

ASIAN ALPINE E-NEWS

Issue No. 20, February 2018



Marching to the true source of the Mekong River (Lancang Jiang), Qinghai Province

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Zaya Sanjaa, who represents the Mongolian Mountaineering Community, has compiled a sophisticated work—A century famous female climbers in mountaineering [1808~2018] as attached.



**International
Women's Day**

International Women's Day is a global day celebrating the social, economic, cultural and political achievements of women.

Women are amazing. She can put a smile on her face, act like everything is fine. When in reality, the world is on her shoulder and her life is slipping through the cracks of her fingers.

Happy International Women's Day

Voice of women in mountaineering.

Mountains for climbing in the Queens' heart .

The mountains itself has seen plenty of amazing feats by women.

A century famous female climbers in mountaineering /1808-2018/



Adriana Bance
The first female to summit Mt 6959m Aconcagua 1940. France



Agranovskaya Ludmila .
The first woman "Snow leopard" 1970 /7010-7495m/ Russia



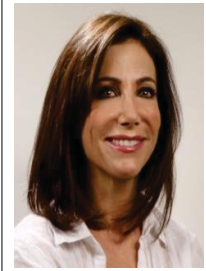
Akiyo Noguchi
4 times sport Champion WC & winner of the SportCompetition Award 2010. Japan



Alex Puccio
The strongest sport climber boulder World Champion , 10 times Champion ABS / V14/ USA.



Alison Hargreaves
The first woman to solo summit Mt Everest without bottled oxygen. 1995 UK



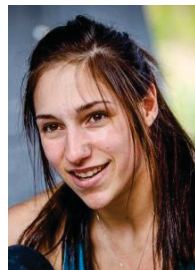
Alison Levine
The Adventure Grand Slam 2010 , the author of the New York Times. USA



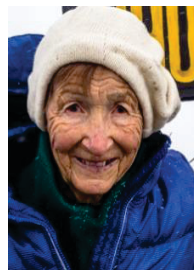
Anak Verhoeven
Winner World Champion & EG sport climbing redpoint & on sight 5.14 Belgium



Andrea Cardona
The Adventurers Grand Slam 2012 & seven summit. Guatemala



Angela Eiter
4 times World Champion Sport climber, 3 times World Cups Austria



Angela Vorobeva
The woman to climb Kilimanjaro 5895m at age 86 & GWR title holder. Russia



Angelika Rainer
3 times World Champion Ice climber, winner of the World Cup overall ranking. Italy



Anna Czerwinska
Mt Makalu women Exp /Leader, seven summit & 9x 8000 Mts Poland



Anna Stohr
The best sport climber 4 times Champion in bouldering of the WCup & WC Austria



Annie Smith Peak. 1925 A former of the Woman Society Geographers , politician " Votes for women" USA



Anne Marie
The fastest woman to summit Mt5895m Kilimanjaro 2017 & GWR title holder. Germany



Anshu Jamsenpa
The first woman twice to summit Mt Everest in 5 days & GWR title holder. India



Ariene Blum All Annapurna8091 Exp Leader1978. Winner of the NationalWomen Geographers 's Gold medal USA



Arlene Piaper
The1-st woman to finish at the Mt Pikes Peak marathon in 1959 USA



Arunima Shinha
The 1-st amputee to summit Everest 2013, a National level volleyball player
India



Ashima Shiraishi
The strongest rock climber "bouldering phenom" in the World
Japan/USA



Bachendri Pal
The Indo-Nepal women Everest Exp leader 1993, GWR title holder, Honorary doctor.
India



Barbara Washrum
The first woman to climb Mt 6198m Denali 1947, winner the Centennial Award NGS 1988.
USA



Beth Rodden
The one of the most best accomplished rock and sport climber of all time.
USA



Carol Masheter
The senior female Seven summit woman at age 65 in a 4 years.
USA



Catherine Destivelle
The best rock Queen climber, 1-st solo to summit Mt EN Face in winter 1992.
France



Cathy O'Dowd
The first woman to summit Mt 8848m Everest from both sides 1996 /1999
South Africa



Cecilie Skod
The first woman Explorer Grand Slam 2006
Norway



Corninne Favre
The strongest woman Mountain runner Champion Mountain and Ski mountaineer
France



Claude Kogan
The first leader of I/Expedition 8201m Cho Oyu 1956
Canada



Chantal Maudilit
The first woman to summit Mt 8516m Lhotse 1996.
France



Charlotte Adam
The first woman to summit Mt 2228m Koszciusko 1881
Australia



Cheril Bart
The first woman to summit Mt Everest & seven summit with her daughter 2008
Austria



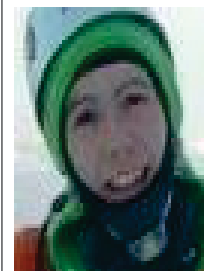
Christine Pae
UAAA General secretary , UIAA MC member
South Korea



Chhurum Sherpa
The first woman to summit Mt Everest twice in a week 2012 & GWR title holder
Nepal



Edurne Pasaban
The 2nd woman to summit Mt all 14 x 8000 , an adventurers of the year.
Spain



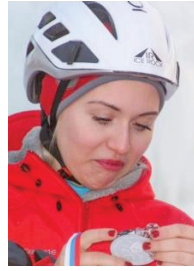
Eimir McSwiggan
The woman - Ice Queen , one of the best Ice climber
Ireland



Elizabeth Hawley
The chronicler of the Himalaya
“THE Sharloc Holmes of the Mountaineering World “
USA



Elizabeth La Blond
The first mountain film maker.
The 1-st president of Ladies Alpine Club.
British



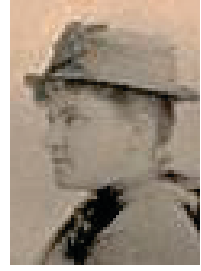
Ekaterina Koshcheeva
The best woman at Ice climbing
World Speed Champion
Russia



Ekaterina Feoktistova
The strongest Ice climber of the World,
Champion WCup and WC
Russia



Emelie Forsberg
The best woman Sky Ultra
Champion and multiple winner
Of the World.
Norway



Evelya Fay Fuller
The first woman to summit Mt
4392m Rainer
1890
USA



Fanny Bullock Workman
The famous woman explorer of the century
Himalayan glaciers
France.



Fabian Dattner
The famous woman -leader of the largest female exp
Antarctica 2016
Australia



Farkhondeh Sadegh
The woman to summit Mt Everest
Iranian women expedition leader
2005
Iran



Fernanda Maciel
The legendary woman mountain runner “
Runner’s World Woman “
Brazilia



Gerlinde Haltenbrunner
The famous woman to climb Mt all 14x8000,
2012 , winner at 2013 the Piolet d’Or
Austria



Ginette Harrison
The first woman to climb 8586m
Kanchenchanga 1998.
one of the accomplished climber.
UK



Go Mi San
The woman to summit Mt all 11 x 8000, a
former Asian X Games
Champion



Han Na Rai
The best Ice climber, 3 times
winner Lead Climbing World Cup.
South Korea



Helen Kinuthia
The first black Kenyan woman to summit Mt
8848m Everest 2012.
Africa



Henriette D’Angeville
A former of the mineralogy museum
1838
France



Lidia Aumara
An Aumara woman-team leader of the
Mt 6962m Aconcagua 2016
Bolivia



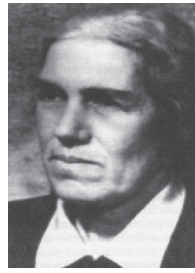
Ines Papert
The strongest legendary Ice climber,
famous alpinist and author
Germany



Irene Miller
The first woman to summit Mt Annapurna 8091m Aconcagua 6961m 1978, USA



Isabella Patissier
The best woman rock climber-climber 1978 first woman to World Champion climb 8b and rally driver France



Janapuze Aleksandra Buchuevna
The first pioneer climber-woman to summit Mt 6542m Elbrus 1925. Russia



Jane Lee
Singapore-2007 Autumn woman NARAS-SWEET expedition leader 8201m Cho Oyu team 2007 Singapore



Janja Garnbret
The queen rock Multiple winner of Lead climbing & bouldering, World Champion World Youth, World Cup Slovenia



Jing Wang
The record woman to complete the Grand Slam in 142 days 2014 & GWR title holder. China



Julia Acchibald Helmes
The first woman to summit Mt Pike's Peak 1808 USA



Junko Tabei
The first woman to summit Mt Everest 1975. Shi shipangma 1981. 7 summit 1992. Japan



Karina Mezova
The woman to summit Mt 5642m Elbrus carrying Olymjcic torch Sochi- 2014 Russia



Katie Bono
The first woman speed record to summit Mt 6194m Denali 2017 USA



Kanchi Maya
The woman to summit Mt 8848m Everest for UN Gender equality in sport Nepal



Kai Taniguchi
The first woman ascent of 7749m Kamet Southeast the winner of Piolets d'Or 2009. Japan



Kim Jain
The queen of sport climbing, 3 times winner of Lead climbing World Cup and Championships. South Korea



Kitty Calhoun
The first woman to summit Mt 8156m Makalu 1990 USA



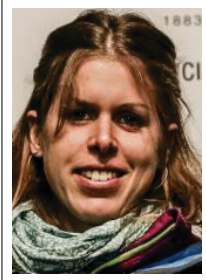
Krystyna Palmowska
The first woman to summit Mt 8051m Broud Peak 1983 Poland



lakpa Sherpa
The first woman to summit Mt 8848m 8 times 2017, GWR title holder Nepal



Liliane Barrard
The first woman to summit Mt 8216m Nanga Parbat 1984 France



Laura Orgue
The woman World Champion-multiple winner of vertical km Spain



Lucy Walker
The first woman of the Golden age alpinist to summit Mt 4478m Matterhorn 1871 UK



Lut Vivijns
The first woman to summit Mt 8167m Dhalagiri 1982 Belgium



Losune Bereziartu
The greatest rock climber; National Geog/ Adventure of the year 2005, Gold Piton Award 2003... Spain



Lydia Bradey
The first woman to summit Mt 8848m Everest without sup/ oxygen 1988 New Zerland



Lynn Hill
The legendary queen rock climber- famous woman of the World , a record holder for 10 straight year. USA



Malavath Purno
The youngest woman to summit Mt 8848m /13/ Everest climber 2017 & GWR title holder. India



Maj Neha Bhatnagar
The woman Exp leader of Indian Air Force's to summit Mt 8848m Everest 2013 India



Marie Lose Valencot
The first woman to summit Mt 8080m Gasherbrum 1982 France



Marie Paradis
The 1-st woman of the Golden Age to summit Mt 4810m Montblank 1808 "quite a fortune" France



Margo Hayes
The best ,first elite woman rock climber, the World's first 5,15a at just 19 years old. USA



Marin Minamlya
The youngest woman to summit Mt Everest -the Explorer Grand Slam/21/ seven summits 2017 Japan



Masha Gordan
The fastest woman time Summits and Expeditions of Explorers Grand Slam in 8 month British/Russia



Maya Sherpa
The experienced woman climber, 2014 K2 women team leader, the Second vice president NMA Nepal



Melissa Arnot Reid
The woman to summit Mt 8848m Everest 6 times USA



Meta Brevoort
The most famous mountaineer of the era, the first woman to climb traverse 4478m Matterhorn 1871 USA



Mina Markovic
The best sport climber-winner of the World Championships in 3 disciplines: Lead, bouldering and speed. Slovenia



Miriam O'Brein Underhill
A pioneering mountaineer, environmentalist and writer- author " Give me the hill" feminist. USA



Molie Hughes
The youngest Woman to summit Mt 8848m Everest from 2 sides 2012 / 2017 UK



Nasanova Elvira
The first woman
3 times Snow
Leopard 1991
15 x 7000 m Mts
Russia



Nellie Silitee
The senior
mountaineer
woman a 100
years climber .
2017
UK



Nikki Bart
The woman to
summit Mt
Everest and 7
summits with her
mother 2017 and
GWR title holder.
Austria



Nives Merol
The 4-rt woman
to summit Mt all
14 x 8000
without extra
oxygen 2017
Italy



Ngim Sherpa
The youngest
Everest climber
/16/ 2012
GWR title holder
Nepal



Nungshi Malek
The first twin
female to climb
Mt 8848m
Everest & seven
summits and
Explorers Grand
Slam 2015
India



**Oksana
Stefanishina**
The fastest
woman to climb
Mt 5642m
Elbrus -Absolute
Extreme
Champion
Russia.



Ola Dzik
The woman
first longest
extreme race
Mt Elbrus
champion and
"Snow leopard"
Poland



Olga Rjvaskaya
The woman to
climb Mt 5642m
Elbrus - extreme
champion runner
/4100-5621/
Russia



Oh Eun San
What Challenge
means? The first
Giant Woman to
summit all Mt
14 x 8000 and
seven summits
& GWR
title holder.
South Korea



Pasang Lhamu
Sherpa The
woman to
summit 8612m
K2,The National
Geographic
Adventure of the
year 2015
Nepal



Parvaneh Kazemi
The first woman
to summit Mt
8848m Everest
8516m Lhotse
in a week
2012.
Iran



**Pauline
Sanderson**
The first woman
to summit Mt
8848m Everest
from the lowest
point 2011
UK



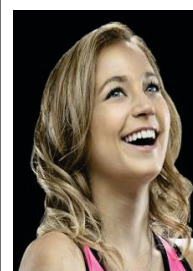
**Pemba Doma
Sherpa**
The woman
leader of the
Nepaly women -
Millennium
8848m Everest
expedition.
Nepal



Phandtok The
first woman to
summit Mt
8848m Everest
from North side
1975, A past
deputy in the
National People's
Congress.
China



Santosh Yadav
The first woman
Indian Army
officer to
summit twice
Mt 8848m
Everest 1992
and 1993
India



Sasha Digiulian
The first woman
to climb "Munder
Wall" and "Magic
Mushroom",
National and
Overall World
Champion.
USA



Sharon Wood
The 5-th woman
to summit Mt
8848m Everest
1986 the winner
of the Tenzing
Norgay Award as
"Professional
Mountaineer of
the year "
Canada

 <p>Shauna Coxsey The famous sport climber at the World Bouldering Championship UK</p>	 <p>Shataeva Elvira Sergeevna The first leader Pamir- Women Expedition Russia 1974</p>	 <p>Shin Woonseon The strongest best woman Ice climber, one of the star climber of the world. South Korea</p>	 <p>Svetlana Sharipova The best classic route runner Mt 5642m Elbrus / 3710-5642/ Kazakistan</p>	 <p>Tashi Malek The first twin woman to summit Mt 8848m Everest , seven summits, Explorers grand slam 2015, GWR title holder. India</p>	 <p>Tolokonina Maria The World's greatest ice climber, 4 times World Champion in speed & lead. Russia</p>
 <p>Tsering Wangmo The first 1st woman to summit Mt Everest carrying Olympic torch Beijing - 2008 China</p>	 <p>Vanessa O'Brein The fastest record woman Explorer Grand Slam in 295 days 2013 , a member of Explorers Club, GWR title holder British-America</p>	 <p>Vera Komarkova The first woman to summit Mt 8091m Annapurna 1978 USA</p>	 <p>Wanda Rutkeewicz The famous woman 3-rd to summit Mt Everest 1986, 1-st k2 1991. Gasherbrum, 1st Cho Oyu 1974, 1st Poland</p>	 <p>Wasfia Nazreen The woman Social worker and writer to summit Mt 8848m Everest and National Geographic Adventure of the year 2015 Bangladesh</p>	 <p>Watanabe Tamae Twice Everest climber from both sides at age 63- 2002. 73-2012 GWR title holder. Japan</p>

Voice of woman. Women in mountaineering

Sanjaa Zaya

zaya46@yahoo.com

YUSUKE SATO

**“The Excellent Adventure” 2017 in Karakoram
East Face of BEATRICE 5800m – First Free Ascent, 600m 5.13a**



Climbing line on the BEATRICE east face “The Excellent Adventure”

Members: Ryo Masumoto and Yusuke Sato

Climbing period: August 1 ~ 9, 2017

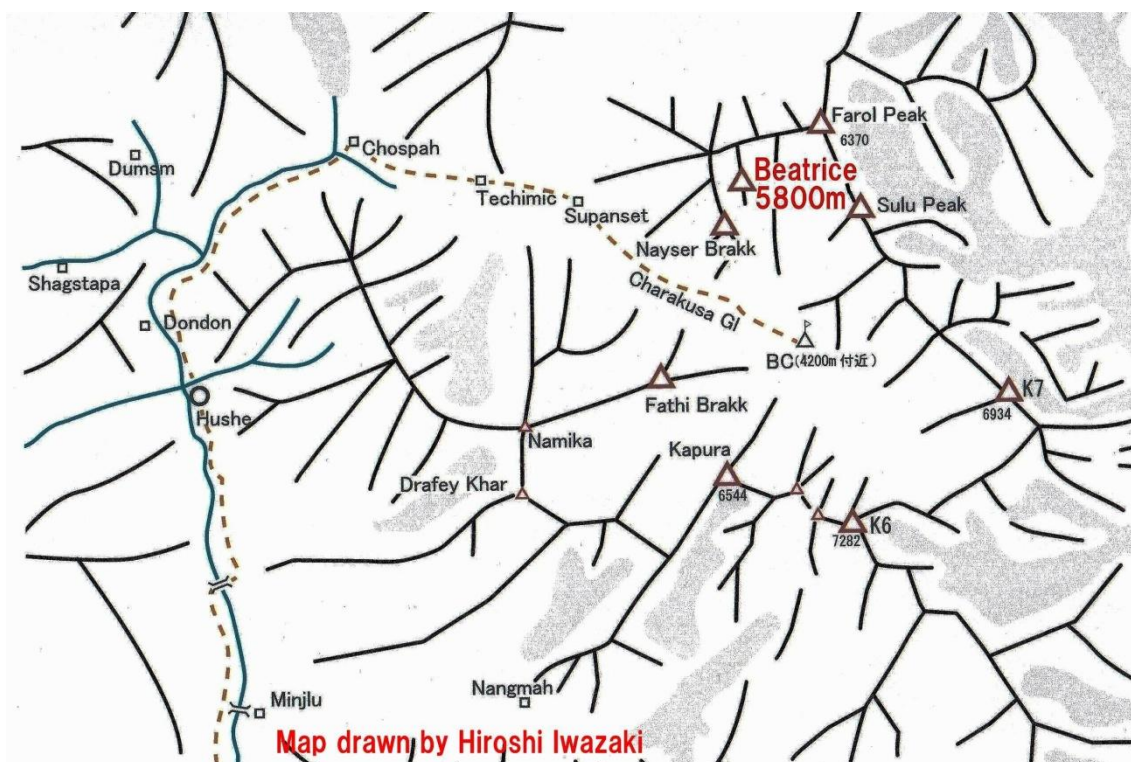


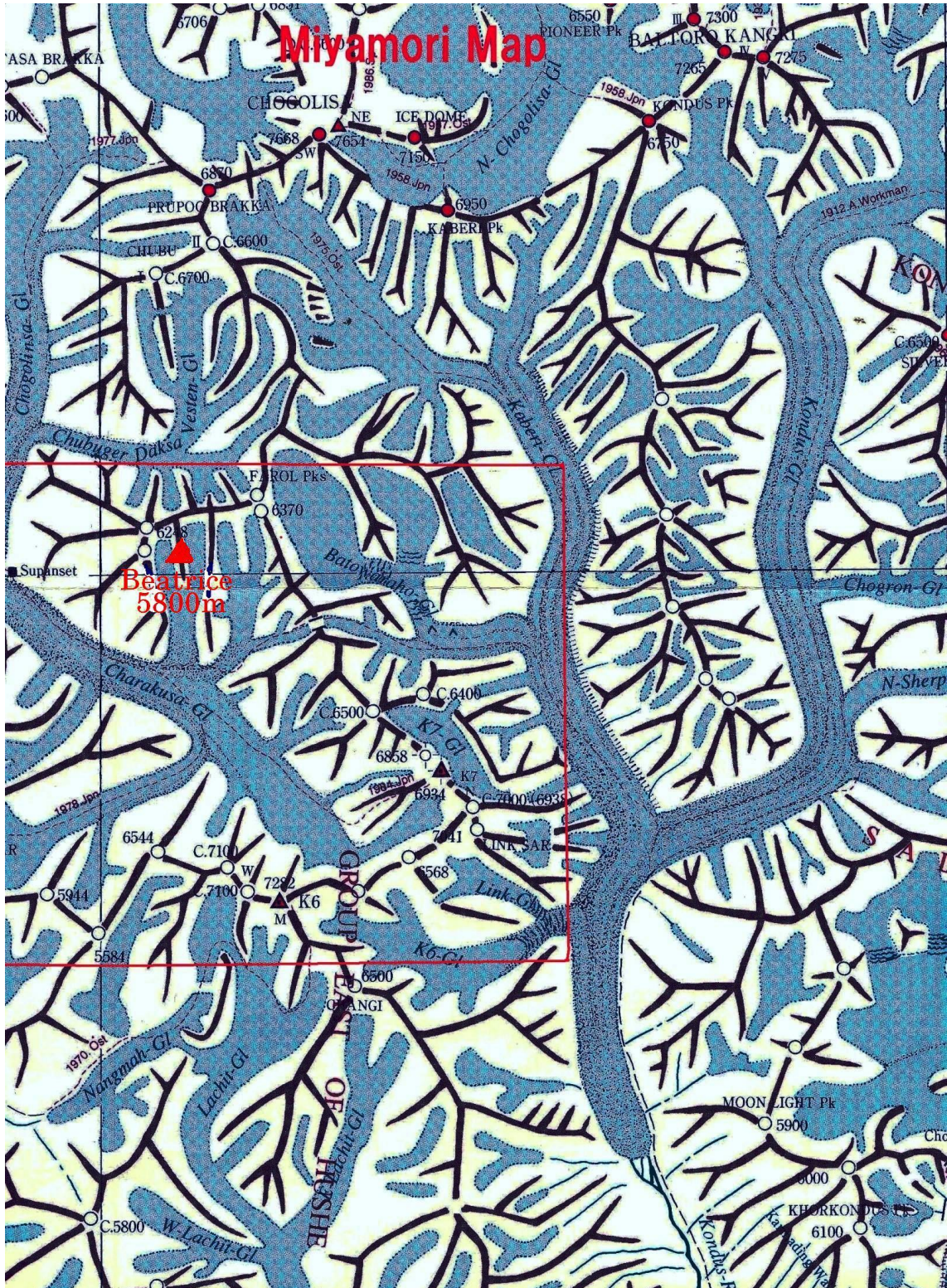
The first bivouac on the wall

On the way of acclimatization and reconnaissance, we had a close view of east face of Beatrice from a hill in the vicinity and were allured by one crack straightly lined in the centre of the wall. Angle being looked up from starting point of climbing was awful and challenging. It promised a wonderful climb that we had never experienced. We soon decided this route for our target without hesitation.

The objective of our expedition to the Charakusa Glacier was “Free ascent of big wall”. We were tempted to accomplish free ascent of steep-angled unknown big rock wall and finally standing atop of the peak. For the purpose we carried heavy loads of crampons for climbing snow ridges, double-axes and winter shoes. On Beatrice a snow band appeared after the 3rd pitch, but after the 4th pitch there was no snow on the wall. We had to carry much water necessary during climbing. Total weight of the supplies to ferry was more than 100kg.

An ideal tactic for free ascent would be to extend ropes by on-site or red-point in succession from lower point. However, more time would have been spent for cleaning and other work in especially difficult pitches for us. In our free ascent of Beatrice this time, as we aimed summiting, taking into account of time constrain and weather conditions, we moved forward basically in free ascent but took advantages aid climbing in certain pitches for reaching summit in time and we tried complete free descent.





This map is from Tsuneo Miyamori's
"Mountaineering Maps of the Karakoram and Hindu-Kush".

Route Summary (by each pitch)

- Pitch 1: A1+, 5.11b 40m – Traversing slab after wet overhang of reverse layer
- Pitch 2: 5.10a 60m – Climbing a bit fragile face upwards to right after horizontal traverse to left
- Pitch 3: 5.10b 55m – Wet slab partially hard
- Pitch 4: after C1, 5.11a 40m – from snow terrace to corner, small overhang filled with mad
- Pitch 5: after C2, 5.12a 20m – from here to Pitch 7 cleaning was necessary fully using corner laybag and stemming
- Pitch 6: after C2, 5.12b 30m – Moving forward along corner by layback in first half and loose jamming in last half
- Pitch 7: after C2, 5.12a 50m – Long varied crack, climbed by layback and face-move
- Pitch 8: 5.10 15m – Detouring face then wet corner
- Pitch 9: 5.12b 30m – Angle getting steeper, starting with hard layback like bouldering, last mantle also very hard
- Pitch 10: after C2, 5.13a 30m – Angle 110° , disconnected crack, mainly face-move, a pitch of the crux
- Pitch 11: 5.12c 50m – overhung 50m corner crack, very much excited as it was wet when completed climbing
- Pitch 12: 5.11a 50m – wet corner carefully negotiated to midway
- Pitch 13: 5.11c 60m – completely dry crack, jam effective, enjoyable
- Pitch 14: 5.9 60m – Comfortable crack climbing
- Pitch 15: 5.10a 50m – Comfortable crack continues
- Pitch 16: 5.10a 30m – To snow terrace after comfortable crack climbing
- Pitch 17: 5.9 55m – Reached ridge (wall climbing finished)
- Pitch 18: 5.9 29m – Climbed avoiding unstable ice-snow, slab a bit awful
- Pitch 19: 5.10c 45m – Avoided overhung rock peak then traversed unstable side wall
- Pitch 20: 70m snow ridge to the summit

There are three routes already opened on the east face of BEATRICE.

The Excellent Adventure (750m, ED+ A3+: grade of the first ascent) was first climbed by a British team of three members in 1997. It was the line to follow crack stretching along the centre of the BEATRICE east face. We made the first free ascent of the same route with more than 600m fascinating crack. In free ascent two bolts were used for belay anchoring.

The route is divided to the three sections. The beginning is the lower part of 120m to snow terrace above overhung reverse layer. The steepest in the mid section between Pitch 5 ~ 11 is the crux of free ascent. Five pitches of some 5.12 continued. We graded 5.13a for the most difficult pitch. Six pitches of the upper section were rather gentle hand crack, which continued to the ridge. Further two pitches climbing on the ridge and snow ridge led us to the summit.



Beatrice Peak–c5800m Southeast face "The Excellent Adventure" Hajeta

The first routes on this face were put up in 1997 when British climbers Grant Farquar, Steve Meyers and Mike "Twid Turner, and simultaneously Glenda Huxter, Kath Pyke and Louise Thomas, climbed two roughly parallel lines in capsule style; The Excellent Adventure (British E3 6a and A3+) and Hateja (also British E3 6a and A3+). The three Americans chose a line through the multiple overlaps to the right of the previous routes and in rather inclement weather decided to fix ropes on the first 360m before committing themselves to the wall. Once established on the route they then had to face the worst storm of the expedition, which put down approximately one metre of snow over several days. The trio fixed another 240m through discontinuous cracks on the headwall before deciding to go for the top. However, when they discovered the summit to be guarded by a long knife-edge ridge composed of poor snow and dangerously loose blocks, Chin, Howe and Workman, in common with the two British parties before them, decided that the top of the wall was reward enough. They descended from this high point, christening their route Wanderlust and offering a grade of VI, 5.10+, A3.



Sato climbing Pitch 1



Pitch 6 5.12b 30m



Sato leading Pitch 9 5.12b



Day-6 Comfortable climb, upper sect



Day 6-Delicate climbing continued on the ridge.

Area Information

Climbing in the Charakusa can roughly be divided into three areas.

The first is the area encompassing Fathi Brakk, Haji Brakk (5,950m), and Farhod Brakk (ca 5,300m) on the south side of the glacier, and Sulu (ca 5,950m), Beatrice (5,800m), and Naisa Brakk (5,200m) to the north. These provide good acclimatization ascents, and the last three named—the easiest to approach—can all be climbed in a day from base camp. The Fathi-Farhod group provides longer outings, mainly because it is farther from camp. The north faces have serious rock routes, but the south sides are almost hikes. They also provide excellent views of nearly everything on K6 and K7. Just above base camp stands a 300m "crag" named Iqbal Wall. Due to its proximity, generally good granite, and low elevation, it is now covered in routes.

The second area forms the meat of the valley, the horseshoe southeast of base camp ringed by K7, Link Sar, Hassan, K6, K6 West, and Kapura. K7 (6,934m) is a huge granite massif, reminiscent of Chamonix in that it has big, steep granite towers of excellent granite, interspersed with gullies and couloirs similar in appearance to the east face of Mont Blanc du Tacul. There is still plenty of potential for new lines in the K7 massif, particularly pure rock routes, and in my opinion *the* line still awaiting a first ascent is the complete southwest ridge, falling directly from the summit.

K6 (7,281m) is perhaps the jewel. Although only slightly higher than K7, it is in a different league. The immense north side is a convoluted nightmare of seracs, unconsolidated snow, and mixed terrain. The northwest face has seen attention, but two things have prevented parties getting on it. Firstly, the objective danger is high: There is a serac at the top that is only visible when making a full reconnaissance. Secondly, there is a huge crevasse barring access; it was perfectly visible in 2012. The northeast face, between the main summit and K6 West (7,040m), has seracs, cornices and mushrooms. While it presents futuristic lines, it also provides the most spectacular avalanches, and it would be ill-advised to contemplate anything there.

While overshadowed by its bigger brother K6, Kapura (6,544m) is an elegant peak. The northeast face is a snow-fluted nightmare, but there have been at least two ascents from the west side, though the southwest ridge remains unclimbed.

The third and final area lies farther from the main hub of Charakusa climbing, and contains three different yet interesting peaks. Drifika (6,447m) is one of the most eye-catching peaks in the Karakoram, and there are various technically straightforward options to climb it from this side. However, the approach requires negotiating two

convoluted icefalls. Changmah (5,844m) looks to offer a few fun options to the top, and one assumes it has already seen an ascent. Thanda Parbat (incorrectly marked on maps as 6,553m; more like ca 6,000m) has obvious and safe lines, and I do not believe it has been climbed.

This is a fun acclimatization area and gives great views of K7 and its neighbors. Access is via the straightforward South Charakusa Glacier. Between Kapura and Fathi Brakk the glacier narrows and forms an icefall. By hugging the northwest side, it is possible to get off the glacier before it becomes too bad. There is an old fixed rope attached to pegs, marking the slabby exit point. Camping beneath any of the above objectives is advisable; otherwise it is a huge day from base camp.

Jon Griffith, *France*

LIU TUANXI (Penname: LITTLE DONKY)

The Hengduan Mountains in East of the Himalaya

The Asian Great Rivers and River Rafting/Kayaking

Edited & Supplemented by Tom Nakamura
in collaboration with Sichuan Earth Expeditions, Inc.

Part I: Overview of the Hengduan Mountains

“Where in all the world is to be found scenery comparable to that which awaits the explorer and photographer in north-western Yunnan Province, China and in the fastnesses of Tsawarong, in south-eastern Tibet? Few have been privileged to climb the towering ranges separating the mightiest streams of China, in northern Asia. The whole region, so geologists tell us, was once one vast, high plateau now intersected and eroded by some of the longest rivers in the world. These rivers changed this high plateau not merely into a land of lofty mountains, but of deep valleys with gloomy shadows and forbidding gorges never trodden by human foot.” *J.F. Rock, “Through the Great River Trenches of Asia”, 1926*

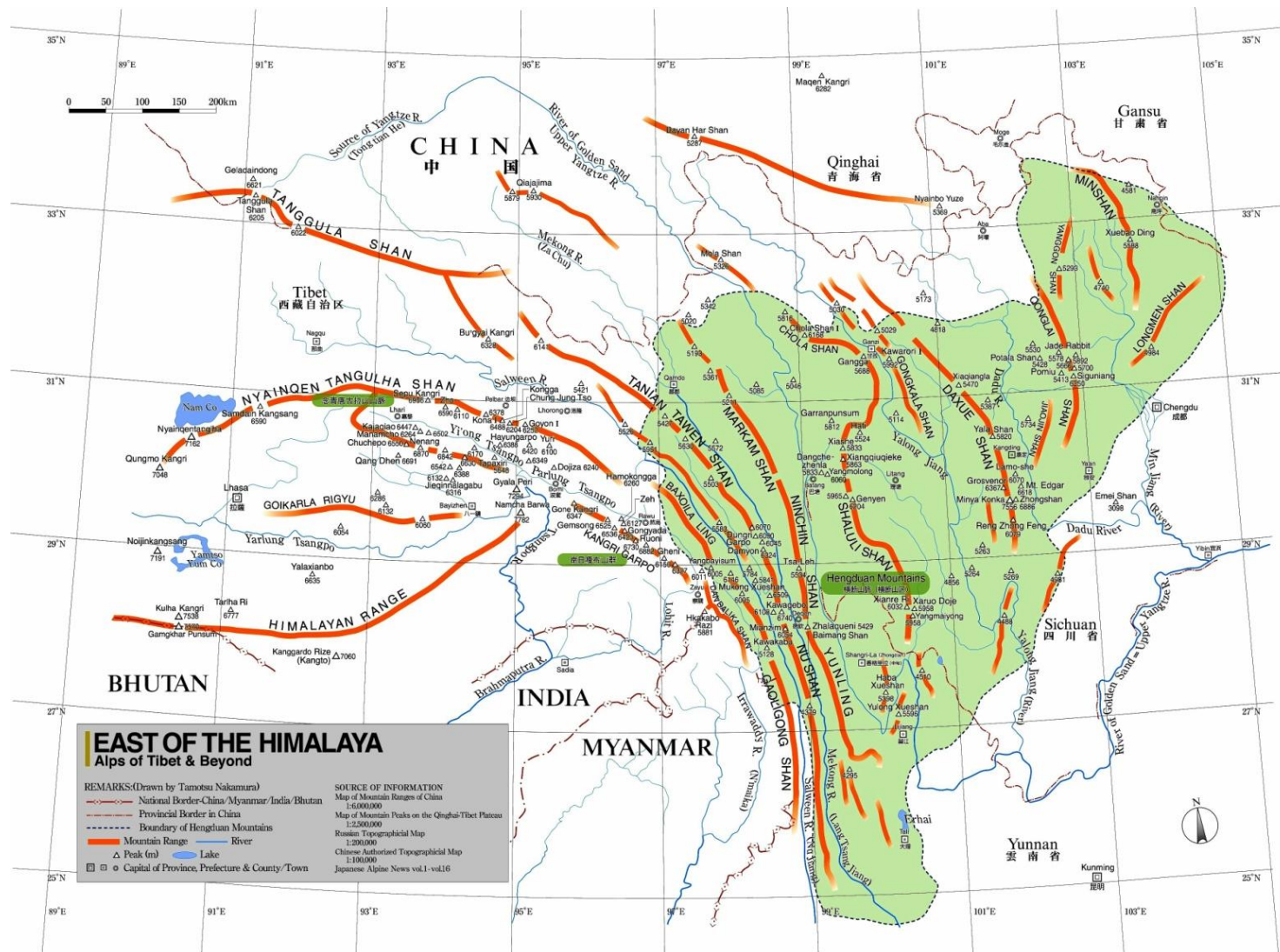
This accurately describes a stunning beauty of spectacular mountains and rivers.

The region in the borderland between Tibet, Sichuan and Yunnan, so-called Deep Gorge Country that was the an absolutely remote far-flung and isolated area in former times, is situated in the heart of the Hengduan Mountains which spread to the east of the Tsangpo Great Bend. The Lohit, the easternmost tributary of the Brahmaputra, as well as the Irrawaddy, the Salween, the Mekong and the Yangtze rivers have cut deeply eroded trenches gorges through the mountain ranges. Many peaks are more than 6,000 metres high. Flowing from north to south, in one place these five rivers are squeezed to a span of an area that in one place is merely 150 kilometres wide before fanning out on their journeys to independent seas from the Pacific near Shanghai to the Bay of Bengal in the Indian Ocean while at their mouths they are thousands of miles apart.

After the year 1970, the **Chinese Academy of Sciences** dispatched a series of scientific expeditions to the Qinghai-Tibet-Plateau and since 1981 the survey teams have shifted their research activities to the Hengduan Mountains Region.

This mountain region was formed 150 million years ago by tectonic movements and up to our days it is tectonically active at the present time. It lies is situated on the east flank of the juncture where the Indian and the Eurasian plates hit each other and it forms the transition region between the east zones encircling the Pacific and the west zones of ancient Mediterranean. The geological structure of those mountain chains is very complicated. Their altitude declines from north-west to south-east. The main part of the territory is characterized by a number of parallel mountain ranges with deep gorges running from north to south. Eastern Tibet including Western Sichuan and Northwest Western Yunnan approximately lies between 97° - 105° E and 23° - 33° N and can be considered as a unique geographical region. Its total area amounts to nearly 420,000 km². The Chinese name for this striking region is “Hengduan Shan” which means “traverse

cutting mountains”. A long time ago already, Chinese geographers had already recorded stated that most of the mountain regions in Asia extend from west to east, whereas the Hengduan Mountains stretching from north to south represent an exception.



(Green colored part shows the Hengduan Mountains)

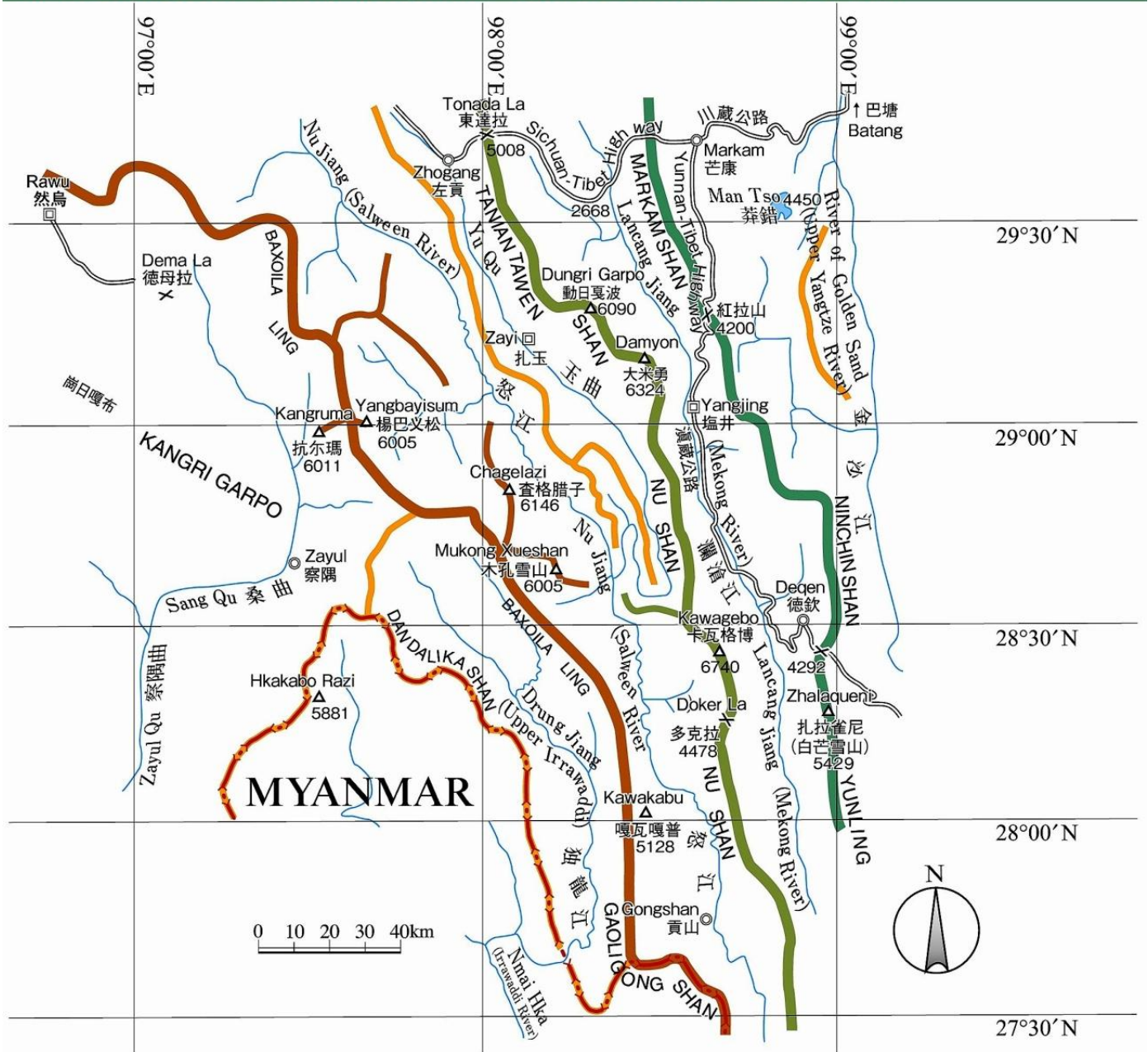
These mountain ranges form a considerable communication and mobility barrier between the people living on the Tibetan Plateau and those living in the Sichuan Basin. This effect was mainly significant before the 1950s when travelling was only possible on difficult and tortuous mountain trails, across rope bridges or iron suspension bridges.

Geographically speaking the name “Hengduan Shan” particularly refers to the region that is known as the Three River Gorges Country in the borderland between Tibet, Sichuan and Yunnan and that is characterized by a distinctive arcuate/bow-shaped structure. Regarding its geomorphology it corresponds to the parallel ridges which separate the three mighty rivers Salween (Nu Jiang), Mekong (Lancang Jiang) and the River of Golden Sand (Jinsha Jiang), which is the upper reaches of the Yangtze (Chang Jiang). This entire geological system with its remarkable structural and morphological characteristics as well as this system of rivers may be unique in the world.

BAXOILA LING - GAOLIGONG SHAN 伯舒拉嶺—高黎貢山

TANIANTAWEN SHAN - NU SHAN 他念他翁山—怒山

MARKAM SHAN - NINCHIN SHAN - YUNLING 芒康山—寧靜山—雲嶺



The region east of the River of Golden Sand with the drainage system of its tributaries Yalong Jiang and Dadu He as well as the area stretching further to the east up to the river Min Jiang are usually described separately as an independent geomorphologic zone that is called the “West Sichuan Highland”. It presents the same scenic attributes as the Deep Gorge Country but it has a little different geological history and fundamental structure. The significant topographical similarity of the “West Sichuan Highland” forming the eastern edge of the Tibetan Highland and the Three River Gorges Country serves as a basis for the traditional concept of the Hengduan Mountains as a combination of both regions.

In general most of the mountain chains of the Hengduan Region correspond to the geological structure emphasized by ranges and gorges. With the exception of the regions along the upper reaches of the three

most important rivers, precipitous mountain ranges produce form a pronounced feature relief characterized by altitude differences between ridge crests and rivers of up to 2,500 m in the north and 3,500 – 5,000 m in the south. The Kawagebo, e.g., the highest peak of the Meili Xueshan (Snow Mountains) is 6.740 m high, while the river bed of the Salween is situated at 1,800 m and that of the Mekong at 2,000 m.

West Sichuan and the adjacent areas in the south of North-Yunnan show a varied topography. The plateau-like types of landscapes stretch far to the north where they unite with the real Tibetan Plateau. Many towering peaks in this region exceed 6,000 m and the most magnificent massif is the Minya Konka (7,556 m) (chin. Chinese name: Gongga Shan).

The Hengduan Mountains are, from a climatic point of view, a transition zone between the lowland tropical and subtropical climate in the southeast and the highland climate of the actual Tibetan Highland in the northwest. The region therefore shows a large number of micro-climates that are nevertheless all influenced by the rhythm of the south-western Asian monsoon that is characterized by a seasonal alteration of wind systems. Recent studies seem to prove the existence of an own permanent pressure system on the Tibetan Plateau that is marked by a change of the prevailing wind direction in winter and summer. This is described as an independent plateau-monsoon-system. It affects the weather and the climate on the plateau itself and it may cause some deviations of the average Asian monsoon conditions in the neighbouring regions including the Hengduan Mountains. The different local climates complicate a systematic, comprehensive description of the Hengduan Mountains. Nevertheless the well-defined, horizontal temperature zoning associated with other climatic factors make it possible to divide the Hengduan Mountains in seven different climate sections that range from the tropical zone to the polar zone.

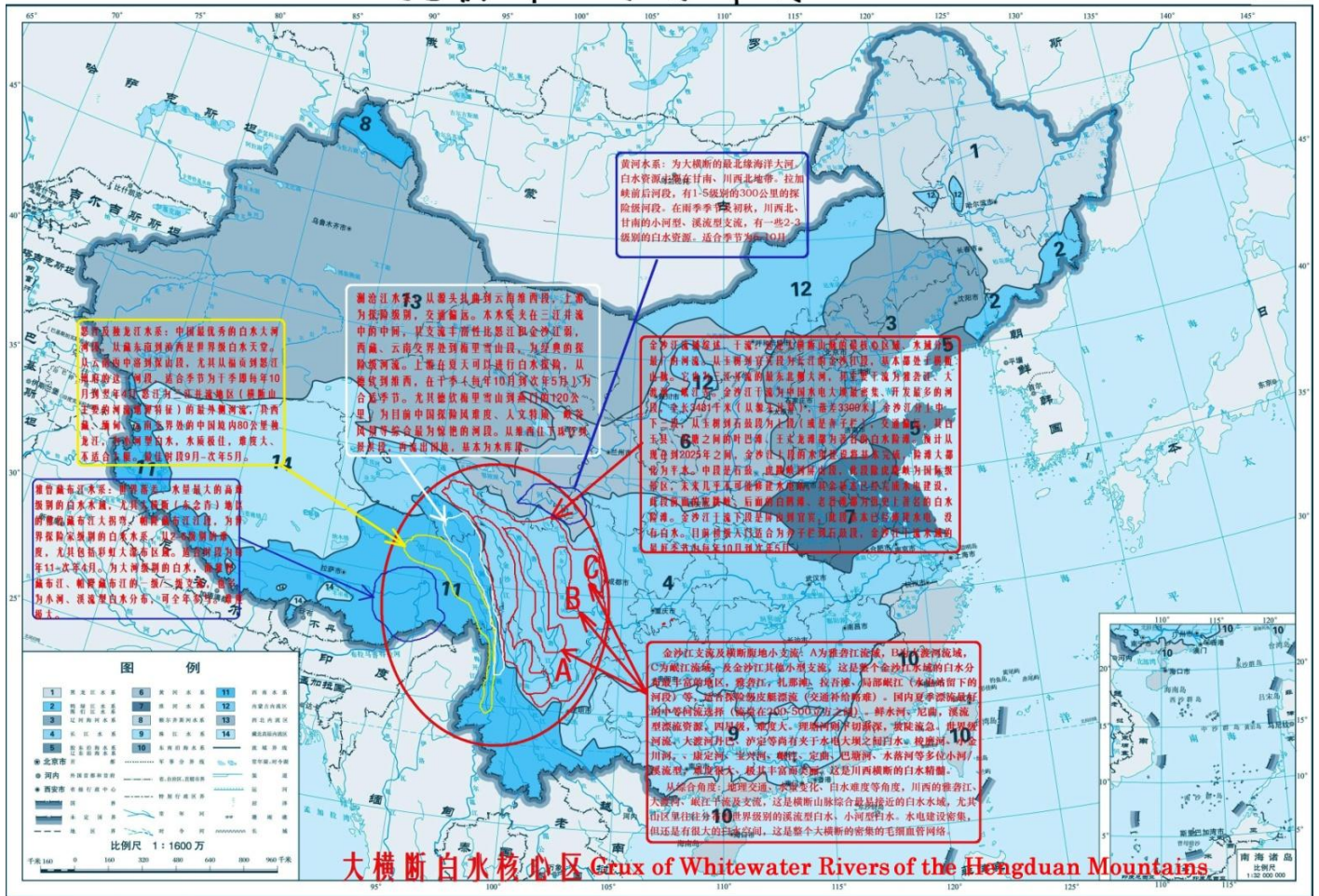
Part II – The River Rafting/Kayaking in the Hengduan Mountains

Paddling can be done with inflatable rafts, or kayaks in the swift water. They are called as Whitewater rafting or kayaking. The difficulty of paddling is generally divided into six levels. Level 1 is entry one; Level 2-3 is proficient; level 4 is difficult, level 5 is extremely difficult, and level 6 is almost not able to run with the high risks and hazards.

From a view point of the perspective of geographical exploration and natural culture, the connection between humans and Hengduan Mountains cannot escape the topic of water. China's richest river exploration resources are concentrated in the Hengduan Mountains. The Hengduan's rapids have great value for exploration of rivers.

In China, the event of Yangtze River drift in 1986 was a milestone in history. In the "last great conquest" in the history of world exploration, the drifting is known to the Chinese people as the tragedy and heroic. Internationally, from the early 1980s to today, there are many explorers from Europe, America and Japan, who have come to this area to explore the whitewater kayaking and rafting. Since 2008, for various reasons, foreigners must have each one a separate entry permit to enter the Tibet autonomous region.

大横断白水分布图 Whitewater rivers in Hengduan Mountains



In terms of whitewater resources, the Hengduan Mountains is also the most abundant exploration resources area on earth. This area, connected to the Himalayas, the Karakoram region, is the earth's peaks' ocean, where there are the highest mountains on earth. It is the water towering reservoir of the earth, the most density of rivers and streams on earth. It is a magnificent totem on earth.

The rivers in the Hengduan Mountains are divided into the water systems of the Pacific and the Indian Ocean: Yellow River and the Yangtze River (Jinsha river basin), the Lancang river (upstream part of Mekong River in China), Nujiang (Chinese section of Salween river), Dulong river (upper Irrawaddy), the Yarlung Zangbo river basin ("shura ridge east). The first three belongs to the Pacific, and the latter Indian Ocean water systems.

Only whole Jinsha Jiang (river runs in the Hengduan Mountains in the six rivers, which is upper part of the Yangtze River. The Three rivers parallel flow area is very representative geographical patterns, cutting out the geographical wonders. The Jinsha river, the Lancang river, the Nu river and the Dulong river run parallel at the northwest of Yunnan, crossing many high mountains, and the rivers flow parallel between them but not meet together.

The Yarlung Zangbo river, the wildest river on earth, has a huge flow and gradient, which is known as K2 of river in the world. The Nu river itself is the last river in China that has not been exploited, the best whitewater river worldwide.

The Yellow River symphony



Lake Ngring 4250m, a source of the Yellow River, Qinghai Province

The Yellow River, its upper reaches on the northern edge of the great transversal mountains (the Hengduan Mountains). Because of too much hydropower development, the swift water and rapids is fairly barren.

The source flow is small and seasonal, the raft is not suitable. The whole Yellow River has been largely exploited, in which 32 large hydropower stations or water conservancy projects were built.

Maqu and Laja grande valley is currently the best preserved section of the Yellow River whitewater. Rapids at the maximum level of 4, the length is 240km, no man's area or people are very few, and the evacuation and logistics are difficult. The drifting season is from May to October each year. The wild fox gorge section of the Qushian/Yangqu, the rapids maximum level 4, the runnable river section is about 40 kilometers. The drifting season is also from May to October each year.

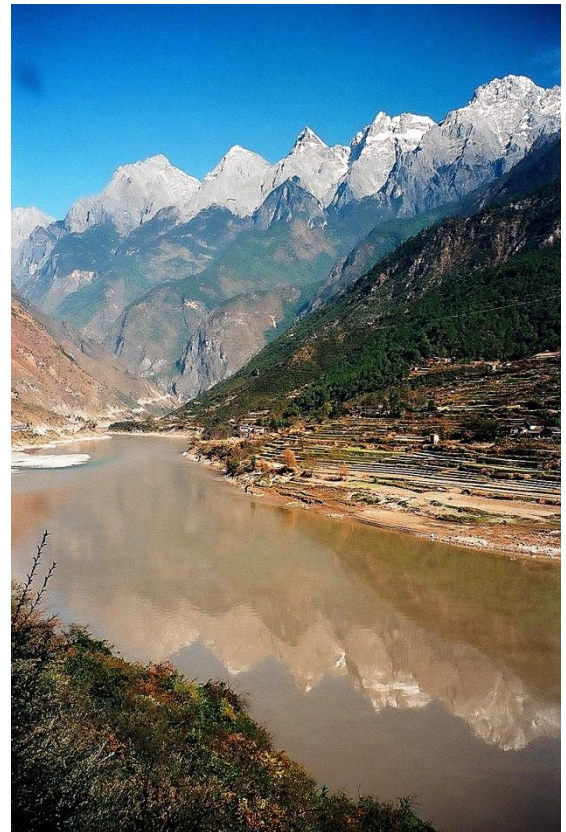
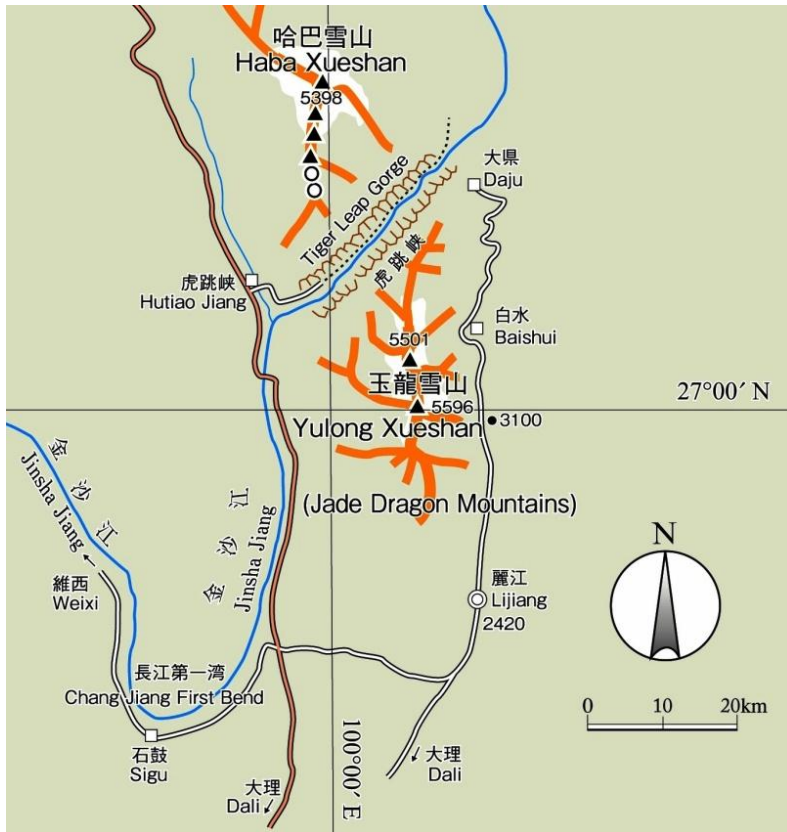
White river, Black river, as the Yellow River's influents, have small flow, in July-August, seasonal drift can be done. Runnable section is about 50 kilometers intermittently, and rapids are between 1-3 levels.

The Jinsha river, a ligated river, River of Golden Sand (Upper Yantze)

The Jinsha river is not only a natural river, but also a river of variety of ethnic culture. From Tibetan culture to the other anthropological culture, which distribution is extremely diverse and rich.

Its main stream is 2,400 kilometers long, with the exception of from the Shigu town to the Benzilan and the Tiger Leaping gorge after the Rock Drum, which whitewater is preserved and other river sections are

became now calm water by hydropower stations. The upper and middle sections of the Jinsha river are in the Hengduan Mountains area. The upper section has 13 influents, covering more than 1,200 square kilometers watershed. The nine major influents of the middle section are more than 100km long totally, between which, many influents have hydropower stations but not many enough, so then it's still suitable for whitewater sports.



Map & picture – Yulong Snow Mountain and Jinsha river / Tiger Leap Gorge

Jinsha river is divided into three parts: from Yushu to the Shigu town upstream, the Shigu town to Panzhihua for middle, Panzhihua to Yibin for downstream located in the Tibet and Sichuan. The upstream whitewater resource is very rich, but many hydroelectric projects' planning and design have passed, most are under the construction without water (water reserve between 2018 and 2023), the difficulty is at 4-6 levels, in where most rafters had lost their life for the year 1986 drifting event.

It is about 210 kilometers from the Benzilan to the Shigu town, and is a typical commercial drifting route in China. It has one rapid of 3 level3, three of 2 level, 20 of 1 level. Convenient transportation and moderate altitude are appropriate for rafting. The best season is November to May of the following year. A large boat is also suitable. The middle section, the Tiger leaping gorge, the world's top whitewater canyon, will never have a dam in the future.

The last whitewater, which has 22 rapids, is distributed in 21 km of river. In the dry period (November to May of the following year), there is a practicability of drifting, with 3-5 level's rapids. In the rainy season,

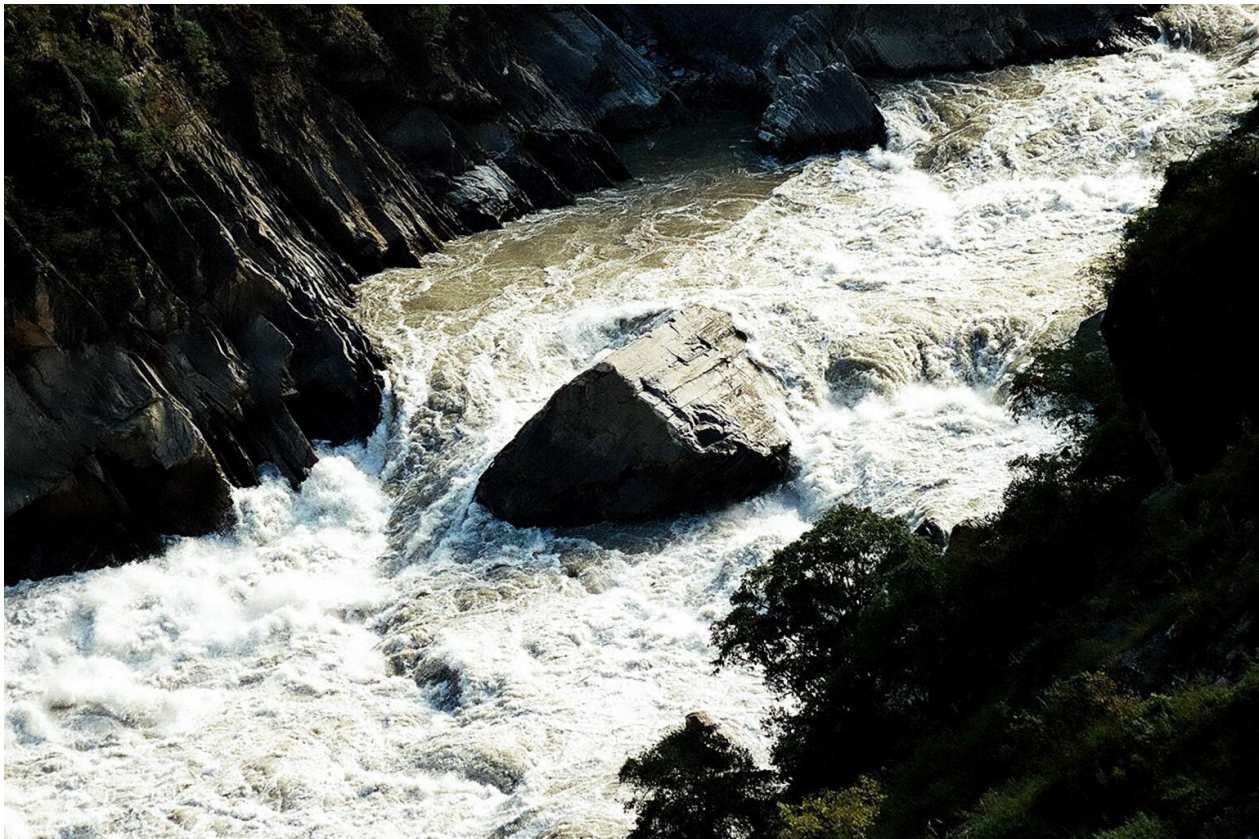
the whole Tiger leaping gorge is not allowed to drift. It is the most magnificent whitewater in Jinsha river and even on the earth.



Beautiful Mianzimu 6054m east face at dawn, Meili Snow Mountains



Kayaking near Benzilan, Jinsha river



Tiger leaping gorge



Freestyle kayaking in Tiger leaping gorge (Photo: LIUKANGMKING)

Yalong river is the 1st grade influent of Jinsha river. The upriver is Zagna , Lagoa rapids, etc., suitable for kayaking exploration. From the Stone canal to Dege county and Ganzi county, rapids are mostly three levels' difficulty, moderate flow, and supplies on the shore can be done by car. It is the best choice for middle river rafting in China at present, and the flow rate is between 200-500 cubic meters. The river of Yalong river can be drifted well: Fresh water river, Niqu river, Liqi river, Jiulong river, Llitang river and so on, through the Tibetan area, are all very beautiful.

Another Jinsha river influent is the Dadu river, upstream for the plateau wetland. To Luding is the lower section of the upper reaches, the dangerous rapids, in 80% of which, hydropower stations have been built.



Base for dam construction, Dadu river, north of Luding, Sichuan

Among them, there are three complete whitewater sections, which can be used for kayaking and rafting. From Luding to the town of Moxi is about 35 kilometers. The overall difficulty level of the two sections is 3-4, suitable drifting season from June to November, six or seven influents of the Dadu river like Somo river, the small Jinchuan river. There are small hydropower projects along them, which are not suitable for rafting, and can be explored by various kayaking/canoeing.

Qingyi river, each year from June to November, the each section of the river is suitable for exploration of small boat drifting, difficulty from 1 to 5. The disadvantage is that the hydropower station is densely built. The Minjiang river, a influent of the Jinsha river, 90 percent of which is became calm water with power exploitation , only a small amount of whitewater left, which is at level 2 to 4. The running season is between September and October, and the rainy season has quite great risks. Influents like the mixed valley brain river, black river and so on, for the difficulty level 2-4 is stream type, more suitable for kayak.

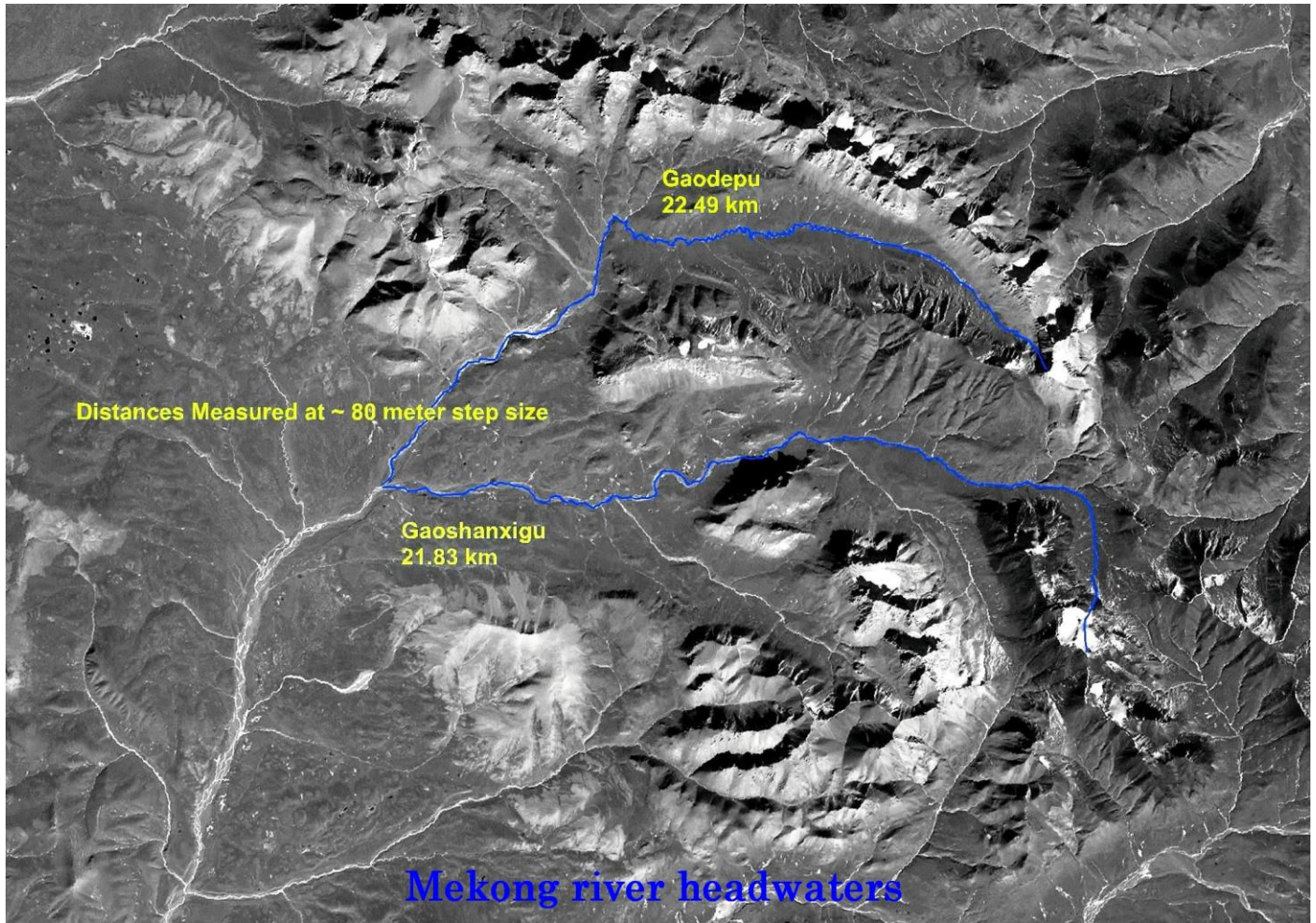
The Baotang river, the hot music river, and other forty secondary and three smaller grade influents of Jinsha river, mostly in Sichuan and Tibet, is a very good whitewater river. The middle and small influents of Jinsha river, such as the Shuiluo river and Longchuan river are mainly in Yunnan and Sichuan, are exploited for hydropower development or agricultural land, and the river section is polluted.

The Jinsha river basin covers about 60% of the rivers in the Hengduan Mountains. Hundreds of such Jinsha river primary, secondary and tertiary influents have many hydropower stations of human engineering construction, but there still remains its world-class whitewater resources advantage. This is a controversial paradox of nature reservation and development. .

The forgotten river, Lancang river (Mekong River)



Headwaters of Source of Mekong River, Qinghai Province



The Lancang river is the eighth longest river in the world, of which 4,800 kilometers of the river are 2,200 kilometers in China. In particular, its water flow is abundant, downstream to the Mekong river, the Lancang river in the great Hengduan area, concentrates its best drifting whitewater resources. In the source area, its tributaries are numerous, such as Zahara and the Garna-songdo region, which have nearly 400 tributaries. The source area is wetland type, the drifting is not suitable.

Editor's notes:

The First Descent of the Source of the Mekong River

Descending 560km by a kayak and rafting boat in Tibet-Qinghai Plateau August to October 1999

The Exploration Club of Tokyo University of Agriculture (TUA) led by Masayuki Kitamura

and

The Chinese Academy of Sciences (CAS)

The Japan-Sino Joint Expedition succeeded in the first descent of the source of the Mekong River from the headwater to Qamdo in the fall of 1999. It should be also noted that the American party of Earth Science Expedition led by Mr. Pete Winn navigated the same course upto Zadoi starting only one day later.



Trekking forward to the source of Lancang river (Mekong River) Photo. Masayuki Kitamura



Upper Lancang river between the headwaters and Changdu Photo: Masayuki Kitamura



Changdu (Qamdo) city, monastery and Lancang river (Mekong River)



Lancang river (Mekong River) near Changdu (Qamdo)



Middle Lancang river, Yunnan Photo: Masayuki Kitamura



Raging rapids of Lancang river Photo: Masayuki Kitamura

The Lancang river is just a stream of about 200 kilometers long before the Changdu. It's difficult for accessibility and drifting. From Changdu of Tibet to Deqin, Weixi of Yunnan, Lancang river passes through between the mountains, deep canyons, swift water and rapids, as one of the narrow trenches flowing down north to south in the Hengduan Mountains.

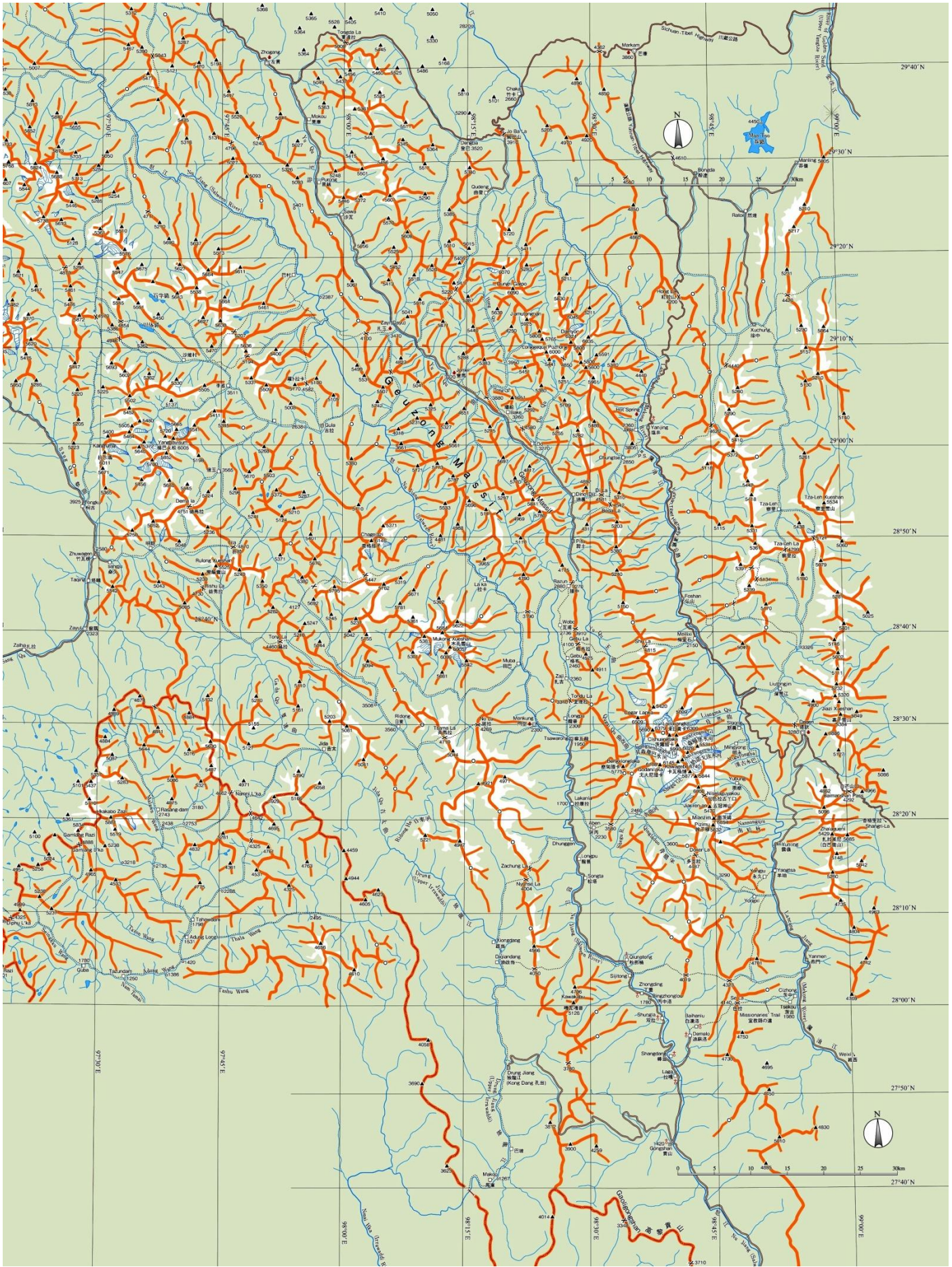
The construction of eight hydropower stations is expected to be completed by around 2025. It has a bad accessibility in the dry hot valley. Water current is mostly turbid throughout four seasons mostly turbid, but the landscape is overwhelmingly magnificent, fascinating and breathtaking.



Lancang river at Yangjing, Tibet, near Deqin of Yunnan Province

The rapids after Weioxi of the Lancang river have been disappeared as a result of many hydropower stations. The best whitewater of the Lancang river is in Yunnan Province, and it is a perfect 120-kilometers long of whitewater with many 3-6 level's rapids from the Meili Snow Mountain west of Deqin to Yangmen .

Angqu is the largest branch of Lancang river in Changdu to the Lancang river. It is 500 kilometers long, the river good for adventure. It is very difficult and remote. The Yangbi river is another tributary, and the dam has already flooded rapids.



Map of Deep Gorge Country – Dulong river, Nu river and Lancang river

Nu river, the whitewater paradise (Upper Salween River)



Upper Nu river (Upper Salween) near Biru, Tibet Autonomous Region



Upper Nu river and new road at Mali near a historical Jiayu bridge

Before the Jiayu bridge in Tibet, it is upstream of the Nu river, which is called the Naqu river. It is gentle and open, and the flow rate is slow. From Jiayu bridge to Lushui County in Yunnan Province, the middle reaches of the Nu river can be divided into two parts. The first one is a thousand kilometers long, the water flow is large, the dry and hot valley, and the access is difficult. The drifting difficulty is relatively high, no one in the past has finished drifting on it. The latter part has abundant whitewater resources.



Upper Nu river downstream of Jiayu bridge

Nu river, jade color water, rapids as a tiger, has his best whitewater in Yunnan. Between the Gaoligong and the Biluo snow mountains, there are more than 600 kilometers long, the valley is deep, the cliffs rise, the water is roaring at the bottom of the gorge.

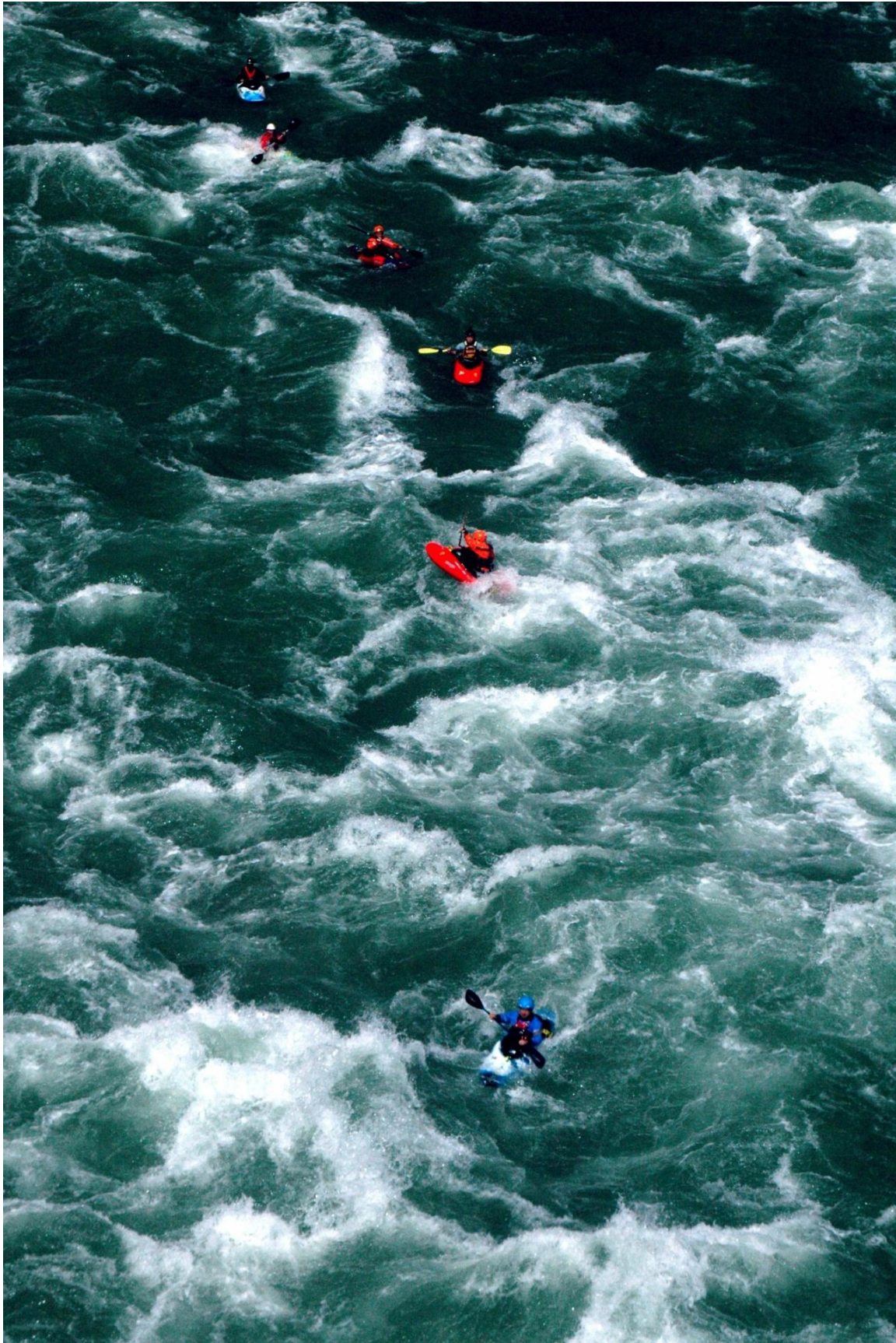
This is the grand canyon of Nu river. Its whitewater resources, for kayaking and rafting are also world-top class, comparable to the Grand Canyon of Colorado river and, even more spectacular.



Nu river and rope bridge near Fugong

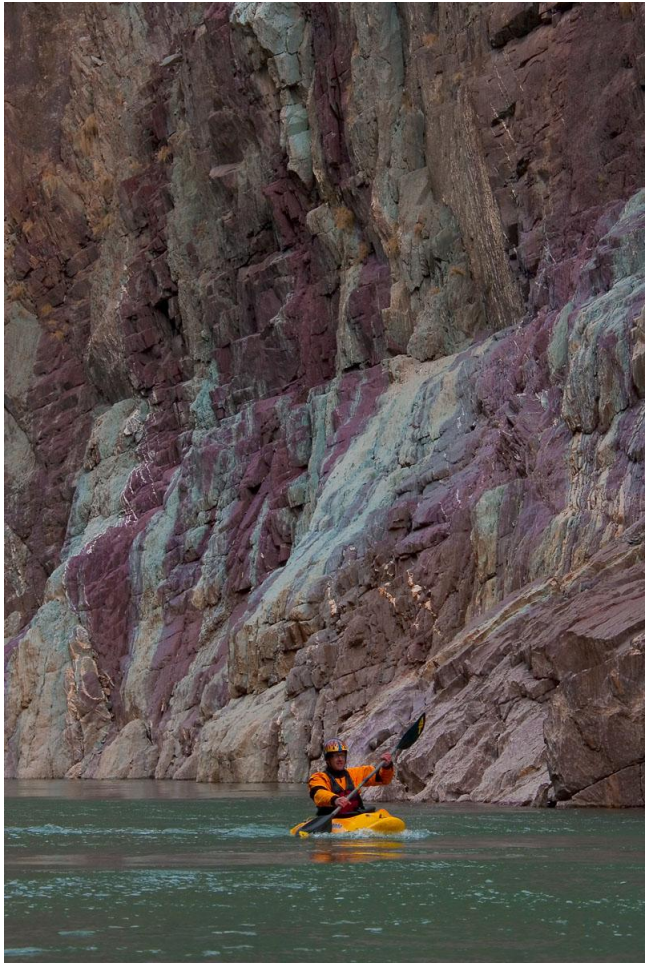
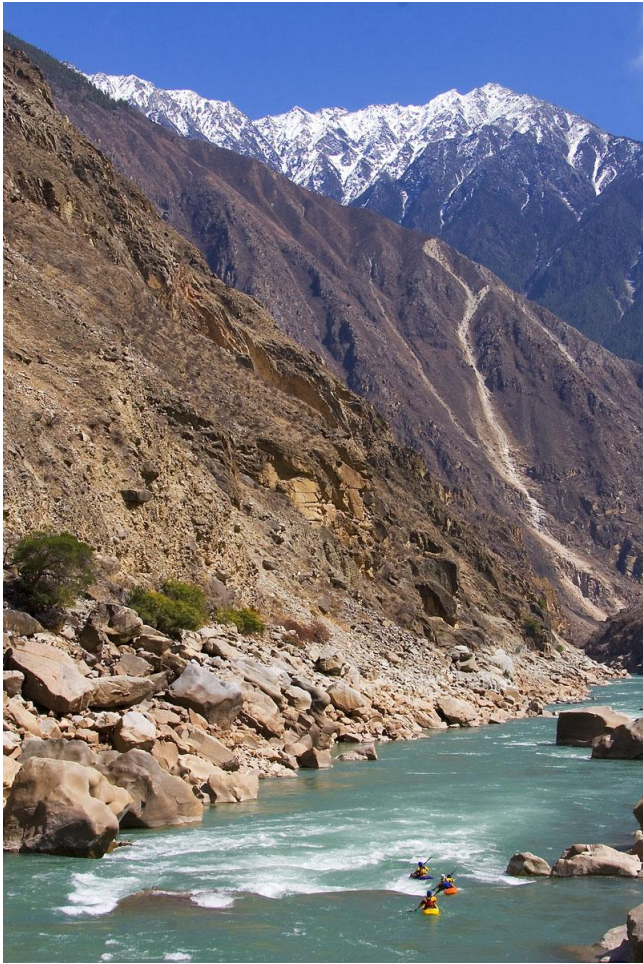
In particular, 360 kilometers long in Yunnan is the world's best whitewater rafting/kayaking field. There is no hydropower construction till now. There were plans for 5-12 cascade hydropower stations before 2004, but the projects were finally not implemented due to pressure of different forces.

The most famous rapids are the tiger leaping rapids and the stone moon rapids, all are at level 5 difficulty.





Above three (3) photos: Kayaking through raging whitewater rapids in Nu river



Above three pictures taken by Travis Winn, American rafter – Nu river crux of whitewater stream

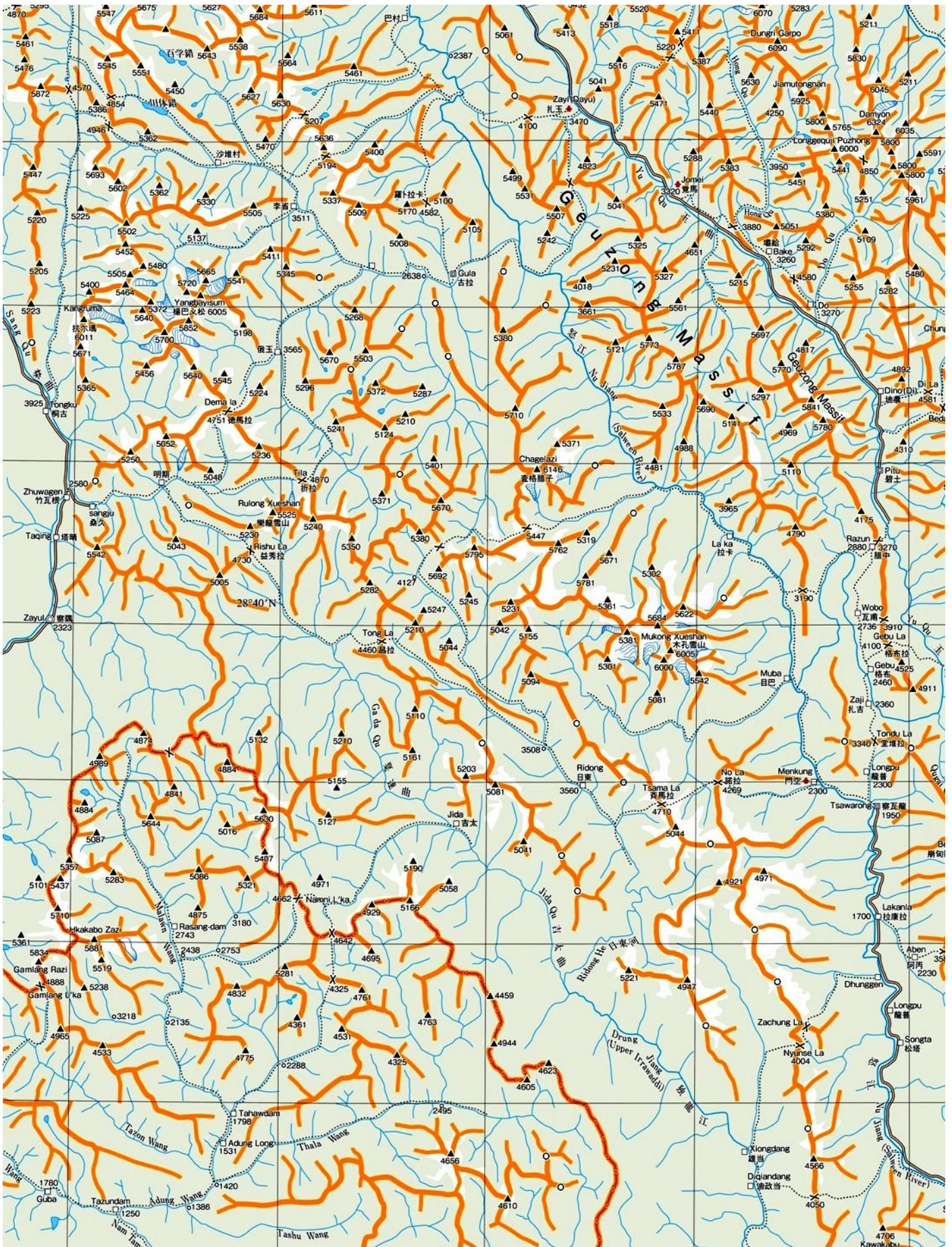
The Nu river tiger leaping is came from the Lisu dialect, the pronunciation of "la doloro" or "la martenpei", for the tiger leaping gorge. The river has a general width of about 60 meters, which is narrowed to about 30 meters at the tiger leaping rapids, and even 10 meters at its narrowest point.

Almost all the rapids in the Nu river match to rafting/kayaking along the Nu river of grand canyon as a whole. Roads en route make provision and rescue/evacuation easy. It is a paradise of whitewater for world-class whitewater runners. There is a choice between level 1 and level 6 of the difficulty. The best season is November to May of the following year. June - October is the rainy season, the water flow is large and the flow speed is extremely fast, not suitable for drifting. Hydropower stations have been built in the Nu river's influents in Yunnan province. The Yuqu river in Tibet is a branch of the upper left bank of the Nu river, a five-star drifting river.

The Dulong river, adjacent to the Nu river, is the Chinese section of the Irrawaddy River. It is 80 km in China and 1,947 square kilometers of the river basin. Its water quality is extremely good. The visibility is more than 6-7 meters, very clear, people describe it as "glass water", but it is difficult to drift, 6 star whitewater but difficulty level 3-6. It is not suitable for rafting, with low water flow, high flow rate and narrow flow channel. The river is only suitable for small rivers and streams' kayaking. It is a paradise in future.



Source of Dulong river (Upper Irrawaddy River) in southeast Tibet. Left peak is Rulong Xueshan 5525m.



Map of Dolong (Drung) river (Upper Irrawaddy River)



Upper Dolong river (Upper Irrawaddy River) near Ridong

Yarlung Zangbo, the most difficult whitewater in the world! Not one!

This is the K2 in the whitewater world, the most difficult and exciting whitewater world! I don't know when the true whitewater age of Yarlung zangbo will come!

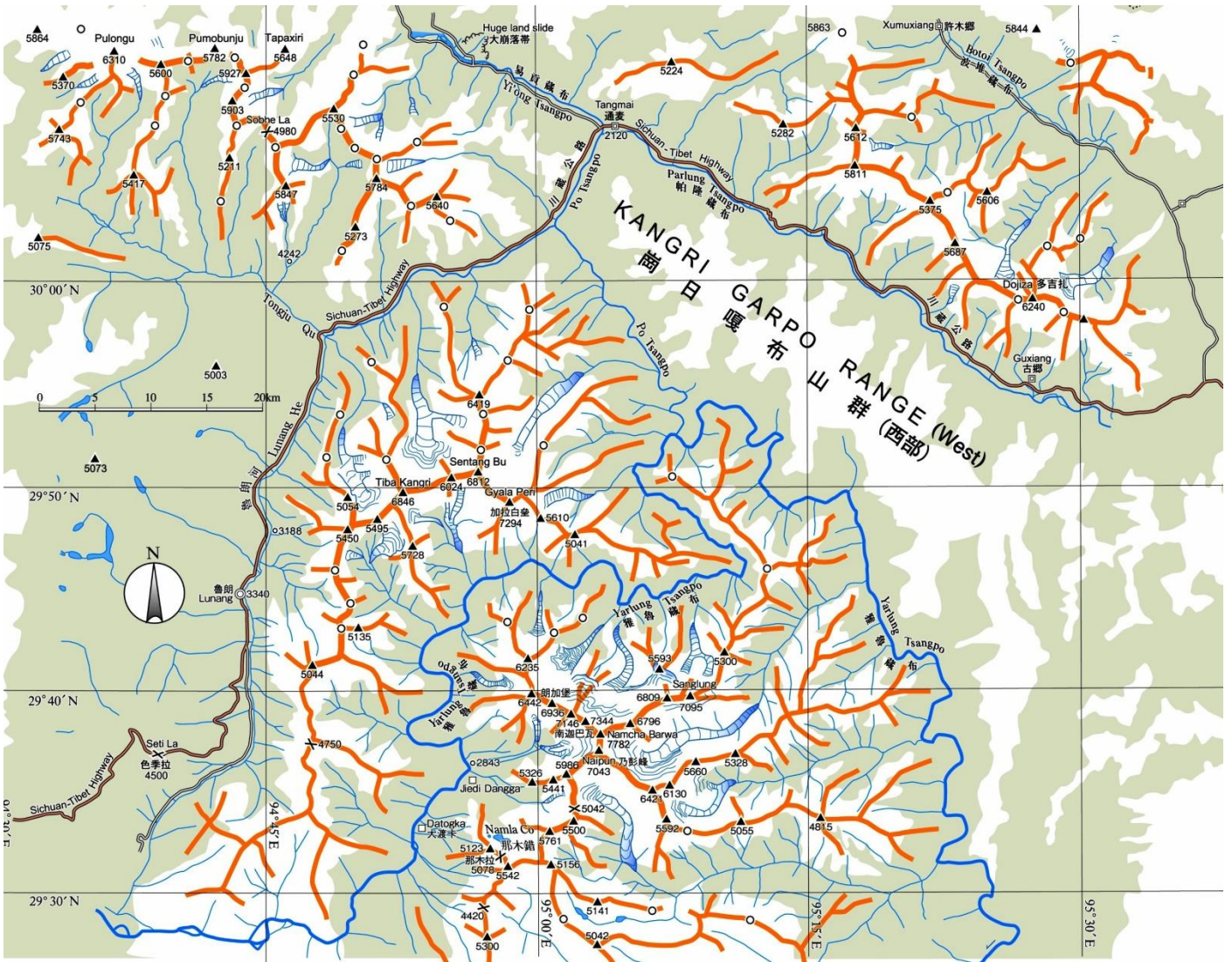
In an early time, there were American and Japanese masters rafting/kayaking expedition members suddenly swallowed by giant water holes and never returned to the surface. The Yarlung Zangbo river has the world's biggest rate of gradient/water flow of rivers. This is a miracle of the Qinghai-Tibet Plateau and even a miracle of the earth!

The Yarlung Zangbo river, which runs from west to east across the south Tibet, becomes the Brahmaputra River. After Milin, it cuts across the easternmost rim of the Great Himalaya at the north of Meituo, bypassing the formidable peak of the Namcha Barwa 7782m to the south, forming the world's biggest grand canyon, so-called the Yarlung Zangbo Great Bend.

The Yarlung Zangbo river gorge is the largest water vapor channel on the Qinghai-Tibet Plateau. The canyon is 500km long and 5,382 meters deep at the deepest point. The river surface of the north side of the canyon is 2,880 meters above sea level, and the southern tip is 115 meters above sea level, with an average annual water flow of 4,500 cubic meters per second. In the past, there were three of the world's top kayaking team (Japanese in 1997, National Geographic in 1998, OUTSIDE in 2002 who ran over this section, drifting distance was about 80-100 km, for four or five 30 to 60 meters high super great falls.)



Yarlung Zangbo Great Bend



Namcha Barwa 7782m east face seen from Seti La 4500 on Sichuan-Tibet highway



New dam constructed in Yarlung Zangbo west of Milin



Raging rapids in lower Yigong Zangbo that no one has challenged yet to raft down



Whitewater rapids of Upper Yigong Zangbo between Lhari and Niwu



Parlung Zangbo between Guxiang and Bomi



Parlung Zango near Bomi



Parlung Zangbo near Songzong

Parlung Zangbo on is the largest tributary of the Yarlung Zangbo (Brahmaputra). Starting from difficulty level 3 to 6, the exploration river for the 6 stars resources is closely along the Sichuan-Tibet highway. Its various tributaries, such as the Aron and Bode, also have abundant whitewater resources.

The scenery is excellent. In the past no one has yet completely carried out the technical drift of raft/kayak all the way. It is the best whitewater section, before and after Bomi, and it is the best season of the year from October to April. Before the confluence of Yigong Zangbo, the difficulty is slightly lower, but the gradient is high. After the confluence, the difficulty is even higher.



Upper Yigong Zanbo stream between Lhari and Niwu

China's two best whitewater rivers are the Nu river and the Parlung Zangbo river, the best whitewater in the world. The latter is the highest level for explorers. The Yigong Zangbo is the largest tributary of the Parlung Zangbo and is a 5-star whitewater river. This is the last virgin river of the human river expedition! This is a paradise river and an objective in the future.

Two pictures in the following page 33 are those of a Japanese expedition to have searched for unknown glacier lakes in the Botoi Zangbo, one of the principal tributaries of the Parlung Zangbo north of Bomi town.



The last green peacock, the last Chinese Amazon



The Hengduan Mountains in Yunnan Province has a diverse culture, multiple ecosystems. Like the red river dry hot valley monsoon rain forest, for China's most perfect habitat, for the green peacock more concentrated zone. Xishuangbanna in south Yunnan also has a tropical rainforest distribution. The small black river is truly beautiful and rich in vegetation, much like a miniature of Amazon River.

Only 500 of the green peacocks are the most colorful animals on the planet, not one of them. But, the green peacocks are the "most familiar strangers" in China for lack of caring, budget and policy support being compared with the giant panda and Tibetan antelope. Today, it is more precious and endangered than the giant panda (about 2,000 species of wild population). The exploitation of hydropower from human mines, encroaching on the habitat of the green peacock, is an injury to it. Without the green peacock, the rain forest would have no soul. Unless the rain forest is preserved, the green peacocks would have no home and only go extinct.

In the small black river, China's local government dominates the construction of hydropower stations. This causes huge damage to its ecological environment.

The rivers of the Hengduan Mountains are the best in the world covering the snowy mountains to the

tropical rainforest rivers. In China, the rivers of the Hengduan Mountains face an embarrassing situation: the best and most suitable whitewater resources in China, many of which have been built into DAMS. Along with it, there is a destruction of multiple ecosystems.

In 2017, the Chinese whitewater explorers support scientists, environmental protection actors, to drift into the green peacock together perched river valley on the little black river (a Chinese tributary of the Mekong River) to survey science and environment data, and to make litigation to the Chinese court, and finally shut down the mine, hydro- electricity construction project. China is a country of huge and violent flooding. The fighting for river protection in the Hengduan Mountains is extremely challenging, and it should not be ignored.

In Yunnan area of the Hengduan Mountains changes are taking place, which. Have an influence on the fate of the green peacock, the fate of the small black river, the fate of the people of Yunnan, and also seemingly on the fate of the Chinese people.

The following pictures were taken when we, including Zhang Jiyue of the Sichuan Earth Expedition Inc., rafted on the upper Honghe river for the green peafowl (peacock, *Pavo muticus*) project on December 2017. We assisted the scientists to raft on the river for scientific investigation.



The scientists group enjoying rafting in Yunnan



Enjoy climbing in deep gorge of Lancan river, Yunnan



Balagezong gorge, a tributary of Jinsha river, Yunnan (Rafting for tourists)



Lake of Reddomain, Minya Konka massif, west Sichuan



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