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## **The Croatian explorer Dragutin Lerman (1863-1918), and his contribution to the mapping of Central Africa.**

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### **ABSTRACT**

Dragutin Lerman was a Croatian explorer and cartographer who worked in the Congo from 1882 till 1896 as a member of the expedition of the famous explorer, Henry Morton Stanley. Lerman was particularly prominent in the exploration and mapping of the province of Kwango Oriental (the present southwest DR Congo) where he discovered and mapped a complex hydrographical network with numerous waterfalls, one of which bears his name). Working along the south Congo border, he is also known for the establishment and demarcation of the Congo-Angolan boundary. During his fieldwork, Lerman kept a diary and made numerous sketches of this part of the Congo which, in a cartographical sense, was previously almost completely unknown. His contribution to knowledge in the form of his maps of the hydrographical network and his sketches of the numerous native settlements which he visited, place Lerman amongst the most important of Stanley’s cartographers in the south-western Congo.

Dragutin Lerman's discoveries completely changed the existing knowledge of this part of the Congo. Cartographical data, which he noted for the first time, have been included in all future official maps of the Congo. In this paper, Lerman's original sketches, along with printed maps based on the results of his filed work, will be presented so as to evaluate his contribution to the mapping of Central Africa.

### **DRAGUTIN LERMAN – A PORTRAIT**

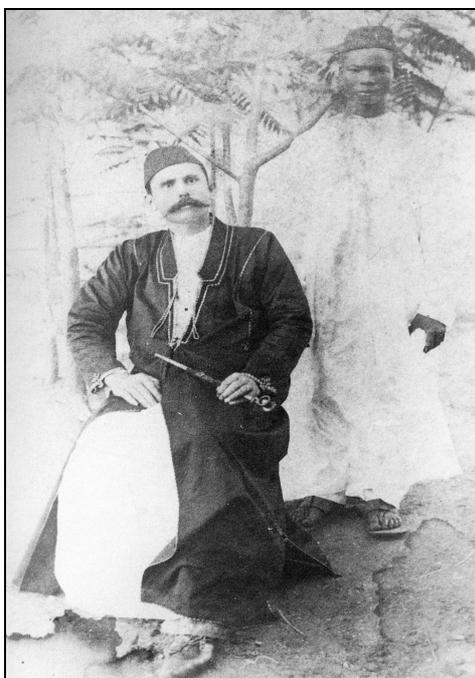
Dragutin Lerman was born in Pozega on August 24<sup>th</sup> 1863, the son of George Lerman and Marie Lerman, née Sulz<sup>1</sup>. He studied at the gymnasium in his hometown and then went to a trading school in Budapest where he read the works of Heinrich Schliemann and learnt English and French. Whilst at school, he already dreamt of undertaking voyages. In 1882 he started working as a tradesman in Karlovac. There he met Napoleon Luksic, a young naval officer who had decided to apply for a position in Stanley’s Congo expedition. At the age of 19, Dragutin Lerman joined Luksic in his decision to join the Congo expedition. On 4 September 1882 they were presented to Stanley in Brussels and he decided to accept both of them. On 5 November 1882, only four days later, Lerman was already on board the “Harkaway” heading from Antwerp towards the Congo. On 16 December he arrived at Boma, a port at the mouth of the Congo River.<sup>2</sup>

Lerman’s first stay in the Congo lasted from 1882 till 1885. During this period, he worked together with another well known Croatian explorer, Janko Mikic, on the exploration and mapping of the Kulu-Niadi area (nowadays the Congo Republic), a project headed by captain John Grant Eliot. He also acted as commander of the Philippeville research station (nowadays Madingou), and later of

later of the Rudolfstadt station (nowadays Bas-Kouilou)<sup>3</sup>. This was probably also the period in which he acquired his cartographic skills; knowledge which could have either been passed on to him by the more experienced Janko Mikic, or by other members of the expedition. Lerman already made a favourable impression on Stanley during his first stay in the Congo. In a book titled “The Congo and the Founding of its Free State”, Stanley wrote as follows on his about Lerman whom he met in Manyanga in the spring of 1884:

“There is a gentleman named Lehrman, a Croat, who, by the remarkable power of development that he possesses, has taught me not to be rash in making judgments from externals. For certainly no one bore such an unpromising exterior and seemed so utterly inexperienced as did Mr. Lehrman, yet to-day he deservedly ranks very high in my estimation as a thoroughly valuable officer. Energetic, bright, alert in mind and body, possessing a fine control over his men, and enjoying splendid health, no better man could be found to take over the command of Philippeville on the Kwilu-Niari. It was so isolated in its position that no one seemed willing to accept the appointment, but Mr. Lehrman, seeing the reluctance of others, and previously too modest to obtrude himself upon my notice, volunteered for the post, and has kept me ever since free from anxiety about himself, his own men and the natives”<sup>4</sup>.

In the spring of 1886 Lerman returned home because of illness, but in the summer of 1888 he went back to the Congo and stayed there until the beginning of 1891. He first worked as a diplomatic delegate and as administrator of Stanley Falls, but in 1889 he headed for the south-eastern parts of the Congo where, under Captain Frédéric Vandeveldé’s command, he participated in exploring the area surrounding the river Kwango<sup>5</sup>. In February 1891, overcome by fever, he returned to Europe for treatment.



**Figure 1:** Lerman with his servant photographed in the Congo in about 1896.

Lerman’s third and most significant stay in the Congo lasted from 31 December 1891 until 20 July 1894. During this time, as a general commissary for the Kwango Oriental province, he explored the area

between the rivers Kwango and Kuilu and also participated in demarcating the border between the Belgian Congo and Portuguese Angola. His last sojourn in the Congo commenced with his arrival at Boma on 25 May 1895. In this period he continued exploring the southern part of the Kwango Oriental province, particularly the area around the river Wamba. On 21 August 1896, once again overcome by illness, he returned to Europe at the age of 33. After altogether 12 years in the Congo, he never again returned to Africa<sup>6</sup>. Lerman donated all the objects he had gathered in Africa to the Ethnological Museum of Zagreb where they are on permanent display<sup>7</sup>.

### **Establishing the Kwango Oriental Province and defining the southern borders of the Congo**

When the Berlin Congress of 1885 determined that the wider area of the Congo basin should be divided between the Belgian king Leopold, France and Portugal, the newly constituted Free State of the Congo, a private colonial property of the Belgian king, still had no defined borders. At the time of signing the treaty with France and Portugal, the lower part of the Congo River was considered the approximate border of the Belgian property, i.e. 30° East marked the eastern extremity of Leopold's realm. Only in the following years were the Congo borders more accurately defined. In 1887, when Leopold officially transferred the Kuilu-Niari region to the French, the northern borders of the state were defined as following the courses of Congo and Ubangi rivers<sup>8</sup>. After defining the northern and eastern borders, the Congo state could only expand towards the south. In spite of the fact that the Berlin congress assigned Angola to Portugal, there was still a wide non-assigned area belonging to the once glorious Lunda kingdom which stretched between the Portuguese research stations and the Belgian outposts. Belgian colonial authorities recognized the potential further expansion of the Congo in this situation. In order to capture the area and maintain control of it, researchers were sent there and alliances agreed with local chiefs to ensure their recognition of colonial authority. The researchers also had to set up research stations which would be responsible for maintaining the established authority. The result was that the beginning of the 1880s saw a fairly unknown region between the rivers Kwango and Kasai becoming the object of intense exploration. After seizing the ore-rich Katanga region in the south-eastern part of Congo in 1891, king Leopold dedicated himself completely to capturing and exploring the south-western edge of the Congo basin where he set up a new province - Kwango Oriental, soon to be headed by Dragutin Lerman.

Establishing a new province was only the beginning of establishing actual authority. The same area was namely also aspired to by Portugal which occupied the neighbouring Angola. However, both sides found it difficult to establish authority as the competition for control over this area had already begun during the breakup of the great Lunda Kingdom. The clash was marked by a conflict between the ruling Lunda tribe and the subordinate Cokwe tribe whose attack in 1885 led to the demise of a centuries' old kingdom. After this kingdom broke up, the area between the rivers Kwango and Kasai witnessed years of wars between local chieftains, with the result that the attempt to establish colonial authority involved lengthy negotiations with chieftains who were to be convinced to cease hostilities and acknowledge colonial authority. It was here where Dragutin Lerman played a key role. He managed to pacify the province and initiated a number of exploratory expeditions which not only mapped the area, but also made the establishment of colonial outposts and the exercising of colonial authority possible.

In 1891, after the Belgian colonial authority managed to establish a certain number of research outposts, the Kwango Oriental region was considered to be successfully captured. The only remaining issue was to define its southern borders with the Portuguese colony of Angola<sup>9</sup>. Demarcation lasted for three full years and was preceded by the exploration and charting of the border area. This job was also successfully done by Dragutin Lerman, with the result that the final demarcation treaty defining the still existent border between the DR Congo and Angola was signed on 25 March 1894.

## **CARTOGRAPHIC KNOWLEDGE ABOUT THE PROVINCE KWANGO ORIENTAL UNTIL THE ESTABLISHMENT OF THE CONGO FREE STATE**

Geographical and cartographical knowledge of how to reach the Kwango Oriental province was scant throughout the early 1880's. Until this date knowledge of the Kwango province was limited to partial knowledge of the upper Kwango which was first reached by the Portuguese in the early 16th century, believing it to be the upper Kasai river. The first accurate knowledge of the river Kwango was obtained by David Livingstone, who reached the upper Kasai from the east after which he explored parts of the upper Kwango (1854-1855). The Kwa mouth (that is the lower course of the Kasai) was seen by Henry Morton Stanley on his journey down the Congo in 1877, and he rightly regarded it as the outlet of the Kwango, not knowing that it was also the outlet of the Kasai. In 1882 Stanley travelled upwards along this river to the Kwango-Kasai confluence.

The lack of exploration in the Kwango province immediately after the establishment of the Congo Free State is reaffirmed by the map of Africa published in *Petermanns Geographische Mitteilungen* of 1881<sup>10</sup>. This map clearly demonstrates that only the upper and middle courses of the tributaries of the Congo were known, while their lower courses, including the Kasai with its complex hydrographical network of tributaries in the Kwango Oriental region, were still unexplored.

The first cartographic activities in the Kwango Oriental province were connected with the beginning of the contest for colonial supremacy over the Kwango river region. The first meaningful step in this regard was undertaken by a German explorer Alexander von Mechow<sup>11</sup>, within the so-called *Deutschen Kwango Expedition* of 1880-1881, when he mapped the Kwango river situated on the western border of the Kwango Oriental province. In 1884, as a result of Alexander von Mechow's work, a detailed map of the river Kwango on a scale of 1:81 200 was published in 26 sheets. Although this was the first detailed topographical map of a part of the Kwango Oriental province, still almost nothing was known of the vast area east of the river Kwango.

The first explorer to travel through the southern part of the province in an east-west direction was Max Buchner<sup>12</sup> during his 1878-81 expedition when the first knowledge of the rivers situated on the edge of the Congo basin was attained. In the following years the same route was also taken by Curt von François<sup>13</sup>, Hermann von Wissmann<sup>14</sup> and George Grenfell<sup>15</sup>. During 1884-1885 they mapped the lower courses of the Kwango, Wamba, Saie, Kuilu, Loange – the source branches of the great Kasai river, and by doing that laid the basis for the understanding of the complex hydrographical network of the Kwango Oriental region. Their work resulted in a detailed map of the area on a scale of 1: 400 000, and in 1886 a re-edition of the map on a reduced scale of 1:2 000 000 was published<sup>16</sup>. François and Wissmann's map which presents an itinerary of their route and a list of new the geographical discoveries made, filled part of the large blank area between the earlier charted Kwango and the Kasai for the first time. The presumed courses of the western tributaries of the Kasai were confirmed, i.e. their source branches were identified, but the area between the sources of these rivers and their Kasai confluence was still completely unexplored. The courses of the Kwango, Wamba, Kuilu and Loange, the biggest tributaries of the Kasai, were still presumed and were indicated on the map only with dashes.

When the Congo Free State and the Kwango Oriental province were established, the whole area east of the river Kwango was still *terra incognita*. This fact would only change with the establishment of Belgian authority and expeditions in which the Croatian explorer Dragutin Lerman would play the pivotal role.

## LERMAN'S RESEARCH AND CARTOGRAPHIC WORK

The first significant expedition into the Kwango Oriental province was organised in 1889. It was led by Frédéric Vandeveldé<sup>17</sup> who, for this occasion, was joined by Charles Victor Liénart<sup>18</sup> and Dragutin Lerman. This was one of the biggest expeditions undertaken in the Congo to date and, counting in the already mentioned Europeans, it consisted of 80 soldiers and several servants and translators. The objective of the expedition was to explore the river Kwango up-river from the Lukungu station towards the southern border with Angola. Setting off from Boma on 30 June 1889, the expedition followed the route Lukungu - Kimpesa – Popokabaka. From there Vandeveldé and Liénart continued eastwards to the Luebo station, and Lerman took the north-western route back to Léopoldville (today Kinshasa) where he arrived on 12 September 1889<sup>19</sup>. During this expedition Lerman was already undertaking field mapping, a fact borne out by one of the earliest of Lerman's maps of the area between the Congo and the Kwango rivers. Although this map is in fact an unfinished sketch, it contains precisely plotted co-ordinating grid points which indicate that it was probably intended to serve as a base map onto which the data collected during his field research was to be plotted. Instead of developing it further, Lerman decided to send the map to his friend Julius Kempf and left it incomplete with only an explanatory note on it saying: "*The map is not to be revealed until the Society itself approves of it, so be patient*"<sup>20</sup>. (Similar base maps with plotted co-ordinates can be found in several places in his journal). After his return to Léopoldville, Lerman resumed exploring the river Lukungu (south of Léopoldville). After being appointed manager of Stanley Falls at the beginning of 1890, he went up the Congo on a steamboat "le Stanley" and traced the route of H.M. Stanley's previous explorations all the way to Stanleyville and further upstream to Kirundi, the residence of a powerful Arabic chief, Kimbogo. Lerman spent about six months in the area around Stanleyville. His journal entries during this period indicate that he performed certain measurements on air temperature, altitude, and direction during this voyage but, since no cartographic sketches have been found to date, it is uncertain whether he also mapped the area. By the end of 1890 Lerman fell ill with fever and in February 1891 he left Boma for Europe.

After returning to the Congo at the beginning of 1892, Lerman continued his work on mapping the Kwango Oriental province (his journal entry for 23 February specifically refers to the drawing of a map)<sup>21</sup>. He was appointed leader of an expedition which was to explore and map the area between the Kwango and Kulu rivers which occupy most of the Kwango Oriental province. Such an undertaking was essential because after Vandeveldé had traversed the province on an east-west course on approximately 6° south latitude, the area south of that zone, all the way to the border with Angola, remained unexplored and uncharted. Although activities on exploring and mapping the area east of the Kwango had been initiated by captain Francis Ernest Dhanis during 1890 and 1891, he was urgently sent to the upper Congo region in 1892 to establish Belgian authority in a region controlled by Arab chiefs and slave merchants.<sup>22</sup>

After leaving the port of Matadi in March 1892, Lerman reached Popokabaka, a centre in the district of which he had been named commanding officer<sup>23</sup>. This station was to become a starting point to all Lerman's expeditions in the Kwango Oriental province. Lerman soon moved from Popokabaka southwards, along the Kwango river towards the Kassongo Lunda, a district caught up in tribal conflicts. Whilst he was working on pacifying the chieftains, establishing Belgian authority, and mapping the terrain along the Kwango, Lerman also received a new assignment. What had happened,

was that a border treaty with the Portuguese in Angola had in the mean time been signed, with the result that a boundary had to be demarcated in a zone along 8° South. A prerequisite for the demarcation was the mapping of the mentioned terrain. Lerman was appointed leader of the Belgian team of the demarcation commission which was headed by George Grenfell. His task was to ensure a

quick and safe passage for the commission and to undertake the reconnaissance of the terrain where the border had to be marked. In autumn 1892 this mission again sends Lerman up the Kwango all the way

to the Franz Joseph Falls station, which he rebuilt on that occasion, and then further southwards. After reaching approximately 8° South, he headed east, a little further south than the future border, and then turned north towards the Kuilu. On 15 February 1893 he discovered an impressive waterfall on this river which he named the Zrinski Falls, after the Croatian historical hero Petar Zrinski<sup>24</sup>. After crossing the Kuilu, Lerman turned westwards towards the Kassongo Lunda station, and then continued along the Kwango back to his starting point, the Popokabaka station. On this route, following the 7° South latitude, he traversed another unexplored area of the Kwango Oriental province and, for the first time, accumulated reliable data of the complex hydrographical network around especially the Wamba and Kuilu rivers, as well as the names of numerous native villages he passed through.

During his last stay in the Congo from 1892 to 1895, Lerman once again returned to the border area with Angola where he did detailed mapping of the area around the river Wamba.

Lerman's cartographical work during the period 1892-1895 resulted in a number of terrain sketches, of which the extant ones all relate to the reconnaissance of the area around 8° South, and the expedition he led up the Kuilu river along the 7° South latitude from the Zrinski Falls to the Kassongo Lunda station. Altogether 87 sketches were made during the period December 1892 to March 1893. Although almost none of the sketches contains a co-ordinating grid, they were all plotted on graph paper, which indicates that Lerman probably knew the co-ordinates of the terrain. In all probability he used the graph paper lines as a kind of scale, i.e. a co-ordinating grid. In his sketches he plotted his course, the hydrographical network, and all the settlements, which he indicated with their original names. Alongside each settlement he also noted the altitude in metres, and next to each station the exact time of arrival and departure. He occasionally tried to depict the configuration of the terrain with dashes to indicate the orientation of the slope, as well as some more distant phenomena he could notice on the horizon. All the sketches were drawn on the same scale and when merged, give a relatively precise map of the route Lerman took during his expedition, starting from the Kiniagi village on the upper Kwango (a little further south than 8° South all the way to the Kassongo Lunda station).

A few of the sketches which were related to the position of the southern boundary of the Congo were published as a separate map in Lerman's article on the exploration of the area between Kwango and Wamba which was published in the journal *La Belgique coloniale*<sup>25</sup>. This map represents a compilation of Lerman's sketches, supplemented with data he collected while charting in 1895. The map has a co-ordinating grid and a preliminary borderline along the 8° South latitude and shows the routes of Lerman's and Dhanis's expeditions in this area.

It is unfortunate that, to date, no complete map of Lerman's explorations has been found. Due to the extremely difficult conditions of the terrain, Lerman plotted the results of his measurements on the terrain sketches only, and it was only after he had returned from the expedition that he would plot all the data from the terrain sketches onto a final map with a co-ordinating grid. He did this in a very precise manner as is illustrated by a note from the first pages of one of his terrain notebooks which mentions that one geographical degree on the ground equals 30 cm on his final map, i.e. the scale of the map is 1: 300 000. This final manuscript map was then forwarded to the Belgian colonial administration which compiled all the data they had received of the relevant terrain to create a new, updated version of the official map of the Belgian Congo. Because of this arrangement, neither

Lerman's legacy nor the Belgian archives contain the original map comprising all the observations he made in the entire area he explored.

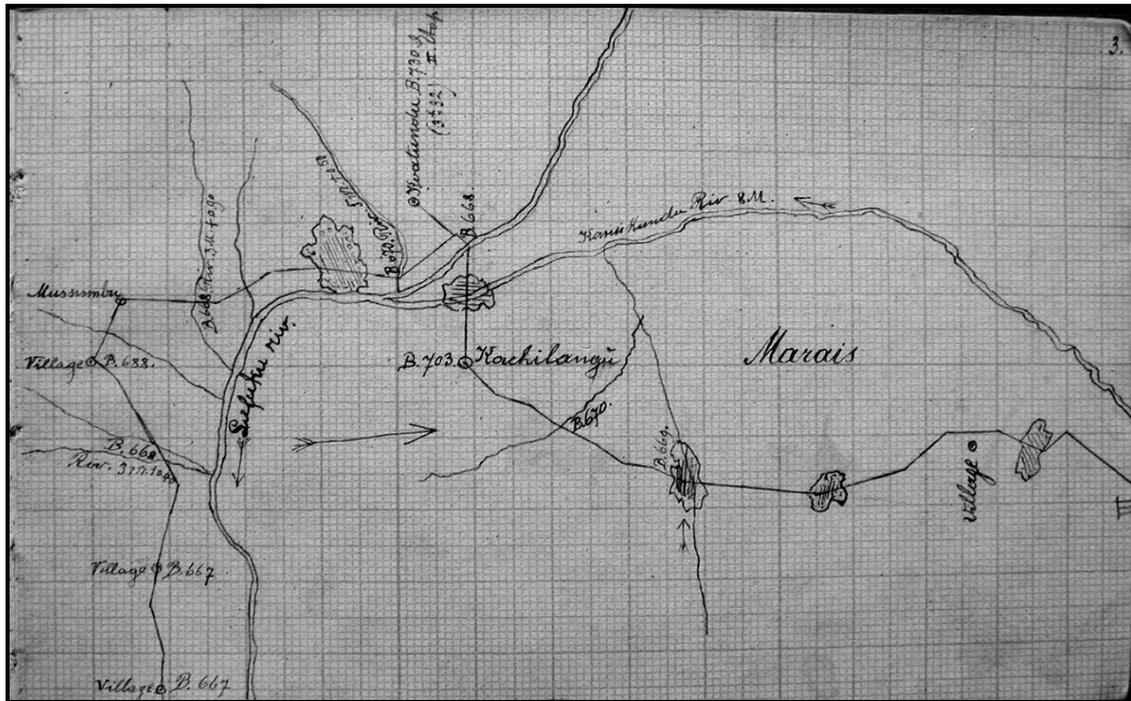


Figure 2: One of Lerman's sketches showing the demarcation zone between the Congo and Angola.

## MAPPING METHODS

Lerman does not often comment on the cartographical work he did during his expedition in the Kwango Oriental province, neither in his personal diaries nor in his private letters. He only sporadically mentions the difficulties he encountered when charting the terrain because of the travelling conditions he suffered and the frequent rains: "*to progress with such hardship and rain, and to make observations for the map, is enough to tire a man*"<sup>26</sup>. Although his journal gives us a detailed insight into the area and its customs, he only casually mentions his techniques of measuring, the instruments he used, and the results he obtained. His journal clearly indicates that he used a compass when travelling as he often mentions moving according to "the magnetic needle". Apart from a compass, the basic instrument Lerman used was an accurate chronometer. During the entire voyage he took precise notes of departure and arrival times, i.e. of the time necessary to cover a distance. From this we can conclude that in order to calculate the distance he probably used the so-called *dead reckoning* method. According to this method the length of a certain path is determined by calculating an estimated movement rate per hour to cover a certain distance, after which the calculated distance is applied to the compass bearing, which in turn gives us the exact position of our location (Stanley himself used this method sometime during his expedition). Whether Lerman also used a pedometer cannot be inferred from his notes.

Apart from distance, Lerman also measured the altitude in meters which he often mentions in his journal. For determining altitude, he used an aneroid barometer to measure air pressure and then used the difference in pressure to calculate the difference in altitude. By doing this, he was able to determine the height above sea-level<sup>27</sup>. The use of an aneroid barometer forced Lerman to take precise temperature readings three times a day, at 06:00, 12:00 and 18:00 hours. The results of altitude measurement using pressure differences as determined with an aneroid barometer should be corrected by taking the temperature differences into consideration.. Lerman was very careful to make the necessary corrections, and this is demonstrated by a notice appearing on the first pages of his terrain sketch-notebook in which he mentions the amounts to be added or deducted from the altitude shown by the barometer depending on the time the measurement took was made and the presumed temperature at that time of the day.

Whether Lerman also measured longitude and latitude during his expeditions remains unclear. When describing his travels, he very rarely mentions the longitude and latitude of specific locations, but merely gives a general indication such as “I shall move eastwards along 8° southern latitude”. His topographical sketches, although plotted on graph paper, contain no co-ordinate grid. He did not indicate the relevant co-ordinates in the form of an annotation next to the settlements in his sketches, as Stanley did, neither did he list the co-ordinates in tables when he noted his measurements for the stations on his voyage. As a rule, he notes for each station the temperature, altitude, distance in hours of walking and compass bearing in relation to the previous station. However, the description of Lerman’s journey in his journal clearly shows that he, at all times, knew his exact position very well which he then accurately marked in his sketches. Lerman’s knowledge of the coordinates of the area in which he travelled can only partially be explained by the use of some older maps he used during his journey. At the time of his expedition in the Kwango Oriental province, Alexander von Mechow's very detailed map of the entire course of the Kwango had already been published. His journal also indicates that for one section of his expedition, Lerman used a map made by captain Francis Ernest Dhanis during the latter’s voyage of 1890-1891. Lerman was, however, severely critical about the accuracy of this map, and pointed out that Dhanis plotted all the locations on the map too far to the east. As a result of this, the river Wamba, which is situated much further to the west, was indicated where the river Saie (today the Inzia) is situated.<sup>28</sup> In fact, before Lerman’s expedition, the Wamba was regularly marked east of 18° East, and it was only after his survey that this mistake was corrected and that the Wamba was plotted to the west of the 18<sup>th</sup> meridian. This fact confirms that Lerman must have made some measurements as regards longitude and latitude, a fact which is also verified by the map with coordinates in his journal which he intended for his friend Julius Kempf in Croatia.

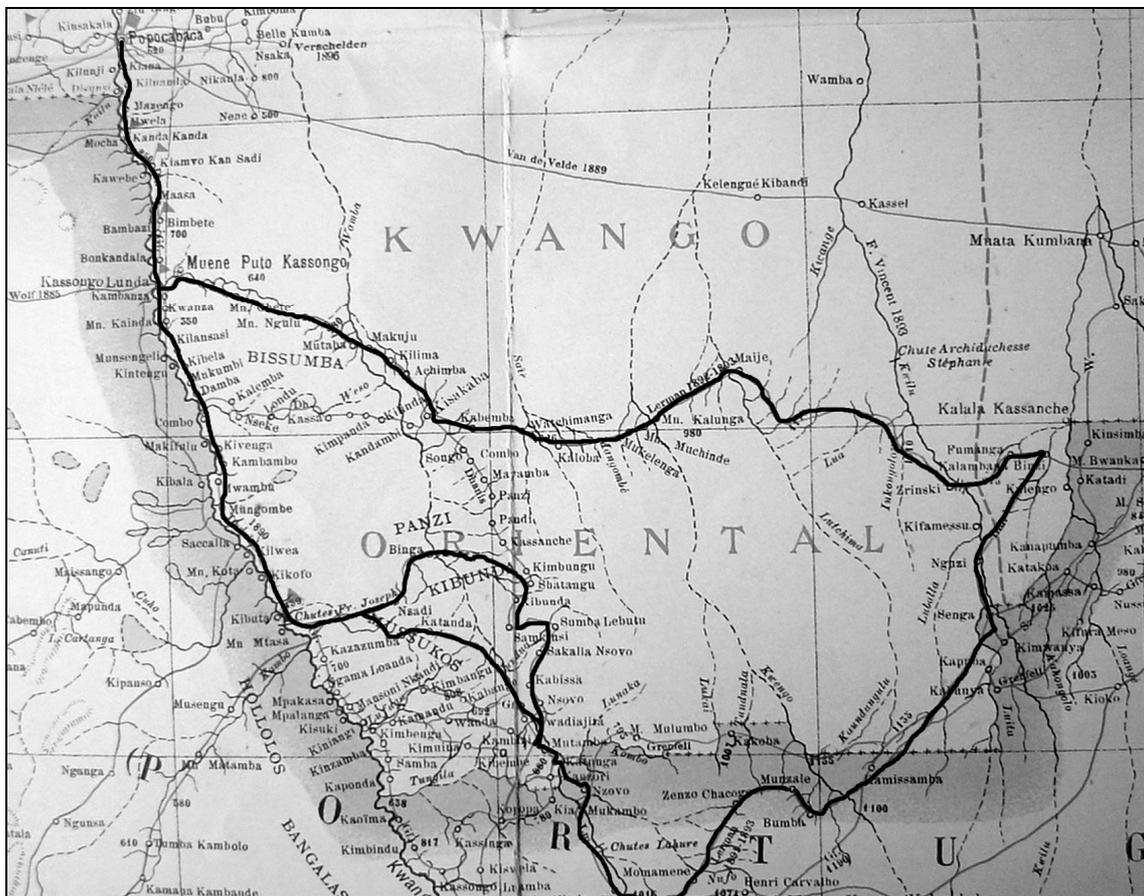
## **LERMAN’S HERITAGE IN MAPS OF CENTRAL AFRICA**

The results of Lerman’s explorations which were sent to Stanley in the form of sketches and reports, or went directly to the colonial administration, were noted in all official maps of Belgian origin of that period. This is confirmed by the official maps of the Belgian Congo published from 1895 onwards. On these maps one can, for the first time, see all the settlements and waterways first recognised and described by Lerman in his journal which do not appear on any other map of the Belgian Congo or Central Africa made prior to his explorations.

The oldest map on which Lerman’s findings can be seen is the map created in 1895 by the secretary of the Belgian Royal Geographic Society, Jean du Fief<sup>29</sup>. It is a detailed map of the Congo Free State on a scale of 1:2 000 000 and consists of two sheets printed in multi-colour lithography<sup>30</sup>. On this map Lerman’s route is depicted and the results of his explorations emphasized. The routes shown in the

area of the Kwango Oriental province are his route from Matadi to Popokabaka, his route southwards down

the Kwango, his explorations in connection with the demarcation of the boundary between the Congo and Angola near 8° South, and his return route to Popokabaka in 1893. The names of almost all the settlements Lerman mentions in his journal, together with his sketches, are entered onto this map, as well as the hydrographical network which had been updated from his observations for the first time. Lerman's contribution is particularly notable in the better knowledge of the river Wamba which he, for the first time, plotted correctly west of the 18<sup>th</sup> meridian. He was also the first to plot the numerous tributaries of this river.<sup>31</sup> The same applies to the tributaries of the Kuilu, Kwenge and Saie rivers which were also, for the first time, surveyed by Dragutin Lerman. Du Fief's map also shows one of the best known, although not the most important, of Lerman's discoveries, namely the Zrinski Falls.



**Figure 3:** Jean du Fief's map of the Congo which shows Lerman's survey of Kwango Oriental, as well as the routes Lerman followed, and the Zrinski waterfall.

As regards accuracy, detail and content, Du Fief's map of 1895 represents some groundbreaking progress in the cartographic knowledge of the Belgian Congo and, thanks to Lerman, the area between Kwango and Kuilu finally ceased to be a *terra incognita*. Because of the important data gathered during a series of explorations in the Congo, and because of continuous new findings,



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<sup>3</sup> On this and Janko Mikic comp. Mirela Slukan Altic: Janko Mikic - Croatian cartographer in the service of the Henry Morton Stanley. *Proceedings of the International Symposium «Old worlds - New worlds», History of Colonial Cartography 1750-1950*. Utrecht University, 21-23 August, 2006.

<sup>4</sup> H. M. Stanley. 1885. *The Congo and the Founding of its Free State*, II, p. 277.

<sup>5</sup> In this period Lerman started his journal which he would continue to write during his third and fourth stay in Congo. Usp. Dragutin Lerman, *Africki dnevnik 1888-1896*, [African Diary 1888-1896] (edited by Aleksandra Sanja Lazerevic), Zagreb, 1989. His original journal comprises 9 notebooks is held in the Croatian Academy of Sciences in Zagreb.

<sup>6</sup> Lerman spent the rest of his life in his hometown of Pozega where he married Hedviga Reiner in 1897. He went to work in Kresevo (Bosnia) on exploring ore for a Belgian company. He died in Kresevo on 12 June 1918 at the age of 55. It is interesting that after returning to his homeland in late 1896, Lerman sent a letter to Henry Morton Stanley asking for a recommendation to king Leopold for a consular duty (the letter is held in Stanley's archive which is stored in Musee Royal de l'Afrique Centrale at Tervuren). To date no proof of Stanley ever answering the letter has been found.

<sup>7</sup> A smaller part of Lerman's legacy is stored in the Town Museum of Pozega, his hometown.

<sup>8</sup> The demarcation protocol with France was signed on 29 April 1887.

<sup>9</sup> The treaty between Belgium and Portugal on the commencement of the delimitation of the Lunda, i.e. Kwango Oriental province, was signed on 25 May 1891.

<sup>10</sup> Die Fortschritte der Afrikaforschung 1788-1888 vom Alexander Supan: Stand im Jahre 1888. *Petermanns Geographische Mitteilungen*, Gotha: Justus Perthes, 1888.

<sup>11</sup> Fredrich Wilhem Alexander von Mechow (1831-1890) was a Prussian officer from 1873-1875 who, with Paul Güssfeld, organised a German expedition for exploring the Loango province on the Kuilu-Niadi estuary. From 1879-1882 he participated in the exploration of the border parts of Angola where he also charted the river Kwango.

<sup>12</sup> Max Joseph August Heinrich Markus Buchner (1846-1921) was a German doctor, ethnographer and explorer.

<sup>13</sup> Curt von François (1852-1931) was famous German explorer who played a key role in the German occupation of Namibia and in organizing a German colony in South-West Africa which he headed from 1891 to 1894.

<sup>14</sup> Hermann von Wissmann (1853-1905) was a German explorer who, after the Congo Free State had been established, explored the Congo in the service of the Belgian king Leopold. In 1889 Wissmann was appointed as Reich Commissioner for the German East Africa region.

<sup>15</sup> George Grenfell (1849-1906), was a missionary and explorer from Cornwall, England. He participated in a series of explorations of the Congo from 1891 until 1893 as an official representative of the Congo state in the demarcation of the border with Portuguese Angola in the Kwango Oriental province. *Biographie colonial belge*, Bruxelles, 1948-1968, I, pp. 442-457

<sup>16</sup> Originalkarte der Itinear-Aufnahmen & Erkundungen des prem. Lieut. Curt von François. Mitglied der 2' Wissmanischen Forschungs Expedition 1884-1886 im Stromgebiet des Kassai 16. Jun 1884 bis 17. Jul 1885 nach dem Original Aufnahmen im Masstab vom 1:400 000 reduziert auf den Masstab 1:2 000 000. *Petermanns Geographische Mitteilungen*. In 1886 an edited map was published in a reduced scale of 1:2 000 000.

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<sup>17</sup> Frédéric Vandeveld (1852-1891), Capitaine-Commandant of the Force Publique and District Commissioner. *Bulletin de la Société royale de Géographie d' Anvers*, Antwerp, 1907, pp. 479-480

<sup>18</sup> Charles Victor Liénart (1861-1934) was a major in the Belgian Artillery. Until 1892 he headed the Luluabourg station (today Kananga). *Bulletin de la Société royale de Géographie d' Anvers*, Antwerp, 1908, pp. 212-216

<sup>19</sup> Dragutin Lerman, *Africki dnevnik 1888-1896*, pp. 55-111

<sup>20</sup> The map occurs in the second volume of his journal, next to the entry for September 1<sup>st</sup> 1889.

<sup>21</sup> Dragutin Lerman, *Africki dnevnik 1888-1896*, pp. 206

<sup>22</sup> Francis Ernest Dhanis (1861-1909), after a military education, from 1887 worked as a lieutenant in the Belgian army in Congo. He participated in the exploration and mapping of Leopold's possession in the Congo. He distinguished himself in breaking the resistance of Arab slave merchants in the Upper Congo which elevated him to the status of baron, and in 1895 he became Vice-Governor of the Congo Free State.

<sup>23</sup> The Congo Free State was divided into provinces, and provinces into districts.

<sup>24</sup> Petar Zrinski (1621 – 1671) is a heroic figure in Croatian history. He was a member of an illustrious noble family and a Croatian ban, distinguished in the fight against the Turks. In 1671 he was executed by the Habsburg authorities after being sentenced for a rebellion he had raised due to frustration with the relation of the Viennese court towards the defence against the Turks on Croatian territory.

<sup>25</sup> Dragutin Lerman, *Reconnaissance entre le Kwango et la Wamba*, *La Belgique coloniale*, 1895/96, I, pp. 185-186

<sup>26</sup> Dragutin Lerman: *Africki dnevnik*, pp. 393, entry for 17 February 1893.

<sup>27</sup> Dragutin Lerman: *Africki dnevnik*, pp. 393, entry for 28 February 1893.

<sup>28</sup> Dragutin Lerman: *Africki dnevnik*, pp. 392, entry for 27 February 1893.

<sup>29</sup> Jean du Fief (1829-1909), Belgian cartographer and historical geographer. From 1895-1907 he published several maps of Belgian Congo based on the data gathered by explorers in the field. Some of the most popular are the map *Carte de l'État indépendant du Congo et de l'Afrique centrale* published in 1892 and the map *Carte de l'Etat indépendant du Congo* which was published in at least four editions.

<sup>30</sup> *Carte de l'Etat indépendant du Congo* par J. Du Fief, Secrétaire-général de la Société royale belge géographique. Bruxelles, 1895. 2 sheets. Scale 1:2 000 000.

<sup>31</sup> Lerman published a separate article on exploring the Wamba. *Usp. Dragutin, Lerman: Exploration de la Wamba*. *La Belgique coloniale*, 1896, no 40, p. 484.

<sup>32</sup> Lerman's surname is of German origin and sources often quote his name according to the German spelling – Lehrman. Stanley also used this form in his book "The Congo and the Founding of its Free State".

<sup>33</sup> Comp. map - *Carte de l'État indépendant du Congo / d'après les renseignements fournis par les explorateurs et par la Mission scientifique belge.*- 1 : 4 000 000.- Bruxelles (46 rue de la Madeleine) : Librairie J. Lebègue & comp., 1907. 1 map, colour print; 70 x 70 cm.

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## BIBLIOGRAPHY

Dragutin, Lerman. 1895/96. Reconnaissance entre le Kwango et la Wamba, *La Belgique coloniale*, I, pp. 185-186 (with map).

Dragutin, Lerman. 1896. Exploration de la Wamba. *La Belgique coloniale*, no 40, p. 484.

Dragutin, Lerman. 1989. *Africki dnevnik 1888-1896* [African Diary 1888-1896], (edited Aleksandra Sanja Lazerevic), Zagreb.

Aleksander, Lopasic. 1971. *Commissaire General Dragutin Lerman (1863-1918): a Contribution to the History of Central Africa*. Tervuren: Musee Royale de l'Afrique Centrale.

Julije, Kempf. Dragutin Lerman, clan Stanleyeve Kongo-ekspedicije 1882-1896. [Dragutin Lerman - member of Stanley's Congo-expedition 1882-1896]. Unpublished manuscript, Croatian Academy of Sciences, Zagreb.

Mirela Slukan Altic. 2006. Janko Mikic - Croatian cartographer in the service of the Henry Morton Stanley. *Proceedings of the International Symposium "Old worlds - New worlds" in Proceedings of the Symposium on the History of Colonial Cartography 1750-1950*, Utrecht University, 21-23 August, 2006.

Henry Morton, Stanley. 1885. The Congo and the Founding of its Free State. Sampson, Low, Marston, Searle & Rivington, London. *Bulletin de la Société royale de Géographie d'Anvers*, Antwerp, 1907, 1908.

*Biographie colonial belge*, Bruxelles, 1948-1968.

*Petermanns geographische Mitteilungen*. Gotha: Justus Perthes, 1886, 1888.

## BIOGRAPHY

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