oo/ri\N	'to break' (J kowareru)
so/o	'pole' (pRk *saU)

Vowel sequences resulting from consonant loss, such as intervocalic *r loss (see 2.2.2.1.7) demonstrate varying behaviors with regard to the levelling rule. As seen in the forms Nk /gai 'crab' (< pRk *Gani) and p'iza/i 'left' (< pRk *pida'ri), some consonant loss phenomena do not seem to feed the rule, but Nakasone (1983:438) points out that p'iza/i has the alternate forms p'ize/i and p'ize/e (as well as the entirely unexpected compound element p'izaa- in

p'izaa/ja\a 'left-handed').[108] It could be that vowel sequence levelling, while a historically attested process in some cases, is at the same time an actively operating variation pattern, somewhat akin to, for example, the -nai/-nee variation seen in Tokyo Japanese for negative verb endings.[109] The sequence levelling rule, in other words, is being recycled.

We should also note that in some cases, the resulting levelled long vowel can undergo a shortening related to a general constraint in Nakijin on extra-heavy syllables.[110] Take, for example, the case of /k'eN 'to eat'. Nakasone (1983:152) relates this form to J kurau,[111] providing a derivation wherein a stem-like form k'urai contracts and levels: k'urai > k'wai > k'wee > k'ee; addition of the verbal formant -N, however, results not in k'eeN, but in /k'eN, even though the paradigm is rife with long-vowel versions of the item (attributive form k'eenu, linked form /k'ee\ru, hortative /k'eeraa, imperative /k'ee and so forth). Shortenings of this sort must be dated after the general Ryūkyūan vowel-raising, since they are not seen to feed that rule; thus by the process of vowel-levelling and shortening, short e has been newly readmitted to the phonological inventory of Nakijin.[112]

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[108]Similarly, some items where vowel sequence levelling would be expected seem to be idiosyncratically excluded: phi/c'ai 'forehead' (J hitai, PJ *pitapi), for example, has alternate forms phi/c'ee and phi/c'ei; while phi/c'ee is the expected form, the dictionary listing is under phi/c'ai (Nakasone 1983:438).

[109]In Tokyo Japanese, -nai is the regular negative ending for verbs, while -nee is encountered in certain varieties of vulgar/colloquial speech. The yakuza gangster is one prototypical user of such language, as is the Tokyo "downtown" resident. No such connotation seems to accrue to the variant Nakijin forms.

[110]Extra-heavy syllables are defined here as those with three or more morae. The most common shape for such a syllable would be [C]VVN or [C]VVQ; where these sequences are predicted based on other changes, the resulting form is invariably [C]VN or [C]VQ. (Similarly, where VVV sequences might result from, for example, *r loss, the actual surface form either retains the r or ends up as a VV sequence without the r. See 2.2.2.1.7, etc.)

[111]We could equally well recover the vowel-sequence origins of /k'eN via comparison with Shuri kwajuN 'to eat'.

[112]There are some examples of a "new" short o as well: cho/i 'one time' derives from cukai (Nakasone 1983:280; aspiration is not specified for the form); the vowel sequence ua obtains when the intervening k lenites in stages to zero.

2.2.2.1.7 Loss of pRk *r

R-loss is a phenomenon noted for pRk *r when it occurs preceding high vowel *i. It is well-attested in the dialects of Okinawa island (Shuri, for example, has a quite pervasive version of the rule) and widely found in parts of the Amami and Miyako areas. It is unclear whether or not all these dialects have the same restrictions on the phenomenon that Nakijin has, however; certainly Shuri lacks them for the most part. Though the specific reflexes of the vowel vary from dialect to dialect, the general pattern can be described as follows for Nakijin:

*r > zero /__*i

However, in Nakijin *r seems to be constrained from disappearing in situations where its loss would lead to a VVV sequence, or, apparently,[113] an i-i sequence. That is to say:

*r > r / {VV__*i, *i__*i}

We should note that the tendency to avoid extra-heavy syllables (defined here as those of three or more morae) is found in other areas of Nakijin as well. This environment for r-retention is demonstrated with particular drama in verb paradigms; where a heavy-syllable environment is found, r is retained in front of verb endings such as the stem form in -i. Note qa/gaari-[114] 'rise' and /qmo\ori- 'be [honorific]', contrasting with thui/-[115] 'take' (< *tori) and cii-/ 'cut' (< *kiri[116]).

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[113]In Shuri, the *i_i environment can indeed be shown to result in *r retention; certain items hint at the possibility of similar behavior in Nakijin, but there is much conflicting evidence. We will work through this issue below.

[114]Interestingly, Nakasone (1983:667) notes qagai (no accent information is cited, although we might presume the contour to be the same as for qa/gaari-, which would yield qa/gai-) as an alternate form for 'rise'.

[115]The accentuation of these forms reflects the function of the continuative form, most commonly found in compounded items and never as a terminal or independent form. Deverbals may have the same segmental shape, but different accentuation.

[116]Accounting for *r behavior in verb paradigms casts no small amount of doubt on i_i as a retention environment in Nakijin. We return to this below.

The ordering of the *r loss rule seems fairly clear, with but one notable area leading to potential problems. We noted in section 2.2.2.1.6 that vowel sequences resulting from *r-loss do not participate in vowel sequence levelling and therefore their development must be seen to follow *r loss; or rather,*r loss must follow the original application of vowel sequence levelling, as the levelling rule seems to have a recycling characteristic, and can apply to varying degrees at different stages of phonological history. Similarly, i resulting from the raising of *e does not feed the *r-loss change and raising must therefore follow *r-loss. (Modern occurrences of Nk ri are thus found corresponding to *re sequences and in retentions in the environments noted above.) Last, we note that i_i resulting from a fronted *u (2.2.2.1.4) does not lead to *r retention;[117] *r must have been lost in words with the string *uri before the fronting became operative. However, in contrast to the clear evidence for ordering found in the pairs of rules listed to now, the interaction of Nakijin second-syllable lengthening with *r-loss poses not a few interesting problems of sound change timing. That rule needs to have operated in order to provide environments for certain retentions of r, yet the forms with r-loss need to have been excluded from the lengthening; otherwise we would expect forms such as kha/zaa\ri, /pha\rii, etc. (instead of attested kha/zai and /pha\i). Alternative explanations seem to be reasonably positable for most cases where we would have to otherwise tweak timing of *r loss to follow the fairly localized lengthening rules of Nakijin; we shall attempt to deal with the difficulties posed by the interaction between length and *r loss below as we consider the various items cited for *r loss and *r retention.

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[117]Once again, evidence from verb paradigms will shed some light on this.

Following are a few examples of *r loss in Nakijin:

LIST (21): pRk *r loss in Nakijin

kha/zai	'decoration' (J kazari, Sr kazai)
/pha\i	'needle' (J hari, Sr haai)
p'iza/i	'left' (pRk *pida'ri, Sr hwizjai)
haa/bu\i	'bat' (OJ kaFabori, Sr kaabujaa)
/jai	'spear' (J yari, Sr 'jai)
khusu/i	'medicine' (pRk kuso'ri, Sr kusui)
mii/du\i	'hen' (J me+tori, Sr miidui)
na/i	'fruit' (J nari, Sr nai)
phic'a/i	'light' (J hikari, Sr hwicai)
phu/k'ui	'dust' (J hokori, Sr hukui)
phu/gui	'scrotum' (J huguri, Sr hugui)
qu/i	'melon' (J uri, Sr qui)
thu/nai	'neighbor' (J tonari, Sr tunai)
/thui	'bird' (pRk *tori, Sr tui)

In all cases of *r-loss, there seems to be a clear correlation between original *i (as recoverable through comparative evidence) in the following position and the dropping of the *r. Alternate forms of some of the items betray vowel levelling following the loss of r, which for those items might obscure the original environment, but as a general statement, *r loss before *i seems a more or less regular development for Nakijin. We also note that the forms in which *r loss is evidenced bear striking resemblance to their Shuri correspondents.

We must note, however, that not a few potentially troublesome bits of evidence can be found. The item /pha\i, for example, by reason of its accentuation and the comparative evidence from Shuri haai, must be reconstructed with original length, which should preclude the dropping of *r; that is, the expected form should be /pha\rii. It may be necessary to posit obligatory *r loss in the environment *a_*i, if for no other reason than to account for the contrast between /pha\i on the one hand and /phi\ri (discussed below). Certainly some verb paradigm evidence points in the direction of such a rule; take, for example, the number of r-stem verb stem[118] forms (which end in -i) found without r despite the significant potential of

[118]The stem form (Japanese 連用形 [ren'yōkei]) is one of the 20-odd verb forms detailed by Nakasone (1983:634ff); it is typically used for attaching certain suffixes and in verb compounding.

paradigmatic pressure: mac'i/gai- 'mistake' and tagai/- 'differ', (all other basic and compound forms in -r-); qu/jaamai- 'respect', qa/zik'ai- 'receive' and ha/c'ik'ai- 'deal with' (all basic forms in -r-). Certain of these verbs also feature reanalyzed variants pointing to earlier *r-loss now masked by vowel sequence levelling: mac'i/gaaru\N 'to mistake, be mistaken' (stem form mac'i/gai-) is also found, in apparent free variation, as mac'i/geeru\N, with a completely regular paradigm; likewise tagaa/ru\N 'to differ' (stem form tagai/-) has the variant tagee/ru\N, similarly with a regular paradigm. It seems both of these alternate forms represent the development of the stem form after *r loss and vowel levelling into the base of an idealized, completely regularized version of the somewhat messy paradigm found for the original forms.

Evidence for *r retention presents itself as detailed in the list below (and discussed in the context of verb paradigms later):

LIST (22): pRk *r retention in Nakijin

c'i/rii	'rubbish' (J tiri)
c'i/rii	'fog' (J kiri)
/khuu\ri	'basket, wicker' (J koori)
/khuu\ri-	'crystallized sugar' (< khuurizaat'aa) (J koori , Sr kuuri 'ice')
/phi\ri	'edge' (J heri)
khu/saa\ri	'chain' (J kusari, Sr kusai)
midu/rii	'bud' (J midori 'green, greenery')

It seems clear enough at first glance that both c'i/rii items and both /khuu\ri items meet the conditions tentatively specified for *r retention above; both c'i/rii by dint of the *i_i environment, and both /khuu\ri by reason of the long vowel. For c'i/rii 'fog', however, Thorpe reconstructs *ki or *kire~*kiro (1983:288–9), in which case there is no need to appeal to an i_i sequence as the source of the retention in this item. For c'i/rii 'rubbish', on the other hand, there seems no recourse to any cleanly describable circumstances other than the i_i environment for the retention of r; one deverbal from the related term c'i/N 'to disperse' shows r retention (c'iri/zi\ri 'scattered' [Sr ciriziri, J tiriziri]; the close segmental correspondence of these terms may suggest a loan relationship), but the stem form of the same

verb lacks r (c'ii/-). The item c'i/rii may indeed be evidence of the validity of i_i as an environment for retention, but related evidence is inconclusive.

On the other hand, the long vowel in /khuu\ri 'basket, wicker' is either originally long, or the result of a sequence levelling; whatever the source of the long vowel, its presence would account for the retention of *r.[119] Notably, the Sr cognate[120] -guui[121] also has the long vowel, but with *r loss. Likewise, the long vowel in /khuu\ri- 'crystallized sugar' would account for Nk r there, much as for 'basket'.[122]

Nk /phi\ri at first glance seems to be a candidate for r retention in the i_i environment. However, both the Japanese cognate heri and the aspirated ph of the Nk item betray a derived origin for the first i (< *e) of /phi\ri, and this item must therefore be excluded from consideration as evidence for r-retention in the i_i environment. The item does, however, have an accent pattern that indicates original first syllable length (though unlike Shuri haai corresponding to /pha\i, the Shuri cognate hwiri for /phi\ri does not reflect length); if we reconstruct length on the basis of the accentual evidence alone, that would account for the retained r, though we might equally well appeal to a borrowing of the term from Shuri into Nakijin, with replacement of the phonotactically inadmissable (for Nakijin) hwi segment by Nakijin native-like phi.

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[119]If the vowel is originally long, we are at a loss to explain how it raised (as the Japanese correspondent would seem to indicate), since few long vowels seem to undergo that change. It seems more likely that the item is a loan from modern Japanese, with the long vowel raised for "antiquing" purposes (despite the fact that there is not real need to "antique" a long o, given the attestation of some in clearly native items).

[120]Cognate, or mutually borrowed item.

[121]From janaziguui 'willow basket', the latter element of which is the Shuri correspondent for /khuu\ri.

[122]Noting the interesting semantics of the term, the fact that it has an aberrantly raised—antiqued?—*oo (per J koori), the fact that the Sr form kuuri has an r that should have dropped, and last, a note in OGJ (1963:345) that 'ice' is a "new" meaning for the Sr term, we can reasonably suggest that Nk /khuu\ri in this shape is not original to either Nakijin or the Ryūkyūs.

We are at a loss to explain the examples of r-retention in khu/saa\ri and midu/rii, except perhaps by appealing to a late borrowing phenomenon; certainly it is tempting to write off both items in this way. The Shuri cognate of khu/saa\ri and J kusari is the expected reflex kusai, so to look upon the Nakijin form as a loan from modern Japanese, with appropriate antiquing[123] into canonical Nakijin shape would go far to account for the apparent aberration, not to mention providing a comfortable solution to the problem of ordering Nakijin-specific second-syllable lengthening *after* the more general *r loss. However, we can note that the so-called lengthened syllable in khu/saa\ri is also accented, demonstrated by Shimabukuro (2002:206) to be a reflection of underlying, or original, length; if the length is original rather than derived we do have a justification for an environmental constraint on *r loss that does not wreak havoc with concerns of overall rule ordering.

Nk midu/rii 'bud' has both a vaguely similar semantic connotation and a similar (though aberrant for Nakijin) segmental shape as Japanese midori 'green, greenery'. One Shuri item for 'bud' is miduri, also clearly related to the Japanese term, while forms for 'bud' in pRk (*kukomori) as well as an additional Sr form (kukumui) reflect a shape that is not found in the other Nk item for 'bud', c'i/buu\mi. The close segmental connection of J midori to both Nk midu/rii and Sr miduri, as well as the presence of r in both the Okinawan terms, could well point to a Japanese loan, and the concomitant removal of Nk midu/rii from consideration for determining environments for *r retention.[124]

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[123]"Antiquing", or regularizing a borrowed form in a dialect by applying popularly perceived correspondences, is also termed "hyperdialectalism."

[124]The syllable patterning of Nk midu/rii is atypical; we expect a CVCVVCV shape for three-syllable nouns, all things being equal. The vowel in the medial syllable, however, u, is noted by Nakasone as being less likely to undergo lengthening (1983:633) than a, at least, (though i is less likely than u) in an unaccented syllable; as the term is atonic in Nk (as it is in Shuri), the third syllable gets automatically assigned high pitch and concomitant lengthening (Curry 1990:12, where the phenomenon of predictable high pitch correlating to vowel length was termed "stretching").

We are left with the problem of *r loss (and retention) in various verb paradigms. There are r segments in the Japanese cognates of several Nakijin verbs that should, if any validity for the i_i environment as an *r retention environment is to be found, correlate to a retained r in certain forms of the Nakijin verbs, most particularly (naturally) those where the r is bracketed by an i in the Nakijin stem and an i in the verb ending. What we shall find, however, is that the evidence points away, rather than toward, corroboration of *r retention in the i_i environment; in fact, most r we will see before i in these verbs can be accounted for through analogy. Among the verbs under consideration there are both those with original *i in the stem as well as a few in which the stem i segment derives from an earlier change such as raising or *u-fronting. The verbs to be considered here[125] are listed below, along with information about their conjugation classes and the comparative Japanese evidence for reconstructing an r in the Nakijin forms:

[125]There are at least a couple of other potentially useful verbs for analysis in this area—those corresponding to J maturu 'to celebrate, worship' and J turu 'to fish'—but no verbal cognates exist for them in Nakijin. Deverbal forms associated with these, however, are found, and demonstrate *r loss: ma/c'ii 'festival' (J maturi) and /c'ii (J turi) 'fish hook' (though this latter may reflect early Middle Japanese ti[i], itself an example of sporadic r-loss in Japanese [< PJ *turi]).

LIST (23): *r-stem[126] verbs in Nakijin

c'i/N	'to cut' (J kiru) (Nk verb conjugation class 規 3 ラ a'[127])
/qiN	'to need' (J iru) (規 3 ラ a')
/qiN	'to enter' (J iru) (規 3 ラ a')
c'i/N	'to disperse'[128] (J tiru) (規 3 ラ a)
khi/N	'to kick' (J keru[129]) (規 3 ラ a)
si/N	'to rub' (J suru) (規 3 ラ a)
qi/N	'to shoot' (J iru) (規 3 ラ a)[130]
huc'i/ru\N[131]	'to move' (J uturu) (規 1 ラ a)

We note at first glance that the verbs here fall into no less than three separate, and at least mildly distinct[132] conjugation categories. The specific forms that occur are listed here:

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[126]A modern Nk reflex of *r is not found in the dictionary forms of these verbs, but is recoverable both through comparison and internal reconstruction.

[127]Nakasone (1983:664–675) gives an exhaustive taxonomy of verb conjugation types. The term 規 3 ラ a' (*ki* 3 *ra* a') translates roughly as 'regular type 3, r-stem subtype a-prime' and refers to one of five r-stem conjugation patterns that as a group stand in contrast to the two r-stem conjugation patterns (subtypes a and b) of *ki* 1 *ra* 'regular type 1, r-stem' mainly by dint of the extent to which each retains the r of the stem in the various forms: type 1 has the r in place in all conjugated forms (save the peripheral items where it has been assimilated to a following consonant-initial suffix), while type 3 has the r only in the seven so-called "basic" forms (it is not found in the others). There is some evidence for a certain fluidity of the boundary between the two classes, as shown by the earlier mentioned qa/gaari 'raise [continuative]' (typical of type 1 behavior) alternating with the form qagai- (typical of type 3).

[128]This term is related to c'i/rii 'rubbish'.

[129]This verb, though it includes a proto mid-vowel stem syllable, is included for comparison purposes, since it shares the same conjugation pattern (Nakasone 1983:668–9) with the other verbs under consideration.

[130]This item, interestingly, is a vowel-stem verb in Japanese (and the Nakijin correspondent thus escaped our initial search of r-stem verbs); we would therefore expect it to behave more like the Nakijin analog of J miru 'to see'. Somehow, however, it has been reanalyzed as an r-stem in Nakijin.

[131]The seemingly un-Nakijin-like shape of this verb (i.e., that it is huc'i/ru\N instead of huc'ii/ru\N) seems explainable when we note that the second syllable has an i, and is therefore unlikely to lengthen if not accented (Nakasone 1983:633).

[132]The difference between sub-types a and a' of *ki*-3-*ra* seems to surface only in the euphonic forms (which are unpalatalized for type a(-Qt'-) but palatalized (-Qc'-) for type a'), and, marginally, in the existence of a difference in vowel quality between the stem vowel and suffix vowel: in sub-type a, the stem vowel can be different from the i that leads into the various compounded forms, but the abutting of the two vowels results in a diphthong rather than any levelled long vowel (for example, the continuative form of thu/N 'take' is thui/-, rather than, say, thee/-); in a', on the other hand, the stem vowel is i, and joins with the i of the suffix to form a long vowel.

LIST (24): r-stem verb conjugations in Nakijin

form[133, 134]	1-*ra* a	3-*ra* a	3-*ra* a'
citation[135]	huc'i/ɾu\N	c'i/N 'disperse'	c'i/N 'cut'
basic forms			
A intentional	huc'i/ɾaa	c'ira/a	c'ira/a
B irrealis	huc'i/ɾa	c'iraa/	c'iraa/
C substantive 1	huc'i/ɾuu	c'iru/u	c'iru/u
D realis 1	huc'i/ɾi	c'irii/	c'irii/
E realis 2	huc'i/ɾe\e	c'ire/e	c'ire/e
F imperative 1	huc'i/ɾi	/c'i\ɾi, c'iri/i	/c'i\ɾi, c'iri/i
G imperative 2	huc'i/ɾe\e	c'ire/e	c'ire/e
stem form			
H stem	huc'i/ɾi	c'i-i/[136]	c'i-i/
compounded forms			
J conclusive	huc'i/ɾu\N	c'i-/N	c'i-/N
K substantive 2	huc'i/ɾunu	c'i-i/nu	c'i-i/nu
L *zo*-linked form	huc'i/ɾuru	c'i-i/ru	c'i-i/ru
M continuative-hortative	huc'i/ɾuraa	c'i-i/raa	c'i-i/raa
N *ka*-linked form	huc'i/ɾura	c'i-i/ra	c'i-i/ra
P continuative-imperative 1	huc'i/ɾuri	c'i-i/ri	c'i-i/ri
Q continuative-imperative 2	huc'i/ɾure\e	c'i-i/re\e	c'i-i/re\e
R continuative	huc'i/ɾu\i	c'i-/i	c'i-/i
S interrogative	huc'i/ɾumi	c'i-i/mi	c'i-i/mi
T substantive 3	huc'i/ɾusi	c'i-i/si	c'i-i/si
U suffix stem	huc'i/ɾu	c'i-i/	c'i-i/
V continuative sequential	huc'i/ɾut'i	c'i-i/t'i	c'i-i/t'i
W continuative past 1	huc'i/ɾut'a\N	c'i-i/t'a\N	c'i-i/t'a\N
X continuative past 2	huc'i/ɾut'e\N	c'i-i/t'e/N	c'i-i/t'e\N

It should be clear at a glance that the behavior of r in verb conjugations can not be accounted for by a purely phonological explanation. We can, however, make a few observations and generalizations.

In the type 1 verb, we see no less than three examples of r being retained in surface i_i environments (forms D, F, and H), but this conjugation type employs endings in the various

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[133]The terms here are more or less literal translations of Nakasone's labels for the various verb forms as detailed in Nakasone 1983:638ff. We owe some debt to Martin 1988 for the specific terms employed.

[134]Nakasone also lists four "euphonic" forms and the "polite" form which are not included here since suffixation grossly obscures the stem consonant.

[135]Equivalent to the conclusive form.

[136]Hyphens are employed (as they are in Nakasone 1983:668) to mark the location of missing stem r.

compounded forms that begin with u rather than i (Nakasone 1983:636), eliminating other potential evidence for r behavior. Forms D and F, however, are historically related to an ending with mid-vowel *e rather than *i, so for these the retention of r presents no difficulties. In no case for huc'i/ru\N does the retention of r seem necessary to avoid over-long syllables (in form H, for example, no phonotactical discomfiture would arise from having huc'i/i instead of the attested huc'i/ri). It is likely that the pervasiveness of r in the forms of this conjugation class (due to the relative lack of conditioning environments) has led to analogical levelling of the paradigm based on the stem form. That is, the force of numbers, and accompanying paradigm conditioning, yields r even where it is historically untenable. (Recall the behavior demonstrated in the various alternate forms for 'to mistake' and 'to differ' discussed above.)

In the type 3 verbs, however, we see a somewhat more complicated situation. For these verbs, r is present in all the basic forms, including of course those associated with i derived from *e, while r is missing from the stem and compounded forms. For the basic forms, none (including D and F, the i endings of which derive from *e) have the potential to demonstrate r-loss. On the other hand, the stem and compounded forms of the type 3 verbs invariably lack r in the i_i environment that obtains when the endings join the stems. (Given that all compounded forms might be derived from affixation to the stem form, this is perhaps not the most surprising observation.) With the exception of the conclusive (citation) form, no phonotactical problems obtain with r-loss in these forms, and this behavior would seem to eliminate the consideration of i_i as an environment for r-retention. The conclusive forms may be due in some measure to analogy, based again on the stem form: if we posit something like stem c'iri plus conclusive form suffix -N, r-loss would lead to the phonotactically inadmissible c'iiN, but if the conclusive form was reanalyzed as c'ii- plus -N (rather than historical c'iri) an obligatory shortening of the ii sequence after affixation would yield the attested c'i/N while not doing violence to our understanding of r behavior.

To some extent, any discussion of r-loss and r-retention in verb forms seems likely to yield incongruent results. Above, we have appealed to a variety of possible explanations for r in verbs, all of which account for the evidence without really cohesively or elegantly explaining it. In addition, we see blatantly contrary behavior for r in a variety of other verbal complexes. Note, for example, the interesting behavior of qi/N 'to shoot' in the alternate forms for the compound corresponding to J ikorosu 'to kill by shooting': both qii/k'u\rusuN and qiri/k'u\rusuN, apparently in free variation, are cited by Nakasone (1983:50). Similarly, si/N 'to rub' yields both sii/c'iN 'to cut by rubbing' and the contrasting siri/nu\guruN 'to wipe out, rub out' and siri/k'u\rusuN 'to rub against'. Though none of these compounds in si/N occur as doublets, the alternate realizations of the stem form do little to clarify our understanding of r behavior.

We conclude our discussion of *r-loss in Nakijin by noting that as a general rule it is fair to posit *r loss before *i in all environments except those excluded by the Nakijin phonotactical resistance to over-long syllables. Apparent exceptions abound, but can be accounted for by noting either the influence of verb paradigm analogy, or in extreme cases, suggesting that borrowing or rules with very limited attestation (cf. /pha\i, if indeed this form is not a borrowing) may account for the behavior.

2.2.2.1.8 High Vowel Loss

The loss of earlier high vowels is found in several situations in Nakijin. In most cases the Nakijin items exhibiting high vowel loss include an N or Q[137] segment related to the loss,

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[137]It is tempting to look upon all occurrences of N and Q in Nakijin as the result of a devocalization of some sort. However, they are found also in cases where no loss has occurred, as in the examples of rhythmic gemination (2.2.2.2.2); in addition, they are found in some items for which Thorpe reconstructs an original *N or *Q. Note, for example: siQ/t'a\N~hiQ/t'a\N 'to get soaked' (pRk *siQpotari), uQ/t'uu 'husband (pRk *woQto), c'uN/p'e\e 'saliva' (pRk *tu[to]Npa[i]), and /phiN\gu 'soot' (pRk *peNgo). However, in at least one case, an original *N has a fully vocalized reflex in Nakijin: phini/gi\N 'to run away' (pRk *peNge); indeed, for this form, the unlost vowel will even undergo Vowel Lengthening (2.2.2.2.1). Last, we have Nk items with Q and N for which there is no ready explanation: maQt'oo/ba 'straight' (for which Thorpe has no reconconstruction, though the Sr form is the segmentally identical maQtooba),

though in some contrast to the behavior of similar sequences in Shuri, derived N in word-initial position is usually lost (meaning in effect that the Nakijin reflex of *#ni, etc. is zero). The appearance of N and Q in high vowel loss items represents a degree of assimilation (to be discussed in 2.2.2.1.9) in the consonant clusters resulting from the vowel loss. We should note that we are using the term "vowel loss" here as loose shorthand for "vowel devocalization"; this latter is the more accurate term, as the syllabicity of the CV segment containing the lost vowel is maintained (save for examples with word-initial derived N). Some vowel loss of this sort occurred extremely early in Ryūkyūan linguistic history,[138] predating even proto-Ryūkyūan, if Thorpe is correct in his reconstruction of *N,[139] which he uses in items such as *peNge 'run away', mentioning that such items are "vestiges of nasal consonant-high vowel syllables" (1983:93).[140] It is possible that such losses have a cyclical character, recurring at various points in phonological history (as, for example, Vowel Levelling [2.2.2.1.6] seems to apply recurringly).

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and naN/beerak'a(a)su\N 'to be smooth' (pRk *nabiru-, J nameraka; the Nk form almost seems to be a contamination of a proper Nk reflex [with the *bir sequence yielding an Nb] of the pRk form with the modern Japanese).

[138]There is also a certain amount of evidence for similar changes in Japanese, as can be inferred from doublets such as J sama~saN '[honorific personal title suffix]', no~N 'one, thing, matter', and mono~moN 'thing, person', though we are not equipped to address here any interconnectedness between the Japanese and Ryūkyūan developments. Both may be simply coincidental drift.

[139]Thorpe's *Q, however, is reconstructed to account for certain difficulties in consonant weight, without reference to there having been previous vowel loss. His arguments for *Q include accounting for the behavior of verbs (of the sort treated here in 2.2.2.2.2) as well as sporadic occurrences of modern -Qt- and intervocalic -p- (Thorpe 1983:75–77).

[140]The missing vowel in this example, incidentally, is possibly recoverable through comparison with Japanese nige- 'to flee, escape' (though whence the initial pRk syllable hails is unclear; it may be related to J he- [heru] 'to pass, elapse'). Thorpe comments that the lack of palatalization in the *g of the *peNge reflexes implies that pRk *nuge must be the actual related form (1983:323), though if the early high vowel loss postulated for this form was indeed early enough, it could have predated Progressive Palatalization. It is also noteworthy that the Nakijin reflex of this item is phini/gi\N, with full vocalization of the *N syllable (as occurs in Ieshima, a dialect closely related to Nakijin, as well, though nowhere else.)

The following list provides examples of High Vowel Loss in Nakijin:

LIST (25): High Vowel Loss[141] in Nakijin

*bir > Nb[142]	
/k'uNbi\N 'to tie'	*kubiri[143]
*bur > Nd, Nb	
qaN/daa 'grease, fat, oil'	*abura
haN/bi\N~khaN/bi\N 'to cover'	*kaburi
/niNbi\N 'to sleep'	*neburi, J nemuru
*zir > Nc'	
maN/c'u\N[144] 'to mix'	*maziri
*zus > Ns	
/phaNsu\N 'to take off'	*pazuri (J hazusu)[145]
non-initial *mu, *mi, *nu, *ni > N[146, 147]	
c'iN/zu\N 'to spin'	J tumugu
thaN/naa 'shell, snail'	*tamina 'pond snail'[148]

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[141]Thorpe lists similar developments for a host of high-vowel + *r and nasal + high-vowel sequences in various dialects. Nakijin is comparatively conservative in this area, as are, for that matter, most Okinawa dialects.

[142]Thorpe (1983:100) does not note this change for Nakijin. Neither are changes for *sur, *zir, and *zur listed in his summary table.

[143]Proto-forms in this table are Thorpe's pRk reconstructions unless otherwise noted.

[144]The voicing in this form is interesting: based on evidence from other dialects, we should expect a z-like segment in the modern form, as indeed we find in Shuri (mazijuN; the lack of high vowel loss and subsequent assimilation is remarkable here, although we can note the existence of alternate forms maNcjuN and maNkijuN, this last with a perplexing k). The behavior of the Nakijin form is reminiscent of, though not identical to, items from Northern Okinawa, Ieshima, Tokunoshima, and parts of Kikai, where *zir yields Nz(j) as a regular development.

[145]The shape of the Nakijin verb suggests a transitive verb stem with stem-final *s is the correct proto-form here; Thorpe's reconstruction is an intransitive form.

[146]In addition to the developments listed here, there is an alternation in the form of subject/genitive marker between nu (J no) and N that is seen in such items as niN/c'u (< ne no hito).

[147]Monosyllabic items of a nasal + high vowel sequence seem to be excepted from this tendency. Note, for example, /mii 'substance, body' (< pRk *mi 'fruit [on a pit], meat [on bones]), /miise\N 'new' (pRk *mii-; the adjectival suffixation can be considered independent of the adjective root). Interestingly, the OJ cognate of 'new' is niFi, with two syllables.

[148]Thorpe 1983:326 notes that this compound form derives from *ta 'paddy' + *mina 'shell, snail', though he cites only the Sr form taaNna.

initial *ni, *nu, *mi, *mu > zero	
/nii\ 'chest'	J mune, Sr Nni
zaa/se\N 'bitter'	*niga, Sr Nzja
/zii 'thorn'	*nige, Sr Nzi
/diiru\N 'to get wet'	*nure, Sr NdijuN
zi/rii 'right (direction'	*nigi(re)[149]
/zuu 'ditch'	*mizo, Sr N(N)zu
*rik > Qk[150]	
/qaQ\c'uN 'to walk'	*ariki
*kur > Qk	
maQ/k'aa 'pillow'	J makura
/phuQk'i\N 'to swell'	*pukori~pukure[151]
*sur > Qs	
/waQsi\N 'to forget'	*wasure
*sVs > Qs	
phisi/se\N~/p'iQ\seN 'thin'[152]	*pisu~pesu
/qaQ\seN 'shallow'	J asa-, Sr qaQsaN, qasasaN
/phuQ\seN 'want'	J hosi-, Sr husjaN
other high vowel loss	
/mjaa 'garden'[153, 154]	J niwa

There are numerous exceptions to the general rule of high vowel loss in the environment of nasals and sequences with r. Take, for example, nuzu/N 'to pull out' (pRk

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[149]Interestingly, the Sr cognate retains the ni of the pRk form: niziri.

[150]This change must precede progressive palatalization, at least in examples such as pRk *ariki > Nk /qaQ\c'uN, where the c needs to have come from following, rather than preceding, *i (or else all the paradigm forms would have c', in contrast to the c'~k' alternation actually exhibited [Nakasone 1983:664]). Most Ryūkyūan dialects do not progressively palatalize root-final consonants of verbs of this sort, in any case.

[151]The evidence from Nakijin seems to favor the latter alternate pRk form.

[152]It seems clear enough that in phisi/se\N 'thin' alternating with /p'iQ\seN, a high vowel loss and gemination process is occurring. However, the accent distinction, and the fact that the latter form fits the rhythmic gemination pattern discussed in 2.2.2.2.2 (as does the change in the quality of the initial consonant) indicates something other than vowel loss and assimilation might be going on here. It is noteworthy that the alternation of forms is found in Shuri as well (hwiSisaN~hwiQsaN).

[153]Or, more specifically, the open space in front of a notable residence. This is a space used, according to Nakasone (1983:545), for drying grain; in addition there are usages (hasaa/giNmja\a 'open space [in a sacred grove]') that relate to religious practices.

[154]There is also the suspiciously shaped ni/waa roughly associated with this meaning. The term /mjaa has been discussed in a previous note; ni/waa on the other hand refers to a side area of a residence used for planting flowers and the like (Nakasone 1983:351).

*nugi), phini/gi\N 'to run away' (pRk *peNge,[155] Sr hwiNgijuN), mic'a/a 'earth' (pRk *mita, Sr Ncja), /muiru\N 'to burn' (pRk *mUje, where the capital U indicates a lack of evidence for height in the back [round] vowel [Thorpe 1983:45]),[156] mu/sii 'worm, creature' (pRk *mUsi[157]), /mu\su 'mat' (pRk *mUsiro), /muu\c'i 'six' (*muutu), ni/sii 'north',[158] and nuk'u/se\N 'warm' (pRk *nuku[159]). In most of these, plausibly a non-high vowel can be suggested to account for the vowel retention; certainly forms for which Thorpe has reconstructed *U fall into this category. In addition, there is also Thorpe's observation that nasal plus high vowel sequences are mostly preserved before *s (1983:93), as in *nisi 'north' > Nk ni/sii.[160] The example of Nk mic'a/a 'earth' may be related to the tendency of following *s to block the nasal plus high vowel reduction; if we posit that the constraint is conditioned not by *s alone, but by certain other voiceless non-stops as well, then the c that obtains after Progressive Palatalization of the *t in *mita would force retention of the initial syllable;[161] if we extend the generalization about *s (and now *t > c, as well) to include voiceless segments in general, we can also account for Nk nuk'u/se\N. Items such as /muu\c'i 'six' and /muiru\N 'to burn' are probably excluded by reason of the VV sequences; the accentuation of /mu\su 'mat', with the original vowel length implied by the first-syllable high pitch may be excluded for the same reason, if

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[155]The Nakijin evidence suggests the better reconstruction for this term is something like *penege-.

[156]The Japanese cognate of this term is moeru, however.

[157]The Nakijin form certainly favors a *o interpretation for *U here: that is, *mosi.

[158]The J cognate nisi of this term means 'west'; it is used in the *Omori-sōshi* for both 'north' and 'west' (Nakasone 1983:349).

[159]Unless, of course, we take the Nakijin form as indicating that *noku might be a more accurate reconstruction.

[160]Certain evidence points towards this form having an original non-high vowel in the crucial syllable: pRk *nesi accounts for, for example, the i of nisï 'north' in various Sakishima dialects (ï is the regular reflex in these dialects of pRk *i) (Serafim, personal communication, 2004).

[161]In Nakijin, at least, it would. The Shuri reflex is Ncja 'earth'.

the *s constraint should not provide a valid notion. In any case, it is a complicated issue, though we note that the issue of changes in items with nasal plus high vowel causing a certain amount of consternation is not the observation of this study alone; Thorpe as well essentially tosses up his hands at one point: "With other [nasal plus high vowel] sequences, ...unpredictability is the only consistent principle" (1983:94). We note in particular two examples of vowel retention that are particularly interesting in that they so cleanly correspond otherwise to their Shuri cognates: muk'aa/si 'long ago' (Sr Nkasi), and muk'aa/zi 'centipede' (Sr Nkazi). It seems the most reasonable way to conclude this exposition on nasal plus high vowel sequences is to note that Nakijin seems to show a somewhat less fully developed tendency than certain other Ryūkyūan languages to exhibit vowel loss in these situations. (The issue of high vowel loss in such environments is discussed further in 4.2.3.)

Last, we should note that the High Vowel Loss process must follow changes such as those that work a palatalization on adjacent consonants. Take, for example, zaa/se\N 'bitter' (pRk *niga), where the *g of the pRk form has undergone Progressive Palatalization under the influence of the preceding *i before the loss of the initial syllable.

2.2.2.1.9 Assimilation

It is not entirely clear that we need to treat this topic separately from the high vowel loss treated in 2.2.2.1.8, as most examples of assimilation occur after the juxtaposition of consonants that results when vowels devocalize. That is, we lack examples of consonant assimilation across vowels, at least not such that occurs without the loss of the intervening vowel for whatever reason. Relevant examples of assimilation are presented in the previous section; we also return to the issue briefly in the discussion of Vestigial Rhythmic Gemination in 2.2.2.2.2 below.

Consonant assimilation takes two forms in Nakijin, both involving syllabic consonants N and Q. In the first type, N arises from various CVC sequences involving *r after a high vowel, the end result being usually Nb or Nd; cogent examples of these are found in 2.2.2.1.8.

The assimilation in these examples is actually fairly complex, involving changes in both point and manner of articulation to both segments participating in the change. Without wishing to commit to a particular sequence of development, or indeed to suggest that actual sequential steps are necessary to account for the change,[162] let us take the locus classicus of N-type assimilation, qaN/daa 'oil' (pRk *abura), in which it can be seen fairly clearly that the *bur corresponds to Nd, perhaps as follows:

1) *bur > b̩r (via High Vowel Loss; note the retained moraicity of b̩)[163]

2) b̩r > m̩r (via manner of articulation assimilation, here a sonorantization of b)[164]

3) m̩r > m̩d (via manner of articulation assimilation, here a fortition of r)

4) m̩d > Nd (via point of articulation assimilation)[165]

A conceptually similar path of development will obtain for most examples of N, though the specific output will vary. It is unclear, for example, why pRk *abura should yield Nk qaN/daa while pRk *kaburi surfaces as Nk khaN/bi\N~haN/bi\n. However, even if the reason for the difference is unclear, the mechanism need not be: if, for example, the point of articulation assimilation in (4) above worked on the d rather than on the m, a final output of mb obtains. It is also possible that the vowel following the *-bur- is the key factor in the different modern reflexes, *buri changing regularly to Nbi, and *bura to Nda.

In Q-type assimilation, the inputs vary, but there is invariably a voiceless segment involved (whereas in N-type assimilation, most often both original segments are voiced). This

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[162]That is, the steps listed here should be taken not as an actual sequence of changes but rather as a hypothetical accounting of the change.

[163]We could equally well have assigned the retained moraicity to the segment following the lost vowel. It is probably the result of a bias induced by traditional Japanese syllabary orthography that we have left the moraicity on the preceding consonant.

[164]We may be able to conflate steps one and two of this derivation by taking note of the widespread prenasalization of voiced obstruents in earlier Japonic.

[165]Recall that N has allophones m, n, ŋ, and N, all moraic. Here the phonetic realization would be [n̩].

is not to say voiced segments are not involved in Q-type changes; most involve *r at some point (though *r is, of course, redundantly voiced). Once again, we consider below a sample derivation. The item under consideration is maQ/k'aa 'pillow' (J makura),[166] the medial -Qk- of which is related to the general Ryūkyūan *-kur- change to -Qkw-, with a Nakijin-specific loss of w; what is presented here accounts for the process algebraically, though it should be understood that it is unlikely that this is the actual path taken by the item in question:

1) *kur > k̩r (via High Vowel Loss; note the retained moraicity of k̩)

2) k̩r > k̩ɾ̥ (via manner of articulation assimilation, here the devoicing of r)

3) k̩ɾ̥ > k̩k (via point of articulation assimilation, here a shift of ɾ̥ to velar)[167]

Keeping in mind that Q represents a syllabic consonant with the same qualities as the following consonant, k̩k is indeed Qk. Once again, an analogous pattern of development will account for the examples in the list in 2.2.2.1.8; fewer steps are required (in fact, one hesitates to term it assimilation) for cases where the loss of the intervening vowel leaves like consonants adjacent to one another.

2.2.2.1.10 Glottal Generation

What we are terming "glottal generation" here may either 1) describe a process that adds a glottal onset to original vowel-initial items, or 2) be simply a convenient shorthand for the state of affairs we note in Japonic in which Ryūkyūan items whose modern surface forms have glottal initials correspond to smooth vowel onset forms in more widely used varieties of Japonic. Choice (1) requires us to assume that PJ *#V became #V in greater Japanese, while these vowel-initials grew qV glottal initials in Ryūkyūan, while (2) would have us posit that PJ had qV initials, and that Ryūkyūan retained the glottal while greater Japanese lost it. We presume from Thorpe's reconstructed forms (as well as his citations of modern forms, for that

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[166]Thorpe has reconstructed no proto-form for this item, but it would likely be fairly close to the modern Japanese form cited.

[167]There is also the shift in this last step of the flap to a full stop articulation.

matter) that assuming a glottal stop as part of the pRk phonological inventory is unnecessary, and that its presence in modern forms is the predictable development of a glottal initial for original vowel-initial items. The basic rule can be formalized as follows:

*V > qV / #__[168]

Quickly scanning a representative list will confirm the applicability of this generalization:

LIST (26): Glottal initial development in Nakijin

Nk	Sr	pRk	J
qami/i 'rain'	qami	ame	ame
qiN- 'dog'[169]	qiN	inu	inu (OJ inu[170])
/qu\mi(i) 'sea'	qumi	Umi'	umi
qira/a 'jellyfish'	qiiraa	era	(no cognate)
qe/e 'indigo'	qee		ai
/quN 'to weave'	qujuN		oru (OJ oru[171])
qoo 'blue'	qooruu	aU	ao

Thanks to subsequent developments in vowels, most notably vowel raisings affecting *o and *e, there is a discrepancy between original vowel quality and modern forms. The list above presents examples of both original vowels and their modern descendants as well as modern o and e resulting from vowel sequence levelling. That all are found with glottal onset testifies to the pervasiveness of this development.

There is, nonetheless, a full range of so-called smooth onset vowels yet to be found in Nakijin. "Smooth" here must be read as "non-glottal" rather than taken as implying bare vowel initials. As will be shown, the phonetic realizations of smooth onset vary, involving glides and h-like segments, even though it is fair to phonemicize these as unadorned vowels, standing clearly in contrast to the glottal initials encountered elsewhere. The contrast between glottal and smooth onset vowels is treated in 2.2.3.1.1, where it directly informs the discussion

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[168]Or perhaps: *zero > q / #__V.

[169]The form qi/N in Nakijin is used independently only to refer to the Dog sign of the Chinese zodiac; the regular word for 'dog' is qiN/nu\kwaa, a compound that originally must have meant something like 'puppy', but that has shifted to the more general meaning.

[170]That is, the i segment here of modern Japanese does not reflect earlier wi.

[171]Again, this is an actual Japanese o rather than wo.

of the (comparatively exotic) glottalized glides and nasals later in that section. We present here for ready comparison purposes with the glottal onset items above a list of smooth onset items (though we reserve discussion for the later section).

LIST (27): Smooth onset vowels in Nakijin (see 2.2.3.1.1)

phonemic (/X/)	phonetic ([X])	gloss
i/i	ji/:	'picture'
e/i	je/:	'next year'
a/a	ɦa/:	'interjection of surprise, disgust'
oo/o\o	wo:/wo\:	'no [honorific]'
u/u	wu/:	'hemp'

Certainly in the case of smooth onset i and e, phonemicization with the homorganic glides that appear in their phonetic manifestations (and that can be reasonably deduced through etymological comparisons in some cases as well) is a reasonable alternative to that implied above, which is directly based on Nakasone (1983:630). So doing would yield a full complement of vowels following j in Nakijin; it seems likely that the limitations of Japanese kana orthography (which lacks symbols for [ji] and [je], since Japanese lacks i-ji and e-je pronunciation distinctions) may have influenced the development of the scheme as presented above.

2.2.2.2 *Nakijin-specific developments*

Where Nakijin diverges from other varieties of Ryūkyūan is the subject of this section. The changes noted here are of two sorts: some set Nakijin squarely amongst the northern Okinawan and Amami dialects, as noted in 2.3.1.1 (and thus stand Nakijin in some contrast to central/southern Okinawan and the rest of the Ryūkyūs); others set Nakijin uniquely apart from the northern dialects to which it is otherwise more or less closely related.

2.2.2.2.1 Vowel Lengthening

Before launching into a discussion of Vowel Lengthening in Nakijin, it is necessary to clarify our terminology, and to qualify the various connotations the term "length" might be accorded in discussions about vowel quantity in the dialect. First, there is what we will term "hard" length—this is length that derives from the segmental adjacency of two vowels, no

matter what the source of that vowel sequence; this sort of length can occur anywhere in an item, and such syllables are best thought of as *long*, but not *lengthened*. Examples of hard length will be found in the various discussions of consonant loss (2.2.2.1.7, 2.2.2.2.3, and 2.2.2.2.4). The second type of length is that under discussion here; termed "Vowel Lengthening" both in our heading and in Nakasone's studies on the topic, it refers to a "rhythmic" lengthening—one where syllable position (and to a lesser degree, vowel quality) is the crucial determining factor in the occurrence of the length. Last we have "stretching"[172] where vowels in final syllables[173] can lengthen due to the presence of non-distinctive high pitch on that final syllable. That the pitch is dynamically assigned becomes apparent when items of this sort are suffixed; we present examples below, along with examples of pitch behavior in such items that does not affect vowel length.

LIST (28): "Stretching" in Nakijin[174]
inaa/guu 'woman' (inaagu/nu 'woman [possessive]'
qinu/c'ii 'life' (qinuc'i/nu 'life [possessive]')
mimi/i 'ear' (mimii/nu 'ear [possessive]')[175]
na/i 'fruit' (nai/muN 'fruit')

This "stretching" may be constrained from occurring when there is vowel length (either "hard" or "rhythmic" [though inaa/guu in the list above is one obvious exception]) elsewhere in the

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[172]Curry 1990:12.

[173]In disyllables the fact that the second syllable is the final syllable can make it difficult to distinguish which of rhythmic lengthening and stretching best explains the length. However, the type of high pitch placement that stretches final syllables in trisyllables (as in midu/rii 'bud') is the same pitch placement that leads to a final high pitch mora only (with no stretching) in mono- and disyllables (cha/a 'tea', c'imu/u 'liver, heart'). We suspect that second-syllable lengthening did operate in these disyllabic items, however, since there would be nothing for the final-mora dynamic high pitch to be assigned to had the syllables not lengthened. Note that items of the c'imu/u pitch pattern contrast with items such as c'i/mii 'claw' with final *syllable* high pitch (which tends to be static [c'i/mii\sac'i 'tip of the toe'], though such items are described by Martin as atonic [type A] and correspond to Shuri low register items [OGJ "0"]).

[174]Adapted from Curry 1990:11.

[175]The second syllable of mimii/nu remains long due to rhythmic second-syllable vowel lengthening.

word,[176] and yet it is found to exhibit some inexplicable variations: take, for example, the contrast between phak'aa/maa 'split skirt' and hat'aa/na 'hatchet'.[177] Terminology clarified, we now turn to our discussion of rhythmic Vowel Lengthening.

Nakijin words exhibit a strong tendency to have lengthened syllables in second syllables, and to a certain extent, subsequent even-numbered syllables, counting from the left. The pattern for this change can be rendered:

V > VV / #CVC__(CVC__)(CVC__)...

However, certain constraints limit the operation of this tendency. According to Nakasone (1983:633), while syllables with the vowel a lengthen almost invariably, those with i and u usually do so only when accented.[178, 179] In addition, when any lengthening might interact with syllable-final Q or N, (or, for that matter, additional vowels), resulting in an extra-heavy syllable,[180] it is constrained from occurring (Curry 1990:12).[181] Constraints or not, the phenomenon of Vowel Lengthening permeates the Nakijin lexicon, creating in effect a sort of template for word shapes that can, though it is certainly not obligatory, influence the shape of

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[176]Note for example, haa/ra 'tile' in which the hard length of the first syllable (haa- < *kawa-) seems to keep the -ra syllable from becoming -raa. There are apparent counterexamples such as Nk haa/mii 'turtle' (alternating with haami- in compounds), but this item may be a loan. It is strangely shaped in Shuri, which has no rhythmic lengthening or stretching, as well (kaamii).

[177]Perhaps all that is necessary is to declare stretching an optional phonetic realization. It may also be possible to code stretched long vowels into the lexical forms, though we have not explored this option here.

[178]Nakasone's used of "accented" seems to mean the presence of high pitch on a syllable.

[179]However, Nakasone's own citations of lengthening forms (1983:633) show no shortage of lengthened i and u even in unaccented syllables, at least in second position. Syllables in i, however, show more variability than either u or a, and in later syllables, the presence of either accent or the vowel a definitely seems to favor lengthening.

[180]Three or more morae.

[181]Lawrence (1990:48) points out the existence of extra-heavy (his "superheavy") syllables in some derived forms. He also presents a sole exception to the avoidance of extra-heaviness in non-complex words: /geeN 'long leaves held together and used in ritual purification' (Sr geeN).

even late entries into the language;[182] when we use terms such as "canonical Nakijin shape" it is to the pattern CVCVV[...] that we are referring. The pervasiveness of this patterning seems to speak of its being a Nakijin feature for some time, given the large number of items that have it, yet the template effect is such that it must be treated as a currently operating phenomenon as well.

While second-syllable lengthening is a sound-change process, that is, one in which a historically short syllable lengthens, numerous cases of "hard" length, whether the surface manifestation of underlying length or (levelled) vowel sequences resulting from consonant loss, have led to surface [C]VV syllables that may happen to occur in second-syllable position and thus be mistaken by the linguist for derived length. In other positions, especially the first syllable, original underlying length can surface as an accent on a short vowel syllable (Shimabukuro 2002 and Martin 1987). Historically long syllables can occur elsewhere as well, often in conjunction with derived length, and some length in initial syllables is retained instead of undergoing the shift to accent noted above. What we are forced to say, therefore, is that in general, no matter the pervasiveness of Nakijin word shapes in #CVCVV[...] deriving from rhythmic lengthening, there are many examples of long vowels (vowel sequences) elsewhere. Furthermore, there seem to be few examples of these syllables shortening to force words into conforming to the basic template shape.[183]

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[182]Witness, for example, items of clearly recent provenance, such as qamee/ri\k'aa 'America'.

[183]However, Lawrence cites examples of long vowels shortening when words undergo affixation, as in /pheN 'fly [insect][also]', from /phee 'fly'+ N 'also [enclitic]' (1990:48). Such examples tend to confirm our general constraint on over-heavy syllables, though the lack of template-based conformatory shortening (CVV to CV in a third syllable, for example) seems to still hold true.

It is possible that certain old changes, such as that noted by Shimabukuro (2002:207) for /CV\CV(V)-shaped items, may represent a variety of conformation to the template.

Below we present some examples of rhythmic Vowel Lengthening. The first list is Nakasone's,[184] as presented in the section of the Nakasone 1983 (633) that discusses the phenomenon. Composed exclusively of verbs, which by dint of their potential for longer overall word lengths have the capacity to demonstrate fourth-syllable lengthening in addition to second-, the list consists of two sections, one for each type of Nakijin verb accentuation:[185]

LIST (29): Vowel Lengthening in Nakijin verbs

High-register verbs

qa/gaaru\N	'to rise'	J agaru, Sr qagajuN (1)
sa/guuru\N	'to search'	J saguru, Sr sagujuN (1)
ma/giiru\N	'to bend'	J mageru, Sr magijuN (1)
pha/t'aarac'u\N	'to work'	J hataraku, Sr hataracuN (1)
thu/duuruc'u\N	'to roar'	J todoroku
hu/siik'umi\N	'to push in'	J osikomu, Sr qusikunuN (1)
ja/p'aarak'iru\N	'to soften'	J yawarageru, Sr jahwarakijuN (1)
nu/k'u(u)t'ami(i)ru\N[186]	'to warm'	J nukumeru, Sr nukutamijuN (1)
hu/siinuk'iru\N	'to push away'	J osinokeru, Sr qusinukijuN (1)

Low-register verbs

sagaa/ru\N	'to lower'	J sagaru, Sr sagajuN (0)
taguu/ru\N	'to reel in'	J taguru, Sr tagujuN (0)
nagi(i)/ru\N[187]	'to throw'	J nageru, Sr nagijuN (0)
haraama/c'u\N	'to roll'	J kara [?] + maku
quduuru/c'u\N	'to be surprised'	J odoroku, Sr qudurucuN (0)
haci(i)ra/su\N	'to heat, fry [food]'	J atu- 'hot', Sr qaçirasjuN (0)
qaraawa/riru\N	'to appear'	J arawareru, Sr qarawarijuN (0)
quduuru/k'aasu\N	'to surprise'	J odorokasu, Sr qudurukasjuN (0)
phic'i(i)pha/naasu\N[188]	'to pull apart'	J hikihanasu, Sr hwicihanasjuN (1)

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[184]The list here is borrowed wholesale from Nakasone (1983:633).

[185]Following Martin (1987:263), we note that Nakijin has two pitch patterns for verbs: one with a plateau of high pitch, and the other with a stretch of low pitch beginning and a final or penultimate high pitch mora. These correspond to Shuri accented (coded as "1" in OGJ) and unaccented ("0" in OGJ) types. See 2.1.4.

[186]The entry in Nakasone's list of lengthening examples does not include the alternating lengths noted in the entry in the body of the dictionary (1983:358).

[187]The body of the dictionary lists only nagi/ru\N (Nakasone 1983:333).

[188]The body of the dictionary lists only phi/c'iphanaasu\N (no length variation in the second syllable, and different accentuation), with alternate phic'i/pha\naasuN (Nakasone 1983:435). No explanation is offered for the alternate form, in contrast to the occasional notations found for some items. Given the accentuation of the Shuri correspondent, we expect the first alternate from the body of the dictionary to be the correct form. The item from the

That lengthening of this sort is obligatory for a in all situations, and optional, though perhaps preferred, for i and u (especially when the high pitch noted by Nakasone is present), should be clear enough from these examples. The variant forms and lack of lengthening for i and u in several cases are somewhat exasperating; there seems to be no clean way to account for them. We suspect these may reflect a slow process of declining viability[189] for rhythmic Vowel Lengthening in Nakijin or a change currently in progress, from purely positional conditioning to a combination of positional and segmental conditioning.[190] (Or, possibly, geographical variation may account for the differing forms.)[191] In the conceptually related Rhythmic Gemination discussed below (2.2.2.2.2), we see the bare remnants of what seems to have been a positionally conditioned change in segment quantity that has been mostly regularized out of the dialect; perhaps a similar fate is in store for Vowel Lengthening.

Moribund or not,[192] in addition to the verb examples above, a considerable number of noun examples of Vowel Lengthening, covering most possible pitch patterns, can be found. We present a sampling below of original two- and three-syllable nouns.[193] (The vowel-lengthened syllables are **bolded** for clarity.)

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p.633 list may be a geographical variation, or an error, though we prefer the first possibility. (Note as well the aspirated medial ph that betrays the compound nature of this word.)

[189]This despite its still-current pervasiveness—imagine what word forms would look like if it applied obligatorily, for all vowels, in all even-numbered syllables.

[190]Or perhaps the best way of describing the phenomenon is to borrow Nakasone's phrasing: "There is a *tendency* [emphasis not in original] for the vowels of even-numbered syllables to lengthen..." (1985:62).

[191]This seems unlikely given Nakasone's usual careful notation of subdialectal variants.

[192]Late loans such as qamee/ri\k'aa certainly indicate that it would be premature to declare Vowel Lengthening dead.

[193]We have opted not to present longer nouns due to the fact that they are almost invariably the result of compounding, and under such circumstances the shape of the component items in isolation is often preserved in ways that obscure rhythmic lengthening. It is no doubt for this reason that Nakasone opted to present verbs for his examples of Vowel Lengthening. Data on longer words of all sorts are readily available: Nakasone 1983 (655–661) has an exhaustive listing of accent patterns for words of all sizes, with examples ranging up to the five-syllable inaagu/nuQ\k'wa 'girl'.

LIST (30): Vowel Lengthening in Nakijin nouns[194]

Disyllables (two-mora > three-mora)[195]

hu/**sii** 'waist'	*kosi
ha**si/i** 'leg'	J asi
/nu**mi(i)**[196] 'flea'	J nomi
c'i/**bii** 'buttocks'	*tube
ha**si/i** 'sweat'	*ase
/ha**gi(i)** 'shade'	*kage'
ha/**zaa** 'odor'	*kaza
ha**sa/a** 'bamboo hat'	J kasa
/na**haa** 'inside'	J naka
hu/**t'uu** 'sound'	*U'to
c'i**mu/u** 'liver, heart'	*kimo
/mu**hu(u)** 'bridegroom'	*moko
c'i/**ruu**	J turu
c'i**nu/u** 'clothing'	*kinu
/c'i**ju(u)** 'dew'	J tuyu

Trisyllables (three-mora > four[+]-mora)

pha/**zii**\mi 'start'	J hazime
ga**sii**/si[197] 'sea urchin'	Sr gacicaa
kha/**nii**\t'i[198] 'earlier, normally'	J kanete
mi**mi(i)**/za 'earthworm'	*memezu
kha/**t'aa**\c'i 'shape'	J katati
kha**gaa**/mii 'mirror'	*kagami
ni/**guu**\t'u 'nonsense'	J negoto
hu**t'uu**/ba 'words'	J kotoba

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[194]First column in all lists in this section is Nk forms and glosses, second is pRk unless otherwise noted.

[195]As Martin (1987:263) notes, some historic trisyllables have ended up, due to consonant loss, with mora and pitch patterns identical to some of the disyllables cited here: kha/zai 'decoration', kha/c'uu 'bonito', thu/nai 'neighbor', etc.

[196]The parenthesized mora appears when these items are appended with possessive marker nu (Martin 1987:263).

[197]This item has the alternate form gasi/sa\a.

[198]This item is an adverb, not a noun, although the distinction is functional rather than formal.

khi/**buu**\si 'smoke'	J kemuri~keburi
kha**buu**/t'u 'helmet'	J kabuto
si**zii**/k'a 'quiet'	J sizuka
ha/**sii**\bi 'musical performance'	*asUbi

The lists above present lengthened syllables in words with all possible pitch patterns and for all five proto-vowels; that no combination of accent contour and original vowel is missing from this list should suffice to demonstrate that it is primarily the position of the syllable relative to the left edge of a word governing the Vowel Lengthening process.

There exist, of course (and of perhaps more interest) exceptions to, and variations in, Vowel Lengthening, a selection of which, with examples from noun, verb, and adjective forms, is presented here (again, with the second-syllable loci highlighted):

LIST (31): Optional or non-existent lengthening

pha**si**/raa 'pillar'	*parira, J hasira
phi**ni**/gi\N[199] 'to flee'	*peNge
si**zi(i)**/ru\N 'to pass'	*sugi
suu/**ra(a)**\seN 'beautiful'	Sr cjurasaN
khu**nu(u)**/mi\N 'to plan'	J konomu
si**ru(u)**/se\N 'white'	*siro
k'u**ru**/se\N 'black'	*kuro
ju**hu**/mi\N[200] 'to rest'	*yokowi
khu**k'u**/c'ii[201] 'feeling'	J kokoti
phu**t'u**/k'ii 'buddha'	J hotoke
tha**nu**/mii 'request'	J tanomi
ju**ru(u)**/bii 'holiday, Sunday'	J yurumi (?)
qu/**bu(u)**se\N 'heavy	*Ubu
k'u**ru**/maa 'cart'	J kuruma

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[199]Following Thorpe (1983:93), the N of the proto-form for this item may derive from very early high vowel loss, which seems to be confirmed by the presence of the vowel in the Nk form; that it is not lengthened in the main verb form is perplexing. Related Nk forms demonstrate both lengthening and contraction in the object syllable: phinii/gimuN 'one who idles about' (not to be confused with phiNgimuN 'escapee, work-shirker'), phiNga/su\N 'to let go'.

[200]Contrast the lack of length here with the length in a related form which has a in the second syllable: ju**hwaa**/su\N 'to make rest'.

[201]But note the related khu**k'uu**/ru 'heart, sentiment' (J kokoro), with a perfectly well-behaved lengthened second syllable.

With the exception of examples related to pRk *e or J e, we note that there are exceptions to Vowel Lengthening for syllables in all vowels, including both those with and without high pitch on the object syllables, though non-high-pitch syllables seem to predominate. That even the vowel a can descend to variability in a high-pitch syllable[202] tends perhaps to confirm that ultimately Vowel Lengthening is indeed synchronically a "tendency" (however pervasive), though the fact that it does apply so widely despite the exceptions leads us to believe it must have been obligatory at some point.

Last, we present a multi-way comparison of near-identical forms, but with widely varying degrees of Vowel Lengthening (again, second syllables are highlighted):

LIST (32): Contrastive behavior in Vowel Lengthening

non-high pitch syllable		
p'i**ruu**/se\N 'wide'	*piro	(consistent lengthening)
si**ru(u)**/se\N 'white'	*siro	(optional lengthening)
k'u**ru**/se\N 'black'	*kuro	(no lengthening)
high pitch syllables		
k'u/**ruu**bi\N 'to roll over'	J korobu[203]	(consistent lengthening)
khu/**ru(u)**su\N 'to kill, beat'	J korosu	(optional lengthening)

That is, for the same segmental and positional environment (in this case, *ro > ru in second position), we see a full range of lengthening possibilities in non-high pitch syllables (lengthening, optional lengthening, no lengthening) and two possibilities in high pitch syllables (either lengthening or optional lengthening). For this syllable at least, there are no examples that lack length if the syllable carries high pitch. We are at a loss to explain such a wide variation in the data, except by recourse to the notion of there being a change in progress, as mentioned earlier, despite the apparent pervasiveness of vowel lengthening.

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[202]Nakasone notes on the matter that (semi- ?) obligatory lengthening is a feature of syllables where that syllable and only that syllable has high pitch (1983:633).

[203]The Nk initial segment implies a pRk form with initial *ku-, however.

2.2.2.2.2 Vestigial Rhythmic Gemination

In addition to the tendency of vowels in second- and later even-numbered syllables to lengthen in Nakijin, there are the remnants of a phenomenon operating in some words that adds weight to voiceless medial obstruents (there is at least one example each of p, t, k, c, and s) in apparent connection with first-syllable accentuation that has been related to underlying vowel length.[204] The phenomenon seems to be limited to consonants in second-syllable-initial position; our use of "medial" here should be taken to mean consonants in that position. Among other reasons that will be discussed below, the gemination is notable in that there is this positional component to its description. That is, just as we have vowel lengthening that can be described with reference to metrical position (in conjunction with vowel quality and accent), we also have consonant gemination that makes reference to metrical position (in conjunction with consonant quality, vowel length, and accent). Whether the gemination here is a direct shift of mora count from an original long vowel to the consonant following that vowel, or a translation of accent to syllable weight (in other words, following, or perhaps concomitant with, the change of vowel length to accent, per Shimabukuro 2002) is unclear. However, the latter seems far more likely, for two reasons: first, examples of vowel length in other items and other syllable positions do not seem otherwise to lead to geminate consonants (or, for that matter, to accent), and second, items that have the requisite accentuation but for which we cannot plausibly reconstruct vowel length (that is, those for which the only evidence for length is Nakijin accentuation, uncorroborated by comparative evidence), do demonstrate gemination.[205] Voiced medial consonants, including those that are redundantly voiced, do not

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[204]Shimabukuro (2002:206) notes that the lack of epenthetic h in some items (/qi\c'ii 'breath' instead of /hi\c'ii, for example) where it is expected (per Nakasone 1983:634) results from underlying vowel length for the accented syllable; this length blocks the epenthetic h rule before shortening and surfacing as accent.

[205]See the discussions below for verb forms and for numbers for examples of gemination unrelated to vowel length.

participate in the gemination.[206] The phenomenon is termed "vestigial" in our description because it seems to not be found in all candidate loci; presumably it was a regular feature at some point in Nakijin, but the host of exceptions, including some doublet evidence, indicate that both its viability and status as a Nakijin distinctive are waning (or have waned). Last, there is an apparent connection between the gemination evidenced in these items and low-register accent type adjectives as discussed below in 2.1.4; some of these adjectives are considered in this section as well, though the gemination in them can be traced to segmental circumstances. The overlap of accent contours for items of the modern segmental contour CVQCVX—they uniformly surface as /CVQ\CVX despite the dramatic difference between gemination due to vowel loss and assimilation (as in the adjectives) and the gemination discussed here (which seems to have no discernible segmental motivation at all)—is certainly an interesting confluence of accent development, and may even represent a type of Nakijin word-shape template comparable to the compelling word patterns established by, for instance, the tendency of items to lengthen second syllables (see 2.2.2.2.1).

This type of gemination has not gone unnoticed by other researchers. Lawrence (1990:120) briefly treats it as it pertains to verb forms (which we will discuss below); by his own admission, the treatment he adopts is sufficient to describe the behavior, though not account for it (and certainly our historical description will similarly only describe what happened, without addressing why it happened). Lawrence's discussion hinges on the presence or non-presence of extra-metrical positions in the verbs to account for the behavior, notes that accent shifts accompany it, and that the rules for deriving the forms seem to apply cyclically. We are not in this work equipped to evaluate Lawrence's treatment except to note that it does indeed describe well the gemination phenomenon in verbs, and that he aptly notes

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[206]This is not surprising, given the relative rarity of voiced geminate consonants throughout the Japonic languages. Some Ryūkyūan dialects (including, interestingly in that it is a Northern Ryūkyūan dialect, Shodon) do have such.

that the process must be metrically based, since it cannot be reasonably accounted for through a consonant assimilation process and indeed occurs even for verbs without stem-final consonants (that is, verbs in which the only possible candidate source for the gemination is the single consonant of the verb ending).

The following list includes the several Nakijin words that demonstrate rhythmic gemination of the medial voiceless consonant; alternate forms of the main listings are given in inset lines:

LIST (33): Medial consonant gemination

Nk form	**gloss**	**comparative forms**[207]
/qaQ\k'u	'teasing'	qaku 0 (J aku 'bad, evil')
/qaQ\t'oo	'after, remains'	qatu 0 (J ato)
ha/t'aa		
/qaQ\p'aa	'beetle, coleopteron'	
/qiQ\c'u[208]	'silk'	qiicu 0 (J ito 'thread')
/qi\c'u	'silk, silk thread'	qiicuu 0
/qi\t'u	'silk, silk thread'	qitu 0
hic'u/u[209]	'[silk] thread'	
/qiQ\p'u	'alluvial dirt'	qiihu 0 'sediment'
guQ/p'u\i[210]	'wen, lump'	kuubu 0, guuhu 0
/gu\p'u		
/gu\bu		

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[207]From Sr unless otherwise noted.

[208]There is a fairly sizable group of related items clustering around the meanings of 'silk' and 'thread', though all are ultimately relatable to the same item that led to modern Japanese ito 'thread'. The range of each item is as follows: in the meaning of 'silk thread, silk good[s]' we have /qi\c'u, /qiQ\c'u, and /qi\t'u (the first two of which can also mean 'red color'); in the meaning of 'thread, silk thread' we have hic'u/u only (along with Nakasone's notation that 'silk good[s]' constitute a separate item.) Interestingly, no form /qi\c'u(u), which would be typical of items with this accent pattern that nonetheless lack gemination (such as /mu\hu(u) 'bridegroom, /qi\c'i(i) 'breath', etc.) occurs. (The parenthesized vowel surfaces when subject marker nu is appended to the items.)

[209]The accentuation of this item reveals that it may not be historically related to the other items in this cluster (or rather, that its origin and development is of a somewhat different character from the other items). It can be plausibly related to J ito 'thread'; and is, in fact, exactly the item that would be expected as the Nakijin reflex of something like *ito rather than the *iito (or *e[e?]to—to account for the unpalatalized t of /qi\t'u) that must be posited for the other items.

[210]We note here that the Nakijin forms for 'wen' contrast in voicing with Shuri kuubu, (though not with Sr guuhu). A similar difference obtains for Nk /buQ\sa 'greenery' and Sr husa 'tuft'.

/phiQ\t'u[211]	'dolphin'	hwiitu 0 (pRk *peto[212])
/naQ\p'aa[213]	'Naha [city]'	naahwa 0, nahwa 0
/na\haa		
/na\hwaa[214]		
/buQ\sa	'[luxuriant] greenery'	husa 1 'tuft' (J fusa 'bunch, tuft')
/phuQ\c'i	'mugwort, wormwood'	huuçi 0 'moxa', huuçi-[215]
/phu\c'i		
/huQ\p'a	'[type of poisonous] snake, asp'	kuhwaa 0
/quQ\p'a[216]		
hat'aQ/k'a	'lee'	kataka 0 (J kata- 'side'[?])
hat'aa/k'a		
hat'aN/k'a		
hat'aa/ha		
phadaQ/k'a\a	'naked'	hadaka 0

Numbers as well demonstrate behavior that seems to be a type of length/accent-related gemination. Consider the following data on numbers one through ten:

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[211]Aspiration here is due to the original non-high vowel following p; original *i would have yielded p'i-(which would subsequently reaspirate to ph under the influence of the medial *t); furthermore, the medial *t itself would have undergone progressive palatalization with preceding *i.

[212]Thorpe does not reconstruct length for the proto-form, as in his treatment it is derived from accent.

[213]This form is mentioned by Nakasone (1983:337) to have been current through roughly the end of the Taishō period (1926); modern forms in use are /na\haa and /na\hwaa, the latter with the extremely rare Nakijin /hw/ phoneme. Both modern forms are likely fairly recent borrowings; we will return to this in 4.1.2.

[214]Interestingly, all Nk compound forms with a 'Naha' element (naa/hwaNc'u\u 'person from Naha', etc.) make use of /na\hwaa rather than /naQ\p'aa or /na\haa.

[215]Attested in compound huuçibaa 'mugwort' (< huuçi + hwaa 'leaf'); Sr huuçi has shifted meaning from the plant itself to the medicinal substance derived from it and similar plants.

[216]The alternate form here is different in character from those cited for the other forms in this table, which vary in syllable weight. Here, the alternation is in the quality of the vowel onset, smooth in one case, and glottalized in the other. Given the underlying length reconstructible from the accent pattern of this item, and Shimabukuro's observation that original length blocks reaspiration (q > h) in such items this "alternate" is the apparent expected form, though in Nakasone (1983:823) /huQ\p'a is primary. But is the initial h really a reaspiration as the alternate form might suggest? Given the Sr cognate kuhwaa, it seems more likely that a derivation in which h is aberrant and q is expected is not at all what happened; rather we have an example of *k lenition (note that this will require reconstructing first syllable *o for this item) in this item, and it is only the apparently correct /quQ\pa, perhaps created by analogy with other items of this general shape, that is the aberrant form.

LIST (34): Consonant gemination in numbers

	number	**counting number**	**Shuri**
'one'	t'ii/c'i	/t'i\i	tiiçi
'two'	/t'aa\c'i	/t'aa	taaçi
'three'	/mii\c'i	/mii	miiçi
'four'	/juu\ci	/ju\u	'juuçi
'five'	hic'iQ/c'i\i	/qi\c'i	qiçiçi
'six'	/muu\c'i	/muu	muuçi
'seven'	nanaQ/c'i\i	/na\na	nanaçi
	/[thuu]nanaa\c'i 'seventeen'		
'eight'	/jaa\c'i	/jaa	'jaaçi
'nine'	khunuQ/c'i\i	/khuu, /khu\nu	kukunuçi
	khunu/c'i\i		
'ten'	/thuu	/thuu	tuu
'how many'	hik'uQ/c'i\i		

Of particular interest here is the accentuation of the numbers two, three, four, six, and eight, all of which have an initial accented long syllable, thereby matching very nearly the accent pattern that results from original underlying length that is demonstrated in /qaQ\k'u, /qaQ\t'oo and other examples of rhythmic gemination, but these items lack any gemination related to their accent and vowel length. This is no doubt a consequence of these items being compounds; the -c'i element in each is suffixed to the numeral elements listed above in the "counting number" column. Insofar as initial elements /t'i\i, /t'aa, /mii, /ju\u, /muu, and /jaa lack medial consonants, they also lack medial gemination, and the morpheme boundary in each of the -c'i forms apparently blocks gemination of that segment.[217]

Note, however, the numbers five, seven , and nine, all disyllables with identical accentuation in their counting number forms,[218] and all with gemination (and a shift of accent to the penultimate mora) when -c'i is appended. That the gemination is rhythmic here is confirmed by forms such as /thuunanaa\ci 'seventeen' where the syllable in which gemination

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[217]The juncture additionally blocks, it might be argued, conformation of forms like /t'aa\c'i 'two' to the surface shape more typical of items with underlying first-syllable length: the form /ta\c'i, that is, does not exist though forms of the shape CVVCV regularly surface as /CV\CV(V).

[218]The form /khuu for 'nine' is likely related to Sino-Japanese ku 'nine'. The Japonic form for 'nine' takes the shape kokono- in Japanese; Nk /khu\nu is cognate to this, though it seems to have shortened through haplology (or perhaps a syllable loss motivated by analogy to the processes that yield t'ii/c'i and /t'aa\c'i from pRk *piteetu and *pu'tatu).

occurred has been moved one syllable to the right by the addition of /thuu 'ten'. In addition, we see in the alternate form khunu/c'i\i for 'nine' the somewhat fluid status of rhythmic gemination for this item (at least); that it should so vary is not surprising given the number of items demonstrating rhythmic gemination that have alternate forms, sometimes even multiple ones.

The process of medial gemination seems to be demonstrated with surprising vigor in verb paradigms, where we might otherwise expect the pressures of paradigmatic analogy to level out such alternations. It occurs uniformly for voiceless[219] medial consonants in verbs (though strictly speaking the -Q- that appears must belong to the ending) having final mora high pitch (that is, being unaccented [Lawrence 1990:121]) in their citation forms but first syllable accent in their "euphonic"[220] forms. We should note that in contrast to many of the nouns cited above, there does not seem to be any evidence of vowel length being associated with the phenomenon, nor, as Lawrence points out, can it be attributed to CVC reduction (Lawrence 1990:120). Note the following:

LIST (35): Consonant gemination in Nakijin euphonic verb forms

citation	**connective**	**past 1**	**past 2**	**stative**
hac'u/N 'to write'	/haQ\c'i	/haQ\c'aN	/haQ\c'eN	/haQ\c'uN
phusu/N 'to dry'	/phuQ\c'i	/phuQ\c'aN	/phuQ\c'eN	/phuQ\c'uN
thac'u/N 'to stand'	/thaQ\c'i	/thaQ\c'aN	/thaQ\c'eN	/thaQ\c'uN
mju/N 'to see'	/miQ\c'i	/miQ\c'aN	/miQ\c'eN	/miQ\c'uN
p'ju/N 'to let go'[221]	/p'iQ\c'i	/p'iQ\c'aN	/p'iQ\c'eN	/p'iQ\c'uN
c'i/N 'to cut'	/c'iQ\c'i	/c'iQ\c'aN	/c'iQ\c'eN	/c'iQ\c'uN
thu/N 'to take'	/thuQ\t'i	/thuQ\t'aN	/thuQ\t'eN	/thuQ\t'uN

The behavior of these verbs in these forms is remarkable for three reasons: 1) the contrast in accentuation and consonant weight between the euphonic forms on the one hand, and the

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[219]Verbs with voiced stem consonants do not geminate even when the accentuation pattern and syllable count is identical to the verbs cited as demonstrating gemination. Note, for example huzu/N 'to row', which yields euphonic forms /hu\zi(i), /hu\zaN, /hu\zeN, /hu\zuN.

[220]For more on the terminology employed for Nakijin verb forms, see 2.2.2.1.7 and Nakasone 1983:634–646.

[221]The Japanese correspondent of this term (hooru) has a long vowel in the stem.

basic and combined forms, which parallel the citation forms, on the other; 2) the contrast in consonant weight between these verbs and longer verbs with the same stem-final consonant in the cited euphonic forms; and 3) the contrast in consonant weight between these verbs and similarly short verbs without first syllable accent in the euphonic forms. The following list provides verbs from items 2 and 3 corresponding to some of the monosyllabic stem verbs above:

LIST (36): Euphonic endings in consonant-geminating and non-consonant-geminating verbs

gloss	**citation**	**connective**[222]
'to write'	hac'u/N	/haQ\c'i
'to work'	pha/t'aarac'u\N	pha/t'aa\rac'i
'to lack'	ha/c'uN	ha/c'ii
'to dry'	phusu/N	/phuQ\c'i
'to awaken'	huk'u/su\N	huk'uu/c'i\[223]
'to stand'	thac'u/N	/taQ\c'i
'to stand out'	midaa/c'u\N	midaa/c'i
'to take'[224]	thu/N	/thuQ\t'i
'to cloud up'	k'umu/ru\N	k'umu/t'i
'to be'	/uN	u/t'ii

In short, it seems clear that the consonant weight is inextricably associated with first syllable accentuation, and, for lack of a better term, overall "size" of the verb (that is, short verbs—one- and two-syllable verbs—do it; longer verbs—three-plus syllables—do not), though like Lawrence (1990:122) we are unable to explain why unaccented verbs would suddenly become accented in these derived forms.

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[222]Other euphonic forms follow the patterning of the connective form cited.

[223]In this form there is expected second-syllable length.

[224]Compounds with second element -thuN do not demonstrate any change in the euphonic form gemination from the base verb thu/N: huk'i/thu\N, for example, yields huk'i/thuQ\t'i, while we might otherwise have expected huk'i/thut'i. Consciousness of the compound status of this word no doubt leads to this behavior; that is, huk'i/thu\N is seen not as a single verb but as huk'i/-#thu/N. That thu/N retains the aspirated t even when it ends up in the obligatory glottalizing medial environment likewise confirms the presence of at least a minor juncture in these items. Nakasone mentions as much as well (1983:633).

Certain verb forms, even when having the requisite syllable patterning and accentuation, seem not to participate in the gemination process. Note in particular qa/N 'to be, exist', with a defective paradigm[225] which yields euphonic forms /qa\t'i and qat'a/N, with disparate accentuation[226] and missing gemination. That the paradigm is defective and that other odd alternations exist for this verb points to an endemic irregularity in it, perhaps similar in nature, if not specific manifestation, to 'be' verbs in many languages, that should allow us to responsibly exclude it from consideration here.

As for the two sorts of verbs that do not geminate, of the first type (short verbs with different accentuation from the geminating verbs) there are several examples. The verb /uN[227] 'to be', for example, is one such (euphonic forms in u/t'ii, etc.); likewise Lawrence cites ha/c'uN 'to lack' (euphonic forms in ha/c'ii, etc.) in contrast to hac'u/N 'to write'. Lawrence (1990:118–122) treats such accentuation discrepancies, no matter from what they derive, as the primary factor in accounting for the various euphonic form behavior patterns. Of the second type (longer verbs), the lack of gemination can be dealt with if we propose a constraint on non-segmentally generated gemination[228] in items of three or more syllables. Unfortunately, no such constraint seems to exist for the vowel-lengthening phenomenon in even-numbered syllables, though Nakasone (1983:633) notes that later syllables are less likely to be lengthened.

The lists of rhythmic gemination examples treated above do not comprise the whole body of geminate consonant items in Nakijin, for these are in fact numerous. However, they can generally be traced to original CVC sequences with vowel loss and assimilation leading to modern QC. Some examples of products of this CVC > QC change bear striking resemblance in

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[225]It is missing two euphonic forms as well as certain of the base and combined forms.

[226]Here, /qa\t'i is type C patterning, while qat'a/N is type B. Recall, however, that both B and C represent the historical low register.

[227]Smooth onset here is due to original *w in initial position.

[228]That is, not deriving from CVC > QC changes.

word shape and accent contour to the items we are claiming undergo consonant gemination related to vowel length, accent, and syllable position, but they can be shown, through comparison or by appealing to attested internal alternation, to have disparate origins of the CVC > QC sort just alluded to.[229] Note the following:

LIST (37): Geminate consonants from segmental assimilation

/qaQ\seN	'shallow' (J asa-, Sr qaQsaN, qasasaN)
/phuQ\seN	'want' (J hosi-, Sr husjaN)
/p'iQ\seN	'thin' (pRk *pisu~*pesu, OJ fosö, Sr hwiQsaN 0, hwiSisaN 0)
phisi/se\N[230]	
/qaQ\c'uN	'to walk' (pRk *ariki, Sr qaQcuN)
/waQsi\N	'to forget' (J wasureru, Sr waSijuN)
/phuQk'i\N	'to swell' (J hukureru, Sr huQkwijuN 1)
huQ/t'uu	'[younger] brother' (J otooto)
uQ/t'i\i	'day before yesterday' (J ototoi)
uQ/t'uu	'husband' (pRk *woQto)
u/t'uu	
maQt'oo/ba	'straight' (Sr maQtooba)
mat'oo/ba, mat'oo/zi	

In the case of the adjective items /qaQ\seN 'shallow', /phuQ\seN 'want', and /p'iQ\seN 'thin', a trend is clearly apparent: for adjective stems ending in sV-, appending the -seN adjectival suffix will result in -Qs- by a process of vowel loss and assimilation. Similar explanations suffice for /qaQ\c'uN 'to walk', /waQsi\N 'to forget', and /phuQk'i\N 'to

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[229]Most examples of gemination in Nakijin do not have any features of accent contour, etc. that might lead to potential confusion with true rhythmically geminating items; we have not listed these items here.

[230]The alternation in the forms for 'thin' is troubling in that we have not only the QC alternating with a CVC sequence, but also a contrast in the quality of the initial consonant. That the glottalized initial p' is found in the form that by reason of its accent—not to mention the medial gemination—might be reconstructed with first syllable vowel length is similar to the situation noted for the glottal initial in other such items, such as /qu\si 'mortar' where original length is posited to block the regular aspiration of q expected when the following syllable is voiceless. Alternatively, we might posit that the geminate consonant itself blocks the initial reaspiration (which would account for /qaQ\seN, etc. as well). There does not seem to be a good explanation for the alternation in accent, however; the preponderance of forms of the shape /CVQ\CVx might have led to a reanalysis of the contracted /p'iQ\seN < phisi/se\N, assuming that it is the loss of the second i that leads to the contracted form. Alternatively, we might propose that it is the first s that is lost in this item (under lenition conditions as discussed below), leading to a long first-syllable vowel that then came to be reflected in accent: pisiseN > piiseN > /pi\seN > /p'iQ\seN. More likely, however, is that it is modeled on Sr hwiQsaN, with accent assigned as for the many items of this shape in Nakijin.

swell', all of which involve alterations to high-vowel syllables that result in consonant clusters and assimilations; these types of changes are treated in some detail in 2.2.2.1.8 and 2.2.2.1.9.

For the remaining items on this list, some seem to derive from a sort of haplological assimilation process; huQ/t'uu '[younger] brother' and uQ/t'i\i 'day before yesterday' likely developed in this way; both have comparative forms, as noted, with -tVt sequences that represent evidence for such a change. The alternating uQ/t'uu~u/t'uu 'husband' probably derives in a similar fashion, though in this case Thorpe has reconstructed a pRk geminate in the form *woQto that corresponds to OJ wofuto~wofyito; it is unclear why a form without gemination would alternate here, though the alternation itself is reminiscent of the several other alternating pairs discussed in this section. The last item on this list, maQt'oo/ba 'straight', consists of a prefix element maQ- 'just, right, exactly' and an element t'ooba that apparently lacks an independent existence; in this case, the geminate consonant has a clear segmental motivation, no doubt reinforced to some extent by the striking similar Sr item maQtooba in the same meaning as well as the Japanese form massugu 'straight ahead'. Words of this same general construction occur elsewhere in Nakijin (maQ/k'u\ruu 'pitch black' < maQ + kuruu, and so forth), Shuri (maQkuuru in the same meaning), and Japanese (makkuro in the same meaning and with the same derivation), though in so noting the widespread occurrence of the intensifying prefix ma(Q)- we acknowledge it is unclear whether the presence of the element in Nakijin is due to Japanese influence or to a common inheritance. Occurrence of maQ- with un-Japanese elements such as the above-mentioned -tooba and natively behaving elements such as Nk /haa\ 'red' (mahaa/ra 'deep red, crimson') certainly points to the latter possibility.

Last, there are a number of examples of non-geminated items with accent patterns that make them seem likely candidates for the gemination process detailed in this section. Note the following (some of which are alternate forms of items that do geminate):

LIST (38): Non-geminating candidates

/qu\k'u(u)	'interior' (Sr quuku)
/qi\t'u(u)	'thread'[231] (Sr qiicuu)
/qu\si(i)	'mortar' (Sr quuSi)
/hu\k'i	'bucket'[232] (Sr wuuki)
/ma\c'i(i)	'pine' (Sr maçi)
/ma\su	'salt' (Sr maasju)
/mu\hu(u)	'bridegroom' (Sr muuku)
/na\haa	'inside' (Sr na[a]ka)
/qi\c'i(i)	'breath' (Sr qiici)
/si\si(i)	'soot' (Sr SiiSi)
/qa\saa	'flax' (Sr qasa)

It is unclear exactly why these items—or at least the ones without related forms that do geminate—would fail to undergo gemination as discussed above. Two possible scenarios account for the behavior of these items: 1) they are for some as-yet-unidentified reason excluded from the process, or 2) they did in fact undergo gemination at one point, but it has since been lost. Perhaps merely to cover an inability to identify what features of the items on the above list kept these items from geminating, we prefer the second possible explanation, and, as mentioned in the introduction to this section, it is for this reason that we have used "vestigial rhythmic gemination" to refer to the gemination discussed in this section. Though it has occurred in a number of places, and definitely seems to be a process that is peculiar to Nakijin, there are nonetheless a host of both non-geminating alternate forms as well as non-geminating items with forms that point to historical circumstances similar to those of items that do actually geminate. In fact, more tokens with canonical Nakijin word shapes (that

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[231] This item is aberrantly missing the progressive palatalization of the medial t as well as gemination, despite the doublet form /qiQ\c'u 'silk'. It seems a fair guess that /qi\t'u(u) is a loan from Japanese, though it has Nk accent that is historically accurate, as well at the correct non-reaspirated initial q that is a consequence of original length blocking that change.

[232] It is not clear why this item has initial h rather than the expected (insofar as first-syllable length blocks [here, regressive] reaspiration) smooth onset. This item derives from pRk *woke; loss of the initial *w followed glottal generation (as is indicated in pRk *woba > Nk ubaa/ma\a, and in several other examples in 2.2.3.1.2), so we expect the non-existent /u\k'i(i) as the modern form. Apparently initial smooth onset, as opposed to initial glottal stop, allows for regressive reaspiration across the original long vowel, and is then maintained after the length is lost. In any case, regressive reaspiration ceases to be productive by the time the length is lost, as shown by all the maintained glottal stops in what at first glance are reaspirating environments.

is, non-geminate CVCV[V]) occur for items with the requisite accent and length environment than occur geminate items. These exceptions to the geminating process we take as evidence that if the change was ever pervasively regular, it has since fed or is indeed in the course of feeding, a degemination that may eventually eliminate all evidence of the change; this degemination would comprise an analogical process that shortens geminate consonants in order that forms conform to a more typical Nakijin word shape.

Vestigial or not, the gemination process does afford us a couple of insights into the timing of sound changes in Nakijin phonological history. We find it useful to note that /mu\hu(u) 'bridegroom' and /na\haa 'inside, both of which demonstrate *k lenition (2.2.2.2.3), allow us to assert that rhythmic gemination must have followed that process, as *k will geminate while h will not; this places the *k loss process quite early in Nakijin. Second, the operation of medial consonant gemination in Nakijin, similar to the rule in Shimabukuro 2003 that derives first syllable accent from length, must follow the Nakijin regressive reaspiration rule that leads to aspiration in word-initial voiceless consonants when the following syllable begins with a voiceless stop. That is, following Nakasone (1983:634), we expect initial q to shift to h when the following syllable begins with p, t, k, s, or c;[233] however, among our geminate items, the only possible example of aspiration of this particular sort (/huQ\pa 'asp') has an h that derives not from reaspiration but from *k lenition (cf. the Sr cognate kuhwaa), as discussed in 2.2.2.2.3.

2.2.2.2.3 Velar Lenition

Among the more notable features of Nakijin, at least in the way it is understood to be distinct from the nearby southern Okinawan dialects, is the lenition of *k to h in certain environments. As Lawrence states (1990:46), items demonstrating this change are considered

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[233]These are unspecified for aspiration since medial voiceless consonants are obligatorily glottalized.

by speakers of Nakijin to be "real" Nakijin, as opposed to those retaining k, which tend to be regarded as the results of dialect mixture. Lenition of *k can be described as follows:

*k > h / __{a, o}

with o subsequently feeding Raising. We could also offer, perhaps with greater elegance of statement,

*k > h / __V[-high -front].

No matter how the rule is stated, Velar Lenition seems to have occurred quite early in Nakijin phonological history (since we note that the *o motivating the lenition subsequently raises).

Nakijin shares this change in common with a number of Northern Ryūkyūan dialects, according to Thorpe (1983:79–83). In environments more or less identical to those specified above, we see similar lenitions in Kikai dialects (properly part of the Amami subgroup), Okinoerabu dialects, Yoron, and on Okinawa itself, in the Oku, Hentona, Ieshima, and Sumuide dialects. However, Thorpe notes, as do we, that for *k preceding *e in Nakijin lenition does not occur;[234] this is the case in Ieshima (*k > k' [our kh], identical to Nakijin) and Sumuide (where an unadorned k is the modern reflex) as well. Lenition of k to h in Yoron is limited to the same environments specified for Nakijin; before *e, the Yoron reflex is s.

Note the following examples of what we are proposing to be the regular development of pRk *k in Nakijin:

LIST (39): Nk h : pRk k/__*a

/ha\gi(i)	'shade, reflection' (pRk kage', kaga'-, Sr kaagi, kazi)
/ha\mi(i)	'bottle' (J kame, Sr kaami)
/ha\zi(i)	'number' (J kazu, Sr kazi)
ha/a	'skin, bark' (pRk kawa, Sr kaa)
ha/bii	'paper' (J kami, Sr kabi)
ha/c'ii	'fence' (J kaki, Sr kaci)
ha/miN	'to smell' (J kagu, Sr kaZa sjuN)
ha/nii	'metal' (J kane, Sr kani)
ha/t'aa	'side' (J kata, Sr -kata)
ha/zaa	'odor' (pRk kaza, Sr kaZa)
ha/zii	'wind' (pRk ka'ze, Sr kazi)

[234]Hence our somewhat convoluted description of the environment for the change.

/haa	'well (< river)' (J kawa, Sr kaa)
/haa\ra	'river' (pRk kawara, Sr kaara)
haa/bu\i	'bat' (J koomori, Sr kaabujaa)
haa/mii	'turtle' (J kame, Sr kaamii)
haa/ra	'tile' (J kawara, Sr kaara)
haa/ru\N	'to hang' (J kakaru, Sr kakajuN)
hacu/N	'to scratch' (K kaku, Sr kacuN)
hami/N	'to bite' (J kamu, Sr kanaasjuN)
haN/bi\N	'to cover [trans]' (J kaburu, Sr kaNzuN)
haN/za	'vine' (pRk kazura, Sr kaNda)
haraa/zi	'head hair, hair arrangement' (pRk karazu, Sr karazi)
hasa/a	'bamboo hat' (J kasa, Sr kasa)
hasi/i	'dregs' (J kasu, Sr kaSi)
hat'a/a	'shoulder' (J kata, Sr kata)
hat'aa-	'single' (J kata, Sr kata-)
hat'aa/k'a	'lee, place (or thing) protected from the wind' (J kata-,[235] Sr kataka)
hat'aa/na	'hatchet' (J katana, Sr katana)
/na\ha(a)	'inside' (J naka, Sr naka)
wahaa/se\N	'young' (J waka-, Sr wakasaN
/hoo\zi	'malt' (J koozi < kaudi, Sr koozi)

LIST (40): Nk h : pRk k/__*o

/hu\gaa	'egg' (pRk koga, Sr koga)
/hu\bu	'spider' (pRk kobu, Sr kuubu)
/hu\i	'voice' (pRk ko(w)e', Sr kwii) (but note gu/maa\gui 'small voice')
hu/maa	'here' (J ko-, Sr kuma)
hu/rii	'this' (J ko-, Sr kuri)
hu/sii	'back, hips' (pRk kosi, Sr kusi)
hu/u	'flour' (J ko[na], Sr kuu)
hu/u	'shell' (J koo, koora, Sr kuu)
humi/i	'rice' (J kome, Sr kumi)
humu/i	'marsh' (Sr kumui)
/hunu	'this [attributive]' (J ko-, Sr kunu)
hup'aa/se\N	'hard' (pRk kowa, koQpa 'freeze', Sr kuhwasaN)
hut'uu/ba	'words' (J kotoba, Sr kutuba)
huu/ru\N	'to beg, pray' (J kou, Sr kuuiN)
huzu/N	'to row' (pRk kogi, Sr kuuzuN)
huzu/u	'last year' (pRk kozjo, Sr kuZu)
juhu/mi\N	'to rest' (pRk jokowi, Sr 'jukujuN)
juhu/ru\N	'to lie' (J yoko, Sr 'juku[teejuN])

LIST (41): Nk h : pRk k/__*i

hi/c'uN	'to listen' (pRk kiki, Sr cicuN)
hic'uu/bi	'sash' (pRk kikiUbi, Sr quubi)

That is to say, on the surface of things, we seem to have a fairly clear development of initial *k into Nakijin h when followed by *o or *a, and a certain amount of evidence for medial *k > h as

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[235]Related to 'side', perhaps.

well. The two examples of *k >h /__*i imply a certain degree of evidence for a similar process of lenition there as well, but as we shall see when we turn to discussing those examples below, their derivation is quite a different thing, relating not to velar lenition (of the *k to h variety) per se, but rather to a vowel devoicing process that takes place after *k undergoes palatalization/affrication to c' under the influence of the following *i.

In contrast to the relatively clean correspondences noted for pRk *k and Nakijin h above, there is a small but perplexing set of data that seems to contradict the *k > h /__*a, *o generalization drawn. We present these examples here:

LIST (42): unlenited *k preceding *a in Nakijin

muk'aa/si	'long ago' (J mukasi)
muk'aa/zi	'centipede' (J mukade)
nuk'a/a	'rice bran' (J nuka)
phuk'aa/se\N	'deep' (J fuka-)
si/k'eN	'to use' (J tukau)
sizii/k'a	'quiet' (J sizuka)
sik'a/a	'handle'

In all the examples cited, there is, at a certain historical level if not in the surface forms, an *u preceding the *ka sequence. For si/k'eN, sizii/k'a, and sik'a/a, the conditioning *u is obscured by later fronting of that vowel per *u-fronting, as discussed in 2.2.2.1.4. As there seem to be few if any counterexamples to the retention of *k before *a when preceded by *u, we must conclude that preceding *u effectively blocks the *k lenition. For lenition of *k before *o, there is but sparse evidence that preceding *u works a blocking effect: in /mu\hu(u) 'bridegroom' we have *k lenition; for this item, however, though the Japanese correspondent is muko, Thorpe has reconstructed pRk *moko, which if correct would account for the lenited *k in Nakijin. On the other hand, in Nk sik'oo/ru\N 'to make' we see no lenition; underlying this is pRk *tukori (although Thorpe has the alternative *tukuri as well), which may constitute evidence for *uko behaving similarly to *uka in not undergoing velar lenition.

In addition to the development of an overt h from *k, there is also a certain set of situations in which the continuant segment will surface as hw[236] rather than h. The following list presents the cogent examples of this development; there are several compounds associated with the various items cited:

LIST (43): *k > hw

thu/hwaa	'tenth day' (J tooka)
-hwa	'direction' (J kata)
hwaa/ma	'oven' (also huk'aa/ma, wahaa/ma[237] 'god of fire') (J [o]kama)
/hwaa\i[238]	'hill' (J oka)
/hwaNgi\N	'to pile up loosely' (also hu/k'aagi\N)[239]
ju/hwaa	'floor' (J yuka)
juhwaa/gii	'sundown' (J yuu +kage, OJ ywo 'night')
juhwaa/su\N[240]	'to make rest' (J yoko- 'horizontal', pRk *jokowi 'to rest')
/hwaasu\N[241, 242]	'to cross' (J koeru [?] 'to cross')

As the specific nature of the conditioning environment for the change *k to hw is far from clear on the basis of the cited forms alone, we will discuss each in turn. We note by way of introducing our discussion, though, that the items cited in this list involve either transparently

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[236]The Nakijin hw segment, phonetically realized as [φ] according to Nakasone (1983:629), gives a strong auditory impression of being a heavily aspirated labial glide. The corresponding segment in Shuri, rendered in OGJ as [φ] as well, comes across as rather more like the bilabial fricative of the phonetic description. Thorpe transcribes the Shuri segment with an f.

[237]Serafim (personal communication, 2004) suggests that this form is a reanalysis of hwaa/ma, with a deconstruction of the rare hw segment and a recasting of the word into canonical CVCVVCV Nakijin shape.

[238]This term is noted (Nakasone 1983: 455) as peculiar to Aza Oyadomari (hamlet of Nakijin village).

[239]It is unclear what the Japanese cognate for this term might be, though we suspect it may have some relationship to either oka 'hill' or oku 'to put, place [on top]'.

[240]The modern Japanese verb associated with both J yoko 'horizontal and pRk *jokowi 'to rest' seems to be ikou, reflecting the same i~yo alternation found in ii~yoi 'good'. Like the Nk hwaasuN ~ J koyasu cognate pair suggested elsewhere, juhwaa/su\N implies a causative form J ikowasu, which exists as a colloquial/dialectal variant of the productively formed causative ikowaseru.

[241]There is also the suffix form X-k'waasuN 'to overdo X'.

[242]The shape of this term suggests a Japanese cognate of the form koyasu, although this does not exist in this meaning in the modern language. If it did, it would be an historically accurate lexical causative of koeru. Only a derivative causative (koesaseru) exists for this term.

or with a fairly limited amount of tweaking, a *k bracketed by *o and *a, an environment which fails to obtain in any of the other *k > h items under consideration in this section. Evidence of medial *k to h change is fairly sparse in any case, but the general trend for these medial situations is thus that h will be found for *a__a, and *o__o, while hw will obtain for *o__a, perhaps due to progressive rounding of the medial segment.

The first four items cited can all be relatively easily related to an original *oka sequence. This, in fact, comprises the locus classicus for the development of modern Nakijin hw. In thu/hwaa, the environment for the change is amply clear (though the shortening of the initial syllable remains unexplained). For the other items, a somewhat more involved derivation is required. In the case of -hwa, we can recover the conditioning environment by looking at the specific phrases in which this (semi-) bound element is found: the dictionary entry for this item specifies that it is used with reference to the Chinese animal zodiac system for calendar and horary designations in terms such as nii/nu\hwa 'north' and qmaa/nu\hwa 'south'.[243] In both of these, the genitive case marker nu[244] (< *no, corresponding to modern Japanese no) is used to link the zodiac referent with the directional indicator; underlying nii/nu\hwa then is *ne no ka[ta], and qmaa/nu\hwa, *uma no ka[ta]. It is also possible, and perhaps more likely given the arguments advanced in 4.2.3, that terms such as nii/nu\hwa and the other zodiac derivations are outright loans from Shuri; Nk nii/nu\hwa corresponds disturbingly closely to Sr niinuhwa. However, in that other Nk hw cannot be explained away so readily (thu/hwaa corresponds to Sr tuka, for example), we are more comfortable suggesting that while loan phenomena are likely involved they have served to reinforce a native tendency.

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[243]The clock-like traditional array of the twelve symbols is borrowed for use in indicating compass directions. Hence the examples from Nakasone (1983:455): nii/nu\hwa 'north', where the nii element refers to the Rat (J ne) at the top of the traditional array, and qmaa/nu\hwa 'south', in which the qmaa element is the Horse (J uma) 180 degrees away at the bottom of the array.

[244]Modern Nk nu is also used as a subject marker.

In the case of hwaa/ma, /hwaa\i, and /hwaNgi\N, a rather greater amount of derivational gymnastics is required. For hwaa/ma, the alternate form huk'aa/ma gives a hint of the original environmental conditions that are presented in full by Nakasone (1983:455): hwaa/ma < quhama < qukama, in which the kama element corresponds to J kama 'oven' and the qu- is the Nk correspondent of the Japanese honorific prefix o-. (A more complete listing of the derivational sequence would have inserted the attested huk'aa/ma between hwaa/ma and quhama.) The original environment is thus the requisite *oka, but the raised *o that yielded the first-syllable u of the earlier Nakijin form has been lost, no doubt due to the devoicing environment (#__$C_{[-voice]}$) in which it is found.[245] The form huk'aa/ma, then, is probably a relatively recent formation based on Japanese okama and the generally known correspondential regularities between Nakijin and Japanese (though it could be simply a retention of the earlier form, with retention reinforced by the Japanese form.) The loss of the initial *o (> u) does tend to obscure the conditioning environment for the *k to hw change.

Similarly, a process of *o loss in an initial devoicing environment will go a long way towards accounting for the changes to *k reflected in /hwaa\i and /hwaNgi\N as well. For /hwaa\i, the J correspondent oka (OJ woka) provides evidence for initial *o; it is unclear, however, how we should treat both the long aa sequence and final i of this term. For /hwaNgi\N, as for hwaa/ma, an alternate form (hu/k'aagi\N) demonstrates it is reasonable to reconstruct original initial *o for the term; though the actual Japanese correspondent (if one exists) for this item is a matter of speculation, Japanese oku 'to put, place', perhaps in a causative alternate of the shape oka-(su?), or in an alternate formed through compounding (which explanation seems more likely in that it will allow an explanation for the -[N]giN of the Nakijin form) may likewise reflect such an environment.[246]

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[245]High vowel loss in such positions is found in items such as /sii 'stone' (J isi) as well.

[246]We readily acknowledge and have attempted to convey through the use of 'may', etc. that much additional work needs to be done for these terms.

For the last four items on our hw list (ju/hwaa, juhwaa/gii, juhwaa/su\N, and /hwaasu\N), there is, in contrast to the relatively clear *o__a environment noted for other examples of hw, a lack of evidence for original o; the Japanese cognates for ju/hwaa and juhwaa/gii, for example, have u in the crucial syllable, which generally indicates something u-like underlying the Ryūkyūan items. For juhwaa/gii this may not present too much of a problem, as conceivably the first syllable could be related to J yo~yoru 'night, evening' rather than the yuu 'evening' of the customary rendering of the Japanese term, but in the case of ju/hwaa there seems to be no forthcoming evidence of any earlier *o. This item therefore seems to contradict the preponderance of evidence pointing to k being the regular reflex of *k when the preceding vowel is *u (as in, for example, the aforementioned phuk'aa/se\N 'deep' corresponding to J fuka-, and si/k'eN 'to use' corresponding to J tukau). It could be, therefore, that this Nakijin item constitutes the evidence necessary to get at the earlier essence of the term for 'floor' in Japonic. Original *u would lead to a k reflex in the Nakijin form, and there is no plausible source for a borrowing of an hw or p-like segment here, so we are forced to conclude the hw reflects earlier (pRk, if not indeed PJ) *o, rather than the *u suggested by both the Japanese and Shuri forms. (A fuller exploration of this question will be reserved for a later study.)

The item juhwaa/su\N seems as well to represent an *oka environment, though it is apparent, as seen in the notes for each item, only if we look at it as a causative form. It would be derived from the irrealis (Nakasone 1983:639) basic form of the verb, or a similar form that has since been lexicalized; in addition, a certain amount of truncation in the endings must be posited to get the -a initial of the irrealis anywhere near the *k that is our concern here. For juhwaa/su\N the derivation should be understood as the causative formant -suN[247] attached to the following sequence of stems:

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[247]Or whatever form of -suN is appropriate to the time in question.

*jokowi[248] → jokowa- > jokoa- > jokaa- > johwaa- > juhwaa-

In this sequence, *w loss, vowel levelling, and raising, followed by what we now suggest is typical Nakijin *k lenition, has yielded the modern surface form. It is probable that a similar explanation will be found for /hwaasu\N—certainly the process by which the basic shape is obtained is the same as for juhwaa/su\N. However, it is unclear where an *o preceding the original *k initial (if it is indeed initial) may have come from. That there is a *k involved is confirmed by the suffixal alternate form Nk -k'waasuN cited in the original listing as well as the Japanese correspondent kowa-; we might suggest that /hwaasu\N derives not from from a *o-initial form, but rather from routine *k lenition before *o, as follows:

*kowa- > howa- > huwa- > hwaa-

This would mean, of course, that Nakijin hw is related not only to *oka sequences, but also to *k lenition followed by vowel loss.

We can reformulate our statement of the *k lenition rule to reflect the additional data. As a general statement, we can characterize *k lenition as a low-vowel environment change in Nakijin, given the above-mentioned examples of preceding *u blocking the lenition, as well as the fact that examples with preceding *i are of course not found due to the bleeding effect of progressive palatalization on the *k segment. (Information about preceding *e is lacking, no doubt due to the rarity of the segment.) Velar lenition can be summarized as follows:

*k > hw/ *o__a

*k > h / __{*a, *o}

*k > k / *u__a, elsewhere

In addition, there is also regular *k lenition before *o, followed by the loss of that *o (following raising?) in the environment h__wa.

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[248]The -i here is an infinitive ending, per Thorpe (1983:260). This is more or less equivalent to what we term the continuative.

We should note before further considering *k lenition that there are occasions when an extreme lenition of *k has led to a zero reflex; these are discussed below in 2.2.2.2.3 and seem to be less a separate change than simply an extrapolation of the trends noted here, especially in the case of the *a__a environment, and are possibly evidence of a change in progress in Nakijin.

Despite the generalizations that can be extracted from the data presented thus far, there is a certain amount of conflicting evidence for the "regular" development of h/hw from *k in Nakijin. Serafim suggests, and Martin and others confirm, that apparently confounding aspiration distinctions—and certainly a change from k to h represents an aspirating trend—can be connected to the collapse of distinctions between original vowels after aspiration had occurred. In Nakijin, according to Nakasone (1983:633),[249] we see just such a distinction developing between, for example, *ku (yielding k'u) and *ko (yielding khu), though as we have seen the situation can not be so readily parsed as Nakasone's summary might indicate; many things are hiding behind the "exception" label. The aspiration developments sketched by Serafim call for a view of earlier vowel systems that is more complex than that assumed from Thorpe 1983.[250] Serafim (1984:29) presents the following summary of *k behavior in Shodon:

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[249]Nakasone's observations here purposely exclude "some few exceptions" and notes that "devoiced words" are exceptions as well.

[250]"Extra" vowels are generally taken to refer to the kō-otsu distinction in Old Japanese. This is introduced in brief in 2.2.2.1.1.

In the case of Serafim's discussion of Shodon cited, no reference is made to the kō-otsu distinction; rather, an algebraic appeal is made to the need for more than five vowels (he ends up with seven); the actual distinction is attributed to a specification of low (+lo) distinct from mid-vowels with the same roundness specifications. In Serafim 1984, the vowels are typographically distinguished with a hook; we have substituted subscript numerals here: our e_1-e_2 transcribes Serafim's e-e (hook).

LIST (44): Aspiration of *k in Shodon

*ki	>	kyi
*ke_1	>	khi
*ke_2	>	khe
*ku	>	ku
*ko_1	>	khu
*ko_2	>	kho
*ka	>	kha

What exactly this would imply for Nakijin is not completely clear, given the comparatively large number of doublets in modern Nakijin related to pRk *k, but it may be possible to tease out a regular pattern in which, for example:

pRk *k > Nk h / __{V+low} (that is, vowels like Shodon a, o_2, e_2),

*k > kh /__{V-high -low} (e_1, o_1), and

*k > k' / __{V+high} (i, u).

In connection with these changes, a reduction in the vowel inventory due to mergers would yield intolerable apparent inconsistency in consonant developments: for example, both modern hu and ku might be found corresponding to something with an original o-like vowel, with only additional appeal to an o_1/o_2-like distinction allowing any explanation of the surface distinction. In any case, whatever regular pattern may have existed is considerably muddled due to influences from other dialects in the intervening centuries. We must also note, with a certain amount of consternation, that if aspiration and ultimate velar lenition is to be related to original vowel distinctions not generally recoverable for Ryūkyūan by itself, then we are at a loss to account for the behavior of pRk *ke sequences, listed below in 2.2.3.2.3, which seem not to surface as Nk h at all. Neither will any kind of vocalic prestidigitation of this sort account for the large numbers of both doublets and environment overlap for examples of *k development before original a in Nakijin.

Last, we need to comment on the development of h from *ki-initial items. We note two examples of this in our database, as mentioned above. We also note that in both cases, the change *k > h /__i occurs only in situations where the following consonant is *k; that is, we

have a sequence of C[-voice] i C[-voice]. A devoicing of the intervening high vowel[251] fed an aspiration of the initial *k here, which in turn lenited to h. This change necessarily preceded the palatalization/affrication of *k in such environments, however, as we do not otherwise see any development of h from c (the expected reflex of *k before *i).

Slightly complicating the matter, however, is the existence of doublets for items related to hi/c'uN 'to listen' as listed below:

LIST (45): h~s doublets in Nakijin reflexes of *kik

hi/c'uN~si/c'uN	'to listen' (J kiku)
hi/k'aari\N~si/k'aari\N[252]	'to be audible' (J kikoeru)
hi/c'uN~si/c'uN	'to be effective'[253] (J kiku)

Corroborating evidence for other *kik sequences does not, unfortunately, present itself. In fact, a search for possible examples of such yields little: the Nakijin correspondent for J kiku 'chrysanthemum is c'i/kuu, which would seem to be an unlikely shape for a native item in Nakijin in that it lacks progressive palatalization.[254] Nor do there seem to be examples of *k lenition before *i when the following mora begins with a voiceless consonant other than *k; searches for Nakijin correspondents of Japanese kisi 'shore', kisa 'wood grain',[255] and kita 'north',[256] for example, yield naught. Auditorily, the doublets listed here are virtually

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[251]Vowel devoicing in such an environment is a widely attested phenomenon in both Ryūkyūan and Japanese.

[252]Palatalization of the medial k after i would be expected in this item. We might propose that following a blocks the progressive palatalization in items such as this (such a rule would account for the behavior of si/k'aa\ra 'strength' as well), but there are examples such as sic'aa/se\N 'near' that make it clear that even if such a rule exists, its application varies.

[253]The Japanese cognates for 'to listen' and 'to be effective' are homonyms as well.

[254]That the item is an early loan in Japanese (Martin 1987:450) may in some way help to account for its shape in Nakijin, though whatever its origins it was in place in the Ryūkyūs early enough to undergo palatalization/affrication; the Shuri form for 'chrysanthemum' is ciku. Serafim (personal communication, 2004) mentions that no examples of *iCu in Ryūkyūan are seen to undergo progressive palatalization, so the medial k is perhaps not as remarkable as it seems at first.

[255]Martin 1988:451 lists three kisa entries: 'grain (of wood)', 'notch shell', and 'scraping'.

[256]The cardinal directions in Nakijin are ni/sii 'north' (this is the only item that reflects

indistinguishable to the casual listener;[257] the competing forms are reminiscent of idiolectal variation in Tokyo Japanese speakers for items such as hito 'person' (alternating between /hito/ and /šito/ [ɕito]) and hiku 'to pull' (alternating between /hiku/ and /šiku/ [ɕiku]) (Vance 1987:22, Martin 1952:12).[258] Nonetheless, the existence of these doublets points to an interesting possibility for treating these items as something besides the velar lenition we have posited for the two low/mid vowel environments.

By comparing our examples of doublets for *kik- with the process of *t lenition (section 2.2.2.2.7), we can propose a scenario wherein the *k would have undergone palatalization/affrication to c, with further lenition then to s as we see for example in si/k'aa\ra 'strength' (J tikara). This s then, in an environment prone to devoicing, would begin a process of lenition to h—a process still in progress, apparently, given the remaining doublet pairs. Proposing this direction of development means these examples of *k lenition must be ordered rather later in the development of Nakijin than the h we see in environments preceding original o and a.

2.2.2.2.4 Medial Consonant Loss

Certain original consonants lenite to zero in intervocalic position in Nakijin: though the evidence is sporadic, it can be found for earlier segments p, k, and w. The segment p here is to be understood as PJ *p rather than pRk *p, since as a general rule the earliest recoverable Ryūkyūan segment in these items is pRk *w; k can be taken to transparently refer to pRk *k (which seems to correlate to PJ *k in any case), and w to pRk *w when and only when it refers

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one of the Japanese cardinal directions), qa/gaa\ri 'east' (literally, 'rising direction'), qi/rii 'west', (a literal reference to the sun going down) and phe/e 'south'.

[257]NHOD, entries for hi/c'uN~si/c'uN 'to listen', hi/k'aari\N~si/k'aari\N 'to be audible.

[258]Both Vance and Martin note that of the two alternate pronunciations the heavily palatalized variant (s̈) is socially stigmatized; no such connotation seems to obtain in the Nakijin situation, however.

back to PJ *b > (OJ) w. Stated more succinctly, for most of the items discussed here, pRk has already merged PJ labials *p and *b.

Certainly in the case of *k, the transition to zero would have progressed via an h intermediate stage, as shown by the general rule of *k lenition detailed above.[259] The rule of medial consonant loss, therefore, for *k at least must follow Velar Lenition, and is therefore another major point of difference between Nakijin and central/southern Okinawan. However, a number of dialects from Sakishima and elsewhere also demonstrate medial *k loss in places. Medial loss of *k, then, is a late development in Nakijin, perhaps best considered in light of velar lenition.

On the other hand, for items with *p and *w, the changes are somewhat earlier. Indeed, for *w, medial loss is not only a regular change for Shuri as well, with examples like Sr kaa 'bark' (< pRk *kawa), but also for most of the Ryūkyūs; in fact, non-zero reflexes of *w in medial position are limited to certain Sakishima dialects (Thorpe 1983:105–6), though some retention of *w after long vowels is found in Shuri. In the case of *p, the changes are so early, in fact, that, Thorpe reconstructs no *p in medial position, preferring *Qp for various reasons (1983:61); as his evidence is purposely limited to Ryūkyūan data alone, this is perhaps not surprising. In this work we recover *p in certain words through comparison with Japanese, though even so, *p developments in medial position require description with a considerable amount of qualification: in addition to *p > zero, some original *p surfaces as Nk -Qp-[260] given the right accentual environment (see 2.2.2.2.2; this latter reflex is something of a Nakijin distinctive), while some examples of medial *p surface as one or another sort of p[261] (this last being a development generalizable to northern Okinawa; similar behavior is found for *p in

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[259]In fact, given that most (all?) examples of medial *k > zero are found in doublet pairs whose other member retains a non-zero reflex of *k, we are probably justified in saying that the loss of medial *k is simply an extension of that rule that is still in progress.

[260]This Nk -Qp- must be considered separate from Thorpe's *-Qp-.

[261]These are Thorpe's *-Qp- items.

certain environments in parts of Kikai and certain Sakishima dialects). The loss of *p, where it does occur, likely involved an intermediate shift to w, as Thorpe relates (1983:61), and as can be seen in Japanese as well.[262]

Formally stated, the rule is more or less as follows, although this is more of an ad hoc accounting of a tendency rather than a rule with much predictive or explanatory value. That is, it describes the correspondences noted without accounting for or formulaically excluding counterexamples. In any case:

{{*p (> w)}, *{k (> h)}, {(*b >)*w} > zero / V__V

Loss of the intermediate consonants leads in some cases to vowel levelling, with long vowel surface reflexes, but in certain others a quality distinction has been retained. Given the existence of numerous doublet pairs for other items manifesting vowel sequence levelling (see 2.2.2.1.6) apparently contrary data (i.e., unlevelled sequences in opposition or addition to levelled sequences in the same or similar items) in this area need not be unduly troubling.

The lists below present examples of medial consonant loss; discussions for each follow.

LIST (46): Medial consonant loss for *k

haa/ru\N	'to hang' (Sr kakajuN, J kakaru)
/haa	'red' (Sr qaka-. J aka-)
phaa/ru\N	'to measure' (Sr hakajuN, J hakaru)[263]
thaa/se\N	'tall' (Sr takasaN, J taka-)

We can note first of all that there are relatively few examples of medial *k loss, and that all examples occur in an a__a environment (though not all a__a yield [complete] k loss, cf. /na\haa 'inside' [< *naka][264]); in addition, and perhaps more importantly, it seems that no

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[262]The various developments for *p in Japanese are betrayed rather transparently in orthography (!) and can be readily ascertained via internal reconstruction. The modern Japanese reflex of PJ *p is p, w, zero, or occasionally y.

[263]A deverbal form of this verb, pha/i~phak'a/i 'scales, measure' demonstrates both medial k loss as well as loss of the r before i. Given the general constraint in Nakijin on overheavy syllables, loss of both segments seems surprising, though we can note that appropriate vowel shortening has occurred to avert any violation of constraints on overheavy syllables.

[264]For this item, given the accentuation, we must (following Shimabukuro 2002)

k-loss item exists independently. For each of our examples, that is, there is at least one other related form in the same meaning that retains a k: khak'aa/ru\N 'to hang', ha/k'aa~qa/k'aa 'red', phak'aa/ru\N 'to measure, and thak'aa/se\N 'tall'. This seems to point clearly to the phenomenon of medial k loss being an extension, and a not-as-yet obligatory one at that, of velar lenition.

It is not entirely clear that /haa 'red' (and possibly haa/ru\N 'to hang' as well) belongs on the list of medial *k loss items. Though it demonstrates substantial alteration to an original *k, /haa may actually represent the earlier-mentioned velar lenition (2.2.2.2.3) together with loss of an unaccented syllable in a devoicing environment; that is, /haa is what is left of ha/k'aa when the medial k lenites and the first syllable is lost (though note that the qa/k'aa version of the term will not permit this). If indeed /haa does not represent medial k loss, then the other three items (other two items, if haa/ru\N comes via the same process as /haa) cited demonstrate a peculiar unity in that they uniformly have k loss in unaccented syllables. From a standpoint of elegance of statement, this is a desirable thing: we can now say that medial k is optionally lost when it occurs in an unaccented leniting[265] environment. We notice behavior similar to that proposed here for /haa (that is, initial syllable loss due to extreme devoicing) in /sii 'stone' (pRk *isi) as well as, possibly, si/i 'meat' (pRk *si~sisi).[266]

We next turn our attention to examples of medial *w and *p loss. Based solely on Ryūkyūan evidence, both of these categories could be termed *w loss, or in certain cases could

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reconstruct length in the first syllable. It is this length that no doubt blocks the lenition of *k, in order to prevent the creation of an over-heavy vowel sequence. This constraint is seen operating elsewhere as well.

[265]That is, *a__a. No example of *k > zero in the other leniting environments (*o_o, *o_a, *a__o) seems to be forthcoming.

[266]Thorpe attributes the two-syllable alternate pRk *sisi to reduplication [1983:287], though as his evidence for the existence of a non-reduplicated form hinges on the single-syllable Nakijin and Oku forms, the idea that Nakijin /sii is actually *sisi with initial consonant loss casts some doubt on the necessity of reconstructing *si.

be said to represent no consonant loss of any sort, but for the purpose of fully accounting for the Nakijin forms in a Japonic situation we present the data with reference to PJ forms as well.

LIST (47): Medial Consonant Loss for *w

/hu\i	'voice' (Sr kwii, J koe [< kowa-], pRk *ko(w)e',)
joo/se\N	'weak' (Sr joosaN, J yowa-)
qoo- (qoo/ru\u)	'blue' (Sr qooruu, J ao [< awo < PJ *abo], pRk *aU)
/quiru\N	'to plant' (Sr qwiijuN, J ueru [< uwe-], pRk *Uwe)
so/o	'bamboo pole' (Sr soo, J sao [< sawo < *sabo], pRk saU)
/thuu	'ten' (Sr tuu, J too [< OJ to̲wo])

LIST (48): Medial Consonant Loss for *p

/haa	'well' (Sr kaa, J kawa, PJ *kapa)
/haa\ra	'river' (Sr kaara, J kawara 'floodplain', pRk *kawara, PJ *kapara)
ha/a	'skin, bark' (Sr kaa, J kawa, pRk *kawa, PJ *kapa)
kha/a	'leather, hide' (Sr kaa, J kawa, PJ *kapa)
qaa/bi	'abalone' (J awabi [< PJ *apanpi])
/khu\i-	'love, beloved' (Sr kwii, J koi [< PJ *kwopo̲-Ci])
/khu\u	'today' (Sr cjuu, J kyoo [< PJ *kepi[267]])
/khuu\ri	'ice' (Sr kuuri, J koori [< PJ *ko̲pa-r[a-C]i])
khuu/qjuu	'carp' (Sr kuuqiju, J koi [< PJ *kwopi])
k'oo/ri\N	'to break' (Sr kuurijuN, J koware-, OJ kofare < PJ *kopora-)
/k'wee	'hoe' (Sr kwee, J kuwa, PJ *kupa)
/phee	'fly' (Sr hwee, J hae [< PJ *papaCi])
/qui\	'above' (Sr qwii, J ue~uwa- [< PJ *upa-Ci])
thuu/se\N	'far' (Sr tuusaN, J too-[< PJ *to̲po̲-])

Most of the forms cited here need not present great difficulties. What we see, as a general rule, is medial *w and *p loss in a variety of vocalic environments; in most cases the losses are parallel for Nakijin and Shuri, and Japanese as well demonstrates a certain degree of consonant lenition in the same environments.

Where Nakijin diverges from Shuri is in its treatment of the vowel sequences resulting form the various consonant losses. In particular, the original u__i, u__e, o__i, and o__e sequences tend to end up as Nakijin ui, while the parallel forms in Shuri have the labialized long vowel wii. Note the citations for /hu\i 'voice', /quiru\N 'to plant', /khu\i 'love', and /qui\ 'above' for cogent examples of this discrepancy.[268] We do note, however, the odd

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[267]There are a number of various possibilities for the original shape of this term (Martin 1987:469).

[268]In contrast to these, /k'we\e 'manure' (Sr kwee, J koe [< PJ *kwoye]), where there is no original intervening consonant, shows no particular restraint in levelling the oe sequence.

behavior of khuu- 'carp' in this area; here o__i has surfaced as uu, with an identical reflex in Shuri; similarly, /khu\u 'today' has a levelling of an e__u sequence, though there may be other factors involved in the development of this term.[269] In any case, Nakijin shows itself to be resistant in most cases to vowel levelling after consonant loss when the vowels in question are sufficiently distant: the sequences noted all represent diametric or near-diametric front-back alternations in point of articulation. It is interesting that the cyclical character of vowel sequence levelling, as noted in 2.2.2.1.6, has not applied to these terms (apparently) at all.

We should note that there is a certain amount of contrary evidence for the extreme lenitions discussed in this section. Note the examples below:

LIST (49): *w retention

khut'u/wa\N	'to refuse' (J kotowaru, PJ *kotobara-)
qawaa/rii	'pathos' (Sr qawari, J aware, PJ *apare)
qawa/a	'millet' (Sr qawa, J awa, PJ *apa)
qawa/a	'foam' (Sr qaa, J awa, PJ *aba)
qi/waa	'large rock' (Sr qiwa, J iwa, PJ *ipa)
siwa/a	'wrinkle' (J siwa, PJ *siba)
-c'iiwa	'occasion' (Sr. ciwa, J kiwa)
ni/waa	'garden' (Sr naa, J niwa)

For khut'u/wa\N 'to refuse' the simplest explanation is simply that the item is a fairly late Japanese loan; its unlenited initial k,[270] syllable contour lacking long and lengthened vowels, and a deverbal khut'u/wai 'refusal' with an unlevelled vowel sequence (ai in the final syllable, deriving from the native-like loss of intervening r) likewise points in this direction. We shall, in fact, in view of this evidence discount its exceptional behavior. However, the others are not to be dismissed so easily. In the case of qawa/a 'millet', its homophone 'foam', and qawaa/rii 'pathos' it is noteworthy that the a__a environment generally so congenial to consonant loss (recall its effect on *k, for example) has not here led to the loss of the medial segment (although

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[269]The item /khu\u 'today' stands out in that it has a non-palatal reflex in the initial k; this stands in contrast to modern Ryūkyūan forms from nearly everywhere. It is perhaps an analogical creation based on similarity to (the also slightly aberrant, at least in comparison to most other Okinawan forms, where k reflexes of *k before *i are not the norm) khinu/u 'yesterday'.

[270]An initial h would be predicted for this item.

we shall see that there is in fact evidence of just such a loss for 'millet' and 'foam'); nor, apparently, have qi/waa 'large rock' (and the other -iwa- items) done something reasonable like surfacing as qwaa or qjaa (though some evidence for such developments will present itself) as the example of PJ *ibo > iwo > Nk /qjuu 'fish' might lead us to believe it should. For these last items, a variety of explanations might be offered; we look at each in turn below.

Of the remaining exceptional items, qawaa/rii 'pathos' is perhaps the easiest to argue out of contention, as it can be shown with a fair degree of surety to be a Japanese or Shuri loan, though the argument hinges less on hard segmental evidence as in the case of khut'u/wa\N, than on a more subjective semantics-based line of thinking.[271] Identification of qawaa/rii as a loan would indeed explain its unconventional retention of w; the only other plausible explanation is that some variety of underlying vowel length has blocked the consonant loss. However, the Nk form has typical second-syllable lengthening (per Nakasone 1983:633); the third-syllable length is regular stretching of the final syllable under the influence of assigned high pitch for atonic items (see 2.1.3, 2.1.4). Hence, an argument for retention of *w here based on positing original vowel length seems unlikely.

For the qawa/a 'millet' and 'foam' pair, the situation is considerably less clear. Like qawaa/rii, the items are atonic, meaning the second-syllable length could be attributed to regular second-syllable lengthening. The Nakijin forms would be /qa\wa(a) if there was underlying first-syllable length (per the argument in Shimabukuro 2002:206). The positing of underlying second-syllable length might account for the retention of w, but it is not clear this is possible; indeed, it is subject to question that the listing of these terms as retaining w is fair,

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[271]Evidence for this item being a loan includes the aberrant w in the Shuri form, and the notation in OGJ that it is a "literary" term, at least when used as an interjection. (The noun usage seems to have no such connotations; in fact, both Shuri and Nakijin have a fairly run-of-the-mill construction with the verb 'to do' [Sr qawari sjuN, Nk qawaa/rii /suN], meaning 'to suffer' or 'to meet with misfortune'.) The associated Japanese term aware has somewhat loaded connotations as well, being used not only in its base meaning of 'pathos, sadness' but also as a term of literary aesthetics, cf. mono no aware 'appreciation of beauty, sensitivity'.

given the existence of non-w alternates for both forms: for 'foam' there is qa/a, which is in fact the term in general use (Nakasone 1983:25), as well as the greatly less well-attested 'millet' variant form qaa-, seen in qaa/nusi\zi 'millet grain' (though nowhere else). This leads us to believe that for 'foam', qa/a, with w loss, is a perfectly unremarkable Nakijin form, and that certainly the qawa/a version thereof, whether it is through a preservative influence or novel introduction, can be associated with the Japanese awa in the same meaning;[272] possibly an extra-Nakijin influence of this sort that has applied in a larger proportion of 'millet' compounds will account for the prevalence of qawa/a for that term as well. We do note, however, the discrepancy in PJ forms for the modern forms, *aba underlying 'foam' and *apa underlying millet (the terms are distinct in Sr as well). Though this is not of much instruction in the question of qawa/a persistence in w-retention it does at least account for the different behavior of the two terms. One might entertain the hypothesis that the penetration of 'millet' into Okinawan lives is not of sufficient depth to have rendered it native, though this seems extremely unlikely given the many derivative terms clustered around qawa/a and the long tenure of the crop in the Ryūkyūs;[273] other possible explanations seem equally untenable.[274]

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[272]The Shuri qaa 'foam' is of no help here.

[273]Certainly millet has been a staple grain crop in East Asia for several millennia. Originating in northern China, cultivation of millet is found primarily in the drier regions of Asia and Africa, and was practiced in Japan from roughly the Yayoi period (300 BC–AD 250). The extent to which such a drought-tolerant crop would have been found necessary, and planted therefore in preference to or at least in addition to rice, in a relatively well-watered area like Okinawa, is a matter of some discussion, though recent research suggests the practice of cultivating millet arrived concurrently with rice cultivation, ca. AD 900 (Serafim 2003).

[274]Notions such as resistance to homophony, or a retention of sufficient phonological presence (i.e., the idea that a form such as qa/a in place of qawa/a would be too short to be tolerated [though it certainly did not stop 'foam']) come to mind. Nakijin seems to accommodate homophones readily, and has any number of minimally composed lexical items: witness /qi\i 'you [plural]' and /qi\i 'Iejima', or i/i 'picture' and i/i 'boar'. In any case, it is hard to imagine a context in which understanding would be compromised by an inability to distinguish 'foam', 'millet', and the several interjections with qa/a shape in Nakijin, unless, of course, our hypothetical speaker of Nakijin wished to natively utter "Alas, there is foam in the millet."

We are left with qi/waa 'large rock', siwa/a 'wrinkle', -c'iiwa 'time, occasion' and ni/waa 'garden'. For qi/waa and ni/waa we actually do find alternative forms qjaa- (attested in /qjaa\ja 'cave, grotto') and /mjaa 'garden',[275] both of which behave in a way more in keeping with a posited complete loss of medial w. It is fairly easy on the basis of semantics to suggest that ni/waa is a loan, but while no obvious argument on such lines appears for qi/waa, for -c'iiwa or siwa/a identification as loans is probable: -c'iiwa lines up segmentally to a Shuri form that is a likely loan, ciwa 'time, occasion [literary]', and siwa/a lacks a corresponding Shuri form entirely and is probably a loan of Japanese siwa 'wrinkle'. In addition, the Shuri correspondent for qi/waa is also identified as "literary" and thus likely a loan: qiwa 'large rock [literary]'. In ni/waa~/mjaa and the qjaa- element in the term for 'cave', therefore, we do seem to have a case for w loss in an i__a environment, and while the examples of i__a with w are more numerous, the arguably special status of these items should exclude them from consideration as regularly developing items. While perhaps at first glance the number of items with apparent retained w might seem to constitute evidence of a regular constraint on w loss in the i__a environment, it is much more likely it is simply evidence of loan activity.

2.2.2.2.5 Initial Deaspiration (and Medial Deaspiration)

At first glance, and certainly as treated in portions of the taxonomy in Nakasone (1983: 633–4), the conceptually related phenomena of initial deaspiration and medial deaspiration can be lightly brushed off as fairly low-level phonetic issues, offering little insight into historical development. In particular, the discussions in Nakasone and in Martin (1988) treat medial deaspiration as a predictable phenomenon, though both note that compound words and newly entered vocabulary are excepted (Nakasone 1983:633, Martin 1988:363). For medial

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[275]On the distinction between ni/waa and /mjaa, see 2.2.2.1.8; based on the semantic connotations of the two terms (ornamental garden for ni/waa and the rather prosaic grain-drying area referenced for /mjaa), pointing to one—ni/waa—as a loan item is reasonable.

deaspiration, this treatment is probably fair, especially insofar as it seems to apply at least in some observed cases even to late loans into Nakijin, despite the assertions of Nakasone and Martin[276] (though their remarks on compound items hold true).

Initial deaspiration, however, is given a semi-historical treatment by Nakasone; he notes that the aspiration distinction for word-initial k hinges on whether that k is followed by o or u in the Japanese correspondent of the term—in essence he is applying a sound comparative technique (we have done as much in the current work, indeed)—though he does not couch it, for the most part, in terms of the historical sound change implied in the comparison. Though Nakasone does not seem to mention it,[277] examples in the development of *p also demonstrate (to a certain extent) the influence of original vowel height on the development of the aspiration distinction for p' and ph; for these however, the distinction obtains only in environments defined by following *i and *e; original back vowels *o and *u do not, as a rule lead to a difference in aspiration of *p (though sporadic examples of *pu > p'u are found). The fact that both *te and *ke lead to aspirated segments leads us to believe that had *i (and *u, for *t) not bled the deaspiration, we would see a full range of aspiration distinctions, similar to that found for p-initial syllables, for all the voiceless stops rather than the partial system remaining.

Last on this matter, while Thorpe does not specify aspiration in his reconstructions of proto-Ryūkyūan, we acknowledge here that in terming the Nakijin historical change discussed above "Initial Deaspiration" we seem to be de facto asserting that the original segments were

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[276]The assertion that "new" items are excluded from Medial Deaspiration may have to be read more as a statement of a possibility rather than an absolute restriction on the occurrence of the phenomenon there. A quick check of items marked as "new" in Nakasone 1983 revealed several with native-like medial deaspirated k' and t': qamee/ri\k'aa 'America', gak'u/saa 'scholar', tha/t'aa\k'ai 'war', and that'i/k'e\e 'advance payment'. It is of note that the environments for most k' and t' in these examples (that of gak'u/saa excepted) are followed by non-high vowels that yield aspirated kh and th in "real" Nakijin words (in initial position, of course). Lawrence does cite khuthuu/ni 'especially' and haN/khi\c'i 'handkerchief' as examples of medial aspirated consonants (1990:46).

[277]Nakasone 1983 and 1985 discuss only k in terms of original following vowel height leading to an aspiration distinction.

aspirated.[278] However, it is probably more likely (and certainly less strident a claim) that pRk *p, *t, and *k were themselves unspecified for aspiration and had aspirated and unaspirated allophones of the unitary voiceless stop phonemes (as for example occurs in English). In any case, we will stick with the term Initial Deaspiration, in keeping with the descriptive terminology of Nakasone, though perhaps it is more proper to use "phonemicization of aspiration or the lack it" to refer to this phenomenon.

A discussion of the consonant pairs showing an aspirated/deaspirated distinction is presented in 2.2.3.2.

2.2.2.2.6 Regressive Reaspiration and Initial Vowel Devoicing

Regressive Reaspiration of word-initial p and k, a change which yields ph and kh in items where all things being equal p' and k' are expected (per Initial Deaspiration), and Initial Vowel Devoicing,[279] affecting items for which initial qV is expected (per Glottal Generation), are notionally related changes in which both the conditioning environments and outcomes (in a broad sense) for each change are strikingly similar.

Regressive Reaspiration adds aspiration to historically non-aspirated initial voiceless stops (a fairly limited group, consisting of Nk k' deriving from *ku > k'u, and Nk p' deriving from *pi > p'i[280]) when followed by a syllable beginning with a voiceless consonant.[281] In practice, this consonant is mostly s or c', though a handful of examples are found in k' and t' for k; since p' is conditioned by a following *i, what might otherwise be k or t following that vowel has surfaced as c' due to Progressive Palatalization (though referring to such segments

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[278]That Nakasone refers to medial voiceless stops as having "deaspirated" may also point to an assumption of aspiration as the default quality.

[279]The term is a borrowing of Nakasone's (1983:634) descriptive title for the phenomenon.

[280]Examples in *ki, *ti, *tu have of course been bled from consideration here due to Palatalization/Affrication, and *pu has only sporadically turned up as p'u.

[281]A similar process of devoicing and aspiration may have been an intermediate stage in the development of the extreme *t lenitions discussed in 2.2.2.2.7.

as historical k and t is not unreasonable). Since it seems that the changes discussed here may have taken place quite early,[282] we can suppose *t and *k may have played a role before undergoing Progressive Palatalization. The reaspiration in items affected by this change is accompanied by a devoicing[283] of the vowel between the two voiceless consonants conditioning it; NHOD recordings of these items clearly reflect this, though the devoicing is not so extreme as to create the impression of a consonant cluster.

We present below examples of Regressive Reaspiration in all possible conditioning environments, including those where historical distinctions have been lost.

LIST (50): Regressive Reaspiration in Nakijin

khu/k'uuru\N	'to twist' (J kukuru)
khusa/a	'grass' (pRk *kusa)
khu/c'ii	'mouth' (pRk *kuti)
khut'aa/su\N	'to spoil, corrode, defame' (J kutasu)
phic'aa/ru\N	'to glitter' (pRk *pikari)
phisi/se\N	'thin' (pRk *pisu-~*pesu-)[284]
phi/saa	'knee, leg, foot' (pRk *pisa, J hiza)
phi/c'ai	'forehead' (J hitai)

In contrast to these, we have numerous examples of expected k' and p' reflexes when the following syllable begins with a voiced segment: k'u/bii 'neck, head' (pRk *kubi), k'uru/se\N 'black' (pRk *kuro-), k'umu/u 'cloud' (pRk *kumo), p'iza/i 'left' (pRk *pida'ri), p'iruu/se\N 'wide' (pRk *piro-). Furthermore, when a long vowel intervenes between the initial k'/p' and the following syllable, no reaspiration occurs,[285] as in p'ii/t'ui 'brazier', although the morpheme juncture in this item (it is derived from p'i/i 'fire' + thui/ 'take') may be the

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[282]This despite the temptation to refer to the change as superficial and predictable, as was done in, for example, Curry 1991b.

[283]Reaspiration and the devoiced vowel are consistently found together; probably the vowel devoicing conditioned by adjacent voiceless consonants actually preceded the reaspiration discussed here.

[284]We acknowledge that the aspirated ph here may reflect the non-high vowel following the *p in the *pesu alternate proto-form.

[285]Vowel length as a blocking environment for Regressive Reaspiration would dovetail nicely with the same sort of environment blocking Initial Vowel Devoicing (discussed below).

significant limiting factor.[286] Unfortunately, there seem to no ready examples in a *k- or *p-initial original item of original vowel length that has since been lost leading to a non-reaspirated k' or p' in the modern Nakijin form.

Initial Vowel Devoicing, which was discussed briefly in 2.1.1 as an interesting feature of Nakijin phonology, affects word-initial qV sequences yielding hV in their place. It is similar to Regressive Reaspiration in that the conditioning environment is a voiceless consonant-initial following syllable, though there is no limitation on the vowels involved in the original qV syllable. Nakasone, as noted in 2.1.1, consistently phonemicizes the resulting segments as hV, listing such items in the "h" section[287] of Nakasone 1983,[288] and the derivation process he describes for the change does indeed have a devoicing of the vowel in the object syllable, though these devoicings are not noted in the list of Nakijin phonemes and phonetic realizations (Nakasone 1983:629–632). As has also been mentioned before in the current work, the NHOD recordings of items that have undergone Initial Vowel Devoicing do indeed reflect a devoiced initial syllable, the auditory effect being so extreme as to have the casual listener discern something like [p'e:ra:] for hap'ee/ra\a 'duck'.

Several examples of Initial Vowel Devoicing are listed below:

LIST (51): Initial vowel devoicing in Nakijin (Nakasone 1983:634)

hap'ee/ra\a	'duck' (J ahiru)
ha/t'aaru\N	'to hit, strike' (J ataru)
ha/k'iiru\N	'to open' (J akeru)
hac'a/a	'tomorrow' (pRk *asita)
hasaa/t'i	'day after tomorrow' (J asatte)

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[286]Or maybe not: in general, compound words do not undergo Medial Deaspiration either, but the compound origins of p'ii/t'ui seem not to have affected it this way.

[287]"H" section here must be understood to refer to the ハ・ヒ・フ・ヘ・ホ {ha hi hu he ho} section of the dictionary, as its organizing principle is the Japanese kana syllabary order.

[288]This practice can lead to no small amount of (usually temporary) confusion on the part of historical linguists using the Nakijin dictionary as a research corpus, as they must constantly keep in mind which h are "real" and which are the excrescent result s of the change discussed here.

hit'u(u)/ru\N[289]	'to loathe' (J itou)
hik'aa/na	'why' (J ikanaru)
hic'a/a	'board' (pRk *ita)
hup'i(i)/se\N	'big' (pRk *UQpo-~*UQpe-)
hu/t'uu	'sound' (pRk *U'to)
huk'u(u)/su\N	'to raise up' (J okosu)
hu/c'ii	'inside' (J uti)
hu/sii	'cow' (J usi)

In following Nakasone's observation of the data presented above, we have listed all possible environments for Initial Vowel Devoicing.

Nakasone adds the caveat that for words beginning in qi-, devoicing of the sort considered here does not occur when the following syllable begins with s, save for sporadic occurrences of hi/sii for qi/sii 'stone'. Note the following list of s exceptions to Initial Vowel Devoicing, with alternate forms inset below each entry:

LIST (52): Exceptions to initial vowel devoicing conditioned by s

qi/sii[290]	'stone' (pRk *i'si, J isi, Sr isi)
/sii	
hi/sii	
qisaa/t'u\u	'mantis' (Sr qisjatuu)
saa/t'u\u	
qi/soose\N[291]	'happy' (Sr qisjoosja 'delight [literary/archaic]')
/soose\N	
qisu(u)/zu\N	'to hurry' (J isogu)
qisuga/su\N	'to rush' (J isogasu)
qisaa/mi\N	'to warn' (J isameru)
qisa/a	'doctor' ([S]J isya)
/qi\su	'chair' ([S]J isu)

The list above comprises the entire corpus of #qis- tokens excepting compounds using qi/sii 'stone', and there are no examples of #his- (save the aforementioned occasional hi/sii); certainly, in view of the apparent pervasiveness of #qis- in preference to the non-existent #his-,

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[289]This item, and the following, may be loans; no progressive palatalization has occurred following the first-syllable i.

[290]And many compounds built using qi/si- as the first element.

[291]Nakasone (1983:38) notes that the version of this term with qi- is prevalent in the eastern part of Nakijin Village. (Yonamine is west-central.)

excluding these items from the Initial Vowel Devoicing on the grounds of the following s they have in common seems reasonable.

However, the situation proves somewhat less clear on closer examination. First, we note that the first three items on the list all sport variant forms lacking the initial qi-; second, we note that the last three items are all marked as recent loans ("new" in Nakasone 1983; though it is not specified, the presumed source is Japanese).[292] Indeed it seems that only qisu(u)/zu\N 'to hurry' and the related qisuga/su\N 'to rush'[293] constitute unsullied examples of ostensible blocked devoicing due to following s, and it is possible that though these items are not marked as recent loans, their Nk shape may benefit from reinforcement by the Japanese analogs to the terms.[294]

Having noted that most examples of qi- retention before s can actually be accounted for as recent loans or items plausibly under the influence of very similar Japanese forms, we now return to the items that have alternates lacking initial qi-. For these an alternative explanation presents itself, specifically, that qi- retention in these items is a retention (or reintroduction) of the initial syllable due to external influence, while the natural course of Nakijin development is a perfectly regular (that is, predicted by Initial Vowel Devoicing) change of original qi- in these to hi-, followed, however (and this is behavior different from other Initial Vowel Devoicing items) by a loss of that initial syllable due to the extreme devoicing environment. There is not much left to utter once a syllable is reduced to [ḫi̥], and, as we have already noted, these devoiced syllables in a and u as well (cf. NHOD) are but barely there in any case. In short, we are proposing that the regular pattern of development for 'stone' is

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[292]Status as recent loans blocks the devoicing with other following consonants as well: note for example qit'aa/za\i 'sheet metal' (J itazai).

[293]The second item is a lexical causative form of the first.

[294]We do note, however, that 'hurry' has Ryūkyūan-typical Palatalization/Affrication of the stem-final consonant.

*isi > qisii > hisii > hi̯sii > sii

with reintroduction (or concurrent maintenance) of a form qi/sii, with the glottal stop permitted (rather than back-formed to h) due to phonotactical admissability afforded by similarly shaped items such as /qi\c'i(i) 'breath' and /qu\si(i) 'mortar (discussion of which we turn to shortly below). In the case of all the qi-~zero alternating items, for each there is a Shuri form (as well a Japanese form isi for 'stone') retaining the initial syllable that may be a model for the irregular forms in Nakijin. This sort of extreme lenition alternating with less extreme lenition is also found, as discussed in 2.2.2.2.3 and 2.2.2.2.7, for *k and *t in examples such as hi/c'uN~si/c'uN 'to stab' (J tuku), though as is noted there, the next logical step (loss of the hi) has not (yet) occurred in those items. Last, similar to the alternation in 'stone', we also note an alternation in sisi/i~si/i 'meat', where a plausibly predictable hi alternate of the initial syllable (predictable based on the alternations for *k and *t, and those found in *s items such as si/c'uN~hi/c'uN 'to plow' (J suku) is not found.

It seems clear, given the pervasiveness that we have demonstrated for Initial Vowel Devoicing, and the fact that later additions to Nakijin with the requisite (but here ostensible) qualifying environment do *not* participate in the devoicing, that this phenomenon can not be at all a superficial low-level phonetic operation working on the lexicon currently. That is, the Devoicing process has to be fairly venerable; a somewhat superficial automatic shift of q to h in extant q-initial items such as qi/sii would obtain otherwise, but this we do not see. Further evidence for the antiquity of Initial Vowel Devoicing (and hence the inherent Nakijin nativeness of it) comes in the form of other apparent exceptions to it, treated next (though, interestingly, these do not seem to be addressed specifically by Nakasone).

In addition to the items in s that Nakasone notes as exceptions, there is a class of words with initial syllable accent (all of the shape /CV\CV[V]) that also behave unlike typical Initial Vowel Devoicing items in that they retain a glottal initial despite a voiceless consonant starting the following syllable. This fact was discussed briefly in 2.1.4; we are indebted to Shimabukuro

(2002:207) for insight into this development. At first glance, the inclination is to lump these under the same sort of ad hoc exception that initially seemed to be the case with s, but in fact, the accentuation of qi/sii is not in keeping with those displaying the q-retention behavior here. Shimabukuro's innovative view of these is that underlying vowel length, as recoverable from comparison with Shuri (and certain other dialects) is the source of the unique accent pattern as well as an environmental conditioning factor that blocks the devoicing of the vowel and the concomitant change of q to h. That is, there is an original long vowel in these forms, and it is this long vowel that prevents the change from q to h in these items,[295, 296] leaving the glottal stop in place and in effect phonemicizing aspiration in word-initial position.[297] Here are some examples; for purposes of comparison we have shown one additional example ('coverlet') in which Sr vowel length corresponds to Nk initial accent, though blocked Regressive Reaspiration is not an issue:[298]

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[295]In any case, we are at a loss to imagine what the phonetic realization of a long devoiced vowel could be, other than perhaps an uncomfortable pause in any conversation that included it.

[296]A following geminated consonant seems to have a blocking effect on Initial Devoicing as well (though given the relatability of that phenomenon to Shuri length [discussed in 2.2.2.2.2], at least in some cases, the gemination is perhaps merely the result of the length that actually blocked the devoicing). For items such as /qaQ\t'oo 'after' (Sr qatu, J ato), however, no vowel length argument obtains, at least not at first. Perhaps the Nk shape of the word is evidence for length loss in Shuri.

[297]As we noted earlier, aspiration distinctions are non-existent in morpheme-medial position.

[298]There are also a few sporadic examples of Sr initial length corresponding to a short Nk syllable, but with different accentuation. One such is Nk qira/a 'jellyfish' (Sr qiiraa); here, though there is an alternate Sr form qiraa alongside the long vowel version, which does not seem to be the case with the correspondents for Nk /CV\CV(V) items.

LIST (53): Nakijin #/qV\- and Shuri #qVV-

Nk	Sr	gloss
/qi\c'i(i)	qiici	'breath'
/qu\si(i)	quuSi	'mortar'
/qi\c'u[299]	qiicu	'silk'
/qu\k'u(u)	quuku	'interior'
/qu\du	quudu	'coverlet'

As a result, we are forced to conclude that Regressive Reaspiration must have occurred *before* any loss of first-syllable length (and establishment of pitch patterns) in these items. This further corroborates that the Initial Vowel Devoicing process is a thing of no small antiquity in Nakijin; indeed it must be counted a Nakijin distinctive of some tenure.

2.2.2.2.7 Lenition of *t

The Nk reflex s is found for *t in a number of items, mostly in situations where c would be a reasonable expectation given Palatalization/Affrication (2.2.2.1.5). Some examples include:

LIST (54): Nk s < pRk *t

sa/nii	'seed' (pRk *tane, Sr tani)
si/k'aa\ra[300]	'strength, power' (pRk *ti'kara, Sr cikara)
sic'aa/se\N	'near' (pRk *tika-, Sr cicasaN)
sic'i/i	'moon' (pRk *tuki(jU), Sr çici~çicjuu)
sik'oo/ru\N	'to make' (pRk *tukuri~tukori, Sr cukujuN)
si/k'eN	'to use' (J tukau)

With the notable exception of 'seed' it seems clear that *t will lenite to s in situations where it is followed by high vowel i (whether from original *i or from i resulting from u-fronting) followed in turn by a voiceless consonant. This is of course a classic vowel devoicing environment and *t lenition to s is perhaps a change similar in essential nature to the

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[299]There are number of Nk items clustering about the thread~silk etymon. They are discussed in more depth in 2.2.2.2.2. For purposes of convenience we have listed just one here.

[300]The medial k in this term is troubling, insofar as it undergoes neither Progressive Palatalization nor any kind of lenition to h. We return to a discussion of its interesting segmental characteristics in 4.1.4 below.

movement of *k to s~h discussed above in 2.2.2.2.3. By way of further corroborating this generalization, we can list items with more typical lenited[301] *t reflexes:

LIST (55): Nk c < pRk *t

c'i/zii	'top' (pRk *tuzi)
c'i/zuN	'to pour' (pRk *tugi-)
c'inu/u	'horn' (pRk *tuno)
/c'ii	'blood' (pRk *ti)
c'i/bii	'buttocks' (pRk *tube)
c'iN/zu\N	'to spin' (J tumugu)
c'uu/se\N	'strong' (pRk *ti[j]U)[302]
/c'i\ju(u)	'dew' (J tuyu)[303]
c'i/mii	'claw, nail' (J tume)
c'i/rii	'rubbish' (J tiri)
c'i/ruu	'bowstring' (J turu)
/c'iN/si	'knee' (various Kyushu dialects[304] tubusi)
c'iN/bu	'head' (J tuburi)[305]
c'ina/a	'rope' (J tuna)
c'uN/p'e\e	'saliva, spit' (pRk tu(to)Npa(i))[306]

It can be ascertained readily that *t will surface as c rather than s when the following syllable begins with a voiced consonant; furthermore, the presence of vowel length (including the monosyllabic example /c'ii 'blood') for the *t segment in question seems to block lenition.[307]

There are also some intriguing examples of *t lenition taking steps past s, as we see in the following list of doublets:

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[301]'Lenited', that is, insofar as palatalization/affrication as discussed in 2.2.2.1.5 represents a sort of lenition.

[302]The first-syllable u here does not represent an exception to u-fronting but rather the levelling of the vowel sequence iu. The u-fronting rule must therefore precede vowel sequence levelling.

[303]Note that the Nakijin first-syllable accent implies a pRk *tuuju.

[304]Nakasone notes (1983:289), citing the *Zenkoku hōgen jiten*, the item つぶし [tubusi] as occurring in Kagoshima, among other places; notably this is the modern area corresponding to historical Satsuma.

[305]Shuri has the interestingly conservative çiburu in this meaning.

[306]It is unclear why the first syllable vowel here has not fronted to i; Thorpe (1983:323) notes that there are "many problems associated with the reconstruction of this word."

[307]Monosyllable lengthening thus precedes Palatalization/Affrication as well as Lenition of *t.

LIST (56): h~s doublets in Nakijin reflexes of *t

hi/c'uN~si/c'uN	'to stab' (J tuku)
hic'u/N~sic'u/N	'to adhere' (J tuku)
hic'i/i~sic'i/i	'moon' (J tuki)
hic'aa/ju\N~sic'aa/ju\N	'to approach' (J tikayoru)
hic'aa/se\N~sic'aa/se\N	'near' (J tikai)

The environments here are identical to those where *k surfaces with h~s doublets, and the same process is therefore likely operative. We also have at least one example of original *s exhibiting the same behavior: hic'u/N~sic'u/N 'to like, love' (J suku), although it is possible that the formal similarity to the *t items exhibiting this behavior may have led to the alternation here simply through analogy.

We return now to the apparently inexplicable sa/nii 'seed'. Reflexes of pRk *tane uniformly begin with t in Thorpe's appendix (1983:325); the Nakijin form is not listed among data supporting Thorpe's reconstruction.[308] Nakasone mentions the form サネ [sane] from Kumamoto; we can offer as well Japanese sane 'stone, kernel, core (of fruit)'.[309] The semantic affinity of the forms tane and sane points to a t~s issue in Japonic as a whole, rather than a specific problem with pRk *t development in Nakijin; rather than treating sa/nii as a development from an item with *t we prefer to view it as a strangely solitary remnant of whatever J sane and the Kumamoto form refer back to.[310] We should also note that we find both t and s variants in Nakijin compound forms:

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[308]Whether the exclusion of the Nakijin form is intentional or simply due to unavailability is unclear, but we presume the latter.

[309]As well as certain extended meanings.

[310]There is at least one additional item (in two guises, one adjectival and one verbal) which demonstrates this sort of t~s duality in Japonic: PJ *osoro- 'horrible, scary', which corresponds to pRk *uturusi- (Martin 1987:839); the modern Japanese reflex is osorosii, with an s, while in the Ryūkyūs we find (among others) Sr quturusjaN and Nk hut'u(u)/ru\seN in the same meaning. For the verb corresponding to J osoreru 'to fear', however, we have Sr qusuri 'honor, exaltation' and Nk husu/ri\N. A knotty problem, indeed, Japonic t and s in such items; final unraveling will have to be left to later inquiries.

LIST (57): tane~sane compounds in Nakijin

muNc'a/nii[311]	'rice seed' (J monodane < mono +tane)
sa/nii\muN	'seeds' (J tanemono)
qawaasa/nii	'millet seed' (J awa [no] sane)
qiNda/nii	'rice seed' (J ine [no] tane)
qurisa/nii	'melon seed' (J uri [no] sane)
mac'i/sa\ni	'pine seed' (J matsu [no] sane)

At the very least, it seems fair to exclude sa/nii from consideration as a reflex for pRk *tane in Nakijin.

2.2.3 Comments on interesting features in Nakijin phonology

As mentioned in the introduction to Chapter 2, Nakijin has a certain group of sounds—glottalized nasals and glottalized voiceless obstruents, in opposition to regular nasals and aspirated voiceless obstruents—that can be considered fairly exotic in the overall Japonic context. These will be treated in the following section, following a discussion of glottalization as it contrasts with smooth onset in vowel-initial items.

In addition, in this section we will consider in detail the circumstances and developments leading to the contrast in aspiration for each of the consonant pairs exhibiting the distinction. Discussions in these sections will make reference forward on occasion to the ideas of external influence for certain forms, as well as special categories of the lexicon. These will be discussed in some additional detail in subsequent chapters.

2.2.3.1 Glottalized and smooth initial segments

In Nakijin, as is true through the great majority of Ryūkyūan dialects, the segments corresponding to vowel-initials in certain forms of greater Japanese have glottal initials. This is not to say that non-glottal vowel initials are not found in Nakijin: there is a contrast between glottal and non-glottal onset for the whole range of Nk vowels and semi-vowels (see 4.3.1.1). Furthermore, Nakijin features a small stock of glottalized nasals (qm and qn, appearing in the morae qme, qma, qmo, qmjo, and qna) contrasting with unadorned nasals in initial position.

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[311]Whence the palatalization in the Nakijin form is unclear.

Most, if not all, of the glottal initials in Nakijin can be derived by positing a glottal generation rule for vowel-initial proto-forms, as discussed in 2.2.2.1.10. Glottalized consonants would then be the result of routine glottal generation on bare-vowel initials followed by loss of the conditioning vowel. Non-glottalized vowel-initials are thus the odd man out; these are typically either a) on the fringes of core phonology (i.e., onomatopoeia or loan vocabulary), or b) cases of an original glide blocking glottal generation and then later being lost. Examples of both are discussed in the following sections.

2.2.3.1.1 Glottal initials contrasted with smooth onset vowels

The glottal initial is the regular state of affairs for Nakijin items corresponding to bare vowel initial items in pRk and Japanese, as discussed in 2.2.2.1.10 above. This is not unexpected, given the pervasiveness of glottalization of vowel segments across the northern Ryūkyūs. Nonetheless, a small number of Nk items with smooth vowel onsets are found. Note the following examples of glottal onset and smooth onset (near) minimal pairs:

LIST (58): Nk glottal onset vowels and smooth onset vowels

/qii	'stomach'
i/i	'picture'
qe/e	'indigo'
e/i	'next year'
qa/a	'foam'
a/a	'odious!' (interjection)
/qoo	'blue'
oo/o\o	'no'
/qu\mi	'sea'
u/u	'hemp'

With the exception of 'stomach', all the examples of glottal onset are part of the native Nk stratum of vocabulary. The original Chinese morph for 'stomach' has either been in Nakijin long enough, no doubt via a loan from Japanese, to behave natively or has been "antiqued", that is, phonotactically regularized into a more typically Nakijin shape.

The examples of smooth onset are a more diverse lot. In the case of 'picture' a lost initial glide blocked glottalization. The Japanese cognate for this term, e, was phonetically realized as [je] (< *we) until fairly recently (Martin 1987:79); rule ordering that places glottal generation before the loss of homorganic glides would account for the Nakijin form. Alternatively, the initial *w of the PJ form, which implies a similar pRk segment, would account for the non-glottal onset, with somewhat less reliance on a chance occurrence in the phonology of Japanese several hundred years after Nakijin dialect is presumed to have been a distinct language. Appealing to the notion of an initial j will, however, work for 'next year': the form cited is actually part of a e/i~ja/i doublet; e/i is a later form, with the a of jai raised under the influence of the following i; this vowel assimilation will have to have occurred after glottal generation, as qe is the typical reflex of sufficiently early e in Nakijin. Similarly, the last item cited, 'hemp', cognate with Japanese o, can be related to PJ *wo; here, too, an original glide blocks the development of a glottal initial.[312]

The aberrant phonology of the items cited for 'odious!' and 'no' is most likely related to their being onomatopoeia, part of a special stratum of the lexicon. As interjections their phonology is perhaps best considered a peripheral issue to the main line of historical development; compare the interesting phonology of "uh huh" and "huh uh" in English. In any case, the phonetic realization of a/a 'odious!' is [ɦa/a], a decidedly non-vocalic articulation despite the phonemicization, and oo/o\o is phonetically [woo/wo\o].

2.2.3.1.2 Glottal initial glides contrasted with smooth onset glides

Unlike the case for vowel initials, glide (semi-vocalic) initial items are expected to have smooth onset. (Indeed we appealed to non-apparent glides in accounting for the contrast between glottal and smooth onset vowel initials.) However, a contrast between glottalized and

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[312]The case can be made for the homorganic glides in these items not being lost at all: ii is phonetically realized as [ji:], and uu as [wu:], for example (Nakasone 1983:630).

smooth onset glides has developed in Nakijin, as can be noted from the evidence detailed in the following list. Note the various (near) minimal pairs:

LIST (59): Nk glottal onset glides and smooth onset glides

qwee(/de\e)	'public service'
we/e(wee)	'vomit'
/qwa\a	'pig'
/waa	'ring'
/qjaa	'you'
ja/a	'house'
/qjo\o	'expression of approval'
joo(/se\N)-	'weak'
/qjuu\	'fish'
ju/u	'hot water'

In general, the glottal glides in the first member of each pair can be related to the loss of vowels; before the vowel was lost, however, the regular process of glottal generation for vowel-initial items was able to operate. We can describe the development process here as:

*#V^{j}/$_{w}$V- > #qV^{j}/$_{w}$V- > #q^{j}/$_{w}$V-

It remains unclear by exactly what process the vowels are lost in these items, though there may be some clues in processes such as high vowel loss (discussed in 2.2.2.1.8); the disappearing vowel in each of the above examples is either Nk u or i, though it is sometimes non-original (that is, derived from the raising of a proto-mid-vowel).

According to Nakasone (1983:621) Nk qwee/dee corresponds[313] to the Japanese term 親大裏 [oyadairi], a clear indication of an underlying vowel-initial environment to account for the glottal initial; Nk-internal evidence in the alternate form qee/de\e may represent a more regular development of this form, or at least a more phonotactically likely alternative. In any

[313]Corresponds, or is somehow related to. Nakasone notates thus : "?weedee <おやだいり[oyadairi]" (1983:621), where his < is used to indicate a correspondence with some lack of precision about specific derivational processes.

case, there is a considerable body of evidence regarding items such as this, and other honorific terms, in Shuri. These are discussed in section 4.3.2 below.

Thorpe reconstructs pRk forms *Uwa and *Uja corresponding to Nk /qwa\a and /qjaa; once again a vowel-initial environment for glottal formation is found, although there seems to be little extra-Ryūkyūan evidence for this. Similarly, Thorpe posits pRk *ijU for 'fish', a vowel-initial form that will readily account for the Nk glottal initial.

In contrast to the comparatively complex posited origins of glottalized glide initials, all the examples of smooth onset save Nk we/ewee[314] have clearly corresponding forms with non-vocalic initial segments. That is, Nk /waa corresponds to J wa 'ring', Nk ja/a to J ya 'house', Nk joo- to J yowa- 'weak' (with consonant loss and diphthong levelling), and ju/u to J yu 'hot water', any of which would have blocked initial glottalization.

2.2.3.1.3 Glottalized nasals

Glottalized nasals present some interesting difficulties for reconstruction, not the least of these being their relative rarity and the fact that they often come from specialized lexical categories. As a general rule, however, we can, as in the case of glottalized glides, often successfully propose that a lost vowel has conditioned the glottal before going missing from the modern surface form. Note the following:

LIST (60): Nk glottal nasals

qma/a	'horse'
qmee/si	'chopsticks'
/qmo\oruN	'[honorific] be/come/go'
-/qmjoo\dui	'interval'
/qna\a	'already'
/qna\a	'expression of amazement, surprise (interjection)'

[314]This term and its homonym wee/we\e 'wailing sound' are both onomatopoeia, and thus to a certain extent may have only tenuous connections to regular phonological developments. We might posit a possible connection between the former and J hedo 'vomit', although the regular Nk correspondent for J h segments in initial position is p; the latter may be connected with J waa (same meaning as the Nk item).

Nk qma/a has of course the clear J cognate uma; with high vowel loss following initial glottalization the attested form may be derived. Nk qmee/si and /qmo\oruN (to which two we could add Nk /qme\NseN and /qme\NsooruN, both '[honorific] be/come/go') and have a roughly similar pattern of development, both to qma/a and to each other. Specifically, as suggested by Nakasone (1983:564) qmee/si corresponds to Japanese(-like) omihashi[315] via glottal generation on the original vowel initial followed by loss of the o- (perhaps via a raising, though this would not necessarily be a typical occurrence for u < *o) and diphthong levelling after loss of the (now-) medial h. Likewise, /qm\ooruN corresponds to *omiowaru (cf. Middle Japanese ofasu), via more or less the same path. That both qmees/i and /qmo\oruN are honorific terms, either in origin or actual use, perhaps taints their relevance for reconstruction, but does point to some interesting parallels, to be considered later, with Shuri forms.

Nk -/qmjoo\dui, glossed 'interval', is not an independent lexical item, but rather a verbal affix-like noun attaching to verbs in the meaning of 'interval of time until the action of the verb occurs'. As such, it is a specialized bit of vocabulary perhaps best excluded from inquiry for purposes of reconstruction, and indeed no apparent cognates present themselves.

The first of the last two forms, /qna\a 'already' enjoys a relationship with the early literary Okinawan[316] term ina 'early, already' and can be derived from same through the now-familiar path of glottal generation followed by vowel loss. The interjection /qna\a likely corresponds to the literary Japanese interjection ina 'nay, no', the Nk form coming about in a fashion parallel to its homonym.

Thus, in most cases the exotic glottal nasals of Nakijin are in fact fairly regular developments of routine initial glottalization of vowels. That they belong almost to a one to

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[315]The form omihashi is a hyper-polite rendering of hashi 'chopsticks' created by adding no less than two honorific prefixes, o-, and mi-.

[316]That is, the language of the *Omoro sōshi* collection of Ryūkyūan poetry, dating from the 12th to 16th centuries (though the first written compilation dates from 1532) (Sakihara 1987:9).

specialized vocabulary categories—interjections, honorifics—no doubt contributes to their persistence in retaining their interesting phonology.

2.2.3.2 Aspirated and deaspirated consonants

Like other Northern Okinawan and Amami dialects, Nakijin has an aspiration distinction in its voiceless consonant series. The relevant oppositions are ph-p', th-t', kh-k', and ch-c'. In general, deaspiration is associated with the height of the original vowel following, though vowel raisings and certain development processes have obscured the conditioning environments. Each contrasting pair will be discussed in turn below.

Some occurrences of deaspiration and (re)aspiration seem to be fairly low-level phonetic detail, while others are found to be fairly deep. Nakasone (1983:633) notes that with the exception of compound words and recent loans, all medial voiceless consonants lack aspiration; whenever this constraint arose, it seems to still be active (perhaps having applied cyclically) as shown by the extreme measures that must be taken to find medial aspirated segments (see 2.2.2.2.6). On the other hand the changes discussed at length in 2.2.2.2.5 and 2.2.2.2.6 seem to have no modern currency, having been phonemicized in the past; these reaspirations occurred in at least two situations: 1) initial qV shifts to hV, and 2) initial k' and p' shift to kh and ph when the following mora begins with a voiceless consonant.

2.2.3.2.1 ph-p'

The aspiration distinction for p segments can be described in general as being determined by the height of the following original vowel, although it seems that the distinction is only maintained for front vowels. Evidence from other consonants that demonstrate an aspiration distinction suggests that such a distinction may have been relevant for p with following back vowels, but it has largely levelled (in favor of ph) in modern forms. Like all aspirated/glottalized pairs, the p'~ph distinction is relevant only in word- and morpheme-initial position, as voiceless consonants are obligatorily glottalized in medial position. The developments for p can be summarized as follows:

p > p' / #__*V[+high +front]

p > ph elsewhere

There is clear evidence of *p surfacing as p' before *i, as shown by the cognate pairs Nk p'i/i 'fire' J hi (< *pi) and Nk /phi\ri 'edge' J heri (< *peri), sometime before the raising of pRk *e to i. Further corroboration of this posited shift comes in the form of palatalized p segments, where in general only p'j occurs, with examples such as phjaa/k'uu 'hundred' being restricted to loan vocabulary. That p' rather than ph should occur before j is not surprising given the articulatory common ground of i and j. One counterexample to this shift is the item p'i/i 'flatus', corresponding to J he (< *pe), although this item is found in the expected form phi/i in one section of Nakijin.[317] In addition, we have examples where reaspiration (2.2.2.2.6) has obscured the distinction; note, for example, phi/c'ai 'forehead', in which the following syllable in c' forces the change p' to ph in the initial syllable.

There are some examples of a ph-p' contrast before original back vowels *o and *u. However, the mora p'u is rare, the entire main corpus consisting of manifestations of p'u- 'big' in various compounds and a handful of onomatopoeia and kinship terms. Nakasone notes (1983:455) that p'u- is a truncation of hup'u-, so the deaspirated p there is likely simply an artifact; onomatopoeia as well has been shown to be a class of vocabulary prone to exceptional phonology, and it is possible that the kinship terms, such as p'uu/p'u\u 'old man, grandfather' are related to this class. There are, however, several locations[318] where the expected[319] glottal p reflex of *pu is encountered; in these, the expected p'u/juu 'winter' is found in place of the phu/juu found elsewhere in Nakijin. Examples of p'o are restricted to

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[317]Aza Oyadomari (字親泊 qazaaqeedumee), i.e., Oyadomari Hamlet/Village in western Nakijin (Nakasone 1983:423).

[318]Aza Sikuuza (字諸志 qazaasik'uu/za), i.e., Sikuuza Hamlet, Aza Kaneji (字兼次 qazaahanii/si), i.e., Kaneji Hamlet, and Aza Imadomari (字今泊 qazaaqnaNdumee), i.e., Imadomari Hamlet, all in the far western part of Nakijin (Nakasone 1983:495).

[319]Expected, that is, in the sense that since *k yields k' before high vowel *u and kh before mid-vowel *o, *p should change in parallel fashion.

medial position, where deaspiration is regular. Neither are examples of p'a found except in medial position. For the vast majority of items outside the noted areas of distinction, initial ph is encountered for all reflexes of *p. Listed below is a summary of *p changes with examples:

LIST (61): Nk reflexes of *p

*pi	p'i/i 'fire' (J hi)
	p'iruu/se\N 'wide' (J hiro)
*pe	/phi\ri 'edge' (J heri)
	/phiQ\t'u 'dolphin' (pRk *peto)[320]
*pa	phac'u/N 'to vomit' (J haku)
	pha/nii 'wing' (J hane)
*po	/phu\ni(i) 'bone' (J hone)
	phu/k'ui 'dust' (J hokori)
*pu	/phu\ni(i) 'boat' (J hune)
	phu/juu 'winter (J huyu)

For examples of reaspirated p', see section 2.2.2.2.6 above.

2.2.3.2.2 th-t'

The situation for this contrasting pair is not particularly clear, thanks mostly to the changes forced in *t by high vowels. What aspirated/glottalized distinctions might have been revealed for *t segments before i have been obscured by palatalization/affrication (see 2.2.2.1.5) of t to c[321] in that position. The segment pRk *u likewise motivated an affrication in preceding *t, subsequently shifting to i; this shift fed further lenitions of *t (see 2.2.2.2.7), as shown in examples such as Nk sic'i/i J tuki 'moon', /ma\c'i(i) : matu 'pine', and na/c'ii : natu 'summer'.

As always, our discussion of the aspiration distinction for *t refers to that segment in initial position; medially the reflexes are consistently glottalized.[322] There is clear evidence of the expected aspiration of *t when followed by *e, *a, and *o, as shown in the following examples; for convenience we have listed the high-vowel environment reflexes of *t as well:

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[320]The Nakijin accentuation of this form suggests the pRk form should be *peeto.

[321]As noted below, the c'-ch distinction itself is fraught with interest, however.

[322]Note the near minimal pair thi/i 'hand' (J te) contrasting with -t'i '[verbal affix]' (J -te).

LIST (62): Nk reflexes of *t

*ti	/c'ii 'blood' (J ti)
	c'i/rii 'rubbish' (J tiri)
*te	thi/i 'hand, arm' (J te)
	/thi\daa 'sun' (pRk *teda)[323]
*ta	tha/a 'rice paddy' (J ta)
	thac'u/N 'to stand' (J tatu)
*to	thu/nai 'neighbor' (J tonari)
	thu/zii 'wife' (pRk *tozi)
*tu	c'iN/zu\N 'to spin' (J tumugu)
	c'i/mii 'claw' (J tume)

Given the bleeding operations high vowels have worked on *t, essentially nixing our regular development environment for glottalized voiceless stops, we have quite a preponderance of aspirated segment th as the reflex of *t, and we have to wonder where indeed glottalized t will be found, if at all. In any case, what can clearly be said at this point is that there is no clean full-fledged array of modern t-like segments that demonstrates the development of the aspiration/glottalization distinction for *t like that found for *p or that that will be shown for *k.[324]

In fact, initial t' does exist, though it is rather infrequent; nearly all examples of it will be shown to belong to categories of vocabulary, such as greetings, onomatopoeia, and the like, that can arguably be considered exceptional, or at least prone to developments that often lie outside regular patterns. In many cases, it is difficult to ascertain to what other Japonic items the Nakijin terms are related; where such can be discerned, they are presented below:

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[323]Again, Nakijin accentuation suggests pRk *teeda.

[324]The *p segment retains very p-like modern reflexes across the total range of aspiration/glottalization developments; *k is missing a k-like reflex for *ki, but does show the aspiration/glottalization contrast for *ko vs. *ku.

LIST (63): t' in Nakijin

t'ii/c'i[325]	'one' (J hitotu, pRk *pitotu~piteetu)
/t'aa\c'i	'two' (J hutatu, pRk *pu'taatu)
/t'ai~/t'ee	'two persons'(J hutari)
t'aN/de\e	'[daytime greeting]'
t'aQ/t'u\baasuN	'to cut off'
t'oo/t'oome\e	'moon [honorific]' (Sr tootoo, tootoomee)
t'oo/t'oome\e	'[Buddhist] mortuary tablet'
t'ee/t'eemunuqi\i	'[descriptive word for a retroflex manner of articulation]'
/t'eNt'eN	'[sound of samisen]' (J teNteN, tuNtuN)[326]
t'uN/t'u\N	'[sound of samisen]'
t'oN/t'o\N	'[thumping sound]'
t'oo/t'o\o	'[baby talk] chicken, domestic fowl'[327]

Even a cursory glance at the list of items above should suffice to indicate the somewhat atypical status of t' in Nakijin. Items t'ii/c'i 'one', /t'aa\c'i 'two', t'ee 'two persons', t'aN/de\e, and possibly t'aQ/t'u\baasuN (and similar items to this mentioned below) are in fact the only items on the list for which a plausible phonological explanation can be advanced; all the others seem to owe their exceptional phonology to factors that do not lend themselves to quantifiable phonological descriptions.

Let us first turn our attention to the number items listed. Items t'ii/c'i and /t'aa\ci, with respective proto-forms *pitotu (alternating with *piteetu)[328] and *pu'taatu, actually are

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[325]Nakasone lists a large number of compound items beginning with t'ii- 'one' and t'aa- 'two'.

[326]There are several items involving this basic shape that refer to the plucking sound of the cotton strings of the sanshin (three-stringed instrument) or similar instruments.

[327]Serafim suggests (personal communication, 2004) this item may be related to *tori 'bird, fowl'.

[328]The alternation in proto-forms for 'one' is necessary to account for competing vocalization in extant Ryūkyūan forms (Thorpe 1983:314). It seems more likely that the modern forms with u (< *o) may actually reflect contamination from Japanese, or perhaps a borrowing from earlier Japanese that came into Ryūkyūan early enough to be a de facto part of pRk. The majority of forms in Ryūkyūan, including Nakijin t'ii/c'i, are clearly relatable to *piteetu.

compound items in which the syllables t'ii- and t'aa-[329] represent the numerals 'one' and 'two' and the -c'i is a counter[330] for items of indeterminate or unspecified shape.[331] The compound status of these items accounts for their atypical contour (with the long first syllable); the numeral elements themselves have long vowels that may be due either to regular lengthening of monosyllables (2.2.2.1.2) or perhaps to original length (the accentuation of /t'i\i, for example, following Shimabukuro (2003:206) indicates original length in the accented syllable). In any case, that length is maintained in compound number forms thanks to the pseudo-paradigmatic pressures of participating in a list system, all of the members of which have a sort of patterned regularity in mora counts. Note, for example, the almost studied balance of mora counts in both the one-to-ten enumerative series as well as the series of numbers for counting indeterminately shaped items:

LIST (64): One-to-ten numbers

'one'	/t'i\i	t'ii/c'i
'two'	/t'aa	/t'aa\c'i
'three'	/mii	/mii\c'i
'four'	/ju\u	/juu\c'i
'five'	/qi\c'i	hic'iQ/c'i\i
'six'	/muu	/muu\c'i
'seven'	/na\na	nanaQ/c'i\i
'eight'	/jaa	/jaa\c'i
'nine'	/khu\nu	khunuQ/c'i\i
'ten'	/thuu	/thuu[332]

The influences associated with being part of this finessed system are also likely a main factor in the loss of the first syllable of pRk *piteetu and *pu'taatu in yielding Nk t'ii/c'i and /t'aa\c'i;

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[329]These forms are used independently only in enumeration (Nakasone 1983:293).

[330]"Counters" or "classifiers" are suffixes for numbers. They vary according to the category, often taxonomically described, of item being counted. A full list of classifiers used in Japanese numbers several hundred items (Trussel 1996–2004); Martin 1988:766–777 provides a full discussion of the classifier system.

[331]Presumably the same is true of Thorpe's proto-forms, though this is not specified in his discussion of the items. Thorpe 1983 includes reconstructions for 'one', 'two', 'five', and 'six', all of the numeral plus classifier form.

[332]The item for 'ten' here lacks the counter -c'i; too 'ten' in Japanese as well lacks a counter in the analog to this series of numbers.

certainly no strictly phonological account will allow for the loss of a syllable in *p in such a situation, as *p is as a rule quite stable in initial position. However, the loss of this historical first syllable does not, apparently, force the remnant portion of the words into reanalysis as typical *t initial items; that is, they retain their regular glottalization of the former medial *t segments. This observation would seem to confirm that the glottalization/aspiration distinction in Nakijin is a thing of some antiquity, marking Nakijin as Nakijin for no small amount of time;[333] it would also indicate that regular medial glottalization is a historically distinct development rather than a superficial constraint.

The item /t'ai~/t'ee 'two persons' will derive from a process much like that which led to /t'i\i and /t'aa; evidently the loss of the first syllable of the pRk form for 'two' occurred consistently in derived forms as well. The Japanese cognate hutari gives us hints about what the pRk form likely was (Thorpe does not treat the form); based on this we presume that /t'ai~/t'ee represents a post-*r-loss (2.2.2.1.7), optionally vowel-sequence-levelled remnant of the last two syllables of a pRk *putari or possibly *putaari that has, on analogy with other 'two' items, lost its initial syllable.

The greeting t'aN/de\e, glossed by Nakasone (in Japanese) as 今日は [konniti wa] 'good day, hello' or お疲れさま [otukaresama], literally 'honorable tiredness', an expression used to thank someone for hard work or exemplary effort in an endeavor, can also have its initial t' explained by appealing to syllable loss. According to Nakasone (1983:243) t'aN/de\e represents a truncation of khu/t'aNdija 'tiredness [topic]' (J kutabire), which, via loss of the first syllable and levelling of the last two yields t'aN/de\e. The initial glottalized t' is thus a relic of a sporadic syllable loss, though the reason for that loss seems to be reduction through

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[333]The distribution of modern Ryūkyūan forms for 'one' and 'two' that lack a reflex of the first syllables of the pRk items (generally found in more central areas) seems to indicate that these forms are later forms than those that retain the first syllables (in general, more outlying areas). Perhaps the initial syllable loss can be associated with the spread of the Ryūkyūan kingdom (and the Shuri dialect as a prestige dialect) from the 15th century on.

conventional repetition rather than the paradigm-like pressures like those affecting 'one' and 'two'.

The item t'aQ/t'u\baasuN 'to cut off' is part of a large cluster of items employing t'aQ-, termed by Nakasone (1983:232; it gets a separate listing in the body of the dictionary) an intensifying prefix. Additional examples from this group include t'aQ/k'a\raasuN 'to suddenly reverse', t'aQ/k'u\ruusuN 'to beat to death' (J tatakikorosu), t'aQ/k'wee 'eat [imperative]',[334] t'aQ/c'iN 'to cut forcefully' (J tatakikiru), and t'aQ/t'u 'gradually, increasingly' (also thaQ/t'a). It is possible that the exceptional phonology of t'aQ- is directly related to the intensifying effect it brings to the items to which it is affixed; in such an analysis it would be similar to the gemination used to indicate emphasis (often negative) in certain Japanese terms, mostly adverbs (such as totemo 'very' alternating with tottemo, or amari '[not] very, too [much]' alternating with aNmari). However, the fact that many of the Japanese analogs to terms in this group of items in Nakijin contain an initial element tataki-, a continuative form (or perhaps deverbal) of the verb tataku 'to strike, hit', leads us to believe that t'aQ- may derive from a truncation of the Nakijin version of that term, that'aa/c'u\N 'to strike repeatedly, beat'. That is, t'aQ- derives from that'aa/c'u\N (or, rather, its continuative form that'aa/c'i-) with gemination in the compounds deriving from loss of the -i- of the continuative form and assimilation of the c' to the initial consonant of the second element of the compound. The initial t'a of t'aQ- would then be either a haplology of the initial that'a with glottalization related to the 'intensifying' semantics of the term, or a simple dropping of the first syllable, with the regularly glottalized medial simply retaining its characteristics in its new word-initial position. The semantics of t'aQ- would perhaps have reinforced retention of

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[334]This item is used (Nakasone 1988:233) in the phrase khu/su\ t'aQ/k'we\e, a formulaic response to someone sneezing, akin, pragmatically only, to the English "bless you" used in similar situations. The Nakijin phrase has a considerably more colorful derivation than the English phrase, to the extent that it is difficult to imagine their apparent functional overlap; the Japanese analog kuso kurae has the conventional translation 'Go to hell' or 'damn you'.

glottalization there (though of course we needed no such argument for the identical process in other items demonstrating this behavior).

The remaining items on our list of forms with t', however, have no ready phonological explanation for the glottalized initial segment. It is clear for all of them, though, that some appeal to their semantic characteristics may help to account for their forms. The two t'oo/t'oome\e items, 'moon' and 'mortuary tablet', which are likely the same etymologically, are examples of highly specialized (and certainly in the case of 'mortuary tablet', culture-bound as well) vocabulary; we suspect that these items owe their common nomenclature to a sound-symbolism element that refers to the pale shining quality of both referents, though no independent Nakijin form exists in that meaning in that shape. We can note that the Shuri correspondents tootoo and tootoomee 'moon'[335] are both termed "baby talk" in OGJ; as this is an area of vocabulary prone to, for lack of a better term, expressive phonology, often related to onomatopoeia, such an origin may eventually be demonstrated for the Nakijin terms as well, though the Nakijin item, while retaining its interesting phonology, has passed into the realm of more general vocabulary.

In the case of t'ee/t'eemunuqi\i,[336] /t'eNt'eN, t'uN/t'u\N, and t'oN/t'o\N, all glossed as types of sounds, or descriptive terms related to sounds, it seems clear that we can claim the glottalized t' in these derives a priori from their status as onomatopoeia. That they all refer, apparently, to more or less the same sound or type of sound serves to reinforce this assertion.

Last we have the baby talk item t'oo/t'o\o 'chicken'. There seems to be no Shuri equivalent to this term, at least not in the same shape, and Nakasone presents it with but minimal explanation. We presume the fact that it is mentioned as baby talk accounts for its initial t', as items in this class often have their origins in sound-symbolic terms. In any case,

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[335]Nakasone (1983:323) cites other Japonic dialects with similar forms as well.

[336]The -munuuqii portion of this term is related to J mono ii, literally 'saying things'.

Nakijin has in addition to t'oo/t'o\o the items k'o/o and k'oo/k'o\o, both '[onomatopoeia for chicken call]' although the latter term is defined as a baby talk term for 'chicken' as well. The k' in these latter terms is as exceptional as the t' of t'oo/t'o\o and it seems fair to claim a similar phenomenon is involved in both terms. We will leave the details of the relationship between phonology and sound symbolism to more focused works than the current study.

2.2.3.2.3 kh-k'

The kh-k' distinction can be shown clearly to be related to the height of the following vowel. Nakasone (1983:633) notes the following contrasts before back vowels:

LIST (65): pRk *ku > k'u

k'umu/u	'cloud' (J kumo)
k'ura/a	'storehouse' (J kura)
k'u/raa	'saddle' (J kura)
k'u/ru\u	'black' (J kuro)

LIST (66): pRk*ko > khu

khu/ru(u)su\N	'kill' (J korosu)
khunu(u)/mi\N	'plan' (J konomu)
khumaa/ru\N	'be vexed' (J komaru)
khuju/mii	'calendar' (J koyomi)

Note that there are some apparent exceptions to this trend: khusa/a 'grass' (J kusa), khusi/i 'comb' (J kusi), khu/c'ii 'mouth' (J kuti). These, however, fall under the reaspiration environments discussed in 2.2.2.2.6.

As in the case of t, the palatalizing effect of following *i on *k muddies the view of developments for *ki sequences (which surface regularly as c'i). The sequence k'i is found, but seems related to proto-forms with *u, such as Nk /k'iiruN : pRk *kure 'give', in which the *kur element underwent changes associated with high-vowel loss (see 2.2.2.1.8) following regular glottalization of the initial *k and raising of the *e segment to i.[337] The proposed development of /k'ii\ruN is thus kure- > k'ure- > k'wee- > k'wii- > k'ii-; however, the somewhat similar

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[337]There are also the isolated onomatopoeia forms /k'i\i and /k'i\ik'ii as well, both referring to scraping or screeching noises; though it is unclear what the etymological origins of these are, the often interesting phonology of onomatopoeia may be sufficient explanation by itself.

item /k'uiru\N 'to get dark' (J kureru) surfaces with a disparate, though perhaps more regular, reflex.[338] The behavior leading to /k'ii\ruN may be difficult to discern; however, the source of the glottalized k' itself is not that remarkable.

Related to Nakasone's attribution of the Nk k'-kh distinction to following vowel height, many examples of khi turn up, in connection with original following *e. Note these examples:

LIST (67): pRk*ke > khi

khi/i	'tree' (pRk *ke)
khi/buu\si	'smoke' (J kemuri)
khi/zii	'wound' (pRk *kezu)
khi/ziiru\N	'to scrape, cut' (pRk *kezuru)
/khii	'hair' (pRk *ke')
khi/N	'to kick' (J keru)

Nk khinu/u 'yesterday' is an apparent exception to this development (the pRk form is *kino(w)U, which should have yielded a reflex similar to Sr cinuu) and may represent either a recent loan or an analogical levelling relating it more closely to /khu\u 'today'.[339] It is also worth mentioning that even late loans in Nakijin seem to reflect a correspondence of Nk khi to J ke: note khiga/a 'wound' (J kega), which Nakasone marks as "new" (1983:115), though we also find khimaa/ru\N 'to be decided' (also "new" [1988:114]), which has aspirated k preceding high vowel i, an environment that leads to deaspiration in *p. It could be that the default choice for loans in k is aspiration.

Initial k'o and k'e are also found, many of them connected with the single verb /k'eN 'eat'; Nakasone relates /k'eN to kurau[340]; original u would motivate deaspiration, and analogical levelling of the verb paradigm would account for the other forms. Deaspirated k' is

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[338]Positing underlying length (*kuure-) for kui/ru\N might explain the difference. Long initial syllables may explain the unreduced kur- sequences of k'u/raase\N 'dark' and k'uru/se\N 'black' as well; the semantic closeness of all these terms points to a common etymology.

[339]It is possible that Sr cjuu 'today' and cinuu 'yesterday' are analogically related as well. In addition, there is the literary Sr term kiju 'today'.

[340]"k'eN...<食らう[kurau]" (Nakasone 1983:152).

also unexpectedly encountered in numerous onomatopoeia forms connected with the various cries of domestic fowl and certain wild birds, as well as in /k'oQ\c'i 'feast, celebration' and several compounds built therefrom. Further, there are unexpected appearances of k' in a cluster of words associated with breakage and destruction: k'oo/ri\N 'to be broken', /k'oori\N 'to be destroyed', k'oo/su\N 'to destroy'; we suspect the k' here may be related to a high semi-vocalic segment that may be inferred from the Japanese cognate term kowareru 'to break', though the derivation is far from clear.

What is truly odd in the matter of a kh-k' distinction is the existence, alongside the above-mentioned Nk k' : kh :: pRk ku : ko, of many forms that have modern Nk h as the reflex of pRk k / _o. Similarly, there are at least two examples of Nk h occurring before i in items that are related to forms with original *k. These were discussed above in Velar Lenition.

2.2.3.2.4 ch-c'

It is tempting to postulate that the relevance of this distinction is marginal. Tokens of ch are somewhat rare, some are noted to be of recent provenance (marked as "new" terms in the dictionary, and thus of peripheral interest in reconstructing historical phonology), and even Nakasone wavers on the issue: the item for 'one year' is listed as chut'u/u in his table of mora examples (1983:632), but appears as c'ut'u/u in the body of the dictionary (1983:276).[341] In addition, the expected form c'a/a is recorded for cha/a—the most prominent ch locus—in some parts of Nakijin village[342] (Nakasone 1983:263). There is, however, a not insignificant corpus of ch items, though it is dwarfed by the c' group; note the following examples of ch:

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[341]Insofar as Nakijin has c'u- for 'one' in many compound forms, (Nakasone 1983:271), it may be that c'ut'u/u is the correct form.

[342]Aza Jana (字謝名 qazaa/za\naa), i.e., Jana Hamlet in central Nakijin (Nakasone 1983:263)

LIST (68): ch in Nakijin

cha/a	'tea' (J tya) (and compounds)
chaat'a/raa\seN	'filthy'
chaa/t'oogi\i	'spindle tree'
/chaa\gi	'podocarp [type of evergreen]'
chaa/mja\a	'bantam' (J tyabo)
cho/i	'one time' (and compounds)
chut'u/u	'one year'
choo/dee	'brothers' (J kyoodai) 兄弟
choo/c'i\N	'lantern' (J tyootiN) 提灯
/choo\naN	'older son' (J tyoonaN) 長男
choo/gi\N	'comedic play' (J kyoogeN)(and compounds) 狂言
choo/go\o	'meeting' (J kyoogi) 協議[343]
choo/ru	'exactly' (J tyoodo)
choo/bu	'account book, register' (J tyoobu) 帳簿
cha/k'uu	'guest' (J kyaku) 客
cha/k'uu\si	'legitimate child, older son' (J tyakusi) (and compounds) 嫡子
chaN/t'u	'properly' (J chaNto)

Discussion of the various ch items follows.

It is notable that most of the examples of ch are found in items ultimately of Chinese origin, though it is likely for most, if not indeed all, that their presence in Nakijin is due to Japanese influence. Some items, certainly chaN/t'u for one, are Japanese loans; it is unclear at this point from what chaat'a/raa\seN, chaa/t'oogi\i, and chaa/mja\a might ultimately derive; their syllable contour is not typical Nakijin, leading us to believe there is either something of an extra-Nakijin sort going on, or a process of compounding has rendered the typical pattern inapplicable. It is possible, though we cannot readily account for any semantic connection between 'tea' and the items in question, that there is nonetheless a relationship between them; the word shapes are much like the multiple compounds of cha/a 'tea' (chaa/ga\raa 'tea dregs', chaaha/bii 'tea paper', etc.), wherein cha/a retains its length and the second elements of the compounds have canonical Nakijin shapes if taken on their own. We shall regard the ch elements in these items as reflecting cha/a, though the question of whether

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[343]The second lexeme of the Nakijin item is probably 合 (J goo [< gafu, kafu]) 'meet, fit, agree'.

they are actually cha/a or merely related by something like analogy or a variety of folk etymology[344] we will not address. We will discuss cha/a itself below.

For cho/i, Nakasone (1983:280) provides an interesting derivation, one which seems to betray an early presence in Nakijin for some items of Chinese origin. The derivation given is choi < cuai < cuhai < cukai,[345] the earliest form of which would apparently be a combination of Nk c'u- 'one' and the Sino-(Ryūkyūan? Japanese?) element kai 'time, occasion'. This would indicate that whenever kai entered Nakijin, it was early enough to allow it to be affected by k lenition, and yet late enough to be combined with the Ryūkyūan-style form c'u-[346] for 'one'; subsequent levelling of the vowel sequence ua to o yields the attested form. It is possible that the aspiration in cho/i is a relic of the devoicing environment in the early form cukai; if the form in this shape had survived it would fall under the devoicing and regressive reaspiration environment noted in 2.1.1 and 2.2.3.2. Other than that speculative thought on the origins of aspiration in cho/i, we cannot account for the phenomenon, though perhaps the large number of aspirated cho-initial items (in contrast to the relatively small number of c'o tokens; see below) might have forced an analogical development.

For chut'u/u, as mentioned above, there is conflicting evidence in the body of Nakasone 1983 as to whether the initial segment is aspirated or not. In the NHOD, the

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[344]By "folk etymology" we mean of course the pseudo-analogical restructuring of words to reflect unreal, though plausible, semantic associations. An example of such in standard Japanese is the item pronounced waisyatu (< English 'white shirt') 'dress shirt', which is often rendered orthographically as Yシャツ [waisyatu], presumably on the model of Tシャツ [t'iisyatu]. The model is even extended to (the now somewhat dated) Gパン [ziipan] (< zii[Nzu] paN[tu] '[blue] jeans').

[345]We note that Nakasone is positing either that the initial consonant is [his] unaspirated c (our c') or that aspiration/glottalization is not being recorded for the terms in the derivation.

[346]This item is derived from pRk *pito, apparently via loss of the initial syllable following Progressive Palatalization of the second; at some point the medial o had to raise. The stand-alone form for 'one' is t'ii/c'i, accounted for by Thorpe's alternate *piteetu; apparent retention of initial t' may actually be list-analogy restructuring (to balance t'ii/c'i with /t'aa\c'i 'two').

recorded sample for chut'u/u definitely reflects a devoiced, aspirated first syllable for the word, close to [tʃʰu̥tu:]; however, the preponderance of items with c'u 'one' as an initial segment certainly does suggest that at the very least there is a variation, perhaps idiolectal, between chut'u/u~c'ut'u/u, or simply that in this item the devoicing/aspiration environment leads to a non-distinctive chu in preference to the expected c'u. A brief tour of several samples of words with initial c'u (as recorded in Nakasone 1983) seems to confirm this latter suspicion: though recorded uniformly as c'u, pronunciation of the syllable with a following syllable beginning with Nk k or t is [tʃʰu̥], while in other environments—including, interestingly, c and s, which we might have expected to motivate devoicing/aspiration—the pronunciation is clearly [tʃu], with a fully vocalized u.[347] The item chut'u/u then, has been idiosyncratically singled out for mention in Nakasone's pronunciation guide (1983:633), with concomitant implications of a c'u~chu distinction, when in fact the distinction seems largely accounted for by environmental conditioning.

For the remainder of the items, we can assert on the basis of their formal similarity to the related Japanese terms that they are likely to be of Chinese (Sino-Japanese) origin,[348] and it may be of some worth to compare them not only to modern Japanese, as in the lists above, but also to earlier stages of Japanese, as represented in traditional kana spellings, as well as to

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[347]NHOD entries for c'uida/c'ii 'alone, single', c'uqii/c'i 'one breath', c'udaa/c'i 'one armful' (reflecting [tʃu]); and c'uk'uu/c'i 'mouthful, bite', c'uk'aat/'a\na 'sword < one sword', etc. (reflecting[tʃʰu̥]).

[348]Chinese lexeme borrowings into Japanese (note that lexical items could have been borrowed without necessarily there being any orthographic evidence) fall into four categories, distinct from each other in terms of both time and geography. Earliest are the ko-on {ancient sounds}, dating from the 4–5th centuries and roughly synonymous with man'yōgana; next are the go–on {Wu dynasty sounds}, dating from the 5–6th centuries and representing pronunciations typical of southern China at the time; following these are the kan-on {literally, Han sounds, though Han here refers to China in general rather than the Han dynasty}, dating primarily from the 7–8th century and deriving from a variety of northern Chinese (it is primarily these that are the readings still in use in modern Japanese); last are the tō-on, dating from the 12–17th centuries and most typically found in religious terms. In addition to these categories of readings for Chinese lexical items in Japanese, many characters have so-called "customary readings" which are not directly connected to any of the above (Okimori 1992:46).

earlier stages of Chinese. If indeed Sino-Ryūkyūan vocabulary is to be shown to appear in Nakijin, this is the sort of comparison that should point it up well. Given that formal Ryūkyūan contact with China—in the form of trade/tribute journeys, the presence of a Chinese commercial settlement in Naha, and the tradition of sending young Okinawan men to study in the imperial capital (Kerr 1958:66)—dates from 1372, we are most interested in Chinese data from roughly that era and later, concentrating on the varieties of Chinese typical of Nanjing and Beijing where the Yuan and Ming courts were based.[349] This period coincides largely with the tō-on period of Chinese borrowings into Japanese, though there seem to be no Japanese tō-on associations with the Chinese items relatable to our Nakijin ch items. Note the following list of correspondences for items with Nakijin ch:

LIST (69): Nk ch-initial syllables compared with earlier Japanese and Chinese

Nk form	character	Japanese	kan-on[350]	go-on	Chinese[351]
cha/a 'tea'	茶[352]	tya	ta, sa	da, zya	tʂʰa', trɦa:
choo/dee 'brothers'	兄弟	kyoodai	kyau	kyau	xyŋ (xjuŋ), xyajŋ
choo/gi\N 'play'	狂言	kyoogen	kyau	gau	kʰwaŋ, kɦyaŋ
/choo\naN 'older son'	長男	tyoonan	tyau	zyau	tʂʰaŋ', trɦiaŋ
choo/ru 'exactly'	丁度	tyoodo	tyau, tou	tau	tiŋ, tiajŋ
choo/bu 'register'	帳簿	tyoobu	tyau	tyau	tʂaŋ`, triaŋ`
choo/c'i\N 'lantern'	提灯	tyootin	tei	dai	tʰi', tɦiaj
choo/go\o 'meeting'	協[合]	kyoo[goo]	kefu	gefu	xjɛ', xɦjiap
cha/k'uu 'guest'	客	kyaku	kaku	kyaku	kʰjaj˘ (kʰjɛ˘), kʰja:jk
cha/k'uu\si 'older son'	嫡子	tyakusi	teki	tyaku	ti˘, tiajk

What should be more or less immediately apparent from the above comparisons is that there is no clear correlation between the Nakijin forms and any one earlier Japanese or Chinese set of related forms, though in general it seems fairly clear to which of the three possible sources each Nk item can be related.

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[349]Ryūkyūan tribute records reflect journeys to both Chinese capitals.

[350]Older Japanese readings are given in Yale romanization of traditional kana spellings.

[351]Chinese forms are from Pulleyblank 1991. The first reference is to his Early Mandarin (1271–1368 AD); the second to his Late Middle Chinese (618–907 AD).

[352] Interestingly, one of these "customary readings" is the the reading tya for 茶 'tea'.

We note first of all that the Nk item cha/a cannot plausibly be derived from either the Japanese kan-on or go-on, since neither (except go-on zya, the voicing of which excludes it) of those are seen to have the palatalizing environment necessary to arrive at the Nk palatalized form. It seems Nk cha/a must be related to the Japanese "customary reading" (and modern word) tya, the odd phonology of which points to it being a borrowing in Japanese that is likely independent of the adoption of the character 茶 with its various associated readings. Alternatively, Nk cha/a might plausibly be connected to the Early Mandarin form, with its initial $tʂ^h$, unless it is an adoption of the Japanese term itself.

Of the other items, choo/dee, choo/gi\N, /choo\naN, choo/ru,[353] and choo/bu have clear palatalized correspondents in the Japanese kan-on items (and two in the identical go-on as well), while seeming to bear no direct connection to the Chinese terms. Indeed Japanese itself has palatalized and affricated the ty of the latter three, while retaining a palatalized but non-affricated ky in the first two. The development of Nk c from ty or ky would represent a non-controversial path much in keeping with *t and *k in palatalizing environments (*i and *u > i, though it is the homorganic glide rather than the high front vowel in the items in question) elsewhere in Nakijin. (Note that we are leaving aside for the moment the aspiration of c here.)

The items choo/c'i\N and choo/go\o present a couple of problems, though nothing thoroughly intransigent. The kan-on for each of these items seems most directly relatable to the Nk items, despite superficial difficulties associated with the e segments in each (we must eliminate the go-on by reason of the voicing discrepancy). Noting that e in earlier Japanese (and indeed until relatively recently) was phonetically [ye],[354] the palatalization of k and t in

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[353]The r in choo/ru is aberrant, if indeed the term is related to J tyoodo. Aberrancy notwithstanding, a certain articulatory commonality does obtain for d (dento-alveolar stop) and r (dento-alveolar flap) in Japanese (note, for example J tomodati 'friend' and the slang term tomorati in the same meaning), so it is perhaps not surprising that r would surface in a Japanese borrowing done independently of attention to orthographic traditions. Note that Nakijin, too, has such an alternation, cf. qaN/daa~qaN/raa 'oil' (Lawrence 1990:46).

[354]Martin 1987:18, etc..

whatever version of kefu[355] and tei might have ended up in Nakijin is more or less a foregone conclusion, leading readily and indeed inexorably to something c-like in both cases.[356] However, there seems no ready way to deal with the vowels of tei. In fact, the reading of tyoo in the Japanese version of 'lantern' is the only example of that reading for the character in the body of items that include the element; the others being uniformly tei (as in modern Japanese e no longer has a palatalized onset). Wherever the Japanese tyootiN[357] came from—it may be a dialectal variant, or another customary reading—it is unrelated to 提 tei, and the Nakijin item is likely so as well.

Last we turn our attention to chak/'uu and cha/k'uu\si. These items represent something of a contrast to the others in our ch list in that neither has a long vowel following, and both have canonical Nakijin syllable patterning in CVCVV[CV, etc.]. Furthermore, unlike the other Japanese correspondents listed, in both cases the modern Japanese items associated with the Nk terms are related not to the more likely kan-on (more likely, that is, in the sense that most modern Japanese readings are of kan-on derivation), but rather to the earlier go-on; similarly, the Nakijin items can only be related to the go-on as well, since the kan-on have no palatalizing environments. The presence of medial k in both cha/k'uu and cha/k'uu\si need not present problems, as k lenition is mostly a non-high-vowel[358] phenomenon; we can also note in relation to the medial k that it would account for the initial aspiration in these two items, since medial voiceless consonants are seen to force a reaspiration of initial voiceless consonants in certain situations (see 2.2.3.2). However, these two words seem to be the only

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[355]The loss of intervocalic f and subsequent sequence levelling results in the long o of the modern Japanese form. A similar process would have obtained in Nakijin as well to yield long o, if in fact something of the kefu shape was brought into Nakijin.

[356]However, if this is the case, khuu 'today' presents a puzzle, as it is related to an earlier kefu sequence as well.

[357]The tyoo in this item does have the traditional kana spelling of tyau.

[358]Or, rather, a non-high, non-front phenomenon: *o and *a seem to be the only loci for velar lenition with its various results.

place where such a reaspiration of c is found, if indeed that is how the ch here should be treated; note, for example c'ik'aa/gu\ru 'recently', c'ik'a/a 'bundle', c'i/k'uu 'chrysanthemum'. The reaspiration of c in these two items may perhaps be related to the following low vowel a, perhaps parallel to the aspiration that likely preceded changes such as *k [> kh?] > h when followed by *a (or it may simply reflect the light aspiration of the Japanese terms).

In sum, if viewed in the overall historical picture, the origins of these items in Nakijin have to be seen as diverse—some from relatively modern Japanese, some from the kan-on wave of Chinese imports into Japanese, some from the earlier go-on wave into Japanese. However, they do obtain a certain unity of development if they are treated not as originating diversely, but rather being related directly to a more or less modern form of the items in Japanese, either borrowed early enough to make the ky of the Japanese originals undergo palatalization, or consciously altered to reflect Nakijin phonotactics.[359]

Whether the mechanism of borrowing here can be uniformly attributed to direct contact with Japanese may be doubtful, however, given the Shuri correspondents for the terms:

LIST (70): Nk ch items compared with Sr correspondents

Nk form	Sr form
cha/a	caa (0)
choo/dee	coodee (0)
choo/gi\N	coogiN (0)
/choo\naN	coonaN (1)
choo/c'i\N	coociN (0)
choo/go\o	cuugoo (0)
choo/ru	coodu (1)
cha/k'uu	caku (1)
cha/k'uu\si	cakusi (1)
choo/bu	(no correspondent)

[359]There is but one token of ky (kj in our orthography) in Nakijin: /khjuu 'nine', marked a "new" item (it is a borrowing of J kyuu 'nine').

A plausible argument for borrowing from Shuri might be made for all but three of the Nakijin ch items, and that can be reduced to two if we note that Nk medial d is fairly rare and that choo/ru thus might represent a reasonable analog to Sr coodu (and/or J tyoodo).

Whence, then, the aspiration in these items? If it is to be a Nakijin-internal thing, then some conditioning environment needs to be adduced. We can note that there is no chi or chu (except possibly the questionable chut'u/u) to be found in the Nakijin corpus; given that the general rule in Nakijin is glottalization before high vowels, this is not surprising. We do see, however, that there are examples of both c'a (/c'aa 'how', c'aN/sa\N 'many', c'aama/a 'always') and c'o (c'oQ/c'o\o 'immature nightingale', /c'o\rooc'oroo 'sound of flowing water'); these, though, are almost all examples of either interrogatives, interjections, or onomatopoeia; that is, areas of the lexicon in which apparently atypical behavior might be reasonably considered typical. We last note that the "new" items in c (either marked as such or demonstrated to be such by reason of the associated definition) seem to invariably appear with ch rather than c': /cho\o 'carbuncle', /cho\odansiN (<京箪笥 [kyoodansu]) 'storage chest',[360] choo/hei '[military] recruitment, conscription'.[361] What we seem to have—and it is unclear what exactly this means in terms of overall phonological history—is the element ch in Nakijin being a borrowed sound that arrived with several items of ultimately Japanese provenance; if they were borrowed through a Shuri medium, we should be able to demonstrate that Shuri c is aspirated. OGJ gives the segment c in Shuri as phonetic [tʃ], unspecified for aspiration, though it might be argued that [ʃ] is aspirated by default.

No matter what the origin of ch terms in Nakijin, a number of them have doublets in s, a pattern reminiscent of the behavior in certain cases by *t and *k in lenition and palatalization situations. With the exception of cha/a, however, there seem to be no Japanese or Chinese s

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[360]According to Nakasone (1983:281) such pieces are post-Meiji imports from Japan.

[361]The item choo/hei, while a "new" term, demonstrates s-variation (~soo/hei) like some earlier ch items; this despite its aberrant h and unlevelled ei.

correspondents for the Nk items with s- doublets, nor do we see this sort of change in Shuri; Nk s related to ch must therefore be seen as an Nk-internal development, related no doubt to the other examples we have of *t and *k being reflected (at least in part) in Nk s reflexes. (In contrast, we see but few examples of Nk c' items occurring in doublet pairs with s items: c'i/kaa\ra~si/kaa\ra 'strength', sic'i/i 'moon'~-c'i(i)c'i[362] 'month (counter)', and perhaps a few others.) Note the following examples of ch~s alternation in Nakijin:

LIST (71): ch~s doublets in Nakijin

cha/a~sa/a	'tea'
chaat'a/raa\seN~saat'a/raa\seN	'filthy'
chaa/t'oogi\i~saa/t'oogi\i	'spindle tree'
choo/c'i\N~soo/c'i\N	'lantern'
choo/gi\N~soo/gi\N	'comedic play'
choo/ru~soo/ru	'exactly'

The pattern here resembles *t and *k lenition in the environments where the Nk reflex of the same is an alternation between s and h, occurring invariably in the devoicing[363] environment preceding V[+high]C[-voice], often specifically *ik. That is, the expected reflex of *t and *k in such situations, c, surfaces instead in the further lenited state s~h. Given that the ch in the items in the above list cannot be said to result from the same environmental conditioning found in the *t and *k items, we can only suspect that ch alternating with s reflects the same process, but one step behind the changes that led to s~h for *t and *k. That is, a medial step of c (the normal palatalized reflex) in the development of *t and *k into s~h was necessary; very likely in Nk ch~s items the lack of the close conditioning environment permitted the ch~s alternation to remain without further lenition to s~h. In any case, the ch~s alternation is a pervasive enough pattern to be reflected, as noted above for choo/hei~soo/hei, even in recently arrived items. We also note in connection with the ch~s alternation that s is phonetically [ʃ] before o (as well as before i, e, and u, though these do not enter the discussion

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[362]The item c'i(i)c'i is unspecified for accent (and indeed, vowel length) since it varies depending on the numeral to which it is appended.

[363]We need to keep in mind that devoicing and aspiration go hand in hand in Nakijin.

here), though not before the vowel a; the articulatory common ground of ch [tʃ] and [ʃ] may have something to do with motivating the alternation.

2.3 Glottochronological considerations

Though the absolute predictive power of glottochronology and other lexicostatistic methods was seen to be a figment relatively early, and no small amount of controversy attended the method from its introduction in the 1950s through at least the 1970s (Fox 1995:280), the results of such tests can nonetheless provide at least a broad idea of time depth and relative ordering of language development. In the original formulations of the method, it was held that as a general rule the rate of vocabulary replacement in a language is around 81% per millennium;[364] that is, if two languages share 81% of their basic vocabulary (defined per the various Swadesh lists) the split between the two would be confidently postulated to be 1000 years previous (Fox 1995:283). The retention constant value has been subject to some tweaking over the years; the early operative 81% figure was revised to 86% soon after (this latter figure is quoted in general surveys of the topic [Fox 1995:283–285]), though based on some recent applications of the methodology, it seems that a lower figure may be appropriate. Fields (2001:27) cites 73–74% as an operating basis.

The basic formula used in applying glottochronological analysis to pairs of languages is

$$t = (\log c) \,/\, (2 \log r)$$

in which t represents time depth in thousands of years, c is the percentage of shared cognate words based on the Swadesh 100 (or 200) list (Fox 1995:286), and r the retention constant.

After the methodology was introduced in the early 1950s, there was no small attention given to glottochronological applications on Japonic languages in various studies. Hattori and

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[364]In developing the statistical profile for language split and vocabulary replacement, Swadesh and other researchers used language groups for which there are written records extending back 2000-plus years (primarily the Romance languages, various earlier stages thereof, and Latin in its various forms) to establish a baseline.

other researchers, for example, published in 1955 a glottochronological analysis of Japanese (Kyoto dialect) and Ryūkyūan (Shuri dialect). This original application of glottochronological techniques by Hattori, et al, unfortunately—despite the extreme efforts undertaken by that first generation of modern Japanese linguists—obtained results that they themselves considered untenable in light of what is known of the history of Japan and the Ryūkyūs. Specifically, the break between Japanese and Ryūkyūan ended up being plotted at 1450 to 1700 years previous (to studies conducted in the mid 1950s), which contrasted somewhat with estimates based on historical circumstances that would place the original break at least 500 years before the dates reached through glottochronology (Thorpe 1983:237). Though Hattori's pronouncements on the matter exerted a considerable influence, criticism of both his application of the method and of the method itself tended to detract from further efforts to use glottochronological techniques on Japonic (Asato and Doi 1999:116).

Nonetheless, as a theoretical exercise, it is of some instruction to attempt a rough investigation of the time depth of the break between Nakijin and Shuri. Misgivings about the accuracy of the methodology aside, having the time estimates it generates is not without value, though of course the caveat that these must be treated with some circumspection is not to be forgotten. Fields (2001), for example, forty years since the method was largely dismissed, has in a sense rehabilitated glottochronology in applying it to language phenomena related to the history of wet rice cultivation in Guinea.[365] We cite Fields' work here for a second reason as well: the languages under consideration there,[366] while apparently not as closely related as even the more remotely connected Japonic languages, are nonetheless part of a fairly tightly knit cultural community in which linguistic relatedness was a priori assumed and broadly

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[365]Fields uses glottochronology in her studies due to, among other difficulties, the extreme lack of physical evidence for her subject.

[366]Fields considers four languages—Nalu, MbuluNuc, Mboteni, and Sitem—from the Atlantic and Mel linguistic subgroups on the west coast of Africa. Though geographically these languages are not far removed from one another, the time depth involved is somewhat greater than that involved in Japonic language history.

sketched, but that was only quantified in greater detail with regard to chronology and the history of the movements of language communities and their cultures by the careful application of glottochronological techniques. In the case of Nakijin and Shuri as well, though the historical connections are extremely well-documented by comparison, the application of glottochronology may afford additional confirmatory insight.

Though a case might be made for Nakijin and Shuri being too closely related to yield meaningful glottochronological results, we are attempting something here that is not too far afield from the specific subjects of Hattori's early investigations. One such (Hattori, et al. 1959) considered the dialects of Tokyo, Kagoshima, Naze (Ōshima), and Shuri and found, quantifying what common linguistic sense had already generally revealed, cognate retention rates between the various pairs of this foursome as follows:

LIST (72): Glottochronology results (%) for Tokyo-Kagoshima-Naze-Shuri (OGJ 12–13)[367]

Shuri-Tokyo	70.9
Shuri-Kagoshima	72.2
Shuri-Naze	84.7
Naze-Tokyo	71.0
Naze-Kagoshima	72.2
Kagoshima-Tokyo	85.1

That is, there is a clear distinction in time depth between the mainland dialects (Tokyo and Kagoshima) on the one hand and the Ryūkyūan dialects on the other. In addition, it is clear that the two mainland dialects show considerably greater affinity for one another than the two Ryūkyūan dialects do. That the Amami dialect is quite distinct from Shuri is documented in schematics of subgroupings of Ryūkyūan (2.2), and the observation that Nakijin shares many features with the Amami group languages is made as well (Martin 1987:262); on the basis of these facts we presume that sufficient distance obtains between Nakijin and Shuri to reasonably apply a cursory glottochronological analysis.

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[367]These represent results based on the Swadesh 200 list (Hattori, et al. 1959).

Following these justifications of the methodology, and reiterating the need for a judicious qualification of the results, we make a tentative comparison of the Swadesh 200 list[368] for Nakijin and Shuri. Though in some cases it is not entirely clear what should be counted as cognate and what should not, we have taken a conservative approach that counts as non-cognates items for which a difference occurs, such as the addition of other morphemes to the word form, even when certain subparts of the paired words can be linked as cognate. The following short list (ten items) are the clear divergences noted in the Swadesh list for the two dialects under consideration:

LIST (73): Swadesh 200 non-cognates for Nakijin and Shuri

Swadesh item	**Nakijin**	**Shuri**
correct	munuma/t'aa\seN	maQtooba, qaciraka
dog	qiN/nu\k'waa	qiN
sky	/thiN\t'oo	sura, tiN
smooth	naN/beerak'a(a)su\N	naNdurusaN
to bite	hami/N	kanaasjuN
to fish	k'waa/su\N	ciiN
to roll	k'ugee/ru\N	kurubuN
to smell	ha/miN	kaZa sjuN
we	qa/gaa\mi[369]	waQtaa
yellow	qawaaqi/ruu	ciiru

In addition, there are at least five words from the Swadesh 200 list that are probably loans into Nakijin from a k-retaining dialect: khuk'uu/ru 'heart', khu/ru(u)su\N 'to kill', /khuu\ri- 'freeze, ice', khamu/N~khami/N 'to eat' and tha/t'aak'a\N 'to fight'. Further, there are a couple of other items for which it is not clear if a cognate relationship should be assumed: husu/u 'father' (Sr suu; the Nakijin form has an honorific prefix), pha/buu 'snake' (Sr hwiibu~hwiibaa, haba; there is a variation in the pRk forms *pebu~*pabu as well), and /da\a 'where' (Sr maa).

In other words, we have ten items from a list of 187 that fail to show an exact cognate relationship, a retention rate of about 95%—extremely high in comparison with the figures

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[368]We have 187 Swadesh 200 words in our Nakijin database.

[369]Nakijin does have a form waQ/t'a\a, but we take the existence of the qa/gaa\mi form to represent a gap in the continuity of the pronoun systems between the two dialects.

noted for the Japonic dialects under consideration in Hattori's work cited above. Expanding our estimate of non-cognates by adding the eight items noted above, we have 18, which would represent a retention rate of about 90%, slightly higher than the rate between Tokyo and Kagoshima in Hattori's data. A 95% retention rate for Nakijin-Shuri taken with the earliest 1000-year retention rate constant of 86% would place the time depth of a Nakijin-Shuri split at just 170 years—in other words, hardly any time at all—and, if the revised estimates of a 73–74% retention constant are adopted, the time depth estimation comes in at just 80 or so years. Using a 90% retention rate for Nakijin-Shuri, the time depth estimate ranges from a maximum of 350 years to a minimum of about 170 years. One would have to invoke notions of a very long history of close contact between the dialects and their geographical proximity to justify a figure as short as 80 years, if indeed it is to be treated seriously at all, but the possible maximum range of 170 to 350 is somewhat more reasonable, though it still falls far short of a time frame in which the linguistic split might be associated with the historical events surrounding the formation of the Hokuzan petty realm.

In short, we are left with information that is at best perplexing and at worst irrelevant. Indeed, with a time depth of 170 to 350 years, both the time since the publication of Nakasone 1983 and the age of informants for the data become significant factors.[370] If these are taken into account, the date range that can be projected back for a split between Nakijin and Shuri is roughly 1570 to 1750 (i.e., 170 to 350 years prior to the 1920s). The flip side of this implication is that we must presume an essentially stable island-wide Okinawan dialect in place from the earliest inhabitation by Japonic speakers ca. 900 AD, and continuing for 600 to 800-plus years, despite the early political fractiousness that culminated in the Sanzan polities. If this is indeed an accurate portrayal of the scene, then our positing of the Shuri-speaking military garrisons in

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[370]Nakasone, for example, was born in 1907. Being a trained linguist and native speaker of Nakijin dialect, he was likely his own most significant informant in the compilation of Nakasone 1983, and was presumably an adult speaker of that dialect by the mid-1920s. Starting from that date in estimating time depth is therefore reasonable.

Nakijin beginning in 1422 as the initiator of Shuri influence on that dialect is probably utterly wrong—in the early 1400s there would not have been a Nakijin dialect for that group to have an effect on. Any inter-dialectal influence, in fact, would have had to come from the dispatching of officials during the middle and late kingdom period, such as the various forestry regulation enforcement personnel, as well as any contact inherent in the systems in place for moving forest and agricultural resources from the outer parts of the island to the capital. Note that the large number of words with a military connotation appearing to be loans in Nakijin could be mostly inexplicable in this scenario (unless the 1570 split estimate is correct), as both the manufacture and trade of weapons were constrained under Satsuma control after 1669, and overt Okinawan military activity limited, though there were Japanese (Satsuma) garrisons in place in Naha and elsewhere (Kerr 1958:178–179, Sakihara 2000:544).

Fox (1995:285) cites evidence that at the lower limits, defined as less than 8%, of vocabulary retention, the glottochronological methodology becomes statistically unreliable. Perhaps a similar truism applies at the upper limits as well, tying in with the suggestion made at the outset of this brief excursus that Nakijin and Shuri are simply too close to be compared by this method. It might also make sense to suggest that referring to Nakijin and Shuri as dialects, with all the implications of mutual intelligibility and underlying connectedness that the term involves, is not really a matter of preference for these two, but fact.

CHAPTER 3:

NAKIJIN HISTORY

3.1 Introduction

The idea that the phonological history of Nakijin—or any language—can be explained entirely in terms of a readily identifiable sequence of phonological developments from a well-regarded and comprehensively constructed base of knowledge about the proto-language from which it is descended is the ideal goal of the historical linguist, at least insofar as that trade is defined by the theoretical constraints of the comparative method and the rules of regular sound change. Rational science demanded no less from linguistics than from any quantifiable area of inquiry, the result being that the regularity, predictability, and repeatability that defined successful constructions under the scientific method became, for a time at least, the goal of linguistic observation and experimentation as well.

Historical phonology, however, as a component of language, is necessarily connected with people, as they are the practitioners of language, and no matter the level of quantifiable data collected on the behavior of either individuals or groups of people, as a general rule (ironically enough), people are unpredictable. Hence, the inherent possibility in language for idiosyncratic behavior is not to be denied.

We spent the better part of Chapter 2 running Nakijin forms through the theoretical machinery of an adapted comparative method. That is, we examined Nakijin forms in light of forms from related languages, including theoretical constructs such as Thorpe's proto-Ryūkyūan, and attempted to account for, insofar as possible within the limits of the comparative model, the development of Nakijin phonology. That exercise left a considerable residue of forms which seem to defy explanation in terms of readily quantifiable historical changes. In addition to mentioning these irregularities in the course of developing the outline of regular phonological history, we frequently alluded to possible explanations for them, though without fully developing any such notions beyond merely mentioning their existence.

In the last section of Chapter 1 we surveyed some of the work that has been done in the area of considering irregular, and hence interesting, language development, focusing in particular on the work of Dorian (1981) on language death in Gaelic, Clyne (2003) on language contact between English and immigrant languages, and Thomason and Kaufman (1988) on language contact in general as well as in certain specific events.

This chapter is a brief sketch of the human history of Nakijin, focusing on the basic culture of the pre-Hokuzan polity, the development of the independent Hokuzan state, and the subsequent arising of a fairly significant language contact situation with the unification of the Ryūkyūan kingdom in the early 1400s. In so doing, our intent is to lay the groundwork for looking at the Nakijin lexicon and Nakijin phonology in the light of external influence implied by that human history.

3.2 Nakijin and historical human change

In looking at non-linguistic evidence in hopes of ascertaining linguistic history, we are appealing to the notion of the 'processual approach' (Renfrew 1987) for looking at people, culture, language, and their movements and developments across time and space. That is, we are considering the history of a language in correlation with the history of the people using it, and taking into account their circumstances and motivations, as well as the language-internal evidence for its journey of change over time.

In so doing, we do not seek to deny the importance of the purely linguistic methods for looking at language change, and we certainly do not wish to suggest that the specific manifestations of change are necessarily predicted by the circumstances of the speakers. Rather, we would like to suggest merely that the elaborate constructs of pure linguistics are sometimes far too pretty, even delicate, for the essential and glorious messiness of people and the languages they speak while making their messes.

Of particular interest in looking at Nakijin history (in the broad sense) is the concept of contrast between local and national/regional. We will see in looking at the brief history of the

Hokuzan kingdom (centered in Nakijin) that we go from a comparatively limited local polity (makyo-anji period Nakijin) to a rudimentary but functioning state (the Hokuzan petty kingdom) with concerns far beyond the purely local. The eventual assimilation of Hokuzan into the unified Kingdom of the Ryūkyūs would see a massive change in the political realities of life in Nakijin, as administration by outsiders dispatched from the capital in Shuri would replace local authorities. In making these shifts, a stratification effect develops: the maintenance of the local, existing alongside the growing presence of state concerns. A number of phenomena are likely crucial here: the intercourse of state-level personages with their counterparts in other state entities (that is, the movement of Hokuzan officials to places beyond Hokuzan (and their interactions with others there); the introduction of non-Hokuzan officials to the Hokuzan area (this latter with particular bluntness in the eventual military takeover and administration of Hokuzan by Chūzan); and finally, the interactions between mobile Nakijin speakers (and speakers of other dialects from outside) and those whose lives were more closely bound to the home village.

3.3 Nakijin historical survey—pre-history to the end of the Ryūkyū Kingdom

Nakijin history as the center of a distinct and identifiable independent political entity has but 100 years or so to call its own, from the early 1300s to 1416, when Chūzan overpowered the last Hokuzan king on its way to establishing suzerainty over the whole of Okinawa. Though traditional accounts as represented in the *Chūzan sekan* would have the unification of the island be a restoration of a previous (indeed, prehistoric in Ryūkyūan terms) unified ideal state, this is best considered political mythology aimed at legitimizing both the primacy of Chūzan and the origins of the ruling dynasty (Kerr [1958:46] alludes to this, though he accepts the traditional account of an early unified Okinawa spoiled by uppity chieftains in the hinterlands [1958:60].). In contrast to tradition, the eventual development of economically and politically significant states on Okinawa is simply the ultimate step in a history of transition from the smallish isolated makyo cosanguineous proto-village groupings to larger and more

economically significant villages, followed by the gradual accretion of power and influence due to convergence of village population and resources in a few particular areas—this marked the emergence of the anji age, when local chieftains, anji, having attained power in a few proximal villages, represented the highest level of political authority on the island. The development of three "super" anji from among the various village-centered chiefdoms is the beginning of the king era of Okinawan history that culminated in the unified Ryūkyū kingdom that would last (in name, at least, if not in completely independent status) from 1429 to the 1879 annexation to Japan.

3.3.1 Pre-Hokuzan Nakijin

Information about Nakijin in particular during the makyo and anji periods is scarce. In lieu of Nakijin-specific data, aside from some measure of archeological data, we will look at the general results of inquiries into the history of this period on the main island of Okinawa, as found in both encyclopedic sources and interpretive works on literary sources such as the *Omoro sōshi*. The dangers of reading the *Omoro sōshi* as history are well enough understood here, as it is not history in the literal or traditional sense at all—rather, as a collection of songs and poems, it represents literary windows on life and culture in the times when it was composed (various times from ca. 1200–1610).

The earliest identifiable sociopolitical entities in Ryūkyūan history are the makyo. Essentially a development of cosanguineous proto-village settlements, makyo are perhaps best termed 'clan' or 'tribe' groupings in particular areas, mostly in the flatter and more forgiving areas of islands, near the ocean. Centered around the authority of brother -sister chief/priestess partnerships known respectively as niibito (根人) and niigami (根神) (Nk nin/c'u and kamin/c'u), makyo were structured physically around the residences (niija and nigamija), often distinct in both size and construction from the rest of village structures, of the chiefly personages. The niibito attended to the day-to-day leadership of the village grouping, while the niigami attended to villagers' spiritual needs; the authority of the niibito was,

however, derived from the niigami. (The importance of the female member of the chiefly tandem eventually far outstripped the secular authority of the niibito, and ultimate power in later stages of Okinawan societal development seems clearly to rest in the female priestesses, though they exercised it through male "rulers." Certainly the portrayal of the priestesses [later known as noro] in sources such as the *Omoro-sōshi* indicates significant gravity about their position. Even in modern Okinawa, women identifying a priestess heritage can be found.) At the makyo stage, the partnership represented in essence a single center of authority with both temporal and spiritual leadership of the village population, the niigami attending not only to prayers of thanks and requests to the village deities, but also, significantly in some contrast to her spiritual roles, to the keeping of the village's source of fire; the niibito's duties were somewhat more mundane, such as the rallying and leadership of men in agricultural, fishing, and, later, trading endeavors (Miyagi 1977:15–17; Sakihara 1987).

Physical layout of makyo settlements followed fairly typical patterns in most places (and place names in many modern Okinawan towns and villages reflect to the current day these earliest village districts.) The central village, including the residences of the niibito (niija) and niigami (nigamija), was termed the muranaka or shimanaka, and would be subdivided into two or more baaru. More outlying village areas, known as maeda, were usually lower-lying areas near the water, and tended to have been settled later as population pressures worked upon the central village. (Miyagi 1977:16)

3.3.2 Economic activity in pre-unification (makyo- and anji-period) Nakijin

'Economic' is likely too grand a word, with its modern accreted connotations, to label the range of activities associated with "getting by"—the essentials of daily life—in the Nakijin of 700-plus years ago. Agriculture, fishing, the working of instruments associated with these endeavors, the construction of dwellings, making of textiles and clothes, preparation of food; such are the essential components of Nakijin 'society' (again, a term with the potential to mislead) in the period leading up to the emergence of chieftain-kings and the establishment of

a military element. As Purves (2004) puts it: "the [Okinawan] economy, such is it was, would have revolved around fishing and crop-farming."

3.3.2.1 Agriculture and agricultural tools

The practice of agriculture, at least in limited forms, existed in the Ryūkyūs for several hundred years prior to the arrival of rice and millet cultivation ca. 900 AD. The minor cultivation of this time, with practitioners using wooden and stone utensils to aid in the work, seems to have been mostly a supplement to what was essentially a foraging sustenance system. With the arrival of Japonic-speaking groups from Kyūshū about 400 years prior to the time of the Nakijin kingdom came not only the larger-scale rice and millet cultivation but also metal tools, and in subsequent centuries trade with China had provided an additional source of iron tools and other products (Miyagi 1977:12). These metal goods provided a quantum improvement in the ability of farmers to work the land. Ample harvests were essential to survival, as fishing and other means of obtaining sustenance were frequently not reliable. Indeed, even when practiced extensively, fishing, hunting, gathering and other means of procurement were limited by technological factors and seasonal fluctuations. The population explosion that occurred in the Ryūkyūs from the beginning of the early castle period (10th century) indeed would have been impossible without agricultural development (Asato and Doi 1999, Renfrew 1987).

Agriculture here will be understood to be the practice of cultivating crops for sustenance and for the production of such products as banana-fiber cloth. Wet rice cultivation is found in Japan concurrent with the Yayoi period (Hudson 1999) and indeed he takes it as partial evidence of a population influx that with advanced cultivation techniques and concomitant potential for population growth managed to push aside earlier groups and form the basis of Japanese culture and polity as it is known today. The Ryūkyūs, however, as one of the peripheral areas to which earlier populations were pushed aside, did not, by implication and as evidenced in archeology, enjoy the same benefits of rice agriculture from that early

time; the introduction of rice cultivation in the Ryūkyūs is generally placed between the 8th and 10th centuries, preceding by a few hundred years the development of clear historical political entities in the area (much as Yayoi Japan precedes by a few hundred years the Yamato polity).

Other early agricultural endeavors included the production of taro and possibly other tubers, likely arising from gathering wild varieties of such plants; barley and millet cultivation, practiced in Yayoi Japan concurrently with rice, probably arrived in the Ryūkyūs at about the same time as other advanced agricultural techniques. The introduction of agricultural products such as sweet potato and sugar cane, which are still prominent, dates to much later, from roughly the time of the establishment of Satsuma authority in the early 1600s, (though the two are not necessarily connected).

In this agricultural society that had religion strongly integrated in daily life, the practice of agriculture necessarily had associated with it a number of religious ceremonies keyed to the various crops that sustained village populations. Rites linked to the planting and maturing of barley and rice (and others, such as sweet potato, in later periods), as well as harvest rites for these crops, recurred annually; special ceremonies marking particularly good harvests were held in the appropriately fruitful years. There were further rites associated with the construction and preparation of new rice paddies. All of these were communal exercises, with the priestess-headman pair handling their respective religious and political roles in ceremonies that thereby confirmed the inseparability of religion from both daily life—the procurement of food—and authority in the village. That some descendants of these early rites were still identifiable in Japanese-administered Okinawa—that is, until relatively recently—is likewise testimony to the relative cultural conservatism of the agricultural community even in the face of large-scale political shifts. What is notably Nakijin about Nakijin is likely found in large part in the cultural-historical complex associated with farming.

A rich vocabulary is associated with agricultural practices. In addition to the names of the various crops, specialized terms refer to the ceremonies sketched above and to cultivation practices. Terms of significance include those forms associated either semantically or formally with agricultural products from various ages as well as various agricultural procedures and practices.

3.3.2.2 Fishing and fishing implements

The practice of fishing, like so many aspects of food life in early villages, has religious overtones as well as a practical aspect. Fish themselves were seen as a "gift from the gods" (Sakihara 1987:77), an attitude that highlights the practical nature of religion as well as reflecting the high value of the fish as a commodity.

The importance of fishing in early village life, including Nakijin, cannot, therefore, be underestimated, and yet, due to technological limitations such as boats unsuited for long-distance travel and the lack of means to preserve any excess catch, as well as the comparative rarity of nets, it did not comprise a sole source of either sustenance or income (Sakihara 1987:60-61). (Agricultural products supplied the balance of nutritional needs.)

Evidence of the practice of fishing and of the religious ceremonies and traditions associated therewith is found in many sources, including numerous songs of the *Omoro sōshi*. Fishing could be either specifically targeted, as reflected in *Omoro sōshi*, IX:30 #505 (Sakihara 1987:71), where villagers set out in spring fishing for turtles and dugongs—important tax-in-kind items—or, as in *Omoro sōshi*, XI:95 #650 (Sakihara 1987:71), the result of taking timely advantage of the arrival of large schools of fish in nearshore waters. This latter likely had a greater impact on sustenance, as the technology involved was minimal: small boats were used to 'herd' schools of fish to shallows and inlets, where the mustered village would use nets and baskets to literally scoop up the providential catch. Communal feasting and religious rituals would follow. Systems of weirs were eventually developed to aid in harvesting schools of fish that would arrive in these seasonal swarms; certain specialized terminology developed for this

practice, such as (Omoro transcription) nagaki 'fish weir', norogaki 'fish weir [for the exclusive use of the village priestess]', uchinamasushiji 'inner weir tribe' (that is, the villagers assigned to work the nearshore [high tide] weir, and hetanamasushiji 'outer weir tribe'.

3.3.2.3 Boats

Transoceanic ships seem to have been the property exclusively of royalty (Sakihara 1987:60 notes), who possessed and used relatively large vessels provided by the Chinese authorities as part of the tribute relationship between China and the three Okinawan petty kingdoms. (Note that the Nakijin authorities and traders would thus have had access to this technology, though it seems not to have been much exploited, as Kerr mentions [1958:85] that ocean-borne trade for Nakijin was limited to small coastal ships.) Sustenance fishing as performed by village fishermen, both before and after regular contact with China was established, would have relied on somewhat less sophisticated dugout canoes, though these craft were apparently large enough to carry several passengers (Sakihara 1987:61, quoting Iha Fuyū.)

In the absence of much direct evidence of boat and ship construction in Okinawa, such as the wrecks of Roman, Viking, Spanish, and other ships in the West, it is instructive to examine evidence of this practice from the *Omoro sōshi*. Sakihara (1987:63ff) touches upon the richness of forest resources in northern Okinawa, (an area roughly coterminous with Hokuzan) as well as upon the reservation of prime forest products for the central royal government (a practice that necessarily looks forward to the fall of Hokuzan and subsequent unified kingdom). This reference to forest products as an interest of the central government points to a later portrayal of shipbuilding than is directly relevant to early Nakijin, but many of the implements and techniques are likely to be analogous, even if the specific nature of the materials employed are not. (Some omoro from outer islands without good timber represent prayers for driftwood—surely a less-than-ideal way to procure materiel, but an interesting indication nonetheless of the diffusion of the technological tradition of boatbuilding.)

In *Omoro sōshi*, XIII:47 #792 (Sakihara [1987:65]) a portion of the shipbuilding process is outlined. In a rough paraphrase here: the priestess prays and chooses timber (Japanese cedar, according to Sakihara), which is cut and then dragged to the harbor area with ropes affixed to the ends ("root" and "end"). Good timber is "shining timber", a reference that might lead to speculation that poetic needs overshadow literal portrayals of a technological process here; certainly the intimate involvement of the priestess speaks of an activity that is as much religious as it is technological in nature. The inherent value of boats and shipping to an island people is not to be overlooked; many omoro celebrate boat journeys as well.

Sakihara also mentions (1987:112), and this ties in with the remarks of Asato (1999:89ff) about the population influx into the Ryūkyūs during the gusuku[371] period, that in the context of shipbuilding, "there were quite a few immigrants from Japan who were craftsmen and artisans such as shipwrights...." Certainly during the Ryūkyūan kingdom period a shipbuilding industry existed to support the far-flung trading voyages;[372] annals mention hundreds of ships involved in such journeys. These however, postdate the period of independent Hokuzan, and are not involved directly in the life and history of that polity as distinct from Chūzan.

3.3.2.4 Housing and other construction

Associated with dwellings, grain storage silos, paddy construction and irrigation, not to mention the large-scale endeavor implied in construction of edifices such as Nakijin castle, are a number of terms for materials and specific actions. According to Kerr, the castle remains reflect a high level of engineering skill, but suffer in comparison to the official buildings of southern Okinawa; architectural critiques concern us here less than the fact that such projects were undertaken in the first place. Contrasting with this large scale construction were the

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[371]This term is usually translated 'castle'; it refers to the edifices that were the seats of military and government presence in the early days of political consolidation.

[372]Journeys are recorded as far as modern Malaysia and Sumatra.

thatch-roofed dwellings of regular folk, who relied on bamboo and other forestry resources for material for not only homes but also village-level installments such as stockades and storehouses, though stone construction for dwellings and villages is also attested. In the area of agriculture the use of bamboo, wood, and earth to define cultivated areas and build structures for stockpiling harvests is alluded to, with specific reference to wooden storage structures with clay-daubed walls (Kerr 1958:28, 61ff).

3.3.2.5 Cloth and weaving

There are two well-known traditional cloth products in the Ryūkyūs: bingata and kasuri, both names referring to the dying processes involved. Bingata was produced by dying cloth over a stencil, with resulting light patches in a dark field; designs included mainly nature themes. Kasuri is a process of weaving cloth from thread dyed with portions tied off; the resulting light and dark areas were then carefully arrayed in weaving to produce patterned cloth. Cloth technology and dying and weaving techniques are generally considered to have been introduced into the Ryūkyūs from China (in the case of stencil dying) and oceanic southeast Asia (in the case of kasuri); the similarities between Indonesian ikat and greater Japanese kasuri are clear.

The actual cloth in question in the Ryūkyūan textile tradition is a banana fiber fabric known as bashōfu in Japanese. The plant from which the fiber is derived is distinct from the fruit-bearing banana; the plants themselves and cloth made from the filaments extracted from the leaves is common throughout southeast Asia. In the Ryūkyūs, the technology for producing the cloth dates from roughly the 13th century, and its introduction is a direct consequence of the trading operations of the fledgling Okinawan states and their contact with China and points further removed. Kerr alludes to the primary role of women in producing textiles, at least in outlying areas, both for home use and for taxes in kind (with this latter is implied the use of cloth for trade); with the growing importance of cloth as a commodity, he makes reference to textile production as a "home industry" (1958:94, 122, 195). (This tradition

of cloth works as the province of women is echoed in modern popular conceptions of the craft as well.) The use of silk thread to weave cloth and the production of dyed patterned silk cloth is also attested, though relatively late (it is associated with the urban centers of the Ryūkyūan kingdom), and in the late pre-modern era, other materials such as flax and cotton also came into use as raw materials.

In the area of weaving technology, there is a considerable history to be considered. In greater Japan, weaving and the use of looms goes back to at least the Yayoi period (ca. 300 BC to AD 300), with a steady history of development from the most elemental devices to highly complex and large pieces of computerized machinery that are used presently. It is of course the pre-modern devices that concern us here; the latest of these are the substantial, though still manual, large looms of pre-mechanized industry in the first half of the 19th century. Over the 2000 or so years in question, loom technology progressed from the elemental izaribata, literally 'seated loom', to the takahata ('high loom' or 'tall loom'); this represents a progression in sophistication comparable to the improvement in transportation from rudimentary carts (or perhaps sledges) to spoke-wheeled wagons complete with suspension systems.

The izaribata consisted of two independent frames to secure the warp threads; one frame was fixed in position (to a tree or other substantial object) and the other was held in place by the body of the weaver. In this setup, the weft threads, attached to a shuttle, were passed through warp threads shed by a yarn guide; battening was done with a wooden or bamboo rod. In other words, the items associated with basic primitive looms are these few: the loom itself, the shuttle, the yarn guide, the batten, and the thread material. Later looms take two shapes, the more basic being the zibata, literally 'earth loom', a reference to its horizontal architecture; this device included a constructed framework for holding the material and parts though it still relied on the body of the weaver to tension the warp. The latest type of manual loom is the takahata ('high loom' or 'tall loom'), with a considerably more complex framework

structure, various appurtenances (skeins, spools, rollers) for better organization of material, and improved technology in subparts such as the shuttle.

Basic construction for all the devices in question made use of bamboo and wood for the most part; materials for weaving included (primarily for the period with which we are concerned) banana fiber, as well as flax and cotton in the late pre-modern era.

3.3.2.6 Other topics

A number of other areas might be considered in the general topic of pre-Hokuzan history. Food and food preparation as distinct from basic agriculture, the religious and quasi-governmental aspects of priestess culture and its role in village development, and the specifics of religious ceremonies and other events marking transitions in the agricultural and fishing calendars might all provide rich fodder for extended comparisons of the linguistic history and historical anthropology of Nakijin.

3.3.3 Hokuzan

The Hokuzan petty kingdom is a creature of the gusuku[373] era (グスク時代 [gusuku jidai]) and Three Kingdoms era (三山時代 [Sanzan jidai]) on Okinawa; its beginnings remain swirled in the mists of semi-history when fortifications began "sprouting all over" (Sakihara 1987) and concludes, ignominiously (and with far more notation in history than its relatively anonymous beginnings would seem to warrant), with the Chūzan takeover and death of the last Hokuzan king in 1416. The gusuku era of Okinawan history begins in the 11th century, with fortress construction occurring on numerous hilltops throughout the island; it marks the period when emerging local centers of power—incipient petty kingdoms—were beginning to vie with their neighbors as they consolidated authority. Nakijin Castle, the gusuku that would become the seat of the Hokuzan kingdom, one of the three petty kingdoms recognized by the

[373]As mentioned previously, gusuku is traditionally rendered as 'castle', though this may overstate the nature of the earliest such fortifications.

Ming court, dates from the 14th century, and its construction corresponds roughly with the emergence of the Hokuzan kingdom.

Asato (1999:89–90) notes that this period in Okinawan history was marked by great population growth as well, due in part to influxes from mainland Japan, and related no doubt as well to increases in standards of living thanks to increased agricultural activity as well as trading, and these are presumably things that affected Nakijin just as they affected other areas[374] in the transition from pre-history to history. Included in the influx were traders, artisans, and so-called political figures, perhaps displaced military figures. What would become distinctive Okinawan society was thus an admixture of the early hunting/gathering population of Okinawa with later outsiders bringing advanced technology along with their numbers. Sakihara (1987:206) echoes this view of the influence of outsiders in the transformation of Okinawan culture and society, mentioning "defeated Japanese seagoing warriors" bringing advanced shipbuilding and techniques of navigation, both of which would be crucial to the development of internationally viable states. Certainly some omoro (Sakihara 1987:48–49) also reflect these migrations, though the historical specifics might not be accurately rendered.

The Hokuzan kingdom centered in Nakijin comprised a commingling of nine villages of northern Okinawa: Onna, Kin, Kushi, Nago, Haneji, Motobu, Nakijin, Ōgimi, and Kunigami. A majority portion of the island was thus theoretically under the control of the Hokuzan kings; however, by reason of its topography, Hokuzan remained fairly isolated and—in some accounts—stunted in its cultural development and of a weak reputation in comparison with Chūzan and Nanzan (ODHJ:459). Nevertheless, the extensive trade goods found in Nakijin Castle, and the fact that Chūzan, on conquering Hokuzan, saw fit to deploy a Hokuzan garrison comprised of Chūzan soldiers and led by relatives of the Chūzan court, to administer

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[374]Asato cites an increase in the number of archeological sites in southern Okinawa to buttress his argument for a ten-fold increase in population.

the defeated kingdom, seems to indicate that a certain level of prestige and wherewithal had accrued to the tiny polity centered in Nakijin—no matter the appellation 'petty'.

The nature of Hokuzan society is mostly a mystery as far as specifics are concerned. As a feature of the latest development of the anji (warlord or chief) period of Ryūkyūan history, however, Hokuzan likely lacked, as did the other Sanzan kingdoms, a highly stratified social structure. While the "kings" of Hokuzan were indeed the leaders of an entity that played, if briefly, on the international stage, the actual status of these figures as not much more than peculiarly effective anji, with authority over a collection of villages rather than a single village, is more in keeping with the trend of societal development at this time. The basic division was between the kings (and presumably, their hangers-on), and commoners or peasants (Sakihara 1987:30–1), and the essential nature of the difference was probably not too much greater than that accruing to earlier anji in their respective single villages. Kerr mentions "easy exchange" characterizing the interactions of anji and rural populations even in the days of the Ryūkyūan kingdom when formality based on the Chinese model was the rule at the Shuri court (1958:96).

With the unification of the three kingdoms early in the 1400s a more complex situation came about. Partly out of a need to legitimize their authority, the rulers in Shuri codified the story of their origins in order to draw a distinction between themselves and their vanquished counterparts in Hokuzan and Nanzan; it is under the unified kingdom that a complex stratification develops, with the kings (and their associated high priestesses) at the top, followed by local lords (and their associated priestesses) , followed in turn by commoners or peasants making up the rest of the population. Here, then we see the development of a noble class distinct from a royal class, with the scope of privilege and authority likewise differentiated (Sakihara 1987:32), though outside the scope of official nomenclature the aforementioned blurry distinctions seem to have been the rule.

3.3.3.1 Nakijin Castle—the center of cosmopolitan Hokuzan

The ruins of Nakijin Castle (also known as Hokuzan Castle, after its role as the seat of independent Hokuzan power) loom above modern Nakijin, sprawling atop a limestone upland some 250–330 feet above the village. Extensively excavated in various projects since the 1970s, the area evidenced for the castle exceeds that of the ruins of Nakagusuku Castle, a major edifice of southern Okinawa. The ruins of Nakijin Castle date from the 14th to 16th century (that is, the earliest known remnants of the castle date from relatively late in the castle age); relics extracted from the site bespeak a Nakijin political/military establishment with extensive connections to the outside world.

Hokuzan sought and received recognition as a tributary of the Ming Court from 1383, and continued to be a place of some importance even after the Chūzan defeat of Hokuzan, though it had no longer any direct foreign relations. As an independent center, and later as a Chūzan outpost, Nakijin was in the position to participate fully in the rich trading voyages between China and the Ryūkyūs, but such trade never developed to the extent that would later mark the Ryūkyūan kingdom (Kerr 1958:85). It seems reasonable, however, and to a certain extent likely given the direct connection between Shuri and Nakijin in the pervasive presence in Nakijin (the Wardens of Hokuzan occupied the castle) of military and administrative figures with ties to central Okinawa, that a certain amount of trade goods, both luxury items and military materiel, would make its way to Nakijin even in the absence of direct Hokuzan-China tribute trade.

The various sorts of objects excavated from the ruins, as well as the layout of the ruins themselves, indicate a dual function for the castle: that of military fortress combined with residences for the administrators and military personnel as well as their families. The ruins of kiln facilities for local production of ceramic goods are also found; economic activity of other sorts was likely supported as well. The effect is that of a small, separate, and self-contained but fully functioning fortified hilltop town. Huge amounts of Chinese porcelain, mostly Yuan

dynasty (1115–1234) and later blue-and-white figured and related types (青花 seika [qinghua] as well as 青磁 seiji and 白磁 hakuji), indicate both ceremony and practical activity; in much of the Chinese trading realm, these sorts of artifacts attained sacred significance for indigenous people, but the sheer volume of the artifacts here likely derives from more mundane uses for much of the cache. Ceramic objects of Thai, Vietnamese, Korean, and Japanese provenance, often used as storage for both food items and liquids, also turn up in large numbers. Ironware items of military utility, such as swords, daggers, arrowheads, and shot (of much later provenance than the 1400s, surely), and perhaps incongruously, marbles (or perhaps not, as one can easily imagine soldiers engaged in off-duty pastimes such as gambling—or were these the playthings of children resident in the purported family quarters of the castle?), round out the inventory of excavated items.

3.3.3.2 The Hokuzan royal line

Discussion of the short-lived Hokuzan royal line is fraught with the danger of overstatement of traditional accounts and supposition as fact. Quite simply, not much is known about the rulers of Hokuzan, save some of their names, some dates, notation of their tribute trips to China, and the fact that their petty kingdom succumbed to Chūzan in 1416. Unlike the relatively well-known histories of the Chūzan and Nanzan dynasties, specific facts about such matters as basic to royal lineage as whose offspring was whose, and what non-hereditary successions may have occurred is lacking or questionable in the various histories that mention Hokuzan, both in Okinawa and in China.

Generally accepted knowledge about the Hokuzan rulers begins with the founder of the Hokuzan royal line, a Nakijin anji known to history eponymously who appeared on the scene in the early 14th century. Two rulers whose names are lost to history follow. Paniji (Haneji-anji, Hanishi[-anji]) is the first ruler to be actually named, though the specific form of that name is elusive. His memory survives thanks to his relationship with the Ming court, whose records make reference to Hokuzan and the "Hokuzan king Hanishi." Paniji entered

Hokuzan into its tributary relationship with China (Chūzan and Nanzan developed similar ties to the continental power), and authorized multiple tribute journeys from 1383 through 1390, though some sources indicate he did not die until 1392. The somewhat (that is, even more than the others) obscure Bin (Min) succeeded Paniji, taking leadership in 1392 according to traditional accounts; Bin may have been the son of Paniji. He is known to have authorized one tribute journey to the Ming Court and is thought to have died of natural causes around 1396. Finally, there is Han'anchi, the last Hokuzan king, who succeeded Bin following his death and organized an initial tribute journey in 1396. Eventually authorizing a total of 14 tribute journeys to China, Han'anchi was in power for 20 years until the royal line was abruptly terminated by Shō Hashi's Chūzan invaders.

The names of the Hokuzan rulers have a number of variants, and were likely drawn from place names relevant to the personages, and/or childhood names. (That is, they are unlikely to be dynastic or imperial titles such as those assumed by the Chūzan royal lines and the Japanese imperial line.) It is easy to imagine this lack of information being a deliberate product of Chūzan deconstruction of any great, and hence potentially troublesome, royal tradition for the Hokuzan kingdom, an area that had been difficult to subdue and incorporate and which, in fact, would require direct administration by Shuri officials—often close relatives of the court—in contrast to the entrusting of other less bellicose outlying districts to local administrators. A listing of the names and variants that are known is of some instruction for linguistic reasons if not for strictly historical ones:

ca. 1322	Nakijin-anji 今帰仁按司
	< name unknown>
	< name unknown>
ca. 1383–1390	Paniji 怕尼芝 Hanishi, also 羽地 Haneji, also 兼次 Kaneji [a place name])
ca. 1395–1396	Bin 珉 (also read Min)
ca. 1396–1416	Han'anchi 攀按知 (< 兼次 + 按司)

That the official (canonical) names have a somewhat exotic, non-Japanese, non-Ryūkyūan flair to them stands out; these appellations derive from Chinese records and no doubt reflect more

Chinese record-keeping convenience than strict attention to the details of nomenclature in a smallish tributary statelet. Alternative spellings indicate some sort of connection to either (or both?) the Kaneji area of Nakijin, nearby the castle, and (the former) Haneji village, now incorporated into Nago City, to the south of modern Nakijin, but historically within Hokuzan. The two place names are distinct in Nakijin, hanii/si 'Kaneji' and phanii/zi 'Haneji', but their commingling here suggests either Chinese confusion over roughly similar-sounding foreign words, or perhaps, and more interestingly, some commonality in the origin of the two. Bin is generally considered to be a childhood name carried into later use; the brevity of his court and shallow connection to China, especially in combination with his lacking a name of more significance than the childhood 'Bin', suggest he may have been a less-than-effective king, possibly lacking the hereditary credentials of his predecessor and follower.[375]

The period of Hokuzan history under the three kings seems to represent something of a 'golden age' of Hokuzan, especially so with Paniji and Han'anchi. Paniji, in frequent contact with the Ming court (including two tribute journeys in 1388) during his reign, must be seen as a state-builder despite the existence of the kingdom from some years earlier. It was he who presided over the securing of the tribute relationship, a development that not only brought Hokuzan (and Nakijin) into the civilized world, but also brought the trappings of the civilized world to Hokuzan. Trade goods, from luxury items to metal for farming implements, though known in Okinawa earlier, would have flooded into the area in far greater amounts than ever before, affecting the lives even of the most mean members of Hokuzan society. Paniji also played a role in inter-Sanzan political relations, at one point making a joint tribute journey with the contemporary Nanzan king.

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[375]The district of Bin 保栄茂 is part of Tomigusuku village in southern Okinawa; it has some significance in the history of Nanzan, though not much here, as interesting as the coincidence of appellations might make it seem.

Things seem to have slowed somewhat under Bin, but the accession of Han'anchi marked the pinnacle of independent Hokuzan development. Something of a hero figure of Hokuzan, Han'anchi's numerous tribute journeys to China totalled 14,[376] and he is remembered not only as a heroic figure with semi-legendary attributes of steadfastness of character and physical strength, but also as the most active proponent of Chinese relations for his tiny realm—it was a relationship that guaranteed prosperity for Hokuzan, and one likely to have enjoyed much popular support, to the extent that commoners knew of it (certainly his ability to procure iron goods for use in cultivation would have stood him in good stead with his farming subjects). In general Okinawan affairs as well, Han'anchi cut quite a swath. In Hokuzan, sheltered from southern attack by distance and rough topography, Han'anchi raised a strong and well-trained army, including cavalry, and by 1416 had developed his military wherewithal to the point of threatening the Chūzan and Nanzan kings for primacy on Okinawa. On the basis of his army's potential, Han'anchi overtly moved to annex Chūzan, an act which together with a certain amount of dissension among his retainers eventually brought about the downfall of both Han'anchi and independent Hokuzan. Though his army was poised to move, the defection of his crucial retainers in Nago, Kunigami, and Haneji left Han'anchi exposed, and the would-be annexees in Chūzan invaded Hokuzan, defeating Han'anchi, who was either killed, or, as tradition would have it, committed suicide in the shame of defeat. Retainers who had remained faithful to Han'anchi suffered dispersal at best, and death in most cases—in effect, concomitant with Han'anchi's demise, the entire official local authority structure of Hokuzan was largely gutted. Kerr speaks of a "faded" Hokuzan tradition that lives on only in such remains as the tombs of Han'anchi's retainers (1958:85).

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[376]Kerr (1958:85) reports that records of only nine journeys survive.

With the subsequent dispatch of the Hokuzan Wardens from Chūzan, the history of Hokuzan and Nakijin becomes part of the history of the unified kingdom of the Ryūkyūs. (Nanzan would suffer in 1429 the same fate as Hokuzan.)

3.3.4 Nakijin under the Wardens of Hokuzan

Shō Hashi, conqueror of Hokuzan and eventual unifier of Okinawa, recognized a potential threat in his newly annexed northern district. The remote north, with its easily defensible castle and relative distance from the power center in Shuri, would be ideally suited to sheltering a rebel force if local potentates were left in place unfettered. The *Chūzan Seifu* mentions as well that Chūzan feared that the persevering nature of the people (it is unclear if the referent is the general population, or merely the military elements) of Hokuzan, and the steep cliffs surrounding their cozy castle, would lead naturally to an uprising.

Hence, to ensure a strict administration of the northern districts, and contain any potentially rebellious elements, from 1422 Shō Hashi established the Wardens of Hokuzan, an institution composed of Shuri officials dispatched to Nakijin and resident in the castle there, charged with solidifying and maintaining the authority of the Shuri ruler in the northern town. The office would remain a feature of the north (renamed Kunigami under the unified kingdom) until its abolition in 1665, well into the period when the Ryūkyūs were under Satsuma domination.

The impact on Nakijin village of this considerable retinue from the capital was likely substantial in some aspects of village life, though it perhaps failed to register in the daily lives of most villagers. To begin, the presence of the military administrators from Shuri displaced in large part local authority (if not the local presence of former prominent figures) at the military and political level—this was, after all, the point of dispatching the wardens. Any matters of national or international concern, such as tax payments to the royal government in Shuri, tribute and trade with China, military affairs of all sorts, including the raising of armies and procurement of materiel, would now be the province of the wardens, at least to the extent that

these matters were not handled in Shuri without involving Nakijin at all. Daily life of the average villager, however, would have continued more or less unchanged from before, save for what interaction might have occurred in connection with matters of provision for the castle garrison, and transmission of state-level issues to the general populace. (It seems unlikely these issues would have entailed much more than taxation.) The effect is one of stratification in Nakijin society—or perhaps more accurately stated, the development of parallel populations, one imported and Shuri-centered, and the other local—the imported population, a metropolitan administrative/military element, contrasted with a local population engaged in the day-to-day living of their village lives. This is also in keeping with the generally more stratified nature of society in Okinawa under the unified kingdom (Sakihara 1987:32): while Nakijin under the Hokuzan kings probably saw a relatively small gap between king and commoner, with the introduction of the royal-noble-common stratification under the Shuri kings, the wardens, some of near-royal status and future kings themselves, would have been accorded significant status within and distinction from both the average denizen of Nakijin village as well as the former anji group.

The makeup of the wardens varied only slightly during the 240 years the institution existed. Shō Hashi considered the office sufficiently crucial to send his son and eventual successor Shō Chū to lead the first group dispatched. Shō Chū in turn entrusted the office to his sons, and a similar pattern continued until 1470 and the beginning of the second Shō dynasty. The new ruler, Shō En, instituted for a short period (1470–1477) an "exchange of nobles" strikingly similar to the later Edo-period Japanese example of sending capital-based officials to the hinterlands while gathering provincial leaders in the capital. This change in the nature of the wardens' office indicates two interesting things: first, that a sufficient Nakijin "nobility" could still be identified (although it is unclear whether such individuals would be persons of actual Nakijin—pre-unification Hokuzan—origin, or relative newcomers descended from earlier garrisons, in the grand tradition of Ryūkyūan outsiders bringing prestige and

authority to a new locality that they eventually meld into (note the tales of that underlie such traditions as marebito[377]) and second, whoever the Nakijin nobles at this point may have been, they represented enough of a local force to motivate their detainment in Shuri. "Noble exchange" was to a certain (fairly large) extent a maneuver utilized by rulers to keep potential threats under control by dividing capital cliques among the provincial outposts while keeping leaders from outlying areas under close watch in the capital. In any case, the previous hereditary system was back in place starting from 1477, when Shō Shin, the inheritor of the considerable consolidated power of Shō En, and the ruler who would lead the Ryūkyūan kingdom's "Golden Age" for nearly half a century, began his reign. The institution would continue, of course, for nearly two hundred years after the succession of Shō Shin, but seems not to have had the sort of importance it had during its first 50 years, no doubt paralleling an ongoing marginalization of the northern districts in overall Ryūkyūan affairs.

3.3.5 Nakijin in the Satsuma period and later

With the advent of Satsuma authority in the Ryūkyūs, a closer association, both political and economic, of the southern islands with the main islands of Japan begins, despite the nominal independence[378] and the continuing official tributary relationship of the Ryūkyūan kingdom to the Chinese court. Though the actual motivations for Satsuma maneuvers to gain preeminence in the Ryūkyūs have been a subject of considerable debate, with arguments ranging from the use of the islands as a trade outlet during a time when Japan was sequestered, to providing an outlet for the military instincts and skills of restive samurai with

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[377]Note here the legendary tales of the exiled Tametomo being the progenitor of the Chūzan royal line (Kerr 1958: 45ff). Purves also mentions traditional thinking on this general theme: "the marebito or guest, concept [in Okinawan tradition] holds that a visitor from afar might be the bearer of some new technical knowledge or information..." (Purves 2004).

[378]"Independence" is of course a relative term for a state paying official obeisance to another state, as the Ryūkyūan kingdom did with China. The practical nature of the arrangement, however, was one of close economic connections that afforded considerable potential for gain for the islands while China could claim authority and concomitant prestige without having to expend force to attain or maintain it (Kerr 1958:67ff).

no clear purpose in a Satsuma recently impinged upon by central Japanese authorities (Sakihara 2000), the origins of the usurpation are of less concern to us here than the practical implications of having a new authority structure in place. In short, what the presence of Satsuma authority in the Ryūkyūs implied was a consolidation of the preeminent position of the Shuri capital within the island state, and a continued marginalization of the outer areas.

By the 1600s, the "Golden Age" of the kingdom of the Ryūkyūs was long past, and while maritime endeavors still afforded some measure of prosperity within the capital, in the hinterlands limited resources and, as ever, the potential for climatic factors working disastrously upon agriculture and fishing continued to be the main themes of economic life. Taxes continued to be paid in kind to the authorities in Shuri, and while the capital elite population no longer represented the highest authority in the islands, this had little direct effect on life outside the capital. In short, the semi-feudal state to which the outer areas of Okinawa reverted following the centralization of authority in the kingdom continued after the beginning of the Satsuma period (Purves 2004).

As noted above, the Wardens of Hokuzan, whom we presume to be the main source of Shuri influence in Nakijin, continued as an institution until 1665, well into the period of Satsuma dominance. Succeeding these, however, there is no clear pattern of direct authority, though records of tax payments from agricultural and forestry production throughout the late kingdom period reflect an ongoing acknowledgment of central authority. What contact between local populations and central populations occurred was likely limited in this period, as the moving of tax payments from the outer areas to the capital went through specific agencies without long-term or large-scale presence in the outer areas. It is noteworthy that during this time Satsuma authorities introduced a number of reforms of food production and resource management, including the creation of offices for enforcing policies and the dispatching of government personnel to outer areas throughout the 17th and 18th centuries (Purves 2004). While this did have some direct effect on the daily life of people in outer

villages, the presence of some few central officials on an itinerant basis in these areas is in some contrast to the long-term residential presence of institutions such as the Wardens. The consolidation of government bureaucracy in Shuri and less reliance on the historical anji as an authority structure also contributed to a reduction of outer village contact with the capital.

The contact situation we can picture to justify Shuri linguistic influence in Nakijin thus seems to have been considerably reduced following the late 17th century, even as, perhaps, the local perceptions of authority increased.[379] This renewed localism remained in place until the official dissolution of kingdom authority and the beginning of the late modern era, after which we assume linguistic implications of the contact to be shallow enough to be readily ascertainable, as in the comments regarding new items in Nakasone 1983. After 1879 the history of the Nakijin dialect becomes one less of dialect formation than of dialect levelling and, eventually, ultimate decline, though this last, while as surmisable for Nakijin as for other local dialects across Japan, has fortunately not soon enough transpired to seriously affect the recognition of the Nakijin dialect into the 20th century. At some point in the transition, historical linguistics must become sociolinguistics, and the focus shifts from the makeup of the dialect to the changes in that makeup under language standardization influences.

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[379]Purves (2004) mentions, for example, the idea that villagers who could simply cut timber as needed for building or fuel purposes prior to the reforms would have been constrained from so doing after the imposition of resource management rules.

CHAPTER 4:

RELATING THE EXTRALINGUISTIC RECORD TO THE LINGUISTIC

Despite the most earnest efforts of the historical linguist, and no matter what elegant descriptions of sound change over time may eventually be distilled from the lexical evidence and presented in reconstructed forms, there are still things remaining that contradict or undermine the solutions derived. In other words, if we note (as we have) a preponderance of evidence for a change of pRk *k to Nakijin h when followed by *a, the existence of a Nakijin form with ka (in practice, kha or k'a) must be considered odd to the extent that nothing different phonologically about the circumstances of its occurrence can be identified. A priori oddness can also be suspected for words in particular classes (Clyne 2003:111, Thomason and Kaufman 1988:74, both of these referring to culture-bound borrowings).

By "linguistic evidence" we mean to address word forms that do not follow the historical phonological rules needed to account for the majority of modern forms in Nakijin. In other words, we are looking for the exceptions, the things outside the regular development encoded in sound change rules. We are not considering semantics per se in this particular exercise, though as it turns out the discussion moves readily in that direction.

By way of providing some examples of the sort of thing we are looking for here we might offer the well-documented English doublets shirt~skirt and ship~skiff (not to mention such things as heart~cardiac, though it is hard to say whether calling these a doublet pair is appropriate). While the versions with lenited reflexes of earlier *k (those with orthographic sh) can be shown to be regular for the historical development of English, we are nonetheless stuck with the other, apparently irregular, forms alongside them. As it turns out, both skirt and skiff derive from Norse loans into English after an English k-lenition rule ceased being operative; in other words, language contact resulting from the presence of Norse speakers in the British isles accounts for what would otherwise be a knotty phonological problem. In the case of heart~cardiac, we can point to purposeful "borrowing" of a semantically related form from

another language (Latin) where the contact environment was not between respective groups of speakers but rather between separate fields of endeavor: daily life on the one hand as opposed to a scientific domain on the other; though historically it can be demonstrated that heart and cardiac are genetically related (that is, English h and Latin k [orthographically c] are regular, expected reflexes in their respective languages of pIE *k, etc.), the discrepancy in modern English does not require a phonological explanation. We note last that in the example scenarios here mentioned, in no case was the introduction into English of anything like a new phoneme; English had k available within its phonemic stock, and the introduction of the new terms required only that its phonotactical range be expanded (or perhaps "renewed"). This made the loans palatable to the borrowing speakers (and, unfortunately) insidious to the historical linguist.

4.1 Phonological analysis

The several problem areas that have emerged for Nakijin historical phonology seem to fall into four categories: unexpected reflexes, missing reflexes, relatively rare tokens, and conflicting data, among others. Specific examples of these problem areas are treated below, in no particular order. In many cases some discussion or allusion to these problems has been made in the sections where the times first appeared; in order to avoid excessive repetition, reference back to such sections will be made on occasion.

4.1.1 k where h is expected

As discussed in 2.2.2.2.3 above, the regular development of pRk *k in Nakijin is some variety of k (k' or kh) in the environment preceding *u and *e, c' (later leniting to s~h in some situations) in the environment preceding *i, and h preceding *o and *a.[380] However, disparate correspondences for original *k in Nakijin, that is, the appearance of both k and h in similar environments, and, more tellingly, the existence of numerous doublets in k and h, is one of its

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[380]There is also the regular though sparsely attested change of *k to hw between *o and *a.

more notable phonological quirks. Modern Nakijin speakers attribute these to dialect mixture (Lawrence 1990:46),[381] not, perhaps, in so many words, but with a certain easy appreciation of the differences between local and non-local varieties of language.[382] In general, what we see in Nakijin is the fairly clear correspondence of modern h to historical *k in the environments listed, but with enough k present in modern forms (both in doublets with h and in preference to it, though the later is considerably less frequent—or confined to loans of fairly recent provenance) to make any clean accounting for the phenomenon on a purely phonological basis impossible. Curry 1993 posed the question at some length, coming to the conclusion that semantic divergence accounted for much of the modern k~h messiness. The list presents the k~h doublets in our database.

LIST (74): k~h doublets in Nakijin

khu/gaa\ni	hu/gaa\ni 'gold' (Sr kugani, J kogane < ko + kane)
ha/k'aa, qa/k'aa	/haa\ 'red' (Sr qaka, J aka)
khaN-[383]	/ha\i 'this way' (Sr kaN, J koo)
(c'u)k'aa/t'a\na 'sword'	hat'aa/na 'hatchet' (Sr katana, J katana)
(/qu\mi)gaami[384]	haa/mii 'turtle' (Sr kaamii, J kame)
kha/a 'leather, hide'	ha/a 'skin, bark'[385] (Sr kaa, J kawa)
haraa/zigac'ii[386]	hac'u/N 'scratch' (Sr kacuN, J kaku)
khami/N, khamu/N 'to eat'	hami/N 'to bite' (Sr kanuN 'eat', J kamu 'bite')
khaN/bi\N 'to wear'	haN/bi\N 'to cover'[387] (Sr kanZuN~kabujuN, J kaburu)

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[381]The actual wording used in reference to Lawrence's informants confirming the status of h is that /h/ is "true Nakijin" (1990:46).

[382]This appreciation is encountered, under roughly the same circumstances and with probably about the same level of accurate insight into the specific quantification of the phonological factors in question, in the case of American native English speakers being able to recognize and even simulate a "southern" or a "British" accent without undue difficulty.

[383]No accent is recorded for this item as it is a bound form, with accent realization varying depending on environment.

[384]The form is a compound: /qu\migaami < /qu\mi + khaami 'sea' + 'turtle', though the form khaami does not seem to be independently attested.

[385]In some compounds, the two variants, though semantically distinct in isolation, are used interchangeably (Nakasone 1983:93).

[386]The form is a compound: haraa/zigac'ii < haraa/zi + khac'ii 'hair' + 'scratch', though it seems the independent form khac'ii does not exist.

[387]Other core meanings accorded this item include: 'to hold up' and 'to be accorded,

(ha/k'aa\)ga/raazi 'red hair'[388]	haraa/zi 'hair' (Sr karazi, OJ karami 'twist, bind')
khasi/i	hasi/i 'dregs' (Sr kaSi, J kasu)
hat'aa/k'a 'lee'	hat'aa/ha 'protected place' (Sr kataka, J kata- [?])
(qa/k'aa\)gumi 'red rice'[389]	humi/i 'rice' (Sr kumi, J kome)
khut'uu/ba[390]	hut'uu/ba 'words' (Sr kutuba, J kotoba)
k'umu/ru\N[391]	humaa/ru\N 'to stay' (Sr kumajuN, J komoru)[392]

In the case of doublets, a natural argument to advance is that of semantic divergence (though indeed for examples in which one of the doublet pair is found in a compounded rather than independent form, a certain measure of environmental conditioning is necessarily implied). Where clear semantic divergence is found, as opposed to alternate forms of the same item in more or less free variation at the level of the dialect (if not for the individual speaker), we are clearly justified in looking past phonological conditions; however, there are clear semantic splits of this sort in only a handful of items:

LIST (75): k~h doublets in Nakijin

(c'u)k'aa/t'a\na 'sword'	hat'aa/na 'hatchet' (Sr katana, J katana)
kha/a 'leather, hide'	ha/a 'skin, bark' (Sr kaa, J kawa)
khami/N, khamu/N 'to eat'	hami/N 'to bite' (Sr kanuN 'eat', J kamu 'bite')

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receive'. There are a number of idiomatic usages as well, most of them with the khaN/bi\N variant. According to Nakasone (1983:422), in compound forms in which this verb is used to add a flavor of continuousness or frequency, the haN/bi\N~khaN/bi\N choice hinges on the preceding word. However, Nakasone cites only nai/k'a\NbiN 'to bear much fruit' and mui/k'a\NbiN 'to grow luxuriantly, flourish', both with the k variant, though the head entry is haN/bi\N. There are several additional examples, all with k, under khaN/bi\N.

[388]Once again, a compound: ha/k'aa\garaazi < ha/k'aa + kharaazi 'red' + 'hair'. (However, kharaazi does not exist separately from haraa/zi 'hair'.)

[389]Yet again, a compound: qa/k'aa\gumi < qa/k'aa 'red' + (the not independently attested) khumi 'rice'. There are numerous compounds reflecting the k alternate of 'rice' (Nakasone 1983:750).

[390]From Lawrence 1990:46.

[391]The glottalized initial k' for this item is possibly anomalous. If it is indeed historically related to J komoru, then the expected form would be khumu/ru\N; Nk k'u is the typical correspondent of J ku.

[392]The second-syllable a in the Ryūkyūan forms reflects Martin's reconstruction of older Japanese komaru (PJ *koma-ra) for this item, with the second vowel later assimilating to the preceding labial (1987:712) to produce J komoru.

For these items at least, it is relatively easy to associate the retained (reintroduced?) k segments with a sort of semantic categorization, if not perhaps independently then certainly by way of contrast with the related terms that have h instead of k. The domain distinction that obtains is one of relative technological advance and social complexity versus more basic technology and less complexity.

Specifically, 'sword' represents the paraphernalia of a militarily inclined group with sufficient technological resources to render metal into an implement strong enough to hold up to the rigors of close combat as well as to hold a keen edge; in addition, a sword has symbolic value as codified in the strict rules about which members of society could—and, implicitly, could not—wear such weapons: in the time of the united Ryūkyūan kingdom (ca. 1430–1609) they were part of the ceremonial costume of the noble class (Kerr 1958:96), and later (1669), the Satsuma overlords of the semi-independent Ryūkyūan state outlawed the local manufacture of ceremonial swords as part of their consolidation of political primacy (Kerr 1958:178). On the other hand, a 'hatchet', while implying metallurgical technology, nonetheless has somewhat more mundane uses than the specialized utility and ritual significance of the sword; these uses center on a domestic and work domain where the primary concern is the utility of the technology for transforming wood and other materials from their natural states into something that can be burned for cooking or other domestic purposes. Concomitant with the distinction of uses for the implements in question, swords have the k of the Shuri dialect, spoken by the socially and politically dominant Ryūkyūan group (this is also the k of Japanese, a variety of which was the language of Satsuma, though we suspect the k influence of Shuri is the crucial one for Nakijin), while hatchets are rendered with the local Nakijin dialect h, despite the common origin of both lexical items.

An alternative view of the item for 'sword' might be offered, however. Specifically, this argument would hinge on the fact that no independent form khat'aa/na is found in Nakijin—the only item for sword is the attested compound c'uk'aa/t'a\na, composed of c'u

'one' and the presumed khat'aa/na 'sword'. As we have noted above that the environment u_a seems to block lenition of *k, there may therefore be an internal reason for the presence of k in the Nakijin form, namely that lenition of the k could not occur due to the lack of a conditioning environment. Other compounds with c'u and k-initial items that might otherwise be candidates for lenition seem to bear out this generalization: c'uk'u(u)/t'u\ba 'one word, a brief word' (< c'u + khut'uu/ba~hut'uu/ba) and c'uk'aa/sa\ni 'one layer' (< c'u + -k'asaani[393]). Furthermore, the tight boundedness of these compounds can be adduced by the fact that the compounding is not transparent in terms of the way second-syllable vowel lengthening occurs. That is, c'uk'aa/t'a\na, c'uk'u(u)/t'u\ba, and c'uk'aa/sa\ni all behave as single four-syllable words rather than combinations of a one-syllable word and a three-syllable word.

Several lessons can be drawn from the contrasting accounts for the sword-hatchet complex of terms. The most obvious and important one is the danger alluded to above regarding the a priori assumption that external influence should be the default manner of accounting for apparently odd phonology—there is indeed a plausible internal explanation for the ostensibly odd k of Nakijin c'uk'aa/t'a\na. Thus reminded, however, we still believe it likely that the influence of a k-dialect may have helped to reinforce k-retention in such circumstances (though it is not entirely clear it is necessary here specifically), and as we shall see shortly, there is indeed ample evidence for looking at the Nakijin k-h evidence in light of external influence.

A similar distinction is found between the terms kha/a 'leather, hide' and ha/a 'skin, bark'. For both of these meanings, both Shuri and Japanese have their respective single terms. However, in Nakijin the etymon has split; simply put, and borrowing liberally from the argument made for swords and hatchets, 'leather' is the result of technological operations on 'skins', and is thus an item with a certain implication of industrial technology, not to mention

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[393]No accent is recorded for -k'asaani as it is a bound form, for which accent varies depending on the compounding environment.

the availability of sufficient animal resources to be used in that technological endeavor; there is thus both a technological and an economic component built into the term. In addition, Nk ha/a can reflect not only animal skins but also the skins of fruits and vegetables as well as the bark of trees, a group of things that is inherently distinct from the industrial product referred to by 'leather'. Once again, we see the k of the Shuri dialect opposed to the h of Nakijin as linguistic evidence of a semantic split conditioned by the introduction of a term from the dialect of a group with a different level of technological and socioeconomic activity, or perhaps more accurately, a group with a different level of ability to practice that technological/socioeconomic activity.

Last, and here the argument is necessarily somewhat more subtle, we note the semantic distinction that is found between khami/N~khamu/N 'to eat' on the one hand and hami/N 'to bite' on the other. Though the items are clearly the same etymon, as native ha in Nakijin other than as a reflex of *ka can only arise through initial devoicing (which does not occur with following m), and yet on the one hand we have an item termed by Nakasone (1983:414) a shizokugo 'gentry word',[394] or one typical of the speech of the noble class[395] or used in reference to it, while on the other we have a term that in addition to the generic 'bite' can refer to general gnawing and chewing and even the biting of animals, with no connotation of eating whatsoever (Nakasone 1983:414). The existence of shizokugo implies of course the existence of a noble stratum of society to use such terms (or have them used in reference to them), and while Nakijin as part of the independent Hokuzan kingdom before 1416 had some measure of such a class stratification, the essential replacement of that class by Shuri-speaking administrators and a garrison of Shuri soldiers likely supplanted any previously existing class-level structure. Given these circumstances, it is reasonable to presume the accretion of

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[394]More literally, a 'samurai (warrior) clan word'.

[395]Compare the c~ç, s~S and z~Z distinctions in Shuri; following OGJ (29), ç/S/Z are found only in the speech of noble rank men.

prestige connotations to a Nakijin form with k, shared with the Shuri form, while the Nakijin form with h became relegated to a decidedly earthier domain. Shuri kanuN 'to eat', with medial n rather than the m of the Nakijin form, seems unlikely to have been borrowed outright, but it is no doubt the source of influence for retaining k (as well as, for that matter, the model for the presence of u in the form khamu/N). Clyne (2003:104ff) cites numerous examples of phenomena of this very sort in his immigrant language contact situations, noting that "[in bilingual convergence][396] either stress comes from one language and vowels and/or consonants from the other, or vowels and consonants are derived from different languages." The term khami/N~khamu/N thus represents dialect mixture of a quite literal sort.

For the other items on the doublet list, as mentioned before, there are no compelling semantic distinctions to be made. However, in light of the evidence for external influence in the pairs where a semantic distinction can be identified, it is reasonable to suggest that the existence of k alongside h in the other Nakijin forms can be attributed to the same Shuri influence that resulted in k forms in semantic opposition to h forms. Notice that we are here explicitly claiming a Shuri influence not only for items which can clearly be associated with the cultural, sociological, and technological milieu of Shuri speakers, but also for terms without any particularly strong semantic associations that are Shuri-specific. In other words, as alluded to above, it is not lexical transference that is occurring, but rather phonological transference, or perhaps, in the cases where a semantic split can be identified, a combination of the two. That is, the explanatory utility of Shuri semantic influence on the Nakijin lexicon is neither determinant nor predictive; to the extent that k is found in unexpected places in Nakijin, it is

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[396]Clyne's examples come from situations where immigrant languages are in contact with English in bilingual speakers and speech communities. While in this study we are not necessarily claiming Nakijin-Shuri bilingualism, the consciousness of interdialectal correspondences on the part of Nakijin speakers (Lawrence 1990;46) seems to speak of a type of bidialectalism at the very least, at least in the modern language. Documented contact between Shuri and Nakijin over the past several centuries makes it reasonable to suggest such bidialectalism has a history of some depth.

very likely due to Shuri influence (of the phonological sort), but that influence neither mandates the occurrence of k nor limits it to items or concepts specific to the relative culture of Shuri as contrasted with that of Nakijin.[397]

Examples in Clyne (2003:111ff) corroborate the notion that the tendency to transfer specific lexical items is closely tied to semantic domains. Of his six categories of lexical transference (see 1.7.2.1), only the first (and perhaps the second, as a subcategory of the first), the borrowing of lexical items "that do not have real equivalents in the other language... [or that reflect] changes in lifestyle or outlook," directly addresses this issue of domain; the others appeal to notions of pragmatic substitution and syntactic simplification. Based on the examples he cites for the lexical influence of English on various immigrant languages, with items from semantic domains of landscape, work, and administration (among several others that are superfluous to the discussion of Nakijin[398]), we are well justified in claiming lexical transfer for at least the doublet items with semantic splits.

On the other hand, phonological transfer cannot be said to be connected necessarily to semantic domains at all. Clyne points out that such transference at the phonological level is usually the last area of a language to be affected by an influencing language, and in his examples of immigrant languages under the influence of English, such changes typically mark second- and third-generation speakers of the original languages (2003:115). As we have evidence of a great deal of time depth involved in the contact between Shuri and Nakijin, that phonological transference should be surmised is not surprising. Thomason and Kaufman (1988:74) also mention phonological transference as occurring beginning with their second

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[397]In the case of Nakijin and Shuri, the close genetic relationship between the two dialects—and concomitant similarity of many forms—can sometimes make it difficult to tell which type of transference is occurring. In cases with semantic split, as in doublet pairs, it seems reasonable to argue for lexical transference, but where such obvious evidence is lacking, the distinction between, say, Nakijin borrowing of Shuri k to make a form such as kha/zai 'decoration' and outright borrowing of the entire Shuri form kazai is subtle indeed.

[398]Clyne mentions the Cars domain, for example (2003:115).

level of language contact intensity ("slightly more intense contact"; on this, see 1.7.2.2), but caution that while such borrowing may include new phonemes, these will only occur in loan words. In the case of Nakijin, nowhere do we need to suggest that new phonemes have been introduced as a result of Shuri influence (Nakijin indeed has a k, for example), thus implicitly placing the Nakijin-Shuri contact level at something more than "casual" but less than "more intense", which does seem impressionistically apt. We do need to recognize, however, that while Shuri phonological influence on Nakijin has not resulted in an expanded inventory, it has expanded the phonotactical range of individual phonemes; where historically correct Nakijin would not admit a word-initial ka sequence, for example, Nakijin under Shuri influence does.

Doublets have afforded us some useful insights into the effects of Shuri influence on Nakijin items with historical *k; in these, thanks to clear semantic splits, an external influence can be readily ascertained. However, in addition to the k evidenced by members of such doublets, we have a number of examples (more tokens, in fact, in our corpus than historically accurate h[399]) of single Nakijin forms with some variety of k unexpectedly corresponding to pRk *k. That is, these are examples of items with a historically aberrant modern k existing in place of, rather than alongside, a natively correct item with h. Historically, as discussed in 2.2.2.2.3, pRk *k will surface as Nakijin h when followed by either *a or *o in either initial or medial position (though in medial position, it can continue the lenition and disappear entirely in some cases). We present below several aberrant k forms for both conditioning environments; Shuri forms (Japanese forms if so noted) are presented in the far right column of each of the following lists:

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[399]It is unclear what the exact proportion is for Nakijin as a whole, though anecdotal evidence (Lawrence 1990:46) suggests h, if not numerous, is nonetheless quite compelling in its Nakijin-ness.

LIST (76): Nk k : pRk[400] *k/__*a

khaNna/mii	'thunder'	kaNnai
khamin/c'u	'priestess	cimi
kha/c'uu	'bonito'	kacuu
kha/t'aa\c'i	'shape'	kataci
kha/zai	'decoration'	kazai
khaa/sa\a	'sore, lesion'	kasa
khabuu/t'u	'helmet'	kabutu
khagaa/mii	'mirror'	kagaN
khami/i	'god'	kami
khaN-	'this way'	kaN
khat'aa/c'ii	'enemy'	kataci
jut'aa/k'a	'rich'	jutaka
qi/naa\k'a	'countryside'	qinaka
pha/k'aa	'grave'	haka
phak'aa/maa	'split skirt, hakama'	hakama
sa/k'aa\na	'snacks'	sakana
si/k'aa	'deer'	sika[401]
thak'aa/ra	'treasure'	takara

LIST (77): Nk k : pRk *k/__*o

khu/ruusuN	'to kill'	kurusjuN
khuju/mii	'calendar'	kujumi
/khu\i	'love'	kui
/khu\k'u	'rice measure'	-kuku
/khu\nu	'nine'	kukunu
khubu/u	'[type of] seaweed'	kuubu
khugaa/ri\N	'to burn (w/ passion)'	kugarisjuN
khui/muuk'u\u	'bridegroom'	kwiimuuku
khuk'u/c'ii	'feeling'	kukuci
khuk'uu/ru	'heart, sentiment'	kukuru
khuN/du	'next time'	kuNdu
khut'u/u	'lute'	kutuu
khu/t'uu	'thing'	kutu
khut'u/wa\N	'to refuse'	kutuwajuN
/khuu	'merit, credit'	kuu
/khuu\ri	'basket, wicker'	-guui (< kuui)
/khuu\ri	'crystallized sugar'	kuuri
khuu/su[402]	'aged sake'	kuusju
khuu/qjuu[403]	'carp'	kuuqiju

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[400]As a general rule, Shuri k in these lists corresponds to pRk *k; for pRk forms, consult the Appendix.

[401]Marked as "new" in OGJ.

[402]This item is ultimately Chinese in origin, corresponding to Sino-Japanese ko 'old' + syu 'sake'. The medium for introduction was likely Shuri, as a direct borrowing of Japanese kosyu would yield non-existent (in this meaning) Nakijin khu/suu.

[403]The Nakijin term is a compound, with second element /qjuu 'fish'.

khuzaa/ra	'dish'	kuZara
mi/jaa\k'u	'capital'	mijaku
khoo/ru	'incense burner'	qukooru
khunu(u)/mi\N	'to plan'	(no Shuri cognate: J konomu 'to like')
khumaa/ru\N	'to be vexed'	(no Shuri cognate: J komaru)
/khuuse\N	'dense'	(no Shuri cognate: J ko-)
khuk'u(u)ru/mi\N	'to try, test'	(no Shuri cognate: J kokoromiru)

For sake of comparison we re-present below the items for which *k surfaces as Nakijin h in both of the conditioning environments (from 2.2.2.2.3)

LIST (78): Nk h : pRk *k/__*a

/ha\gi(i)	'shade, reflection'	kaagi~kazi
/ha\mi(i)	'bottle'	kaami
/ha\zi(i)	'number'	kazi
ha/bii	'paper'	kabi
ha/c'ii	'fence'	kaci
ha/miN	'to smell'	kaZa sjuN
ha/nii	'metal'	kani
ha/t'aa	'side'	-kata
ha/zaa	'odor'	kaZa
ha/zii	'wind'	kazi
/haa	'well (< river)'	kaa
/haa\ra	'river'	kaara
haa/bu\i	'bat'	kaabujaa
haa/mii	'turtle'	kaamii
haa/ra	'tile'	kaara
haa/ru\N	'to hang'	kakajuN
hacu/N	'to scratch'	kacuN
haN/za	'vine'	kaNda
haraa/zi	'hair, hair arrangement'	karazi
hasa/a	'bamboo hat'	kasa
hasi/i	'dregs'	kaSi
hat'a/a	'shoulder'	kata
hat'aa-	'single'	kata-
hat'aa/k'a[404]	'lee'	kataka
hac'u/N	'to write'	kacuN
/na\haa	'inside'	na[a]ka
wahaa/se\N	'young'	wakasaN

LIST (79): Nk h : pRk *k/__*o

/hu\gaa	'egg'	kuuga
/hu\bu	'spider'	kubu~kuubaa
/hu\i[405]	'voice'	kwii
hu/maa	'here'	kuma
hu/rii	'this'	kuri

[404]Related to 'side', perhaps.

[405]But note gu/maa\gui 'small voice'.

hu/sii	'back, hips'	kusi
hu/u	'flour'	kuu
hu/u	'shell'	kuu
humi/i	'rice'	kumi
humu/i	'marsh'	kumui
/hunu	'this [attributive]'	kunu
hup'aa/se\N	'hard'	kuhwasaN
huu/ru\N	'to beg, pray'	kuuiN
huzu/N	'to row'	kuuzuN
huzu/u	'last year'	kuZu
juhu/mi\N	'to rest'	jukujuN
juhu/ru\N	'to lie'	'juku(teejuN)
/mu\hu(u)	'bridegroom'	muuku
/hoo\zi	'malt'	koozi

In view of the arguments advanced in our discussion of doublets with clear semantic splits, the short answer to be proposed for the contrasting behaviors noted above is that Shuri influence, either through lexical borrowing or phonological transference (in the form of the expansion of k phonotactics in Nakijin) has led to all, or nearly all, of the historically aberrant Nakijin k noted above. Note that again we must appeal to phonological borrowing in order to account for the existence of native-like behavior alongside non-native behavior in the same lexical item (phak'aa/maa 'split skirt, hakama', for example, in which the anomalous k is found together with natively correct initial ph and appropriate Nakijin vowel lengthening and stretching); in addition, the utter lack of coherent trends to be noted in the semantics of the two groups (aberrant k on the one hand, and h on the other) makes it highly difficult to advance a purely semantic argument that would include borrowing of complete lexical items. In particular, we note examples such as the two 'bridegroom' words:

LIST (80): Nk 'bridegroom'

khui/muuk'u\u	'bridegroom'	kwiimuuku
/mu\hu(u)	'bridegroom'	muuku

Here, items with nearly identical semantics (i.e., no readily identifiable semantic split has obtained) have dramatically different behaviors in the overlapping common element, yet the initial element is different (Nk khui-[406] opposing Sr kwii). A pure lexical borrowing would

[406]This item is listed as "literary" by Nakasone (1983:119).

have included something more like the Shuri kwii- element, if not in identical shape (kwi is phonotactically inadmissible in Nakijin), then of the form k'ii or khii. We do note, however, that khui- itself, with an initial k that should be an h (the element corresponds to J koi 'beg', indicating an earlier o following the k) must be a borrowing as well; historically it should be hui, cf. /hu\i 'voice' (J koe, pRk *ko'we, Sr kwii).[407]

The difficulties to be found in trying to parse the above lists on the basis of semantic domain are found in these several additional examples of items from similar areas of usage:

LIST (81): Domain breakdown for k-h in Nakijin items

domain	**items in k**	**items in h**
nature—fish, sea life	kha/c'uu 'bonito'	hu/u 'shell'
	khubu/u 'type of seaweed'	haa/mii 'turtle'
	khuu/qjuu 'carp'	
nature—land	khaNna/mii 'thunder'	haa/bui 'bat'
	qi/naa\k'a 'countryside'	/hu\bu 'spider'
	si/k'aa 'deer'	humu/i 'marsh'
		humi/i 'rice'
		/haa\ra 'river'
		haN/za 'vine'
technology	kha/zai 'decoration'	haa/ra 'tile'
	khut'u/u 'lute'	ha/c'ii 'fence'
	/khuu\ri 'basket, wicker'	ha/nii 'metal'
	/khuu\ri 'crystallized sugar'	/ha\mi(i) 'bottle'
	khoo/ru 'incense burner'	ha/bii 'paper'
	khuzaa/ra 'dish'	
deictics	khaN- 'this way'	/hunu 'this [attributive]'
	khuN/du 'this time, next time'	hu/maa 'here'

These examples notwithstanding, there are some areas (military and administrative terminology , for example, with its preponderance of k items[408]) which show a tendency to skew towards one or the other correspondent of *k; to a certain extent, even within the domains suggested above, some differences are apparent. For the items listed under

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[407]Alternatively, the entire form khui/muuk'u\u may be a construction based on Japanese koimuko, though if this is the case, the length in the -muuk'uu is difficult to explain.

[408]These will be considered in full in 4.2.4: khamin/c'u 'priestess, khabuu/t'u 'helmet', khagaa/mii 'mirror', khami/i 'god', khat'aa/c'ii 'enemy', phak'aa/maa 'split skirt, hakama', /khu\k'u 'rice measure', and mi/jaa\k'u 'capital'.

Technology, for example, those in k are in general objects with more specialized applications than those in h.

We are forced to conclude, then, that while some semantic trends are noticeable, working purely from semantics in the hope of sorting out the k versus h situation in Nakijin will not yield absolutely useful results.

Similarly, arguing from a purely phonological standpoint soon runs into some intransigent problems. For example, recalling our discussion of the kh/h distinction before *i in items where the following syllable is voiceless (h was the reflex), it would seem reasonable to look for similar conditioning in the case of kh/h in syllables before voiceless consonants; all our examples in the following discussion are taken from *ko reflexes or items corresponding to Japanese ko, the rationale being that the high vowel u that Nakijin has in such items is more likely than the low vowel a to be susceptible to devoicing. On actual examination of forms, however, it is apparent that few generalizations can be made, as we have many identical environments yielding disparate reflexes. Note the following minimal and near-minimal pairs:

LIST (82): Contrary developments for pRk *ko before syllables with voiced initials

/hu\gaa 'egg'	khugaa/ri\N 'to burn'
hu/rii 'this'	khu/rusuN 'to kill'
/hu\bu 'spider'	khubu/u '(type of) seaweed'
hu/maa 'here'	khumaa/ru\N 'to be vexed'
/hunu 'this'	/khu\nu 'nine'
huzu/N 'to row'	khuzaa/ra 'dish'

LIST (83): Contrary developments for pRk *ko in forms with modern VV sequences

/hu\i 'voice'	/khu\i 'love'
hu/u 'shell'	/khuu 'merit, credit'
huu/ru\N 'to beg'	/khuu\ri 'crystallized sugar'
	/khuuse\N 'dense'
	khuu/su 'aged sake'

Clearly, neither a following voiced segment nor a long vowel or vowel sequence can be counted on to provide a conditioning environment for either kh or h development. Neither does a following voiceless consonant seem to favor the h alternate, as we might suspect based on the example of reaspiration of glottalized k', etc. when the following syllable begins with a

voiceless consonant. Though only a couple of minimal pairs obtain here, it seems that voicelessness alone does not seem to favor h over kh, even when a surface environment (C[-voice]V[+high]C[-voice]) that might otherwise lead to lenition is present:

LIST (84): pRk *ko sequences before voiceless syllables

hup'aa/se\N 'hard'	
hu/sii 'back, hips'	
hut'uu/ba 'words'[409]	khut'u/u 'lute'
	khu/t'uu 'thing'
	khut'u/wa\N 'to refuse'
	/khu\k'u 'rice measure, stipend'
	khuk'u/c'ii 'feeling'
	khuk'uu/ru 'heart, mind'
	khuk'u(u)ru/mi\N[410] 'to try'

Interestingly, though no broad statement about voiceless segments generally favors one or the other development from *k, we can note that aside from the examples with t following, there are no directly competing forms.

In short, we have demonstrated that attempting to parse Nakijin k and h items on the basis of either semantic domain or phonological conditioning environments yields at best only partially useful information. We shall explore further the semantic angle below in 4.2, where its usefulness will be considered with regard to k as well as other segments. Unless later inquiry reveals something dramatic about phonological conditioning that has not been considered here, we are forced to reject the notion that Nakijin k and h can be accounted for on that basis.

4.1.2 Other-than-p where p is expected

There seem to be surprisingly few examples of aberrant *p behavior in Nakijin. As we noted above in 2.2.3.2.1, the regular Nakijin development of pRk *p is p' or ph, at least in initial position (medial *p is seen to surface in various guises: some few undergo lenition, ultimately disappearing; a not insignificant number surface as -Qp-, either with or without aspiration; but

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[409]That this item has a doublet khut'uu/ba (same meaning) does little to enhance the notion that environmental conditioning will account for the h-kh situation.

[410]Note that khuk'u/c'ii, khuk'uu/ru, and khuk'u(u)ru/mi\N all derive from the same root item, khuk'u- (J koko-).

most remain unchanged); across-the-board changes of p to something f/ɸ- or h-like, while common in many varieties of Ryūkyūan and indeed in Japanese, are most un-Nakijin. Since, however, modern Nakijin does have h (from several sources) and hw (from *oka sequences) as well as p, while in many nearby Okinawan dialects (and indeed in Japanese as well) the *p surfaces mostly as h or something h-like, such as Shuri hw (a bilabial fricative), we might expect to see some h or hw in Nakijin where a p segment would otherwise be expected. However, even in areas where semantic domain makes it easy to consider the possibility of loans, Nakijin p shows a strong tendency towards retention. It is unclear why this should be the case, especially in light of the widespread borrowing of k, but nonetheless we have examples that can be identified with a military domain, such as pha/t'aa 'flag' (Sr hata, J hata), which is utterly native in its form, despite the lack of potential for a borrowing of Shuri hata, perhaps reworked as ha/t'aa, to violate Nakijin phonotactics. Similarly, phak'aa/maa 'split skirt' (Sr hakama, J hakama) has a native-like ph-initial (though the medial k is out of place). Examples such as these attest to a peculiar level of either conservatism of the p segment in Nakijin, or a somewhat higher awareness on the part of Nakijin speakers for the correspondence of Nakijin p to Shuri h than for Nakijin h to Shuri k. (The mixed evidence of phak'aa/maa and the greatly larger number of odd k as compared to odd non-p in Nakijin seem to lead in that direction.)

We present below a few examples—all, in fact, that have been found in the course of this study—of something besides p where p is expected based on the correspondence patterns between Nakijin and Shuri, Japanese, and proto-Ryūkyūan.

LIST (85): Aberrant h and hw in Nakijin

hi/c'ii\zi[411] 'sheep'	J hituzi, Sr meenaahwiizaa 'bah goat'
hi/c'ii\zi 'Sheep (zodiac)'	J hituzi, Sr hwiçizi
huk'a/a 'other, outside'	J hoka, Sr huka
/na\haa 'Naha'	J naha, Sr naahwaa
/na\hwaa 'Naha'	
yahwan/me\e '[type of] prayer'[412]	J yahanmairi, Sr 'jahwaNmee
thee/hwa 'joke'	Sr teehwa
hwaara/k'ii 'heartburn, sour stomach'	Sr -hwara[413]

The items for 'sheep' in its two meanings have been discussed at length elsewhere (refer to 4.2.3), and for huk'a/a the positing of an overt Japanese or Shuri loan must be made, as h in such an environment in Nakijin could only come from a reaspirated q, in which huk'a/a is underlyingly *uka (we need the high vowel since *oka surfaces regularly as uhwa in Nakijin), a form unattested otherwise, or from something with an initial k, though this presents intractable problems as well: to get Nakijin h from *k, the velar must be followed by *o or *a; since huk'a/a has u, we must posit underlying *o (i.e., something like [the unattested] *koka), but then the unlenited medial k becomes aberrant (as it would surface as hw).

The triplet of Nakijin items for the place name Naha (the two aberrant forms listed above, and the regular /naQ\p'aa) were discussed in 2.2.2.2.2 in the context of medial gemination, where it was noted that /naQ\p'aa is the native Nakijin form. As mentioned there, Nakasone informs us (1983:337) that /na\hwaa and /na\haa are the current alternates, while /naQ\p'aa was used until the beginning of the Taishō era (1912); here then is clear evidence of replacement in progress in the modern era, with the original form pushed aside by parallel Shuri (naahwa) and Japanese (naha) forms. Interestingly, however, despite the non-Nakijin origins of the two modern terms for 'Naha', the Nakijin accent pattern of the

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[411]Note that Nakijin has the expected form p'ii/za\a in the meaning of 'goat'.

[412]This term requires a near-encyclopedic definition. It refers to a religious tradition in which women disguise themselves as men to visit shrines and offer prayers of supplication to bring about meetings with the men on whom they have designs of a non-platonic sort.

[413]The Sr element -hwara is not found as an independent term, but can be extracted from compounds such as juhwara 'flank'.

original term is maintained in the new terms, even to the extent of substituting Nakijin accent for the initial-syllable vowel length of the Shuri form. Examples such as this do much to bolster the notion of the relative consistency of accent patterns within dialects. It is also of note that the Shuri form, with hw, is something of an archaism itself; other items with hwa in Shuri frequently have more common ha alternates, as in hwaru, marked as an archaic form, paralleling haru for 'spring'.

The other Nakijin hw items likely represent similar introductions of Shuri forms.

4.1.3 Aberrant w

A number of items demonstrating perplexing intervocalic w have been pointed out in the text. For the most part, these have been discussed as they appeared in the context of the outlines of historical phonological development and there is not much need to repeat those discussions here. A few cogent examples include: ni/waa 'garden', khut'u/wa\N 'to refuse' (J kotowaru, PJ *kotobara-), qawaa/rii 'pathos' (Sr qawari, J aware, PJ *apare), and qawa/a, 'millet' (Sr qawa, J awa, PJ *apa). For discussion of these items, see 2.2.2.2.4.

4.1.4 Lack of palatalizations where expected

A number of examples have been pointed out of this particular aberrancy in the course of various earlier discussions. The complex of items around the meaning of 'thread' and 'silk', for example, as presented in 2.2.2.2.2 (note) is one such. Another clear example is the item si/k'aa\ra 'strength', which we will discuss at length.

We briefly mentioned si/k'aa\ra in 2.2.2.2.7 (note) during our discussion of *t lenition in Nakijin. Though in that particular aspect its behavior is unremarkable, the retention of a medial k in an environment where both Progressive Palatalization and some sort of k lenition would have been expected in Nakijin points to its provenance being something at the very least non-Nakijin, and possibly non-Ryūkyūan as well. Given the proto-Ryūkyūan form *ti'kara posited by Thorpe (1983:335–6) the likely Nk reflex should be something like the

non-existent si/c'aa\ra, possibly alternating with or being supplanted by the equally non-existent hi/c'aa\ra.

However, no such form occurs in Nakijin. Nor, for that matter, does the expected c reflex of *k occur in any of the forms[414] cited by Thorpe for his proto-form. Thorpe, in fact, notes (1983:336): "In the Okinawa dialects it is expected that *k after *i would be palatalized, and it is not clear why this failed to occur in this word." One attractive idea, of course, it to appeal to some non-Ryūkyūan source for the item, but to at the same time require that its adoption into Ryūkyūan come at a date late enough to avoid such Ryūkyūan distinctives as Progressive Palatalization and yet early enough to share in developments such as t lenition (in Nakijin, at least). However, the term is attested in a cikara-like shapes in locations from the Amami group to the Sakishima islands; something so widespread would seem to point to an early, even original, place in Ryūkyūan. Alternatively, it perhaps attests to a two-fold source of the item in the Ryūkyūs: one, a spread through the southern islands together with the spread of the Ryūkyū kingdom after 1500 (and presumably, after the introduction of the term in central Okinawa), and two, earlier introduction under Japanese influence in the Northern Ryūkyūs.[415]

In Nakijin there are three terms associated with the meaning 'strength': the above-mentioned si/k'aa\ra, c'i/k'aa\ra,[416, 417] and, tellingly, /the\e. This last term Nakasone

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[414]There is, however, palatalized k (kj) found in certain dialects (Inō, Yuwan, Kametsu) in Amami and Tokunoshima (Thorpe 1983:336) for this item.

[415]A detailed analysis of forms from the respective areas may help to shed light on this possibility, but such is beyond the scope of the current study.

[416]This is the only Nakijin form cited by Thorpe (1983:335).

[417]It is not entirely clear there is a substantial difference between these two. NHOD audio listings for si/k'aa\ra and c'i/k'aa\ra seem to use the same female speaker, with so little distinction between the two items as to stymie the auditory discrimination abilities of casual listeners; no doubt a spectrographic analysis of the recordings would clearly demonstrate the subtle front-back distinction between c' and s here.

(1983:300) derives from one ta'ja[418] and for it lists several example expressions[419] in addition to the head entry in the dictionary. The other two, items, in contrast, have between them but one example expression.[420] Reviewing the Shuri items for 'strength' we can note that in Shuri as well, a form tee is found, used in a number of expressions (compared to the mostly bare-bones listings for Sr cikara), and found to occur as well in the apparently redundant compounds teezikara and teecikara.[421] We are forced to conclude, given the preponderance of utility for Nk /the\e (and Sr tee), as well as phonological evidence that seems to betray a late, non-pRk source for items of the cikara shape, that the cikara items are non-original vocabulary additions to the Nakijin corpus.[422]

4.1.5 Retention of q in Initial Vowel Devoicing items

Yet another area where outside influence on Nakijin seems quite clear is the presence of initial q in Vowel Devoicing Environments. The phenomenon is relatively rare, and to a certain extent our awareness of it is compromised by Nakasone's implied assertion that it is phonologically conditioned by the following s in the items where it occurs (1983:634). As we

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[418]According to Nakasone (1983:300), "/the\e < ta'ja" presumably via a variety of vowel assimilation that raises the low vowel a and then dispenses with the glide motivating the shift, though Nakasone does not go into detail on the matter. There seems to be no forthcoming source for ta'ja, though OGJ (514) suggests a connection for Sr tee with Japanese 堪え [tae] 'put up with, endure, bear'. This would be much in keeping with the general semantic spirit of the expressions given for Nakijin /the\e.

In addition, whatever ta'ja may be, the Nakijin item, with initial accent, seems to indicate that it had a long initial syllable originally.

[419]/the\e neen/u 'to lack strength'; theemaa/si 'powerful, with power'; thee /suN 'to resist'; /the\e thac'u/N 'to face and resist'.

[420]c'i/k'aa\ra nu nee/nu 'to lack strength'.

[421]It is possible these compounds reflect a kind of distinction made in some cases between tee on the one hand and cikara on the other: specifically, cikara in reference to 'power, strength' in a general or abstract way, and tee in reference to a 'power to resist'. A similar distinction seems to obtain in Nakijin as well: Nakasone (1983:300) lists both 'power, strength' and 'resistance, opposition' as meanings for thee, though 'power, strength' is primary.

[422]And, as mentioned above, to the rest of the Ryūkyūan dialects that have items of that shape.

discussed in 2.2.2.2.6, however, the normal path for these items was indeed devoicing, followed by the loss of the devoiced syllable, and then either re-creation or parallel retention of something like the original forms due to pressure from items of similar shape in Shuri (and possibly Japanese). Examples previously discussed include qi/sii 'stone' and several other items with initial qis-.

A similar outside influence is likely for the item qa/k'aa 'red' as well. The historically correct Nakijin form for 'red' is /haa, which is essentially a remnant of the original second syllable, derived from *qaka > hakaa > hahaa just as /sii 'stone' derives from *qi/si > hi/sii, though of course the issue of k lenition must be taken into account. The forms qa/k'aa and qi/sii are either then retentions or reintroductions under the influence of Shuri, which lacks a Nakijin-like initial devoicing rule. Note that there is a reasonably compelling historical circumstance for the reintroduction of glottal initial qi/sii, as presented in 4.2.5. While we lack such direct evidence for 'red', the numerous examples we have of Shuri influence on Nakijin outside of predictable semantic domains has shown that the semantic argument is not completely necessary for making the assertion that qa/k'aa is likely a loan.

4.1.6 Other unexpected phonological phenomena

Here belong additional items which cause troublesome questions to arise regarding why a particular ostensibly regular development has or has not occurred. One such area is the existence of doublets with vowel sequences alongside (partially or completely) assimilated sequences (surface long vowels), as noted in 2.2.2.1.6 for items such as /jai~/ei 'spear'. Reference to that section will provide a number of examples of such doublets.

Another is the puzzle presented regarding the sequencing of phenomena such as *r loss and vowel-lengthening, as represented by the disparate surface forms of kha/zai 'decoration' and namaa/rii 'lead' despite the similarity of related Japanese forms kazari and namari. In kha/zai it seems loss of the r has preceded second-syllable vowel lengthening, blocking that change (that is, we must wonder why the word is not kha/zaa\ri), while in

namaa/rii, lengthening seems to have occurred earlier, blocking the loss of the r (that is, why is 'lead' not nama/i?). That both items may be loans could explain the discrepancy: kha/zai could be directly from Shuri (which also lacks the r) as the initial k suggests; namaa/rii could be from either Shuri namari (the r is aberrant there, too, implying a Japanese loan, perhaps) or from Japanese. Specific examples of the historical uses of lead beyond the general association that can be made with metallurgy may shed some light on the question, but these have not been yet been ascertained for Nakijin.

Last, we have other sporadic examples of remarkable phonology, as in the retained high vowel following the nasal initial in ni/waa 'garden'; these, too, when they have come up have been discussed in the context of the regular sound changes involved.

4.1.7 Antiquing

The phenomenon of antiquing, or exploiting widely perceived regular historical correspondences between related languages or dialects to consciously alter non-original items so that they conform to those recognized patterns, can be recognized in a number of Nakijin items. Most often, the process takes the form of spuriously raising mid vowels and palatalizing t and k in borrowed items, and can often be applied only partially, allowing phonotactically admissible sequences to remain despite the fact they will not stand up to historical scrutiny. The result is a mess of mixed forms that sometimes only grudgingly give up their origins;[423] such forms are extremely useful, however, in that they have a great deal to tell about typical word forms (word templates) and the synchronic phonotactical relevance of historic changes. In Nakijin, phenomena such as second-syllable vowel lengthening and the general Ryūkyūan distinctives of vowel raising and palatalizations are fairly common aging techniques; substitution of Nakijin h for Japanese and Shuri k is also found from time to time. We discuss two examples below, though by no means should this be considered an exhaustive listing of

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[423]Nakasone 1983 is helpful in marking a number of entries as "new" items.

antiqued Nakijin items or of antiquing techniques; rather it is more a cautionary statement to the effect that not all patina is what it seems. (We have also mentioned antiquing with respect to several forms elsewhere in the text.)

Here are a couple of clear examples—both items are tagged by Nakasone as "new", though to all appearances they are indeed Nakijin—of antiquing, with brief notations of the reworking done: khi/gaa 'wound' corresponding to J kega, and sic'aa/ga\c'i~hic'aa/ga\c'i 'draft', corresponding to J sitagaki. In khi/gaa, the e has been raised, despite the borrowing of the term at a time when vowel raising was not an operative process; the second syllable has been lengthened to render the whole word into canonical Nakijin shape as well. In sic'aa/ga\c'i~hic'aa/ga\c'i, there has been reworking in the lenited s of the second alternate form as well as the palatalized t and k (and of course, the second-syllable lengthening).

4.2 Semantic analysis

One of the earliest sparks of inspiration for the subject area that has grown into the current work was the observation that there seemed to be semantic generalizations corresponding to phonological variations noted in certain lexical items. While various language contact surveys (Clyne 2003, Thomason and Kaufman 1988) have demonstrated convincingly that semantic features alone cannot be seen as an absolute predictor of which sort of lexical items might be candidates for borrowing and which (on the side of the language undergoing influence from outside) might be candidates for replacement, this need not mean the entire exercise be considered useless or frivolous. However, it does mean that due caution must be exercised in considering borrowing phenomena. This due caution is essentially the exhausting of possibilities for phonological explanations for apparent aberrant phonological behavior in items before simply writing them off as loans, and then considering the possibility of loans only when a sufficient human practical history has established the basic parameters of the language contact situation that might have facilitated a loaning-borrowing relationship.

That said, semantic considerations alone do not, it will be shown, allow us to catch anywhere near all phonologically atypical phenomena. Additional appeals, to phonological transference as well as lexical borrowing, under a general influence of language contact as opposed to contact limited to particular areas, are still necessary to account for items that slip through the semantic sorting exercise. What we are saying, in essence, is that while items with a peculiar amount of cultural baggage can usually be identified readily as loans, and most often as loans of whole lexical items, there are a number of items where there is no particularly compelling reason to assert on the basis of cultural influence the borrowing of that item. In addition, there are also several examples where a sort of partial borrowing has occurred; that is, the item demonstrates fairly regular behavior except in certain details.[424] This latter sort of phenomenon, as well as the borrowing of items without reference to semantics, we attribute to the phonological transference mentioned above. Establishment of the fact that this phenomenon occurred as well, however, requires much the same groundwork as working from semantic assumptions, as has been shown above. Cautionary advice thus acknowledged, we present below a brief look at the semantic issues that arise when contemplating the phonological state of the Nakijin lexicon.

4.2.1 Predictions about semantic domains for phonologically aberrant items

It can be difficult to work from a stock of semantic categories and make predictions based solely on the categories themselves without reference to what is already known or considered to be known from the interaction between historical-cultural phenomena and linguistic change from either other languages or from inadvertent observation of such trends in

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[424]Anttila (1989:156ff) notes that the spectrum of borrowing ranges across five types (loanwords [borrowing of whole words], loanblends [borrowing words and adapting them with native morphemes in suffixation, etc.), loanshifts [calques, or loan translations, in which an outside concept is rendered using native constructions], pronunciation borrowing, and sound change) with varying degrees of adopting morphemes and sounds from the original language into the borrowing language. The phonological (pronunciation) borrowing we are suggesting here is akin to Anttila's hypothetical British speaker of English using American pronunciation [dæns] for [dɑns] 'dance'.

the actual language under consideration. That is, we cannot assert a priori that, for example, a lexical item that can be associated with a "military"-themed semantic group will be inherently more susceptible to the outside influences that might lead to aberrant phonology, nor can we claim an equivalent lack of susceptibility for an item that is associated with, say, a "domestic" theme.[425] In fact, as has been shown (as, for example, in 4.1.1) by even a cursory perusal of items that are arguably phonologically remarkable (in the sense that they defy explanation through strictly algebraic formulations of phonological history) in Nakijin, there are few semantic absolutes. Rather, it has been through narrow phonological analysis that most phonological aberrancy has betrayed itself (i.e., not inquiry based on suspicions about semantics per se), and even when semantic generalities have emerged, the strict association of such with particular phonological phenomena has been rendered somewhat tenuous by the presence of the same phonological phenomena in items of thoroughly disparate semantic domains. In other words, a strangely shaped word for 'saddle' may imply that other items naming military materiel will be strangely shaped, but cannot absolutely predict as much, nor will it preclude, or even make less likely, the occurrence of the same phonological aberrancy in an item meaning 'dark'.[426]

In fact, the development of semantic considerations and connections between them and phonological history is a sort of symbiotic investigative dance, in which history, semantics, and phonology all play off one another in recursive fashion. Human history might point to a lexical item being odd, or a priori remarkable phonology may make it stand out, or a semantic

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[425]Anttila (1989:162) notes that borrowing as evidence of cultural contacts can be recognized when the historical circumstances leading to the borrowing are well-known, as in the case of Norman loans in English, as well as that borrowing itself (once comparison between languages has established which items are loans) can be used to infer historical contact situations.

[426]In Nakijin, k'u/raa 'saddle' (J kura) and k'u/raase\N 'dark' (J kura-) have a fully vocalized initial kur- in contrast to the reduced kur- of examples such as /k'waN 'to eat' (J kurau), /k'iiru\N 'to give' (J kureru), and maQk'aa 'pillow' (J makura). The reduced kur- represents historically typical Nakijin behavior, although it was mentioned earlier that underlying length may account for apparently aberrant retained kur sequences.

tinge may spark interest; any one of these taken by itself may not be terribly instructive, but when one leads to another, and then to another, and when in the end they are seen to unite in a particular harmony, they can greatly inform the observant investigator.

We acknowledge therefore, that semantic categories in and of themselves may not mean much; only in conjunction with other facts does their contribution to the sum of evidence tally up to something useful. At the same time, we must admit that we have freely and frequently made use of a certain number of semantic generalizations in the course of analyzing material in this study. The categories alluded to and relied upon have been drawn from the known history of the Nakijin polity, the semantic areas in which languages related to Nakijin have documented oddities, and the semantic areas in which Nakijin words with relatively rare phonological components are seen to cluster. A number of these are discussed in turn below.

4.2.2 Honorifics

There are a number of honorific terms ("honorific" here referring to items which either raise the actions of an individual to whom the speaker wishes to show deference, express humility on the part of the speaker's actions, or provide a generally polite air for an utterance) in Nakijin in which the level of formal correspondence between Nakijin and Shuri forms seems to indicate not close parallel development so much as an outright borrowing relationship. Nakijin does have some forms that are unique, but we find a number that seem to reflect not Nakijin patterns, but rather Nakijin treatment of Shuri patterns. Note the following very nearly identical forms from the two dialects (Japanese forms are given for reference); as the overall stock of such words is quite extensive and a full discussion necessarily involves looking at derivational morphology, we limit this list to a representative few:

LIST (86): Some honorific verbs in Nakijin and Shuri[427]

gloss	Nk	Sr	Japanese
'be, go, come'	/qmo\oruN	moojuN	irassyaru
'be, go, come'	/qme\NseN	qmeNSeeN[428]	irassyaru
'be, go, come'	/qme\NsooruN	qmeNsjoor-	irassyaru
'eat'	hu/saaga\N	qusjagajuN	mesiagaru (osiagaru)
'give [humble]'	hu/saagi\N	qusagijuN	sasiageru (osiageru)
[polite suffix]	-abiN	-abijuN~-abiiN	-masu, etc.; gozaimasu

That there should be such a level of correspondence in the honorific forms likely derives mostly from a phenomenon wherein such forms are introduced in a language in subordinate position when it bumps into contact with a language in higher position; that is, it is a form of prestige borrowing. In Standard Japanese, many honorific forms are in fact from the Kyoto dialect of Japanese, a fact demonstrated by their "irregular" conjugation patterns,[429] and reflecting, if not a prestige implication for Kyoto dialect, a recognition (however unintentional) of the status of Kyoto as the 'old capital'. In the case of Nakijin, it seems likely that such forms would have become part of the Nakijin language beginning with the time of the fall of independent Hokuzan authority and annexation of the Hokuzan kingdom to the central Okinawan kingdom. Due to the political influence of the Shuri court with the rise and expansion of first the Chūzan kingdom and later of the kingdom of the Ryūkyūs; with these would come the concomitant diffusion into of Shuri personages, speaking Shuri, into Nakijin and other outlying areas. Thorpe (1983:74, for example) often appeals to the expansion of the kingdom of the Ryūkyūs to explain the presence of aberrant forms in non-central areas.

That such influence can be surmised does not, however, mean that all honorific terms necessarily need to be derived from Shuri models. The following several Nakijin forms, for example, have no formally equivalent Shuri analogs and must be treated, it seems, as independent developments.

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[427]Forms are exalting forms unless otherwise noted.

[428]Also qimeNSeeN, meeN, qimeeN, and meNseeN.

[429]Honorific terms such as kudasaru, ossyaru, gozaru, and irassyaru have stem forms in kudasai-, ossyai-, etc. The expected forms are the non-existent kudasari-, etc.

LIST (87): Independent honorific forms in Nakijin

'come'	saa/bi\N[430]	qmeNSeeN[431]	irassyaru
'do'	/saabi\N	miSeeN	nasaru
'eat'[432]	misoo/ru\N	miSeeN	mesiagaru (mesiowaru)
'say'	/qiNse\N	miSeeN	ossyaru

The Nakijin forms for 'come' and 'do' here are derivative patterns, comprised of the stem forms of su/N 'to come' (stem sii/-) and /suN 'to do' (stem form /sii-) with the polite suffix -abiN appended, and thus represent structures inherently different from the suppletive replacements involved in the other honorific forms. The form for 'eat' here is likely derived from the same collocation that led to Shuri miSeeN (that is, mesi + owaru), though with a somewhat different realization; Nakijin /qiNse\N is perhaps related to qimiSeeN in a similar way.

4.2.3 Chinese Zodiac

The Chinese zodiac is an area in which loans are to be presumed due to the well documented origins in China and diffusion to Japan and other areas, including the Ryūkyūs. It is difficult to ascertain whether the terms associated with the system are Ryūkyūan-original translations of the Chinese originals, or borrowings from Japanese, but as lexical items associated with obvious cultural loans they represent a useful opportunity to examine phonological behavior without having to worry about whether or not any interesting aspects of that behavior are native. That is, should an aberration be found, it is relatively easy in a word class such as this to ascribe the odd behavior to external factors rather than trying to factor the behavior in terms of a dialect-internal system of phonology and phonological changes. The zodiac list, and comparative forms including Nakijin and Shuri fauna nomenclature and the pairs of terms from Shuri and Japanese, is presented below:

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[430]Also c'aa/bi\N, interestingly parallel to Shuri caabi- (OGJ 172) used in various polite fixed expressions. A Shuri form caabijuN~caabiiN does not receive an independent dictionary entry, though it is presumably regularly derivable for cuuN 'to come'.

[431]As well as the other forms referenced for qmeNSeeN previously.

[432]Also 'wear', 'ride', and 'drink', not to mention use as an honorific suffix.

LIST (88): Nakijin Zodiac terms

Nk Zodiac	Sr	J	Nk nature	Sr nature
ni/i 'Rat'	nii	ne	qeN/c'uu	qweNcu
hu/sii 'Ox'[433]	qusi	usi	hu/sii	qusi
thu/raa 'Tiger'	tura	tora	thu/raa	tura
qu/u 'Rabbit'	quu	u	husaa/zi	qusazi
tha/c'ii 'Dragon'	taçi	tatu		
/mii 'Snake'	mii	mi	pha/buu	hwiibu
qma/a 'Horse'	qNma	uma	qma/a	qNma
hi/c'ii\zi~hic'ii/zi 'Sheep'[434]	hwiçizi	hituzi	p'ii/za\a 'goat'	meenaahwiizaa
/sa\ru 'Monkey'	saru	saru	saa/ru\u	saaru~saru
/thui 'Rooster'	tui	tori	/thui	tui
qi/N 'Dog'	qiN	inu	qiN/nu/k'waa	qiN
i/i 'Boar'	ii	i	jamaN/sii	jamasisi

That both the Nakijin and Shuri zodiac terms are directly and predictably reminiscent of their Japanese correspondents should be fairly clear from the listings above. The Zodiac terms themselves are of some antiquity in Japanese[435] and seem not to be Chinese

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[433]Nakasone 1983 notes as well several terms related to these, referring to persons born in those particular years. The terminology is presumably complete for all the years, but dictionary listings are missing for those not included here:

Ox	hu/sii\riNc'u
Tiger	thu/raanuc'uu
Rabbit	quu/ri\Nc'u
Dragon	tha/c'ii\riNc'u
Snake	mii/ri\Nc'u
Horse	qmaa/ri\Nc'u
Monkey	saN/ri\Nc'u
Boar	ii/ri\Nc'u

The -ri- element in the items that include it may be a reduction of /qmaa\ri 'birth', but it is unclear by what mechanism the first syllable would have been lost. (The -N- in these is a fairly frequently encountered alternate for -nu '[genitive marker]'.) If indeed /qmaa\ri is to be understood as underlying -ri-, the extreme truncation that has occurred would seem to speak of certain rather high likelihood of antiquity for such constructions. We do note that what may be a vestige of the nasal in /qmaa\ri is found in saN/ri\Nc'u.

[434]NHOD lists hic'ii 'Sheep' (accent not indicated) in their list of the 12 zodiac terms. The shape of this item is more in keeping with the general shape of items in the zodiac list, but the entry is linked to that of hic'i/i 'moon'. Nakasone 1983 has only the two longer versions.

[435]Tradition holds that the zodiac/horary system was adopted in 604 by the Empress Suiko. That Empress Suiko actually was responsible for not only the zodiac/horary system but also the various other things (official adoption of Buddhism, for example) with which she is credited is subject to some question, but the presence of the zodiac system in Japan by the time from which the various extant records date bespeaks an adoption time roughly the same as the initial acceptance of Buddhism and certain other cultural practices into Japan.

borrowings,[436] though they are represented in Japanese by specialized Chinese characters, so the items in the Ryūkyūan dialects must represent either a) a shared inheritance of early items and an uncannily parallel scheme for associating the old terms with the newer borrowed concepts, or b) borrowings from Japanese. As Kerr (1958:55) notes that the introduction of Buddhism (and, we assume, its cultural cohort) into the Ryūkyūs dates from the mid- to late 1200s, the latter choice seems the more reasonable.

We are left then with the question of the diffusion of zodiac terms across the Ryūkyūan dialects, including Nakijin. Keeping in mind that strictly speaking the narrative here dates to Okinawan pre-history, we do know that the original center of Buddhism in Okinawa was at Urasoe, within Chūzan territory, occurring during the reign of Eiso, some 150 years prior to the advent of Chūzan hegemony over the island of Okinawa. While it is possible that independent Buddhist influx into the north may have occurred, the preponderance of similar shapes for the zodiac items in Nakijin and Shuri seems to argue against the notion of independent borrowings.

There seems to be very little controversial or even mildly interesting about most of the zodiac terms. Specifically, ni/i 'Rat', hu/sii 'Ox', thu/raa 'Tiger', qu/u 'Rabbit', tha/c'ii 'Dragon', /mii 'Snake', /thui 'Rooster', and qi/N 'Dog' represent expected correspondences between Japanese and Nakijin, and for all, the Shuri forms and the Nakijin forms are more or less segmentally identical, though Nakijin has done typical Nakijin things such as the excrescent h in hu/sii, aspiration in thu/raa, tha/c'ii, and /thui, and the second-syllable vowel length in items with second syllables. General Ryūkyūan phenomena are manifested as well, with monosyllable lengthening in ni/i, qu/u and /mii, glottal generation in qu/u and qi/N, *r loss in /thui, and high vowel loss in qi/N (and in qma/a as well, though only after glottal generation had operated). The item i/i as well, is for the most part well-behaved, though

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[436]Following Martin (1987:561), there is some evidence that J uma is an old Chinese or Korean loan (or Chinese via Korean).

contrary to normally seen general correspondence patterns between Japanese and Ryūkyūan, it lacks a glottal initial.[437] This is evidence of an original consonant initial for the term; the Japanese correspondent i 'Boar' develops from OJ wi (and reflects PJ *bi). These items all indicate that for Nakijin, Japano-Ryūkyūan zodiac words were established in the language at least early enough to be affected by the more typical Nakijin-specific changes; what is generally Ryūkyūan about them was probably in place by the time they came into Nakijin. Especially in case of hu/sii, the apparent originality of the term's Nakijin distinctive features is clear: as the modern language holds that initial $qVC_{[-voice]}$- sequences are phonotactically admissible,[438] a late borrowing of either Shuri qusi or Japanese usi would have yielded Nakijin qu/sii instead of the h-initial item attested.[439]

The remaining three items all require a bit of attention, though for different reasons. For qma/a, there is a segmental discrepancy between the Nakijin qma/a and Shuri qNma; as Nakijin does not usually admit of N or Q occurring in the absence of a preceding vowel, that qma/a should have the shape it does represents a regular correspondence between Nakijin and Shuri. In both languages, the same terms are employed for actual horses, a situation that has probably contributed to the maintenance of the independent terms. In any case, the somewhat interesting origins of the Japonic etymon for 'horse' itself are betrayed amply in the various Ryūkyūan dialects with syllabic nasal onsets (Martin 1987:561, 72), though Nakijin lacks any hint of that. In fact, based on the Nakijin item alone, a straightforward connection to (semi-) modern J uma seems at least as possible as a reduction of a borrowed Shuri qNma. We favor the latter, however, as this fits the schema wherein zodiac terms entered Nakijin via Shuri rather than directly from Japanese. That Japanese at the time under consideration here

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[437]It is phonetically [ji:] in modern Nakijin.

[438]This is shown by qi/sii 'stone' and qa/k'aa 'red', both borrowings, though native terms in which h-excrescence was blocked by original length [/qu\si 'mortar'] exist as well.

[439]Unless, of course, the item has been antiqued. This seems unlikely given the un-antiqued qi/sii 'stone', etc.

may itself have had a Nma~uma variation in the term for 'horse' (though the glottal initials in Shuri and Nakijin clearly indicate a vowel initial for the term 'horse'[440] in Ryūkyūan at least) could have had some effect on the Ryūkyūan word forms as well.

Additional evidence for the Shuri-to-Nakijin loan of qma/a can be found by comparing the modern Nakijin form to other items with original um- and un- in initial position. The following is a fairly comprehensive, though not exhaustive, list of such items:

LIST (89): Original um- and un- initial items

Nk form	Sr form	J form	gloss
qma/a	qNma 0	uma	horse
/qmaari\N	qNmarijuN 1	umareru	to be born
qu/nii[441]		uni	sea urchin
quni/i		une	furrow, ridge (in field)
qunaa/zi	qNnazi 0	unagi	eel
qu/mii	qNmi 1	ume	plum
qumi/N	qNnuN 0	umu	to ripen
/ma\a	maasaN 0	umai (?)	dexterousness[442]
/qu\mi(i)	qumi 0	umi	sea

In addition to the items above, which have clear extra-Ryūkyūan cognates, it is necessary to consider the interesting doublet /qmaa~qu/maa 'there' (Sr qNma), a form not found in greater Japonic,[443] which seems to indicate a certain retained sense in Nakijin that a lost vowel underlies occurrences of the semi-exotic glottalized nasal qm- (and, no doubt, qn- as well) initial sequence, as well as perhaps giving evidence of a sound change yet in progress. We shall return to this notion below.

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[440]Orthographic evidence for such is mentioned in Martin (1987:72).

[441]There is a second Nk term, gasii/si~gasi/sa\a , for 'sea urchin'. The second item of the doublet pair parallels Sr gacicaa in the same meaning; there seems to be no ready Sr form akin to Nk qu/nii and J uni.

[442]This item refers to either 'delicious' or 'skillful' in Japanese, and to 'delicious' in Shuri.

[443]There is some speculation that the -ma part of many "place" words in the Ryūkyūs is cognate to the -ma element in words such as Japanese yama 'mountain' and hama 'beach'. Martin (1987:469) lists a proto-meaning for J ma 'space' as '*place (cf. ba)'.

First off, we can dispense with /ma\a 'dextrousness' and maasaN 'delicious', as they both lack a glottal initial, putting in some doubt their etymological connection to J umai, and presumably to the u-initial original form corresponding to that form. The Nk /qu\mi(i) and Sr qumi 'sea' pair as well can be removed from consideration here, as the Nakijin accent and the retained (though uncharacteristically shortened[444]) Sr u in the first syllable confirm underlying first-syllable length for this item.

That said, we are in a position to examine the evidence for initial *u loss (corresponding to the shift in Shuri from #*u to #N) in items such as qma/a. Simply put, for Nakijin, aside from qma/a and /qmaari\N 'to be born', there seem to be few corroborating examples of any such change as a regular thing in Nakijin; five forms, in fact, maintain a qu- initial in preference to the glottalized nasal. This is despite the fact that Shuri has without exception under similar circumstances—when cognates are available—a change from *u to N. Nakijin is either effectively concealing (the relative paucity of evidence makes this easy) a special conditioning environment for *u loss and the concomitant appearance of glottalized nasals that is distinct from the situation found in the maintained qu- items, or it has borrowed items from one of the two potential contact languages. If we choose on the basis of numerical preponderance to suggest that a maintained qu is the regular development for Nakijin, then Shuri is a ready candidate as the source of the now irregular qma/a and /qmaari\N, which is an especially attractive option given the historical circumstances that make a southern Okinawa origin for zodiac terms plausible. Alternatively, we could posit that vowel reduction in Nakijin is the regular course of things, with the qu- items the odd fellows out, and likely to be shaped as they are due to the influence of Japanese. For an item such as Nk qu/nii 'sea urchin', which exists alongside the regional form gasii/si~gasi/c'a\a , invoking a Japanese

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[444]Typically, type C Nakijin items (of which /qu\mi(i) is one) correspond to a long vowel in Shuri forms. That Shuri qumi has a first-syllable vowel at all is remarkable, given the preponderance of evidence in Shuri for a regular change #*u to #N before nasals, so we choose to overlook the fact that it is short.

influence seems reasonable, especially in light of the lack of a Shuri form qNni. A final alternative, and one which we prefer by reason of its acknowledgment of the inherent messiness of language, is that Nakijin is (or at least was) in the process of moving from qum- and qun- initials to qm- and qn-, something that seems plausible in light of the alternation in qu/maa~/qmaa 'there', and that the various forms cited in the list stalled or progressed in that change due to varying influences from outside (or varying degrees of resistance to change due to internal inertia). In this model, Shuri influence on an existing Nakijin tendency (if not outright borrowing of the forms) accounts for qma/a and /qmaari\N, and the maintained qu items either represent (idiosyncratic?) conservatism or some measure of late Japanese influence.

The item hi/c'ii\zi~hic'ii/zi is a strange amalgam of obvious non-Nakijin behavior and perfectly normal native developments. Having patently non-native features identifies the item as a loan, which probably would have been clear given both the history involved and the lack of an independent term for 'sheep' in Nakijin,[445] but having nonetheless a certain measure of native-like features indicates that despite its origins as a loan, it has been a part of the language for a fairly long time.[446] Most obviously, the initial h is aberrant (it should be a ph in this item; h in Nakijin is natively a reflex of *k, or a change from initial q in devoicing environments). In the Shuri correspondent of the term, the initial consonant is hw-, which might seem to indicate that if the item is a loan from Shuri, it should sport an initial bilabial fricative akin to the Shuri initial. In fact it may have, but in Nakijin the sequence hwi is phonotactically inadmissible (Nakijin does have hw, but only in the sequence hwa, and only

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[445]The only other zodiac term missing a "natural" correspondent is 'Dragon', the absence of which we suspect to be related to the non-existence in the real world of the creature in question. Perhaps sheep were equally unreal to medieval Nakijin dwellers.

[446]Some observers (Serafim, personal communication) have commented that the Nakijin-ness of this item is of the obvious sort, and that reworking using commonly perceived Japanese-to-Nakijin correspondences, rather than antiquity, may be sufficient to account for it.

natively as a reflex of *ka following *o[447]), so Shuri hwi would likely have been borrowed into Nakijin as hi. Natively, Nakijin has hi corresponding to qi in devoicing environments and as a reflex of *t,*s, and *k in extreme devoicing environments, but never as a reflex of *p (or as a correspondent of Sr hw or J h). In contrast to the non-native initial, in hi/c'ii\zi~hic'ii/zi the rest of the word has behaved quite unremarkably: the t has lenited and the u fronted, so it has either been around long enough to have participated in these changes or, as mentioned earlier, has been aptly antiqued. The Shuri term hwiçizi is clearly a loan as well, as betrayed mostly by its coincidence of shape with Japanese hituzi, and secondarily by the fact that natural sheep are in Shuri termed meenaa or meenaahwiizaa; the hwiizaa element in this latter is the Shuri term for 'goat', with the meenaa perhaps an onomatopoeia form referencing the bleating of the creatures in question. Nakijin also has the form p'ii/za\a 'goat' corresponding to the Shuri hwiizaa; these are likely the proper Ryūkyūan reflex for the item that yielded J hituzi, though the specific derivation is not entirely clear.

Last, we turn to the items 'Monkey', possibly the most interesting of the zodiac terms in that they are part of doublet pairs in both Nakijin and Shuri. For Nakijin, 'Monkey' is /sa\ru and 'monkey' saa/ru\u; in Shuri, the forms are saru for the zodiac term and saru alternating with saaru for the natural term. OGJ notes that Sr saru is literary while saaru is colloquial, a distinction that seems reasonable in light of the saru shape in Shuri for the zodiac term. If we assume a priori that the natural terms are the ones properly original to both Nakijin and Shuri, then we need to accept underlying length for the original form of the word on the basis of the Nakijin accentuation (recalling, for example, the regular correspondence Nakijin type C accentuation, as in muu/c'i\i 'mochi' with Shuri length as in muucii[448]); the Shuri form

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[447]The sequence hwa is found in a handful of loans as well.

[448]Though clearly related to muu/c'i\i, this item has fairly specialized semantic connotations. See 2.1.4.

saaru,[449] with vowel length in the first syllable, then must be the native form in Shuri, with saru (both the alternate for saaru and the zodiac term) representing either an irregular shortening (possibly under the influence of J saru) or an outright borrowing of the Japanese term. Following this logic, Nk /sa\ru 'Monkey', which reflects underlying first syllable length not seen in the Shuri zodiac term saru represents an irregular remodelling of saa/ru\u on the example of Sr saru (and in turn, J saru), though it retains its proper accentuation. Recalling various observers' notes about the persistence of accent patterns as a system despite the passage of much time and certain system-internal changes,[450] it need not be particularly distressing that Nk /sa\ru should be type C instead of something more melodically akin to the low-register Shuri saru (though Nk type C derives from the low register: see 2.1.4). It is interesting nonetheless that Nk /sa\ru is precisely the shape expected for Sr saaru despite the fact that they belong to different strata of vocabulary; no doubt the occasions of formal similarity and core semantics take precedence over larger issues of semantic classification.

4.2.4 Military and administrative vocabulary

"Military and administrative vocabulary" is our loose title for a category of lexical items that can plausibly be related to either 1) military operations, such as nomenclature for weapons and other military materiel (khabuu/t'u 'helmet', for example) and terms that are not specific to military events but might nonetheless be associated with them (such as qma/a 'horse'), or 2) government and administration, such as ha/t'ai 'charge, [area of official] responsibility'. These are not particularly large groups of items in comparison to the entire body of items considered in this work, due mainly perhaps to a bent on the part of lexicographical reference materials towards non-specialized terms rather than highly

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[449]It is unclear why there is no second syllable length in Shuri saaru; Shuri correspondents of Nakijin type C items of the shape CVV/CV\V do not exhibit much cohesiveness in their shapes (though Nk type C in the shape of /CV\CV(V) is fairly consistent in corresponding to Shuri CVVCV). Note, for example, Nk khaa/sa\a : Sr kasa in contrast to the 'monkey' and 'mochi' examples cited in the text.

[450]See, for example, Hirayama (1968:79).

contextualized specific terms which would properly belong to works with encyclopedic purpose and scope. A second difficulty in dealing with this topic becomes apparent when comparing items in these semantic categories with items of a more general nature: namely, there is never a clear limitation of particular phonological aberrancies to a particular category, and military and administrative vocabulary as distinct strata—if it is even fair to identify such—offer little predictive value and no examples of phonological oddities peculiar to the strata. As confirmation of the aberrant nature of items as identified through phonological criteria alone (i.e., without reference to semantics), use of the military and administrative semantic tags is warranted; having two independent investigations (phonological and semantic) point in the same direction seems to make arguments stronger than just one alone might.

Consider these examples of items we have tagged as belonging to a military and/or administrative stratum of vocabulary in Nakijin:

LIST (90): Military and administrative terms in Nakijin[451]

Nakijin form		**Shuri**	**Japanese**
Military terms			
ju/rui	'armor'	'jurui	yoroi
jumii/nu /jaa	'arrow'	qija	ya
jumi/i	'bow'	'jumi	yumi
c'i/ruu	'bowstring'	çiru	turu
pha/t'aa	'flag'	hata	hata
khat'aa/c'ii	'enemy'	kataci	kataki
phak'aa/maa	'split skirt'	hakama	hakama
khabuu/t'u	'helmet'	kabutu	kabuto
k'u/raa	'saddle'	kura	kura
/jai, /ei	'spear'	'jai	yari
c'uk'aa/t'a\na	'sword'	katana	[hito]katana
qma/a	'horse'	qNma	uma
tha/t'aak'a\N	'to do battle'	tatakajuN	tatakau
Administrative terms			
qi/naa\k'a	'countryside'	qinaka	inaka
/khu\k'u	'rice measure'	-kuku	koku
ha/t'ai	'charge'[452]	qatai	atari

[451]Thorpe has reconstructed no proto-forms for the items on this list.

[452]This term refers to 'charge' in the sense of 'area of official responsibility'.

sat'u/nu\si	'lover'[453]	satunusi	satonusi
jamaa/t'uu	'Japan'	'jamatu	yamato
/haN\gwaqjuu	'dugong'[454]	qakaNgwaaqiju	zyugoN
haa/mii	'turtle'	kaamii	kame
khagaa/mii	'mirror'	kagaN	kagami
/khuu	'merit, credit'	kuu	koo
mi/jaa\k'u	'capital'	mijaku	miyako
k'ura/a	'storehouse'	kura	kura

Many of the items cited above should seem familiar. In particular, those with Nakijin k in unexpected places have been mentioned on several occasions earlier in this work. We shall here consider a few in some detail; the remainder can be assumed to have no particularly interesting features in the way of aberrant phonology.

Nothing very peculiar is found for the first five items on the military list. All have more or less typical Nakijin shapes and nothing in the way of out-of-place consonants. The term jumii/nujaa 'arrow' alone demonstrates a lack of regular alignment with the corresponding Shuri form; however, according to Nakasone, the Nakijin form /jaa occurs only in the context of the attributive jumii/nu 'bow [genitive]' (1983:570). This complex construction seems to attest to the specialized character of the term, though it is not possible at this time to do much with this term beyond so observing. Also worthy of note, not for phonological aberrancy but rather for conservatism, are pha/t'aa 'flag' which is utterly native in its form, and the initial consonant at least of phak'aa/maa 'split skirt'. (We noted in 4.1.2 that Nakijin p is highly resistant to replacement.)

Several of the other items on the list show varying degrees of non-native phonological development. The items khat'aa/c'ii 'enemy', phak'aa/maa 'split skirt', c'uk'aa/t'a\na

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[453]Historically, this term is related to the Japanese items sato 'village' and nusi 'lord'. The Shuri term refers to a noble rank and address form for men of a certain standing in a community. Unlike the gloss for the related term in Nakijin, the Shuri meaning clearly indicates the reason this item has been included in this listing. Related Nakijin terms include sat'u/u (Sr satu) and sat'u/me\e (Sr satumee), both in roughly the same meaning as sat'u/nu\si. All are marked as 'literary' in Nakasone 1983.

[454]Dugong oil was a highly prized commodity at court, and was often part of tax-in-kind requirements of the unified Okinawan kingdom (Sakihara 1987:71). Turtles were regarded similarly.

'sword',[455] and tha/t'aak'a\N 'to fight, contend' all contain an unexpected k segment rather than the h that has been shown to be the regular development of pRk *k before *a. As noted before, however, there are some native-like behaviors in these items as well: vowel lengthening and stretching have occurred as expected, as has medial consonant deaspiration (though the more or less obligatory nature of this last in items besides [very] late borrowings and loosely bounded compounds makes it a less compelling argument than it might otherwise be). In addition to these items with k, qma/a 'horse', which has been discussed elsewhere in its role as a Chinese zodiac term, with the observation that its loss of initial *u may in fact be not typical for Nakijin, and /jai~/ei 'spear', which shows *r loss that may or may not be typical of Nakijin (see 2.2.2.1.7), are also items whose close formal correspondence to Shuri forms hints at at least a reinforcing influence from that dialect.[456]

In the case of khabuu/t'u 'helmet' and k'u/raa 'saddle' (as well as the near-homophonous k'ura/a 'storehouse' from the administrative terms list), we have clearly non-native behaviors. In khabuu/t'u, in addition to the kh in place of the expected h, there is an unreduced medial -buC- sequence. We have noted that for most such segmental sequences, the rule tends towards loss of the high vowel and a degree of assimilation in the resulting consonant sequence, as shown in examples such as qaN/daa 'grease, fat, oil' (pRk *abura, J abura), and perhaps with somewhat greater persuasive impact, maN/t'aa 'eyelid' (J mabuta) with the exact medial sequence (and identical underlying accentuation) as khabuu/t'u. We would expect a form something like haN/t'uu corresponding to J kabuto; it is clear that the item is likely a Japanese loan into both Shuri and (via Shuri) into Nakijin. Similarly, a *kur- sequence natively yields k'(w)- (sometimes -Qk'(w)-) in Nakijin, as in /k'iiru\N 'to give' (J

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[455]Recall that for this item, a Nakijin-internal argument has been advanced as well.

[456]No Shuri form 'ee is found for 'spear', however. The Nakijin ai~ei alternation is encountered in a number of items, though (see 2.2.2.1.9), and its presence here independent of alternating Shuri forms is likely simply confirmation that the item has been in Nakijin for long enough to behave natively in some respects. We are more concerned with the lack of a form ya/rii for 'spear'.

kureru), /k'waN 'to eat' (J kurau), maQ/k'aa 'pillow' (J makura), and maQ/k'u\N 'to roll (up)' (J makuru),[457] so the full vocalization of the u in both k'u/raa 'saddle' and k'ura/a 'storehouse' does rather stand out.[458] In addition, Nk kura/a exists alongside thuN/gaa 'outbuilding, kitchen' (Sr tuNgwa, pRk *taUgura); the medial -ga- of thuN/gaa certainly suggests a voiced version, conditioned by the N, of the expected reflex of a -kur- sequence in Nakijin. On this evidence, kura/a, at least, can be termed a loan.

The terms listed under the administrative category are a similarly mixed lot, some behaving quite natively and others betraying possible extra-Nakijin. The most glaring exceptions to Nakijin native phonological development are those items with k, for which now-familiar arguments can be advanced. We note in particular the item khagaa/mii 'mirror', a culture-bound term in that the investiture of royalty in Japan made reference to mirrors (as well as scepters), and for which Nakasone cites a vaguely literary example sentence.[459] There is, however, little correspondence between Nakijin khagaa/mii and Shuri kagaN, which may indicate that khagaa/mii is either a Japanese borrowing or a borrowing from an omoro form. In addition, a form khaga/N 'glass', marked as "new" by Nakasone (1983:97), seems to closely parallel the Shuri form kagaN 'mirror', though the meanings do not line up well. In contrast, ha/t'ai 'charge', sat'u/nu\si 'lover', /haN\gwaqjuu 'dugong', and haa/mii 'turtle' all demonstrate typical Nakijin developments.

A subcategory of administrative terminology is found in certain religious terms, not surprisingly given the close relationship between religion and governmental operations found in the noro priestess system during the Ryūkyū kingdom period (Kerr 1958:31–2). As this

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[457]However, items such as k'uru/se\N 'black' and k'u/raase\N 'dark' might be cited by way of arguing against the regularity of such a development.

[458]These stand out, that is, unless length in the initial syllable can be reconstructed to account for the unreduced kur sequences.

[459]The actual citation is a proverb-like warning against the dangers of placid, clear waters to unsuspecting children.

system was an outgrowth of the earlier structure of makyo administration, these terms pertain both to pre-unification times and to the unified kingdom; given the antiquity of the concepts, some native behavior for the words referring to it might be expected. We cite here a few:

LIST (91): Religious terms in Nakijin

khami/i 'god'	kami	kami
khamin/c'u 'priestess'	cimi	kami no hito (also kamibito)
niN/c'u 'chief, clan leader'	niQcu	nebito
/nu\ru 'noro priestess'	nuuru	noro

What first is apparent here is that the oft-discussed Nakijin k is at issue again, appearing in the terms for 'god' and 'priestess', despite the presumed relevance of these concepts to early Nakijin society. The existence of Nakijin huk'aa/mi 'god' alongside khami/i may constitute internal evidence for the native retention of k in these items; however, the regularization of forms across related compounded and non-compounded complexes is not an absolute, as shown in examples such as haa/mii 'turtle' and /qu\migaami 'sea turtle'. Otherwise, the oft-invoked influence of Shuri k must be considered for these terms. On the other hand, /nu\ru 'noro priestess' and niN/c'u 'chief' both represent forms with essentially native behavior, including the correct correspondence of Nakijin accent to Shuri length in /nu\ru and nuuru. It is unclear why niN/c'u and niQcu should have developed differently; presumably a Ryūkyūan structure akin to Japanese ne no hito 'root person' underlies both. Possibly the difference simply reflects Shuri Qcu 'person' as distinct from Nakijin /c'uu 'person' (which difference itself is related to the fact that Nakijin does not generally permit word-initial Q or N.[460])

4.2.5 Technological vocabulary

Vocabulary from the domain of technology refers to several diverse areas that can be either directly or indirectly associated with the use of raw materials to create tools and other

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[460]Examples of word-initial N in Nakijin are mostly interjections and onomatopoeia. The question words /N\daa and /N\na, both 'which', are the closest things to normal words in this area, though both have an emotive component (Nakasone 1983:623, 624); there is also the literary N/zo 'lover', which is suspiciously similar to Shuri 'NZo.

complex objects related to domestic, agricultural, military, transportation, and other endeavors. Including both the items thus produced as well as the materials that go into making them, the category as a whole is quite broad, and, frankly, not extremely instructive in ascertaining lexical items that by reason of association with a particular endeavor show themselves to be susceptible to extra-Nakijin influence to any greater degree than items not so associated. That is, taking for example our items demonstrating the Nakijin k-h development problem, we find in these lists items in k exclusively, h exclusively, and a handful that are part of doublets in k and h. "Tendency" is perhaps the strongest word that can be used to qualify any generalized behavior that presents itself.

By way of demonstrating the ultimate futility of taking this semantic categorization as an absolute predictor of —or even as a way to explain—phonological developments, we present the following several small lists of technological items in various areas. Brief discussion follows each section in turn. Items are cited in this and the following lists in the order of Nakijin form, gloss, Shuri form, Japanese form, and pRk form (when available).

LIST (92): Metal Technology

/jai~/ei	'spear'	'jai	yari	
c'uk'aa/t'a\na	'sword'	katana	ittoo	
ha/nii	'metal'	kani	kane	
hat'aa/na	'hatchet'	katana	katana? nata	
ju/rui	'armor'	'jurui	yoroi	
k'u/zii	'nail'	kuzi	kugi	kugi
/k'wee	'hoe'	kwee	kuwa	kuwa
khabuu/t'u	'helmet'	kabutu	kabuto	
khagaa/mii	'mirror'	kagaN	kagami	kagami
khoo/ru	'incense burner'	qukooru	kooro	
khu/gaa\ni[461]	'gold'	kugani	ko-gane < ko+kane	
khu/saa\ri	'chain'	kusai	kusari	
namaa/rii	'lead'	namari	namari	
/pha\i	'needle'	haai	hari	
phasaa/mii	'scissors'	hasaN	hasami	
/phi\raa	'plowshare'	hwiira	hera	pera
uu/nuu	'axe'	'uuN	ono	

[461]Also hu/gaa\ni.

Several items in this list have been seen elsewhere, primarily in our summaries of the military domain. Heretofore undiscussed items of particular interest include khu/saa\ri 'chain', namaa/rii 'lead', and /pha\i 'needle', all of which are associated with an underlying r segment that has developed in opposite directions. In khu/saa\ri and namaa/rii, we have a retained r before high vowel i, in contrast to the general Okinawan dropping of that segment in that environment (recall the discussion in 2.2.2.1.7), while in /pha\i we have r loss. While the reasoning may be tenuous, it is possible that though all three items are plausibly associated with metal technology, nonetheless a domain distinction between a home/domestic milieu for /pha\i and a non-domestic milieu for the other two items can be postulated. The item /pha\i of course has native-like behavior in its ph reflex of initial *p, its development of initial accent from original length, and the loss of r; the other items in their retention of r (note that the environments in all three cases are identical) are remarkable, though the canonical syllable shape contour of Nakijin has been applied. To account for the aberrancy of khu/saa\ri and namaa/rii, however, we must look to disparate sources: Shuri has the expected kusai for 'chain' (with r loss), so the item must be of Japanese origin in Nakijin; Shuri namari, borrowed from Japanese and then passed on to Nakijin, may be the source for that item in Nakijin if indeed the borrowing was not direct.

For khu/saa\ri, however, an alternative explanation may be offered. If, as we have asserted, second-syllable lengthening in Nakijin occurs fairly early, it could be that the loss of r in this item is constrained from occurring due to the prohibition in Nakijin against over-heavy syllables. That is, the development of second-syllable length (which, as we recall, is virtually obligatory for syllables with vowel a) would precede loss of the r, meaning that the behavior of khu/saa\ri is more or less unremarkable. Note that this also explains the discrepancy between the Nakijin form and the Shuri form—in this analysis, both are native, despite the technological domain. (A cursory glance at the Metal list above should readily confirm that a number of the items are native, however.) The idea of pervasive obligatory second-syllable

lengthening blocking loss of r is somewhat undercut, however, by the evidence from verb paradigms offered in 2.2.2.1.7. In any case, even if the khu/saa\ri form is native, a related r-retaining form in Japanese probably exerted a certain influence in reinforcing the shape of the word.

We now turn to the Agricultural technology domain. All things being equal, we should expect mostly native-like behavior from items in this area, and generally, we find such to be the case.

LIST (93): Agricultural Technology

ha/c'ii	'fence'	kaci	kaki	
juza/i	'plow'	quZiNbiira	suki	
/k'we\e	'manure'	kwee	koe	
/k'wee	'hoe'	kwee	kuwa	kuwa
/khuu\ri	'basket, wicker'	-guui	koori	
/phi\raa	'plowshare'	hwiira	hera	pera
/qu\si(i)	'mortar'	quuSi	usu	
thoo/uu	'banana'[462]	naiuu	-o	
/zuu	'ditch'	N(N)zu	mizo	mizo
quni/i	'ridge (in fields)'		une	

Worthy of remark here are two items in particular: /khuu\ri 'basket, wicker' and /k'we\e 'manure'.

The item /khuu\ri is most likely a Japanese loan, since we note that it has an r, while the Shuri form does not.[463] That the item is Sino-Japanese as well (and we have noted the tendency of such to be of Japanese origin when found in Nakijin [2.2.3.2.4]) tends to corroborate this assertion.

For /k'we\e the presumably expected form would be something like /hu\i, which is in fact the form that Nakijin has corresponding to Japanese koe 'voice', or so it seems at first glance. The formal coincidence of Nakijin /k'we\e and Shuri kwee as well makes it perhaps

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[462]This is the term for fruit-bearing banana.

[463]Unless, of course, the r is present to prevent the development of an over-heavy syllable.

reasonable to assume a borrowing relationship. Note, however, the following complex set of correspondences between Nakijin, Shuri, Japanese, and Old Japanese:

LIST (94): Comparison of 'voice' and 'manure'

Nakijin	Shuri	Japanese	Old Japanese	gloss
/hu\i	kwii	koe	kǫwe[y][464]	voice
/k'we\e	kwee	koe	kwoye[y][465]	manure

What we seem to have here is a profound difference in the Ryūkyūan correspondents of OJ ǫ and wo, with, evidently, ǫ being related to k lenition in Nakijin, while wo is not—wo, in other words, seems to be treated a high vowel (compare the evidence from *u, for example). It seems, therefore, that Nakijin /k'we\e might be considered normal in its development despite the temptation to attribute its k (corresponding to Japanese k before o) to Shuri influence. Overall, however, though there are definite hints in the stock of *k words in Nakijin of a correspondence between the development of *k into k when the OJ cognate can be shown to have a wo and the development of *k into h when the OJ cognate has ǫ, the correspondence is not absolute, and the question of doublets still remains. Furthermore, though in the item /k'we\e the connection of k' to kwo seems to hint at a high vowel originally following the k (compare the development of k' from *ku, as in k'umu/u 'cloud' from pRk *kumo), k' is not found for other items in Nakijin that can be connected to OJ kwo (as in Nakijin khu- 'small' and khuu/se\N 'dense' corresponding to [different, but homophonous] OJ kwo-).

Whether or not the correlation of Nakijin k' to OJ k before wo can be called regular, there is a large stock of items in Nakijin clustering about the form /k'we\e: k'wee/hu\k'i 'nightsoil bucket', k'wee/zii 'fertile ground', k'wee/qi\ri 'fertilizing', and even k'wee/bu\t'aa 'fatso'.[466] We note that all of these have k'; there is no hint whatsoever of a Nakijin h in these

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[464]Here ǫ represents a type B (otsu) o.

[465]Here wo represents a type A (kō) o.

[466]The term is a pejorative for an overweight or obese person.

items. Clearly, therefore, it seems that certain Nakijin k corresponding to Japanese k before o represents a normal path of development, albeit one considerably obscured by other factors.

Turning now to Fishing technology, we see a situation that is considerably muddled. Some clearly native items as well as some clear borrowings are found intermixed with a few that are indeterminate:

LIST (95): Fishing Technology

Paraphernalia				
qami/i	'net'	qami	ami	
k'waa/su\N	'to fish'	ciiN	turu	
na/a	'rope'	naa	nawa	
/phu\ni(i)	'boat'	huni	huna/e	pune
Products				
haa/mii	'turtle'	kaamii	kame	
/gai	'crab'	gani	kani	Gani
guN/za	'whale'	guzira	kuzira	guzi'ra
/haN\gwaqjuu	'dugong'	qakaNgwaaqiju	jugon	
kha/c'uu	'bonito'	kacuu	katuo	
khuu/qjuu	'carp'	kuuqiju	koi	
/phiQ\t'u	'dolphin'	hwiitu	iruka	peto
qaa/bi	'abalone'		awabi	
qi/bii	'lobster, shrimp'	qibi	ebi	
qunaa/zi	'eel'	qNnazi	unagi	
/se\e	'crayfish'	See	sarigani	sae
thahu/u	'octopus'	taku	tako	tako

Though many of the items in this list could warrant comment or discussion, none of the thoughts that would be presented would represent anything particularly newly insightful. There is, simply, no particular skewing of the items in this class towards either native or non-native behavior, though we presume that the basic subsistence nature of the act of fishing might tend to favor native items appearing here. On the other hand, the necessity of obtaining certain items (such as dugong and turtle) in connection with tax obligations under the unified Ryūkyūan kingdom, as well as the status of other items as trade goods (abalone, for example: shell objects appear in trade connections very early [Hudson 1999]) might suggest the possibility of external factors in the development of these terms (though in fact, all seem to be of regular development).

Turning now to Construction, we see again, as is likely to be becoming familiar, no particular trends towards native or non-native behavior in the terms in question. It is reasonable to suggest that terms associated with local domestic construction (mostly plant materials, such as bamboo) might skew towards native behavior, while terms reflecting items used in more grandiose structures that are commonly associated with government (such as, perhaps, stone in the context of castle construction) might be more susceptible to non-Nakijin influence.

LIST (96): Construction Technology

da/k'ii	'bamboo'	daki	take	Dake
ha/c'ii	'fence'	kaci	kaki	
haa/ra	'tile'	kaara	kawara	
hic'a/a	'board'	qita, qica	ita	ita
hu/bii	'wall'	kubi	kabe?	
ju/daa	'branch'	juda~jida	eda	jUda
mi/c'ii	'road'	mici	miti	
pha/sii	'bridge'	hasi	hasi	
qanaa/gaa	'pond'	qici	ike	
qi/sii~hi/sii~/sii	'stone'	qisi	isi	i'si
si/zii	'cedar'	Sizi	sugi	
so/o	'(bamboo) pole'	soo	sao	saU
/zuu	'ditch'	N(N)zu	mizo	mizo
gusi/k'uu	'castle'[467]	giSiku	siro	

We shall concentrate mostly here on the terms for 'stone', as this complex of items gives very clear evidence of both native and non-native behavior. The three terms in question are qi/sii, hi/sii, and /sii, all glossed 'stone', with no apparent semantic split. We have discussed elsewhere the phonological processes that brought about the various forms (see 2.2.2.2.6); here we shall mostly reiterate that argument, and allude to the human historical circumstances that brought about the triplet.

The 'stone' triplet consists of three items reflecting three different periods in Nakijin phonological history and different reactions to various influences. Specifically, the /sii alternate is the native form; here a devoiced, unaccented initial syllable has reduced to zero,

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[467]Also Nakijin /si\ru and Shuri siru.

leaving the attested form. In Shuri, however, the form qisi, with an unreduced initial syllable, exists, and in the context of contact between Nakijin speakers and Shuri speakers that was effective following the annexation of Hokuzan to the unified Okinawan (later Ryūkyūan) kingdom, this term was borrowed into Nakijin. As this contact is represented in perhaps its most compelling form in the garrisoning of a Shuri military detachment in Nakijin castle (the Wardens of Hokuzan; see 3.3.5), it follows that the potential for contact-induced changes in terms directly associated with that location might be higher than normal.

Indeed this seems to be the case. As the phonotactics of Nakijin due to certain other processes (reduction of first syllable-length [Shimabukuro 2002:206] following regressive reaspiration and vowel devoicing [2.2.2.2.6]) allow for items of the shape of Shuri qisi, this form was adopted, though regularized in terms of its syllable contour into canonical Nakijin shape (i.e., CVCVV), alongside the native form. The item hi/sii could represent either of two possibilities: the first is that it is a remnant of the regular Nakijin form that preceded /sii (recall hints in similar doublets that this is the case); the second is that it is a Nakijin reworking of the adopted qi/sii, which although phonotactically admissible in a general way nonetheless does not correspond accentually to other items of basic segmental shape $qVC_{[-voice]}VV$ (that is, 'stone' is qV/CVV, while the historically typical pattern for items of this segmental shape is /qV\CVV). Nakijin hi/sii would thus parallel both segmentally and accentually other examples in which Nakijin has developed an excrescent h, such as hu/sii 'cow'[468] (compare Shuri qusi) and hi/c'aa 'squid' (pRk *ika, Shuri qica).

In the terms for 'stone', in short, we have a locus classicus, as it were, for the model of dialect mixture that Nakijin represents. Phonological history and human history intersect and

[468]Note, however, that hu/sii, at least in the context of Chinese zodiac terminology, may represent a loan as well, albeit one that has been aptly made to conform to Nakijin canonical shape (if it is indeed not native).

interweave to yield the current forms, with the triplet status of the terms giving clear evidence of that collusion. Other examples are often not so clear.

We now turn our attention to another area of technology that has fairly clear temporal development and that thus represents a good laboratory for discussing external influence in Nakijin. Specifically, in looking at looms and the paraphernalia associated with them, we can associate particular types of equipment with particular periods of development in the technology. As the technology itself can be traced back quite far[469] but has undergone continual refinement over the intervening hundreds of years, we should expect to find the basic elements of the devices in question to be reflected by lexical items of earlier provenance, while more specialized parts and more refined technology would by implication have at least the possibility of having later terms involved. The following is a list of several terms associated with looms:

LIST (97): Loom technology

pha/t'aa	loom	nunubata	hata
nu/nuu\bat'aa	loom (traditional)	nunubata	nunobata
ziiba/t'aa	loom (low)	nunubata	zibata
thak'aaba/t'aa	loom (upright)	takahata	takabata
qazi/i	warp divider	qazi	aze
/phjaa	warp divider	hjaa	aze
usa/a	batten	'uusa	osa
phudu/c'ii	batten	huduci	osa, hodoki-[470]
p'izi/c'ii	shuttle	hwizici	hi
/k'u\daa[471]	spool	kudaguu	kuda
hasi/i[472]	skein	kasi	kase
haraa/k'ui[473]	winder handle	karakui	karakuri
qmeN/sa	thread winder	meegusa	hatakusa

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[469]Archeology shows the presence of weaving technology in Japan, at least, by the Yayoi period (300 BC to AD 300) (Mikawa Textile Network 2004).

[470]This latter term is a deverbal of Japanese hodoku 'to unsew, unravel'. Japanese osa is the cited translation of phudu/c'ii.

[471]Also k'udaa/gu\u, paralleling the Shuri form. The -guu element is related to Japanese gu 'tool, equipment'.

[472]Also khasi/i.

[473]Also kharaa/k'ui.

The words for looms themselves in Nakijin number four: the first, pha/t'aa is a basic, generalized term that can refer to any of the devices in question without specifying the particular type. Shuri, apparently, lacks an exact correspondent for this term. The item nu/nuu\bat'aa, literally 'cloth loom' as well may be inferred from Nakasone's comments (1987:360) to reflect a general meaning; the corresponding Shuri term is the basic item for loom there. The other two terms, ziiba/t'aa and thak'aaba/t'aa, refer, respectively to "low" looms and "high" looms—note that Shuri has no independent form corresponding to Nakijin ziiba/t'aa, using instead the general nunubata. The "low" loom is older technology and the "high" newer; that Nakijin thak'aaba/t'aa is marked as "new" in Nakasone 1983,[474] and that it has an anomalous k ('high' or 'tall' is Nakijin thaa/se\N) is in keeping with the relative newness of this weaving technology, itself and the word referring to it imports from Japan.

The other items on our list of loom technology items refer to various parts of looms. While there is a high level of correspondence in these items between the Nakijin and Shuri forms, they do not seem to be the result of any sort of loan relationship between the two. If anything, there may be Japanese influence on both dialects in some terms. As historically, the production of cloth was typically the province of women (see 3.3.3.5), and thus part of the domestic domain, that a relatively large number of forms behave natively in the respective dialects is not surprising. It is also worth noting that for more basic loom parts (shuttle, batten, warp divider) there are unique Ryūkyūan terms alongside terms with clear Japanese correlations,[475] while for less basic parts (spool, skein, etc.) there are items with more obvious connections to Japanese analogs. For example, we have the uniquely Ryūkyūan Nakijin phja/a 'warp divider' (Shuri hjaa) alongside qazi/i 'warp divider' (Shuri qazi), which recalls the

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[474]As is takahata in OGJ.

[475]It is unclear whether or not these are Japanese loans. The term usa/a 'batten', for example, with smooth onset, reflects a correct Nakijin correspondent of the OJ wosa that underlies the modern osa. It is unclear why the length in Shuri 'uusa is not reflected by accent in the Nakijin form; we would expect /u\saa rather than the attested item.

Japanese aze; similarly, phudu/c'ii 'batten' and its Shuri correlate huduci exist distinct from usa/a (Shuri 'uusa, both glossed 'batten'[476]); the apparent Japanese cognate of phudu/c'ii, hodoki- (see note), is apparently not used in a specific weaving application. 'Shuttle', with the longer Nakijin p'izi/c'ii (Shuri hwizici) is likewise formally distinct from the Japanese hi in the same meaning. This Japanese-Ryūkyūan distinction in forms probably represents an association of the basic mechanics of weaving with a long-practiced craft while more complex devices are connected with later, imported technology (cf. the takahata 'high loom', which dates from the 1800s, though even the zibata is relatively late in the context of the history we have largely addressed here, dating from the 16th century). Specifically in this latter category we see /k'u\daa 'spool', the hasi/i~khasi/i 'skein' and haraa/k'ui~kharaa/k'ui doublets, which last two pairs in their status as doublets betray the possibility of external influence, as mentioned in several other examples of k alternation with h in Nakijin.

An additional aspect of weaving and cloth technology is the products of such activities and the actions that go with them. We present these in the following list:

LIST (98): Fiber Technology

/bi\Ngat'aa	'screen-dyed cloth'	biNgata	bingata	
tuQ/c'i\ri	'tie-dyed cloth'	tuQciri, 'iiciri	kasuri	
basaa/nu\nu	'banana fiber cloth'	basjaa[nunu]	basyoofu	
c'iN/zu\N	'to spin'	NzuN	tumugu	
/quN	'to weave'	qujuN	oru	
su/miiru\N	'to dye'	sumijuN	someru	
noo/ru\N	'sew'	noojuN	nuu	
nu(u)/nuu	'cloth'	nunu	nuno	
/qi\t'u(u)	'thread'	qiicuu	ito	
/qiQ\c'u	'silk'	qiicu	kinu	
/qu\du	'coverlet'	quudu	futon	udo
c'inu/u	'clothing'	ciN	kinu 'silk'	kinu
/phuu	'sail'	huu	ho	po'
hic'uu/bi	'sash'	quubi	obi	kikiUbi
maa/u(u)	'flax'	maauu	karamusi	
/qa\saa	'flax'	qasa	asa	
u/u	'banana fiber'	'uu	o	
wat'a/a	'cotton'	wata	wata	

[476]However, in Shuri at least, 'uusa refers to a part of the huduci.

The complex of items associated with /qi\t'uu 'thread' and /qiQ\c'u 'silk' has been discussed previously (see 2.2.2.2.2, notes); there we asserted that both semantic splits and phonological evidence pointed clearly to loan phenomena. The remainder of the items cited are largely unremarkable, perhaps in keeping with the mostly domestic nature of this general category.

A number of other areas connected with technology of various sorts can be identified; as the discussion to be offered regarding each will largely echo previous discussions and fail to offer much in the way of additional insight, we present the following lists and reserve comment for later studies.

LIST (99): Maritime Transport Technology

c'ina/a	'rope'	çina	tuna	
na/a	'rope'	naa	nawa	
/phu\ni(i)	'boat'	huni	huna/e	pune
/phuu	'sail'	huu	ho	po'
qee/k'uu	'oar'	qweeku	kai	(U)jako

LIST (100): Decorative Technology

pha/nii	'wing, feather'	hani, hwani	hane, yoku, tubasa
hu/u	'shell'	kuu	koo, koora
kha/zai	'decoration'	kazai	kazari
qaa/bi	'abalone'		awabi

LIST (101): Other (Brewing, Animal Husbandry) Technology

sibu/ru\N	'to squeeze'	sibujuN	siboru	
hic'imu/sii	'animal'[477]	qicimusi[478]		
hu/sii	'cow'	qusi	usi	
mii/du\i	'hen'	miidui	mendori < me+tori	
sa/k'ii	'liquor'	saki	sake	
sa/raa	'bowl'	sara	sara	
si/i	'meat, flesh'	(ma)sisi	niku	si, sisi
wat'a/a	'belly'	'wata	wata	

From the above three lists, kha/zai 'decoration' (2.2.2.1.7, 4.2.1), hu/sii 'cow' (2.2.2.2.6, 4.2.3), mii/du\i 'hen' (2.1.4, 2.2.2.1.7), and si/i 'meat' (2.2.2.2.4, 2.2.2.2.5) have been previously referenced.

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[477]This term is used specifically for domesticated animals.

[478]The Shuri term refers to non-domesticated animals, in some contrast to the Nakijin term of similar shape and origin.

4.2.6 Onomatopoeia, sound symbolism, baby talk, interjections

We have repeatedly alluded to the specialness of onomatopoeia with regard to the generally rare phonemes (as considered in a language-wide sense) that seem to cluster in words of this category. We must note, however, that though the phonemes in question may be indeed not particularly common, there seems to be little ground for calling them exclusive to the category of onomatopoeia. Japanese as well is often characterized as having a "special" phonology for its sound symbolic lexicon. Vance (1987:2, 148) notes concerning this category of vocabulary: "Mimetic morphemes are just as native as those in the native Japanese group but show several phonological differences" among them a possible intensifying infix in /Q/ or /N/, a lack of the sequential voicing found in many (non-sound-symbolic) reduplications, and combinations of mora obstruent /Q/ with phonemes (such as /h/, for example) that are not found in core vocabulary.

Japanese lacks the distinction between glottalization (deaspiration) and aspiration in voiceless consonants that is found in Nakijin, so there is no direct comparison to be made in that particular area of phonology. In addition, that distinction in Nakijin can be found in all parts of the lexicon, though as a general rule the circumstances for the distinction can be adduced historically. Based on these circumstances and comparative evidence from other dialects that lack the distinction, it is fair to call the aspirated version of Nakijin voiceless obstruents the regular form, and to derive the glottalized voiceless obstruents from these, as is the case in recognizing that morpheme-medially all voiceless obstruents are glottalized (2.2.2.2.5), or that historical vowel height (pRk *pe > Nk phi, *pi > p'i, for example; see 2.2.3.2) has led to differences in aspiration. It is when these circumstances cannot be recognized that we have in this study appealed to the notion of sound symbolism—generally as shown by the semantic implications of the lexical items in question—to account for the presence of glottalized voiceless obstruents.

For examples of onomatopoeia, refer to the discussions of aspirated and deaspirated consonant pairs in 2.2.3.2.

4.3 Conclusion

Though to a great extent we have concentrated in the current work on events unfolding several hundred years in the past and have looked in particular at the connections between Nakijin and Shuri, it must be remembered that influences of more recent provenance have occurred as well. Nakijin history did not, after all, cease with the annexation of Hokuzan to Chūzan or any other significant disruptive event. This later history, like many of the earlier events, has left its imprint on the language, sometimes in quite obvious ways, but it seems reasonable to exclude them as initial motivators of change in Nakijin for a couple of reasons. First, the Shuri connection is the oldest, and in a certain way, the most impactful in scale of any of the contacts through history. It was, after all, an event of cataclysmic proportions for independent Hokuzan, the taking over of an independent kingdom by another, accompanied by the large-scale displacement of the local ruling class. Second, later extra-Ryūkyūan influences, such as the arrival of Satsuma forces in 1609 or the Japanese annexation of 1879 would have tended to affect the then-current centers of society and political power on the island, such as Shuri and Naha, rather than more remote population centers such as Nakijin. That the general presence on Okinawa of such influences might have indeed filtered down to Nakijin is likely enough, but the effect would have been reinforced linguistic tendencies already in place (as well as fresh changes), which would stand out insofar as they would be in items not overlapping with Shuri forms. Certainly that Nakasone 1983 is able to identify certain items as "new" points to the inherent obviousness of Japanese influence in particular. Where possible in Chapter 4 we have noted the items of clear Japanese main island bent.

Most surprising in the current study has been the large-scale lack of primacy for semantic conditioning as a factor for outside influence on Nakijin. It has been, in fact, through phonological analysis that most of the oddities of the Nakijin lexicon have been identified in

this study, and while semantic concerns have made it easy to account for certain items, the fact remains that influence was effected far beyond the obvious areas defined by semantic domains that can be connected to the Shuri linguistic presence in Nakijin that accompanied the Shuri military authority group that lived alongside the local population and capital officials present in the region. That is to say, it is clear enough that a word meaning 'helmet' (Nakijin khabuu/t'u) might represent a borrowing due to contact with a military entity, but why borrowing would occur for a basic directional term such as 'this' (cf. Nakijin khaN- 'this way') is not so clear.

Caveats such as this duly entered, we will present by way of conclusion a few examples of the sorts of interdialectal influence we have ascertained, as well as mentioning briefly some areas where additional study is needed.

4.3.1 Obvious lexical loans

In this category are items where a confluence of phonological evidence and semantic evidence points to an extra-Nakijin source for the item, either Shuri or Japanese. We present the short list below with minimal additional comment in order to indicate in general the sorts of words that fall into this category.

LIST (102): Lexical loans in Nakijin

hi/c'ii\zi	hwiçizi	Sheep (zodiac)	hituzi
huk'a/a	huka	other, outside	hoka
jamaa/t'uu	'jamatu	Yamato, Japan	yamato
ju/rui	'jurui	armor	yoroi
jut'aa/k'a	jutaka	rich	yutaka
k'u/raa	kura	saddle	kura
k'ura/a	kura	storehouse	kura
kha/a	kaa	leather, hide	kawa
kha/t'aa\c'i	kataci	shape	katati
kha/zai	kazai	decoration	kazari
khabuu/t'u	kabutu	helmet	kabuto
khagaa/mii	kagaN	mirror	kagami
khat'aa/c'ii	kataci	enemy	kataki
/kho\o	kookoo	filial piety	koo
khoo/ja\k'u	koojaku	salve	kooyaku
khoo/ru	qukooru	incense burner	kooro
/khu\i	kui	love	koi
/khu\k'u	-kuku	rice measure	koku

khu/saa\ri	kusai	chain	kusari
khu/t'uu	kutu	thing	koto
khui/muuk'u\u	kwiimuuku	bridegroom	koimuko
khuju/mii	kujumi	calendar	koyomi l
khuk'u(u)ru/mi\N	tamisjun	to try, test	kokoromiru
khuk'u/c'ii	kukuci	feeling	kokoti
khuk'uu/ru	kukuru	heart, sentiment	kokoro
khumaa/ru\N		to be vexed	komaru
khuN/du	kuNdu	next time	kondo
khunu(u)/mi\N		to plan	konomu
khunuQ/c'i\i	kukunu	nine	kokono[tu]
khut'u/u	kutuu	lute	koto
khut'u/wa\N	kutuwajuN	to refuse	kotowaru
/khuu	kuu	merit, credit	koo
/khuu\ri	-guui	basket, wicker	koori
khuu/su	kuusju	aged sake	kosyu
khuzaa/ra	kuZara	dish	kozara
mak'uu/t'u	makutu	truth	makoto
maQt'oo/ba	maQtooba	straight	massugu
mi/jaa\k'u	mijaku	capital	miyako
midu/rii	kukumui	bud	tubomi
namaa/rii	namari	lead	namari
ni/waa	naa, niwa	garden	niwa
phut'u/k'ii	buçi, hutuki	Buddha	hotoke
qawaa/rii	qawari	pathos	aware
qi/naa\k'a	qinaka	countryside	inaka
qinu/c'ii	nuci, qinuci	life	inoti
qma/a	qNma	horse	uma
/qme\NseN	qmeNSeeN	to be/come/go [honorific]	
/qme\NsooruN	qmeNsjoor-	to be/come/go [honorific]	
/qmo\oruN	moojuN	to be/come/go [honorific]	
sa/k'aa\na	sakana	snacks	sakana
sa/k'uu\ra	sakura	cherry	sakura
sat'u/nu\si	satunusi	lover	
si/k'aa\ra	cikara	strength, power	tikara
siwa/a		wrinkle	siwa
tha/t'aak'a\N	tatakajuN	to fight	tatakau
thak'aa/ra	takara	treasure	takara
thak'aaba/t'aa	takahata	loom (upright)	takabata
thee/hwa	teehwa	joke	
/thiN\t'oo	sura, tiN	sky	sora
ziiba/t'aa	nunubata	loom (low)	zibata

This does not represent an exhaustive listing; refer to the main text for additional examples and discussion.

4.3.2 Likely lexical loans and mixed lexical-phonological loans

This grouping consists of items which have either phonologically interesting features or a semantic association that makes outside influence seem probable. General phonological transference is presumed for those examples where no ready semantic association can be ascertained or where the non-native Nakijin phonological features are not evenly distributed in a particular lexical item, even when a semantic conditioning factor is present.

LIST (103): Lexical-phonological loans in Nakijin

qa/k'aa	qaka	red	aka
kharaa/k'ui	karakui	winder handle	karakuri
khasi/i	kasi	skein (for warp)	kase
hat'aa/k'a	kataka	lee,	kata-
khut'uu/ba	kutuba	words	kotoba
khami/i	kami	god	kami
khamin/c'u	cimi	priestess	*kami no hito, kamibito*
khamu/N~khami/N	kanuN	to eat	kamu
khaN/bi\N	kaNzjuN~kabujuN	to put on	kaburu
khaNna/mii	kaNnai	thunder	kaminari
khu/gaa\ni	kugani	gold	ko-gane < ko+kane
khu/ru(u)su\N	kurusjuN	to kill	korosu
phak'aa/maa	hakama	split skirt	hakama
phasaa/mii	hasaN	scissors	hasami
phasi/raa	haaja	pillar	hasira
phjaa/k'uu	hjaaku, hjaku	hundred	hyaku
qi/sii	qisi	stone	isi
thak'aa/se\N	takasaN	high, tall	takai

Like the previous list, this list is not exhaustive; additional items are found in the various discussions.

4.3.3 Additional research

Additional inquiry into a number of areas could greatly expand the scope and significance of the general task undertaken in this work. Due to the limitations of time and space we have been fairly superficial, for instance, in our treatment of specific processes and activities pertaining to the various populations we have referenced. Our semantic associations for particular categories of activities are as a result somewhat imprecise and impressionistic, (though overall they have a certain level of coherence, it is hoped). In the absence of some forthcoming discovery of references in Nakijin to, say, a stranger from out of town wearing

some strange manner of headgear called a "kabutu" (that is, an overt mention of a locally unfamiliar object and term), we imagine this increase in precision to come from clearer understandings of, for example, the history of military activity, operations, and paraphernalia, castle construction, rice production, and other readily definable activities. We could also pay somewhat greater attention to such basic vocabulary groupings as kinship terms and body parts.

We have also almost completely bypassed in this work issues of syntax and morphology, though this latter was hinted at in discussions of verbs and adjectives and in certain specific subcategories of these areas such as honorifics. The comparatively well-known derivation patterns of honorific verbs in particular and the various verbal affixes in general, if analyzed in terms of their specific manifestations in Nakijin and how they parallel and diverge from Shuri manifestations of the same constructs, presents an exciting possibility for future work. Syntactic phenomena as well, mentioned herein only in the context of a handful of usage examples, will likely provide a rich source of data for future studies.

APPENDIX:

NAKIJIN LEXICON

The Nakijin Lexicon presented here is naturally only a tiny portion of the collected corpus of Nakijin data available today. (Nakasone 1983 lists some 15,000 items.) Database entries have been selected for inclusion on the basis of their usefulness for insight into either phonological or human history, and happily in some cases, both. Specifically, we have seen fit to include Swadesh list items: we have also made mention of all the Nakijin items in Thorpe 1983 and Martin 1987, as these items were clearly of enough import to historical inquiry to be included in those works and thus might inform this inquiry similarly. Words suggested by topics from the cultural, economic, and political history of Nakijin (as well as Okinawa and the Ryūkyūs in general)—in other words, items whose semantics betray the potential for culturally rather than linguistically motivated factors in change or retention processes—have been added to complete the database, with specific suggestions culled from Kerr 1958, Sakihara 1987, and in personal communications from Leon Serafim.

It should also be mentioned that in discussions of Nakijin language history and phonological development, many items have been cited in the text of this study that do not appear in the database. In general these are examples taken directly from the entries of Nakasone 1983 or from the discussions of the phonological features of Nakijin appended to that collection.

For a complete database of the Nakijin dialect, as well several other Ryūkyūan dialects, NHOD and its sibling sites are an invaluable resource.

Each item listed is cited with the following information, subject to availability and relevance: modern Nakijin form, modern Shuri form, proto-Ryūkyūan form, gloss, modern Japanese form, and any other pertinent information or discussion of issues pertaining to the item.

Nakijin form	Shuri	pRk	gloss	Japanese
basaa/nu\nu	basjaa[nunu]		banana fiber cloth	basyoofu
/bi\Ngat'aa	biNgata		screen-dyed cloth	bingata
-/bu\t'aa	butasaN	buta-	stout, thick	futoi, buta 'pig' (?)
Cf. Nk phisaa/bu\t'aa 'thick-legged person', k'wee/bu\t'aa 'chubby, fat'. Note also k'wee/ru\N 'get fat'.				
/c'aa	caa, qica		how	ika-
Note split between ika 'squid' > hic'aa, while ika 'how' > c'aa. Note as well the Sr doublet.				
/c'anu	ziru	ezu(ro)	which	dore
-c'ara	-kara		because	kara
Nk also has khara (from S), per Nakasone (1983:107): "The khara used currently can be considered to be a 'kara' that came in from Shuri/Naha unchanged."				
/c'eesu\N	cjaasjuN	kijasi	to extinguish	kesu
/c'i\ju(u)	çiju		dew	tuyu
c'i/bii	çibi	tube	buttocks	siri
c'i/mii	çimi		claw, (finger)nail,	tume
c'i/N	cijuN	kiri	to cut	kiru
c'i/rii	ciri	ki, kire~kiro	fog	kiri
c'i/rii	ciri		rubbish	tiri
c'i/ruu	çiru		bowstring	turu
c'i/zii	çizi	tuzi	top	ue
c'i/zuN	çizjuN	tugi-	to pour	tugu
/c'ii	cii	ti	blood	ti
-c'iiwa		time	kiwa	
c'imu/u	cimu	kimo	liver, heart	kimo 'liver'
Here 'heart' refers to 'center of emotions'.				
/c'iN\si	(kata)çiNsi		knee	tubusi
c'iN/bu	çiburu		head	tuburi
Etymology of this item problematic throughout the Ryūkyūs. Related to J tuburi.				
c'iN/zu\N	çiNzuN		to spin	tumugu
c'ina/a çina		rope	tuna	
Also S çinanaa < tuna + nawa				
c'inu/u	ciN	kinu	clothing	kinu
c'inu/u	çinu	tuno	horn	tuno
c'iri/ru\N	cirijuN		to be sharp	kireru
c'uk'aa/t'a\na	katana		sword	ittoo
See also HATCHET.				
c'uN/p'e\e	çiNpee	tu(to)Npa(i)	saliva, spit	tuba
Thorpe (1983:323): many problems associated with the reconstruction of this word.				
/c'uu	Qcju		person	hito
c'uu/se\N	cjuusaN	ti(j)U-	strong	tuyoi
cha/a	cjaa	t'ja	tea	tya
Also Nk sa/a.				
/da\a	maa		where	doko
Nakasone (1987:219) sources this as < qiduma.				
da/k'ii	daki	Dake	bamboo	take
/diiru\N	NdijuN	nure	to get wet	nureru
Form in Thorpe (diiN) is wrong.				
duru/u	duru	doro	mud	doro

Nakijin form	Shuri	pRk	gloss	Japanese
/gai	gani	Gani	crab	kani
garaa/si	garaSi	gara'su	crow	karasu
/gu\bu	kuubu		lump, wen	kobu
Also Nk /gu\p'u~guQ/p'u\i				
gu/maa\gui	gumagwii		small voice	kogoe
Note 'voice' element in g, cf. Nk gu/na\gui, /huu\gui.				
gumaa/se\N	gumasaN	goma-	small	tiisai
guN/za	guzira	guzi'ra	whale	kuzira
gusaa/ni	guusjaN	gosjani	stick, staff	tsue
/ha\gi(i)	kaagi, kazi	kage', kaga'-	shade, reflection	kage
/ha\mi(i)	kaami		bottle	kame
/ha\zi(i)	kazi		number	kazu
ha/a	kaa	kawa	skin, bark	kawa
See also 'leather, hide'				
ha/bii	kabi		paper	kami
ha/c'ii	kaci		fence	kaki
ha/ci(i)se\N	açisaN	atu-	thick	atu
/haa	qaka		red	aka
Note also doublets ha/k'aa, qa/k'aa with identical semantics.				
ha/k'uu\bi	qakubi		yawn	akubi
ha/miN	kaZa sjuN		to smell	kagu
ha/nii	kani		metal	kane
ha/siibi\N	qaSibuN	asUbi	to play	asobu
ha/t'aa	-kata		side	kata
ha/t'ai	qatai		charge	atari
Also occurs as suffix in Sr, also as -tai. Examples of official titles, cf. OGJ,126: koosakuqatai 農事係, 'jamatai 山林係 (Nk jamaa/t'a\i), hanatai 接待係, kuratai 倉庫係. The Sr definition of this word makes clear association with the royal office.				
ha/zaa	kaZa	kaza	odor	nioi
Also S niwi, considered "elegant speech" (OGJ). The Nk term has negative connotations; a pleasing odor in Nk is ha/baa.				
ha/zii	kazi	ka'ze	wind	kaze
/haa	kaa		well (<river)	kawa
/haa\ra	kaara	kawara	river	kawara
haa/bu\i	kaabujaa		bat	koomori
haa/mii	kaamii		turtle	kame
The length in the Sr item is perplexing here.				
haa/ra	kaara		tile	kawara
haa/ru\N	kakajuN		to hang	kakaru
Also Nk khak'aa/ru\N				
hac'a/a	qacja	asita	tomorrow	asita, asu
hac'u/N	kacuN		to scratch	kaku
Note Nk compound haraa/zigacii 'scratch through hair'.				
hac'u/N	kacuN		to write	kaku
haci/se\N	açisaN	atu-	hot	atui
hami/N	kanaasjuN		to bite	kamu
Nakasone 1985:414 notes that hamiN does not carry the meaning of 'eat', while parallel form khami/N, khamu/N, as a shizokugo (lit., 'samurai clan word', a form of keigo or teineigo) does carry this meaning.				

Nakijin form	Shuri	pRk	gloss	Japanese
/haN\gwaqjuu	qakaNgwaaqiju		dugong	jugon
	Dugong oil was a highly prized commodity at court, and was often part of tax-in-kind requirements of the unified Okinawan kingdom.			
haN/bi\N	kaNzuN		to cover [trans]	kaburu
	Also Nk kaN/bi\N (112). According to Nakasone, the choice of haNbiN vs. kaNbiN hinges on the preceding lexical item.			
haN/za	kaNda	kazura	vine	
hap'ee/ra\a	qahwiraa, qawhiru		duck	ahiru
haraa/k'ui	karakui		winder handle	karakuri
	Also Nk karaa/k'ui			
haraa/zi	karazi	karazu	head hair	kami
hasa/a	kasa		bamboo hat	kasa
hasi/i	kaSi		dregs	kasu
	Also Nk khasi/i.			
hasi/i	qasi		foot, leg	asi
hasi/i	qasi	ase	sweat	ase
hasi/i~kasi/i	kasi		skein (for warp)	kase
hat'a/a	kata		shoulder	kata
hat'aa-	kata-		single	kata
hat'aa/k'a	kataka		leewind	?kata-XX
	Also found as Nk hat'aQ/k'a and/or hat'aN/k'a. Note in addition hat'aa/ha 'guarded, shut-off place'.			
hat'aa/na	katana		hatchet	katana
hi/c'aa	qica~qika	ika	squid	ika
hi/c'ii	qiçi		when	itu
hi/c'ii\zi	meenaahwiizaa		sheep	hituzi
hi/c'ii\zi	hwiçizi,		sheep (zodiac)	hituzi
hi/c'uN	cicuN	kiki	to hear	kiku
	Also Nk si/cuN.			
hi/c'uN, si/c'uN			to stab	tuku
hic'a/a	qita, qica	ita	board	ita
hic'i/c'u\N	qicicuN		to live	ikiru
hic'imu/sii	qicimusi		animal (domestic)	
hic'iQ/c'i\i	içiçi	itutu	five	itutu
hic'u/N, sic'u/N			to adhere	tuku
hic'uu/bi	quubi	kikiUbi	sash	obi
hik'ee/ra\seN	qikirasaN		few	sukunai
/hoo\zi	koozi		malt	koozi
/hu\bu	kubu~kuubaa	kobu	spider	kumo
	Sr kubu is a literary term; kuubaa is accent (0).			
/hu\gaa	kuuga	koga	egg	(tama)go
	Thorpe: "The OJ cognate of this word was ko (kwo) 'egg'. The suffix *ga is a diminutive." (1983:282)			
/hu\i	kwii	ko(w)e'	voice	koe
/hu\k'i	wuuki	woke	bucket	oke
hu/bii	kubi		wall	kabe?
hu/k'aabi\N	qukabuN		to float	ukabu
	Also Nk hu/cuN and Sr qucuN.			
hu/maa	kuma		here	ko-[ko]

Nakijin form	Shuri	pRk	gloss	Japanese
hu/rii	kuri	kore	this (near 1st p.)	kore
hu/sii	qusi		cow	usi
hu/sii	qusi		cow (Ch. Zodiac)	usi
hu/sii	kusi	kosi	waist, hips	kosi
hu/sii, husa/a	kusi, kusjaa	Usiro	behind, rear	usiro
Nk has no clear correspondent to pRk *Usiro.				
hu/suN	qusjuN		to push	osu
hu/t'aa	quta		song	uta
hu/t'aaru\N	utajuN	Utawai, Uta si	to sing	utau
Also Nk hut'aa /suN lit., 'do songs'.				
hu/t'uu	utu	U'to	sound	oto
hu/u	kuu		flour	ko(na)
hu/u	kuu		shell	koo, koora
huk'a/a	huka		other, outside	hoka
A transparent Japanese loan in both Sr and Nk.				
huk'i/ru\N	ukijuN	uke	to receive	ukeru
huk'i/ru\N	ukijuN	oke	to rise	okiru
humaa/ru\N	kumajuN		to stay, be cloistered	komoru
Also Nk k'umu/ru\N.				
humi/i	kumi		rice	kome
humu/i	kumui		marsh	numa
/hunu	kunu		this (attributive)	kono
hup'aa/se\N	kuhwasaN	kowa-~koQpa-	hard	kooru
Also Sr kuhwajuN 'to harden, congeal, freeze'.				
hup'i(i)/se\N	uhusaN, ufisaN	UQpo-, UQpe-	big, many, much	ooi 'many, much'
huQ/t'uu	uQtu	ototo	younger sibling	otooto
husaa/zi	qusazi		rabbit	usagi
Chinese zodiac term is Nk qu/u.				
husu/usuu		father	titi	
The hu of the Nk form is the honorific prefix.				
hut'i/ru\N	utijuN	Ute	to fall	otiru
hut'uu/ba	kutuba		words	kotoba
Lawrence 1990 mentions k'ut'uu/ba.				
huu/ru\N	kuuiN		to beg, pray	ko(F)u
huzu/N	kuuzjuN	kogi	to row	kogi-
huzu/u	kuZu	kozjo	last year	kozo
-hwa		direction	kata	
Used only in reference to Chinese zodiac-derived cardinal direction indicators, cf. nii/nu\hwa 'north', qmaa/nu\hwa 'south'.				
/hwaa\i			hill	
Limited to Aza Oyadomari (hamlet of Nakijin).				
hwaa/ma			oven	
Also Nk huk'aa/ma, wahaa/ma 'god of fire'				
hwaara/k'ii			heartburn	muneyake
/hwaasu\N			to cross	koeru
ik'i/gaa	wikiga	weke	male, man	
ik'i/gaN\gwa	jiNga	weNga	boy	
Also Nk ik'iga/nuQ\k'wa(a).				
ik'ii/gasi\zaa	'wikii	wekeri	brother	

Nakijin form	Shuri	pRk	gloss	Japanese
inaa/guu	winagu	wona(go)	woman, female	
/ja\maa	karakui		gin	wana
Nakasone records a general meaning of 'machine', with a secondary meaning of 'trap', specifically for birds.				
ja/c'uN	jacjuN	jaki	to burn	yaku
ja/i, e/i			next year	
Nk e/i is phonetically [jei]				
ja/naase\N	'janasaN	jana(ge)	bad (< ugly)	
/jaa\c'i	'jaaçi		eight	yattu
/jai, /ei	'jai		spear	yari
jama/a	'jama		mountain	yama
Primary meaning of the Nk term is 'mountain', in contrast to many other Ryūkyūan dialects.				
jamaa/t'uu	'jamatu		Yamato, Japan	yamato
jaN/mee	'jaNmee, 'jami		illness	yamai
joo/se\N	joosaN	jUwa-	weak	yowai
/ju\bi(i)	juubi	jUbe	last night	yuube
/ju\nu	jinu-, jiN	jUno	same	
ju/c'ii	'juci		hail (<snow)	yuki
Nakasone 1983 and OGJ both appeal to the fact that due to the lack of snow in the Ryūkyūs, the Sr and Nk cognates of NJ yuki usually refer to 'hail'.				
ju/daa	juda~jida	jUda	branch	eda
ju/guusu\N	kizjuN	kegi	to adulterate	kegasu
ju/hwaa			floor	yuka
Does the Nk form imply pRk *joka?				
ju/rui	'jurui		armor	yoroi
ju/u	juu	jU	hot water	yu
judaa/ja(a)mu\si	namimusi		slug	namekuzi
juhu/mi\N	jukujuN	jokowi	to rest	yoko
juhu/ru\N	'juku(teejuN)		to lie	yoko
juhwaa/gii			sundown	yuu+kage
juhwaa/su\N			to make rest	yasumaseru
Connection to /hwaasu\N 'to cross'?				
jumi/i '	jumi		bow	yumi
jumi/N	'junuN		to count	yomu
Also Sr kaZuujuN. Main listing is related to J 'to read'.				
jumii/nujaa	qija		arrow	ya
Also Nk phrase: jumi/nu /jaa.				
ju/N	'iijuN	je	to get	eru
/juN 'ijuN	wiri	to sit	oru~iru	
juru(u)/bii			holiday, Sunday	yurumi
juru/u	juru	jUru	night, evening	yoru
jut'aa/k'a	jutaka		rich	yutaka
jut'aa/se\N	'jutasjaN		good	yoi
Also Nk ma/siise\N.				
/juu\c'i	'juuçi		four	yottu
juza/i	quZiNbiira		plow	suki
The Sr term is listed as ⟩archaic⟨ (Shimabukuro et al 1963:575).				

Nakijin form	Shuri	pRk	gloss	Japanese
/k'iiru\N	kwijuN	kure	to give	kureru
This verb in Nk covers all the meanings of J kureru, ageru, yaru, ataeru.				
k'oo/ri\N	kuurijuN		to break	kowareru
Also Sr kuusjuN, Nk k'oo/su\N. Note also Nk /k'oori\N, 'be destroyed, ruined by breaking'				
/k'u\daa	kudaguu		spool for shuttle	kuda
Also Nk k'udaa/gu\u.				
k'u/bii	kubi	kubi	neck, head	kubi
k'u/raa	kura		saddle	kura
k'u/ruubi\N	kurubuN		to stumble	korobu
k'u/zii	kuzi	kugi	nail	kugi
k'ugee/ru\N	kurubuN		to roll, turn	korogeru
Also Nk khuruuzuN, S quQkurubuN.				
k'umu/u	kumu	kumo	cloud	kumo
/k'uNbi\N	kuNzjuN	kubiri	to tie	musubu, tuku
k'ura/a	kura		storehouse	kura
k'uru/maa	kuruma		cart	kuruma
k'uru/se\N	kurusaN	kuro-	black	kuro-
Also Nk k'u/raase\N 'dark'. The kur sequence is odd in both items. Expect kkw < kur?				
/k'waa qkwa	kuwa	child	ko	
Per Nakasone 1983:142, /k'waa < J kora				
k'waa/su\N	ciiN		to fish	turu
/k'we\e	kwee		manure	koe
/k'wee	kwee	kuwa	hoe	kuwa
kha/a	kaa		leather, hide	kawa
kha/c'uu	kacuu		bonito	katuo
kha/t'aa\c'i	kataci		shape	katati
kha/zai	kazai		decoration	kazari
khaa/sa\a	kasa		sore, lesion	kasa
Also Nk doublet form /kha\saa.				
khabuu/t'u	kabutu		helmet	kabuto
khagaa/mii	kagaN	kagami	mirror	kagami
khami/i	kami		god	kami
khamin/c'u	cimi		priestess	kami no hito
Also Nk hamiN/c'u. But which is primary? The Nakasone definition for the k variant seems the more complete entry.				
khamu/N	kanuN		to eat	kamu
Also Nk khami/N.				
khaN-	kaN		this way	koo
Nk doublet pair w/ khaN, hai (same meaning).				
khaN/bi\N	kaNzjuN	kaburi	to put on	kaburu
Also Sr kabujuN, Nk haN/bi\N.				
khaNna/mii	kaNnai	kaminari	thunder	kaminari
khat'aa/c'ii	kataci		enemy	kataki
khi/buu\si	kibusi, cimuri		smoke	kem/bu-(ri)
khi/i	kii	ke	tree	ki
khi/N			to kick	keru
khi/zii	kizi	kezu	wound	kizu
khi/ziiru\N		kezuri	to scrape, cut	kezuru

Nakijin form	Shuri	pRk	gloss	Japanese
/khii	kii	ke'	hair	ke
khinu/u	cinuu	kino(w)U	yesterday	kinou
Also Nk khiN/nu**u**.				
/kho\o	kookoo		filial piety	koo
khoo/ja\k'u	koojaku		salve	kooyaku
Also Nk hik'igusui, S çikigusui (<tuke + kusuri).				
khoo/ru	qukooru		incense burner	kooro
/khu\i	kui		love	koi
/khu\k'u	-kuku		rice measure	koku
/khu\u	cjuu	keU	today	kyoo<kefu
khu/c'ii	kuci	kuti	mouth	kuti
khu/gaa\ni	kugani		gold	ko-gane < ko+kane
Nk doublet form hu/gaa\ni.				
khu/ru(u)su\N	kurusjuN		to kill	korosu
khu/saa\bi	kusabi		wedge	kusabi
khu/saa\ri	kusai		chain	kusari
khu/t'uu	kutu		thing	koto
khubu/u	kuubu		seaweed	konbu, kobu
khugaa/ri\N	kugarisjuN		to burn (w/ passion)	koikogareru
Also Nk khugaara/su\N				
khui/muuk'u\u	kwiimuuku		beloved bridegroom	koimuko
khuju/mii	kujumi		calendar	koyomi
khuk'u(u)ru/mi\N	tamisjun		to try, test	kokoromiru
Sr tamisjun is related to J tamesu.				
khuk'u/c'ii	kukuci		feeling	kokoti
khuk'uu/ru	kukuru		heart, sentiment	kokoro
khumaa/ru\N			to be vexed	komaru
khuN/du	kuNdu		next time, this time	kondo
khunu(u)/mi\N			to plan	konomu
khunuQ/c'i\i	kukunu		nine	kokono[tu]
Also Nk khunu/c'i\i, /khu\nu.				
khusa/a	kusa	kusa	grass	kusa
khusaa/ri\N	kusarijuN		to rot, be rotten	kusaru
khusi/i	kusi, sabaci		comb	kusi
khusu/i	kusui	kuso'ri	medicine	kusuri
khut'u/u	kutuu		lute	koto
khut'u/wa\N	kutuwajuN		to refuse	kotowaru
Also Nk nominal form khut'u/wai (J kotowari) 'refusal'				
/khuu	kuu		merit, credit	koo
/khuu\ri	-guui		basket, wicker	koori
Sr form only attested in 'janaziguui 'willow basket'.				
/khuu\ri-	kuuri		freeze, ice	kooru
Seems to be a very modern word. The only Nakijin term with this element is /khuu\ri, /khuu\rizaat'aa, meaning 'crystallized sugar'. OGJ notes that the meaning of 'ice' for this word is new.				
khuu/qjuu	kuuqiju		carp	koi
khuu/su	kuusju		aged sake	kosyu
/khuuse\N	katasaN		dense	koi

Nakijin form	Shuri	pRk	gloss	Japanese
khuzaa/ra	kuZara		dish	kozara
Note 'small' in ko- rather than gumaa-.				
/ma\c'i(i)	(naN)maçi		pine	matu
/ma\su	maasju	masio	salt	shio
ma/gaaru\N	magajuN	magari	to turn	magaru
maa/u(u)	maauu		flax	karamusi
mac'ii/gi	maçigi	matuge	eyelash	matuge
mac'u/N	macjuN	mati	to wait	matu
magi/se\N	magisaN	Umage-	huge	
maju/u	maju(gii)	majU	eyebrow	mayu
mak'uu/t'u	makutu		truth	makoto
maN/c'u\N	mazijuN,	maziri~ mazire	to mix	maziru
Also Sr maNcjuN (vi), maNkijuN (vt), and mazirijuN.				
maN/t'aa	miigaa		eyelid	mabuta
maQ/k'aa	maQkwa		pillow	makura
maQt'oo/ba	maQtooba		straight	massugu
Also Nk mat'oo/zi, maQ/su\gu, maQt'oo/ba, mat'oo/ba; Sr maQSiigu, maQtooba.				
maru/se\N	marusaN	maro-	round	marui
/me\e	mee	mae	front	mae
/mee	mee		rice seedling	ine, ina-
/mi\i	mii		full	ippai
mi/c'ii	mici		road	miti
mi/i	mii	me	eye	me
mi/jaa\k'u	mijaku		capital	miyako
mi/zii	miZi	mezu	water	mizu
mic'a/a	Ncja	mita	earth	
midu/rii	kukumui	kukomori	bud	tubomi
Also c'i/buu\mi; no cognate to pRk *kukomori, *kuki ('stalk').				
/mii	mii	mi	fruit	mi
Modern meaning is 'substance, contents' for both Nk and S, as well as the original root meaning.				
/mii\c'i	miiçi		three	mittu
Also S mii, Nk /mii				
mii/du\i	miidui		hen	mendori < me+tori
/miise\N	miisaN	mii-	new	nii-
mimi(i)/za	mimizi	memezu	earthworm	mimizu
mimi/i	mimi		ear	mimi
misaa/c'ii	misaci		cape	misaki
mju/N	nuuN		to see	miru
/mo\o	moo		moor	no
Secondary meaning in Nk in 'hill'.				
/mu\hu(u)	muuku	moko	bridegroom, son-in-law	muko
mu/raa	mura		village	mura
mu/ruu	muru		all	moro-
mu/sii	musi	mUsi	worm, creature	musi
muc'u/N	mucuN	moti	to hold, take	motsu
/mui	mui		mountain, hill	mori 'forest'
/muiru\N	meejuN	mUje	to burn [intrans]	moeru
muk'aa/si	Nkasi		long ago	mukasi

Nakijin form	Shuri	pRk	gloss	Japanese
muk'aa/zi	Nkazi		centipede	mukade
munuma/t'aa\seN			correct, right	tadasi-
Sr form is maQtooba, qaciraka.				
/musu	musiru	mUsiro	mat	musiro
/muu\c'i	muuçi	muutu	six	muttu
muu/c'i\i	muci, muucii		mochi	moti
Note also Sr muucii, a festival (OGJ 398).				
muzi/i	muzi		barley	mugi
/na\haa	na[a]ka		inside	naka
na/a	naa		rope 2	nawa
na/c'ii	naçi		summer	natu
na/c'uN	nacjuN	naki	to cry, cry out	naku
na/i	nai		fruit	nari
/naa	naa		name	na
/naa	naa	Ura	you	anata, kimi, temae
nada/a	nada		open sea	nada
nagaa/ri\N	nagarijuN		to flow	nagareru
nagaa/se\N	nagasaN	naga-	long	nagai
nagi/ru\N	nagijuN		to throw	nageru
namaa/ri\N	namarijuN		to be(come) dull	namaru
namaa/rii	namari		lead	namari
namaa/sii	namaSi		sashimi	namasu
nami/i	nami		wave	nami
naN/beerak'a(a)su\N		nabiru-	smooth	nameraka
Sr form is naNdurusaN.				
nanaQ/c'i\i	nanaçi		seven	nana(tu)
nasaa/k'i	nasaki		sympathy	nasake
Also S sinasaki				
nasii/bi	naasibi		eggplant	nasu[bi]
Interesting length in first syllable of S form				
nee/nu	neeN, neeraN		(to) not be	nai
/ni\i	nii	ne	root	ne
ni/guu\t'u	nigutu		nonsense	negoto
ni/sii	nisi	nisi	north	nisi
ni/waa, /mjaa	naa, niwa		garden	niwa
Nk /mjaa is defined (Nakasone 1987:545) as a 'courtyard'.				
/nii	Nni~Nniguci		breast, chest	mune
nii/se\N	nibu-	nebu-	slow, late, dull	nibui
-/nija\a	niija		priestly dwelling	neya
niN/c'u	niQcu		chief, clan leader, priest	nebito
/niNbi\N	niNzuN	neburi	to sleep	neru
noo/ru\N	noojuN		sew	nuu
/nu\mi(i)	numi		flea	nomi
/nu\ru	nuuru		noro priestess	noro
/nu\u	nuu		what	nani, izure
nu(u)/nuu	nunu		cloth	nuno
nu/buuru\N	nubujuN	nobori	to climb	noboru
Also Nk na/buuru\N.				
nu/nuu\bat'aa	nunubata		loom (traditional)	nunobata

Nakijin form	Shuri	pRk	gloss	Japanese
nudi/i	nuudii	nodo	throat	nodo
nugu/ru\N	nugujuN	nogawi	to wipe	fuku, nuguu
Also pRk *nogowi				
nuk'a/a	nuka		rice bran	nuka
nuk'u/se\N	nukusaN	nuku-	warm	nukui
numi/N	nunuN	nomi	to drink	nomu
/nuN	nijuN	ni-	to boil	niru
nuzu/N	nuzjuN	nugi	to pull out	nugu
p'i/i	hwii	pi	fire	hi
p'i/i	hwii	pe	flatus	he
p'i/ruu	hwii, hwiru	pi, piru	day, noon	hiru
p'i/zii	hwizi	pige	beard	hige
p'i/zii	hwizigee	pizi	elbow	hizi
Also Nk /k'aa\p'izi.				
p'ii/za\a	hwiizaa		goat	yagi
p'iruu/se\N	hwirusaN	piro-	wide	hiroi
p'iza/i	hwizjai	pida'ri	left	hidari
Also Nk p'ize/i, p'ize/e.				
p'izi/c'ii	hwizici		shuttle	hi
p'ju/N	hwijuN	piri	to be dry	hiru
/pha\i	haai		needle	hari
pha/a	haa		tooth	ha
pha/buu	hwiibu	pebu, pabu	snake	habu
Also Sr hwiibaa, haba.				
pha/huu	haku		box	hako
pha/k'aa	haka		grave	haka
pha/N	hajuN	pari	to go along, run, flow	hasiru?
pha/naa	hana	pa'na	nose	hana
pha/nii	hani	pane	feather	hane
pha/nii	hani, hwani		wing	hane, yoku, tubasa
pha/sii	hasi		bridge	hasi
pha/sii	hazisi		edge	hasi
pha/t'aa	hata		flag	hata
pha/t'aa	nunubata		loom	hata
pha/zii\mi	hazimi		start	hazime
/phaa	hwaa	pa'	leaf	ha
phaa/ru\N,	hakaru		to measure	hakaru
Also Nk phak'aa/ru\N.				
phac'u/N	hacuN		to vomit	haku
Also S qagijuN, Nk qa/giiru\N.				
phagoo/se\N	(ha)goosaN	kajU	dirty (<itchy)	kayui(?)
Also Nk phugoo/se\N.				
phak'aa/maa	hakama		hakama, split skirt	hakama
phana/a	hana	pana	flower	hana
/phaNsu\N	haZijuN	pazuri	to take off	hazusu
phare/e	butubutuu		pork fat	
pharu/u	haru		field	hata
phasaa/mii	hasaN		scissors	hasami

Nakijin form	Shuri	pRk	gloss	Japanese
phasi/raa	haaja	parira	pillar	hasira
	Thorpe: "The occasional appearance of reflexes of fasira (OJ) in the Ryūkyūs are... to be considered loanwords." (1983:316). The Nk reflex of *parira is /pha\'jaa. (The form phasi/raa cited in Martin 1987 is not found in Nakasone 1983.)			
phat'aa/k'i	hataki	patake	dry field	hatake
phat'aa/mu\N	nunubata		loom (weaving tool)	hata+mono
/phee	hwee	pai	ashes	hai
/phee	hwee		fly	hae
phee/se\N	hweesaN	paja-	early, fast	hayai
/phi\raa	hwiira	pera	plowshare	hera
/phi\ri	hwiri		edge	heri
phi/c'ai			forehead	hitai
	Nk Alternate forms in phi/c'ee, phi/c'ei			
phi/c'uN	hwicuN		to pull	hiku
phi/ruu	hwiru	peru	garlic	ninniku
phi/saa	hwisja	pisa	knee, leg, foot	hiza
phic'a/i	hwicai		light	hikari
phic'aa/ru\N	hwicjajuN	pikari	to glitter	hikaru
	Also Nk phik'aa/ru\N, not a natural form in Nk, and most likely an antiqued styling of J hikaru.			
phii/se\N	hwiisaN	pejesi-	cold	hiyasi
/phiN\gu	hwiNgu	peNgo	soot, kettle soot, filth	heguro
phini/gi\N	hwiNgijuN	peNge	to run away	
/phiQ\t'u	hwiitu	peto	dolphin	iruka
phisi/se\N	hwiSisaN	pisu-~pesu-	thin	usui
	Also S hwiQsaN and Nk /p'iQ\seN.			
/phjaa	hjaa		warp divider	aze
phjaa/k'uu	hjaaku, hjaku		hundred	hyaku
	Also literary S mumu, mumu-, Nk /hja\ku			
phoo/c'ii	hooci		broom	hooki
/phu\c'i	huuçibaa	putu'	mugwort	yomogi
/phu\ni(i)	huni	pune	boat	hune
/phu\ni(i)	huni	pone	bone	hone
phu/gui	hugui		scrotum	huguri
phu/juu	huju		winter	huyu
	There are Nk variants in p'u/juu (Nakasone 1987:495).			
phu/k'ui	hukui		dust	hokori
phu/N	hujuN		to dig	horu
phu/sii	husi	posi	star	hosi
phu/suu	husu	poso	navel	heso
phuc'u/N	hucuN		to blow	fuku
phudi/i	hudii	potero~poderi	lightning	inazuma
phudu/c'ii	huduci		batten	osa
phuk'aa/se\N	hukasaN	puka-	deep	fukai
phuk'uu/ru	hukuru		bag	hukuro
/phuQk'i\N	huQkwijuN	pukori~pukure	to swell	hareru
phuru/se\N	hurusaN	puru-	old	furui
phut'u/k'ii	buçi, hutuki		Buddha	hotoke
/phuu	huu	po'	sail	ho

Nakijin form	Shuri	pRk	gloss	Japanese
/qa\mu	qaN	amU	mother	ama
/qa\saa	qasa		flax	asa
qa/gaa\mi	waQtaa		we	ware(ware), wa
According to Nakasone qa/gaa\mi < wagami.				
qa/mii	qami		candy, sweets	ame
qa/reN	qarajuN		to wash	arau
qa/rii	qari, quri		he	are, kore
qaa/bi			abalone	awabi
qadu/u	qadu	ado	heel	ado, kakato
/qai	ai~ajaa	ari	ant	ari
qami/i	qami		net	ami
qami/i	qami	ame	rain	ame
qaN/daa	qaNda	abura	grease, fat, oil	abura
qanaa/gaa	qici		pond (sub lake)	ike
/qaQ\c'uN	qaQcjuN	ariki	to walk	aruku
qari/t'a\a	quQtaa		they	karera
qawa/a	qawa		millet	awa
qawa/a, qa/a			foam	awa
qawaa/rii	qawari		pathos	aware
qawaaqi/ruu	ciiru		yellow	kiiro, ki
Also Nk /hu\gaaqiru.				
qazi/i	qazi		warp divider	aze
qee/cu\N	qwiicjuN	UjUki	to move	ugoku
qee/k'uu	qweeku	(U)jako	oar	kai
qee/zaa	qeeza	aFida	interval	aida
/qi\c'i(i)	qiici	iki	breath	iki
/qi\t'u(u)	qiicuu		thread	ito
qi/bii	qibi		lobster, shrimp	ebi
qi/N	qiN		dog zodiac	inu
qi/naa\k'a	qinaka		countryside	inaka
Has connotation of 'not the capital'.				
/sii	qisi	i'si	stone	isi
Also Nk qi/sii, hi/sii.				
qi/waa	qiwa		(large) rock	iwa
qibaa/se\N	sibasaN	seba-	narrow	semai
Also Nk sibaa/se\N.				
qimi/i	qimi		dream	yume
qiN/c'a\seN	qiNcasaN		short	mijikai
qiN/nu\k'waa	qiN	inu	dog	inu
Thorpe: "Yon[amine] ha[s] *nokuwa '[associative]' and 'child', in a form that must have meant 'pup' originally." (1983:279). Distinct from qi/N 'Dog [zodiac]'.				
qinu/c'ii	nuci, qinuci		life	inoti
Nk has alternate form nu/cii, but makes no distinction regarding usage, unlike Sr.				
/qiQ\c'u	qiicu		silk	kinu
Also Nk /qi\t'u, /qi\c'u; Sr qitu.				
qira/a	qiiraa	era	jellyfish	kurage
Thorpe: cognate with Japanese dialect form ira. Also S qiraa.				
qiri/c'ii	qirici	irike, iriko	scales	uroko, fuke
qiru/u	qiru		color	iro

Nakijin form	Shuri	pRk	gloss	Japanese
qizi/ru\N	qNzijuN	ide	to go out	deru
/qjuN	qjuN		to say	iu
/qjuu	qiju	ijU	fish	uo
qma/a	qNma		horse	uma
qmaa/ga	qNmaga	Uma(ga)	grandchild	mago
/qme\NseN	qmeNSeeN		to be/come/go [honorific]	
Honorific. Also Sr meNseeN.				
/qme\NsooruN	qmeNsjoor-		to be/come/go [honorific]	
Honorific. Sr citation is a conjugated form of qmeNSeeN.				
qmee/si	qNmeesi		chopstick	hasi
qmeN/sa	meegusa		thread winder	hatakusa
/qmjoo\dui			interval	
A dependent structure, attached to verbs to indicate 'time while...'.				
/qmo\oruN	moojuN		to be/come/go [honorific]	
qoo/ru\u	qooruu	aU	green, blue	ao
qoo/zi	qoozi		fan	oogi
/qu\du	quudu	udo	coverlet	futon
/qu\k'u(u)	quuku		interior	oku
/qu\mi(i)	qumi	Umi'	sea	umi
/qu\si(i)	quuSi		mortar	usu
qu/bu(u)se\N	qNbusaN	Ubu-	heavy	omoi
qu/i	qui		melon	uri
qu/maa	quNma		there	soko
qu/rii	quri		that (near 2nd p.)	sore, (are?)
qu/ziiru\N	quzijuN		to fear	oziru
qudi/i	qudi	Ude	arm	ude
/qui	qwii		above	ue
qui/bi	'iibi	UjUbe	finger	yubi
qui/ru\N	'wiijuN	wejUri	to be sick, nauseated	you
qui/zu\N	qwiizjuN	UjUgi	to swim	oyogu
/quiru\N	qwiijuN	Uwe	to plant	ueru
quja/a	uja	Uja	parent	oya
qumi/N	umujuN	Umowi	to think	omou
qumu/u	qNmu		sweet potato	(satuma)imo
Types of sweet potato in Nk: quraN/da\a (yellow-fleshed sweet potato), aka quraN/daqu\mu), k'u/raaga\a (yellow-fleshed high-grade; origin in Yomitan-mura Kuragaa), thumaik'u/ru\u (similar no doubt to the corresponding S item; no explanation give in Nakasone), hak'aa/gu\u (aka qak'aa/gu\u, a yellow-fleshed sweet potato also used for flour), hu/si(i)nusubeequ\mu (yellow-fleshed, hopefully not in reference to husii nu subee, 'cow urine'). Types of sweet potato in S: qakaguu (yellow-fleshed sweet potato), isiguuqNmu (hard sweet potato, boiled and made into flour), kuragaa (a high-grade sweet potato), tumaikuruu (light purple-fleshed sweet potato), quraNdaaqNmu (yellow-fleshed high grade sweet potato).				
/quN ujuN	Uri	to sell	uru	
/quN	qujuN		to weave	oru
qunaa/zi	qNnazi		eel	unagi
quni/i	quni		demon	oni
qura/a	qura		back, revers	ura

Nakijin form	Shuri	pRk	gloss	Japanese
quri/zi\N	haru, hwaru		spring	haru

Sr hwaru is archaic for haru (Shimabukuro 1963:227). S haru itself is a literary term without much colloquial use due to the lack of much seasonal distinction in the Ryūkyūs (Shimabukuro 1963:208). Note also literary S quriziN (0), Naha quruziN; these refer to the time when barley ears come out.

/qwa\a	qwaa	Uwa	pig	buta
/qwa\asi	qwaaQsi		pork	butaniku

Also Nk /qwa\Nsi. Also S qwaasisi.

/qwaa\bi	qwaabi		surface	uwabe
sa/k'aa\na	sakana		snacks	sakana 'snack'
sa/k'ii	saki		liquor	sake
sa/k'uu\ra	sakura		cherry	sakura

A clear loan in both Sr and Nk.

sa/nii	tani	tane	seed	tane
sa/raa	sara		bowl	sara
saa/ru\u	saaru, saru		monkey	saru
sahu/i	saQkwii	sijaQkowi	cough	seki
sak'i/ru\N	sakijuN	sake	to split	sakeru
sasu/N	sasjuN		to stab	sasu

Also Nk k'uN/su\N, sasi/k'u\rusuN.

sat'u/nu\si	satunusi		lover	

Also Sr 'wacizituu 'village chief' and satumee and satu. All except satunusi are marked as literary; Sr term has 'husband' as a secondary meaning. Also Nk sat'u/me\e, roughly the same meaning. Nk sat'u/u is purely a term of endearment as well; all are marked as literary in Nk.

/se\e	See	sae	crayfish	sarigani
/si\baa, suba/a	Siba	suba	lip, tongue	tuba
/si\N	siN		thousand	sen
/si\si(i)	SiiSi		soot	susu
/si\zaa	SiiZa	suizija	elder (sibling)	
si/c'aa	sica	sita	down, below	sita
si/c'uN	SicuN	kaze	plow (v)	suku
si/gaa\t'a	Sigata		form	sugata

An accent doublet with Nk sigaa/t'aa.

si/i	(ma)sisi	si, sisi	meat, flesh	niku

Thorpe: "Only Oku (Okinawa) and Yonamine clearly reflect unreduplicated *si, but the first syllable length in many reduplicated forms indicates a contemporary *sii < *si." (1983:287). Also Nk sisi/i. The prefix pRk *ma means 'real, in a strict sense. (287)

si/i	Sii	su	nest	su
si/k'aa\ra	cikara	ti'kara	strength, power	tikara

Thorpe (1983:336) gives Nk form as cikaara.

si/N	SijuN	suri, kosuri	to rub	suru, kosuru
si/naa	Sina		sand	suna
si/naa	juni, juna-	jUne, jUna-	sand, grains	suna
si/nuN	sinuN	to die	sinu	
si/p'uuru\N	SipujuN		to suck	suu

Also S suujuN and Nk /suuru\N

si/ruu\si	sirusi	si'rosi	mark, sign	sirusi
si/zii	Sizi		cedar	sugi

Nakijin form	Shuri	pRk	gloss	Japanese
sibu/ru\N	sibujuN		to squeeze	siboru
Also Nk subu/ru\N.				
sibu/se\N	sibusaN	sibu-	astringent	sibu-
sic'a/a	sica		tongue 2	sita
sic'aa/se\N	cicasaN	tika-	near	tikai
Also Nk hic'aa/se\N				
sic'i/i	çici~çicjuu	tuki(jU), tukojU	moon	tuki
Also Nk t'oot'oomee.				
sidaa/se\N	SidasaN	sudasi-	cool	suzusi-
side/e	Sidai		screen	sudare
/sii	sii, hwisi	se, pise	shoal	se
sik'a/a '	'wii	jUe	handle	e
No Nk form etymologically related to S 'wii.				
sik'oo/ru\N	cukujuN	tukuri~tukori	to make	tukuru
The second syllable is interesting: *-kur- should yield -kkw- (?). Note also Nk si/k'ooru\N 'prepare'.				
sima/a	sima		island	sima
-siN	sijuN		know	siru
Not used as an independent word in Nk, cf. wahaa/ru\N.				
sini/i	Sini	sune	leg, shank	sune
siQ/t'a\N	siputajuN	siQpotari	to get soaked, be wet	simeru, nureru
Also Nk hiQ/t'a\N and Sr siQtajuN.				
siraa/mi	siraN	sirami	louse	sirami
siru(u)/se\N	sirusaN	siro-	white	siroi
sit'i/mi\t'i	sutumiti	sutomete	morning	asa
siwa/a		wrinkle	siwa	
sizi(i)/ru\N	SizijuN~SirijuN	sugi	to pass	sugiru
sizii/k'a	sizika		quiet	sizuka
so/o	soo	saU	(bamboo) pole	sao
su/baa	suba		buckwheat	soba
su/baa	suba	soba	side	soba
su/k'uu	suku		bottom, depths	soko
su/k'uu	saku, suku		swamp	sawa
su/miiru\N	sumijuN		to dye	someru
su/N	cuuN		to come	kuru
sut'u/u	sutu	soto	outside	soto
suu/ra(a)\seN	cjurasaN		beautiful	kiyoi
/t'aa\c'i	taaçi	pu'taatu	two	futatu
Also Nk t'ee.				
t'aQ-			[intensifying prefix]	
There is a cluster of items around this term, mostly with core meanings hit/throw/cut/kill: t'aQ/t'u\baasuN 'cut off', t'aQ/k'a\raasuN 'suddenly reverse', t'aQ/k'u\ruusuN 'beat to death' (J tatakikorosu), t'aQ/k'wee 'eat [imperative]', t'aQ/c'iN 'to cut forcefully' (J tatakikiru), t'aQ/t'u 'gradually, increasingly' (also thaQ/t'a).				
taa/qu\i			rice planting	taue
tha/a	taa	ta	paddy	ta
tha/bii	tabi		journey	tabi
tha/ruu	taa	ta, taro	who	ta

Nakijin form	Shuri	pRk	gloss	Japanese
tha/t'aak'a\N	tatakajuN		to fight	tatakau
This is noted as "new" in Nakasone (1987:229)				
thac'u/N	tacuN		to stand	tatu
thahu/u	taku	tako	octopus	tako
thak'aa/ra	takara		treasure	takara
thaa/se\N	takasaN	taka-	high, tall	takai
Also Nk thak'aa/se\N, a loan.				
thak'aaba/t'aa	takahata		loom (upright)	takabata
Marked as "new" in Nakasone 1983.				
thaN/naa	taaNna	mina	shell, snail	
Also Sr siruNna.				
thanu/mii	tanumi		request	tanomi
that'aa/cu\N	tatacuN		to hit	tataku
thee/hwa	teehwa		joke	
/thi\daa	tiida	teda	sun	hi
thi/i	tii	te	hand, arm	te
thi/N	tijuN	teri	to shine	teru
/thiN\t'oo	sura, tiN		sky	sora
The t[h]iN element in both Nk and S is related to SJ ten (天). Nakasone (1987:300) asserts that Nk thiNt'oo < 天道 [tendoo].				
thoo/uu	naiuu		banana (fruit-bearing)	~o
thu/hwaa			tenth day	tooka
thu/muu	tumu		with	to, tomo
thu/N		to take	toru	
thu/nai	tunai		neighbor	tonari
thu/zii	tuzi	tozi	wife	tuma
/thui	tui	tori	bird	tori
thuN/gaa	tuNgwa	taUgura	outbuilding, kitchen	togura
thuQ/c'i\ri	'iiciri, tuQciri		tie-dyed cloth	kasuri
Deverbal from tuQcijuN 'to tie [and] dye'.				
thusi/i	tusi	tosi	year	tosi
/thuu	tuu, zuu		ten	too
thuu/ru\N			to pass	
thuu/se\N	tuusaN		far	tooi
u/t'uu, uQ/t'uu	wutu	woQto	husband	otto
u/u	'uu		banana fiber	o
ubaa/ma\a	'ubamaa	woba	aunt	oba
uQ/t'i\i	wuQtii	wototoi	day before yesterday	ototoi
uu/nuu	'uuN		axe	ono
wa/reN	'warajuN		to laugh	warau
waci/i	waci	waki	flank	waki
wahaa/se\N	wakasaN	waka-	young	wakai
wanu/u	waN	wanu	I	wa[ga.../re]
/waQsi\N	waSijuN	wasure	to forget	wasureru
waraa/bi\i	warabi	warabe	children	warabe
waraa/bii	'warabi		bracken	warabi
waraa/binaa	'warabinaa		nickname	warabe+na
wat'a/a	'wata		belly	wata
wat'a/a	wata		cotton	wata

Nakijin form		Shuri	pRk	gloss	Japanese
zaa/se\N		NzjasaN	niga-	bitter	nigai
zi/rii		niziri	nigi(re)	right (direction)	migi
	Also pRk *migi(ri).				
/zii		Nzi	nige	thorn	toge
	Thorpe: if this word is cognate with OJ nogi, then a puzzling vowel correspondence is involved (1983:340). Nakasone 1983:246 derives the Nk item from (OJ? NJ?) nogi.				
ziiba/t'aa		nunubata		loom (low)	zibata
/zuu		N(N)zu	mizo	ditch	mizo
/zuu	zuu	zu(wo)	tail	sippo, o	

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