

# The Zambezi Papers of Richard Thornton

Geologist to Livingstone's Zambezi Expedition

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VOLUME ONE

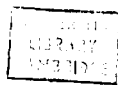
1858-1860

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EDITED BY  
Edward C. Tabler



Richard Thornton. Age 19, on the eve of the Expedition



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XXIII, 171

Mr. Tabler, who has already edited two volumes in the Robins Series, needs no introducing. He provides an interesting introduction to the Thornton Papers and his notes on them are most comprehensive. The Zambezi Papers of Richard Thornton are not only of considerable interest to students of the life of David Livingstone, but also provide sidelights on the Portuguese settlements of the lower Zambezi River area.

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## INTRODUCTION

I

David Livingstone's Zambezi Expedition is, with the possible exception of the search for the sources of the White Nile, the most fascinating interlude in the history of African exploration. It ground along for something over five years, a long time as expeditions went, subject to many stresses and strains and labouring under many handicaps; it drew into its orbit many people and influenced their lives for good and evil, and the interplay of human character and emotion exhibited during and after its existence is its most interesting facet. Its results have yet to be completely assessed. At the time it was thought a failure by many, yet much was accomplished in geography and the other natural sciences, and Great Britain and Portugal were alerted to the potential value of the Shire Highlands and the area round Lake Nyasa.

The stories of many of those connected in one way or another with the Expedition have been published. With the appearance of the present volumes by and about Richard Thornton, the geologist and mining engineer, only the diaries of Thomas Baines and Charles Livingstone remain as the most important unpublished personal documents. Thornton gives another report, and from a fresh standpoint, of that fascinating drama that was played on the Zambezi and Shire rivers. The Thornton papers are presented as a contribution to the history of the Zambezi Expedition and to that of South-East Africa, and as an addition to the source material for a book that has long been needed, a critical and definitive biography of David Livingstone.

II

Richard Thornton was born 5 April 1838 at Cottingley Hall, a country house in the Parish of Bingley in the West Riding of Yorkshire. His great-grandfather Jeremiah and his grandfather Joseph (1745-1825) owned Thorntree House, Thornton Lane, Horton, Bradford. His father, also named Richard (1793-1843), was the youngest of ten children and married in 1821 Elizabeth Hastwell (1799-1872) of Askrigg. Richard Thornton Senior was a

man of literary tastes and one of the founders of the library at Bradford, a city where he once served as clerk to the Court of Requests. He leased Cottingley Hall about 1835 and died when Richard was about five years old.

Richard was the tenth of eleven<sup>1</sup> children. His brothers were Henry (1822-1882), George (1823-1872), a lawyer, and Hastwell (1830-1859), who was a doctor and died in Canada. His sisters were Sarah Agnes (1827-1836), Mary Amelia (1832-1849), Eliza Caroline (1826-1852), Catherine, Annabelle, Helen, who married one Grayson, and Octavia (1840-?).

Richard was taught at home till he was ten, when he was sent as a day pupil to the grammar school at Bradford for two years. He next attended school nearer home, at the village of Bingley. A surgeon and amateur naturalist, William Ainley, lived near this school, and he set young Thornton to collecting entomological specimens, lent him books, and instructed him in zoology. Tours with Ainley in search of specimens made him a great walker, and throughout his youth he roamed the countryside examining natural and man-made wonders. Richard was fond of sport and exercise and grew up healthy and strong. He was taken to the Crystal Palace Exhibition of 1851 in Hyde Park, and there the mechanical exhibits attracted much of his attention and his taste for mechanics and the use of tools was aroused and enlivened.

When he was about fourteen the family moved to Bradford, where Richard attended the grammar school for half a year and did well at his studies. Previously he was a lazy and indifferent student—except in mathematics—and often played truant. He began to study for himself and attended lectures on chemistry at the local Mechanics Institute. He next went to school at Amersham in Buckinghamshire for a year, and there he again applied himself with good effect. During holidays he made excursions on foot to the valleys of Airedale, Warfedale, and Ribblesdale, and in the summers of 1854 and 1855 he visited Swaledale, Ivesdale, and the Lake District with school friends. Thornton also inspected all the iron works and coal mines he could conveniently reach, apparently in search of minerals and fossils.

He now had to choose a vocation, and it was natural that he should decide to study geology and what today is called mining engineering. After some opposition from his family, he entered the Royal School of Mines, Jermyn Street, London, in October 1855. Thornton

<sup>1</sup> Or the eleventh of twelve. It was impossible to obtain complete information about the family, one reason being that Thornton is a very common name in that part of Yorkshire.

found geology and mineralogy much to his taste. After two years of study he passed his examination with flying colours and won a Government prize of £15 for the best examination papers and the De la Beche Medal and £5 worth of books for excellence in geological studies. His diligence and his taking the first place in his class brought promises of assistance from his professors and from Sir Roderick Murchison, head of the School and the most eminent British geologist of the time. Murchison was for many years President of the Royal Geographical Society and was the friend and influential patron of David Livingstone.

During 1856 Thornton had spent six weeks working in the lead mines of Alston Moor in Cumberland to gain practical experience. After graduation and armed with letters from Professor Smyth,<sup>1</sup> Inspector of Crown Minerals, he visited all the principal coal workings in Scotland and the North of England. He returned to London in September 1857 and was employed by Dr. Percy in his chemical laboratory at the School of Mines. There he broadened his knowledge of chemistry while awaiting an answer to his application for a post as geologist to a Government survey in Australia, which he had been offered through the School. He also worked for a few weeks at rearranging and classifying the mineral collection in the United Services Museum. His appointment to the position in Australia arrived in December, and Thornton was about to accept it when Murchison sent to ask the young man to come to his office.

Thornton there first met David Livingstone (whom he had seen once or twice at the School in Professor Richard Owen's lecture room) and learned that he was one of two graduates recommended by Sir Roderick as geologist to the Zambezi Expedition, and that the other candidate had declined owing to a previous commitment. Livingstone asked about his health and, after learning that it was excellent, decided with Murchison to overlook his youth because of his strong constitution. Although he was eager to accept at once, Thornton was sent away with the advice to consider the offer carefully, and during the next two weeks he learned more about the personnel and objectives of the Expedition and about the position he would fill and its responsibilities. Soon after New Year's Day his appointment was confirmed by the Government, and he set about his preparations for departure.

Thornton was able to spend a few days at home towards the end of January 1858. Early next month a note from Livingstone called him back to London, where the work of equipping the Expedition

<sup>1</sup> Sir Warington Wilkinson Smyth (1817-1890), geologist and mineralogist, was lecturer on mining and mineralogy at the Royal School of Mines.

was intensifying and where he attended on 13 February the farewell banquet given by the Royal Geographical Society. On 25 February, his outfit completed, he went home again for three days, his final visit and last sight of his mother, brothers, and sisters. Orders from his leader put Thornton on 1 March en route to Liverpool, there to await the sailing of the *Pearl*.

III

Between the time of his triumphal return from the first crossing of Africa by a European in 1855-1856 and the outset of the Zambezi Expedition, Livingstone was a hero at home. He gave the British public a new and greater enthusiasm for the redemption of Africa, which was to be accomplished in the first instance by the projected Expedition. To a young man like Richard Thornton it was beyond his wildest dreams that he should be chosen as a member. He prepared for the journey with energy and eagerness, for this was a chance to do great things in the profession that he had prepared so long for. No doubt his ardour and ambition were encouraged by Murchison, and he felt that he was now to fill the many gaps in the embryonic knowledge of the geology of Africa, under the aegis of the great missionary-explorer. As it turned out, his taking service under Livingstone temporarily blighted his prospects and was the cause of his early death.

About fourteen months after the delta of the Zambezi was reached, Livingstone discharged Thornton (and stopped his pay retroactively for two months) for laziness and disobedience to orders. The charges were brought by Charles Livingstone and were not thoroughly looked into by his brother before he acted. It is true that the geologist, who was frequently left behind to work alone and to look after himself in a strange country without much knowledge of the language and the local ways, did not exert himself overmuch during the first year. However, he was immature and inexperienced and was handicapped by illness, chronic homesickness, and a lack of proper supervision. That Livingstone was not a successful leader of Europeans is a fact emphasized again by his treatment of Thornton who, instead of being discharged, should have been encouraged, superintended, and given medical attention. Such a course would have confirmed Thornton's loyalty and brought out the good work he proved himself capable of doing.

Thornton did not give in but went ahead on his own slender resources. He knew that Sir Roderick Murchison would side with Livingstone and that his separation from the Expedition would cause him to forfeit lucrative Government posts in the future, but he

was determined to carry on in Africa without official patronage. The young man had a knack for making friends, and everywhere he went he was helped by Americans, Germans, and Britons, and especially by the Portuguese. He learned to speak and read Portuguese and, unlike Livingstone, he had no noble ulterior motives for invading their East African territories. He was not there to foster colonization by his nation, to abolish the slave trade (he owned a slave), to compete for other trade, or to proselytize, so he was able to be truly friendly with them. His diary shows that he reported on them objectively and did not measure them by his own moral standards. Perhaps because he wanted no competition from independent explorers in the country, Livingstone had Baines, who was too ill to protest, sent to the Cape from Tete, but the Portuguese Commandant there gave orders that Thornton was not to be given up to members of the Expedition for that purpose. Thornton was Senhor Tito's friend, and besides, such an act would have been another usurpation of sovereign powers on Portuguese soil.

His being pushed into the water taught the young geologist to swim. He wrote of himself: 'Being thrown on my own resources in an outlandish country, without a penny in my pocket, has done me a great deal of good. During the last three years I have learnt much by experience. It is at times both an expensive and a very disagreeable way of learning, but its teachings are truly practical and very thorough.' And again: 'With the experience that I have gained I can now do as much work and gain as much information in one month, as I could when I first came into the country do in 6 months.'<sup>1</sup> His early diary reflects his inexperience and immaturity, the later part of it records his growing knowledge and self-confidence. After his journey to Kilimanjaro with Baron von der Decken, with whom he worked hard and well, Thornton was confident that he could make his way without Murchison's influence. He had other friends to help him and he had learned much; it would be a slower but a surer process, and his having been a member of the Expedition would help him to obtain introductions.

Thornton rejected Livingstone's first offer, made by letter on 1 January 1861, of reappointment to the Expedition, because the conditions were vague and unsatisfactory and because the young man was no longer so dependent on his former leader. The 'mutual concealed dislike' spoken of by the Rev. James Stewart was doubtless also a factor. Livingstone, who hated to be beaten, was faced with the apparent immediate failure of his Expedition, and to enhance

<sup>1</sup> In letters to George Thornton from Zanzibar, 16 April and 27 March 1861.

the value of its results he wanted to present Thornton's maps and geological studies, the most important of which had been made independently, as a part of its work. When Livingstone repeated the offer in person on 16 July 1862, Thornton accepted it, aided no doubt by persuasion from Rae and Kirk; the geologist wanted to work somewhere in the interior, but his funds were dwindling and he needed the salary. He had by this time, however, learned to stand up to Livingstone, and the terms of his re-employment were fairly easy, for he was to be rather a free lance, to travel where and when he pleased.

On the day of Thornton's death on board the *Pioneer*, 21 April 1863, Livingstone wrote in his diary a passage exonerating himself from all responsibility. A few later entries and George Thornton's correspondence show him to have been somewhat negligent and dilatory in settling Richard's affairs in Africa and in disposing of his possessions there. And the Doctor kept his promise to withdraw his charges against his geologist only by approving privately at the Admiralty the payment of his arrears of salary (but not his expenses) to his heirs. Sir Roderick Murchison was helpful to the Thornton family and laudatory of their late brother because Livingstone had taken him back, though the accomplishments revealed by the diary and other writings must certainly have played a large part in this *rapprochement*.

## IV

David Livingstone's true character remains something of an enigma, because his biographers to date (except Professor Debenham) have glossed over or excused his faults, the worst of which was his failure to work harmoniously in Africa with many Europeans. Some of this lack of objectivity on the part of his admirers stemmed perhaps from reforming enthusiasms and religious zeal, but most of it was the result of a tendency to hero worship and the undoubted fact that Livingstone's great achievements and his better qualities obscured all else. His bad treatment of Baines and Thornton and other unpleasant relationships of the Zambezi Expedition were the natural outcome of the conflicts of strong-willed people thrown together under great strain and bad living conditions. And Livingstone's brother sparked explosions that otherwise might never have occurred.

Charles Livingstone brought against Baines and Thornton the charges on which they were dismissed. The Doctor, though he later became thoroughly disgusted with his brother and presumably more wary of believing him without verification, exhibited at the time a

clannishness<sup>1</sup> that resulted in much harm to its victims. Charles's motives are not difficult to uncover. Thornton states that he was jealous of the attention and favours lavished on himself and Baines by the Portuguese, who avoided and ignored the Doctor's brother as a matter of personal dislike. The feeling of inferiority thus enlarged was doubtless engendered by his being under the shadow and command of his famous and capable brother. As time went on, Charles proved himself unfit for the work of the Expedition.

Commander Bedingfeld has never had his champion, and a case might be made out for him, though it has always been assumed that Livingstone was right in discharging him. One can sympathize with the attitude of the professional naval officer, which was probably: 'No — missionary is going to tell *me* how to navigate this scow, or anything else.' The resulting clash of two strong wills could only have ended as it did, in the leader's having his way, and Bedingfeld had to go. It made no difference to his career, for he was promoted to captain four years later and died an admiral.

## v

Richard Thornton was given to sticking to a project until it was finished and his goal was reached. He gained his scientific education by his own perseverance and determination, without encouragement from his family, who were surprised at his appointment to the Expedition. This sudden step from obscurity into the limelight seems not to have affected his ego, and he wanted to win his laurels fairly. The young man at first looked to Livingstone, whom he admired greatly, for leadership and counsel. He was well equipped physically and morally for the enterprise, for besides enjoying excellent health (which conditions on the Zambezi soon pulled down) and being accustomed to an outdoor life, he was a good swimmer and yachtsman. He accomplished a great deal in Africa as a result.

Thornton was the first trained geologist to work in East and South-East Africa. He carefully examined the geology of the Quebrabasa and Lupata gorges and the Tete area, and everywhere he went he made geological observations and collected many specimens. The data were very often hurriedly scribbled in his diary with many abbreviations, and they were obviously intended only for his own guidance and later expansion and interpretation. Murchison was of the opinion that the correlation of the very great number of

<sup>1</sup> Is it significant that on the Zambezi Expedition the Scots—Charles Livingstone, Kirk, and Rae—stayed, while the Englishmen—Bedingfeld, Baines, and Thornton—were discharged?

seams already known. Seeing you disinclined to work at general geology, I set you to drive a shaft into one of the coal seams to ascertain its quality at a proper distance in which you told me was 20 to 30 ft. I visited you on the 14th of March last & you were ordered to proceed with this work. You returned from it on the 3rd of May having with the people accomplished only 13 feet 9 inches, & though in perfect health you have continued idle ever since. Hearing that you were remaining here idle I sent you an order from Senna for you to go on with the geological examination of the district. This you have not attended to. I am therefore compelled by your repeated disobedience of orders to inform you that your salary is stopped from the 3rd day of May the date at which you returned from one duty & declined beginning another. It is with great reluctance that I take this step but your failure to do your duty forces me however reluctantly to do mine to H.M. Government & separate you from the expedition.<sup>1</sup>

I am &c.  
David Livingstone  
H.M. Consul  
Commanding Zambesi Expedition

I thanked him for it & then went on with my work.

<sup>1</sup> Livingstone's official copy of Thornton's letter of dismissal is printed at pp. 112-113 of *The Zambezi Expedition of David Livingstone*. It differs only in a few words from the version the recipient copied into his journal. Livingstone's dispatch to the Earl of Malmesbury on the subject is at pp. 337-338 of the same work.

## PART TWO

### Up the Zambezi and Luangwa Rivers

26 JUNE 1859 TO 2 FEBRUARY 1860

\*

*Sunday [June] 26th.* Fine day. Reading &c.

*Monday 27th.* Making preparations for an excursion to the N. bank of the river, packing up some traps & getting out others, &c.

*Tuesday 28th.* Putting things to rights & getting ready to be off. In the afternoon I called on Sr. Tito to ask a guide. He gave me one, a young not bad-looking soldier who knew that district.

*Wednesday 29th.* Tried to hire 2 Makalolo but could not get any, so went over to Generozo's.<sup>1</sup> Found him at Albino's.<sup>2</sup> He got me 2 good men from Sr. Paschaal,<sup>3</sup> also a piece of cotton. Gave the men each a fathom & the soldier 2 fathoms, & took 8 fathoms with me. Finally off about 10 A.M. Called at the launch for flour & biscuit then crossed in the boat to the N. bank. Walked parallel to the river for some distance through the land of Sr. Clementina,<sup>4</sup> Nowoufa.<sup>5</sup> About 11.30 arrived at a village & rested. Saw an old man there making a gunstock. He is Clementina's gunsmith. Bought 7 fine fowls for 1 fathom, then off.

Left the river & passed northwards through alternately wooded plain & thick wood till we arrived about 2 P.M. at a village, still in Nowoufa. Here an old soldier who had a little child that he was very proud of. Though it could only just walk yet he had taught it several

<sup>1</sup> Livingstone writes of a Senhor Generoso of Tete, James Stewart of a Senhor Generoso of Quelimane. (In this and the following parts, notes do not appear where additional information identifying persons and topographical objects was not obtained.)

<sup>2</sup> Albino Manoel Pacheco. See note 2, page 48.

<sup>3</sup> Senhor Pasquaal, one of the principal merchants of Tete.

<sup>4</sup> Clementino de Souza was for some years President of the Câmara (Mayor) of the Villa of Tete, and he was lessor of the prazo of Micambo in December 1859. He was from Goa in India and about 1844 came to Portuguese East Africa, where he was at first a slaver. De Souza took up residence at Tete circa 1853 and became an ivory trader only and one of the leading merchants of the town.

<sup>5</sup> This prazo was on the left bank of the Zambezi roughly opposite the mouth of the Chimaxi River. See entry for 26 July 1860.

the wood. Got behind an anthill about 30 yards from them, then fired. They fled at full gallop, crushing through the wood. Followed them up but did not get another shot at them. Saw blood of the one I wounded, also heard it groaning, but as water was yet some distance off could not wait to follow them till it died.

About 5 P.M. arrived at a village = Nyaffounsa on a hill above the River Nyaffounsa<sup>1</sup> which is about 50 yards wide, had running water  $\frac{1}{2}$  knee-deep. Here had some porridge, then off for Mamba village at opposite bank of Nyaffounsa. This village is small & dirty. Pitched tent near huts.<sup>2</sup> The Mamba sent a present of fresh gazelles' flesh & meal & a fowl. Gave him for the latter 2 pieces.

*Wednesday November 9th.* At night I was stung by a scorpion, fortunately through my blanket, so that I received only very little of its poison. In the morning it was killed by my genges. Took angles as follows from the village.

Then proceeded to E. along a great plain. Saw 2 hippopotamus traps but not set. Came upon & followed after a lot of guinea fowl but could not get within shot. Saw a hare & 2 koodoos. When in sight of the river took angles as follows from an anthill.

Terra opposite = Masoso in Pangoro. Pass on a great wooded plain parallel to river, having Macombecombe Hills on left. River very wide with lots of sandbanks. My feet very sore so that could not walk much, so at noon rested in shade by river. Had dinner, then took angles as follows.

Off again about 3 P.M. & in about  $\frac{3}{4}$  hour came to a village named Pingo<sup>3</sup> in Baruma. Large sands before the village. Rested under a large baobab. Genges busy mending their arrows &c &c. Had lots of beads &c & goods of Snr. C., purchased with ivory. Name of terra opposite = Nyaroomba. Took angles as follows from the tree.

Pitched tent near the village. At night a dog stole a fowl from the fire. Crowds of genges round the tent to watch me eat &c. Paid 2 piscos<sup>4</sup> for pounding mantementos, 3 for meal &c.

*Thursday November 10th.* Off about 7.30 A.M. On way saw some buffaloes on an isle of the river. Passed through thick wood, about 8.30 came to a cultivated portion named Posaquanja & shortly after to the village. Rested under a tree outside the stockade. Took angles as follows.

<sup>1</sup> The Lufunsa River enters the Luangwa from the west about fourteen miles above its mouth.

<sup>2</sup> To Camp XLVI, Mamba village (It.).

<sup>3</sup> To Camp XLVII, Pingo village in Baruma (It.). There is an Mpingo shown on modern maps about six miles above the Lufunsa River, right bank of the Luangwa.

<sup>4</sup> Perhaps a corruption of *pezo*, weight.

Here I had a grand palaver with my genges. When I wanted to be off, they wanted [to] stay here all day, [said] that the way above was long, no water, no genges &c. Then they wanted to embark on the opposite bank. Then Patteka wanted to buy an armada. But as the donor was out in the fields, he wanted to wait & buy it tomorrow. But much against their will I sent 2 of them off to bring the donor. When he arrived [I] told Patteka to trade for the canoe, gave 2 earrings to buy mantementos. After much palaver the canoe was not bought. I had lunch, then wanted to be off. [They] refused to go, wanted to wait until meal was ground from mantementos, would not buy meal ready made. At last about 1 P.M. got off, proceeded up right bank.

About 2 [the] men stopped to wash & about 3 arrived after a rest at a village = Mausakaze (on way passed foot of hill range composed of hornblende feldspathic rock, foliated). Pitched tent under a tree near the village.<sup>1</sup> Bought a bag of mantementos for 2 earrings & told the men to procure a pillow<sup>2</sup> & make it into meal, but they did not care to do so. Bought 4 piscos of elephant's flesh & a calabash & fish for 3 piscos. Took angles thus.

*Friday November 11th.* After breakfast wanted to be off but the genges refused to go. Wanted to remain here all day to have the mantementos made into meal. I refused to stay for them as they had had plenty of time yesterday to pound meal, whereupon Patteka & Fortuna deserted & the others refused to stir. I called the former back & had the mantementos sent to the village to be ground by noon. Paid 6 piscos for pombe. Shot a large hawk. At noon meal was ready, but the genges still refused to stir. Had a grand palaver with them. They refused to go on, so I bought an armada for 18 yards white cotton & 4 shuabos  $1\frac{1}{2}$  piscos of beads, so that I could spare 2 or 3 of my men if they again refused to stir. Rain in afternoon, so remained here the night.

*Saturday November 12th.* After early breakfast, got my traps embarked, then another delay. No paddles for the canoe & the donor not to be found, so off without paddles. Saw some buffaloes & guinea fowl. Killed one guinea fowl at foot of Karuma Hill. Followed it into edge of a wood, then fired & heard a beast stampeding close to me but could not see it. Then it off at a gallop through the bushes. Caught a sight of it very near. It was a rhinoceros, the first that I have seen. Then heavy rain. Took shelter under a tree at foot of Karuma Hill & waited some time for the canoe, but as could see nothing of it, off. This hill composed of a grey

<sup>1</sup> To Camp XLVIII, Mausakaze or Mausakasser village (It.).

<sup>2</sup> Pestle?

34° 0'

17° 0'

36° 0'

# MAP OF THE LOWER ZAMBEZI AND THE TETE AREA.

Scale: 1 to 500,000

Thornton's Route to Zumbo +++  
Thornton's names in parentheses()

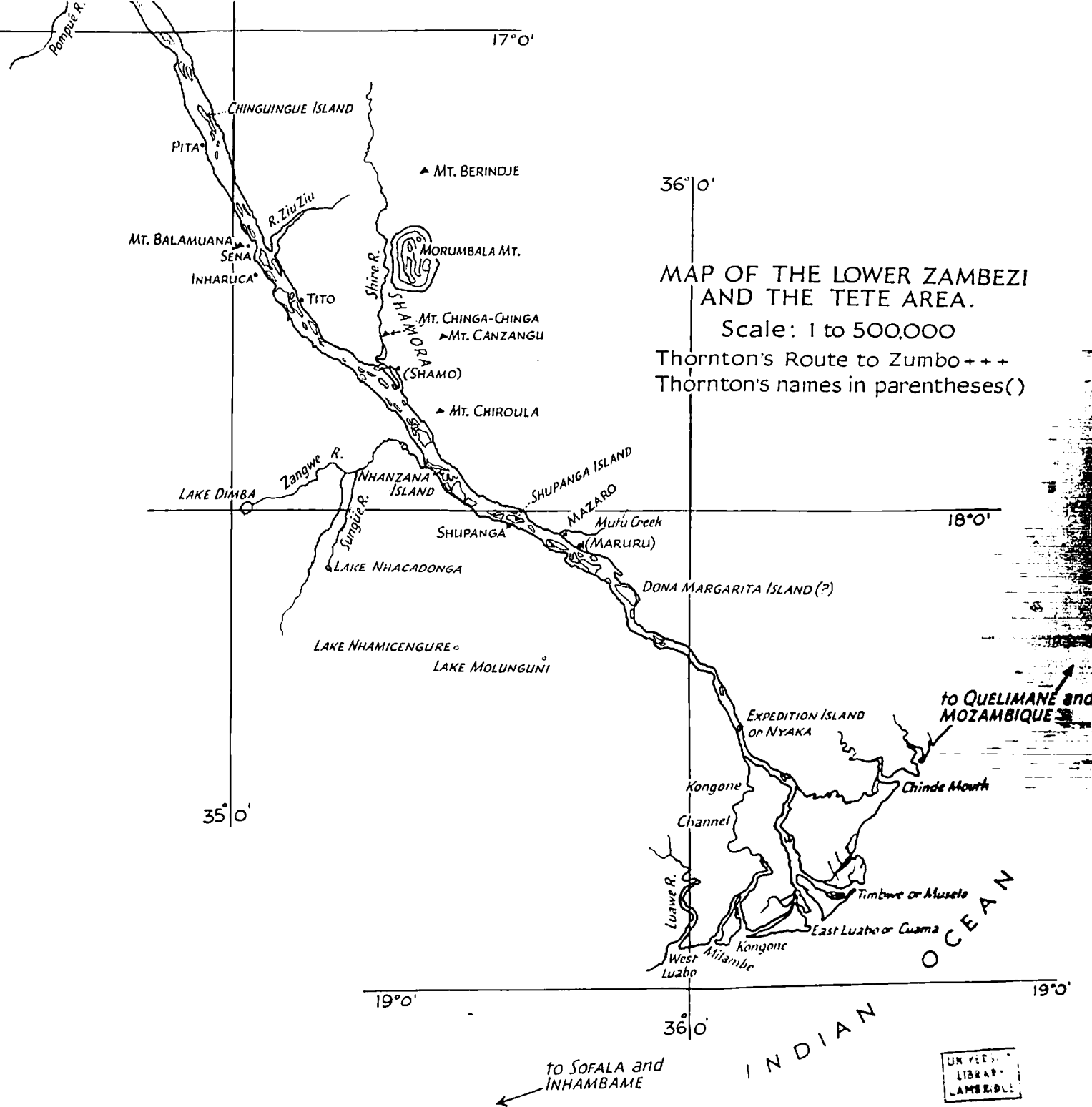
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35° 0'

19° 0'

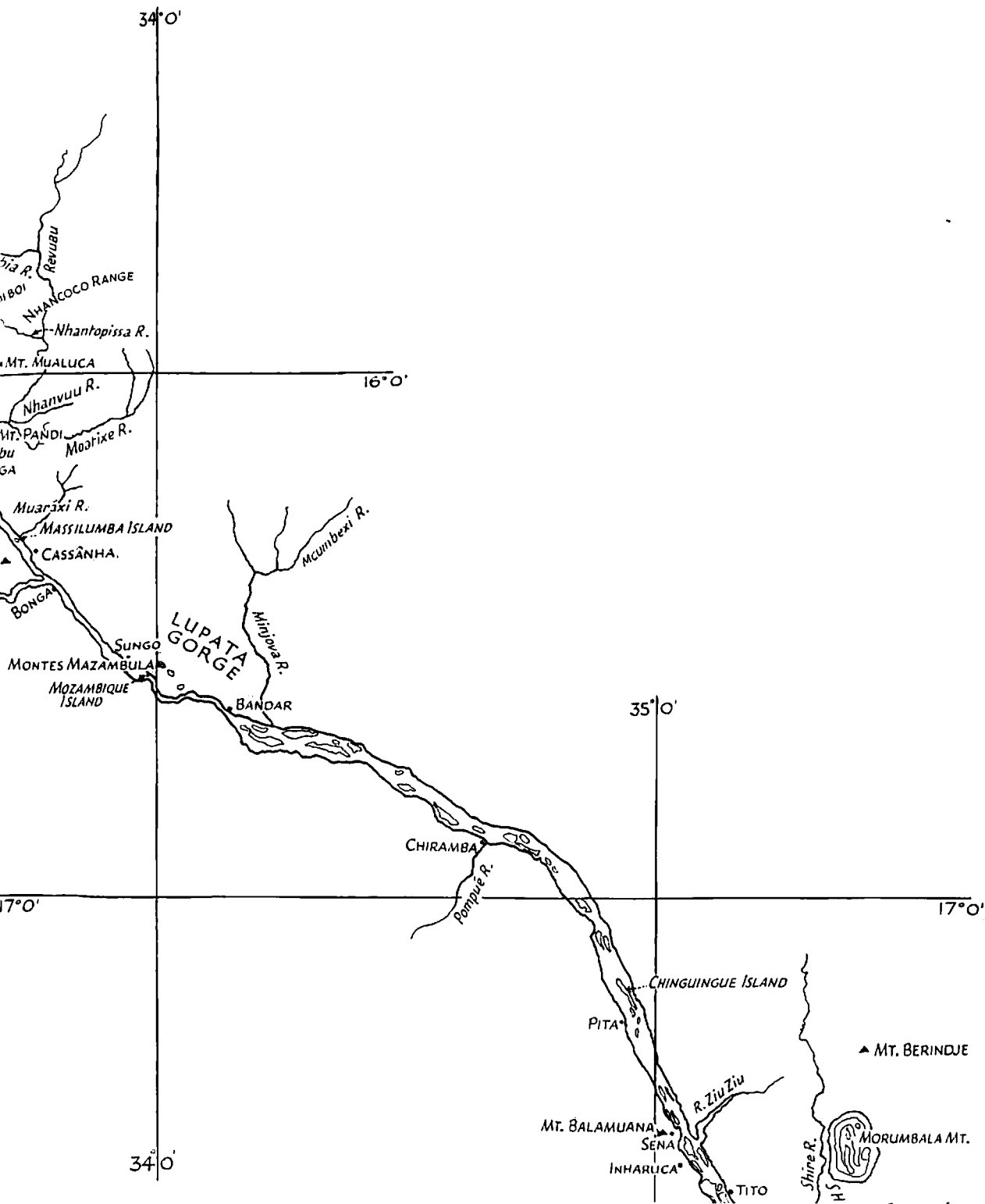
36° 0'

19° 0'



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36° 0'

MAP OF THE LOWER ZAMBEZI AND THE TETE AREA.