

Field Diary X, 9 September 1867 - 2 January 1868

David Livingstone

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[0001]

X

[0002]

[Annotated insert from the Stirling University Conservation Project from 1986.]

[0003]

In this book the "rough
notes" correspond, apparently,
more closely with the Journal
than the earlier entries
The reason probably was that
Livingstone was unwell
generally & contented him-
self with brief notes
& did not later amend
them as previously

This book contains
detail of the famous
interviews with the
old barbarian Casembe

[0004]

[0005]

[0006]

X.
9th September
1867

Hara district
Insama's country
Went 3 hours west
to Insama's village
He & his people are very
much afraid of fire
arms - We sent a
message & recieved

an invitation to come
Crowds followed
and surrounded us
& over the people the
headmen had no
power - They looked
suspiciously to see
if I had arms about
my person - thought
my notebook was

[0007]
a pistol - the new
village is immediately to
the North of that which
was burned by Tipo Tipo
It is very large but
many of the people have
fled from it from
fear of the Malonguana
or traders - When we
got to Nsama we
saw a very old man
with a very large belly -
gave him a cloth &
he asked to feel my
hair & clothes - told
him that Hamees had
been anxious to make
peace and it was
not right to keep him
at a distance but
he replied that he
would send for [...]
to speak but

[0008]
as it was impossible
to converse with such
crowds around us
His people have small
well chiselled features
some are really handsome
but they file their teeth
to such sharp points as
greatly to disfigure them
The only difference
between them & Europeans
is the olive or warm
brown colour & the skin
[-] alae nasi spread out

little - the fashion of
the hair is a bunch
of about ten rows of
knobs behind and
the forehead shaved
up to the crown -

[0009]

The Ujiji people came
and said that they
could get no ivory
& would return home -
They are 50 in number
30 here & 20 with the
dhow - The people who
brought my goods to
Ujiji carried also the
dried meat of three
buffaloes which had
died in the way - Three
remained in charge
of the goods the rest
returned to Zanzibar
They say that the Lake T.
ends 5 days beyond
Ujiji & no river goes
out of it or from
Lake Moero - Plenty
of Arabs at Moero
Here Arabs are in dis-
favour & are not

[0010]

allowed to go to the
chiefs house or
even into his inner
stockade - Insama
said he would give
people to shew the
way to Moero -

Insama sent a great
big basket of meal
& calabash of beer
We came back
today 10th Sept^r 1867 to
Hara - I send [^] [to Ujiji] a box
containing papers
books - a hammock
a coat & cap - ball
cartridges - coffee

mill - Hamidi
paid the man who
has the chief part
of the dhow

[0011]
2 dhoti = 16 cubits
It will take 10 days
to go to Ujiji - they
anchor cook &
sleep ashore - saw
4 Antelopes like
Lechwees

Habez is the
headman who
took the box to
Ujiji

14th Sep^r 1867

Ill with fever or
some allied affection
"urina urinans" -
headache - distress
causing groaning
when I was insensible
better yesterday

[0012]
[Map of area around Lake Moero showing distances through time between locations including
Hara, Nsama, Moikolankawe, Kamosenga, RRiverMoambezi, RRiver Chisera, Moangwe
Karungu]

[0013]

14th Ju[Se]ptember -
An Eccpse last night
too weak to observe
it -

Hamees says that
he has no confidence
in Insama because
he promised him
a daughter to wife &
she has not come.
He told him also to
stay here & he would
send ivory for sale

but sent none
No people come
here with provisions
but all hold aloof
so Hamees will
retire to Chitimba's
to guard his property
there - and will

[0014]
send on Syde &
Hamidi and his
own men to Lopére
Moero & Buire
to buy ivory & I had
better go with them
than trust in Insama's
guidance - Hamidi
thinks this is the
plan to be preferred
We go with the
traders stop a day
or two with a subject
of Insama & pass
Insama's country
altogether - His
people have got a
shock in their ideas
as to the comparative
value of bows &
arrows & firearms

[0015]
They are clever
looking & intelligent
& will no doubt
act on the experience
so dearly bought
The Arabs say that
they lost 50 men
Insama must have
lost as many
one old man with
a fine [Profile drawing of a man's head.] face &
large beard on
the chin came to
look at us - all have
a patch shaven in the
front of the head up
to the crown - the
hair in a bunch of

knots behind is becoming

[0016]

14th September continued

A daughter of Nsama came this afternoon to be a wife to Hamees by way of cementing the peace - she came riding picaback on a man's shoulders - a nice modest looking young woman her hair rubbed over with Nkhola a red pigment from the camwood - she was accompanied with about a dozen young and old attendants each carrying some cassava groundnuts & other provisions - the Arabs all dressed in fi[...]-[n]ery & fantastic appendages fired guns - flourished swords & yelled - When she came to Hamees'

[0017]

hut she descended & with her attendants went into the hut - She has small neat features and so had all her attendants - I had been asking Hamees about the path from Bagamoio and now rose up & went away - the noise was enough to confuse anyone much more a stranger

15th Sept^r 1867

Hamees went off early this morning with his new wife

to her father but
was met by two
men who said to
him that he must
remain here - this
throws us back

[0018]
for we send for all
the people now out
& go West without
Insama's leave

16th Sept^r 1867
We expect the people
in tomorrow and
will go on the day
following - it is
getting very hot now
a few drops of rain
fell about 3 PM
today

[17th] Hamidi went to
Insama's yesterday
and was told to come
in if without gun
or sword but he
would not go on these
conditions - Insama

[0019]
said that he would
send people to take us
on today - if they
come we shall go
tomorrow - Two
men came from
Moamba's to Hamidi
to say that he had
three tusks - a large
party of Arabs is at
Morere's

We have come 49'
say 50 miles from
Chitimbas along the
slope from the great
watershed - In going
to Insama's we
descend a great step

on this slope & his
village lies in a huge
valley drained by the
Moambeze with the

[0020]

Moero Lake - a
long range of hills
of denudation stretch
along from Lofu E.
far to the west between
this valley & the Lake
while the step mention
-ed runs west as far
as we can see

Suleiman making
slave sticks or gorees
for slaves - for lack
of ivory

18th Sept^r 1867

Hamees off to Nsama
again - did not tell
us, he is ashamed
of his father in law.
Spent chief part of the
day with Syde

19th Sept^r Those
who despair of ivory
now invest in

[0021]

slaves & the people of
Nsama sell them for
beads - Hamees was
admitted to Nsama's
presence & men are to
be sent for us today

20th I had resolved
to go to Insama's
this morning but
Hamees sent to say
the men had come
and we are all to go
with them on 22^d
so I must have patience
again for two days

21st Several buffaloes
have been killed - they
seem to be abundant
in the country - Hamees'
guide & wife ran
away - believing
that the Arabs

[0022]
were going to fight
Hamees went to N-
-sama & got other
guides so to secure
them we set off at
once -

22^d Sept^r 1867 &
travelled two hours
North then descended
into the valley of
Insama & crossed it
in an hour - 3 hours
We descended the same
step as at Insama
dark red sandstone
covered with trees
The plain is swampy
at times - paths diffi-
cult as feet have made
them uneven -

The next reach is said to
be without water so
we remain till 12

[0023]
or one oclock tomorrow
the 23^d Sept^r One [^] [wo]man sick
& it being very hot we remain -
mosquitoes here - the
first we have had for
a long time -

A fire broke out at[in]
Hamees establishment
at Hara through the
night & got completely
the upper hand burning
all his beads, powder
guns - except one bale of
cloth - news came
this morning & prayers
were offered for him

with incense - some
goods will be sent as
well - They seem to be
religious in their way
The prayer book was held
over the incense - and
all joined in a sort
of response while this
was done to "Harasji"

[0024]

24th Sept^r 1867

We were roused at
3 AM but after all was
ready told that we
should go at 2 PM
as the road was difficult
& water far - We should
not reach it but be
oppressed with the
midday heat - We now
sleep in the field & get
to water tomorrow
Hamidi's wife was ill
yesterday & stopped us

When the Arabs &
Kasonso's people were
punishing Insama
the people of the latter
fled into this plain which
was then so deep with
water they could not
follow them - Fish
spread over all these

[0025]

wet plains in the
rainy season - We
marched 4 hours
mainly North - After
first hour descended
from a height then
had a wall of Rocks
1000 feet high on our
left - after flanking
it for while climbed
up and went along
N. on heights then
slept without water
Chuma stole some of

my water then came
& begged more when it
was done - another
did the same - some
are slaves in spite
of all that was done

[0026]
by feeding clothing
& educating at Nassick
The loads are less than
half [^] [those] carried by slaves
yet they always grumble
& skulk 4 hours in all

25th Sept^r 1867

Started at 5 - 30 and
came along through
the same well grown
forest we have been
travelling through - came
to a village stockaded &
all the people outside
with gates shut - afraid
of the Arabs - then
descended some 1000
feet into an immense
plain with apparently
a river some ten miles
off

[0027]

Gardner lay down
& howled as if he
had too heavy a
load to excite the
compassion of the
Arabs - Chuma too
because he had a
sore eye - pretended
that he could not
walk - a little boy ran
with his load

26th Off at 6 AM
Went 2½ hours North
to the large river seen in
the evening - It is a
mile wide & full of

papyrus plants - very
difficult to ford as
we often plunged into
holes up to the waist
Roots of Papyrus very
sore on the feet -

[0028]

1½ hours to cross it
then one hour N.E.
5 hours in all -
Chisera R. is that we
crossed - It winds away
to the West - many
elephants & other
animals on its banks
four elephants have
been killed - also several
buffaloes & zebras
The banks slope down
¼ a mile & South
are the ranges of hills
we crossed in coming
country near river
without many trees
People abundant
& friendly -

[0029]

27th Sep^r 1867
We remain to take
out the ivory from
the dead beasts -
sky clouded over
prevents latitude
being taken - one
tusk weighed 85 lbs
the other nearly as much

28th people cutting
up & drying the zebra &
other meat - clouds
prevent observations
R Chisera goes into
Moero - rises in
Lopere - more to the
West it becomes
free of Papyrus &
requires canoes

to cross it

[0030]

Two hours North
brought us to the
Kamosenga about [eight]
[to] four yards wide &
running strongly among
Papyrus & aquatic
plants East into the
Chisera - many buffaloes
elephants & geese on
its banks - country
flat & covered with
thick bush - cassias &
another tree in flower
perfume the air

Then two hours more
round a bend westwards
& North = 4 hours in
all chiefly North

[0031]

30 Sept^r 1867

We marched 2 hours
N.W. then 2 N N West
then [^] [after] one N.E
crossing the Kamosenga
view a small stream
near hills and men
reached Karungu's
vil - this stream
divides Itawa from
Lopere - the Lopere
[C7] begins on its Northern
bank here = 5 hours

1st Oct^r 1867

Karungu very much
afraid of the Arabs
keeps all out of
his stockade - and
has little ivory to sell

[0032]

2^d Oct^r 1867

Ill all day - from
drinking too much
water after the march
It was excessively
hot and five hours
was as much as
we could bear - The
clouds all over
every afternoon &
thunders in the
distance -

3^d Oct^r

Men have been sent
to next chief Mtete
& when they return
we go - this is necessary
as about 450 people
inspire fear - Here
the people come about
us freely now

[0033]
& bring more pro-
-visions than can be
bought - Men came
bearing huge baskets
of meal slung to poles
to Hamadi
[Drawing of two men carrying pole with basket.]

4th Oct^r

The Arab travelling
is very slow work
but in cases
like ours it is
unavoidable for
all are suspicious
of them & no ivory
will be brought

[0034]
unless confidence
is restored - clouded
over most of the day
and night too - I
sat up watching for

stars last night - got
two but neither have
a declination in the
Nautical Almanac -

5th Oct.^r 1867

First showers of this
season yesterday evening
& this morning - Here
at Karungu's village -
afternoon also -

The five people
sent to Mtema were
ill recieved, and an
attempt to kill
them ~~attempted~~[made]
when the natives
saw the guns

[0035]

they desisted but
wished no Arabs
to come - they said
"where did Tipo Tipo
place ivory in our
country that he
comes seeking it"

Other men are
expected to come
from Chikongo
tomorrow - if he
is more favour
able we shall go
there - if not go
by force where
we wish - It is
fear that prompts
the hostile actions
& words of these
unvisited natives

[0036]

6th Oct.^r 1867

thundering in distance
all day a little rain
during the night
service with Litany

7th ill all day &
night - am always
so if not working

8th Oct^r two men
came last night from
Chikongo bringing
a tusk & saying that
is the only ivory
I have - and the Arabs
are not to come as
we shall run away
The defeat of Insama
has struck terror
into all their hearts
for he was the great

[0037]
conqueror of all -
Men are to be sent
tomorrow to invite
Chikongo to send any
ivory he has here &
then let us pass through
his country not going
near his village -
I wished to go on to
Moero but all declare
that our ten guns
would cause a flight

9th Men went off
to Chikongo this
morning - Syde
presented a goat

10th Had a long
conversation
with Syde - He thinks
the sun rises &
sets &c

[0038]
because the Koran
says so & he sees it -
He thinks that Jesus
told of the coming of
Mahomet & that it
was not Jesus who
suffered on the cross
but a substitute.!

11th Oct 1867
Nothing of any im-
-portance

12th Oct^r an elephant
killed by Tipo Tipos
men

13th Sunday

14th It is always
clouded over and
often no breath of
wind stirring

[0039]

15th Nothing of
importance

16th a great many
of the women in the
district (Lopére) are
afflicted with
goitre -

An Arab died yester
day & was buried
in the evening - no
women allowed to
come near - - A silent
prayer uttered over
the corpse & then
a covering held over
the ground while the
body was deposited
[Drawing of burial pit.]

[0040]

17th Oct^r 1867

18th The men sent to
Insama begging him
to use his influence
with Chikonga to allow
us to pass returned
last night - Insama
says that if Chikongo
thinks himself strong
enough to resist he
can do so - He has
nothing to do with

him - Insama dances
to his wives drum
He is in his dotage
evidently

19th Oct^r

one man returned
from Chikongo today
Reports favourably
but the chief wont

[0041]
negotiate with slaves
An Arab is to be sent
today & as soon as
he returns we start
There is no obstruction
some Wanyamwezi
had come to Chikongos
from West to buy copper
wire - He reports
many Arabs in the
West - some say that
Moero is larger than
Tanganyika - & that
it falls into Lagas-
awa

20th Because
very ill - sore bones
& much head-
-ache - then lost
power over the
muscles of the [...]

[0042]
19th continued

(The friends of the
Arab who died made
a feast & sent portions
all about - I got a
good share)

20th continued
urine in driblets
no appetite - great
thirst

20[1] Oct 1867
Syde sent his
men to bult a
new hut in a
better spot, I hope
this may be a
more healthful
one for me

[0043]

22^d Oct^r The men
came back from
Chikongo but with
the discouraging
news that no ivory
was to be had - they
go West with me
the day after tomorrow
to Chisawe who will
take my party on
to Moero = the
Arabs will return
thence & we move on

23^d Oct^r to wait
another day as Tipo Tipo
gave headman here
some cloth & recieved
a promise of something
Karungu "is looking
for it"

[0044]

24th Oct^r 1867

If a slave wishes
to change his master
he goes to another &
breaks a spear or a
bow before him
The transference is
irrevocable on the
Zambesi & among
the Wanyamwezi
[...]-[exc]ept by paying the
slave's full price to
the new master - A

case happened here
yesterday

25th Oct^r

Authority was found
in the Koran for
saying that today was

[0045]
unlucky for starting
but the fact was our
guide hither enticed a
young girl slave to
run away with him
then gave her off to
his countrymen to
hold for him, but
they kept her for
themselves & gave
information about
the other - men are sent
after her - but we go
tomorrow - Nothing
can be more tedious
than the Arab way of
travelling

26th We went WS
W. for nearly five
hours - through an
undulating well
wood country the
people numerous

[0046]
they keep out of the
way - Elephant and
buffaloes numerous
several trees yield a
finely scented woods
some gave it out strongly
when burned - others
when cut - Euphorbias
abundant & large -
we sleep by a torrent
whose pools have been
filled with muddy
water by the rain [WSW] 4^{3/4}

27th Oct^r 1867

Off at 6 - 15 in a fine
drizzling rain which
continued two hours -
came on to a plain
about 3 miles broad
full of large game -
Zebras & buffaloes - In

[0047]

the rainy season it
will be swampy -
We go Westwards
over plains with
ridges of denudation
200 feet above the
valleys of [...] & always
covered with trees
[Drawing of ridged landscape.]

The people are off to get
meat - the ridges are
generally hardened sand
-stone [...] marked with
Madrepores and
masses of brown
Haematite - very hot
and we became very
tired - along line of
hill on our South
pointed to Nsama's
3¾ in all

[0048]

[Map spanning this page and the next, showing locations Karungu, Sanya MtsMountains,
Chifupa's vilsvillages, Choma country Choma River.]

[0049]

[Map spanning this page and the previous, showing locations Mosumba, showing locations
Nsama, RRiver Luao, Lipande.]

[0050]

28 Oct^r 1867

A march of five hours
brought us to the
villages of [...] [Chif]upa
on the Ch[...] [oma] but
chief & people had

fled leaving us
all the houses &
everything else sent
after men to come &
sell us food in vain
so they lose all the slaves
will take Hours 5 W S [W^t]

29th rested all day
on banks of the
Choma R. which
he comes from its

[0051]
North & goes S W
It is in deep mud
banks 20 yards wide
and about 2 yards
deep - contains
plenty of fish - water is
now muddy -
people will not
come to sell food
so it is not remark
able that the Arab
slaves help themselves
to ground nuts
sorghum & millet
which abound in
the villages - I bought
a little mteza at a
high price the man
evidently not seeing

[0052]
that it would be
better to sell for a
fair price than run
off & leave it all to
be eaten by the slaves

30th Oct^r 1867
two ugly images
were found in
huts set apart for
them - they represent
the people of the
country [Drawing of a single figure.]

[0053]

31st Oct 1867 a march
of 5½ hours brought
us to some villages
where the people sold
food & behaved in a
friendly manner -
a herd of buffaloes
met us in the way
but Syde took my
gun from the boy who
was carrying it and
when the beasts came
round close to me I was
powerless Hours 5½

The Choma at the
ford is 20 yards wide
and 9 feet deep

[0054]

1st Nov^r 1867

came along among
hills thickly covered
with trees some in
full foliage & some
putting forth red
leaves - Hills may
be 700 or 800 feet
above the valleys
which at present
have little water
this is not a district
of running rills -
we crossed three
knee deep - buffaloes
very numerous
The Ratel covers its
droppings to secure
the scavenger beetles

[0055]

In 6¼ hours we came
to a hill side & built
our sheds = West

2^d Luao & Lipande Rs

2^d Nov^r 1867

Went West in a
valley remarkable
for the numbers
of a small Euphorbia
which we smashed at
every step - Hills
on each side & especially
the right higher - after
3½ hours we came
to a strong rivulet
the Lipande running
S West to Moero
then ½ an hour
after crossed it

[0056]

again now 20 yards
wide & knee deep
Then we crossed the R
Luao about same
size & prepared to
sleep on its western
bank - country very
richly wooded &
trees large - Granite hills

3^d Nov^r 1867 -

A very desultory march
of five hours - Hills
retire - soil very rich
came to two villages but
people did not want us
so we went on to the
Mosumba or chiefs
village - (we want a
head over all sadly)

[0057]

Muao is this chiefs
name Buira

We found a young
man at Muao's who
had fled from Cazembes
His father was left there
a youth & grew up
a heathen [his name is] - Mohamad
[bin Saleh] got into difficulties

& fle[his] son fled hither
He reports that Moero[Luapula]
comes from Mofe
or Mofu is first a
river then expands
into a Lake then
is a river again &
flows into Tangan-
-yika - this River is
the Luapula

[0058]

4th Nov^r 1867

Syde came early this
morning & said
that the Rua country
is a month distant
that but little ivory
is found there - none
at Cazembe's or
here in Buira

Letters had come from
Hamees - Chitimba
was dead & so was
Mambwe - people
are fighting for the
chieftainship of
Chitimba - great
hunger prevails now
Moriro a chief dis-
-possessed by Insama
of his country wished
the Arabs to interfere

[0059]

but they had made
peace & declined -
This unfavourable
news decided Syde
& Tipo tipo to remain
here only ten days or more
then return - they advise
me to go to Moero &
Cazembe if I like
then return to Phoeto
& wait for Bin Habib
to go to Ujiji with
him

5th Syde & Tipo Tipo

send men to trade at
Cazembe's for ivory
& then return by way
of Moiriri's to Chitimba
and there meet all
together before going
to Zanzibar -

[0060]

We were to start to-
morrow but the guides
proved false - they are
Unyinyembe who
helped Mohamad
bin Saleh to fight
with Cazembe - It is
said that after Cazembe
had killed all Mohamad
men he left him to
dwell alone in his
town - the Unyinyembe
fear revenge if they
come into the power
of Cazembe

6th Nov^r 1867

Very many cases of
swelled Thyroid gland
appear both in men
& women here = Goitre
or Derbyshire neck
this is only 3350 feet

[0061]

above the sea

7th Nov - Start for
Moero - said to be near
convoyed by all the
Arabs - We drew
near to Kasoma
m^{ts} & sleep at Kaputas
villages having gone
four hours nearly
South - 4S -

8th Nov^r 1867 -

Off at 6 AM - the villages
are very thickly studded

over the valley here
and all surrounded
with Cassava - one of
these belonged to Puta
and he was not to

[0062]

From Kalongosi back
to Lualaba mouth 5°
- to end of Rua mts 303°

[Map that continues to next page showing locations of RuaLubaland country, Kalongosi
RRiver, Mabanga, Lualaba RRiver, Tanganyika and also showing distances between locations,
calculations and notes including the observation "station about middle of North End of Lake".]

[0063]

[Map that continues from previous page and includes names Kalongosi and Cazembe.]

North bend before
Lake enters the Lua-
-laba - [Calculation of distance based on 3000 double paces each 4.5 feet]

[Calculations dated 8th NovNovember 1867.]

[Calculations.]

[0064]

be seen but he sent to
say if we slept there &
gave him cloth he would
send men to conduct us
tomorrow & ferry us across
His people refused a
hut so we came on
to the Lake & saw no
ferry - In two hours we
reached the Lake which
seems of goodly size
flanked by mountains
on the East & West -
sloping banks of
coarse sand -
people brought monde
a fish for sale - It has
a flat rough surface
instead of teeth - Eats
small fish - Has
feelers like claws

[0065]

but large eyes & no
scales - a spine rises
of the back apparently
bone - a thick belt
of Tropical Forest
runs all round the
North end - In it
villages are planted
chiefly fishermen 2[hs]

9th Nov^r 1867

came along bank of the
Lake S E wards then
ascended the hills - a
headman refused us
admission so we
walked on & he sent
for us saying that the
real headman had
just arrived from
the place whither he had
retired so we went

[0066]

It being better to appear
friendly than otherwise
His name is Chiputa &
place Kalekale

Flies abound by reason
of the fish caught - the
people are Babemba
but beyond the Kalongwesi
they are all Balunda - [3 = hours]

10th Nov^r Headman
gave us a supply of
provisions this
morning - villages
dotted thickly all
over the country but
the people seem to
feel insecure for their
gates are shut and
they refuse us ad-
mittance - a trade

[0067]

in salt is carried

on - the salt is the
produce of salt springs
We pass many of
these traders daily
& they return our
salutation very civilly
rubbing earth on the
arms - they are now
putting their gardens
in order - We have
come along between
two ranges of hills
one flanking the
East shore of the
Lake the other about
3' from it - From
700 to 1500 feet above

[0068]
the Lake - covered thickly
with trees - of Granite
loosely adhering &
of a tinge of red -

11th Nov^r 1867 - On
a plateau well cultivated
& very many villages
saw a water hog -
marched with yesterday
 $3 + 4 - 30 = 7 - 30$ in all

12 Nov^r After a
march of 3 hours
we came to two villages
and a headman took
charge of us to cheat
us in crossing the
Karungwesi or
Kalongosi - about

[0069]
60 yards wide &
deep enough to require
canoes - It rises
in Kumbi in the
~~North~~[South] East has a strong
current & plenty of
fish now ascending
to spawn - they

are caught by weirs &
 hooks - Baskets also
 are sunk in the rapids
 full of stones & means
 for securing fish attached
 to them [Drawing of baskets sunk in rapids.] when water
 rises they are
 standing places (for) [Series of calculations.]
 people to throw
 [...] [nets] & [...] [Hooks] [...] [all]
 cross Kalongosi
 miles -
 $14^{\text{th}} + 7[\text{h}] = \text{miles } 41$

[0070]

[Map that continues onto next page with triangular red lines that seem to be converging on a central point, and place names in grey including RuaLubaland MtsMountains, RRiver Lualaba, RRiver Kalongosi. Map also has descriptions of terrain and calculations some of which are in red.]

[0071]

[Map that continues from previous page drawings and calculations of distance to Cazembes townCazembe's town.]

[0072]

13 Nov^r 1867 detained
 by rain till noon - then
 went on Southwards
 Kalongosi went with us
 some distance then meeting
 a large flat plain turned to
 the West = heavy
 rain stopped us at [1]
 a village on the edge of
 the flat mentioned -

| | |
|----------|---------|
| Monde | Ntondo |
| Mota | Sampa |
| Lusa | Bongwe |
| Kasobe | Mabanga |
| Molobe | Kise |
| Lopembe | Kuanya |
| Motoya | Nkosu |
| Chipansa | Pale |

| | |
|--------------------|-----------|
| Mpifu | Mosungu |
| Manda | Litembwa |
| Mpata | |
| | Mechebere |
| [0073] Moombo - | |
| Mfeu | Toninchia |
| Meinde | Sipa |
| Seuse - | Lomembe |
| Kadia nkololo | |
| Etiaka - | Tomolenga |
| Nkomo - | Mirongwe |
| Lifishe - | Nfindo |
| Sambamkaka - | Pende |

38 species of fish in Moero

[Back] [^] from small hill seen
at North end as
the termination of
Kalongosi point -
to the East end of E.
range 35°

Other mass = 10°
near middle of
valley coming to Lake

[0074]
Lualaba mouth 360°
End of Rua m^{ts} 365°
End of water on E 42°
& N of large plain of
Kalongosi

14 Nov^r 1867

came on & being doubt-

ful as to the path sent
to a village to enquire
Headman came full of
wrath, what right had
we to come that way
seeing the usual path was
to our left - He mouthed
some sentences in the
pompous Londa style
but would not shew us
the way so we left
him & proceeded
four & a half

[0075]
hours through large
forest till tired out
We took advantage
of some huts which
had been occupied by
bark cloth cutters 4½

15th Heavy rains
from 2 AM - sky lower
-ed in morning yet
we went on one &
a half hours to a village
in cassava fields [1½]

16th went 1¼ hours
& then crossed the
Muatize - 25 yards
wide & running
strongly to our right
W - knee & thigh deep

[0076]
1¼ + 2¼ cross the
R - 10[7] yds wide
knee deep flowing
~~South~~[West] into Muatize

17th Nov^r 1867

An hour & a half to
another R^t called
Chirongo - 1 yd wide
& 1 deep
country covered with

well grown forest -
We meet many parties
of salt traders -
very winding 4½ in all
path -
Note - It is all dense
well grown leafy
forest - Trees of

[0077]
gum copal and the
bark cloth tree and
several to me new
trees - gum copal
spews out just now
in the rains in great
abundandance where
wounds have been
made by an insect
It falls & sinks into
the soil a supply
for future ages
the small rounded
features of Insama's
country common
Sleep by the
R^t Mandapala
or Mantapala
12 yds knee deep rapid

[0078]

18th Nov^r 1867

Rest after 2 hours at
Kabusi a sluggish
narrow streamlet -
then Chungu near it is
a broad one choked up
with trees & plants
as Sapotas - Eschinom
-anas - free stream
18 yds wide & waist
deep - We had to
wade at least 100 yards
often thigh & waist
deep - 2 - 20

Palm oil trees abound
on the East of the Chungu
This remarkable as
the Alt. above the sea

is 3300 feet - the oil

[0079]

is called "Mafutu
a Mboko" and is
very nice & sweet -

Allah is a very
common exclamation
among all the people
West of Insama's

19th sent off by
advice of our guide
four fathoms of
calico to Cazembe
to apprise him of
our coming - very
superfluous if as is
asserted he has been
telegraphed to of our
progress ever since
we crossed the
Kalongosi - we

[0080]

remain till our
messengers return - It
has been so clouded over
we could not make
out our progress or
position - never got a
glance at sun or stars
except in afternoons
when they were useless
Rain & thunder
perpetually though the
Rain seldom fell
where we were

Bought a pint of
Palm oil for a cubit
of calico - the bananas
are the sweetest I
ever tasted and the
ground nuts grow
very large in Cazembes
country - the Cassava
is the staple article

[0081]

of food

Saw pure white
headed swallows
on the Chungu
yesterday

20th Nov^r 1867 A
fine young [^] [Kapesia] man whose
father was Cazembe
before this one came
to us to conduct us
to his relative tomorrow

21st 2³/₄ to the R^t
Lunde + ³/₄ along a
broad path made
by Cazembe's orders
& due West across
a level plain thickly
studded with anthills

[0082]
from 15 to 20 feet
in height & of a
reddish colour -
very few trees on
the plain as it is
near the town &
the young trees are all
used for building
huts

R^t Lunde is where
we crossed, it knee deep
& 6 yard wide - It is
broader a mile ø[or]
two down - springs
were rising out of
its bed at our ford
4 hours to the
chief village of Cazembe on
the Lakelet Mofwe

C[...]-[a]zembe sent us a
big basket of dried

[0083]
fish - Mahahmad
bin Saleh met us
his people firing guns
of welcome - He is a
fine portly dark Arab

with white beard - a
 pleasant smile and
 good address - He
 presented a meal of
 vermicelli & sugar
 Also Cassava made as
 a sweet meat - I have
 not tasted sugar since
 Lake Nyassa - nor coffee
 His ideas of the source
 of the Luapula as in
 a Lake formed by the
 Chambezi are remarka-
 -ble - Luapula is
 in fact the Chambezi

[0084]

Neither goats sheep nor
 cattle thrive here - so the
 population is shut up
 to fowls & fish - Cassava
 abounds - When D^r
 Lacerda came here the
 chief village is said to have
 been on the [^] [Chungu or] Manluapala
 Rr or Mandapala R
~~2^h - 20^m + 3 - 30 + 4 = 9^h - 50~~
~~say 20 miles - North of~~
 the present village

A Portuguese [^] [or Goanese] said
 to have been wantonly
 imprisoned an island in
 Mofwe came to mend
 guns & was prosperous
 for a time but gradually
 became poor - the
 present Cazembe pitying
 his poverty gave him
 the plantation on the

[0085]

island, two wives &
 some people to cultivate
 & support him - he
 is content it is said.
 23th Nov A great many of
 Cazembe's people appear
 with cropped ears &
 hands lopped off -
 The present chief has
 been and is often

guilty of this barbarity -
one man has just
come to us with neither
ears nor hands &
he tries to excite our
pity by making a
chirruping by striking
the stumps of his hands
on his cheeks -

A dwarf with back
bone broken also

[0086]

comes about us - the
people seem to spare
him & he is always
scolding some one for
wrong doing

One side of Cazembe's
chief residence is
200 double paces
[Calculation of Cazembe's residence.] it is nearly
a square of
300 yards each
side and
the entrance is
ornamented with
about 30 human
skulls - It is about
2 miles from the
North end of Mofwe
& on the North East
bank [Calculations that continue onto next page.]

[0087]

[Calculations that continue from previous page.]

Hamid Bogarib
an Arab trader met
at Cazembe's very
civil

23[4]th Nov^r 1867

We were called to go
to Cazembe to a grand
reception - a head
man stood near the
Eastern or principal
gate with two large
ill made umbrellahs
over his head & his

people behind him
He had to wait for
admittance till the
chief had seen our
present & so had we
much to Mohamad
disgust - When

[0088]

[Map that continues onto next page with calculations and description.]

[0089]

[Map that continues from previous page with calculations and description.]

[0090]

we got in we saw
Cazembe seated in
front of a huge hut
& two umbrellah's
held over him
[Drawing of Cazembe's hut.]

[0091]

On his right were
about 30 people sitting
behind him in the door
way sat his principal wife
& attendants - on his
left some fifty men &
still farther off on both
hands sat a hundred
Mohamad & I and
attendants were placed
directly in front of
Cazembe & about 500
yards off - While behind
& on our right &
left we had groups
with marimbas
drums & other instrum
ents of music - Each
band came up playing
& then took its stand
near the chief

[0092]

I counted them before
the bands of musicians
came in found the
whole to be almost 300

the accessions of
musicians & women
made the whole to be
somewhat under 400
These with the queens
attendants made the
whole party about
500 - It certainly did
not number 600 in
all - Cazembe was
clothed in a common
Manchester blue & white
print edged with red
serge & arranged in
huge folds so as to
look like crinoline
His arms were encased
in neatly plaited bead
sleeves up to the elbows
a broad band of

[0093]

bead work covered the
front part of his head
& was crowned with
a ring of feathers —
Having sent my coat
on to Ujiji I had no
dress but a grey one
When called on I rose
took off my cap &
bowed to him - an
old counsellor then
gave a long account
which he had gathered
from Mohamad and
this being graciously
recieved he came & told
me that I was free in
Cazembes country to
do whatever I liked
He then rose & went
to an inner apart
ment whither we followed
the present was

[0094]

now produced and
exhibited each article
in detail - 8 yards
of orange coloured serge

a large blue table cloth
another checked table
cloth imitated from
Native manufacture
on the West coast
they always excite
great admiration
both Arabs & natives
like them extremely
& lastly a large comb -
richly gilded such
as were worn by
ladies in England
some 50 years ago -
As it was explained
that my goods were
nearly done the present
did not disappoint

[0095]

as it might have
done from a trader
the kind of articles
were greatly admired
Its value here might be
five Pounds - He
again expressed him
self pleased & we came
away -

The present Cazembe
has a heavy uninteresting
countenance of chinese
type - His eyes have
an outward squ[i]nt -
He smiled but once
& that was pleasant
though the cropped
ears & hands & heads
at the gate made me
indisposed to look on
any-thing with favour
His principal wife
came after he had
departed to look at

[0096]

the Moingerese [Moinglese] - she
was very good looking
& tall & had two spears
in her hand; having
recieved my salutation

at a distance of forty
yards I involuntarily
beckoned her to come
nearer - this upset
the gravity of all her
attendants - all burst
into a laugh & ran off -

Cazembe's smile
was elicited by a
dwarf making some
antics before him
This dwarf is present
at everything - the
executioner came to
look too - He had a
curious instrument
hanging to his neck
on asking him what
it was he told me -

[0097]

Cazembe sent us
another huge basket
of fish - two d^o of
flour - & a pot of beer

[Drawing of two figures illustrating female ornamentation.]

Female ornaments
richly studded with
beads & pretty =

Figure 1: Instrument for cutting off ears

[0098]

Cazembe sent us
a goat two large baskets
of flour - a large basket
of fish dried over a
fire & a large pot of
beer

Saw Cazembe's wife
carried to her plantation
by six men [twelve at other times] - she is
[Drawing of men carrying Cazembe's wife.]
very attentive to her
agriculture but as it
is at a distance she

takes the travelling to it
easily - cassava is its
chief product - sweet
potatoes - maize &

[0099]
sorghum follow
she was regaling her
self with a huge pipe
& talking to her attend-
-ants meanwhile - next
day she had twelve carriers.

This people seems
more barbarous among
themselves than any
I have seen yet - they
strike each other savage
-ly out of mere wanton
-ness

26th Mohamad says
that he will go to
Ujiji next month -
He has dhows and
many people - He
proposes that we
go with him - and
this seems a good

[0100]
opportunity - He
thinks very little of
Cazembe - He has neither
tact nor good sense -
other Cazembes he has
known sent food
every day to strangers
I have reason to be
thankful for what he
has given me

27th Nov^r 1867
Got stars last night
The Portuguese seem to
be 50 miles wrong -
in Latitude alone -
Some say that Charlera
died on the Chungu
others at Mandapala
(Chalare - Charala or
Charlera)

[0101]

old counsellor
came to ask if we wanted
to speak with Cazembe
I replied yes & will
if he chooses go to
morrow -

28th Mohamad has
been here more than
ten years & has seen
four Cazembe

29th Cazembe has a
great dance this
evening with the
usual dreary music
Mohamad varies in
his accounts of the
Lualaba and the
Luapula

[0102]

30th Cazembe has a
musical box which
he wishes me to mend
having no tools I dont
know how - the old
Chiramba declares that
Luapula does not enter
Mofwe but gives it a
wide berth -
1st Dec^r 1867 Cazembe
is always succeeded by
a brother or [^] [in cases] a sister's
son - Perembe was
owner of the district
in which Cazembe's court
is placed - He brought
me a pot of pombe -
many sons of this
& former Cazembes go
about very poor
generally no property
can be transmitted
except slaves and

[0103]

these may die or escape
Of land anyone can
get as much as he can
cultivate so they are
not raised above the
poorest freeman -

2 sent to tell Cazembe
that I intended to go
down to see the South end
of Moero & Luapula as
it enters that Lake - did
not receive an answer
at which Mohamad
was wroth & vented
his rage in words
which will be reported
& evoke an answer

3^d He gave his answer
yesterday but it was
not reported till this
morning - He will give a
man to guide us
tomorrow

[0104]

4th December 1867

Cazembe objected to our
going today - He wants
to talk again & give us
something more to eat

5th Went to Cazembe
most of the square in which
he dwells is planted
with Cassava - sorghum
&c - He gave a long oration
about his country &
power which Mohamad
resisted & made his people
laugh - He said let him
go to Moero & draw cloth
out of it - He lifted up two
spears he had by him
several times which Moham
-ad took as an insult &
mocked him - He is one

who never was checked
a very uninteresting old
Chinaman's face - out
ward squint of both

[0105]

lifeless eyes - & a few
hairs on his chin - body
thin & bent together
by excesses

6th Dec^r 1867 The
oldest man in these
parts - Mohamad
thinks 150 years -
by name Perembe
was chief of this land
around Mofwe till
this Cazembe came
He says the first Cazembe
was attracted by the
fish - a perch being
the most abundant
He is a man of good
sense - they have the
idea of all from a
single pair

[0106]

7th Dec^r 1867
clouds usually prevent
observations, last
night fever did make
me unable to go out

8th - 11th very ill of
intermittent fever

12th better of fever but
no observations can
be made - clouds collect
every evening ——

Writing letters for home
Sir Roderick - Webb -
Tom - Agnes - John -
Lord Kinnaird - Mr Oswell
- Young - Charles - MacLear

13th Set in rainy no
observations - a number
of fine young girls who
live in Casembes
compound came

[0107]
& shook hands in their
way which is to cross the
right over to the left &
catch then give a few
claps of both hands -
repeating the first clasp.

15th Syde's people
went off this morning
Send to Casembe today to
say that Mohamad and
I are going off - Two
traders and I each got the
same return present
from Casambe - one
goat!

16th No answer from
Casembe - bad manners

17th Set in rain all
morning -

18th Set in rain -
very ill with bleeding

[0108]
18th Dec^r 1867
always ill when not
working - I have been
a month here and
cannot get Lunars -
Casembe sent a big
basket of fish - two pots
of beer & a basket of
cassava - says that
we can go when we
choose - He thought we
were going to Moero,
but we did not go
I thought he objected
so did not wish to go
against his will

19th Dec^r 1867

Went to say Goodbye
to Cazembe - He made
a long speech which
Mohamad answered
Casembe tried to be
gracious - said

[0109]

that we had eaten
very little of his food
but he allowed us to
go

20th Dec^r 1867 - A

guide has been sent
for by Casembe and
we wait for him
today & start tomorrow
(very ill with bleeding
in large quantities)

21st waiting for the
guide but will go
without tomorrow
Boys stealing beads

22^d Leave Casembe

1¼ hous E. to Lunde Rt
1½ N + ½ N + ½ N
to Chungu R^t -

[0110]

We came to the R^t
Chungu 3¾ hours but
stopped at a village on
its West side -

23^d Dec^r 1867[Map or drawing beneath the text.] crossed
the Chungu this morning
raining from above -
cold to the waist below
saw black monkeys

[Map of landmarks referenced in text that notes distances between them and includes Chirongo
RtRivulet, Mandapala, Moero, Kabusi, Chungu at LatLatitude 9° 32' SSouth, Mofwe, and
Lunde.]

[0111]

Chungu goes to
Moero so I am in-
-formed this morning
The main stream is
18 yds & waist deep but
we have a 100 yds of
water thigh & waist deep
full of roots & logs
of wood -

Mohamad came
this evening. - Casembe
sends three men to
guide me to Moero

24th a drizzly day
and we are in a miserable
place - Brakens 11 feet
high, but we wait
for Casembe's guides
who will not shun
such weather - gave
some beads to buy
things for Christmas

[0112]

25th December 1867

We spend Christmas
day in a miserable
spot on the banks of
the Kabusi a tributary
of the Chungu close
by - drizzly showers
come on every now
and then and the
soil is all damp beneath
Mohamad denies that
the Casembe is elective
the present one is a
usurper - the son fled
to Nsama - (groundnut)
or Nshama -

The best account of the
man Manower is that
having mended a gun
for Casembe he was
coaxed away from
Montero - who sent
back for him but

[0113]

let him remain that
Casembe gave him
many concubines &
slaves - this neglected
him & he sold his
people & now digs
pitfalls for game
has 3 concubines &
2 children now - would
not come near me
from it is said fear

26th Waiting for guides
about ten men came

27th Start today & in
2 hours cross Manda-
-pala - waist deep now
Elephants numerous -
This part was stocked
with people who have
all fled from Casembe
because for the slightest
fault he mutilated

[0114]

and took their children
as slaves - This is the
usual way that tyra
-nny is checked here

28th to R^t [...] ~~ukw~~ 3
[Chirongo] 3 hours
Hot fountain in Insama's
country boils maize
& cassava - gushes up
every now & then
There are two places
where copper ore exists
in this country but
people do not know
how to smelt it 3

29th Rt Kabukwa
sick — 1½

30th Better - thanks
to Good Providence

[0115]
Mohamad waits
for men sent to
convoy us and
shew me Moero -

31st Heavy rain
prevented the guide
& convoy from
coming - Mohamad
gave me a good
dinner of fine
flour porridge & a
fowl - I have had
coarse flour only
for some time past
& my stomach is
weak - I fail in the
march too - I used to
be the first & am
now the last

[0116]

1st January 1868
Almighty & Gracious
Father help me to be
more profitable this
year - Forgive the sins
of the last year for
Thy Son's sake - If I
am to die this year
prepare me for it -

Bought 3 hoes at
two yards calico apiece
This is the last place
where we can buy
them - one will buy
a good goat in Buire
We go thither and as
one goat died & the
other dried up I long
to have others for the
milk strengthens - one
hoe measures in its
flat part 13½ inches

[0117]
by 6½ D° -

My guide has come
and we go to Moero
tomorrow

2^d Simon ill prevents
our going - sky all
covered with segab =
clouds

[0118]

Thunder every day
in. tenths
Rain October - 1.10
— November 8.89
— December 9.17
The above three months 19.16

[0119]

Rainfall = Dec^r 1867

up to the 18th 5.88
20th 3 & 4 PM T. N = .66

D° D° Casembe
5 - 7 PM W. T .89

24th Chungu Rt
during night T. .34
& morning

D° D° Drizzly showers T. .9

25th - morning T. .5

27th - Mandapala Rt
3 - 5 PM T .33

30[1]th RtKabukwa
3 - 5 PM T.T. .93

Total for December 9.17
Many showers fall
which shew nothing
in the measure

[0120]

fight [...] ny strangers

Figure 2: 26thNov^r1867

Katofia [Calculation.]

Mchinda

Nshinda on other

side

Fisindi

Kutiringa mboga

Chanambe Lake

beyond Tanganyika

a dwarf at Cazembes
3 ft 9 inches - His name
Zofu of Charobansa

[0121]

[Drawing depicting Mofwe with the following 3 rivulets flowing in or out of it - RtRivulet
Mandapala, Chungu RtRivulet, Lunde RtRivulet.]

When one Cazembe dies
his successor builds a
new town invariably -
Towns have been on
Lunde Chungu
Mandapala = Mofwe

Charala [^] [D^r Lacerda] came to
Chungwe [^] [lived] 10 days &
died then the chief
man moved to Lembwe
(Lorkuesa) [^] [that] chiefs name

Some Ujiji people & the
followers of Lacerda began
to fight at R Chungu - Cazembe
gave Lacerda 10 slaves & men
to build a house - & presents
to the others & said to out

[0122]

Mbwui next by ^[Kabende]
Matanda
Cazembe (Bemba
10 days to go to Gezira
from Cazembe

Beyond Moero the
Luapula is the Lualaba
Goitre & enlarged scrotum
prevail very much
at Lake Bemba

Figure 3: Bakers L

[0123]

1st Dec^r 11 AM
T from E - .93

6th 4 to 5 PM T = .40

8th Cazembe - evening
& night gently .25

10th D^o morning T .4

D^o 12th last night T .9

- D^o D^o Noon T === .8
D^o D^o 4 & 5 PM T .53

D^o 13 Cazembe - 6 - 9 AM .29

D^o 14 during night T .29

D^o 15th night - T W.16

D^o 16th during night
T = 6 AM to 12 calm 1.63
D^o D^o 5 & 6 PM W T .81

D^o 18 - 8 to 10 AM T N .39
Casembe's 18 Dec 1867/5 .88

[0124]

Mambwe
R Chambeze source
[Drawing of lakelet[?]] Lakelet
Babisa Mokishi of
Gezira Sultan Nombi
- takes Luapula
then comes
round to
Karoko Moero
Sultan of Lebemba
Kabende Bambeolo
By Mohamad bin Saleh
Moanzabamba is a
Mobisa - Gezira a
Lake - Kabende
is beyond him

[0125]

Rainfall [in.]

Nov^r 19th in all 4.65

19 Chungu R
Noon till 4 PM
intervals – Loud
Thunder .90

21st Rt Lunde
7 AM. T.15

26th Cazembe's on
Mofwe Lakelet - 3
PM T.7

27 Cazembes T.
7 AM. — .36

29th T - 2 - 6 AM
2.53

30th 5 PM T. .23

Rainfall Nov^r 8.89

[0126]

[Drawing of two shapes: one tube-like, one rectangular.]

Motoñkoko vil
of Cazembe -

Manda = Ungwesafise

vil Kefurna - Mosiwe
headman of it
Moñganda town
of Cazembe
Manoenwa - a Port
~~uguese in prison on an~~
~~island~~

Chalari who died =
D^r Lacerda? The
town of Cazembe has
been shifted along
the Luapula four
times as each of
that name died

[0127]

Chamomesi a
man from Katanga
we met on the
Choma 30 Oct /67

[Calculations.]

[0128]

16 Nov^r 1867
Dismiss James from
being cook - He allowed
Gardner - the filthiest
fellow of the whole to
wash his dirty paws
in the pot for cooking
porridge - He shook off
the remains of the dirt
into the vessel & left it -

James standing by with
his mouth filled with
his tongue lolling out

[16[7]th] Took Amoda on in
James stead

19th Dec^r 1867 - Casembe's
Find that Gardner has
been stealing wholesale
from the bead bag he
carried.

[0129]
[Drawing of three full-length figures emphasizing appearance of hair knotted at back. Below
are two similar figures showing head only and, separately, underneath is another similar figure.]

[0130]

9th by Moero - 4 AM .10

11th D^o T. .12

13 Kalongosi T
7 AM & 1 PM .78
T. the first really
heavy shower -
Rains will now
turn from partial
to general

15th 2 AM with
much T .58
forenoon drizzling .8

16th night .22

17 6 PM T and
night heavy 1.44

Nov^r up to 17 = 4.65
Oct^r 1.10

[0131]

Rainfall Oct 1867

22^d - T = (Thunder) from 78
noon - then at 2 PM
a shower accompanied
it - laid the dust only

24th T 3 PM .3

27th gentle drizzle about .7

29th with T. 3 PM .22
Choma River

31st T. all about & 1.10
apparently rain but
only a few drops here

1st Nov^r 1867 a gentle
shower during our
march .7

3^d Nov a R. Luao
2 AM with T. .30

7th Mosumba - 6 AM
with thunder 1.8

8th Chiputas - T 8

[0132]

1867

[Temperatures at various hours of the day.]

15 Dec^r rainy time
[Temperatures at various hours of the day.]
At Casembe's town

[0133]

16th Oct^r 1867

Karungu's on the

Kamosenga Rt

[Temperatures at various hours of the day.]

Karungu 23 Oct

[Temperatures at various hours of the day.]

R Chungu near

Cazembe's 20 Nov

[0134]

Chiruko

ach sent

thank

a oni man

um all

=====

amara klas

ogie

- Lukri
- Budi
- Je[a]nga
- Karenga
- Manyoko
- Mbulu
- Thalaputa
- Kabile
- Luku[r]gagonaboja

Fomalhaut

[Calculation dated 30 OctOctober, resulting in LatLatitude of village on RRiver Choma]

[0135]

[Calculations.]

[Calculations.]

[Calculations.]

[0136]

Chikongo West
of Karungu -
Choma is W.S.W.
of this - Logarawa
goes into Moero
& Moero comes
from Cazembe's

Groundnuts or
Mteza or Mbalala
roasted in a frying
pan - then rubbed
between the hands to
take off the skin - &
pounded fine, then
mixed with water
& boiled make an
excellent substitute
for milk with por-
-ridge - add salt -

[0137]

20 Sept 1867

[Temperatures at various hours of the day.]

Has[[^]][a]rajiḡ a man
of Mahamad

Kongolopya = whirlwind

Karungu = Itawa Dis^t
Mteta a greater chief W.
Juma Merkano passed
Manda Marumbi
which is near to
Tanganyika on
his way to Rua -

[0138]

the day & night - a
lower stratum of
clouds comes from the
N & upper from S.
turning round & round
when they meet [Drawing of arrows illustrating cloud movement referenced in text.]
4 - 30 PM a shower
T. & early on morning
of 5th = .27
11 AM T. to
4 PM ===== .47

6th gentle rain
during night .4

.78

22^d since the above date
it has often threatened
rain & even thundered
long - the thunder
clouds passing all
around & even a
few drops of rain
fell but soil not wetted

[0139]

17 Sept 1867

To James 4 Cubits
Send in 3 to

1st Oct^r 1867 clouded
all over & thundering
in distance = a few
drops of rain only
at R. Kamosenga

2^d Karungu's vil
Thunder [^] [3 PM] in distance
& probably showers

3^d D° 4 AM. T.
& at daylight a

slight shower not
enough to lay the dust
3 PM a few heavy
drops of rain fell

4th D° 3 PM Thunder
-ing in the N.N.W -
clouded over most of

[0140]
[Drawing of scene outside Livingstone's hut.]

[0141]
[Dated calculations based on geographical coordinates including 8° 55' 18" S South.]

Syde maintains that
all the rivers East of this
flow into the South except
R Likwa which is
broad like a Lake.

18th An intelligent native
said that Moero came
round from South to
N.E. of Nsama before
joining the Lake Tanganyika

- Lisépe a red bean
which grows wild
by long cooking it is
made eatable by some
Nsama's people dont
know

[0142]

[6] Kabogo Lohembe
[7] Kerengoana a chief
[8] Morora country & cross
R Ruaha [9] Dewerwa
[10] Powaga [11] Puge - country
of Merere [12] Ubage D°
[13] Mdonya D° [14] Namkori
D° [15] Irundu a place
where they make salt -
[16] Nyamunyama D°
[17] Moarafu hills

[18] Tangure = chief town
of Merere [19] Usafa
then [20] Nyika -

From Nyika to
Paoaga is all
Merere's country &
equal to 2 months
It is 15 days more
Urungu

[0143]

Near the coast the
R. Rovu goes into the sea.
R. Mgeta of Obena country
flows into Lufiji & Sea
R. Ruaha into Lufiji too

On N. W. of Chambeze
country Nyika goes into Likwa

R Mono of Nyika goes into
Likwa & that then flows
into Tanganyika -
country of Basango -
Usango Nyika
R. Mono [^] [neck deep] Nyamoanga
Mambwe R. Chambeze
crossed by a bridge -
then Urungu

R Barare comes from
Beni into Merere's country

[1] Bagamoio [2] Ngerengere
[3] Kutu [4] Kirengwe [5] Biuga
Mabruki. a lofty hill

[0144]
X