

# A MONETARY HISTORY OF GERMAN EAST AFRICA

John E. Sandrock

Prior to the mid nineteenth century, the east coast of Africa was known only to Arab traders. These dealers in human misery settled along the coast, only occasionally venturing into the interior with their caravans in search of slaves. As they began to penetrate further and further into the interior they also discovered ivory, which in time became as important to their commerce as slaves. Tabora and Ujiji, on Lake Tanganyika, became the most important trading posts along these routes.

The first Europeans to show an interest in east Africa were missionaries of the London based Church Mission Society. At this time other explorers were active in their attempt to locate the source of the Nile River, thus stimulating interest in the region. These geographical explorations probed deeper and deeper into the interior, eventually leading to the discovery of Lake Victoria and Lake Nyasa by Richard Burton and John Speke. These men were soon followed by such well known adventurers as David Livingstone and H. M. Stanley.

European interest in Africa increased rapidly. From 1860 onwards this interest turned to colonialism, whereupon the European powers divided Africa into political “spheres of influence” separated by international boundaries. In this way the entire continent, with few exceptions, was partitioned by European conquest and occupation.

Britain, France, Germany, Italy, Belgium, Portugal and Spain each laid claim to African territory. Germany, together with Great Britain, focused its interest upon east Africa. These efforts began in 1884 when Dr. Karl Peters, one of the founders of the German Colonization Society, set out for east Africa in search of a suitable colony. In November of that year Peters succeeded in concluding a series of so-called “treaties” with the local chiefs. Kaiser Wilhelm II accepted these somewhat spurious claims as valid, whereupon the German government declared a protectorate over the area in 1885. The German East Africa Company (Deutsche Ost-Afrikanische Gesellschaft) was organized to administer the newly acquired colony. At that time the Sultan of Zanzibar also held vaguely substantiated claims to territory on the mainland. These claims were eventually repudiated when a joint British and German agreement was reached to end the sultan’s claim with a



German East Africa in 1914.

payment of £ 200,000. By 1898 Germany had succeeded in occupying all of the interior.



Flag and escutcheon of German East Africa

Germany, now caught up in the race for colonial expansion, was anxious to exploit the resources of its new dependency. The German East Africa Company quickly set about establishing plantations, improving coastal harbors and building railroads. The principal of these works involved the development of the port of Dar es Salaam and the building of a railroad from there to Tabora and onwards to Ujiji on Lake Tanganyika. Other lines were built connecting the northern port of Tanga to the plantations near Mt. Kilimanjaro. At first sisal was the colony's most valuable crop, soon to be followed by coffee, rubber and cotton plantations. All these activities helped swell the young country's economy. The natives' situation was improved by the abolition of slavery, the establishment of a police force (the Schutzztruppe), a postal system, compulsory education of native boys, and the

elimination of smallpox and other diseases through an intensive program to vaccinate the native population.

The outbreak of World War I put an end to all these German experiments. Blockaded by the British Navy, the colony could neither export produce or receive assistance from the fatherland.

Prior to the opening of Africa by the Europeans, the natives and Arab traders used salt slabs for currency. In 1780 Maria Theresa, the Empress of Austria (1717-1780) and Queen of Bohemia (1740-1780), died. She was best known for her skill at diplomacy and for giving birth to sixteen children, thus becoming the founder of half the royal houses of Europe. The “Maria Theresa” was a thaler (dollar) of eighty-three percent silver bearing the bust of the empress on the obverse and the Austrian arms on the reverse. It had been minted in 1780 as that country’s legal tender. The empress’ demise that same year created an instantly obsolete coin. These coins were then sold to Arab traders who wanted something less cumbersome than the salt slabs then used in their commerce. This marked the beginning of the thalers’ use in Africa as an unofficial “trade dollar”. The Maria Theresa thaler was an instant success with the natives and soon became the standard currency used in countries bordering the Red Sea and along the coast of east Africa. Long after the British, German, Portuguese, French and Italian governments had introduced their own coinage into their colonies, the Maria Thesesa thaler continued to be minted for export and to circulate as a supplemental currency. In some areas of the interior, it was the only coin that the natives would accept. The popularity of this coin was so great that supply could not keep up with demand. Native tradesmen had accepted this coin for so long and with such success that they showed no interest in altering its date or design. Consequently, the Maria Theresa thaler was struck again and again by mints all over Europe to meet this demand. In one of the last colonial applications, the thaler was struck by the Italian government in 1936 as legal tender for Ethiopia, where it was used until 1948.

First issued in 1780, the Maria Theresa dollar’s date never changed. Over the years there have been many re-strikes of the coin. Original coins from the Gunzburg mint in Austria are not only expensive, but hard to find. Most Maria Theresa thalers with initials “SF” on the obverse are re-strikes which served as trade dollars. These were minted over a period of eighty years commencing in 1853. Other marks can be found on the rim of the coin, while some specimens bear counterstamps. The uncirculated pieces encountered today were usually minted as

“collectors items” negating their true numismatic value. It is estimated that collectively over 800 million of these coins have been struck to date.



The Maria Theresa thaler of 1780 was an unofficial trade dollar. This Austrian coin was the first real currency introduced into the interior of east Africa. It proved so popular with the natives that they often would accept no other.

Soon after Kaiser Wilhelm II decreed the organization of the German East Africa Company, it became apparent that a more diversified coinage than the Maria Theresa thaler would be required to adequately service the needs of a burgeoning commerce. In order to facilitate international trade, a value of three mark was assigned each thaler then in circulation. In order to create a territorial currency, the German East Africa Company, in 1890, set forth an exchange rate whereupon the first colonial coin known as the pesa, was created. The pesa (pice) denomination, long familiar to Arab and Indian traders, was assigned the equivalent value of 64 pesa to one rupee. This minor coin was minted for three years (1890-1892) before being dropped. At this point it was decided that the colony would be better served by abandoning the pesa/rupee valuation in favor of one tied to the German mark. In 1891, the relationship between the German East Africa Company rupee and the German mark was fixed at one rupee = 1.33 mark (4 mark = 3 rupien). The name rupee was adopted for colonial use to distinguish the coinage from the Indian and other rupees then in circulation.

In 1891 the company was authorized to mint silver coinage in denominations of  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1 rupee and 2 rupien. These coins were minted in Berlin of .917 silver and to a common design. The coins' obverse carried a likeness of Wilhelm II in military dress, wearing a helmet with the Germanic eagle perched on top. The legend surrounding the bust of Wilhelm II reads "Guilelmus II Imperator". The reverse of the rupee coins bears the arms of the German East Africa Company consisting of a lion and palm tree with the date beneath. The inscription surrounding the central shield reads "Deutsche Ost-Afrikanische Gesellschaft" with

value expressed in rupies below. Coin production of this series commenced in 1891 and lasted until 1904 when the final two rupien coin was struck. Some years saw no mintage figures as the coins were struck only to meet the demands of existing commerce. As might be expected, mintage figures for German East Africa Company coins are low as compared to the later, government issues, making them relatively expensive today.



Coins of the German East Africa Company. The copper 1 pesa was minted from 1890 to 1892 and was soon dropped in favor of a unified silver coinage consisting of  $\frac{1}{4}$ ,  $\frac{1}{2}$ , 1 and 2 rupees.

This series exhibits the likeness of emperor Wilhelm II on the obverse and the arms of the Deutsche Ostafrikanische Gesellschaft on the reverse.

It wasn't long before Germany realized that the East Africa Company lacked the administrative ability to properly manage the colony. The imperial government, anxious to exploit the colony's potential and to develop railroad communication within the area, declared a protectorate over the region formerly ruled by the Deutsche Oest-Afrikanische Gesellschaft, settled financial accounts with colonists and Askari natives, and immediately took over all colonial administration. In 1897 the imperial government proclaimed the area the colony of German East Africa (Deutsche Ostafrika) which we shall henceforth refer to as "D.O.A". Shortly after, a separate Colonial Department was set up in Berlin to assist in development. Coin production of the German East Africa Company ceased in 1904. From 1904 onwards, financial management of the colony was taken over by the imperial German government.





The initial minting of German East Africa (DOA) coins consisted of  $\frac{1}{2}$ , 1 and 5 heller bronze together with  $\frac{1}{4}$ ,  $\frac{1}{2}$ , and 1 rupie silver coins. The 1 and 5 heller and 1 rupie specimens are shown here.

The DOA monetary system consisted of rupie coins and multiples thereof. Subsidiary coinage was given the name “heller” to distinguish it from the pfennig used in the fatherland. The heller was assigned the equivalent value of 100 heller = 1 rupie. In total, DOA coins consisted of twelve types. The first of the new DOA coins were minted in 1904 in the following denominations:  $\frac{1}{2}$ , 1 heller,  $\frac{1}{4}$ ,  $\frac{1}{2}$  and 1 rupie. At this time the two rupien coin was discontinued. The obverse of the silver rupie coins was unchanged from the German East Africa Company issue. New dies were cut for the reverses consisting of the value (i.e., “1 rupie”) in the center surrounded by crossed palm fronds with “Deutsche Ostafrika” above, and date with mintmark below. The bronze heller denominations depicted the imperial crown at the center with “Deutsche Ostafrika” above and date below on the obverse and value surrounded by crossed laurel branches on the reverse. New 5 heller bronze and 10 heller copper nickel coins were added in 1908. In 1913 the bronze 5 heller was replaced by a much smaller copper nickel type with a center hole. A similar 10 heller copper nickel piece was struck from 1909 to 1914. All pre-World War I coins were minted at the Berlin and Hamburg mints in Germany. Coins minted in Berlin carried the “A” mintmark, while those made in Hamburg were struck with mintmark “J”. In some years production was assigned to both mints for the same



In 1908 new 5 and 10 heller copper-nickel coins with a center hole were introduced. They may be found with both Berlin and Hamburg mint marks.



By 1915 it had become clear that the coastal cities could not be held much longer. To supplement production at Dar es Salaam an additional mint was set up at Tabora in 1916. Heller coins were struck there from expended artillery shell casings. The issue is considered a “provisional” one, brought about by wartime necessity. All Tabora production carries the “T” mintmark.

coin to keep up with demand. Mintage figures for heller coins ran into millions per year for each denomination, while the silver rupie issues seldom exceeded 500,000.

Additional DOA coins were minted at the Tabora mint in 1916 to supplement production at Dar es Salaam. Eventually both mints fell to the British invaders. The Tabora provisional issue, brought about by necessity, will be discussed in conjunction with the story of the war in German East Africa.

Private paper money issues were used from the first year of German administration. These attractive notes came into being of necessity to fill the void of a lack of small change in the interior and elsewhere. Some examples of German East African private notes include issues of German firms in Bagamojo, Dar es Salaam and Zanzibar. To this one must add the notes of the Post Office in the towns of Lindi and Kilwa-Kissiwani during the Maji-Maji rebellion of 1903-1904, ship money of the blockade squadron which patrolled the coast to prohibit arms smuggling to the Maji-Majis, credit notes of the Schutztruppe in the southern part



of DOA, and even private notes issued by plantation owners. One such note, stamped “1/10 rupie” was used by the firm of Hauptmanns a D.v.Prince in the plantation settlement of Sakkarani. These notes were willingly accepted and used by the traders.

The Deutsche-Ostafrikanische Bank was granted the concession to function as the colony’s bank of issue. The right to issue bank notes followed on 15 January 1905. The bank’s colonial offices were opened on 23 June 1905. At that time the colony’s first paper money was introduced. These notes were produced by the Leipzig firm of Giesecke and Devrient on special paper containing the company’s “cross and star” (kreuzstern) watermark pattern. Notes were prepared in denominations of 5, 10, 50 and 100 rupien. All were dated 15 June 1905 and entering circulation shortly thereafter. In 1912 a 500 rupien note was added. This note bore the date 2 September 1912. Giesecke and Devrient production figures for each denomination note as cited in Dr. Keller’s *Das Papiergeld der Deutschen Kolonien* were as follows:

5 rupien	53,955	totaling	269,775 rupien
10 rupien	41,612	“	416,120 rupien
50 rupien	29,618	“	1,480,900 rupien
100 rupien	18,769	“	1,876,900 rupien
500 rupien	696	“	<u>348,000 rupien</u>
			4,391,695 rupien

These notes are quite attractive. Issued in Dar es Salaam, they all bear the following common features on the obverse: a red serial number prefixed by the cipher “No.”, “Deutsch-Ostafrikanische Bank” at the top of each note, the value in letters and numerals below, with the printers imprint appearing in the lower right border. The five rupien bank note contains an attractive engraving of a lion and lioness in the veldt. The ten rupien note shows a harbor view of Dar es Salaam with ship at anchor. The higher 50, 100 and 500 rupien denominations carry the likeness of Kaiser Wilhelm II, in military uniform, in an oval vignette. The engravings are identical on the 50 and 100 rupien notes, with the Kaiser’s portrait facing one-quarter right, while a different portrait facing half-left is used on the 500 rupien note. In the latter portrait the Kaiser’s pickelhaube with eagle on top, is replaced by a fore and aft hat. The reverses consist of geometric patterns containing bank name with values in words and numerals.

At first these notes circulated only in the coastal cities. By 1914 they had spread by railroad throughout most of German East Africa. The bank notes held



Detail from Deutsch-Ostafrikanische Bank 5 rupien note of 15 June 1905 featuring a lion and lioness in the veldt as the central vignette.



Ten rupien note of 1905. The note was a product of the German printing firm of Giesecke and Devrient in Leipzig. With the advent of World War I, all communication with the homeland was severed making the use of locally produced emergency money a necessity.





This German East Africa 50 rupien bank note depicts Kaiser Wilhelm II in military uniform wearing a ceremonial helmet with crowned eagle. This note, bearing serial number 27785 on obverse and reverse, was one of only 29, 618 printed.

little significance to the people of the interior, however, as the plantation economy was virtually self-sustaining. Little need for bank notes existed, as the native Askaris preferred metallic coins and the farmers relied heavily upon checks for most large transactions.

The last shipment of Geisecki and Deverent printed notes, consisting of several million ruipen, arrived in Dar es Salaam aboard the merchant blockade-runner *Marie von Stettin*, prior to the port's capture by British forces in 1916. From this point forward German ingenuity was to provide the means with which to maintain the colony's commerce.

At this point we must deviate from our numismatic discourse to catch up on a little history – the outcome of which dramatically altered the future of German East Africa.

The First World War began with the assassination of the Austrian Archduke Ferdinand in Sarajevo, in June 1914, by fanatical Serbian nationalists. The Serbs at that time were attempting to annex the Austria-Hungary province of Bosnia-Herzegovina into a "Greater Serbia", an act of aggression they were to attempt again in the 1990s. European countries rushed to take sides in the dispute - the French and Russians favoring Serbia, and Germany siding with Austria-Hungary. The vulnerability of Germany's African colonies, should Britain declare war, did not escape the War Ministry. In that event, they correctly foresaw that Germany's far-flung colonies would be essentially cut off from the motherland and thus fall easy prey to Britain's own colonial ambitions. This latter assumption was to turn out to be a big mistake! Defying the Congo Act, which specifically stated that the European powers were not to extend their wars into central Africa, the British opened hostilities. The German East Africa campaign proved to be a complete disaster, exacting a heavy toll from the British, due to the skill and heroism of a little known German army commander. Colonel von Lettow-Vorbeck had arrived in Dar es Salaam in January 1914 to take over the defense forces of German East Africa. A veteran of the Boxer Rebellion in China and the Hottentot uprising in German South West Africa, he was probably the most experienced colonial officer in the German army. At that time he had little inkling as to the latent skills that were to make him the most legendary guerrilla leader of his day.

Upon the outbreak of World War I, von Lettow-Vorbeck had 4,000 men under his command. These troops consisted of several hundred German officers and soldiers, the balance being native African Askaris. These native troops had

been thoroughly trained in the Prussian manner and integrated into the German Army.



Askari Schultztrupper. Excellent bush soldiers, these men were well trained, loyal and dedicated fighters, second to none in East Africa.

Immediately upon arrival von Lettow-Vorbeck, with his accustomed energy and vigor, set out to reconnoiter the colony and to work out a defense strategy in the event of war. Traveling up from Tanga on the Kilimanjaro railroad he visited many prosperous plantation settlements in the north. He quickly concluded that that part of the colony, due to its proximity to much larger forces in British East Africa together with British control of the sea, could not be defended. Instead, he decided the best service he could render Germany was to tie down as many enemy troops as possible to keep them out of the war in Europe. To accomplish this it was

necessary to work out a strategy, which would ensure that his army would never suffer a decisive defeat.

In this single-minded aim he was brilliantly successful. After organizing the colony's resistance, for four years he fought a brilliant campaign with a handful of European and native troops despite losing territory and being cut off from all supplies. When the armistice came in 1918, he was still operating in the field with an effective fighting force. He had accomplished this by using the classic guerrilla tactics of flexibility, improvisation, living off the land and by turning the enemy's weight of numbers against himself.

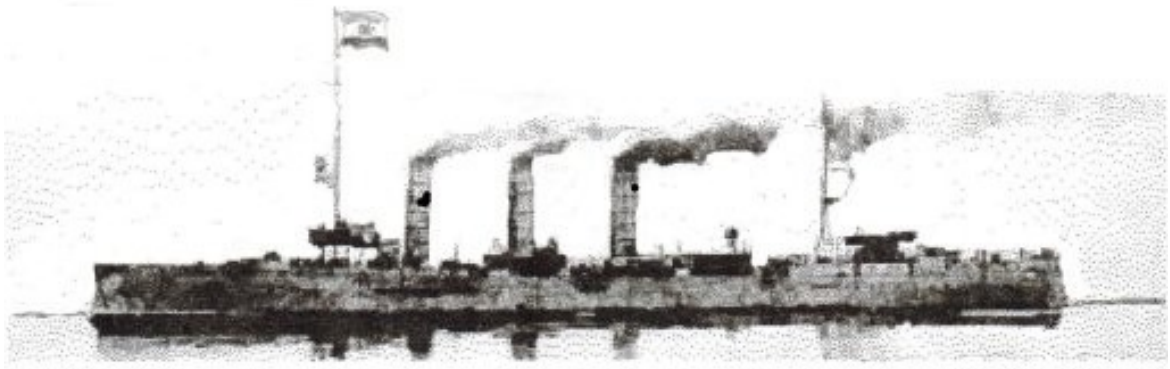
When war came von Lettow-Vorbeck was ready. He had organized his Europeans and Askaris into well-disciplined field companies of 200 men with 250 carriers each. These men were excellent bush soldiers, second to none in East Africa.

In August 1914 the British made a preemptive strike against Dar es Salaam, hoping the colony would surrender. Overruling the colonial governor Schnee, who was inclined toward a truce, von Letow-Vorbeck took the fight to British East Africa where he inflicted heavy losses upon a poorly organized enemy.

Von Lettow-Vorbeck was not to see action again until November 1914 when a large British and Indian invasion force landed at Tanga to take possession of that port. In the meantime another drama in the war was to take place at sea. This proved to be the only assistance von Lettow-Vorbeck was to receive throughout the duration of hostilities.

In June 1914 the cruiser *Konigsberg* had been sent out to German East Africa to replace an old steam corvette, then on station. She was modern and sleek and meant to serve as a symbol of naval power in the region. The arrival of the *Konigsberg* posed a real threat to the Royal Navy and to England's maritime trade should war break out. To protect their interests, the British maintained three old cruisers on station at Simonstown in South Africa. They were to prove no match for *Konigsberg*. Prepared for her new role of sea raider, Captain Max Looff had no wish to be caught in port should war be declared. On 31 July he put to sea. The next day, during a heavy rain squall, *Konegsberg* narrowly escaped the British Cape Squadron which had been sent up to intercept her. War having been declared, Looff headed north to interdict the sea lanes in the Gulf of Aden. Within days she had captured and sunk the *City of Winchester*, the first merchant ship casualty of the war. Since shortage of coal was a constant problem, Looff ordered his men to





The cruiser SMS *Königsberg* was sent to German East Africa just as World War I was declared. She led the enemy on a merry chase, sinking both merchant and military targets until mechanical problems forced her captain to seek the sanctuary of the Rufiji River delta to attempt repairs. The pursuing squadrons eventually found her there. Coming under repeated attack by spotter aircraft and naval gun fire, *Königsberg* was severely crippled. Captain Looff then ordered his ship scuttled, but not before everything of use was removed, including parts from which a minting machine was built for the Tabora mint.

remove the coal remaining on the *City of Winchester* before sinking her. This helped for a while but this supply, as well as that aboard the German supply ship *Somali*, was soon exhausted forcing *Königsberg* to seek shelter in the mouth of the Rufiji River to the south. After refueling, Looff's plan was to make a run for it around the Cape of Good Hope capturing targets of opportunity en-route to Germany via the North Sea. On 19 September, the day of departure from the Rufiji River delta, *Königsberg* received a telegram notifying him that a British cruiser had been spotted anchored off the island of Zanzibar. Captain Looff, not wanting to miss the opportunity presented, sailed overnight to Zanzibar arriving just as the sun rose. The clearing fog revealed HMS *Pegasus* moored just offshore. In a brief bombardment that lasted a mere forty-five minutes *Pegasus* was reduced to a flaming wreck, sinking later on that day. *Königsberg* then turned and headed south, but unfortunately within hours suffered a broken crosshead in her main engine which necessitated her return to the Rufiji delta. The damaged part was hauled overland to be repaired in the railroad machine shops at Dar es Salaam.

The loss of *Pegasus* brought out the full fury of the Royal Navy, which now sought to locate and destroy the German raider. British warships doggedly stalked the lone German cruiser while probing every inlet and bay along the coast. After several weeks of searching, *Königsberg* was discovered by three British cruisers,

just as the needed repairs were being completed. A blockade was set up to prevent her escape. *Konigsberg* was unsuccessfully attacked simultaneously by a combination of aircraft and gunboats. The ancient aircraft proved to be so unreliable, that their main goal was just staying in the air, not dropping bombs! Captain Loeff then moved *Konigsberg* further up the Rufiji delta, out of reach of the British guns.

An eight month impasse now began, during which time *Konigsberg* was unable to escape; and the British, due to the protecting German gun emplacements on shore, were unable to get close enough to bombard her. As Christmas 1914 approached the officers of HMS *Fox* taunted Captain Loeff with the following message: "We wish you a Happy Christmas and a Happy New Year, we hope to see you soon" to which Loeff replied "Thanks, same to you, if you wish to see me, I am always at home".

In July 1915 the British finally got close enough to severely damage *Konigsberg*, whereupon Capt. Loeff scuttled his ship. Ten months had passed pending *Konigsberg's* destruction, during which the British had tied up twenty ships and ten aircraft in her pursuit. The Germans removed everything of value including the ship's main engines. Colonel Lettow-Vorbeck managed to salvage the ship's ten big guns. After being fitted with carriages manufactured by the Dar es Salaam railroad machine shop, the old ship's guns were ready to augment von Lettow-Vorbeck's land-based field artillery.

While the *Konigsberg* drama was being played out the British army, in November 1914, was busy making plans to attack Tanga and thereby, hopefully, to take possession of German East Africa. The British and Indian amphibious invasion force outnumbered the Germans eight to one. Caught in von Lettow-Vorbeck's withering machine gun crossfire, the British took unprecedented casualties. The retreat, which followed, was even more costly. In all, 2000 lives were lost with another 2000 wounded. Von Lettow-Vorbeck's losses were 15 German and 54 Askaris. As a result of this lop-sided victory the Germans were able to capture large amounts of arms and ammunition with which to supply their forces.

After their defeat at Tanga, the British left von Lettow-Vorbeck alone for a period of eighteen months, allowing him to prepare for an extensive campaign. During this time he encouraged the production of local materials to alleviate shortages. The natives wove cotton cloth, boots and shoes were fashioned from hides, tires made from rubber and motor fuel from palm nuts. Even an ersatz

quinine was produced to treat the endemic malaria. Nicknamed “Lettow’s schnapps”, it proved highly effective. Throughout 1915 and early 1916 von Letow-Vorbeck launched raids into Kenya and Rhodesia, attacking forts and destroying railroads. A major battle was fought at Jassin, in the north, as a result of which both sides sustained major casualties. It was at this point that von Lettow-Vorbeck realized that he must henceforth avoid major land actions and instead rely entirely on guerrilla tactics. It was not until March 1916 that the British launched another attack.

In the interim, supplies were becoming scarce on the home front as well. Everything was in short supply necessitating the utmost ingenuity to overcome these shortages. The colony’s finances were no exception.

The flow of money from Germany having been cut off, the colonists began hoarding silver rupien, thus creating a shortage of coins with which to conduct trade. By early 1915 the situation had become critical obliging governor Schnee to issue an order to the Deutsche Ost-Afrikanische Bank to print an interim money supply. The issue of these “Interim-Banknoten” was restricted to the duration of the war. But how was the bank to accomplish this? Where was the paper to come from? Could it be delivered in time? How and where were the notes to be printed? These were good questions, which were soon resolved through the ingenuity and inventiveness of the Germans. First there was the matter of an adequate paper supply. Fortunately, one of the last blockade-runners to arrive in the colony had brought with her a supply of several different kinds of durable paper. This paper was sufficiently uniform to print bills of exchange.

Equipment already existed in the colony, which after adjustment, could be used for printing paper money. This machinery belonged to the firm of Deutsch Ostafrikanische Zeitung, publishers of the daily Dar es Salaam newspaper. A contract was then awarded to the newspaper to immediately commence printing the colony’s banknotes. The first of these, 20 rupien notes, appeared in March, 1915. Soon thereafter the presses were busily engaged in running off series after series of 1, 5, 10, 50 and 200 rupien interim bank notes as well.

For security reasons the Deutsche Ost-Africanische Bank (DOAB) decided to print interim notes at Dar Es Salaam and Tabora simultaneously. Since there were insufficient workers available to operate both locations, the notes were first printed at the Dar es Salaam plant.

To alleviate the coin shortage a different course was taken. Salvaging parts from the scuttled *Konigsberg* and the wrecks of several blockade runners, the Germans soon had enough material to make a crude minting machine. This machine was set up in Tabora; which, due to the threat of the impending British occupation of Dar es Salaam, was fast becoming the administrative capital of German East Africa. Thus the Tabora mint was founded. The DOAB found enough die makers from among the merchant shops in Dar es Salaam to design new 5 and 20 heller coins for a provisional issue. Instead of being struck from a master die, as was the common practice, the dies were directly engraved and used that way. Since the machinery was so crude, frequent breakdowns and delays were encountered. The copper for this mintage was obtained from spent cartridges and artillery shell casings.

The 5 heller and 20 heller obverses both depict an imperial crown with the date "1916" at center and "D.O.A." below. The reverse dies display the value; i.e., "5 heller" or "20 heller" at the center surrounded by two crossed laurel branches. Two types of the brass provisional 5 heller coins exist. The first variety shows a crown with oval base, which was minted from planchets 1½ to 2mm thick; while the second has a crown with flat base, minted from material 1mm thick or less. Only 30,000 of the 5 heller coins were struck. The 20 heller specimen includes a total of twelve varieties, six of brass and six of bronze. The six die varieties include combinations of large and small crowns on the obverse together with three types of lettering in the word "heller" on the reverse, depending on whether the serifs on the letter "L" are pointed or curled. The number of varieties used is undoubtedly due to the number of dies broken in the minting process. A total of 300,000 brass and 1,600,000 provisional 20 heller coins were produced before the Tabora mint fell to the invading Belgian army.

The last coin to be struck at the Tabora mint was the so-called "Tabora sovereign". This gold 15 rupie coin bears the date 1916. The English sovereign was very popular at the time with the commercial traders, so why not mint a German East African coin of the same equivalent value? Thus, the unusual denomination "15 rupien", as that amount was equal to one British sovereign. Throughout World War I the English sovereign was legal tender in British East Africa and Zanzibar. This put the Germans at a disadvantage when trading for much needed supplies as the Indian and Arab traders wanted to be paid in gold. Governor Schnee authorized the use of gold, which was available at the Sekenke mine close to Tabora, in order to make a coin which would satisfy this need. Bullion worth one million gold marks was available, and otherwise useless, unless coined. Once minted, the coins were immediately accepted by the traders. As far

as they were concerned, any gold coin, which could be used in commerce, was considered good. The introduction of the German sovereign went a long way toward alleviating the shortage of silver coins and bank notes which then existed. Thus Schnee and von Lettow-Vorbeck had come up with the right solution for obtaining much needed supplies for the Schultztuppe.

Unlike its British counterpart, the Tabora sovereign did not depict the head of the emperor, but showed instead an African elephant on its reverse. Because of this, it technically was not a sovereign at all; but quickly came to be called “sovereign” through popular usage.

The obverse of this gold coin depicts the crowned imperial German eagle within a circle of dots, with “Deutsche Ostafrika” above and “15 ruipen” below. The legends are separated by two four-pointed rosettes. On the reverse is a trumpeting elephant, with mountains for a background. The date “1916” and “T” mintmark appear below. As on the obverse, the entire design is surrounded by a circle of dots. Tabora, at that time, was the center of the ivory trade, so the choice of an elephant for the reverse was quite appropriate.



The so-called Tabora sovereign of 15 rupien was minted using gold otherwise useless to the Germans. When coined, these pieces competed with the British sovereign in local commerce. To the traders a gold coin was a gold coin, consequently they were readily accepted in payment for needed supplies.

These coins were struck on the minting equipment salvaged from *Konigsberg*. Four men who had recently been recruited from an engraving shop in Dar es Salaam were assigned to the task of operating the mint. The coins minted were of 18 Kt. Gold, of .750 fineness. To facilitate matters, the dies were engraved directly instead of the customary practice of making working dies from a master die. Two different die varieties exist depending on where the eagle’s right wingtip ends below the legend. In the early strikes, the wing ends under the “T” in Ostafrika, while in later issues the wingtip is below the first “A” in Ostafrika. The

two varieties can be attributed to the crude stamping machinery used, which undoubtedly broke the first die, necessitating the engraving of a second, somewhat different die. All together 16,198 pieces were struck before the Belgians captured Tabora.

By early 1915, it had become clear that the minting of coins to meet the colony's economic requirements had become impractical. Brass shell and cartridge casings were in short supply. Further minting of coins became an extravagance the treasury could not afford. Another course of action had to be taken. The colonial government then instructed the Deutsche-Ost-Africanische Bank to issue paper money in the form of "Interims-Banknotes" to satisfy continuing demand. The new notes were to be secured against government land and fully backed by the Kaiser's government. Denominations of 1, 5, 10, 20, 50 and 200 rupien were authorized. The following text appears on the face of the notes: "Interims-Banknote die Deutsche-Ostafrikanische Bank zahlt bei ihren Kassen im D.O.A. Schutzgebiet dem Einlieferer dieser Banknote ohne Legitimationsprufung", which when translated reads: Provisional Banknote. The German East African Bank will pay, without checking a person's identity, one rupie (etc.) from its offices in the D.O.A. protectorate.

The first of the new notes appeared on 15 March, 1915. This was the 20 rupien, a short lived issue due to the introduction of British counterfeits. The first notes of this series were printed on available linen paper stock, and when that ran out a substitute paper was made from the fibrous jute plant. The handwritten signatures of two authenticating officials appear on the obverse. The reverse of the note carries the phrase "One hundred percent of the face value of this banknote is deposited with the Imperial German East African government" which was also repeated in Swahili. A warning to counterfeiters then followed: "Whoever counterfeits banknotes, or knowingly obtains such notes and puts them into circulation, will be sentenced to not less than two years". There being two types of prisons at the time, one for petty crimes and one for serious ones, the term "Zuchthaus" as used here, referred to "hard time".

British forgeries of the 20 rupien banknote can be detected in three ways. The type used is not as clear, the paper thicker than the genuine and both signatures appear as facsimiles printed on the note rather than handwritten.

The next to appear were the 200 rupien notes. These notes were printed on watermarked paper of the standard "Diagonale Wellenlinien" (diagonal wavy





The majority of Interim-Banknote production was reserved for the 1 and 5 rupien denominations. Many varieties can be found amongst them, including these early, and rare, examples. The blue Dar es Salaam 1 rupien bears the signatures of Herr Brandenburg and Ernst; the 5 rupien that of Stelling and Berendt. Serial numbers appeared on the reverse of the notes.



The 20 rupien “interims-Banknote” exists in three varieties; the original issue printed on linen paper, a British forgery, and a later German issue impressed upon paper made from the jute plant. This early note, with handwritten series number, is hand signed by bank officials Fruhling (right) and Muller (left). The reverse states that one hundred percent of the face value has been deposited with the imperial government of German East Africa, which is then repeated in Swahili. The imprint of the printer, D.O.A. Zeitung, a newspaper firm in Dar es Salaam, appears below.

lines) pattern used by the Reichs Printery in Berlin. Two varieties exist, one dated 15 April and the other 15 June 1915. They carried the same statements and admonishments as did the 20 rupien note. These high denomination notes were all hand signed by authorizing officials, as opposed to using a facsimile stamp, which was common practice on later releases.

The balance of government issues were entered into circulation shortly thereafter. These 1, 5, and 10 rupien notes bear dates between 15 August and 1 December 1915. The sole 50 rupien note was released on 1 October, 1915. Above the date of issue can be found: "Daressalam/Tabora" in one or two lines depending on the series. There were three distinct types of government notes, which are referred to as the first Dar es Salaam issue, the Tabora issue, and the second Dar es Salaam release. One can distinguish the various series in a number of ways.

Among the one rupie notes, the Tabora issue stands out, as the imperial eagle in the upper left corner is much larger than its Dar es Salaam counterparts. The second Dar es Salaam printing contains a modified back with an arabesque violet diagonal band bearing the words "Ein Rupie" overprinted on the note. The one rupie notes offer an infinite number of varieties for the numismatist. These include signatures, series letters, paper varieties, paper colors, and overprints. The first one rupie note released (block letter "A") does not contain the eagle on the obverse. The most commonly encountered overprint appears as a greasy stamp bearing the initials "D.O.A.B", or sometimes merely "BANK". The means with which to overprint notes must have been severely limited, as I have seen some overprints of the stamp "BANK" with an inverted "V" used in lieu of an "A". Other commonly encountered overprints are the capital letters "N", "V" or "W". Occasionally other overprints are encountered, such as the oval hand stamp of the Herrnhut mission at Sikonge, located south of Tabora.

A total of twenty men were authorized by the government to sign these notes and to place them into circulation. They were a diverse lot, but all had one thing in common. They all held positions of responsibility and accountability within the community. Eight were government secretaries; three (Fruhling, Kirst and Stelling) were bank employees. The others came from different jobs. Berendt had been the senior paymaster on the ship *Planet*. Brandenburg was the Schutztruppe paymaster; Westhaus, the postmaster at Lindi; Menzel, an ex-Konigsberg officer, while Ernst was a civil servant affiliated with the Tabora railroad office. All these signatures frequently appear on DOAB notes. Most are handwritten signatures, but later on many were applied by facsimile stamp. Dar es Salaam and Tabora both produced one rupie notes with the signature "A. Fruhling" printed at right together





This high denomination 50 rupien note was printed on blue-gray paper made from the fibrous jute plant. This example carries the handwritten signatures of Stelling and Kirst, bank officials authorized to issue notes. For signature collectors, only four other combinations exist. Total production of the 50 rupien was a mere 52,000 notes.

with one handwritten signature at left.

One of the more interesting anomalies was due to the severe shortage of paper. Once the existing stock of good papers had been consumed, the bank resorted to using anything it could lay its hands on. Commercial paper, with and without watermarks, was used. Also used were carton wrapping papers, paper made from the jute plant and oil paper. The latter was salvaged from the packing material used by the factory to protect rifle cartridges and other ammunition from moisture and humidity during shipment.

Some papers were stiff, some soft. Where used, the thick paper had a blotter-like quality. The range of paper colors was infinite. While whitish paper predominated, notes were also printed on blue-gray, dark brown, olive brown, various shades of blue, and dark green papers. The Tabora printed notes are also distinguishable by their color. All were reddish-brown, golden-brown, dark brown or grey-brown. The oil paper was golden-brown, stiff, and more difficult to



This 200 rupien note, dated 15 April 1915 was the highest denomination printed. After World War I it, along with all German East African notes, were paid in full by the German government when presented for payment in Berlin. Signatures appear in facsimile.

print on. All five rupien notes were either blue or green, while 10 rupien notes were printed on either brownish carton paper or a dark brown mottled jute paper.

Interim note production continued into February 1916, after which time the Tabora and Dar es Salaam mints were both abandoned due to the combined Belgian-British invasion.

Since Lettow-Vorbeck had successfully held on to all of German East Africa to that point, it was necessary for the British to organize and place a far superior force in the field to dislodge him. The South African General Jan Smuts, of Boer War fame, was chosen for this task. In February, 1916 Smuts launched his attack on the German positions around Mt. Kilimanjaro with 45,000 men. Lettow-Vorbeck inflicted grievous casualties on his attackers, yet had no choice but to fall

back from this indefensible position. Having succeeded in expelling the Germans from the Kilimanjaro area, the British commenced a cautious advance down the railroad line to Tanga. Simultaneously, British forces attacked from Rhodesia around the northern end of Lake Nyasa while Belgian forces from the Congo fought down the railway line toward Tabora. Col. Lettow-Vorbeck couldn't afford to be trapped between these pincers. Even though it meant the abandonment of the railroad, Tabora and the capital at Dar es Salaam, Lettow-Vorbeck made the difficult decision to move his troops, supplies and cattle south to the Rufiji River valley. This was the point at which the Germans abandoned their conventional tactics and turned to guerrilla warfare. Thus began the long campaign of delaying tactics and ambushes. This struggle was to last another two and a half years. Remaining continually on the offensive Lettow-Vorbeck won the respect and admiration of General Smuts for his courage and integrity. As a mark of honor, Smuts even saw to it that the Germans received their mail from Europe!

The remainder of 1916 took a heavy toll on the British. In addition to attrition from German attacks, the British were not used to the difficult jungle terrain, the malaria bearing mosquitoes or the tsetse flies, which attacked their horses, making the cavalry useless.

By year's end Smuts was recalled to South Africa where the British welcomed him as a hero. He claimed that he had driven the Germans out of their east African territory. Despite the fact that the railroads and principal cities were now in British hands he, in reality, had completely failed to defeat Lettow-Vorbeck, who was still in the field with a force stronger than ever.

Nearly everything was in desperately short supply. Not only did Lettow-Vorbeck now have to contend with supplying his army, he had to ensure the survival of the vestiges of the colonial government as well. Upon the fall of Dar es Salaam, Governor Schnee joined forces with the Schultztrope in their retreat south, taking his bureaucratic entourage with him. Von Lettow-Vorbeck and Schnee didn't agree on most things. Schnee insisted on bringing the Treasury and the government accounts along. The Treasury alone required the services of 400 porters to carry the four tons of banknotes still required for payment of the scant provisions available and for paying the Askaris. While campaigning it constituted a burden on operations. A frequently asked question was: "Where is the Treasury today"? At one point Lettow-Vorbeck was so exasperated with the governor that he threatened to burn the whole lot of it, if the Treasury ever hindered his progress again. However Schnee, the consummate record keeper, managed to maintain his accounts intact.





(1)

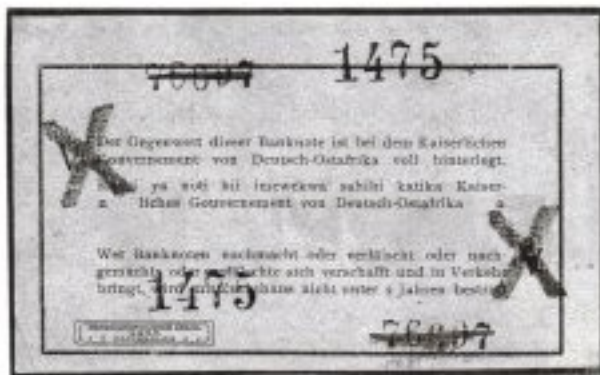
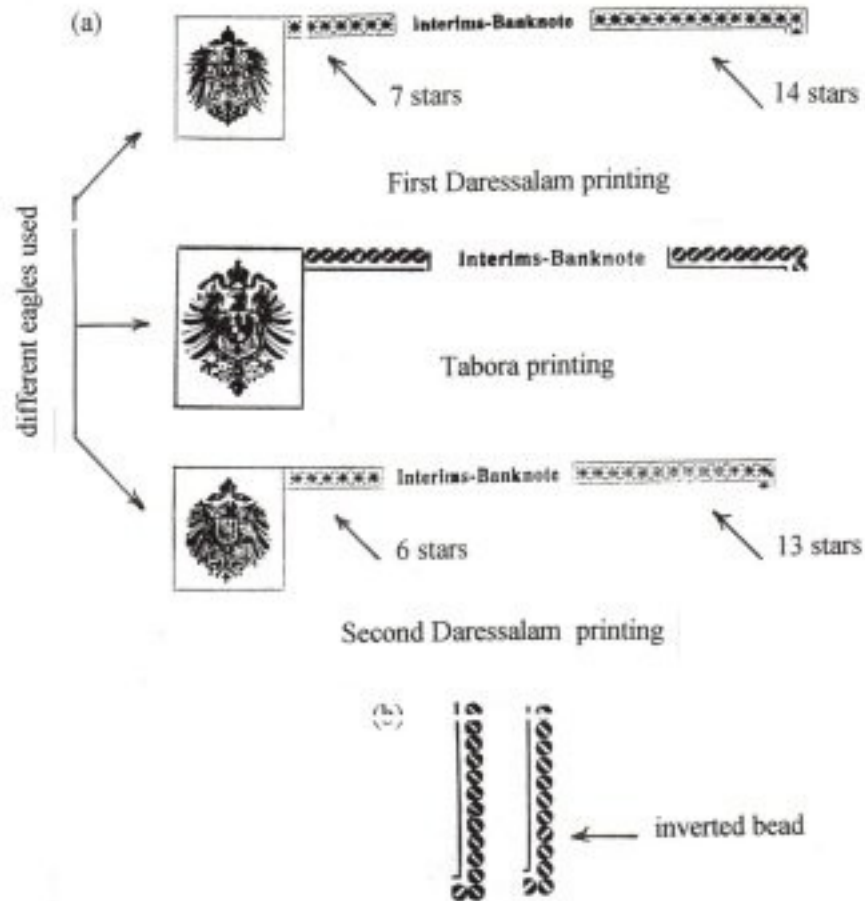


(2)



(3)

The 1 rupie note, as one would expect, was issued more than any other denomination. Three distinct types exist, as well as one issued by Lettow-Vorbeck in 1917 while waging guerrilla warfare in the bush. All three types have many sub-varieties, much to the delight of numismatists. Shown here are: (1) first Dar es Salaam issue, (2) Tabora printing, and (3) second Dar es Salaam release. The imperial eagle found on the Tabora series was larger than those used on Dar es Salaam notes.



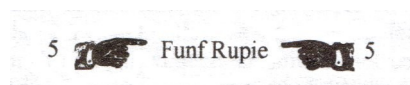
German East African bank notes are a collector's dream. No other series offers such an interesting variety of detail. Shown here are (a) three different borders employed on the 1 rupie Interims-Banknotes. The Tabora series (b) also has border varieties involving bead misplacement. The last two notes (c) show the seldom encountered "X" and "Z" overprints used to cancel an existing series block letter. The purpose for doing this is unknown. Finally, note the renumbering of the "X" note and the difference in the size of the various serial number fonts employed..

Lettow-Vorbeck sought every opportunity to harass and delay the enemy advance. Anticipating the next British move at Kissaki, he was able to ambush and defeat a large force of cavalry and infantry. The Germans captured many horses, machine guns and other equipment.

As 1917 wore on Lettow-Vorbeck moved further and further into the Rufiji River valley. Here there were few German settlements to assist in subsistence. Food and supplies had again become a problem. At no point in the campaign had conditions been more desperate. The Askaris showed them how to live off the land, and the enterprising Germans found ways to make shoes and boots from captured saddles and the hides of hippopotamus. Salt was obtained from boiling sea-water, sugar replaced with wild honey, and bandages were made from bark. Their diet was augmented from plentiful game, which included buffalo, antelope and elephants. During this time, Schnee compiled a wish list of material desperately needed and managed to smuggle it out of German East Africa in the vain hope that it might reach the Colonial Office in Berlin. Anticipating a further move south Lettow-Vorbeck, showing remarkable forethought, sent a party ahead to plant crops, hoping to be there for the harvest when his troops arrived.

After the available supply of banknotes ran out, it was imperative that a way be found to replenish them. No printing presses or other equipment were available for this purpose. Since the notes of the DOAB were exchanged freely among settlers and soldiers alike, it was necessary to print more money in order to finance the guerrilla campaign. But, where were they to find the equipment with which to create such notes? This problem, like all others, was overcome by ingenuity. The Germans had come across a farm while crossing the Rufiji valley where they found a child's plaything with which to solve the problem. This was a toy printing press, complete with movable rubber type used for making hand stamps. Not too pretty, but very functional! It was quickly pressed into service to make more notes.

This series of emergency money, produced while fighting in the veldt, are referred to as "bush notes". They were of four denominations only: 1, 5, 10 and 50 rupien and bore the inscription "Inerims-Banknote" as did their predecessors. All are dated 1 July 1917 except for the 50 rupien which carries a date of 1 October. The notes were hand-signed by bank officials Stelling and Kirst, and meticulously numbered as before. They contained the simple phrase "Wir zahlen gegen diese Note" (We count this note as) with the value expressed below bracketed between two pointing fingers as:



The reverse of these notes was blank except for an imperial eagle stamped at the center together with the note's series and serial number. Running out of paper, the treasury turned to using official letterhead stationery on which to print the notes. Some were printed on the backs of various district office forms (Kaiserliches Bezirksamt) including police departments, customs houses and even agricultural experiment stations. One such note in the author's collection contains the phrase "when answering this letter please mention the above number"! Another unusual 5 rupie bush note appears to have been printed on wallpaper. Crude but effective, they got the job done.

Continuing south, in December 1917 Lettow-Vorbeck invaded Portuguese East Africa (present day Mozambique) capturing a major enemy supply depot without losing a man. The garrison was well stocked with modern machine guns and rifles, horses and a million rounds of ammunition to which he helped himself. This stroke of fortune enabled the Schultztuppe to remain in Portuguese East Africa in relative comfort.

Meanwhile, a most bizarre event was unfolding. By some miracle Schnee's list of desperately needed supplies had found its way to the Colonial Office. The list was handed over to the German Admiralty for action even though they had no responsibility for von Lettow-Vorbeck's fate. It was decided that a zeppelin loaded with emergency stores could feasibly be sent to his relief. The war in Europe had proven that these giant airships were too vulnerable to use in bombing and reconnaissance, but their ability to stay aloft for long periods and fly nonstop for thousands of miles could not be equaled. Zeppelin L-59 was selected for the attempt. This 743 foot giant was powered by 1200 horsepower derived from five engines, had a useful lift of 114,000 pounds and could travel an estimated 10,000 miles.

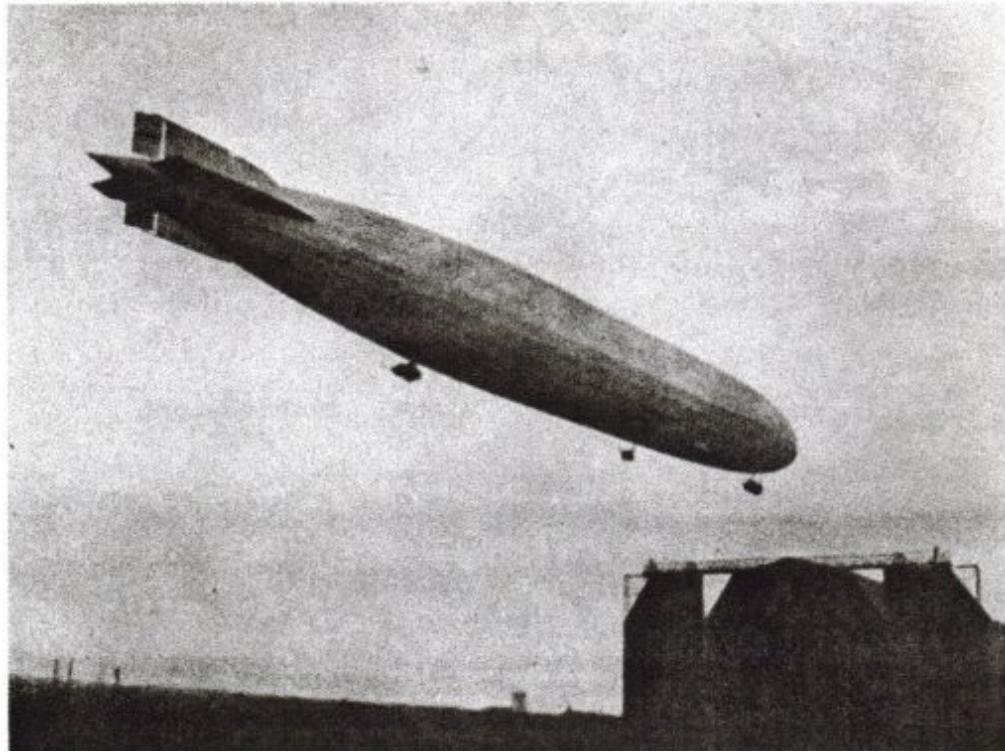
The zeppelin was loaded with fifteen tons of medical supplies, machine guns, ammunition, knives, binoculars, sewing machines and other equipment the Germans had lost all hope of ever receiving. The British intelligence service learned of the intended mission, however. As the airship, in all probability, would never return, its parts were designed for secondary uses. The outer skin of the craft could be used to make tents; the inner balloon lining, bandages. Huts and a wireless tower could be made of the ship's aluminum frame. In September 1917, after several trial runs, the zeppelin was flown to Bulgaria. From there it flew across Turkey, crossed the Mediterranean, down the length of British controlled Egypt and into the Sudan. When it reached Khartoum a faint radio message was received ordering the airship to turn back. A debate arose amongst the crew as to





Once the Germans were forced to withdraw from the cities in the north, they continued the fight from the Rufiji River valley in the south. By 1917, with no other means with which to print bank notes, they resorted to using a child's printing press for this purpose. These notes, made in the veldt, have become known as "bush" notes. Shown above is the 10 rupie note. Below is an interesting 1 rupie specimen printed on the back of letterhead paper once used by the "Kaiserliches Bezirksamt", a district office.

the message's authenticity. Had the Admiralty learned of Lettow-Vorbeck's abandonment of German East Africa as he entered Portuguese territory and assumed that he would soon surrender? Or was the message sent by British intelligence as a ruse? The L-59's captain decided the message was authentic and turned the zeppelin around. Little did he know that Lettow-Vorbeck had already solved his problem of re-supply, thanks to the Portuguese stores which had been seized at Nhamakurra. Upon its return to Bulgaria the longest sustained flight in history ended. The L-59 had been airborne for ninety-five hours and had traveled nonstop for 4,220 miles. After this failed attempt no further effort was made by land, sea or air to come to Lettow-Vorbeck's relief.

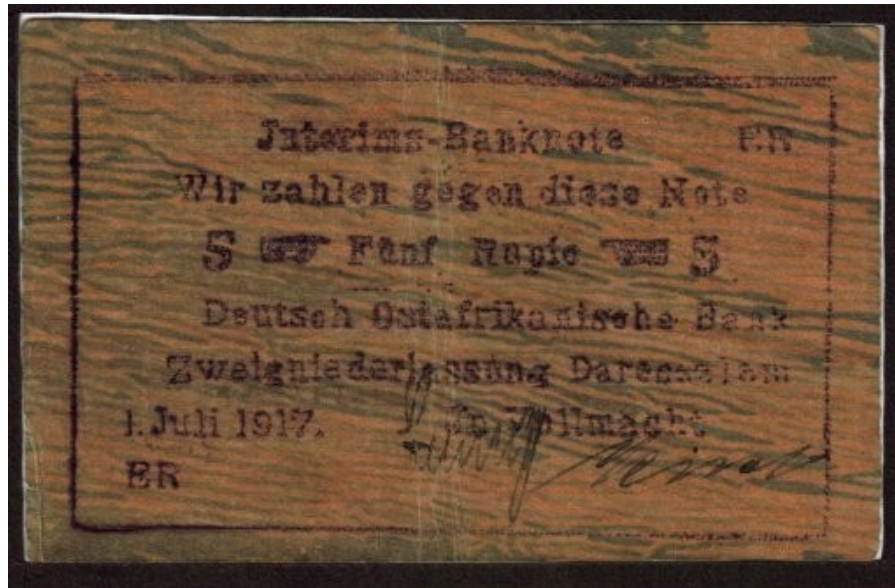


Zeppelin L-59 made an attempt to re-supply Lettow-Vorbeck's Schultztuppe in September 1917 in one of the more bizarre episodes of the war. While over Africa she turned around, under mysterious circumstances, failing to accomplish her mission.



Ten years after L-59's aborted rescue mission, the German zeppelin program had advanced to the point of world flight. The airship *Graf Zeppelin* is shown on this 5 mark coin which commemorated the world flight of 1929. The trip covered a distance of 21,255 miles in 20 days, 4 hours and 14 minutes.





At the end paper resources were exhausted. At this point almost anything was pressed into service to keep the economy going, even wallpaper, as seen in this rare example.

A combined force of British and Portuguese troops had been breathing down his neck, however. By September 1918, Lettow-Vorbeck was forced to make another strategic decision. If he continued south he would be trapped by the Zambesi River, which he could not cross. Quickly turning north he outran his pursuers fighting many skirmishes along the way while reentering German territory. By this time fighting and an influenza epidemic had reduced his force to a mere 170 Germans and 1400 Askaris. With the British hot on his heels, he again eluded capture. This time he made a swift march around the northern end of Lake Nyasa to carry his offensive into Rhodesia.

The British kept up a relentless propaganda campaign aimed at demoralizing the Askaris. Leaflets had been dropped by air stating that their German masters were full of lies and that they were being treated like wild pigs. The leaflet went on in Swahili to say: "The war is over! How can the Kaiser pay you the gold you have earned with your blood? You are given bits of worthless paper. What is the difference between this paper and leaves on a tree? Join us, because your German masters are finished!"

In September and October Lettow-Vorbeck launched a series of successful attacks against Rhodesian forts. Kasama was captured on 11 November. Planning a large attack on the British command center, he set out by bicycle to reconnoiter

the area. It was here that one of his officers caught up with him bearing an urgent message that an armistice had been signed. On 17 November, six days after cessation of hostilities in Europe, he informed the British commander that he was not surrendering, but would cease his campaign. The next day, at Abercorn, the Germans handed over their machine guns and rifles to the British – nearly all of English or Portuguese origin.

Back in Germany Lettow-Vorbeck was welcomed as an undefeated hero. In Berlin a huge parade was arranged, where he and his Schultztuppe marched together through the Brandenburg Gate for the last time. Never having more than 14,000 men at his disposal, this brilliant guerrilla fighter had succeeded in making good on his promise to tie down the British in Africa, preventing their troops from being used elsewhere. During the four year campaign he had succeeded in tying up 300,000 men while inflicting casualties amounting to 20,000 killed and another 40,000 wounded. The campaign had cost the British \$15 billion in today's money, yet they were never able to catch or defeat him in battle.

Under the terms of the Versailles Treaty, Britain acquired the former German colony and renamed it Tanganyika Territory. Rising to the rank of General after the war, von Lettow-Vorbeck tirelessly fought to settle the pay accounts of his native Askaris. The German government redeemed all DOAB rupien notes presented at its offices in Berlin at full face value. Having served for ten years as a member of the Reichstag, von Lettow-Vorbeck was later approached by Adolph Hitler with a request to become his ambassador to Great Britain. Stating that he was always a nationalist but never a Nazi, he refused the request. Shortly before his death, at the ripe old age of 94, he made a nostalgic visit back to Tanganyika to pay his last respects to the Askaris he had fought beside. Upon his death the German government dispatched a banker to Dar es Salaam to pay the long overdue pensions of his Shultztuppe warriors.

Von Lettow-Vorbeck was truly a man who fought successfully against overwhelming odds, but more than that, one who earned the devotion of his men, both black and white, and the respect and admiration of his enemies.

Today, of course, collectors have the coins and banknotes of German East Africa to remind us of these exploits. Altogether, Governor Schnee's accounts revealed a total of 8,876,741 individual interim notes had been printed by the Deutsche-Ostafrikanische Bank. Seven and a half million were one rupie notes, 900,000 were for five rupien, 300,000 ten rupien, with the higher denominations less than 100,000 each. Many can still be found on the numismatic market.



Berlin notgeld in the amount of 75 pfennig issued to commemorate German Colonies Remembrance Day on 4 November 1921. This five note set featured prominent figures in the colonial movement. In addition to honoring Dr. Karl Peters and Colonel von Lettow-Vorbeck (shown here) of German East Africa, other notes featured the likeness of Otto von Bismarck, A. Luderitz and Carl Woermann. Beneath each portrait is the phrase “Gedenkt unserer kolonien” (Remember our colonies).

## BIBLIOGRAPHY

- Farwell, Byron: The Great War in Africa, London, 1987, W.W. Norton and Company
- Gibson, A.W.: “Some Notes of Necessity”, Banknote News, London, Issue Nr. 42, Bourne Press, Ltd.
- Hosch, Charles R.: “The Maria Theresa Thaler”, NI Bulletin, Dallas, March 1998
- Hoyt, Edwin: The Germans Who Never Lost, New York, 1968, Funk and Wagnalls
- Hoyt, Edwin: Guerrilla, Colonel v. Lettow-Vorbeck and Germany’s East African Empire
- Keller, Arnold: Das Papiergeld der Deutsche Kolonien, Munster, 1967, Verlag H. Dombrowski
- Patience, Kevin: Konigsberg – A German East African Raider, 1997
- Ruparel, Jayant: “The Emergency Coinage of German East Africa – The Tabora Sovereign”, NI Bulletin, Dallas, 1974
- Sibley, Roger: Tanganyikan Guerrilla – East African Campaign, 1914-1918, 1971, Ballentine Books
- Sten, George: Banknotes of the World, 1967, Menlo Park, California, Shirjeh Publishers
- Stevenson, William: The Ghosts of Africa, 1980, London, Harcourt-Brace