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KANGRI GARPO RANGE IN SOUTHEAST TIBET

Least Known Mountains in East of Himalayas

Most of the mountaineers, even though they are Himalayan experts, would presumably be unable to give a right answer to the questions, “Which glacier flows down to the lowest altitude in Tibet? Which glacier has the largest surface area also in Tibet?” The former is Ata Glacier (south) of 14km length, of which end reaches 2440m above sea level and the latter is Lhagu glacier of 30km length by 2 – 5km width that reminds us of those in Patagonia and Alaska as well. The both glaciers locate in the eastern part of Kangri Garpo mountain range.

1. Geography

Kangri Garpo is a sizeable mountain range stretching 280km from northwest to southeast in N:28 ° 30’ – 30 ° 00’ and E:95 ° 30’ – 97 ° 30’. The range is encircled with three tributaries of Tsangpo-Brahmaputra River. In the northern side of the range Parlung Tsangpo is forming a narrow and precipitous valley. In the south and eastern side Lohit River (Chinese name is Zayul Qu) plays an important role. The river is separated to two tributaries, Kangrigarpo Qu (river) to northwest and Sang Qu to northeast. The confluence is near Samai in Zayul County not far to the border with Arnachal Pradesh, India.

In the south of the range, Dihang River, a tributary of Brahmaputra is flowing in low level of 2000 – 3000m, and the mountain ridges do not exceed an altitude of 4000m that is not workable to produce a climatic barrier effect. Therefore, Kangri Garpo, which constitutes the southernmost rim of Qinghai-Tibet Plateau, receives directly a humid southwest seasonal wind from Indian Ocean. This causes much precipitation in the monsoon season and heavy snowfall in winter and spring. The north of the watershed has a complicated topography. The eastern end is a high plateau while to the west the valley of Parlung Tsangpo becomes a forested deep gorge. In the south the valley are extremely eroded. For at least three months in a year villages are isolated from the outside world because of heavy snow.

In an area surrounding Ata Kang La and Lhagu Glacier, 61 glaciers are observed over 200 square km. The total surface area of all the glaciers in Kangri Garpo amounts to 1683 square km according to the survey having been conducted by China Acacemy of Science that indicates Kangri Garpo is a mountain range where the ratio to be covered by glaciers is the largest in Tibet. In particular, glaciers of Kangri Garpo are

concentrated in the eastern part of the range.

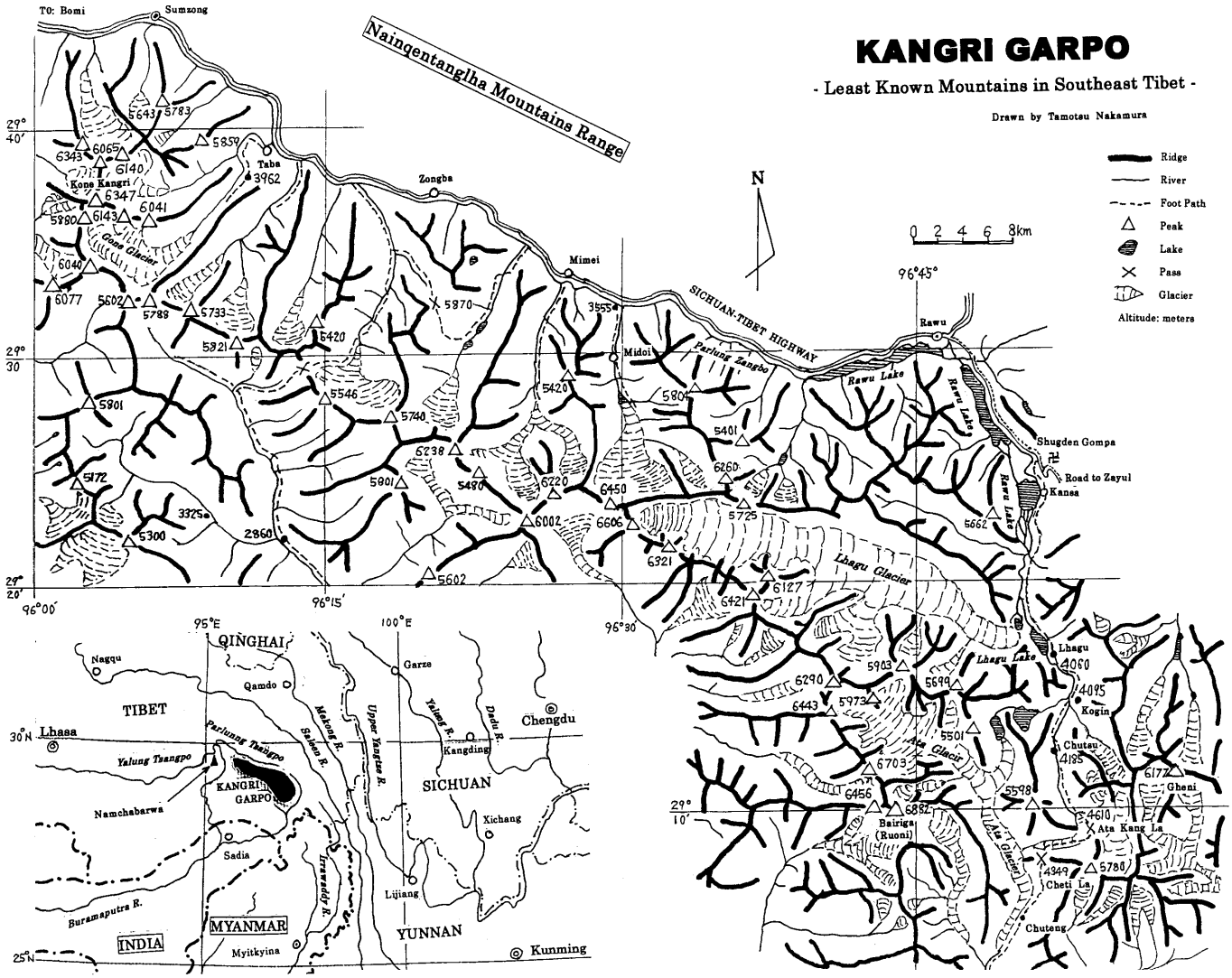

Fig.1 Map of Kangri Garpo Range in Southeast Tibet

2. History of Explorations

Kangri Garpo exists between Tsangpo Great Bend, the eastern end of Himalaya, and Baxoila Ling that is the western end of Hengduan Mountains. Kenneth Mason described little about the mountains of East of Himalaya, whilist Frank Kingdon-Ward specified the mountain region in question to be in an extension of Sino Himalaya. To the contrary, however, Chinese Academy of Science maintains their opinion that Kangri Garpo is to be defined as an independent range from a view point that the geographical structure has similarity to that of Nyainqentanglha mountain range in the north of Kangri Garpo.

The first foreigner who traversed the Kangri Garpo and brought back an information was an agent of the survey of India, Pandit Kishen Singh called A-K. When A-K left Zayul in mid 1882, four years had already elapsed after his departure from Darjiling towards Lhasa with a secret mission to search the remotest heart of Tibetan highland. He proceeded northwestward up Kangrigarpo Qu to the great range of Kangri Garpo, crossed Ata Kang La pass (4610m) and then came once more on to the elevated highland of Tibet. In this journey he noticed an impassable barrier to the oft-asserted flow of Tsangpo Rivar to Irrawaddi River. This observation gave him a significant hint to solve a problem of the missing link of Tsangpo Great Bend. In 1911 F. M. Bailey arrived at Shugden Gompa looking over Rawu Lake having traveled around the eastern corner of the range from Zayul on his way from Sichuan - Southeast Tibet to Assam.

In February 1933 Kingdon-Ward set off Sadiya of Assam with Ronald Kaulback and traced A-K's footstep to Ata Kang La. Kingdon-Ward continued his trip northwards to Rawu and went further to the north in quest of Upper Salween River. He made a preliminary survey of Ata Glacier for the first time and recognized the highest peak, Chombo (Chinese name is Ruoni or Bairiga). In 1935 R. Kaulback came back to search undiscovered regions in Salween upper basin being accompanied by J. Hanbury-Tracy. They chose an approach from North Burma to Lohit River. After they explored the southeastern end of the range in the beginning, Kaulback traveled along Kangrigarpo Qu and Tracy went down along Parlung Tsangpo. On the way Tracy entered into Midoi valley. They again joined together at Bomi to go on with their quest of Upper Salween.

Chinese Academy of Science carried out a series of scientific surveys of the eastern part of the range in 1973, 76 and 80. Both Ata and Lhagu Glaciers were scaled. In 1989 and 90 they investigated Medoi valley in the central part of the range not far from Rawu.

Picture.1 The highest peak of Kangri Garpo,Bairiga(or Ruoni 6882 m).A view from Kogin to the southwest. Frank Kingdon-Ward called as "Choembo Peak"(6700m). by Tamotsu Nakamura

3. Current Activities for Mountaineering

Three Japanese groups visited Kangri Garpo successively for reconnaissance in 1999 and 2000.

(1) May 1999 — T. Nakamura's party:

The highest peak of Kangri Garpo

We made an access from Yunnan. It took four days to drive from Zhongdian of Yunnan to Rawu, where we left Sichuan-Tibet Highway and entered into Lhagu valley on May 17, 1999. We stationed overnight at a Tibetan house built chiefly of mud and stones with flat and low roof of one story in Lhagu (4060m). The village has 70 houses with 500 inhabitants. The caravan with four Tibetan muleteers and eight horses was organized here. Kingdon-Ward mentioned the small village had only 10 houses.

On May 18, the weather was completely fine. At dawn a profile of unknown mountains was gradually unveiled. Magnificent snow peaks and ridges emerged in sunshine through the wide gap of Lhagu Glacier and reflected in Lhagu Lake. They are really striking objects. The glacier tongue ends in a partly blue ice cliff owing to undercutting of the lake stream. Kingdon-Ward witnessed a large splinter of ice broke off and fell down into the torrent. But nowadays the ice cliff is only ten meters high as the glacier has been retreating.

We set off towards the south following a good trade path that leads to Ata Kang La and down to Zayul through barley fields and then pastures in Lhagu valley. It is a wonderful trekking course. In the both sides various shape of glaciers came into sight, one is hanging and the other is flat. The highest peak of Kangri Garpo (6882m) appeared in full view in the southwest at Kogin (4095m), a place for grazing animals in the valley. We could identify the highest peak by using GPS and compass on Russian Topographical Map of 1:100,000. Southwards of Kogin the valley forms a small gorge. The path goes up the left bank about 2km and down to a widely opened river bed called Chutsu (4185m), where we set up our base camp. Here is a 1.5m high enclosure made of shrubs which is used as a temporary shelter by villagers coming for pasturage or gathering caterpillar fungus (Chinese traditional medicine).

On May 19, having crossed a gentle saddle on the ridge behind the base camp, we ascended to a spur of the other ridge of further west traversing snow patches. It was the best lookout point to have an overall view of Ata Glacier (North). The principal supply source of a tremendous volume of snow to Ata Glacier is presumed to be the northern slope of the highest summit and adjacent high peaks ranging to the northwest. A mighty ice-fall is descending from a gigantic snow plateau to a wide and flat saddle of 4600m from which two glaciers are separated and flow down to south and north. Ata Glacier (South) has the most outstanding feature in Kangri Garpo. It has 700m huge ice-fall and a unique landscape of glacier streaming down through primeval forests, whilst Ata Glacier (North) flows down 4km from the wide and flat saddle of 1km by 2km. Its width

is about 2km and inclination is very gentle. The glacier end is as high as 4280m and the end moraines are forming two small lakes that prove the glacier is retreating. The lakes are partly covered by floating ice.

Our reconnaissance from the lookout point tells us regarding one of the possible climbing routes to the highest peak as under:

a. To reach the wide saddle to separate two glacier from Ata Glacier (North)
b. To ascent the ice-fall to a certain point of the upper Ata Glacier
c. To climb the northeast ridge to the summit before getting to snow plateau of the glacier head

We returned to Lhagu village in cold rain on May 20.

(2) Sep. to Oct. 1999 — Gakushuin University: Kone Kangri of Kangri Garpo West

They attempted a reconnaissance of the 2nd highest massif, Kangrigarporla Feng 6602m in Kangri Garpo West which is described in “Glaciers of Tibet” (A comprehensive survey report of the Series of the Scientific Expedition to Qinghai-Tibet Plateau, Chinese Academy of Sciences). For the purpose they selected a Gone valley as an access route from a fertile village of Taba (3000m) of agriculture and forestry. The village locates on the left bank of Parlung Tsangpo 20km to the east from Sumzon betweem Bomi and Rawu. However, no 6602m peak was found but they came to know it must be a peak of 6347m according to 1:50,000 map of Chinese People's Liberation Army (PLA) that is most reliable. They named Kone Kangri for the said peak in consultation with China Mountaineering Association.

In two days caravan from Taba they ascended along Cone Qu to the end of Gone Glacier with a small lake called as Gone Tso where they set up their base camp (4000m). Taba villagers come here for grazing yaks in summer. The landscape of pastures on the way is as beautiful as a picture. The overall length of Gone Glacier is approx. 12km and the glacier head gets to a saddle of 5500m. If they had established an advance camp there and climbed further 500m steep slope, they could have reached the west ridge that would lead to the summit of Kone Kangri. Unfortunately they were unable to have even a glimpse of the profile because of bad weather, but it would supposedly be of a typical snow pyramid. There exist five 6000m peaks within a radius of 5km from Kone Kangri. Needless to say, all the peaks remain untouched.

(3) Oct. to Nov. 2000 — Silver Turtle party: Lhagu Glacier of Kangri Garpo East

Silver Turtle is a group of 60 – 70 years old members. They planned to explore and traverse Lhagu Glacier westwards and cross the watershed to Midoi valley with an object to have a clear view of the least known but enchanting peaks surrounding Lhagu Glacier. In the beginning they met difficulties in an approach from Lhasa to Rawu as the access road was impassable because of huge landslide and flooding having taken place near Tomei and Pailung of Sichuan-Tibet Highway. The other parties suffered from similar hardships. The Himalayan Association of Japan was forced to abandon their plan to climb the highest peak of Bairiga (or Ruoni 6882m). Travelers to pass through this notorious section along Parlung Tsangpo should always carefully check with the latest information on road conditions beforehand since landslides happen very often in rainy season and consequently impede the traffic. Sometimes it jeopardizes their travel plan.

Silver Turtle did not resign and took a long north-roundabout road. They left Lhasa on October 14 and arrived at Rawu on October 21 via Nagqu, Baqen, Dengqen, Qamdo and Baxioi, and established their base camp (3955m) below of Lhagu Glacier. They started their activity right from October 22. The route taken to enter onto Lhagu Glacier was along a yak trail from Lhagu village passing above the western bank of Lhagu Lake and then Lhagu Glacier. The glacier end did provide no viable access because of many crevasses. On the same day Camp I was set up at 4115m. On October 23 they followed a yak trail to a small pasture in a junction with a branch glacier going up to the ridge dividing Lhagu and Ata Glaciers. They further proceeded along a yak trail and made Camp 2 (4392m) on the southern rim of Lhagu Glacier 10km north of the glacier end. The weather was not stable and sometimes it was blowing with snow.

On October 25 they spent one day for ascending Lhagu Glacier about 2km. The conditions were even worse. On the following day they once returned to the pasture at a junction with the branch glacier where Camp 3 was set up. On October 27 they climbed up to a point of 5200m near the ridge dividing Lhagu and Ata Glacier following the branch glacier in order to take a bird's-eye view of Lhagu Glacier for reconnaissance and returned to Camp 2 on the next day. October 27 was again a blowing day with snow. On October 30 they traversed Lhagu Glacier from Camp 2 to Camp 4 on the glacier at 4470m one km from the left bank of Lhagu Glacier. On November 1, from Camp 4 they ascended a contact line with the left (north) bank of the glacier to an altitude of 4590m which was the highest point they could reach in Lhagu Glacier. Their reconnaissance ceased here and they came back to the base camp on November 4. On the way back the party took a direct flight from Banda airport near Qamdo to Beijing.

4. Height of Peaks and Reference Data

If all the maps of 1:50,000 and 1:100,000 of Chinese People's Liberation Army (PLA) to cover the entire mountain range of Kangri Garpo were available in our hands, questions as to the height of peaks would be dispelled and any other ambiguity be cleared too. It is regrettable, however, that Chinese authority keeps them strictly confidential. I have only a list of the correct height of peaks over 6500m picked up from the said PLA map and a limited portion of 1:50,000 map of Kone Kangri massif. Therefore we must rely on Russian Map of 1:100,000, topography of which is very accurate in detail and helpful but an indication of mountain height is not accurate as they are slightly different from PLA maps.

An altitude and name of he highest peak in Kangri Garpo might be of a controversial issue since they change according to information sources as shown below:

a. Chinese People's Liberation Army (PLA map)----------6882m Bairiga (or Kangri Ga)
b. "Glacier of Tibet" (Chinese Academy of Science)-------6610m Ruoni
c. – do – , attached map -------6800m no name
d. Map of Zayul County, 1:300,000----------6882m Bairiga (or Kangri Ga)
e. Russian Topographical Map, 1:100,000----------6805m no name
f. – do – 1:500,000----------6970m no name
g. "Plant Hunter in Tibet" Kingdon-Ward 1933 (map)---6700m Chombo
h. "Salween" Ronald Kaulback 1935 (map)----------6450m no name
i. TPC (Defense Mapping Agency map) 1:500,000--------6335m no name
j. AMS China, 1:250,000----------6614m Chomo

Among the above we select the PLA map as the most authentic one, in accordance with which we note 6882m as a correct altitude for the highest peak in Kangri Garpo. Meanwhile the second highest massif having 6606m peak has been confirmed to locate in Lhagu Glacier head in the Map of Bomi County of 1:250,000. ■■