FR17.16 by Wong How Man (Irrawaddy Source, Tibet – May 26, 2017)

TO THE SOURCE OF THE IRRAWADDY (Part I)

Coordinates: 28˚ 44'06"N 97˚52'29"E (28.7351N 97.8749E)
Altitude: 4710m Time: 10:34 Date: 2017-5-26

It is now barely over an hour since I returned to base camp, at just over 4000 meters in elevation. Our camp is extraordinarily quiet. Everyone has retired to their tent to take a much-needed rest. My legs and thighs are sore. So are my toes, having hit my boots constantly on the long down-hill hike.

But all that doesn't matter anymore, as my team and I have reached the source of the Irrawaddy River, at a dizzying 4,700 meters, and returned safely. And all within a matter of eight hours, with a climb of 700 meters in elevation. My Galileo software which produced real time GPS and satellite map of our route showed that we have traveled 13.3 kilometers. That doesn't seem all that far, but taking into consideration the steep incline, it has been a most trying 13.3 kilometers.

It is a feat I have been contemplating since 2014, squinting to check on every little detail of multiple satellite maps. Roads, foot paths, village settlements, pastures, cow sheds, river systems, glaciers, peaks and mountain passes, I had become familiar with all the geographic and physical features of the headwater region long before I set my feet on the ground. And now it has taken us on a two-week huge circuitous journey driving around the Tibetan plateau, scaling several high snow passes, before we finally reached the tributary of the Irrawaddy River in Zayu County of southeastern Tibet.

Then there were also bureaucratic and government restrictions. Tibet has become more sensitive for foreign travelers, and I could not bring my usual team members from outside of China, not even Taiwanese. Thus, several close friends and associates who have been along to four previous river sources could not join me on this trip, unfortunately.

So there are only eight of us in my team, including three of our long-time Tibetan staff. Yuan Xinguo is only five years younger than myself and stayed behind to watch our camp. The rest of us each took some dry snack food and water and started off at 7:15 in the morning. I had calculated the hike to last eight to ten hours, given that two straight lines with an angle connecting our camp to the source were 2.13km and 2.72km respectively, adding up to less than 5km. But the steep gradient and numerous switch backs needed to gain 700 meters in elevation added much more distance to our hike.

Thirty minutes before we started off, a group of nine Tibetans walked past our camp. There were eight men carrying simple packs and one young girl who looked to be at most ten or twelve years old. They were heading the same direction as us but would go a couple of passes beyond to dig for cordyceps. They would stay for a couple of weeks before returning home, perhaps for a month or longer. These Tibetans were the first group this spring to head out from nearby Quwa village, as the deep snow at the pass had not yet fully melted.

Seeing the little girl marching along, I felt humbled. They said it would take them three hours to hike to the source lake that was our destination. They generously estimated that for us it might require four hours to reach the pass. That pass is the divide between the Irrawaddy and Salween watersheds. I cautioned our group that the distance seemed manageable, except for the snow. If the snow was too high for us to cut a path forward, we would have to retreat and come back in the autumn when the weather is dry. Heading in during the rainy season of the summer can also be quite dangerous and prohibitive, given the constant mudslides.

About half an hour into our hike, we reached a pasture. By then I was breathing a bit hard due to the altitude, but my pace was steady. Further ahead, I could see that soon we must start climbing. I began wondering whether I could make it up that long steep hill ahead. Suddenly I heard bells from behind us. Looking back, I saw a guy on a horse catching up to us fast. He had a second horse behind him, tied by a rope to the front horse.

This was obviously a godsend. We had been contemplating renting horses to get to the source, but we knew that Tibetans had long since moved on to motorcycles and that their horses were on the loose far up in the hills. Furthermore, the horses are ridden little, thus can be quite wild. But here came two with saddles and harnesses, a gift from heaven. It turned out that 55- years-old Agor was carrying a supply of *tsamba*, the staple for Tibetans, to deliver to the cordyceps harvest grounds several hours away. He would also be staying there for the cordyceps season.

It took a bit of convincing, arm-twisting, and price-haggling, but finally we negotiated that the two oldest of us would get to ride the horses. Most senior in our group was obviously me, and eight years behind, Berry. I got the young horse, a bit wild at three years old, and Berry rode the mellowed ten-year old. This was perfect timing, as the hill was right in front of us, but we were saved, climbing on horseback rather than on foot.

Had it not been for Agor, we would probably have been on the wrong path, trying to follow the river upstream and into a precipitous gorge with no way to climb higher. With him as guide, we moved to the right and followed a long path of switch-backs. Along the way we stopped to rest, and I was able to ask Agor the local names of the main tributaries at this headwater of the Irrawaddy.

He told us that the stream on the left starting with a glacier and melting snow was called the Moyu. The one in the middle, slightly longer, was called the Chamai. The longest, leading from a small alpine lake and our destined goal, was called Dultong (or Jiutong), the same spot Professor Liu Shaochuang of Beijing pinpointed through measuring satellite images. Further to the right, another shorter stream was called the Depo. The two mountains sandwiching the alpine lake and the pass were Hon Guangtu and Rejacha respectively. Most important of all, the lake that was the source of the Irrawaddy was called Jingla Co (named differently from Prof Liu's Lake Laka). These names might be unimportant to others, but they are all relevant and crucial information for a geographer.

Martin Ruzek, my old friend since the early 1980s when he was working at NASA's Jet Propulsion Laboratory, had joined me to the Yangtze, Mekong and Yellow River sources. He has managed our remote sensing data and scientific analysis of all these river source expeditions. Today he is a Director with the Universities Space Research Association, still working closely with NASA, and has measured the various tributaries of the Irrawaddy for comparison in support of my endeavor. His ultimate calculation was instrumental and crucial in pointing us to the alpine lake source.

Martin however commented that a close and nearby contender, barely 40 meters difference in length, or two decimal points of a kilometer behind (8.00km versus 8.04km), is another headwater river. The two tributaries are just a couple kilometers away as the crow flies. Such minute variations make it very difficult to determine a river source when both are in the same region, and with such small differences. Perhaps seasonal flow and size of flow are also debatable issues for consideration.

Previously when I checked online with Chinese sites about this region, I learned that a group of Chinese entomologists recently visited the area and found that Quwa village was a dead-end. Little did they know that this dead-end was also a life-spring, giving rise to one of the mightiest rivers of Asia. And had it not been for a marginal road which recently connecting Zayu in southeastern Tibet to Bingzhongluo of northwestern Yunnan, my expedition may require ten days or more on horseback.

But for now as we were riding this last stretch to the source, my remaining team fell further and further behind; understandable given the fast-rising slope we were now approaching. By now, three of our members were about half a kilometer behind us, and Wang Jian was a tiny dot still further back.

But our youngest Tibetan member, Tashi Drolma, was right behind the horses. She has lived all her life on the plateau. Her home is at 3200 meters in the village where the CERS Zhongdian Center is located. But even she found it a bit tough to be at such dizzying altitude. Here we were at 4500 meters and upwards, and she was out of breath.

Suddenly I heard a series of snorting sounds from the horse behind, which Berry was riding. It certainly didn't sound like the horse neighing or grumbling when tired. I asked Agor about it, and it turned out the bamboo basket behind the saddle was holding two small pigs. They were to be released as an act of mercy called "let live" once Agor reached his cordyceps harvesting ground. But at such prohibitive altitude, they would more likely become a sacrifice, soon frozen to death.

After 10am we finally reached the snowline. From here on, our move forward required breaking through the snow. For the horses, it might seem easy, especially because another group of Tibetans had gone before us just an hour before. At 10:30 and within 200 meters of reaching the top, it was snow all around us. Clearing a last ridge, I finally set my eyes for the first time on a frozen lake, a lake I had looked at intently uncountable times from space images. I looked at my Omega watch on my left wrist, the same watch I had worn to the Salween source. It was 10:34. I checked my altimeter watch on my right wrist; 4510 meters, calibrated as 200 meters lower, thus real elevation should be 4710 meters to be conservative, though my Galileo software showed our elevation to be 4744 meters. More importantly, I recorded my GPS reading as 28.7351N 97.8749E, a slight variance from what Professor Liu Shaochuang of the Beijing Remote Sensing Institute has established. Quickly, I marked all these new data on my iPad Galileo map with a diamond icon.

From the ridge, I looked down twenty meters below at the source lake, a half-moon of frozen ice with its edges just starting to melt to reveal its crescent shape. Below my feet, the melting snow gathered as a wide stream about two to three meters wide. This tributary to the east of the lake is one of two larger streams in a bowl-shaped basin that drains into the lake, a rather stable body of water.

If however one were to be exact, these tributary streams, especially the longer one from the west but at this moment obliterated under heavy snow yet fully visible during dry season on satellite images as being 1.4 km further up the watershed, are the actual source of the lake. Jingla Co the lake, on its south side, drains into a larger stream, now called the Dultong, and quickly drops off the side like a waterfall into the gorge below. I would have liked to study the lake closely, as well as the streams that feed this body of water. But it would be dangerous to tread on snow or ice which may have empty crevices below. Such detail exploration have to wait, until the dry season come in autumn.

From here, the Dultong river changes several Tibetan names further downstream (Zezhong, Azan, Gedao, Xhifui) before it merges to become the Kelaoluo, and finally the Dulongjiang as it enters Yunnan from Tibet. And as the Dulongjiang leaves China into Myanmar, it became the May Kha river, above Myitkyina it merges with the Mali Kha coming from the west and became the Irrawaddy, or locally the Ayeyarwaddy. It will continue its flow southward, passing through Mandalay to merge with the Chindwin when it makes its last stretch all the way to west of Yangon before entering its multi-channel estuary and into the ocean between the Bay of Bengal and the Andaman Sea.

Over the years, I have visited the river at various sections; in Tibet where the river is fed by multiple tributaries and with various names, later on as Dulongjiang I followed it into Myanmar, further on seeing it at the confluence of the May Kha and the Mali Kya, then from Myitkyina toward Bhamo, and from Bhamo to Mandalay and beyond. We have also sailed the Irrawaddy's main tributary, the Chindwin, upriver all the way to where navigation is no longer possible. And now finally we are at the source of all this labyrinth of waterways.

Soon after I arrived at the source lake, the other three members arrived and began taking pictures all around us. It was another half hour before Wang Jian, the last member of our team made it to the ridge. This will be the fourth source he has reached, and likewise for Berry, whereas for Song Haokun, this is his third. For Tibetans Drolma and Zhou Shouchang, as well as for Li Na from our Kunming team, it is their first river source. As for me, the Irrawaddy source is the fifth checked off on the list of river sources I hoped to visit.

We gathered for a group picture with the source lake behind us. Each of us took turns to throw into the sky some Lungda, or Wind Horse. It is a religious offering scattered on the wind with blessings heading to heaven. For each of the four river sources I previously went to, the Yangtze, the Mekong, the Yellow River and the Salween, we brought along a bottle of champagne to toast the final moment of triumph. Every single time, I found the source water sweeter than anything else I drank. Finally I've learned not to challenge the natural taste and brought no man-made stuff to toast. As a ritual, I drank again from the river source. Once again, the water was freezing, and it warmed my heart!

Unlike many explorers who choose to name places they discovered or first set foot upon, I only thought of naming this alpine lake, the scientific source of the Irrawaddy, by its shape as Half Moon Lake. Perhaps the local Tibetan name of Jingla Co is even more appropriate.

So far, everything ran according to script or even better. A guide and two horses appeared without planning. The weather was cool and conducive to our hike. We reached the source in just over three hours. As we began to turn back, however, snow started to drift down and fog was coming in.

For this expedition, I had gone back to work in the same way I had over thirty years ago. I was not only expedition leader, but also the geographer, writer, photographer, and videographer. Both our filmmaker and cameraman were faced with unexpected personal emergencies when senior members of their families were hospitalized, in one case on the evening of our departure. So it was left for me to do the minimal filming that my limited energy allowed.

I was taking a clip of us pushing our feet one after another through the snow as we left the river source when I heard the film camera give out two beeps, and then it went dead. It just about coincided with the failure of my own body's battery, and I knew I must focus on making the long hike back to base.

The return journey took almost four hours, despite that it was mainly downhill. The entire team stayed pretty much together as now the decline in altitude made life, and breathing, much easier. We stopped to rest and eat a bit of snack. When we were within one kilometer of our camp, I deliberately stayed back and paced myself slowly. For our outer journey, I needed my team and colleagues as companions. But now that we were within reach of safety, and I must take my own inner journey, reflecting on the special moment still lingering in my mind.

I thought of the old Chinese idiom that I learned as a child. It had stayed with me throughout my youth and adult life. "When drinking water, think about the source." This was repeated to me by my parents as well as by my teachers since I was little. While my science and geography teachers taught me how to use a compass, which allowed me to stray into the unknown, my parents had given me my moral compass. At times I may have deviated from it, but not far.

I thought of the Time Magazine 25 Asian Heroes honor bestowed on me in 2002, calling me "China's most accomplished living explorer." That accolade was given only after I have led two expeditions to define a new source for the Yangtze, and both times I had been wrong. It wasn't until 2005 that I led a team to finally find the definitive and scientifically correct source of the Yangtze. That was followed by the Mekong, Yellow River and Salween sources in 2007, 2008 and 2011, respectively. And now we have the Irrawaddy source to our credit. Are these accomplishments just a corollary to the Yangtze? I don't think so. Exploration is my life-long pursuit, and there is no pinnacle to such accomplishments.

Seeking out river sources seems a perfect undertaking for an explorer of my type. I lack the stamina and courage of those who conquer mountain summits. Instead, when I look at a mountain, I wonder what hides behind it and seek to scale the lowest pass in order to satiate my curiosity. So seeking out the sources of great rivers has become a life-long pursuit.

Some may ask, "What is so important about a river source?" I have met both Buzz Aldrin and Gene Cernan; the former was on the first Apollo Mission to the Moon and the latter was the last man on the Moon. We all know there is a moon, but we admire the astronauts' courage in the pioneering undertaking of exploration that stretches our imagination. It is the same with river sources; it is relevant to hundreds of millions of people living along the river's course.

Others may have looked at river sources from space images, but for a geographic explorer, groundtruthing means everything. I have been looking at satellite images since the 1970s, when I got much help in interpreting them from friends working at NASA and the Jet Propulsion Lab at Caltech. In the 1970s it was MSS data, and then we graduated to TM images, and later Large Format Camera (LFC) and multiple generations of radar images from the Space Shuttle. Today, GPS and Google Earth are within anyone's reach on their mobile phone. Others may have worked on space images on paper, or in a lab and in comfort of an office, ground-truthing is essential for an explorer in the classic sense. Only a few will ever set foot on such a remote spot.

After the Irrawaddy source, some may ask "What's next?" That will remain a secret. We did not make any noise before embarking on this Irrawaddy source expedition. Several friends and guests saw us at our Zhongdian Center before our departure. None knew that we were attempting to find and define an important river source. In my time, I have seen many who made a lot of noise, through publicity and press conferences, before embarking on an expedition of exploration. They often return with little or nothing. As always, CERS believes in delivery, not promises. Fame and glory are but a by-product; satiating my own curiosity is the main goal.

One thing however remains to be done on the Irrawaddy River. As with other great rivers for which we managed to get to the source, I usually also go to the mouth, or estuary, to have a look. Surely that will be much easier than going to the source. At the source, I drank from its water. And at the mouth, I shall wash my feet!

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