# Mapping of the Frontier: Correlating representations of Tangsa-Nocte villages in early British survey maps with modern GIS data

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***Abstract***

*From the 1870s until well into the 20th century, the Offices of the Surveyor General of British India oversaw a number of expeditions into the northeastern stretches of what is today the India-Myanmar border. These expeditions resulted in a number of maps and written records of the villages that dotted the Patkai mountain range between the Brahmaputra and Chindwin Rivers. This paper looks at those records in an effort to recreate a part of the history of the people who inhabit many of these same villages today, as well as how those records may be made available to researchers and community members to solidify the place in the historical record of those groups being documented.*



## Introduction

This paper provides an overview of the history of mapping the Upper Patkai, in particular the region Southeast of Margherita, Assam, and Northwest of Singkaling Hkamti, Myanmar. This area is home to a number of communities categorised as Naga under the Scheduled Tribes, but which in Arunachal Pradesh have varying degrees of recognition as Tangsa, Nocte, Ollo (Laju) and Tutsa, among others. While the primary focus of this paper is on these communities in Changlang and Tirap district, it may also be extended to many of their neighbours who are also represented in these early maps and written accounts.

The purpose in writing this paper is to help secure the place of these communities in the long-term historical record. Lacking a written tradition and thus a native historical account of their own, many such communities may be subject to marginalisation and the questioning of the legitimacy of their current residence. With this in mind, this paper has been written in hopes to strengthen the prominence of the Tangsa communities in the historical records of the North-East.

There is considerable value in being able to match the oral histories of migrations from the mountains deep in the Patkai to the villages now found in places like Miao Circle and around Singkaling Hkamti. Modern maps of Sagaing Region published by organisations such as the Myanmar Information Management Unit are beneficial as maps of the region today, but often maps such as these or those published by official channels in the Burmese government often over-write the local cultures with Burmese variations of place names and no clear indication of tribal or clan-based affiliations. By assessing Colonial-period records, an additional resource is available for plotting migrations and we may better reconstruct the geographies of Tangsa-Nocte people for the past century and a half.

The group here referred to as Tangsa-Nocte is a large cross-categorical collection of language communities speaking a number of related Tibeto-Burman language varieties. They reside in both India and Myanmar, and are labeled and subdivided in different ways depending on the country and district in which they are living. In India, this group includes Nocte, Ollo (Laju) and Tutsa speakers, as well as Tangsa, which itself includes a number of variable subdivisions including Rangpang, Heimi, and Yawngkon. The label Tangsa-Nocte here is used simply as shorthand for a linguistic group and is not meant to reflect any specific political grouping.

## Historical Maps

For as long as there had been a colonial presence in India, efforts were made by the Office of the Surveyor General and related parties to survey and map the frontier. Early on, what was considered the frontier hardly extended past Guwahati if that, and in many cases mythical features such as Lake Chiamay still appeared on maps until almost the 19th century (Pearson 2018). However, with each publication, improvements were made and what constituted the frontier was pushed further north. These sections provide a brief overview of this history or surveys and map-making.

### 18th century

In the final years of the 18th century, the British forces made their first visit to Assam, reaching as far as Sivasagar (then called Rangpur) which was the seat of the Ahom capital. In 1793, Thomas Wood, the Surveyor for this expedition, spend most of his time in lower Assam, and wrote regarding his perceived failure to do much surveying:

"I am sorry it has not been in my power to obtain any general information respecting the geography of Assam or of the bordering countries, as might naturally have been effected from a person sent up here for that purpose, and I regret the circumstance the more, as the natives are by no means averse to make any communications in their power." (Phillimore 1945)

Indeed little was documented at this time beyond the location of Guwahati. Captain Welsh, the commander of the expedition, did make it as far as Sivasagar, but it does not appear that they took their surveyor with them.

This would be the first expedition into Assam, but for three decades another was not attempted when the First Anglo-Burmese War began in 1824. It would not be until later in the 19th century that map of the Upper Patkai would begin to be made.

### 19th century

Prior to the end of the 19th century, few expeditions went further north than Kohima, and of the areas on the way to Pangsau Pass there was almost no information.

Griffith in 1837 crossed the Patkai through Mungre land and the Joglei villages then to Muishaung over the Patkai. Jenkins follows this route and extends it further. This Muishaung village is probably Phung.



While surveys in lower Assam and the Brahmaputra valley had continued to improve, the situation was quite different in the Patkai range. By 1875, survey teams had not yet reached what is today Changlang District. In a map published in 1875 but initially surveyed five years earlier, not a single village is marked that can be clearly identified to a modern Tangsa-Nocte sub-tribe (Thuillier 1875). The mapping of the area around Margherita is just too sparse, and the scale is not quite fine enough.

These changes in a series of maps published in 1878 titled Part of Naga Tribes country, eastern Bengal & Assam, sheet no. 141. That year, Sir Henry Edward Landor Thuillier retired as Surveyor General of India and was succeeded by James Thomas Walker, under whose direction the maps of the Tangsa-Nocte areas improved considerably. Surveyed in the winter of 1873-1874, this 1878 map is one of the oldest maps if not the oldest which shows villages matching identifiable Tangsa sub-tribes.

Coming out at around the same time was a series of maps covering the whole of Assam, published in 1881 and relying on much of the same survey data. Both of these series show only a handful of villages in their original version, notably Lungphi, Taipo, Yogli and Watto which is believed to have been a Tikhak village at the time. A later edition published in 1906 improves on this point considerably, showing quite a few more village locations, but still not a considerable amount. Nokja and Laju are shown in the Ollo region, along with Hasak, Bor Yogli and Lungphi (Walker 1881).

In 1891 we find some of the earliest recorded village locations on the Burmese side of the border. While there is no topographical data given on the eastern side of the border, the number of villages is more substantial, and the locations of major rivers in the area help narrow down modern-day locations (Thuillier 1891).

Peal (1881) makes mention that the Patkai, upon seeing the range himself from a Tikhak village, was not at all what he expected based on the government-produced maps, but instead was wide and undulating.

In his record of the journey from the area that is now Margherita up into the Pangsau area, Peal, accompanied by a number of Tikhaks, encounters a group of Nagas from the Burmese side of the border, who are described as being dressed differently from his guides, as well as lacking tattoos or the same type of ornament. Most interestingly he makes it clear that their language is different and so it is hard to communicate with them, but that they practiced human sacrifice. It seems likely then that these men belonged to one of the sub-tribes which we would today call Tangsa.

Manmao is described as a small Hkamti village by Peal, so likely to be different from Lungphi. Peal's 1879 travel notes mention passing through several Muishaung villages.

## Early 20th century

After the retirement of H. R. Thuiller, the second Thuiller to hold the position of Surveyor General and son of the previous Thuiller, brought little improvement to the maps of this area. Under Burrard, there was one map marking of a village as "Maoshong" (today's Muishaung) in a location that is likely to be the site of a village marked elsewhere as Phung. This village figures prominently in the Muishaung flood story, as one of two villages to which people fled during the flood and from which they then migrated after the waters receded. This same village appears with the Maoshong label on an earlier map from 1893 as well and is surely the source of the data produced in the 1910 map. It's really not until Charles Ryder became the Surveyor General in 1919 that the data in this region began to improve.

Around this time, the maps being produced suddenly have a drastic increase in the details provided, as the result of continued surveys into the area. More villages are represented and named, with routes given between them. The first series of maps printed under Ryder show not only a great deal more detail in terms of villages, but are also the first maps to more accurately represent the terrain. The late-19th century topographical maps were approximations and were often only good enough to be able to locate the larger valleys. This is significant as it also offers the first real record of villages moving, being abandoned, changing hands between different sub-tribes, or being established anew.

As an example, in the valley which forms the source of the Namchik River as seen on map 83M, an area that has historically been settled by Muishaung and Lungphi clans, on the 1919 maps, a village is shown right on the national border labelled Kamki. This village is also seen on a slightly earlier map, published in 1915. However, by the 1930 reprint of the same map, this village is no longer to be seen, and a number of other villages have appeared in this same valley.

In the 1920s, the detail once again takes a considerable leap forward, as the old scales were doubled, and what was once map 83M was split into four quadrants. The same area valley was shown at greater scale on sheet 83M/SE as published in 1927, with individual tributaries of the Namchik River being named. The 1920s marks the period after which the surveyed land is shown at its highest detail. While a number of errors are to be found in the maps from the 20s and 30s, a point to be remarked upon by the following generations is that the majority of surveyed areas are true to the geography as analysed by modern-day satellite imagery.

The 1920s maps also make another significant change: the inclusion of sub-tribe names on the maps. Prior to this period, village names were given, but no effort was made to distinguish one"Naga" group from another. But under Tandy's leadership, this changed, and larger area labels were now seen. These include Namsang, Ponthai (Phong), Lungchang, Angran (Rera), Yogli (Joglei), Moklum (Muklom), Mossang (Muishaung), Kato (Khuto), Tikk and Yongkuk. A number of individual villages outside the areas otherwise marked were also provided with some additional information, such as the village of Honju was being marked as a Yongkuk village, or the village of Telim located east of Manmao given an additional name of Tonglum, both variants of Cholim, the subtribe to be found residing there.

Writing about his time during the second world war, Peter Steyn states that "Ordinance survey maps of the border region were generally inaccurate, out of date, and of little use". (Steyn 1959)

Indeed by the 1940s the maps had been made often relied on surveys which happened decades prior, and many of the routes and village names were no longer accurate. Even the series of maps published in the 1950s by the Unites States Army Corps of Engineers include warnings about their unreliability due to factors such as earthquakes and floods from years before their publication; in particular, the magnitude 8.6 earthquake which struck in 1950 in what is today Arunachal Pradesh and resulted in just over 1,500 deaths, the worst earthquake recorded globally that year.

Beyond issues such as shifting terrain as a result of natural disasters, a number of the later maps often showed rivers, valleys or mountain ridges in places where none actually exist. In many cases, we have clear records of the routes taken by surveyors as well as those who came after, and these tended to follow the usual mountain paths used by the villagers themselves. However, in a number of cases, it is clear that areas of the maps were drawn based not on having actually been in the place in question, but rather based on some educated guesses from other vantage points.

## Digitization & Modernisation of the data

In order to make the data recorded in these maps and in the corresponding survey notes, the information collected on these maps has been undergoing a process of digitisation. The process for making this happen involves a number of steps which need not be addressed here, but the final goal is to have all of the labels as shown on the old maps entered into a database and matched up with the real-world location based on latitude and longitude. In many of the British survey maps, locations are approximate, and while the general shapes of the mountain ridge and paths of rivers are sufficiently accurate to work out locations, many of the actual locations of these villages differ slightly from where they were represented. Surveyors regularly adjusted their records of locations as they were better able to narrow down more accurately the latitude and longitude readings. Today, with satellite imagery and computer-generated digital elevation models, we are able to much more accurately determine the locations being described in maps which are now a century old.

There is an additional problem that throughout the historical record, spellings have been mostly inconsistent. These are often based on the interpretation by the surveyor of unfamiliar sounds in unfamiliar languages. There is also considerable variety as to what word is used for various features of the terrain. Rivers may be labeled as “Hka”, from Singpho/Kachin, or as “Yu” from Tangsa varieties. This too can be valuable as it tells us more about the linguistic makeup of a given area, even in cases where sub-tribes and dialect groups were not documented by the surveyors more explicitly. Thanks to ongoing research on the languages and dialects of this area, we have a much clearer picture of how all these variant names line up with each other, thanks in part to the unintentional documentation of the linguistic landscape in place names and terms for geographical features. By collecting all of this data in a single database, the data points in each map can be cross-referenced with corresponding data from other maps, and a single representation throughout time is able to be shown.

Another limitation is the lack of available maps. A considerable number of survey maps are easily accessible as scanned images from various academic and state libraries. However, some are only available through restricted access or by travelling in person to view collections such as those housed at the British Library. Over time, more maps have become available, but there are still many which are known to have existed at one point, but which have not been able to be included in the current project yet.



For the maps which have been able to be collected, digitisation of the map data is an ongoing process. Much of the work involves working out the proper locations of villages in less accessible areas along the survey routes and correlating these to the oral histories. It is a time-consuming process at each step. An early version has been created in order to gather feedback from the communities shown in order to ensure that the location of now-abandoned villages has been represented accurately. This has been done through Phonemica, an online platform for crowd-sourced documentation of language diversity and oral histories. Through this platform, we are able to create an interactive map showing the locations of villages throughout the past century in a way that allows for the display of all of the various names they may have been known by.

Collation and digitisation of the historical maps are planned to be improved to a significant degree over the coming years as more maps are collected and more interviews can be conducted regarding migration histories, and it is hoped that by summer of 2019 the initial digitisation will be complete, after which point improvements can be made based on the oral histories as they continue to be collected.

## Conclusion

Early survey maps of the India-Myanmar border provide a valuable record of the people and history of a region often missed in official histories. With the help of these colonial-era records, legitimacy of place can be ensured for often-marginalised communities who may face difficulties today. Moreover, they provide a written account to corroborate oral histories of cultures who themselves may lack written traditions, helping to better establish the place of such groups in the historical record.

While early records can be problematic, as the early surveyors were restricted in their technology, thus limiting their ability to accurately document the topography, and thus may also have misplaced the locations of a number of settlements from the time, these records still provide a significant first step toward documenting the geography of the Tangsa-Nocte communities in the past century. Through combining historical maps with modern Geographic Information Systems Technology like satellite-based digital elevation models of the region, we are able to correlate the historical maps’ depictions of the region with the actual mountains and valleys deep in the Patkai range. From this, when combined with oral histories, detailed migration routes may be determined. Through this project, the place of these clans and sub-tribes may be better fortified in the historical record and in doing so their rich history may be more accurately reflected.

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# Monasticism: A symbolic representation of religion among the Khamtis

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**Abstract**

*The Khamtis are one of the Tai Buddhist tribes mainly concentrated in Lohit district of Arunachal Pradesh. They are also found in Tirap district of Arunachal Pradesh and in low concentrations in the districts of Lakhimpur and Dibrugarh in Assam.*

*The Khamtis are pure Buddhists. They profess the Therawada sect of Buddhism. They in fact brought their Buddhism from Burma. The Khamti priests (Chau-mun) are men of great importance, and their influence is greater than that of the entire Khamti society. No undertaking is commenced without consulting them.*

*Every Khamti village has a Vihara, which they call Kyong or chang, and which is prominent among the houses of the village by its height and its Burmese style roofs. One cannot think of a Khamti village without a Vihara and a Bikkhu. Many of the ceremonies and festivals of the Buddhist cults are performed in the Vihara itself. The Vihara plays an important role in the life of the people. The Buddhist monastic order or Sangha probably originated as a sect of Paribhajaka community differing from others in accepting Buddha as their master and in accepting his dharma as their teachings.*

*Although monasticism forms the core institution of Buddhism, it was not of course Buddha's innovation. Buddhist monasticism as is well known has its origin in the pre-Buddhist religious movements of ancient India, at the time when Buddha himself became an ascetic and the almsmen's community was in existence.*

*In this paper an attempt has been made to focus on the influence of monasticism in the life of the Khamtis.*