

## Unfolding the story on the mysterious suspension bridge in Seropak, Bau, Sarawak

Ib Larsen<sup>1</sup> & Louise Teo<sup>2</sup>

<sup>1</sup>Roskilde University, Denmark & <sup>2</sup>British Consulate in Kuching

Corresponding author: [iblarsen1@gmail.com](mailto:iblarsen1@gmail.com)

### ABSTRACT

In 2005, a steel suspension bridge, hitherto unknown to those outside the community, was discovered in a remote corner of Sarawak. This paper describes the discovery and subsequent stepwise uncovering of the story of the bridge. The research included the study of old records and publications and communication with museums, archives, and historians in the UK. The history and purpose of the bridge is now uncovered.

*Keywords: Industrial archaeology, Historical steel suspension bridges, Rajah Brooke history*

### INTRODUCTION

The history of Sarawak is fascinating and unique. The more than 100 years of rule by the White Rajahs have provided Sarawak with a history like nowhere else. Around the state there are several heritage sites that provide the people, local or foreign, with memories and knowledge on this unique past. Protecting these heritage sites is a great importance to commemorate the history and past. Without knowing where we come from, our understanding of the present and the future will diminish.

This research is about such a spectacular heritage site - the steel suspension bridge at Kampung Seropak in the Bau District in the westernmost corner of Sarawak. Although known and used by the villagers, it was only in 2005 that the existence of this remote bridge became commonly known. Before this time there were rumours of a red bridge in the area, but they were more considered fiction than fact.

This story is about the discovery of the bridge and uncovering its history. A 20-year journey that today enables us to tell the history of a 120-year-old beauty.

### THE MYSTERIOUS RED BRIDGE – FACTS OR FICTION

In the years after the turn of the millennium, we occasionally came across rumours of an old steel suspension bridge – the red bridge – located in the middle of the jungle in the Bau region in the westernmost corner of Sarawak. It sounded very unlikely that anybody would construct such a structure in the middle of nowhere. However, it was the late Deputy Minister Datuk Seri Dr. James Davos Mamit that convinced us, that the bridge did in fact exist, so we realised that we had to investigate the matter.

According to Datuk Seri Dr. James, the bridge should be found somewhere not too far from Kampung Seropak in the Bau region. So, in July 2005, Ib and his wife Lillian set off to investigate the matter. They asked around in the kampung (village), but nobody seemed to know about the bridge. Finally, a young girl confirmed that she knew about it and consented to show them the place. She drove in front of them on her motorbike, along the newly finished Krokong Road. When she stopped, she pointed

down a small path through the jungle, used by the villagers to get to their gardens. They went down the path for less than hour before reaching the beautiful Staat River. They continued along the banks and then, shortly after, they saw the bridge, just in front of them! A remarkable structure. The steel masts still standing high with large spires on the top, pointing towards the sky. The thick suspension wires still carrying the deck with no visible signs of weakening. The wooden deck was, however, in poor condition; all the planks were more or less rotten. To be able to continue using the bridge, the villagers had placed planks transversely of the old planks, but these too had also started rotting.



*Fig 1. The Red Bridge in Seropak July 2005 (Photo Ib Larsen)*

Following this initial visit, several more visits to the bridge were carried out by interested persons, including documenting that the track passing the bridge continued all the way along the Staat River to the long-ago closed remote Tegora mercury mine. However, at many places this Tegora track had vanished, especially where small streams merged with the Staat River. Among the group of persons from Kuching checking the path was Robert Basiuk, Tim Hatch, Louise and Polycarp Teo, Patricia Nayoi and Rahim Bugo. So gradually, knowledge of the existence of the bridge became more widespread.

The presence of the jungle path from the Krokong Road to the bridge proved that the villagers were still using it, so it followed that more information should be available in Kpg Seropak. So, one day in December 2007, we headed out to meet the headman of Kpg Seropak.

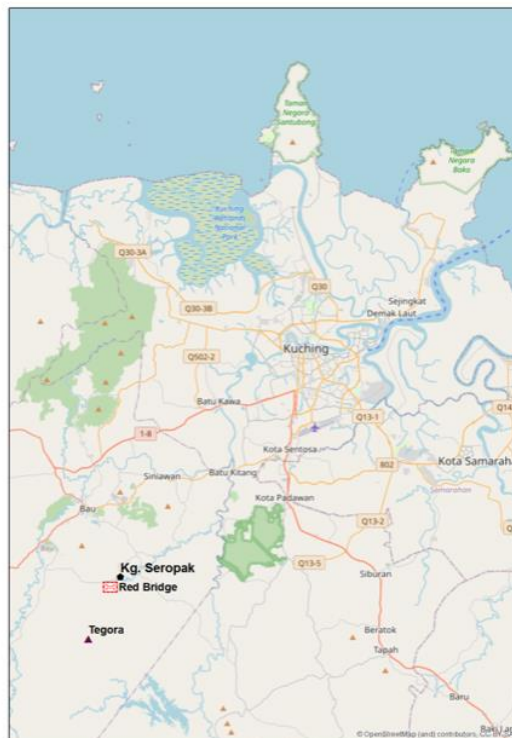


Fig2. Location of Red bridge and Tegora Mine. (Map by Josephine Wong)

It quickly became clear that the village was perfectly well aware of the bridge. The Headman K.K. Enneng Joseph informed that it locally was called the “White man’s bridge”.

Mr. Enneng knew that the bridge was used by the Japanese during World War II. The Japanese used the bridge to reach the closed Tegora mercury mine, which they reopened, and they further used the bridge to get to their headquarters. The stables for the mine were located at Simpang Kuda.

Mr. Enneng did not know when the bridge was built, but the local legend went that some Indonesians were sacrificed as offerings, when it was built. The Indonesians were apparently told that there were coins in the bottom of a hole that had been dug out. When they went down into the hole to collect the coins, they were immediately covered with soil and buried.

Luckily Mr. Nyaun, a 77-year-old villager that participated in the meeting, knew more about the origin of the bridge. His father had been the Temengong, and he got the information from him.

According to him, the Japanese did not build the bridge. The bridge was there before the opening of the Dahan Rubber Estate in 1903. The estate was located just after crossing the bridge towards the Tegora mine. The Japanese had just repaired the bridge and the track leading to the mine. They also threw everybody out of the Dahan Estate and used this as their headquarters.

He also supplemented this information with some stories about life on the track during the war: *The Japanese restored the old track with stones, using prisoners of war (POW) as labourers. The villagers supplied river-stones for the purpose. They received RM 4.00 for a 4 feet x 4 feet basket. The locals would be beaten if they talked with the POW. However, the villagers provided the POW with some food, as they only got rice with salt. The villagers would make some food and hide it along the riverbank. They pretended to fish and through certain movements with the fishing gear would tell the POW that*



*there was food hidden nearby. Afterwards a shirt or something would flow down the river as payment. Nyaun claimed to have even got a watch.*

*The miners were Chinese. The ore went through a process, changing the colour from red to white. The Ibans carried the very heavy processed ore-blocks manually, 2 per block, along the trail to the Sarawak River.*

After the meeting we continued for a revisit to the bridge. Much had changed since our first visits. The jungle walk from the Krokong Road to the bridge was gone forever. Now oil palms had taken over. The bridge was now much easier to access. Also, the bridge was under renovation. The ramps had been reconstructed, and the deck was being renewed.



*Fig 3. The Red bridge in Seropak 2018 (Photo Ib Larsen)*

But several questions remained unanswered. When exactly was the bridge built and for what purpose? Who commissioned the bridge and who built it?

### **WHO CONSTRUCTED THE RED BRIDGE?**

As it appeared to be few records, it proved very difficult to uncover when the bridge was built, by whom and for what purpose. But the authors of this article took on the challenge to uncover the story.

The easiest way to obtain information on old steel suspension bridges would normally be to contact the producer. The bridge was most likely British, and British companies usually kept detailed inventories on the bridges they supplied. Furthermore, British bridge makers always provided their bridges with a badge or plaque with the necessary information about the producer. The problem was that this bridge did not wear a badge! This was probably removed when the Japanese renovated the bridge during WWII.

A few years were used to search archives and libraries in the UK to try to identify the producer of the bridge. The breakthrough came in June 2021 when Louise received a mail from David Denenberg, who was making an inventory of all known steel suspension bridges worldwide<sup>1</sup>. Denenberg informed that the bridge with big certainty was a Harpers Bridge. He gave us the contacts to Douglas Harper, the great-grandson of the founder of the Harpers steel suspension bridge company in Aberdeen; a company that provided many bridges for the empire between 1870 and 1910.

Douglas Harper confirmed that the Red Bridge was indeed a Harper Bridge. The bridge was a 6-foot wide, 200-foot-long standard Harper Bridge. A similar sized Harper Bridge was among others constructed in Nepal at Charchare near Butwal. According to Douglas Harper it was likely that the Sarawak Government commissioned the bridge from the UK Foreign & Commonwealth Office, with whom Louis Harper (designer) and Harpers Limited (manufacturer) usually dealt with. But for the last, of course we cannot be certain.

**THE HARPER SUSPENSION BRIDGE**  
FOR LIGHT TRAFFIC ONLY.

*A Simple Span, combining Moderate Cost, Easy Transit, Simplicity of Construction, Elegance and Strength.*

**PRICE**  
An iron suspension bridge, equal to one carrying 10 tons, and 100 feet long, with 200 feet span, and 100 feet high, will cost about £1000. For larger and smaller spans, the price will vary accordingly.

**DELIVERY**  
The bridge is ready for delivery in 10 weeks. The cost of carriage and erection is extra.

**SECTION ON THE SITE IS A MOST SIMPLE MATTER.**

**HOW TO SUSPEND THE CHAIN.**

**GENERAL DESCRIPTION OF BRIDGE.**

**FOUNDATIONS.**—The foundations of the bridge are of masonry, which are carried on piles or on rock, and are adapted to the nature of the soil.

**PIERS.**—The piers are of masonry, and are carried on piles or on rock, and are adapted to the nature of the soil.

**ROPE.**—The rope is made of iron, and is of the best quality.

**VERTICAL RODS.**—The vertical rods are of iron, and are adapted to the nature of the soil.

**PLATE GIRTS.**—The plate girders are of iron, and are adapted to the nature of the soil.

**TRUSSING.**—The trussing is of iron, and is adapted to the nature of the soil.

**DECKING.**—The decking is of iron, and is adapted to the nature of the soil.

**LOUIS HARPER, A.M.I.C.E., ABERDEEN, SCOTLAND.**  
Contractor to the India Office, Colonial and other Foreign Governments.

Fig 4. Harper Bridge advertising<sup>2</sup>.

Douglas had established a website<sup>3</sup> and published a book on the known Harpers bridges<sup>4</sup>, but unfortunately there were no records on any Harper Bridges in Malaysia, so the mystery of who commissioned the bridgewas not yet solved!

<sup>1</sup> <https://www.bridgemeister.com/>

<sup>2</sup> From Harper, Douglas (2015), appendix 2

<sup>3</sup> <https://www.harpersbridges.co.uk/>

<sup>4</sup> Harper, Douglas (2015)

## WHEN AND WHY WAS THE RED BRIDGE CONSTRUCTED?

The fact that the track from bridge proved to continue all the way to the old remote mercury mine in Tegora, far into the interior of the Bau District, obviously pointed in the direction that the bridge was constructed for transporting the ore from the mine to the Sarawak River. This mine was established shortly after the manager of the Borneo Company, Ludvig Verner Helms, in 1867 discovered the ore in this remote and previously uninhabited area<sup>5</sup>.

According to Porritt, the bridge was recognised before WWII. He further assumes that the bridge have been commissioned to provide access to the Tegora mine:

*“In 1938, a 60 x 1.8 meter suspension bridge near Kampung Seropak some 80 km south-southeast of Bau was found by a group en route to visiting the BCLS mercuric sulphide mining site at Mt. Tcgora which had been abandoned in 1895 (Martine 1946: 39). The bridge was completely overgrown but on clearing found to be in good condition. No record of the bridge was found in government or BCLS records, although it is reasonably certain that it was built by BCLS as part of their mining operations”<sup>6</sup>.*

Some additional information further pointed in that direction: The Tegora mine was visited by Hornaday in 1878. He recorded the following from his trip: *“Presently we came to the Staat River, a small shady stream, along the south bank of which the road winds for several miles. .... at last, when we came to where the road crosses the stream on a high bridge, a deep shady pool in the bend below looked so inviting....”<sup>7</sup>*. No doubt this is the location of the Red Bridge! We never missed swimming in the “deep shady pool in the bend below” when we visited the bridge! From this we can conclude that there was a high bridge at the site in 1878!

However, it appeared that this bridge could not be our Red Bridge. Douglas Harper informed us that the type of bridge, which we saw in Seropak was only produced in the period 1898-1905. Before that time, the bridges supplied by Harpers would have been constructed with timber masts and the timber for the deck sourced locally. It is known that John Harper was exporting them in the 1870s to such places as Africa, Sri Lanka, and India.

The narrow timespan for the construction of the Red Bridge-type, brought us very close to dating the bridge, but it also raised other uncertainties. The bridge, which Hornaday crossed, must predate the current bridge. Bridges with timber masts could of course only have a limited lifespan in the tropics. Perhaps the Harper's bridge had succeeded an earlier bridge with timber masts at the same site to service the Tegora mine.

Other records support that the previous bridge must have been simpler. Archibald Allison, the manager of the Tegora Mine 1882-84, wrote about his time at the mine, referencing a local dispute: *“The gang next apparently determined to stop Europeans from coming to Tegora, or at least my house, and apparently tried to induce Mr Tawdry not to visit me. The bridge on the Tegora road was bodily lifted and a round tree left to do the duty as bridge across the river. The object being to deter Europeans from going to Tegora”<sup>8</sup>*. For sure, the current steel bridge would not have been easy to body-lift!

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<sup>5</sup> Helms, Ludvig V. (1882), p. 244

<sup>6</sup> Refer to the section on rubber in: Porritt, L Vernon (2015)

<sup>7</sup> Hornaday, William T. (1885) – here after page 11 in the following document:  
<https://www.scribd.com/document/74688738/Tegora-a-mercurial-anthology>

<sup>8</sup> Allison, Archibald (1898)



We also know, that at least from 1886 the production of ore in the Tegora mine had become so low, that it would give no meaning to import a new bridge from the UK<sup>9</sup>. So, any bridge constructed to service the Tegora mine must have been constructed earlier than the 1880's.

So, why was the Red Bridge then erected? As described above, Mr. Nyaun from Seropak had been very firm about the bridge being constructed before the opening of the Dahan Rubber estate, located adjacent to the bridge. Thus, Mr. Nyaun had related the construction of the bridge to the commencement of the rubber plantations.

The track and the earlier bridge would have provided access to an area, which, from around year 1900, was dedicated for rubber plantations. Rubber plantations commenced in Sarawak around 1900 and the first concession given in 1901 was in the Poak area, where the bridge is situated. This was then developed into the Dahan Estate, located just across from the bridge, The estate commenced in 1903<sup>10</sup>.

The bridge and the track had opened-up the area all the way from the Dahan Estate to the Tegora mine, so the Borneo Company in the 1890's obtained concession for rubber plantations all the way from the Dahan Estate down to the Tegora mine. In his book "the Borneo story", describing the first 100 years of the Borneo Company, Henry Longhurst writes: "*In the nineties... the company secured what was known as the Poak concession – a 20,000 acre strip extending from what is today the Dahan Rubber Estate to Tegora Mountain*"<sup>11</sup>.

Indeed, the rubber boom in the area around year 1900 would have justified the replacement of the previous bridge.

### **RECORDS ON THE CONSTRUCTION OF THE RED BRIDGE**

Major developments and construction works in the State would be expected to be recorded in the official Sarawak Gazette. So, a final step was to explore if the Sarawak Gazette from the period just around the year 1900 gave any records on the construction of a suspension bridge in the area.

An examination of the Gazette certainly proved this to be the case. The only problem was that the Gazette refers to 2 different bridges – the Puak Bridge and the Staat Bridge. In March 1907 the Bau annual report in the Gazette reveals the expenditures for the repair of two different bridges: Staat Bridge (expenditure 1,111.12 \$ in 1905 and 402.14 \$ in 1906) and Puak bridge (expenditure 173.36 \$ in 1906).

The Staat river and the Puak river is actually the same river. Upstream it is called Puak River, and further downstream it is called Staat river. At the location of the Red Bridge the river is called Puak River.

The 1903-04 editions of the Gazette give the following information on the Staat bridge:

- Sarawak Gazette November 1903: "*On 6<sup>th</sup> and on 27<sup>th</sup>, when I visited Puak, a gang of coolies had begun to make the concrete foundations for the Staat Bridge*"
- Sarawak Gazette July 1904. "*On 31<sup>st</sup> I visited Puak and found the Staat suspension bridge had been finished, except the approaches on either side*".
- Sarawak Gazette 1907: The deck of the suspension bridge over the Staat River needs repair.

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<sup>9</sup> Ooi, Keat Gin (1995)

<sup>10</sup> Refer to the section on rubber in: Porritt, L Vernon (2015)

<sup>11</sup> Longhurst, Henry (1956), p. 65

The following record from Sarawak Gazette April 1904, probably concerns the Puak bridge, as it is explained that it had no foundations – in contrast to the above explanation on the concrete foundations in the note from the November 1903 issue:

*“On the 3<sup>rd</sup> when I visited Puak to look at the bridge under construction. I considered a total lack for foundation... which, with the whole weight of the bridge was unsatisfactory”*. This is followed up in the March 1907 edition, where it is explained that *“the large belian bridge at Puak, which was on the point of collapsing on account of the foundations giving away, had to be hauled into position and repaired”*.

Based on these descriptions, it certainly seems most likely that our bridge is indeed the Staat bridge. It is explicitly described as being a suspension bridge, while the Puak bridge at the same time is explained to be a *belian* bridge and to have no concrete foundation. Nonetheless, whichever it is, the construction is documented in the Gazette.

Thus, without much doubt, it may hereafter be concluded that the Red Bridge in Seropak was constructed in 1904 to provide access to the newly established rubber plantations.

### CONCLUSION

To find and to determine the history and purpose of the Red Bridge in Seropak has been a nearly 20 year long, but exciting journey. Today we can conclude that bridge was constructed in 1904. It is a Harpers Bridge from Harpers Steel Suspension Bridge Company in Aberdeen. It was constructed to provide access to the new rubber plantations that opened-up in the area from around 1903. The bridge followed a predecessor, which was constructed to provide access to the remote Tegora mercury mine. During WW2 the Japanese renovated the bridge to be able to reopen the Tegora mine and also to provide access to their headquarters, which they installed in the Dahan estate. The story about a previously unknown Harper bridge now finds its way to the Harperbridge homepage<sup>12</sup>.

### ACKNOWLEDGEMENTS

Our strong gratitude to Douglas Harper for taking such effort in supporting the uncovering of this story, and for finding and providing a large amount of information. Your support was essential for the success of the project. Our strong gratitude also to Robert Basiuk for assisting in uncovering the story from the very beginning at the meeting in kampung Seropak in 2007 to the final version of this paper.

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<sup>12</sup> Refer to note 3



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