Unexplored Mekong Headwaters: Sunshine Glacier – no 3 and largest of the Glaciers showing here the upper Neve portion centre top, our campsite was under the rock peak centre picture, the glacier heading to right hand side of the picture arrives just out of picture at Facile Col. This view from 5794m.

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Map of the Source of Mekong River
14 months of planning saw me landing in Yushu airport in Qinghai China at 3800m to meet my companions Ben and Jos Hoetjes who had ridden by bike almost a 1000 km's from Xining over 10 days for acclimatization. The mission was simple – a lightweight attempt on what we believe after much research to be the highest mountains on this part of the Qinghai Tibet Plateau, the glaciated peaks surrounding point 5875m. The whole project was initiated, after reading the final lines from the article “Qiajajima, first ascent” – American Alpine Club Journal 2005, stating:

“Sedari (5,770m) and 5,700m–5,800m peaks ranging to the west, where glaciers are most developed. This massif remains unvisited. No photographs of the mountains have been taken.”

This was certainly an interesting challenge.

With only a few blurry images on Google Earth and some old Russian maps from the 1950’s we put together a plan to explore and if possible climb some of these peaks using bicycles as transport – light weight and fast is part of our philosophy, along with the wish to visit new places especially on the roof of the world.

We rode across to Zhidoi – almost 200kms over a 4800 meters pass in the first 2 days – I adapted fast although somewhat struggling for breath behind my better acclimated companions. In Zhidoi we had a most fortunate meeting with some foreigners who told us a new road had been built between Zhidoi and Zadoi, some 300kms to the south. Until than we had in mind initially following the route of the Spanish who had climbed Guozongmucha near the source of the Mekong in 2013, before turning off and heading south over a 5100m pass, then trying to cross the headwaters of the An yang qong chu. The river crossing had worried me greatly, and with the road plus bridge option and also the fact 1 day of trekking was eliminated, our chance of doing some worthwhile work had increased significantly. Considering fuel, food and time limitations we would only have about 1 week in the wilderness. It took us 1 long day’s ride to the bridgehead where we got to see our peaks for the first time, then another day to camp 1, where we would leave our bikes and then climb our first peak, 5806m (ranked 3 in the area in height – I have based all heights on www.arcgis.com/home/webmap, which seems the most accurate resource). After this we progressed up into the main Glacier system and here camped at about 5350m for 3 nights, in the process exploring some of the 2 main valley glaciers and climbing peak 5875m (rank 1) and peak 5794m (rank 6). We than returned down the river valley, over a 5000m road pass and to Yushu, via Zadoi, admiring the fantastic mountain scenery on the way. We also tried to build up a general picture of the area for the future, and on returning to Yushu, I also tried to obtain further information on the peaks to the South, which form the Southern extension of this mountain system.
Timeline 2018:

6th July: Depart Yushu 3700m for Zhidoi by bike.

7th July: Arrive Zhidoi 4200m.

8th July: Depart Zhidoi and establish camp 1 by the An yang qong chu river at approx. 4650m.

9th July: Establish camp 2 under point, 5806m at approx. 4800m.

10th July: Climb Deception peak 5896m.

11th July: Establish camp 3 on Sunshine glacier at approx. 5350m.

12th July: Climb Ben Jai Ma, 5875m

13th July: Climb Constellation peak 5794m

14th July: Walk out, then ride over Rilong pass and establish camp 4, under peak 5660m of the Qiajajima group.

15th to 18th July: Return to Yushu by way of Zadoi.
It was 3 long days ride and about 300 kms all up from Yushu to the bridge head where we could access our chosen mountains.

All along the route, if we meet people at all, we attracted much interest, all the locals wanting photos with us. Even Chinese are a rarity out here, and often only Tibetan is spoken.

Ben and Jos getting there first views of the glacial system, in the distance, that we have travelled half the World to explore.
The Central and Southern end of the main glacial system, seen from the East. The high points are all over 5700m.
We can’t ride much further. Behind is point 5806m (rank 3), we called it Deception Peak, as it looked easy, but proved very tough. We marked out a pencil drawn map, with all our own names, as we have no idea what the Tibetan ones are – if any.

Campsite on the South side of the An yang qong chu river directly below 5806m. The yurts on left side of picture are on the Northside of the river as is the rocky range of mountains. The bikes were left here and we proceeded on foot.
A short mountain reconnaissance in the evening - here Ben and Jos try and figure out the cartography of glacier Number 2 from the flanks of Peak 5806m.
Jos on the lower slopes of Peak 5806m. In the distance are the peaks SW of these, that constitute the source of the Mekong. The river at the base is the An yang qong chu, with our campsite directly below.

The serious work began, after climbing very loose steep rock, once we hit the glacial cap!!!
Four 50m pitches took us past the worst of the slippery snow-covered ice. There was very little protection provided by the ice screws in the rather shabby ice.

Snow showers greeted us on top, but the sun was our real enemy – the snow would deteriorate in minutes with the slightest hint of sun.

Heavily corniced Northern ridgeline of our descent route.
We descended to the Glacier seen here on the left of the picture, which is due East of the peak. There were 4 main Northern valley glaciers running to the An yang qong chu river, all running from South to North.
We called it Desolation Glacier. The descent route was fairly straightforward but very long. When we arrived on the valley floor, exhaustion was creeping in, and the relatively short (4 kms or less) steep narrow glacier gave a feeling of deep unrest. Directly behind at the head of the glacier is peak 5761m.

![Heading up to Sunshine Glacier.](image)

Sunshine Glacier - the heart of the mountain range. We camped up here at approximately 5350 meters, in preparation to climb peak 5875m, and explore the mountains and glaciers around. The exposed white ice of Sunshine glacier stretches almost 10 kms and is several kms wide at its head.
On the ascent of Peak 5875m - crossing the second Glacier of the day which we called Fox Glacier, after a fox who ran out in front of us. A heavy overnight freeze, followed by an absolutely clear day, left perfect conditions for our ascent. In fact, it was the best day of our whole trip, weather-wise.

Jos and Ben, celebrating the summit. We named the peak Ben Jai Ma, somewhat a cross between Tibetan and English, or just Big Ben.
High (approx 5700m) rock peaks tower out of the Valleys to the East (Qiajajima group). The extensive glaciers and high summer snowfalls gave our system something of a soft touch. Considering the state of the rock we encountered, I can't imagine climbing these peaks in their bare form.

View to the South East - Glaciers and mountain peaks stretched to the horizon.
Descending back down to Fox Glacier

Jos on Sunshine Glacier. Our Campsite is on the right side of the picture, at the bottom of the rock face. The Ice cream dome on the left side is Constellation Peak.
Constellation Peak, 5794m (rank 6) is the cone, centre picture. We had bigger ambitions the day after the ascent of Ben Jai Ma, but I was too exhausted physically, mentally and emotionally, and we all settled for an easy walk up what I called Consolation Peak. However, the Hoetje brothers didn’t want such a derogatory appellation applied, and they thought Constellation Peak was more appropriate - the peak being at the centre of many others.

Jos on the lower slopes of Constellation Peak. Behind him is Ben Jai Ma – 5875m.
I was very pleased that it was such a lovely peak that dominates the area, and a fine but relatively easy climb.

All the glaciers were riddled with crevasses, and we roped up most of the time. The high summer snowfall had filled most large ones, but here Ben goes down a slot on the descent of Constellation Peak.

Resting on Facile Col, approx. 5500m. Jos plays the harmonica and Ben sings along.
Returning to camp, with the whole glacier turning to liquid beneath us. Fortunately, we had not attempted anything more difficult. There had only been a light freeze overnight followed by intense sun, and conditions were not ideal.

Leaving the Sunshine glacial terminus. It had snowed on the way in, and also on the way out.
Flowers, flowers and more flowers. What a wonderful sight! I had just read Frank Smythe’s book ‘Valley of Flowers’, so guess what we called this valley??

Passing the outlet of Glacier No. 2, the only one we left without a name and hadn’t walked on: the shortest and steepest of the 4 main South-North glaciers.
Leaving, we push the bikes down river.

Eventually we find car tracks and start heading east towards the bridge head.
Rilong Pass - 5002m, highest road point, behind some of the lesser peaks of the Qiajajima Group.

Riding down a lovely valley towards Zhadoi. Looking back is almost the last view of the Southern end of the main range we climbed in.
Making butter. The Nomads derive almost everything they need from the yak: skin, meat, milk and dung for fires, and also fences!!

Horse shoe in action!!
Enjoying the hospitality of the Tibetan nomads.

Heading to Zadoi
Buddhist icons everywhere.

Buddhist Temple outside Yushu.
Jos and Ben left me in Yushu, and I wanted to further explore the area South of Yushu, where we had spotted some high glaciated peaks (point 5672 m). I went for a long ride up an approx. 4800 m pass. Above towered lofty rock peaks but the higher peaks were further West and not visible.

Jos
Ben

All three of us on top of road pass, 4760m, on the way into the mountains. The brothers Ben and Jos Hoetjes and Nathan Dahlberg.
NATHAN DAHLBERG

Mountain systems of the area between the geographical triangle
- Yushu to Zhidoi to Zadoi in detail -

The Mountain systems involved run roughly SE to NW over 300 kms from below Yushu to above the Sources of the Mekong. Near Yushu there are deep river valleys as low as 3500m where the Yangtze runs and there is no definite end to the system to the SE - the mountains drop down below 5300 becoming ranges that stretch towards Sichuan province before rising again to over 6000m.

To the North, West and South the mountains drop into the rolling hills of the Tibetan plateau often around 4800 m high. Almost all peaks over 5400m will have small glaciers upon them but the only heavily glaciated valleys are in the far NW - divided by rivers into three separate mountain systems.

The largest, with the highest and most prominent peaks is the main system we entered – many peaks exceed 5750m in a very small area. To the SW is the second largest glacial system (unexplored??) - with 1 peak above 5700m and finally to the NW is the third smaller system which eventually merge into the sources of the Mekong system which has seen several visits – all peaks under 5700m (HP 5679m).

Outside the main glaciated mountains, the most significant mountain ranges we saw are (Peaks above 5650m)

1) The Qiajijima Massif which is a range of rock towers running parallel to the North of the main system with at least 2 peaks exceeding 5700m (5761 and 5713)

2) A small range SE of main system by roughly 50 kms with one peak of 5725m with quite a few visible Glaciers

3) A very prominent stands alone mountain of 5730m also SE of the main system by almost 60 kms with a large ice cap on it.

4) A range of very striking Alpine peaks south of Yushu by 50 kms just under 5700m (HP 5672m). These mountains are documented in the photos below. The one major area we missed is the area around peak 5801m on the old Russian maps and 5802m (rank 4) on Arcis maps (33’26’14 N, 95’27”13’E) – an area directly North of the Qiajajima Massif. Judging by the contour lines and Google Earth this peak should be a Matterhorn like spire rising very sharply out of the valleys featuring a NW facing almost vertical wall over 600m high with the only other significant peaks around being under 5700m.

The photo guide below concentrates on the above-mentioned areas/peaks but throughout the trip we were constantly surrounded by ranges of beautiful peaks of 5300m to 5650m of all types of which there are literally hundreds and opportunities abound for further exploration.
Trip intentions and general disclaimer of any errors in this report

Our Intention was to make a fast light weight exploration of the glacial region concentrated around peak 5875m and if possible climb this mountain. We were in no way equipped to make detailed geographical notes about this region which is a vast mountain area and deserves the attention from much larger and better equipped expeditions than ours to give an accurate assessment and cartographic analysis of the area.

We are fairly sure from all points of reference including the summit that point 5875m is indeed the highest of all the large glacial areas although we did not have the means to verify its exact height. On most modern maps and radar mapped surveys it is listed as the highest mountain in the entire mountain ranges between Yushu to the South and the Sources of the Mekong to the North and indeed in a much larger area.

There is the question of the Qaijajima massif with a well-documented Japanese AAJ 2004 climb of the main peak (coordinates given by the expedition would put it on a secondary peak of the range). This massif is significantly lower on Satellite and radar maps (high point 5761m). Whilst travelling in and out of the area we photographed as many peaks as possible and the pictures below with coordinates and possible entry, exit routes is again a rough guide only based on our experience and brief notes rather than detailed mapping.

The names we have given various mountains, valleys and glaciers are purely for convenience and our sense of fun and we fully expect these will be replaced by local names over the course of further exploratory efforts.

The main glacial central system

Most of the highest peaks in the entire overall region are concentrated in the area above Sunshine glacial between peaks 5838m (Rank 2) and Peak 5875 (Rank 1). To the right pic is the SW Glacial system and its high point 5725m. The peaks of the SW system are generally softer in appearance than the main central system peaks but are heavily glaciated as well.
5806m · Deception peak 33’38’26 N 94’ 59’22 E · rises about 1000m above its base and is the largest and most prominent peak outside the Sunshine / Fox Glacier area. The high pyramid is roughly our ascent · descent route from R to L after climbing from the valley behind. On our return trip we found the entire visible North face seen here had avalanched in 2 large events and most of the face was bare white ice.

Deception peak from NW side, our ascent took us up the scree below the ridge on the left to the upper glacier via a series of loose rock gullies.

Looking up Glacier No 2 the smallest and steepest of the 4 main North descending glaciers. The peak at the far end is 5753m 33’35’56 N 94’59’16 E.
Peak 5875m Ben Jai Ma 33°34′21″ N, 94°55′55″ E - the high point is in centre view, on the right of 5875m the outstanding peak is 5766m in the foreground is Sunshine Glacier and behind in the distance the range of glacial peaks containing 5725m stretching out to the Tibetan plateau. (Seen from 5794m)

Ascent of Ben Jai Ma 5875m. Our route was directly across Fox Glacier from the rocky scree ramp below peak 5701m. Then there was about 400 vertical climbing to the summit on easy slopes from the head of the glacier. The only source of difficulty was traversing below the rocks just above the col on moderately steep ice slopes - on the return after 2 hours these slopes had become treacherous as the sun had turned the surface to big loose sugar size crystals. The summit is not visible being about 20m higher and 100m beyond the cornice seen at the top here. A Bergschrund ran right across the slope between the lower corniced summit and the higher non-visible one but this was completely filled and provided no obstacle.
Sunshine Glacier – no 3 and largest of the Glaciers showing here the upper Neve portion centre top, our campsite was under the rock peak centre picture, the glacier heading to right hand side of the picture arrives just out of picture at Facile Col. This view from 5794m.

The Neve of Fox Glacier. In the back ground, L to R are peaks 5838m, 5794m and 5763m. Centre picture is the rocky scree col we descended on route from Sunshine Glacier to Fox Glacier. The Peak on right is 5701m.
Looking down Facile Col 33°35'29"N 94°58'54"E at approx. 5500m (Facile is easy in French) to Facile Glacier. We named it Facile Col as it seemed to be the easiest way in to the main mountain system and the shortest, only about 19kms march from the bridge. In the far distance can be seen peaks of the Qiajajima group.

Ben and Jos below peak 5781m 37°36'13" N,94°56'15" E. This formidable looking peak is the only peak height that figures on the old Russian map as 5770m.
5838m viewed from Sunshine Glacier – second highest peak in region.

View from 5875m of the peaks to the west of the main system. The major peak centre right is 5725m, the high point and about 19kms from 5875m. The glaciers of the Source of the Mekong lie about 40kms from 5875m to the NW (right side of photo out of view)
Travelling towards Zhadoi on the road from Zhidoi we could see the Southern end of the Glacial system we had been in – this was the final view we had. The high ridge line leads to the high point on the Southern end of the main system 5797m (Sedari???) – not visible. The Snow cap on the left side of picture is almost 5700m.

**Qiajajima massif**

In direct contrast to the concentrated and highly glaciated peaks in the Main, South West and Source of the Mekong systems, the peaks directly to the East of the Main group are widely spaced rock towers of the Qiajajima massif.

Qiajajima massif viewed from Deception peak (point 5806m) – peak 5730m to the right of the picture is totally separate some 75kms to the East of 5806m (see photos below) showing the incredible clarity of the atmosphere. The glaciated peaks between 5660m and 5730m are the small system that contains peak 5725m (approx. 65kms East of 5806m) also completely separate from the Qiajajima massif. The peaks listed in the Qiajajima range are an estimation only based on this photo against Arcis topo maps.
Looking up from the river valley towards pass 5002m (Rilong pass) we got our only clear close range views of the the Qiajajima massif L to R 5380m, 5660m ,5761m (H P of range) and 5642m. (Estimation only)

The Southern end of Qiajajima group contains two larger rocks massifs, 5660m in the picture which we camped below and 5693m further down the valley. Unlike the sharp spires of the Northern end of the range both are very large in area with big glaciers on top. Both peaks are right beside the Zhidoi – Zadoi road.
The only look we got from the road to the interior peaks of the Qiajijima range was to peak 5623 m. We had mistakenly thought the Qiajijima range was much further back and were unaware that the road we were travelling on was just one valley over from the main range. If there was one big loss exploration wise from the trip is that a very short walk to a high point near the road could have confirmed whether or not any major peaks (over 5800m) actually existed in the range.

**Other Areas**

This is as close as we got to the lovely glacial system centred around peak 5725m - 33'15'39 N 95'23'56'E. This is probably the 4th largest system of glaciers in the whole region.
A beautiful and very prominent snow dome appeared as we traveled on further to Zadoi – peak 5730m 33°07’39 N 95°20’17 E. There is easy road access to this mountain.

Directly South of Yushu by roughly 40kms is this range of lovely Alpine peaks - high point is 5672m – we only caught glimpses of these peaks from a distance but they looked very sharp and spectacular. There seems to be a road accessing them - seen on Google Earth and as a trekking trail on the old Russian maps.
I rode by bicycle South of Yushu over this pass – marked 4760m on the road side but Arcis makes it about 4880m (and on the old Russian maps its over 5000m) in quest of a better view of the Alpine peaks. My views were blocked by a range of rock towers - this one 5379 m directly above the road being the highest and most impressive.

Road map of trip

The road trip by bike was Yushu to Zhidio on S308 approx 195 kms, then on the new often dirt road between Zhidoi and Zadoi approx 230kms and finally S309 220kms. The route is marked on this excerpt from the geographical map of China and we followed an anti-clockwise direction.
Landsat image of main mountain area

Close up of Main Mountain area we were in. The 3 peaks we climbed are marked. The numbers represent:
1 Fox Glacier, 2 Sunshine Galcier, 3 Facile Col, 4 Glacier number 2, 5 Desolation Glacier, 6 just above
bridge crossing of the An yang qong chu river.
Google Earth Map with peak heights looking due South.