



Samdain Kangsang 6590m (left end) and 6000m peaks, west faces.

form of strict and frequent checks and controls by Public Security Bureau and police. All counties adjacent to borders with Bhutan and India are totally closed to foreigners. Unsurprisingly, we met no foreigners en route. We were luckier in our harvest this time, owing to our capable Tibetan guide who had the sense to carefully detour checkpoints, which contain Public Security, police and army. A complete profile of the east face of Tarlha Ri (6777m) massif, peaks ranging south to the Bhutan border and every side of the massif of the holy mountain Yalaxianbo were photographed.

We were lucky to reach a heavenly lake called Puma Yumco (4980m), which is now closed to foreigners. From there, a grand panorama of Kulha Kangri (7538m) massif and the mountains ranging to south-west on the Bhutan border overwhelmingly inspired us. The north face of the world's highest unclimbed peak, Gangkar Puensum (7570m), was glimpsed to south.

We also made a two-day excursion to Nyainqentanglha West: the first day to Qungmo Kangri (7048m) and following day to the north bank of the holy lake Nam Tso at 4718m.

Summary

A brief account of the exploration of unclimbed mountainous regions in south Tibet by Tom Nakamura (79), Tsuyoshi Nagai (82) and, at 70, the baby of the group, Tadao Shintani, 11-25 Oct 2014. The trip involved some 4500km of driving from Bayizhen to Lhasa and several days of perfect weather: Oct 14: South of Nang Xian (Peak Bobonng 6152m south of Yarlung Tsangpo), Oct 16: Yalaxianbo 6635m and access to south toward McMahon Line, Oct 17: Tarlha Ri 6777m and peaks close to Bhutan border, Oct 20: Puma Yumco, Kulha Kangri massif, Gangkar Puensum and further west, Oct 24: Nyainqentanglha West and Nam Tso.

ANINDYA MUKHERJEE

South Simvu

Secrets of the Great South Ridge of Kangchenjunga, Part One



Siniolchu over the 5215m unnamed col, from our high point on Peak 6130. The rock needles on the watershed between Passauram and Zumthul Phuk glaciers are visible immediately right of col. (All photos: Anindya Mukherjee)

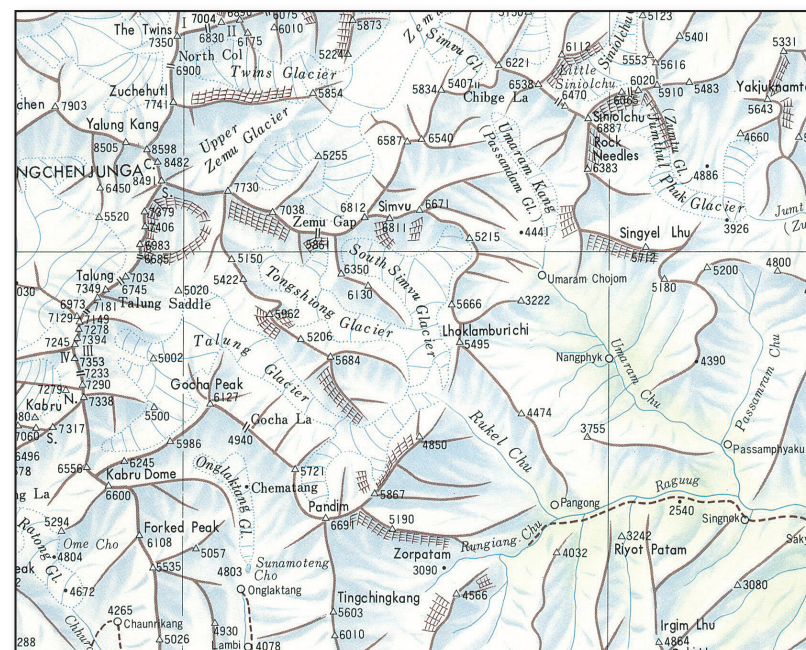
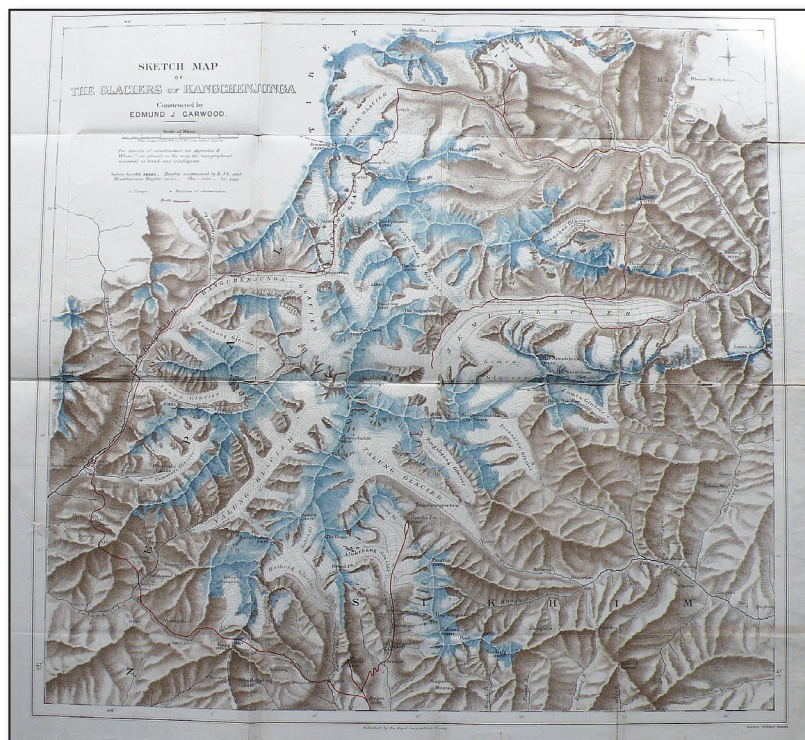
Maps, if caviare [sic] to the general, are, as Louis Stevenson has insisted, very suggestive to persons with proper imagination.

Douglas Freshfield, *Round Kangchenjunga* (1903)

For the last few years I have been exploring the valleys and glaciers of the south-eastern flanks of Kangchenjunga. To be more specific, my explorations have focused on the little – or completely – unknown glaciers of Talung, Tongshyong, South Simvu, Passauram and Zumthul Phuk, and their respective valley systems. In this article and its companion, which follows in this volume, I cover my recent (2014) explorations of South



Above: John Claude White's map of Sikkim and Bhutan (RGS 1910) shows Talung, Tongshyong and Passauram glaciers. (*Geographical Journal* 1910). Below: Prof EJ Garwood's map shows Talung, Tongshyong, Passauram and Zumtu (Zumthul Phuk) glaciers but no South Simvu.



A section of Tadashi Toyoshima's map of 1977.

Simvu and Zumthul Phuk¹ glaciers only; my explorations of the Talung and Tongshyong glaciers are described in the *Alpine Journal*, vol. 116².

The Great East Ridge

From the south summit of Kangchenjunga (8476m) a high ridge extends east. This ridge stretches all the way towards the Teesta valley and ends at the twin peak of Lama Angden³ (5868m). This 'Great East Ridge' separates the Zemu glacier valley to the north from the complex, multi-glacier system to the south. The prominent peaks and features on the Great East Ridge are, from west to east: Zemu Peak (7730m), Unnamed Peak (7038m), Zemu Gap (5861m), Simvu Twins (6812m and 6811m), Siniolchu (6887m), Kishong la (4785m) and Lama Angden. The glaciers due south of the Great East Ridge (from west to east) are Talung, Tongshyong, South Simvu, Passauram and Zumthul Phuk.

While Talung, Tongshyong and South Simvu are clustered together and form the head of the Talung Basin, Passauram and Zumthul Phuk are located a bit further to the east and have their respective valley systems. These eventually join and contribute to the Rongyoung⁴ Chu, meeting Teesta near Sanklang, below the busy town of Mangan. Although explorers had visited Talung, Tongshyong and Passauram glaciers before (Talung, for the first time in 1890 by John Claude White, Tongshyong in 1920 by Harold Raeburn, Passauram in 1937 by Paul Bauer's party), one glacier remained completely unknown: the South Simvu glacier.



The junction of Talung and Tongshyong Chu. Base camp tents are visible. Pandim's north face is in the background.

The Invisible Glacier

How an entire glacier in the close vicinity of the mighty Kangchenjunga stood unnoticed for this long is intriguing. The lack of a detailed and authentic map has always been a major hindrance for the exploring kind, especially in the Indian Himalaya. But in the curious case of South Simvu glacier, the glacier itself did not seem to exist. Colonel Waugh's map of 1848 and Sir Joseph Hooker's map of 1849 (and subsequently of 1854) did not have any detail of the Talung valley since no one had yet ventured there. John Claude White's crossing of the Guicha la and his subsequent journey down the Talung Chu gorge in 1890 resulted in another map which noted the Talung and Tongshyong glaciers for the first time.

The most significant cartographic work for this area was done as part of Douglas Freshfield's 'high level tour' of the Kangchenjunga in 1899. Freshfield's party included cartographer Professor EJ Garwood.

Garwood's map was very close to being perfect with reference to the other glaciers in the same valley, namely the Talung, Tongshyong, and even Passauram⁵ glaciers. But once again there was no sign of South Simvu on his map. The invisibility of the glacier is easier to understand today, when one reads Garwood's comments on drawing this particular section: '...in the case of heads of the glens under Si-imvovonchum and Siniolchum⁶, from sketches made by Mr Freshfield from above Gantok.⁷' Any map of jagged terrain of Himalayan scale, drawn from observations made from as far away and as low as Gangtok surely cannot be without errors.



Simvu twins on the right and Kangchenjunga on the left. The ridge in centre foreground is the Lhokamburichi ridge that guards the South Simvu glacier.

The glacier did not appear in the knowledge base until relatively recent mappings done by the Swiss, with the help of the Survey of India, which produced the Sikkim Himalaya map of 1951. This was later incorporated into the American Army Corps of Engineers' map of 1955. However, the very clear depiction of Upper Talung region, especially of South Simvu, that drew my attention most was Tadashi Toyoshima's map of 1977. In all my expeditions in the Sikkim Himalaya so far, I have used Toyoshima's map for preliminary planning and found it to be very accurate, despite not being topographical.

The Protagonists

White's journey through the Talung gorge and Freshfield's epic tour around Kangchenjunga opened doors for exploratory mountaineers. In the era from Harold Raeburn (1920) to H W Tilman (1938), the visitors of upper Talung valley had distinct yet limited objectives. Mount Pandim (6691m), the Zemu Gap (5861m) and Kangchenjunga remained their centre of attraction. Everything else was overshadowed. Once they were done with their efforts and attempts, they did not have enough time or energy to stay back and look around in this inhospitable part of remote Sikkim. The only significant exploration in the Raeburn-Tilman era was done by a small team from Paul Bauer's expedition in 1931. They crossed the Great East Ridge from the north (Zemu glacier) and entered the middle Talung valley via a col⁸ located at the head of Passauram glacier⁹. During



Lhokamburichi as seen from the South Simvu glacier.



Peak 6130m on the left and Simvu west 6812m on the right.

this crossing in October 1931, in all probability they could not have noticed the existence of South Simvu glacier, as ‘their’ col didn’t give them the necessary elevation to have a sneaky peek of what lay immediately south of the Simvu twins.

This era was followed by a complete absence of exploratory action in this valley until 1975, when a second phase of exploration began¹⁰. This second phase concentrated on what their predecessors left unfinished, with a series of onslaughts on Zemu Gap. Thus, in spite of being visible on maps since the 1950s, the glacier of South Simvu remained unnoticed until our visit in May 2014. As a mountain explorer, I looked at this blank in the map as a lodestone sending out strong vibrations of invitation.

Expedition

In April-May 2014 I was part of an expedition, led by Alberto Peruffo, which aimed to further explore the Tongshyong glacier and Talung glaciers. While my colleagues were happily occupied with the prospect of countless new routes all around us, I decided to head off in the direction of the last unexplored glacier of the Talung Valley: the South Simvu.

Our base camp was near the confluence of Talung and Tongshyong streams, almost in the same camping ground as our Zemu Gap expedition of December 2011. From the observations made during my three expeditions in 2011, I had formed a fair idea how to approach the South Simvu glacier, which like Tongshyong lay completely out of sight from the Talung gorge. Signs such as old, settled terminal and lateral moraine ridges and a powerful, braided outwash stream coming from the direction of Mount Simvu, gave strong suggestion of a glacier as indicated by the map. But the glacier itself was not visible. We assumed it had withdrawn to a higher shelf and had become a hanging glacier, possibly leaving a cirque. The question of how and when this happened can only be diagnosed by a glaciologist; my thought was that as a climbing problem, would a cirque or hanging glacier not offer a greater challenge than that of a valley glacier? What will this one throw at us?

On 3 May 2014, along with Thendup Sherpa and Lakpa Sherpa, I left base camp and followed the steep, right lateral moraine coming down from the direction of South Simvu. After a continuous steep hike and scramble of five hours we reached a big, slightly overhanging rock cliff. During all of April-May 2014, the whole of upper Talung valley was engulfed daily in thick fog from as early as 9am. This pattern of early white-out lasted for nearly four weeks of our stay inside the gorge, including that first day of exploration, allowing us no chance for better visibility. Later in the day, we took shelter below the overhanging cliff.

For the next two days we did reconnaissance trips further up the valley, hoping for clearer weather. Finally one morning, before the clouds came rushing up, we saw the outline of an icefall that announced South Simvu’s presence. To our delight, we also saw the twin summits of Simvu rising above the icefall. This re-affirmed our motivation and on 6 May 2014,



View of Siniolchu from our high camp in the South Simvu glacier.

Thendup Sherpa and I left our overhang shelter, hoping to cross the first icefall obstacle and set up a high camp. An easy snow gully to the true right of the icefall gave us access to the upper plateau of the glacier. Due to poor visibility and bad snow conditions it took us nearly seven hours to reach névé on the glacier itself. We pushed on and camped at around 5300m.

An Attempt on Peak 6130m

From the Swiss contour map, I was aware of the existence of two unnamed 6000m peaks somewhere nearby. Peak 6350m and Peak 6130m are located on the ridge running south-east that divides Tongshyong and South Simvu glaciers. Now that we had entered the South Simvu, my immediate attention was drawn towards those unclimbed peaks. But, due to poor visibility, we got no bearings on our position that entire day (6 May 2014) and waited patiently for the early hours of the next morning, when we hoped to be able to orient ourselves.

On 7 May 2014 we woke up with great expectations; today we would see and document a glacier that had never been seen before. We felt fortunate and a bit proud to be the first and were not disappointed with the view that morning. To our north the Simvu twins (6812m West and 6811m East) looked gigantesque and dominated the skyline. To our north-north-east, after a stretch of a snowfield full of crescentic crevasses, we could clearly see a col (5215m) a bit lower than our campsite sharply dropping to the Passauram¹¹ side. Above and beyond that col rose Siniolchu (6887m) in all its grandeur. To our east, right across the glacier to the south of a 5215m col, rock peaks (5666m) and Lhokamburichi (5495m) formed the boundary wall between South Simvu and Passauram glaciers. Looking at the unmistakable, thumb-like feature of Lhokamburichi, I realised that this is the

ridge one can see from the lower Talung valley while looking at Simvu. This is what completely hides South Simvu glacier from its east and south-east and the reason it never came out in the sketches made by Freshfield from above Gangtok. Lhokamburichi blocked the view.

To our south we could see Narsing (5825m), the Jopuno (5936m) group of peaks, Pandim (6691m) and to our immediate north-west stood the two unnamed peaks: 6350m and 6130m respectively. Thendup and I roped up and started towards the objective nearest our campsite, Peak 6130m.

Within the next four hours we climbed through a narrow gully to the east of Peak 6130m and reached the base of the summit rock pyramid. It did not take us long to decide that we were not bagging any peaks that day. To climb the rock pyramid we would need protection, which neither of us carried in our lightweight push. When we left base camp the best we were hoping to achieve was to find and reach the right glacier, and when we reached the glacier, we took our ambition a level higher: to bag an unclimbed 6000m peak. Such is human nature.

We stopped close to 6000m and our high point was the perfect vantage position for exploratory photo documentation and so I told myself to be happy with what we achieved, and then to retreat. From here we could photograph extraordinary views of the head of South Simvu glacier, the Simvu twins, Siniolchu and its rock needles rising across and above the Passauram valley. It was nearly midday, and snow conditions became worse. Thendup and I have been climbing together nearly a decade now, and trust was important in these conditions. We reached camp in a complete whiteout, packed up the next morning and started down towards base camp with heavy backpacks but happy minds. South Simvu glacier is not invisible anymore.

Summary

An account of exploration of the South Simvu glacier and an attempt on Peak 6130m, in April-May 2014. The expedition members were Anindya Mukherjee, Thendup Sherpa, Lakpa Sherpa.

Notes

1. Also spelled Jumthul Phuk or Zumtu glacier in some maps.
2. Zemu Gap from the South, *Alpine Journal* 2012.
3. Also spelled Lama Ongden, Lamo Angdang and Lamo Anden.
4. Also referred to as Talung Chu.
5. Also spelled Passanram.
6. Traditional Lepcha names for peaks Simvu and Siniolchu.
7. Freshfield, *Round Kangchenjunga*, p304.
8. Simvu Saddle.
9. *Himalayan Journal* 05, p58.
10. For a history of exploration in the upper Talung valley see *Alpine Journal*, vol. 116, p118.
11. Also referred to as 'Umaram Kang' on some maps.