

Notebooks from the Damaraland Expedition

Publication/Creation

1850-1852

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Bay, up Swakop
I)





f. 45
Frank Galton

Clarendon. ~~Warwick~~ Warwickshire England.

Should any body find the book
mistaken, they would much oblige
the owner by returning it to him, even
to England.



f1v

All bearings

(SW) are by compass

SW true

+ by pocket compass

+ using

: Azimuth

Reading of the AZ gives the
bearing of the distant object given
from N round by East.



Barmen is Olkikango
It is also in the same position

Thursday 20 - We had anchored

in the bay last night, in the morning
as it was too dark when we got there to
see the house. In the morning we

got within $\frac{1}{2}$ a mile ^{off the house} to the shore in
2 $\frac{1}{4}$ fathoms & sent a boat to sound

they found the same depth to within
 $\frac{1}{4}$ a mile of shore. At 12, A.M.

Schomberg the Captain & I landed.

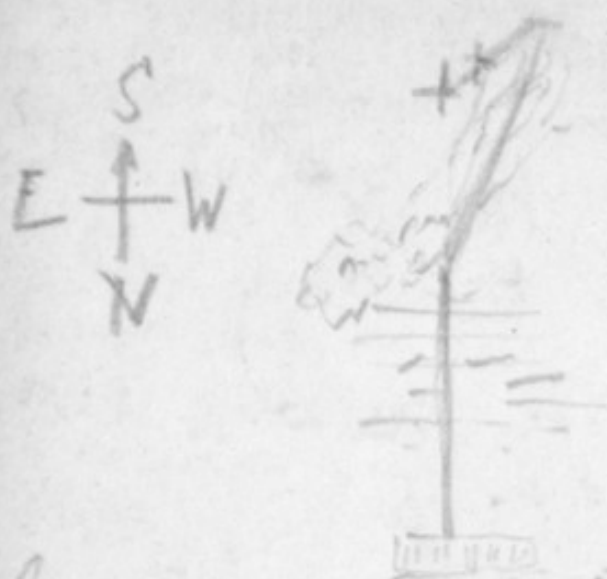
The natives met us looking a little
suspicious three of the lot of 17 had
guns they dress in a hie & looked as

powerful as they could be. The Captain
Frederick soon made them

and we all went to the town.

At 12, 3 miles at the town, I

should think from the house, ^{f.2v}



As near as may be $3\frac{3}{4}$ miles by the path. We dropped first a flat plain that had evidently been flooded. ^{stream} with bit of trees (not first). Going $S\frac{1}{2}E$ till we came to bushes & then followed the bushes along a dry watercourse to the house. The ^{wells} ~~spots~~ such as they are, lie NE from the house ^{the 1st} about 300 yds & the next 1500 yds. The river

the most remarkable, quite ^{p.34}
unmarked as I have ever
contrasted it. 5 ostriches eggs
were brought & we gave 7 sticks
of tobacco for the lot, but sticks
would however have done. We
took the captain ^{Federick} & his brother (or
some such person) on board.

Wed 21. In the early morning
while it was still misty some guns
were fired from shore & a boat
being sent off brought back Mr. B.
& Mr. Stewartson, they had received
last night the letter we sent
at 12. n. & rode all night
the 8 hours journey, sleeping a few

hours at Sand Fountain. We ^{f3v}
landed the beards in perfect
safety they had to swim $\frac{1}{2}$ a
mile or a little less (I had
minuted the boat) we also

got a great many things ashore.

In the evening I rode with
Mr. Bam to the kraal by
Sand Fountain & presonked for a
man very ill with Syphilis.

Mr. Bam told me it was very
common indeed here & very severe.
That Colongel worked wonders
a woman died of it lately her throat
was dreadfully ulcerated she died

f4r

hardly speak intelligibly, heard
it had been introduced he did not
know. He corroborated the story
of some sailors having been murdered
here some years back. The natives
said they took all sorts of liberties
& brutally too with the women, they
threatened to shoot the natives when
they tried to interfere & so got murdered.
Very likely they introduced the
disease. He also told me that
the cause of the plain by the bay
being covered with dead trees was
that the Kunzeif along whose banks
dry bed we went to Sand Fountain
occasionally, at intervals of years.

f.4v

Runs with excessive violence
Scarries down every thing trees
and all with it. again at high
tides when the wind also wags, the
water on the plain is covered
by the sea, & then float the trees
about. Mr Barn recollected
poor Ruxtons expedition here
he was, he said & implied, very
hardly used by the missionary then
here Mr Thidall (~~the man who~~
~~has given me a letter to Youker~~
~~afterwards~~) & by Morris & Dixon.
I was assured that they told

p. 5r

the captain of the village
(not Frederick) that he was
travelling with some minister.
Motiv^{ed} I begged them to resist
their views - & to refuse guides
or so. which they did. Mr. Ham
exculpates himself I said he
was quite unacquainted with his
arrival or he would have done
all in his power for him; After
sunset Mr. Ham returned on
board & I slept in my tent
Thursday 22. In the morning
I found my 2 horses had collapsed

f. 5v

I sent Timboo & John S. Hill
after them. His name much
alarmed me on their account &
very pretty. So I sent 2 natives
provisionally
one with orders to bring the
men back if they found them
the other with orders not to come
back without the horses. They
fortunately found my men &
have come on after the animals.
Timboo looked sadly broken
up, but the man had had anything
but a cup of coffee & they walked
hard all day. Nearly all

46r

the rest of my luggage is
landed. Mr. Barn told me of
a gum tree which he believes
not to be known at the Cape
which yields very sweet gum
in great abundance. I have urged
him to send some to the Exposition.
The sailors landed some of the
things very carelessly & I made
a great row with much effect
about it. I bought 2 kids for
a soldier's old coat without the
buttons that I had 3 dozen of, I
gave 5¢ a piece for them. I have

also promised one to each of
the natives that are after the
horses if they find them. They
ask much for clothing - any

sort shirt & waistcoat.

Bush here are the only women
I have come in contact with
as yet. I have already
had 6 picked off me. I
do not feel them, however.

Saw several Hummingbirds the other

day.  is most peculiar. They look

like dragonflies. The point
of the bay bears $N 23^{\circ} W$
from the house.

Shark or Fish generally
Bish -

f. 7v

SW Mt Bay
2. 1/2 miles

$35\frac{1}{4}$

Bay

Bay

$34\frac{1}{2}$



Hut

f85

2

B

1, ent $(123^{\circ} 10' 5'')$ Surt

1890-1891

1994-95

f8v

~~S 35° E~~

S 14° E

S. 5° E



164

House Walfield Bay.

(Chapel & Shipwrecked)

Point A is the road to Seal Bank on the Kuirup where water can be had by digging. the hill is beyond the hillward of.

A. Br.

Form Chart

$\Sigma 35^m 20^s$	$74^{\circ} 17' 20''$
$- 38^m 45^s$	$75^{\circ} 5' 30''$
$41 \ 49$	$76^{\circ} 30'$
$44 \ 10$	$77^{\circ} 41'$
$\underline{160^m 54^s}$	$78^{\circ} 34.50''$
$X - 240^m 13^s$	$75.53 \ 42$

For San Dieg Walworth Key

$1 - 6^{\circ} 12'$
 $2 - 13.11$
 $3 - 22.7$
 $4 - 35.10$
 $5 - 56.35$
 —



Venus Tuesday Evening. A9v

~~8^h 10~~

8^h 8 50 75 22 40

10 53 74 25 40

12 — 73 48 30

13 41 73 13 —

45 24 16 50 50

~~8 13 51 74 12 42~~

~~24 35 74 33~~

21 48 69 30 11

23 41 — 68 38 —

25 18 67 53 50

70 47 206 35 —

8 3 32 92 11 40

206 2 —

68 40 40

f. 10r

Altair 5 abser $2^h 2.15^m$
 Just for apparent true merid 27.

Latitude of Moorin' house by Vega
 at Sandy Fontain $22^{\circ} 59.57''$

Altair Merid P. 11.22.53. (repeat 22.59.16
 & Paaron 11.43.10 (next night).

By $\odot$ Wed Evening watch too fast for app. T.

$2^h 2^m 9^s$
 $2^h 2^m 25^s$
 $2 \quad 2 \quad 14$
 $2 \quad 2 \quad 5$

~~12.55.12~~

53

Mean $2 \quad 2.14$ too fast for app. T.
 1.6

$2 \quad 1 \quad 8$ too fast for mean time

Thursday by Sun (much wind) Lat $23^{\circ} 0'.39''$
 Saturday by Sun (refl $\odot$) $23.1.22.$

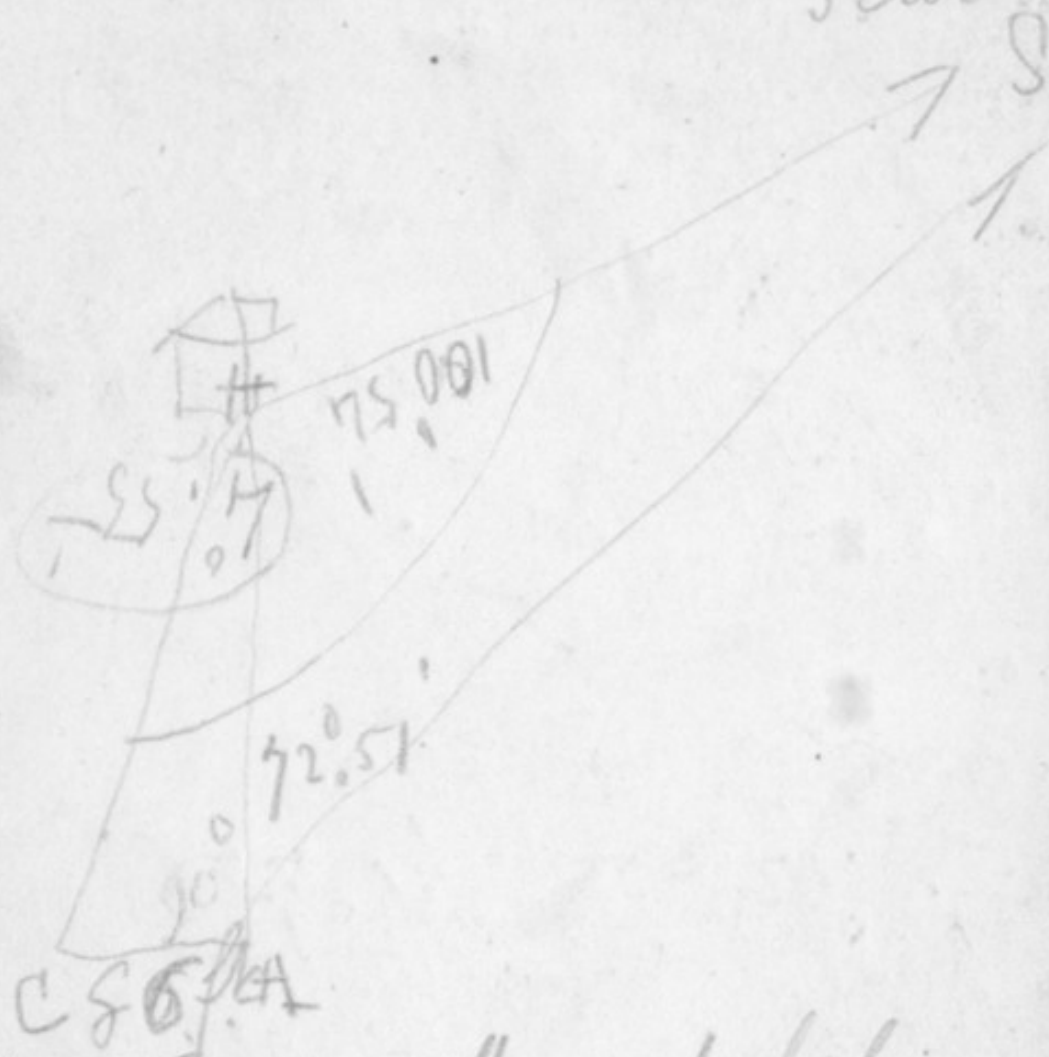
The hill, B, 3 or 4 ft. back from Sandhill
100 yards. (S) of Moray house Sand Fort.

56° 10' (57° 5')
Nend  S. Ex. (as before)

Probable bearing of House in Walford Bay (there is a sand hill
indicated but I don't think I am far out. (320°) ^{Yes} an
in. If really is (337° 30') (Friday)

The well is about 150 yds (45°) from door of Moray
there is another a little beyond it - in the
next sand hill.

f. 11r S Sandhill



This together with the comp of bearing
makes Sea Side house 2.943
miles from Sandy Fountain House

Alt 5

$(320^{\circ} 30')$

f. 11v

Bearing 0

many others

Alt 53 11' 40"

35 44

Bearing 320° 15' 17"

alt 51° 39' 44

Result. 26.56
27.21

54 17 Mean = $27^{\circ} 8\frac{1}{2}'$

Drift for SF Home

(316°)

Bearing of 0, 320° 15'

IL alt 58° 55'

~~321° 30'~~

IL

~~57 34~~

318°

44

58 15 30

317. 10

44 55 12.30

27° 43'

14
13
42
15

Provisions for 5 weeks

- Tea	20 lb	10 guns	42	152
- Coffee	20 lb	40 lb powder		40
- Sugar	20 lb	80 lb pepper		100
- Salt	2	1 doge large aspen		36
- Peppers	<u>2</u>	$\frac{1}{2}$ the Cutters		24
- Lime juice	2	The sword		1
- Cigars	2	Knife		2
- Biscuits	40 lb	Strike fire, hood		10
- Tobacco	10	a few sample		10
- Curry powder		a little iron wire		10
- Kettle		shot of tin		2
- Pots	7	ten plates		10
- Pan		Matchets		10
- Daddle		Saggers		3
- Smith	1			14 1/2

14 1/2

43

Flint ——— 1 ———

P. 12v

Guns ———

Shore Ten & Coffee

Reeds

Instrument — 50

Iron Bars — 20

Text — 40

3 Gorts

Lucifers & Tinder

Abaram — 3

114
148 1/2
433
695 1/2

Hammer
de Tools
Bedding

Pack Saddle

f. 13r

~~Brandy / Bottle~~

Wicks — Candle mould
Pencils

Stationery Printing things.

Another book like this.

Gum my watch glass

Bullets & lead & mould

Patches

Sabre Food

Pistol Scrap

Lighthouse

& Bullets

Hand or Clock.

We found a loose bag

No. 1. T.S. is it Rice

& have we taken the S?

Monday Evening

f.13v

① 12.5^h 36^m 37 by Chr

57° 43'

5^h 36^m 49^s

55.31.20.

5.38^m 26^s X X

54° 41.50

5.40.26¹/₂ X

54° 55'

5.42.26

53.14.10

5.43.41¹/₂

52° 37' 30" X

f. 14r

Trocheometer.

64 81.5

63, 64. 9.

~~81.5~~

Bo/wheel 14 2^h 2

3 1/2 2219
185-fl
52 yd

Altair 4 cord 4 ft;

9 14^h 30

100.58

15. 30

101.18.50.

16. 30

101.37 -

17. 30

101.54.50.

14.2 $\frac{2}{3}$

14
12

62/1760 130

168

13

28
X 8

50.6

168

2184

35

2219 m. 6
739 4

p. 14v

Sand $2\frac{56}{98}$ Fountain

(✓) 28° E +

65.38

Baker, Lewis

5*

20) ~~Hot~~ ^{Hot} ~~much~~ ^{much} ~~warce~~ ^{warce}

Bugs, 200 in
bottle better.

Road leaves the

S 52 E4

Wishes of the
donor to the

the right.

Mary Gentry

Single Land No 10

65834

912F4

Kuisip $\frac{3}{4}$ mile N. of Road

Road Crisp sand
& small pebbles.

f. 15r

65.84.0

Alt X

$85^{\circ} 45' : A2$

Q14

65.99-

The bushes go as
far as I can see
about 5 miles
to 30 W

A few little dumps
of green here & there

66.24-

Saw 2 ostriches
the plain since
A has been elevated
about 200 ft above level
of Kuisip

66.50

Road starts

(4) Down a sandy bit
66.54 towards the Kauri
about 200m of distance

f. 15v

Road from Kauri
66.62. I kept along the
border of the bush
of then through the
new tree border
they extend for 1.5 km

67-0-0 Still on the border of the K

67.12 Leave the Kauri
Hard sand very much
pebbly like gravel in
size but white

67.40.12 Range of hills 11-6
up 240m road on right
height 215 A

280°

Kump in 1 1/4 mile
to the right

f. 16r

Kump in many at foot
of H. M. A. but broken
are very narrow then
they seem about 1 inch
across

278

305

27² O letter 305 1/2

44 336

Proch
89993

Mr. Bann

69 19 8
64 52 6

106
430

4 X 05 2
430

68 . 125
64 . 82
4 . 43

30 1535
18.

11^h Antares merid Nym-
 35.20 66° 10 50 f. 16v
 39.24 64 21 20

10.48.49
 11.46
 10.50.35
 22.49.20
 11.58.45

Wait 3^h
 1.57^m 11.5 last

look out at 1.56.45.

38° 39' de

$$90 - A + d = 1$$

$$A = 23\frac{1}{2} \quad 90 - 23\frac{1}{2} + d$$

$$= 66\frac{1}{2} + 52 = 118$$

52 Marku

look out Marku 2.1^m

28. 13

£.175

Vega W 58 26

From H. H. above Schep/

f17v

$$14 \div 2^4 \frac{2}{3} \mid \times 13 \neq 1A$$

f.18r

$$\cdot 1 \times 106 = 1B$$

$$\begin{array}{r} 0 \\ 26 \\ \hline 168 \\ 13 \\ \hline 504 \\ 13 \\ \hline 12/539 \end{array} \quad \begin{array}{r} 26 \\ \hline 168 \\ 13 \\ \hline 504 \\ 13 \\ \hline 12/2184 \end{array} \quad \begin{array}{r} 168 \\ 13 \\ \hline 504 \\ 13 \\ \hline 12/2184 \end{array}$$

$$\begin{array}{r} 2184 \times 106 \\ \hline 230925 \\ 101531 \\ \hline 536456 \\ 372263 \\ \hline 1.64193 = 4.38 \end{array}$$

$$\begin{array}{r} 61/1750 \text{ (29 near)} \\ \hline 122 \\ \hline 540 \end{array}$$

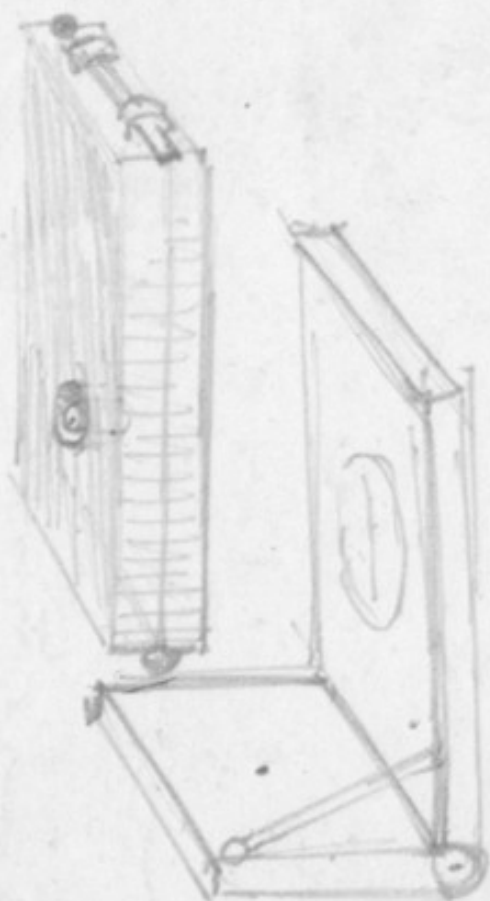


Fig 181

f.19r



f. 19v



Khachapi Khonoch
 (Frederick) Chief
 Literally warrior
 Women's names are always s
 Men is b or p. then Khach
 is the name of Frederick's
 Riding toward Hill X.

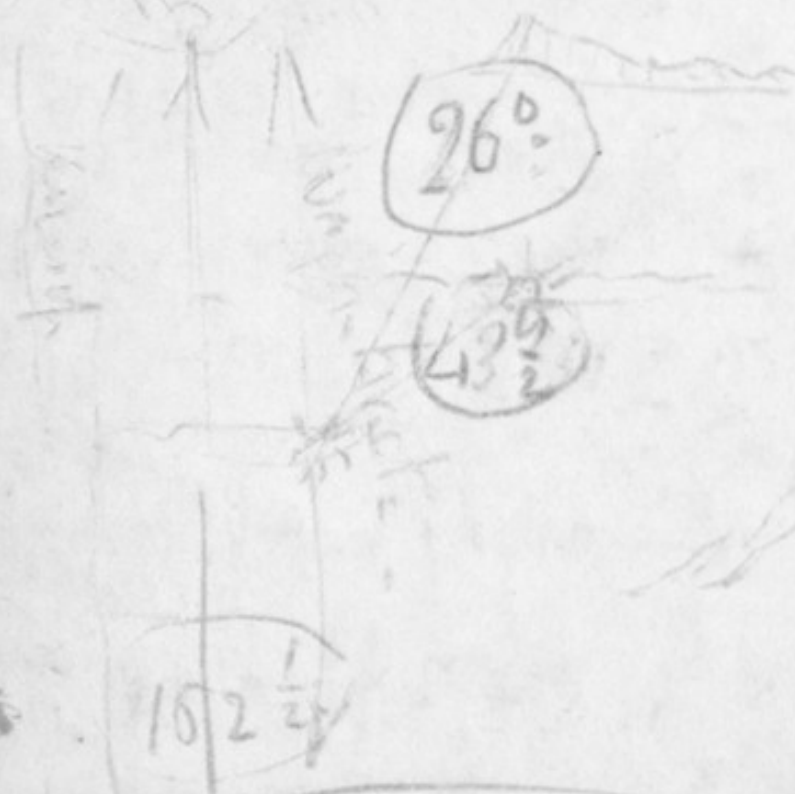


The Hill X
 Desert gravelly ^{desert} small dry at stone
 Lichen growing on the stones red but
 nearer the River all principally
 black. Mark of water courses along
 every side of the Hill clothed with
 shrubs grasses thick piney lower
 part of I saw ~~as~~ trees in area
 The hill is limestone with

great deal of pure marble which
is streaked with black
red. a black ringing rock appears
out between the strata
with broken bits lie down the
Eastern side of every peak so
thick that they cover the ground
& look just like shadow at a
distance. There is a lower
ridge of hills about $1\frac{1}{2}$ miles
south of this & the hill X is the
highest peak of it. The line of
hills is on a very straight line
from Sandy townham to as far
as I can see, certainly 10 miles

hills of the hill. Every thing
 which is in the hill, and many
 in the hill, the hill is in the hill.

to its west all along are the
 hills, to its east white
 hills, blackened sand
 (distance hill, hill, hill)



Thomas, the Xanadu
 the Xanadu
 the Xanadu

Swat bank is Swatbank black
bank when I observe the sand
was black

The Naamip cease to be said
about 20 of hour for Schell^d

Mateera f'aire e hoo'e
what is the name of

Text ditto hami
Horse Snabohe
Boat. Ga
4 wh boat o-

5- Zi

The K of the Kewip is clicked
 Anna is the name of the
 tree that grows to bluish pith,
 about Scheff. the highest
 have seen is 35 ft

From Scheff Sandhill

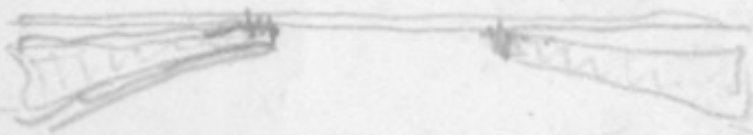
Hill behind Sugh SA N. 15 E

The highest sandhill about
 Schepman is 200 ft high

Saddle Bags 4 ft 8 in long
18 in broad

A.22v

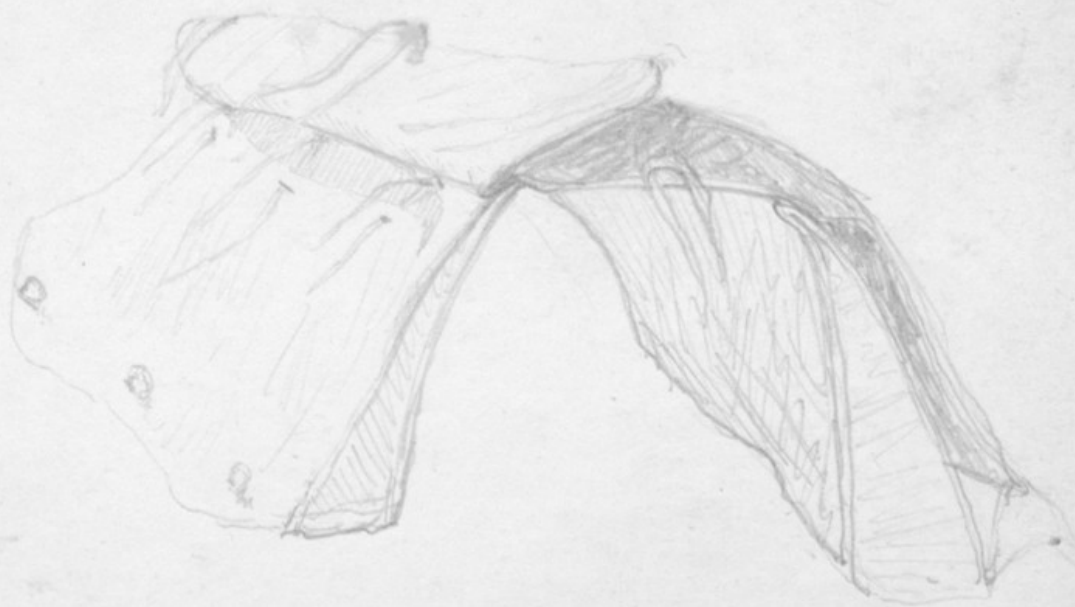
Two bags sewn on to a cover



for loops of reins to it so as to
hang any thing ^{on} to



f.23r



Leaving Scheffmansdorp
 Freeklam.

A23v

69.23.8

109

143

112

$5\frac{1}{4}$

69 67

out of river

70 63

distance to water in River

71 53

back again

$8\frac{2}{3}$

~~129 88~~
~~129 88~~
~~129 88~~

$3\frac{1}{2}$ 43

159

63

96

109

23

146

106.40

promised Mr. Bam

Colonel

Crops

Stewilom

3 awls

1 fish

rice

canoe

gunpowder.

Got from John Steele
 1 Bullocks hide
 1 Sheep that he exchanged
 for an old waistcoat from John

Wounded Chron - Friday
 at $\frac{1}{2}$ past ten in morning
 $2^h - 39^m - 2^s$ flow $\frac{1}{4}$ mean time



Provisions

Shade

p. 24v

Rice. 10 lbs

Coffee. 20

Beans. 50 lbs

Tea. 1 lb

Salt

Pepper

Onions

Coffee Mill

Present to be for over

the guns

Sword

armor

shelter

Choppers

posts & bars.

Knife light

Knives

Tobacco

and

ant
needles
fine
tools

Buckets

3 Saddles & pack
Fishing baskets

Lantern
Bamboo

Instrument

Peas

Oil cloth to lie on

Hammer

Moose skins

f. 25r

Alt. Sandhill $13^{\circ} 40'$

after 100 yds 10°

From Sandhill above Scheff
Extreme left of range 9°
right 18°

Little hill north of Swakop
road & about 5 miles on it } $28\frac{1}{2}$

Swakop road direction of } 29

Middle of Swakop, Saddleback 40

House at Scheff 58

Hill probably here Swakop 66

Canvas bag 2. Peas. 48
 Sugar 48

Canvas bag. 1. { Rice 42
 Coffee 42

Skin Bag 135 about
 2 half pieces of filter
 3 pieces of filter
 Grease

Hair Skin Bag 130
 Bullets
 Molehuns
 2 Bars Lead
 Shot. Powder

Cart	25
Four Kite	27
	33
	15
	100
	50
Acute	120
Bundled gun	85 85
Boat	81 56
Two common guns	27

f.25v

Four Shooting Guns 36

Six pots & two Kettles 110.

Carving bag of Birchbark 53

Kit of Seal Skin 68

Apron 56

Portmanteau 70 2

Bind box 42

Instrument 50

Tools 23

8 1 7

Achte Matchets

Pots.

Apron Head where to go

White Calico

p. 26v

Handkerchiefs blue & red

2 Dusters

Little Canoe Bay

Strike Lights

Knives

Sticks

Tobacco, 8 lbs about

Snuff Boxes

Iron Plates

8 ingot parcels

Matchet & a spear head

Chartam Bay

Pipes Brandy Wicks

Tuesday, Jan, Ret. Scheff. P

299.45

Dec. 2.14

Tues. 2.26 a 272.26

299.45

27.41

These are taken on the plain.

$$\frac{.03}{1} = \frac{.5}{x}$$

Mount Kohala

South peak 30'

$$x = \frac{.5}{.03}$$

Limestone Peak

on probable route

to Pchey Hermannsdorf 226° 30'

Granite Rock by water on
the way to D 265° 30'

North peak of Swakop Hill

72° 30' —

f.27v

Southern right end of S. 89°



Going to pack the young of Schepf!

Thursday

71.77. enter Soak of ^{f28r}
road. at base of the
~~little hill~~ $\frac{3}{4}$ mile ^{high}
from Pehp/ha soon
as we can get
clear of river
Crush gravelly sand.

72 53 Desert the river

189
83
2. 782
73 60 left main wagon
track & went N. 36 E
the direct course is then still
more easterly

75.28. 308. Eddard Hill Xu
one with Eddard rounded at N
with a 1 mile in our road ✓

75.76. Mid Plain

changed course to N 90 E

~~Rock~~ in front - 92'2"

Limbeck Mound 156

Lullerous Hill 255

Track: 75'96

Wagon broke

repaired a mile on, broke
again $\frac{1}{2}$ a mile off.

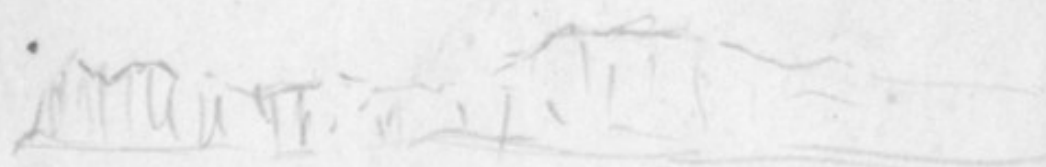
76.44 at starting in morning
we travelled 3 hours after
sunset.

After a mile

76.55

road N 5 E direct to
mountain

P. 29r



Saddleback Mt

about 12 miles
N of the river

32 miles from St Mary

General course looked for 1 1/2
1 mile N, 55° W,

Venus Friday W 20th Feb 29th

9h - 345m

9 - 36 - 40

9 - 37 -

9 - 39 - 40

9 - 40 - 40

95° - 8' - 10"

95° - 44' -

95° - 14' - 10"

96° - 37' - 50"

27 - 16' - 40"

1m 35 - 10

18

53 10

Penon Lundy Eo S 20th Leg.

Vig 2350 . . 44.36.40

(Centre coincident)

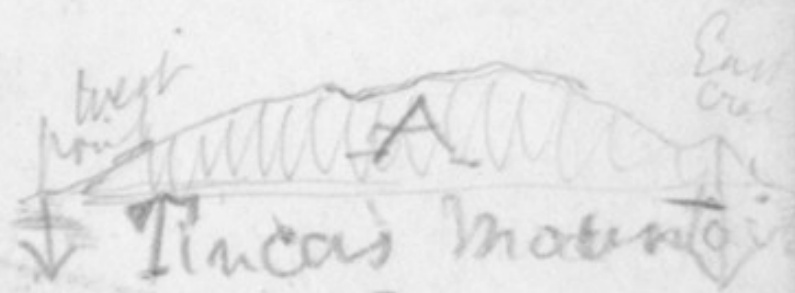
Altair at 8^h 50 55^s
 117° 1^m 30["]

Pavo merid alt(?) 111.103
 at 9^h 5 alt

Antares

Saturday - Started at "SS/E"
 after about 1 1/2 hours went
 over a ridge ^{about} 319° (looking back)
 starting point and from a crag
 200 yards E of road the
 East point of hill beyond
 (?) ~~the~~ the ~~ridge~~
 low 33°. 20' Middle point 34°. 20'

This hill runs nearly N. to our course
 West peak of Saddle back 315°. 5'
 East peak 315. 35.



Road in front 315° for a mile
 Hill A West from 144°
 Hill A East crag 100°. 35' A30. ✓

31r

The halting place was, nearly
the west end of Tineen Mountain
& about 2 miles from it ^{29 miles}
returning both ways.
The outspan place is about
1½ miles from the river;
the descent not nearly so
great as at Ossoh (see on)
but between granite & other
rocks, all much worn & cranny.
The river is grass fringed with
a few rushes & bushes - from
100 to 200 yards wide. We had
been obliged to leave 2 mules
behind from the cart for the

f.31v

could not walk the men were
made them fast so that in the eve
of the evening they got up by themselves.
And when we sent after them were
not to be found. In the morning
the mules & horses that I had
allowed to remain in the river
by Mr. Stewart's advice as they
were tired & as no spoons of beaver
were to be found were gone in the
morning when Tembo & myself
started to go on horseback to
seek the lost beaver. We found to
our dismay the spoons of beaver

Left 21st
Saturday Night (upper limb)

(watch about 50 minute fast)
(long 15th E)

9. 51. 36	—	80. 5. 10
53. 45	—	81
55. 10	—	81 36
56. 40		82 14 30

taken watch 52^m 23¹/₂ fast.

Leaving Annam N 65th E



A32r

Look back
we shot a from 100 yds at
11 having packed the 2 young
over with some difficulty
where And. & myself on horse back
the little chestnut packed, &
under in cart Mr Stewart on an
ox back in the oxen packed
2 also of Mr Stewart
went forward at a round granite
rock where there was a little
bad water at about 11 & stay
the next morning at 7 reach
the outspan place at about 11

f. 33r

The country was extremely
mountainous ahead of
from the outspan place to
the river we went through
a most picturesque gorge
composed of friable rocks quite
undimable in most places
about 100 ft high. single
stems of cactus grew about
them & some vegetation growing
& some trees about the bottom
the declivity was steep and
about 3 miles we must

now descended a considerable distance
in a tree graft & many rushes
were at the bottom of the river. &
a threadlet of running water was
in one place any quantity of water
could be got by scraping the sand
with the hands - look back to page 12

Home cloth

~~bag~~ - Pack team. Gt Coat Cigars

Pistol (Gun) put on coat

Pack saddle - ~~cord for~~

Coat for Anderson

Net trap

Monday 23 4^m 28 44 58.12 —
 O L L west 30 10 54.33 30
 upper Tumb. 31 21 54.1 —
 Makei wtdl 46^m 27^s fast.

Sunset $29^{\circ} 5'$
 makei variation 2°

Latitude 22.48.

After 1¹/₂ hours (Tuesday) came
 in front of head of Tuncas Mory
 which seems about 2 miles off
 after about 3 hours along head
 of ~~river~~ we turned to the left with
 (S. 53 W.) highest peak low

From Annan 4 hours from above
 the Highest peak of Tuncas 243

General course from Querech 283°
Mountain to left of to morrow's road
Highest peak 40°

1½ hour below Anna on the river
by a whitish mountain is Naawas
(or Rhinoceros), right above Tincau M. where
there

Route from Anna.

4 hours to Buffle water & reeds
to . . . Crow water & reeds

4 hours up Swakop to mouth of Jobas
water & grass

4 up Jobas to Jobas. water & reeds

5 4 Over the plain to the flat rock
Grass, no water

5 Mr. Kitchin

2 else from A.

f.35r

5 up between the mountain,
group no water

4 Tobias

~~57~~⁰ 17 L10 Veg

28 38.50

1.50

28 37

61.23

38 39

22:44

latitude 22.44

90

67 16

8 29

58 47

117 34

Antarctica
117 30.30

plus 22.43

4 hours from Armon Highest
peak of Tincus Mountain 24830'

Highest peak of Conical Hill 99°

Outspan place $\frac{1}{2}$ an hour on

Leaving Buffle went along
bed of river N 40 E

the country is of a sudden far
less mountainous ahead

After $1\frac{1}{2}$ hours just above VT
border of river (going up)

we kept on N 50 E
N 80 E F. 35 ✓

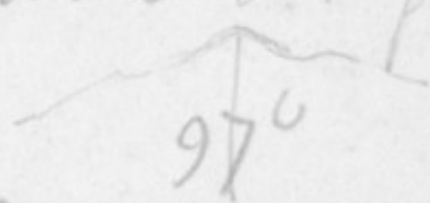
A mountain ahead
 from outspan place $49\frac{1}{2}$



The edge of a mountain wh.
 I think is Tenca Mountain
 just appears the bearing of
 its top would be about 248° (very
 nearly)

after $\frac{1}{2}$ an hour turned out of line
 to our left

97°
 104°



97° 104°

We picked up 4 Damaras who
 agreed to go with us to the moun-
 -tain. It joined us forthwith. It
 was hot today, Anderson had
 yesterday giddings, rather badly
 from the Sun. We guessed the
 Thermometer to be about 85° in the
 Shade & 105° in the Sun. But when
 the cart came up we tried it &
 found it 95° in Shade & 143° in Sun
 at 3 o'clock. The mules cannot
 work in the Sun.

Left at mouth of Chobos

From Mouth of Choban to
 Choban I could make nothing
 the road wound so much
 through rocks that on looking
 back I fancy we have come
 SE the journey was 5 hours
^{up} ~~through~~ a killing road for
 mules so sandy & such a steep
 hill. I shot on the way my
 first giraffe. We took a good
 deal of the flesh with us & got
 many of ostrich eggs in exchange
 for part of it.

A37v



Mammalia *Sci* *Sci* *Sci* *Sci*

(28 degrees of Celsius)

All the Samaras about appear
to have gone down to finish
off the carcass. The Hack
thorn & the Sweet Gum these
begin to grow about here the
former, ^{tree} look reddish &
the latter has a whitish stem
we staid from Saturday night
till Monday afternoon at
Chobas the water is not good
Zebra appear to abound here

To make Soap

A38v

Burn the bark & collect the
ash & boil it for 5 or 10 minutes
in water, let it settle or strain
mix this & fat & boil it till the
the ley is sucked up then add more
& keep on feeding it in this way
about every half hour... No need
of keeping up the fire all night
but in the morning clean the
half made soap by slicing it
& knocking out any thing that may
stick & clearing the pot. It takes
about 8 days... When the ley
remains of the same color

that it is put in the trap is
made. If not hard enough
add some salt (at the last)

An iron pot will do but
one of the native earthen pots
would be better.

Monday 147 in Sun
100 in Shade.

Half a goat skin bag of goat
ash will make an iron pot
full of soap.

Monday

Kept (S 65 E) on the left
side of the Chobai the
Naamib plain is covered with
bush & vegetation now
quite dry it is the first
time I have seen the plain
since our 2nd halting place
on the Swakop. The hills
are detached in front but
behind the mountains
country continues in every
direction.

f.49

After an hour changed
gradually to N 70 E

Started palm ^{no also} begin
the real route ~~appears~~
~~to have~~ has been E. 5 N.
up to night fall.
went 4 hours

Turning around
from E to S E

Kurukop the river 2 hours
from M. Ratha
On the same ~~as~~ the one done
by. Otchimbinque is the

Samara name for Mr. Ralli

F.4a

Abraham to make

Wkes & Keys

Chair

Table

Shoe

Build House

Pack Saddles

Felt Scones

Buxy Soaps

Candles

Gum Collect -

Goat Skins

Pack Beams

Saddlebags

Corps

Lev. Boots

f.41r

Clean Guns.

Milch Cows

Brail Skins

One Brown Red Goat

One Black & White prebald

1 White Chestnut mane

1 Chestnut grey with white face

1 Black white spots

1 Sappled red black & white

1 white a few chestnut & black
marks more about head

1 Black white left flank

1 Black one small white triangle
on left side

1 white black spots

28 Sheets.

50 Oxen	50.
<u>15</u>	<u>10</u>
250	50. 60
<u>50</u>	<u>30</u>
750	<u>180</u>
<u>375</u>	10
1125	
<u>75</u>	
2200	
60	

f.41v

also 8 shuk

Sabretash
 Bullet
 Trace Powder Flask
 Caps
 Coffee
 Sugar
 Salt
 Pepper
 Pumpkin
 Pot
 Little Saucepan

~~Hug. Therschap~~
 Shirt
 Waistcoat
 Soap
 Bedding
~~Meat fork~~
 Tinder Box
 Knives
 Tobacco
 Janitor
 Books
 Paltfort

Yes ~~ye~~ ee

No inde

Come Sindjyo. Outuka

Go away tha-ko

wait { cara heshi
(sit) on the ground

Kurama katite

What do you want in exchange { a little

me randa chee kay

me randa cel

I have not got it { am i shi naa tho
not with them

Bring me Boot by chua po

I want Sho sha
more it
is too little

I will give } Mè sho sho.
more }

p.42v

Come with me } Choendi humonà ha

Tobacco } Omakaisen
Iron } Otjidenda

Afegai head } Engak
one } many Omanga

Thick wire } Otjidenda } chomaram
} } tjothomba be

I cannot } ami shi na Kondoo ba oie
(understand you) } with hearing you

Where is water } oméva eripi

Bring here. etan goonu

Light a fire. } ga kisa omuriro
} make burn fire

Bring coal } et ekarra
for a pipe }

f.43r

What { et ena
do you { Enem mamoo rooka
call this { you ~~will~~ call Ro

Which of { ontzira e re he
the way { way it is where

one goat onkompo
goats othonkompo

sheep ontoo
many othon too

of onkombe
pl othonkombe

I will { me kupa
give you { you give
something } or me po ve

gum epea / pl omapea A43v

Ivory Eyo rontyoo
honey tooth of elephant
— otyee

Pig nuts othorseyyoo

Milk hutoma esee
sour omaere

Gum ontjiembo

Chopper ekooa
pl omakooa

Tinder onya
Borer pl oddiya

Knife orovees
pl otuuei

Lion onkayama

Wraft ombathe

Zebra ongoro

Genobok ontoono

FL445

Rhinoceros ongaro

Hippopot { ondo-roo
ongandoo

Chief mooshona
to reign

Powder of seed
{ omoriro
(tree)

Lead { otjidenda tiidoshanga
iron of balls

Tin plate { otoungoo

Shade { omorira shade

Where is { Echo ~~the~~ re pee
grape } grape is where

... here ... ~~here~~ ~~Perimono~~ f.44v

do not want it. Shi dtha dtha ^{not} ^{want} ^{will}

Sleep sub La ra

here mono uno imba

there (near) darangoene

How many ~~Erangoena~~ there far

Day 5 ~~En kapee~~
M ~~Gura~~

Meat ~~omayura~~
onyama.

Cocoa nut. Erungos

where? ~~see~~

Bring pt rongoone

in wood bring fire

you are stupid mayra

Ward the ~~xy~~ ka rise othomkang
to feed

to shan in da re ra

Afterwards kombovinda

~~Kara~~
~~look for~~ ~~Kara~~ Kapate
look for ~~Kara~~

look for dead the ondambo

the spoon follow the spoon

the tree ~~common~~ ~~out~~

leaving the Kalthi like, omoroko

N 75 E (or prop. 80 E)

travelled 2 1/2 hours Swakop

led begins to be strong &

narrow.

In morning S 55 E & 4 1/2 hrs

after get to junction. In track

from the road was about

open country.

p. 45r

f.45v

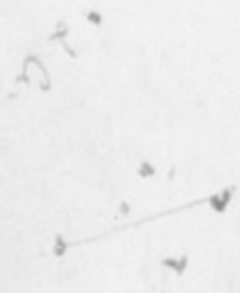
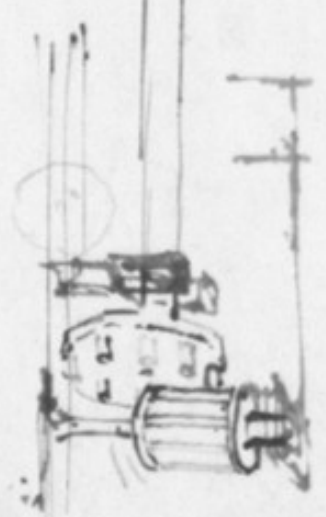
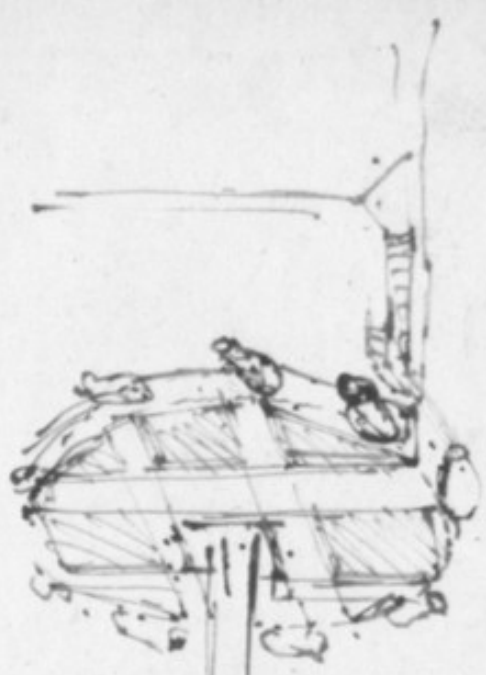
2½ hours or packed off
to sleep.

In morning rode on the whole
of hour at about 3 mile an
hour to Mr. Hahn's.

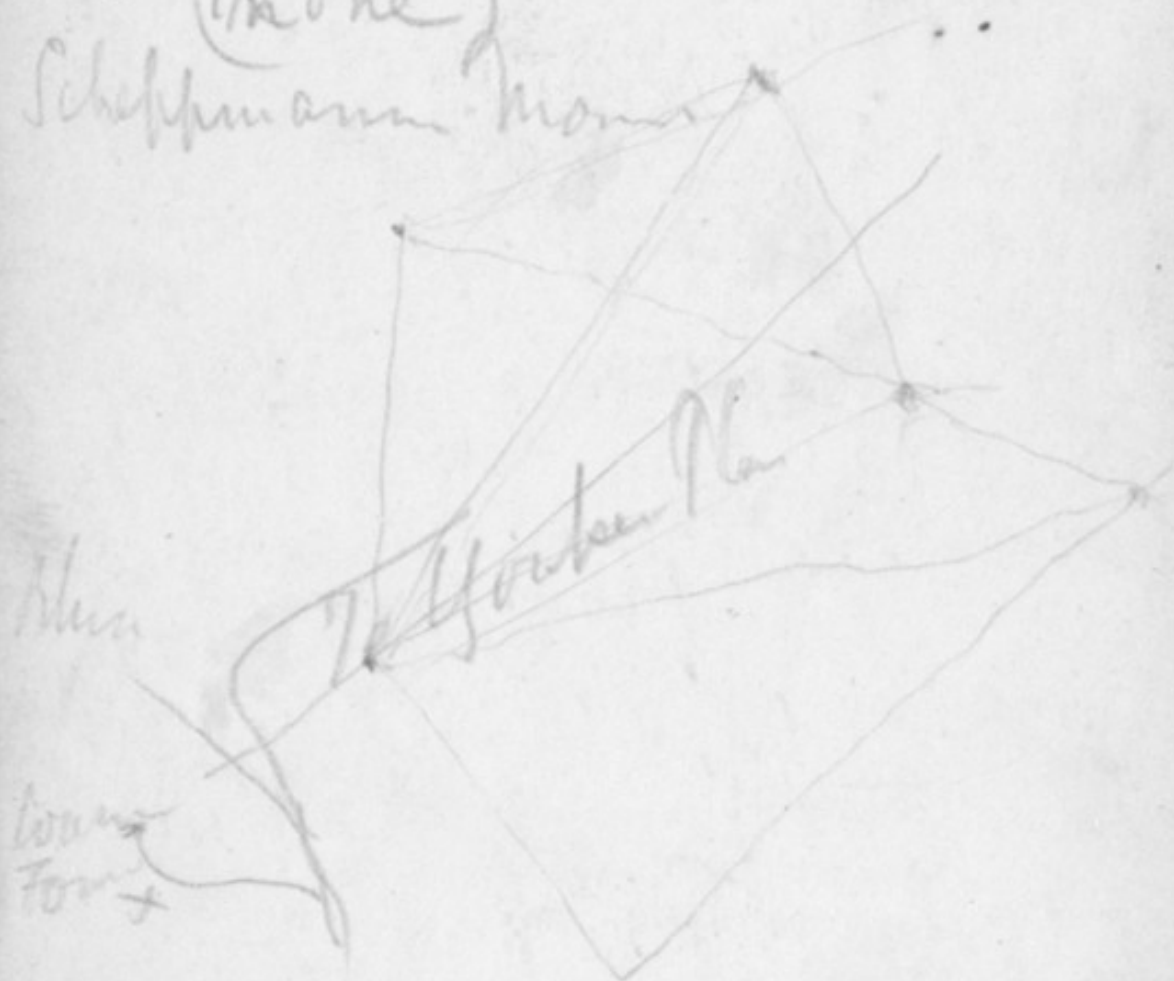
Sunday Oct 6. Consulted about Yonker.
Saw a woman with both her feet cut
off at the ankle joint.

Oct 7. Wrote a letter to Yonker. I also
took down notes from Mr. Hahn concerning
Yonker's history. Cut off a piece from
my Sider down quilt to make a turban
with Mr. Kolbe kindly sewed up.

f46r



(N. 84 W) from the Halm
↓ ↓ ↓
Lieber Mountain
(one)
Scheppman Mountain



f46v

Tinkhar many legs f47r

Tink - leg
A'ahou red bank
Housap. a'ap. a hole.

Tavief a high place
Naavap hiding place
a Rhinoceros

Toubas } ather
not Toubas }

Onanias (narrow ravine)

Oa'kap Namay } Berg Saman
Erongo Saman } Mountain

Leaving W. Hahn

p. 47r

After 3 miles river to left

3 mile river again
crossed it diagonal

3 1/4 met. it again

running S. 80° W. went
down it for a mile
crossing it the thing

thickly with thorn trees

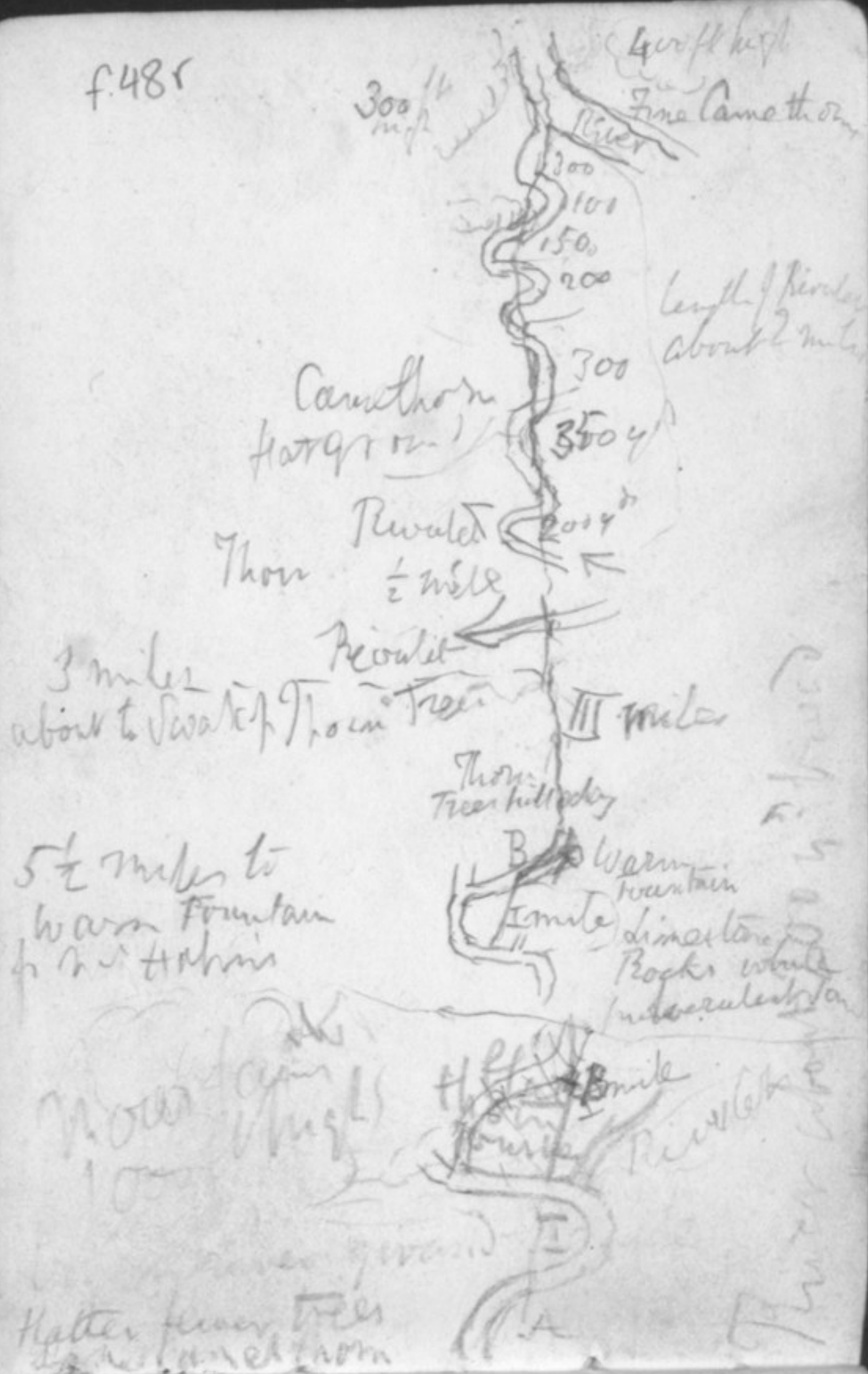
thick

thick

thick

thick

f.48r



f.48v

Leavenworth
Fountain

27 miles

5 miles

Chon Tundra

Schubert

to left of Schubert

gauge 254

13 miles

from W. Hahn

3 miles

Staked

Schubert

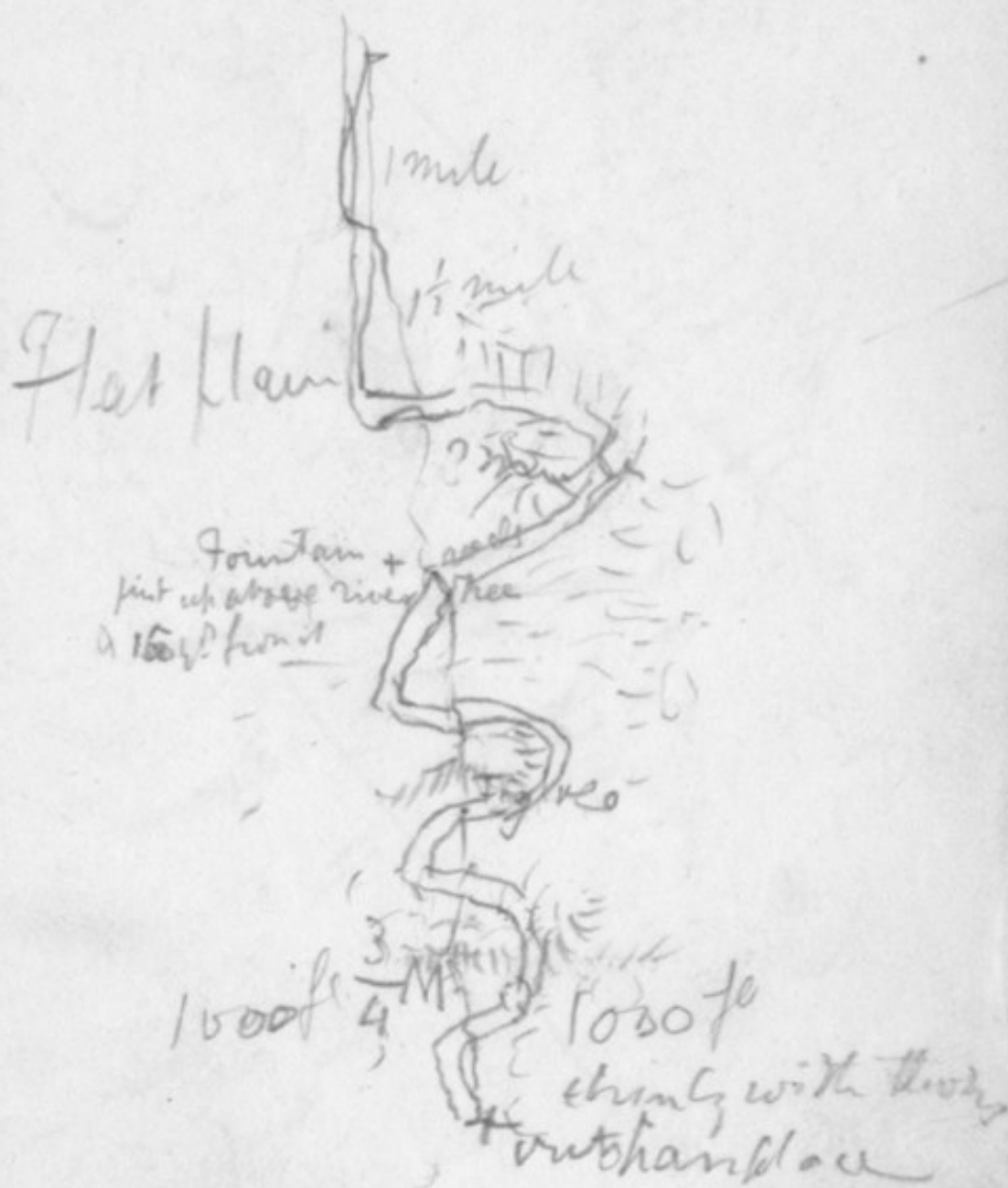
20 miles

20 miles

20 miles

100

f. 49x



The bearing of mountain that I thought like
 Schep M is N. 85 E

S 45 E

f. 49v.

I engaged with ~~House~~ to take charge of my cattle
and waggons & to help in every way in the same at the
rate of £41 ~~Four~~ ~~pounds~~ a month to begin from the
3^d of October. (It is understood that the present
agreement is to last some ~~time~~ about 5 months)
The payment to be made by check upon Cape Town.
but if possible I will my best to make part payment in cash.
~~R. Hutton~~

A 505

John Longman will have been with me 3 months & a half
at the rate of £1.10 a month. { I advanced him £2
and will therefore have earned £4.10 } so that he will have £2.10⁰⁰
£ him His wife receives £5 a month out of his pay.

A will therefore have received 2.5.

3 months	£5.5
advanced	2
wife	2 12.6
	13.6
4 months on wtd	3
	2. 6. 6.

Has left with John the Amer
 Thirteen Sheep & Four Goats

I slaughtered seven sheep & two goats while at
 Mr. Nathan's took with me ^{the Barnmen} twenty ~~one~~ in all viz.
 11 Sheep 10 Goats

751r

2
3

229
180

185

f.51v

15 x 25 x 16.50

f.52r

Saturday Ev^s Oct. 19th 1850

f52r

Alt of lower limb of $\odot$	$\odot$	43 ^m	54	86° 15'
2 ^m 22' - 1° 9'		46	26	85° 6'
1 ^m 9' - .31'		47	35	84 35
1. 21 . 38		48	56	83 56 50"
1 56 . 52 20		50	52	83 4 30"
1. 14 35.		52	6	82 29 30'
		6) 289 . 49		25 26 50
	XI.	48	18	84 14 28
				42 7 14
				57
				42. 6. 27"
				16 5
				42. 22. 32
				79. 59.
				22
				144. 21 32
				S. 72. 10. 46
				D. 29. 48. 14

$\odot$ S.D. 16.5"
 ref. - 14^m 50"
 decl. 19° 51' about
 S.P.D. 79.59.
 Lat 22° about.

60 13
 9 28
 50 45

.03283
 .00667
 4.48573
 4.69638
 9.22161
 9.22146 3.12.40
 15 .2

3.12.42
 14.56
 14.57 46
 11.45.18
 3.9.28 to show.

Let the watch accordingly.
 Alt of lower Limb. TVⁿ

Evening Oct 21st. Observation of Sami Lower
Limb

#52v

Time by Watch III	40 26	63° 33' 30"
—	41 59	63 — —
	43 11½	62 . 26 . 20
	44 14	61 . 57 40
	45 43½	61 . 26 —

Ch:

2^m 28^s slow

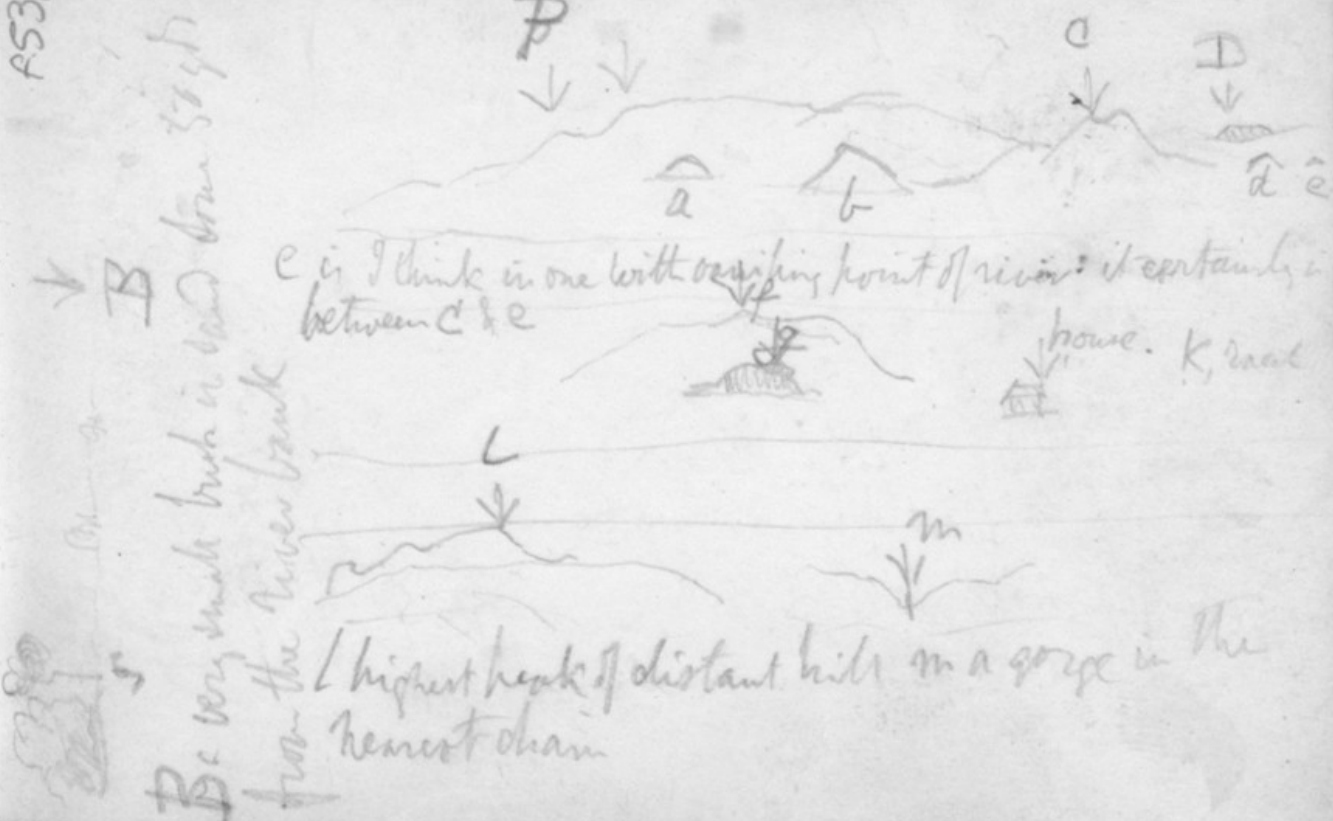
Disappearance of Star behind
distant hill Tuesday Night from
east hole of table m^s 2^{beat}
Centauri — 8^h 15^m 56^s — 2

Watch at same time for appearance of
Star in SE

Pile of stones on flat hill about
1/8 the distance from South End nearly
above a green tree but to its south.
& between two red thorn bushes

 & in line with South
tree near Krab (S)

AS3r



f53v



Line of flat hills 212° about
 from the front West of Swakop about
 6 miles or so, 282° but which side of range of hills q et q on
 I cannot tell I think the north.

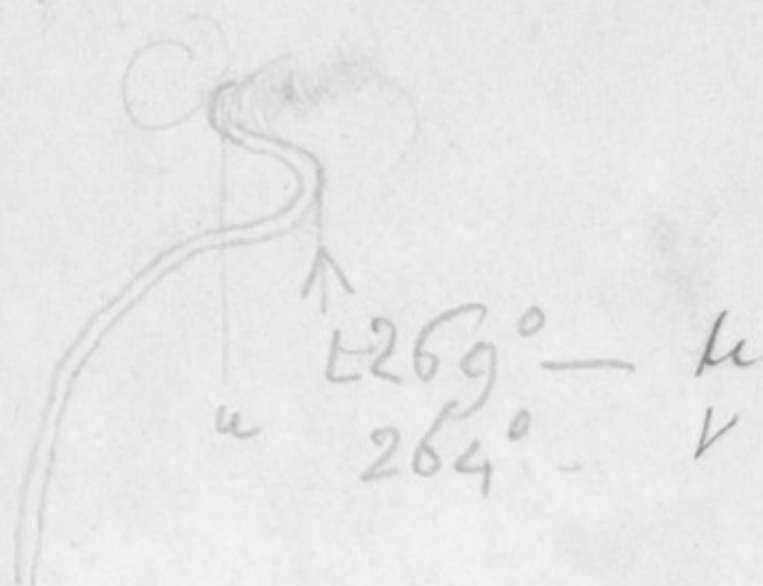
P, 92°50' | a, 96° 6' 100 | c 105°15' | d 108°20' | D 108°10'
e 109°45' | g 119°20' | f 120°10' | h, 130°30' | kg 140°15'
L 138°55' | m 158°20' | n 174°5' | o, 228°30' | p 246°15'
q, 280°30' | r 302°30' | S, 343°

The underlined are on the Edest of the Swakop
 the two piles of rock between here & the Kriat are not
 down. the nearest appear just $\frac{1}{2}$ way to the Northwest

6° 47' angular dist between S & B

f54r

f54v



Between 1 & second tree on the
bank (not the one we cut
5, 9 - but the next

$8 \times 66^{\text{th}} + 19^{\text{th}}$
length of base B.S.

$108^{\circ} 20'$ $\angle$ Centre, S, B,

Black Thorn tree in one with bush.
from tree S. $20^{\circ} 36'$ f55r

L: BST

196 Aftt yard.

202 32 32 32 28
199: 264 256 202 38
19

Bearing of B from S 212°

SQB $5^{\circ} 18'$

Bearing from Q

P. $87^{\circ} 15'$

~~84~~

~~86~~ $86^{\circ} 30'$ b

$87^{\circ} 30'$ a

92 35° c

96 30° d

$98^{\circ} 20'$ e

$105^{\circ} 45'$ g

113° f

$352^{\circ} 20'$ h

$345^{\circ} 10'$ S

$332^{\circ} 50'$ Pile on Flap

$283^{\circ} 20'$ q

$310^{\circ} 20'$ r

$340^{\circ} 50'$ s

Flat Rock

f.55✓

House

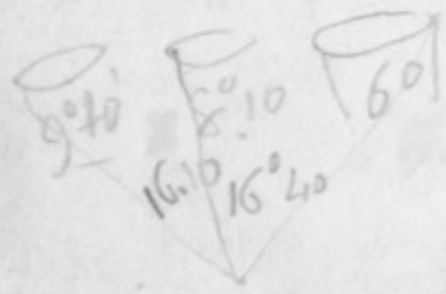
O
X 80
345°30'

ck

The Files of Wick

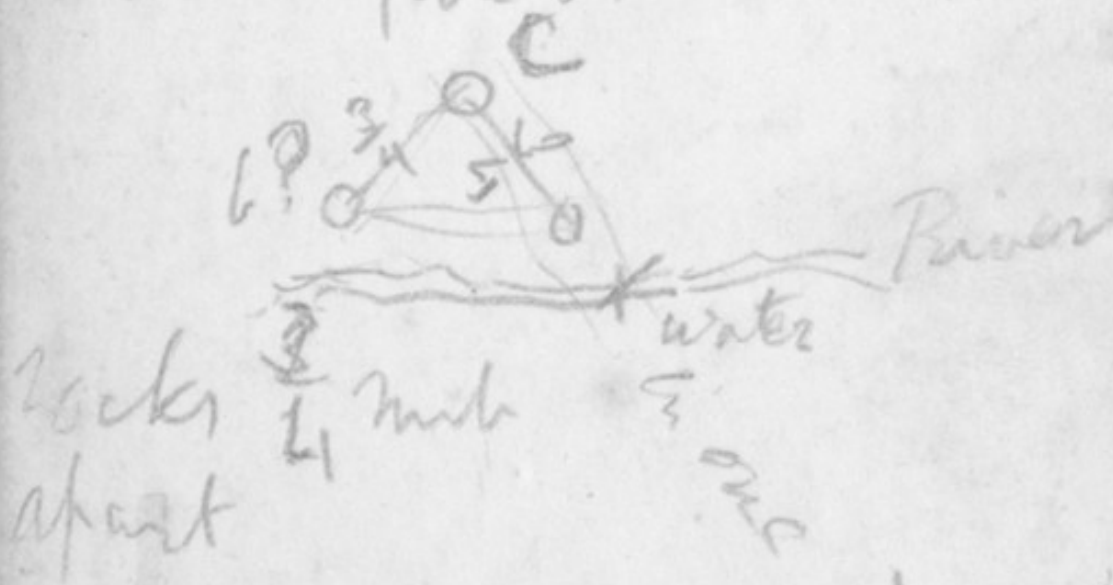
V 325°
S 336° 15'
E 334° 10'
355° 50. present House

9¹⁰₂



7 turns of iron wire
 $\frac{1}{2}$ a span between loose ends

The 3 rocks form a rt L^y
 & dist^y Δ the river runs
 $\frac{1}{2}$ mile from the base of the



It is found 3 hours from the
 D. in the hill part above
 the river. The mountain is 12 ft

South meet the river $\frac{1}{2}$ an hour
beyond (b-2) (last page)

From Outspan Place $67^{\circ} 30' P$
 $248^{\circ} - ' f$

Course of river 105° looking up.

In 40 minutes we come fairly
along the hill & in 20 minutes
more cross the river it has
made a great bend we meet it



55 minutes from sleeping place
to Fig Tree

f. 56v

1st 10th on t.

f. 57r

In last 20 minutes Schep/Th
has borne 71°-45'

Cooking sabretard



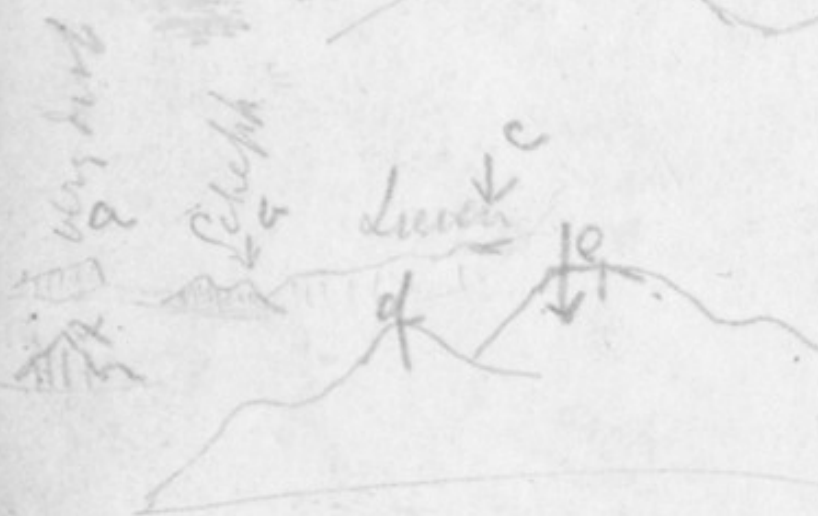
We slept on the hill side $\frac{3}{4}$ mile
from the river where we kept the
open fire to drink. We had travelled
on the whole 5 hours to day. A heavy
thunder shower passed near us. We
met Daniel to day on the road
to Mr. Roths - Fr. day travel
5 hours to the fountain & off pack

From the Fountain

f.57

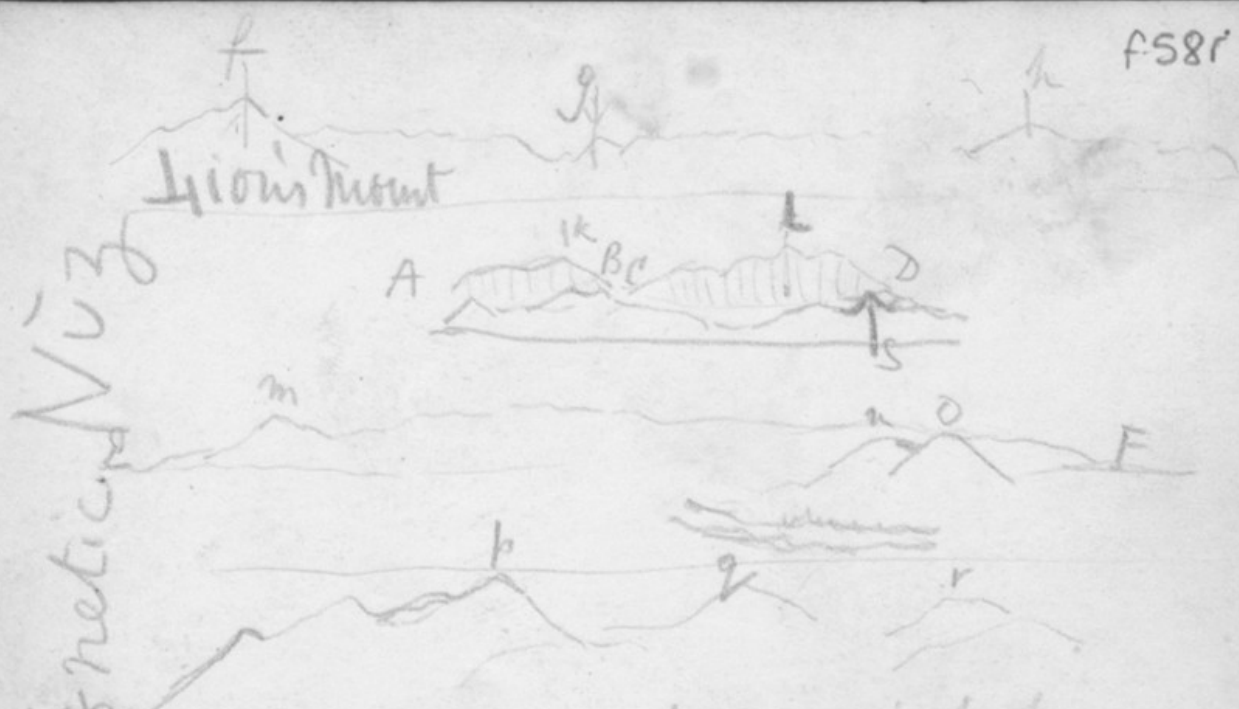
101°15' 102°30' 105°50' 110°15'

the top of hill ↓ 90°



α 264.10	h 98°30'	AB 1°
a 264.15	k 79.15	CD 4°
b 268.25	L 83°	EF
c 272.30	m 95°30'	
d 274.50	n 146.30	15.85-0.50'
e 282.40	o 149°	
f 352	p 167°	
g 3.45'	q 173°	
	r 164.20 178°30'	

f58r



Frnetic Nuz

p q r are equally high to the highest
Same name for l. o. by lion's mountain

Occultation Nov 14th Long 7

12 42	14.20	f.58
1 8	1 8	
13.50	15.28	
30	30	

1^h 20^m 3^s —
apparent time.

Times by watch

VI 19.10.	113.35	}
20.52.	114.15.30	
22.4	114.46.	

Alt of moons upper limb.

VI 20.42	mean	14.36.30
		114.52.10

Comparison with chron

Watch VI 36.	—	VI 36.30
Chron VI 47.56		VI 48.24

Mr. H. 26 48

VI 28 10

117° 10'

Very probable bearing of Youken
Place 164° from tent

Warm Fountain (close by) 142° 30'
top of hill whence I observed in page
last but one. 295°

f.53v

Alto Sun ^{lower} ~~upper~~ limb
 Sunday Morning ^{Nov^r 17th} Barman watch

IX ^h 42 ^m 10 ^s	115° 7'
43 ^m 25 ^s	115° 32' 30"
44. 5 ^s	115° 53'

Comparison with Chron
 watch

IX ^h 51.30	IX ^h Chron 3 ^m 29 ^s $\frac{1}{2}$
52 -	IX ^h 4 - $\frac{1}{2}$

Evening @ lower limb

III ^h	50 ^m 2 ^s	42° 11' -
	51 ^m 15 ^s	42° 34' 40
III	52 ^m 13 ^s	41. 10. 30
III	54 ^m 10 ^s	40 16 30
III	55 4 ^s	69 57 30
II	55-58	69 25 30

Sunrise Monday 18th Nov^r
 First appearance. 137° 40'

Centre 137. 37

Bottom 137. 28

137. 35

137 30

Makes Var: 137. 20

26.° 49' W. 137. 28

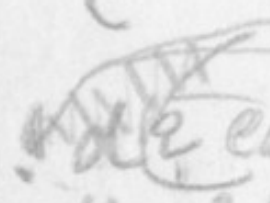
Warm T

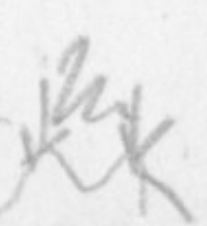
f60v

(Real bearing $278^{\circ} 30'$ v. near)
Probable bearing of Oymingen
from top of hill 278°

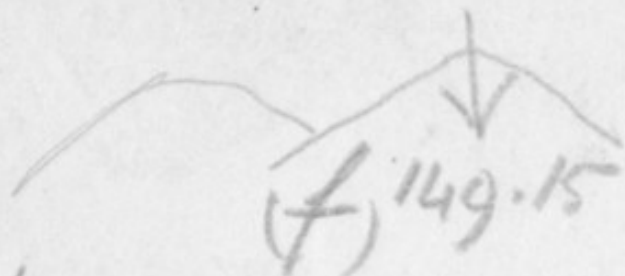
Extreme south of river (opposite
Warm Fountain) 260°

 Conical Hill $264, 36$

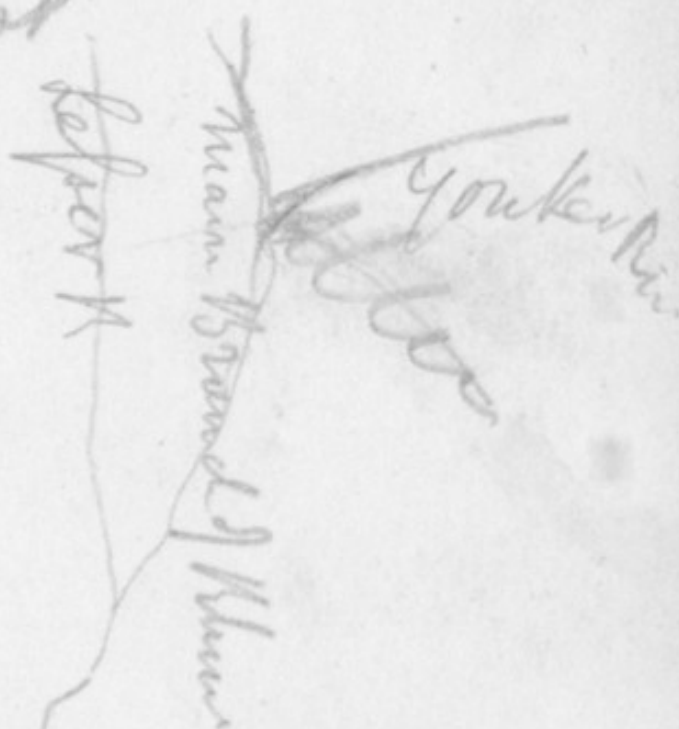
 Edge of Mt Lieven round
which the Rhine runs. $269^{\circ} 35'$
Edge of another hill 269

Scheffman  $268^{\circ} 50'$
 $268^{\circ} 30'$

Probab bearing of $165^{\circ} 50'$
Yonkers Place Concordiaville.



f. peak of westernmost hill
near Cattle post



Angular Fountain, as good as in
the River
 $160^{\circ} 45'$

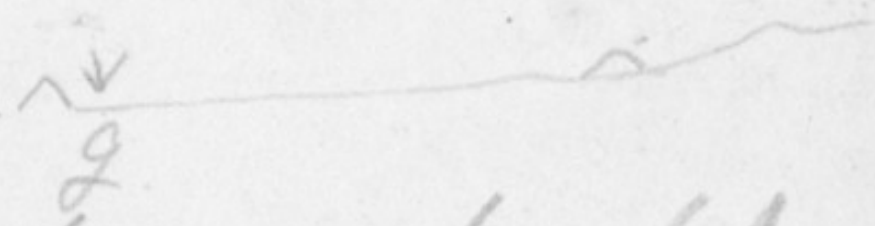
f. 61r

Blaring of Schmelens Hope 079° -

Extreme ^{North} left of chain between
here & it $076^{\circ}20$

Extreme south 086°

Line of hills of which there is one
runs very regularly 086° .



g. 86° ~~The~~ river a branch of
the Rhine runs along g & there
is a fountain it runs thence
in a straight line here & joins
the Rhine between here & Schmelens
Hope - another ^{River} between ~~D~~E

the Rhine itself comes from
 a little above the horizon $50^{\circ} 40'$
 about a days journey off to
 that it must make a great bend

the blue hills E is Schabedun



Hoppe Hill, h is just above
 Schabedun, Hoppe itself D is
 more distant (neither are Lion
 Mountain (I had made a mistake)
 & 4 pages ago is Lion's Head
 L. K. 1 $2^{\circ} 35'$

is not 35%

23	width
26	1/3
49	f62

337° probable bearing according
to a Samara of Onarum.

He adds that

Erogs

Onarum

Mr Lieven

Hill
(Station)

Erogs bears in the same direction
from Onarum that Mr Lieven
does from here. —

Probable bearing of Rehoboth according
to Samara 194° 45' } 196 30
to Mr Hahn 199° 45' }

The trampanters live at least 3 days
from here (up-streams).

Goodwin Hills

f63r

↓^{2h} ↓ⁿ v ↓^o ↓^p



mn	2° 49' .30"	12.37
mn	3° 28' .36	13.37
ov	1° 3' .30"	26
on	1. 34' —	38.37 1/2
om	3° .5' —	12.37
po	— 40' —	

Alt lower limb Even Nov 18th —

T ^h 15 ^m 14	Watch	32° 48'
" 16 ^m 45		32.9.
" 17 37		31, 44, 30

Comparison with chron

Watch T 23 ^m 30	Chron	TV 35 7 ^s
24 -		36 37

Thermometer 90°

Barnum

f63v

Filtered Rain water (not drippings)
boiled at

203° 5' 5"

204° 5'

204° 3'

204° 2'

203° $\frac{3}{4}$ 1'

204° 2'

203° $\frac{3}{4}$

203° $\frac{3}{4}$

10 u a row

180 u a tide

203. 4657

104

26

4527

1112

3. 65868

. 04610

3. 70478

5067. f63v

30 u

Lower Limit Tuesday, Nov 3 Watch
V 25 23⁰ 35⁰ 34

27⁰ 56⁰ } ~~Ag 147⁰ 50'~~
34⁰ 25

31⁰ 3⁰ } ~~Ag 148 10'~~
53 2 30 } ~~Ag 148 90~~ } from
36^{2.5} 55 } } ~~Chambers~~

4. 282

Lower Limit Tuesday, Nov

V 38 22⁰ } Ag 281, 10
alt. 29⁰ 45' 20"

Watch VI 24^m -^s Chron V, 20^m 3⁰
24 56^s V 21^m -^s

f.64r

Thursday Nov 21st 1880

Thermometer in shade 9³⁰ F

~~195⁰~~ 200⁰ $\frac{3}{4}$

f644

203³/₄ 204¹/₈ 204 204 203³/₄

203¹/₄ 203³/₄ 204¹/₈ 203¹/₄ 203³/₄

204 Mean 203⁰.75 & river alt about

30⁰ 5238 ft

From Swartbank 1 ride of day
in same direction ~~to Swartbank~~
and then East for 2 day ride &
then a place Hudson^{sup} ~~Swartbank~~
river - then ^(sandy way) ~~no clicks~~ to north by road
till it come near to Louker,
about 1¹/₂ day from.

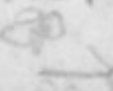
In Behoboth & Tineas 4 days
to river & 1 to Tweekop opposite the

Tans is about 15 miles south of
 river & is also the table land
 it is near there that they find
 the horses. No name known
 Tans in to Hudson 3 days on the
 of waggon.

Rich both 3 days

side of from Tans in to Hudson

Bearing of Barren to Warm Town
 from W. Ton. $3\frac{1}{2}$ mile to the water 060°
 3 mile to the river
 3 mile to Swamp

200 altogether from W. 71 $15-17$ mile
 top of Corned Hill bears 192° from water
 Highest Peak of 
 Corned Hill

465r

~~Stage~~ Kumbake about a
fara. Barren for here.

Schmeleu's hole

Omboudoudooi water crow.

Katjiamakombe. wells.

Stupanga. - a natural well.

Okokug

Okasongorongpanga natural well.
(then will not grab.)

Okat'aurua. crow water

Okamiamambo. a fountain, grab

(Ondekaramba. sometimes running
sometimes stagnant)
on a river

Okaromate. running water much.
Ja Ja

Kavitumbika.

Hjize a fountain

Ondambojakature (the well of Kature).
from there to large water holes.

Orombuta. wells.

Oromibonde. -

Mozu

Omapuker. a fountain.

Katurumba. a fountain.

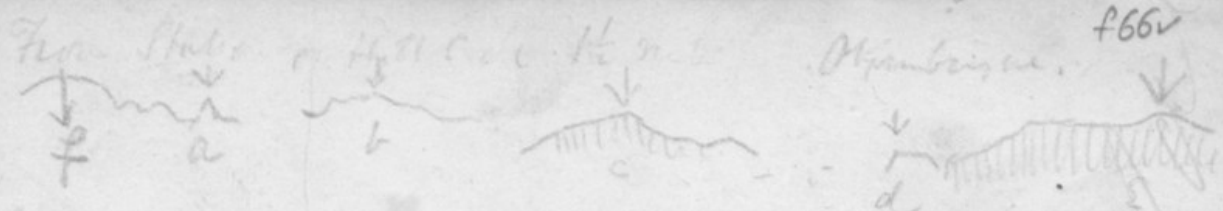
then sleep in flat & next day come
to Oromibonde.

Bearings from Otumbrigue

Peak of paired rock	139° 45'
" round rock	119° 30'
" Mount Laven	93° 45'
edge of round which river runs	103° 30'
first part of road to Congo	353° 30'
Probable bearing of Congo	-0° 30'

From Otumbrigue to foot of hills 2^h 45^m - through
 rocky & thorny despite gained highest ground
 in 4^h from starting) in an hour more a river
 crossing as, came to a 2^d river to a dam on
 next morning 2 hours to a station
 where there were 7 shut-wells about 18 ft
 18 deep, whose bearings are given next page

From the high place to the water



d. 6. m. over Humber.

d 358° - 10'

e 1° -

c 344° 45'

b 335° -

a 324° - 30'

f 323° - 10'

near Hill

the rock d is on the direct road to ...

From 2004 P (127°) from deep ...

h	30'	h	930
d	24° - 20'	h	1127°
g	18° - 15'	h	135°

Never come ...

About 2 miles from Gable Mountain & 9 after 2^h 30^m
S, Sugar loaf hill, E Erongo from wells.

~~E 338~~, g. $57^{\circ}30'$ S $98^{\circ}45'$
E 339.15 H.M. from 261⁰⁶ 169.

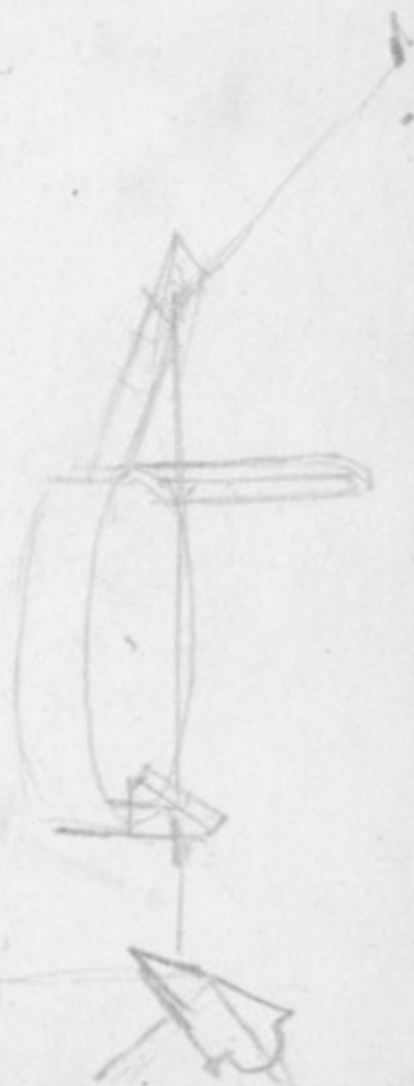
Whole reach of Erongo including both hills from $337^{\circ}30' \pm 13^{\circ}$
East peak of hill the side Caerin $331^{\circ}20'$. West 331°
In three hours to Capetown coast.

f-67v

$$\begin{array}{r}
 313 \\
 582 \\
 \hline
 1369 \\
 123 \\
 50 \\
 \hline
 8150
 \end{array}$$

$$\begin{array}{r}
 14/6150 | 440 \\
 56 \\
 \hline
 55 \\
 55 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 258 \\
 120 \\
 \hline
 5760 \\
 50 \\
 \hline
 10160
 \end{array}$$



f. 68r



Sheep's Head

Salt

I am hungry

Tongue

Eye

Blood

Glchoo oo

f. 68v

omont

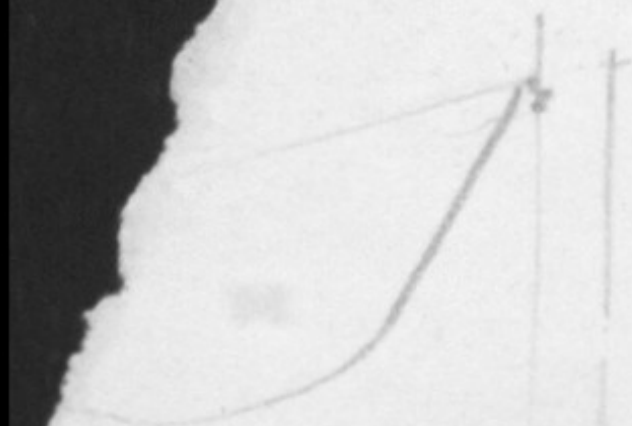
bakoka

erak

ome to

Ominto

f.69v



2 P.

Miles for

14	$\frac{1}{2}$
28	1 $\frac{1}{2}$
44	1 $\frac{1}{2}$
59	2
74	2 $\frac{1}{2}$
87	3
102	3 $\frac{1}{2}$
112	4

2 P.

Miles

2 P.

Miles

1	3 $\frac{3}{4}$	7	26 $\frac{1}{4}$
2	4 $\frac{1}{2}$	8	30 $\frac{3}{4}$
3	11 $\frac{1}{4}$	9	33 $\frac{1}{4}$
4	15	10	37 $\frac{1}{2}$
5	18 $\frac{3}{4}$	11	41
6	22 $\frac{1}{2}$	12	45

ftov

Index error 4' to be subtracted

9 48^m 50^s 50^s 50^s

alt of star west of South Pole

20 20 70⁰ 48¹ / 1000

23 45 - 72⁰ . 11

28 15 51⁰ 48

Beaufort according to native
from Cape Mearns to Anaktuvuk 23⁰

Om 66 45⁰

Medley of snow 330 & 10 ft

6 lbs rice
4 lbs coffee
2 lbs sugar

To determine the
length of bridge
A

Colquhoun

Bearing of the point to top of hill $29^{\circ}40'$

Dr. Lapell

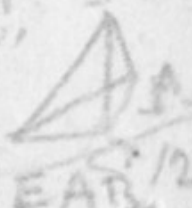
BC $98^{\circ}24'$

the angle

For height from

ABC $113^{\circ}10'30''$

ECB $66^{\circ}26'$



SA $330^{\circ}30'$

SB 36°

SA $330^{\circ}30'$

SB 45°

SA 2°

A71v

Gully mountain W peak
d. from west 156° 10'
hours from Erongo;

Erongo W peak 333°

Gorge in mountain 337° 25'

E Peak 17

Erongo runs from the northward of west to
the southward of east

Old fountain 7 hours from Erongo 355° -
wells.



Aug 10
35 25
45 26

Ottimbrinquin te
II) Omabandi

Rehabell



90976

$12\frac{1}{3}$ rev in 24 minutes
is 1 mile an hour



$$\begin{array}{r} 9.946 \\ 1.778 \\ \hline 1.724 \end{array}$$

$$\begin{array}{r} 9.808 \\ 1.778 \\ \hline 1.586 \end{array}$$

$$\begin{array}{r} 53. > 22^\circ \\ 38 \\ \hline 15 \end{array}$$

$$\begin{array}{r} 9.490 \\ 1.778 \\ \hline 1.268 \end{array}$$

$$\frac{22}{12}$$



$$\begin{array}{r} 53 > 15 \\ 38 > 20 \\ \hline 18 \end{array}$$

$$\begin{array}{r} 8.2418 \\ 1.7782 \\ \hline 1.0200 \end{array}$$

$$1.048.$$

$$\frac{r}{R} =$$

$$r = \rho \cdot \cos \text{lat}$$

$$R = \rho \cdot \cos 0 = \rho$$

$$r = 60' \cdot \cos \text{lat} \dots$$

$$r = 0.$$

$$r = R \cdot \cos \text{lat} \quad \frac{r}{R} = \cos \text{lat}$$

50 in 2ⁱⁿ 1500 in an hour flv

4 ft 9 in diam

~~9/12~~ 12/90
465.

4.766 yards in 0

.67815
3.17609

3.85424

2.24551

4.062

.60873

.67815 log 0° wheel
3.24551

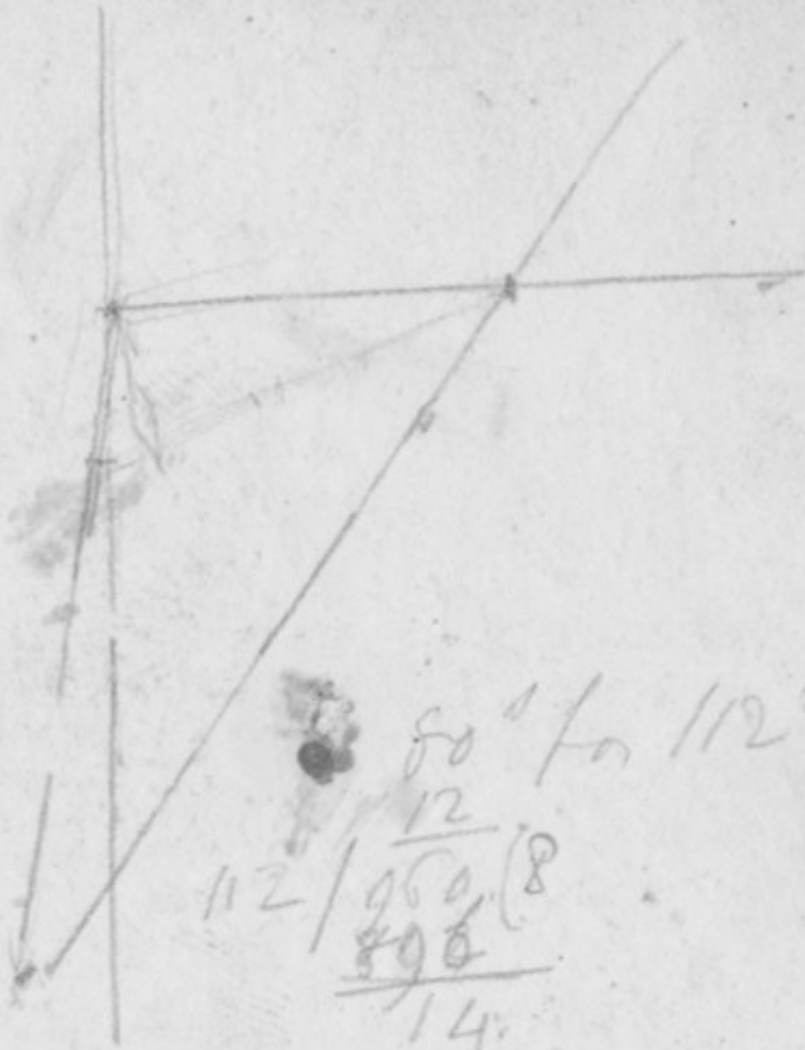
7.43264

1.47712

8.90976

50 | 1.69897 } add to this the log of no of
 } revol^s in 2ⁱⁿ.
 } as before.
 .60873

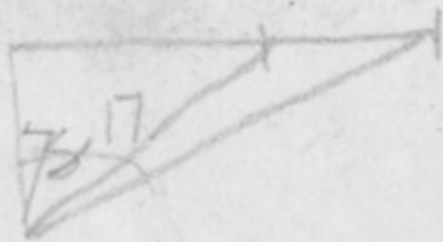
f.2r



78.17

83.44

132 14



had no thorns yesterday, as least
I saw none, the soil was deep sand
our course was straight - 50°
(by compass) - hitherto it has
been true E by N.

Left warr in afternoon & travelled
 $3\frac{1}{2}$ hours then slept without water
in morning $5\frac{1}{2}$ hours brought us to
Omabode. the ground was undulating
covered with bushes but no thorns
till at last. Course: -

Lat at Omabode

Pollux -	$83^{\circ} 11'$	-	lat	$20^{\circ} 2' 43''$
2. Argo	$102^{\circ} 48' 25''$			$20^{\circ} 2' 24''$

Bearing of Onaboude from) 34⁶ f.3r
werft (according to Samara)

Left at 11. & travelled 6 hours
to another werft. The first
2 hours were along the Fly River
which we then left entirely
went across along the bush
very slowly. The little way was
much delayed. The Captain of
this werft was a very shrewd fellow
& made some very clever remarks
to my men. He was convinced that
we were Soukous spies - He was
perfectly convinced that if
the Samaras were to fight the
English that they would easily
beat them - This werft is at
the point where Onaboude crosses
down into the plain - We

From Ta Kaka	Miles
3 but very thorny to large. Reg	8
4 very thorny to Otiroufuba	9
2 by current to water on river	6 1/2
4 1/2 very zigzag to fly on Hey River	9
3 1/2 straight to ditto (see detour)	9
6 1/2 straight good road to Hey	14 1/2
3 pretty straight to Werft	8
16 to second Werft	12
9 to omnibond	20
41	95

Opukiro Lake Ngami?
 Otjimanorombe the name of
 the last to the E. ~~the lake~~ small
 names of two other lakes

Zomukudthu
 Jihyeneera

In Latitude of Werft
 Cast 452.50 20° 22' 14"
 1000 82.32 - 20° 22' 12"

A3v

will not last us much longer, f4r

To day for the first time we had
elephant shoes, huge things indeed
altogether some 20 of them made
when the ground was soft, but now
hardened, ^{waggon} rattled over them

Outspanned & left after 2³⁰ trail
Cheepanganya is the name of Kaitken's
uncle who lives by Omabonde

Kouankuini is the name of Kaitken's
eldest son who is now Captain in his stead.

Left at 10 minutes to 7 a.m. in the
boat arrived at a large Gamare
beach the men ran away in
great consternation but we caught
the women in a short time a man
came & I pacified him with tobacco
& he showed me the water

find these continue to the river.

~~Started in afternoon.~~

In one hour outspanned. For the
guides wanted us to go across the plain
& through the bushes. I at length deter-
mined on my own route & to follow the
river - It cannot I expect end in
a fly. It runs exactly to Omobondo.

Stopping place by Fly River

To Kabaca from 276
to 281

Highest pt 279.30

Amavurum. Great stable 286.30

Fontaine head of Orongaba. Can't see
Started at 5 $\frac{1}{2}$ & travelled 3 $\frac{1}{2}$ hours
E by N along the fly river for the
latter part of the road although there
were some very large & deep flies,
yet there was no continuous water
I almost fear that its water

kind of hero. The guides usually
walk 2 miles behind the waygon
with the loose oxen, but we know
our direction now very well and
so we can do without them, One
^{the old one - Kabori's father. -}
man chose to refuse answering
me yesterday & I had him strap
on the ground & prepared to flog him.
He has been much more communicative
since - Our object is now
to come to the Omaramba river
& we have to avoid the thorns
as well as we can - ^{as doing so} this makes us
go in a circuit. The thorns are
a practice almost impassable for
a waygon, the oxen fear them
extremely - along the fley all
goes well - I trust we shall

p4v

direct. — The Laimaran are
annoying to a degree. When asked
questions they have no comparison
in their language & I have never
yet been able to get an answer to
a question such as 'which the path
from here to the place we are going to
& on from here to the place on left.'

Left at $7\frac{1}{2}$, we went down
a watercourse more flow than
river & outspanned after 2 1/2 hours
travelling. — Before outspanning
we picked up 2 quinsbiks that
Sam & Phlebur had shot yesterday.
We came straight $\frac{1}{4}$ of an hour
before stopping we passed a large
& deep fluy in which were 2 very
large geese & a huge bird a

We came yesterday on a number of. Had
people digging trenches they did not see
us till we were close upon them. We
caught a man & a woman & made them
show us the water. (A little man
who got away from us was very funny)
They were thorough Kamayur in
features - but darker than they
in colour. - exactly like the Wall
Bay people. The man we caught was
tall certainly above 6 ft. but
ill fed like a Berg Samara. He
had his pocket full of young birds
taken out of the nests & eat.
He gave information much better
than the Samara - Philbin
said he talked backwards and
forwards & that he could hardly
make him out - anyhow when
he did the answers were very p5r

F-5v

It has been extremely thorny since leaving La Kabaca. The bushes are low so as not to tear the wagon seat but so thick that they badly hurt both the leaders of the oxen. Several bushes one a mimosa have no thorns the common hawthorn is wandering but it is replaced by far crueler ones.

Arrived in 4½ hours after a very back-
ward route.

Q or
V-44 45° 98° 24' Vert L.

No latitude
edge of table 290°

Hotel in P. or over room - 301.30

Fontaine head (about) 1309.30

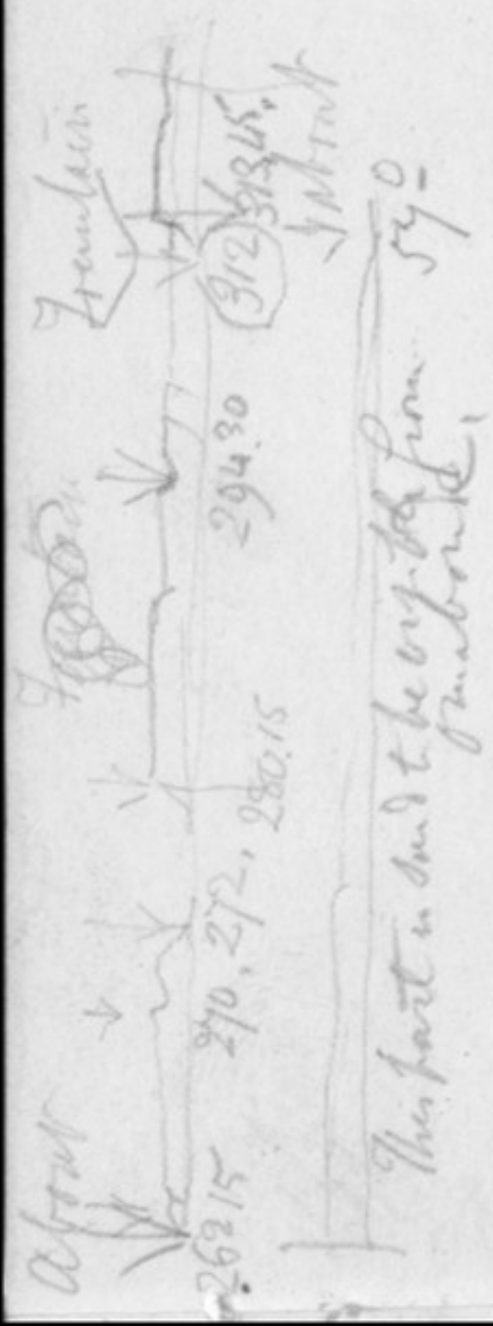
La Kabaca highest pt 279.15

from 275 (265 I ab. think)

to 281.30.

End of  "wall" or P. or over room 25.30

Left Ojironguba at 8.15 ^{h. m.} f. 6r
 in two hours arrived at the last water
 of the river it had been a fly more
 than a river since we left



It rained so heavily
 while the oxen were
 being unpacked that
 all the harness got
 & we had to let the oxen
 go & sleep here.
 We left the next
 morning at 25 ^{m.} past
 there was a fresh
 Berg Damour knoll
 close by (10 houses)

Otyronyuba

f. 6v

Merid alt Pollux

$82^{\circ} 11' 40''$

Ever lat $20^{\circ} 32' 25''$ -

Auderson had an extensive view from
Mt. Overton of about 30 miles ^{about the horizon} and
he could see from Yakataba $\pm 85^{\circ}$
the country was all plains (bushy)
Several rivers in it all evidently
running ~~toward one~~ ^{from one} way &
converging toward about 90°



Any connection between the Boamps & the
Red people? fH

What do the Red people call themselves?

Mumfer & Macaffer. What?

Have the Boamps any natural frontier?

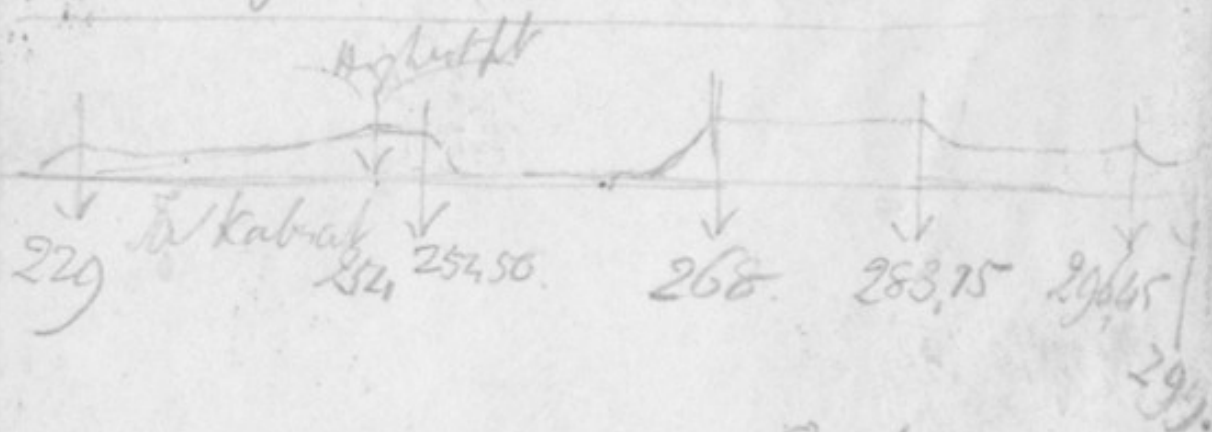
Do the Red people marry with the Boamps?

Have they any great chief?

Have white people ever been at Pambou?

Is there a well watered route to the sea coast?

Otironjuba. name of rivulet



Source of Otironjuba 41.30'
End of hill 66.30'.

Questions.

Any other names to Omabonde?
~~Sareadaba~~ (Sareadab)
Is the water less in the dry season.

Any island.

Can you see a man on the other side.

are there any other lakes

are there Red people further north
by the sea side.

f7v

Merid. alt Castor double

$74^{\circ}18'30''$ given lat. 20.39 25

Pollux

81. 59. 40

20.38.42

mean 20.39

(very bad observⁿ). ^{to differ so much} I think Pollux
was the best & that the true lat is 20.38.50
I read off about 20 times in each, but
there was some bother with the instrument

From large flag 356 yards long
between Ya Kabiraka & Moor
Fountain of observ on Moor 331
Highest point of Ya Kabiraka 269
In distant front of Moor
in peak of Ya Kabiraka } 161.30
(stone on top)

For Bar-Compap.

f8v

⊙ Az. 312.

III 4420

61° 48' 20"

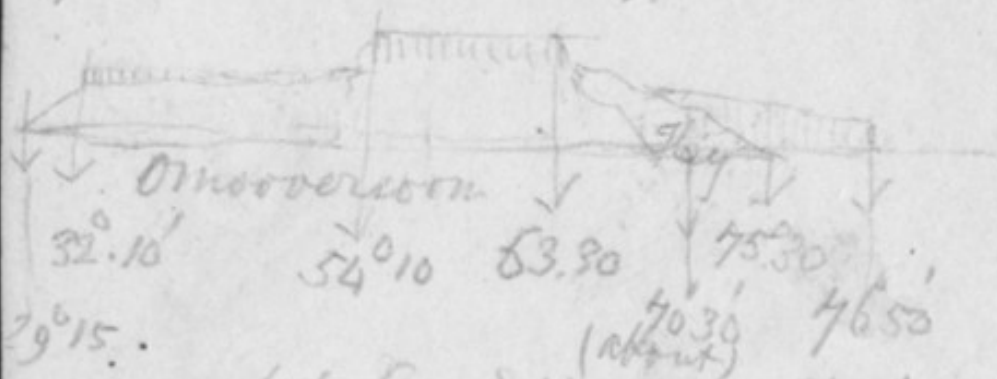
III 48, 15 000

⊙ Az 310.38

III 50. —

Lines 25° 30' about. (??)

From close by the wigwag



Ja Kabrat from 115° (round stone top 119° 30')
to 253

E. edge of table 244.30

Highest point 235°

Run of the face of Hill 287.30

Sunset Monday 24th March 297° 50'

297° 45'

From Fountain in Omorou area
northwards

walked with Hausa & Yaka
big snake

49

route

from Alt Potbury

81° 59' 6"

268.30

254.45 255.45 257 257.20 268.35 262

La Kabiako, from ^{242.30} ~~242.30~~ Edge of table 242.30
to 148, about
Highest point 234°

Omarou is just over the middle of Koniak

Course of river about 125-

Wagon 246.15
30
20

ant Hill (247) 35
35
45

} then went to take
measurement as
not not used

Started at 1.45 - f.9v

a 5 minute fast deep river
no water 20 yards wide running
from Ichuanens.

at 1.40. hoped the source of

2 crossed another
Arrived at 10 minutes to 5 at a
large Fley.

Ichuanens E of table 28945'

Matoko S. P. 222' - WP. 9'

Onorecraon highest pt about 76.45'

Ta Kabak is the name of Ichuanens
I thought to be Onorecraon
which is the flat hill to the left

The Samara give the 77.30
direction of Onorecraon
on the steep place

From E peak of Schumann f10x

highest point ^{La Kabaca} Obiverecom 86.58

Extent of from 85

to 92.30

Diambot S peak 186 45 (196 45)

Extent of from 185 15

to 188 31

Komat notch 245.50

Extent of ~~at~~ ~~from~~ ~~185 15~~ 243

to ~~188 31~~ 257

Course of river from ~~side~~ of E peak 169

Flat hill behind Obiverecom ^{a cross} 82

Flat range behind that ^{to} ~~from~~ 171 15

Hill opposite Kakampi ^{to} ~~from~~ 235

Hill in front of W Schumann 235

Anderson saw a dove I at 400 yds. I saw about 100 more
than shot 2 Springboks yesterday

Eckmanns

East point of table $26^{\circ} 35'$

Konyat point above notch $27^{\circ} 45'$

In west end $285'$

Hill not very distant

three pages back $348^{\circ} 5'$

Omatako

East peak $187^{\circ} 45'$

West 197°

Hill east of Kakanghe $227^{\circ} 20'$

Takonyana $17^{\circ} 48'$

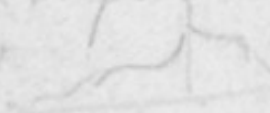
Continued

allr

Omatako W. P. $24^{\circ} 40'$

E. P. $59^{\circ} 25'$

Takonyava 113.30

hill  3 p.m. back } 254.40

but now seen edgewise nearly

apparent stroke of hill 238.30

Koniak from 342.30

notch 335.30

notch to 323.30

Diambo. W. Peak 188

N. peak 186.50

from 186.30

to 196

Sleeping Place by river Omatako
among trees - I could see no
hill W. but there

Omatako W. P. $151^{\circ} 30'$

Koniak notch (with road) 311°
to 10

Course of stream from 265°

Komat from 367
 to 336.25
 notch 328

Komat from 07
 to 13

Distant Hill 11. 20

From Fly Water

Altitudes (Doubt)

Komatoko W.P. 12° 12'
 S.P. 13° 55' 30"

by West L. 6. 54. 30

E.P. 97° 3' 60"

96° 57'

96° 57' 40"

56° 10'

57° 5'

56° 40'

96° 56' 35"



On the road at sunset f12r

Mutako W. p 28.30

S. p 41.30

Jakongara 87.15 W 81
Diambot High 96

At sleeping place $\frac{3}{4}$ term hour
after 3 hours from the
the bottom of last page 0

Mutaki W 28.45

S. p 51° 10

Jakongara 101° (it has no depth
to summit)

Hill W. two pages back 26030

apparent strike of the hill 203.

Diambot to S. Peak 187.15

N Peak
from 185
to 196

mouth flat top. The p12v
seem very high
is bright red & the
for the wayson. ~~plenty~~ of trees
but few bushes.

106 oxen at starting
'killed at out-haula ^{with} back of

Omatoko W peak 15.10

Q. E. 2 23.35

Jukongao 49

Lembot. Speak 186.10

N. or 184.

This at a fly on the ground
where we breakfasted

Omothokompo is the name
of Kahrkene's wife. f13r

Kamabonde is the name of
the fley by Omatuko

4:26.20 40°31'50"

Left Kakompe at 7:20^{am}

The country begins to be
rugged about 15 miles to
the E of here (true East)

Continues to go for a few miles

to the north ^{about the Eastward} where

Komat - the hills begin

Chron 2nd 35 fast app. T.

113v

Katjinnooth. (name of gauge)

From Kakampe

Omatako D feet 20.15'

E heat 25° 25'

odm --- 348° 30' 40.45

t 354 30

notch 358 45

hill  323 30
not distant W from 326.30

Liambrad  B




from 2 172.15 to 9 194° 2184.45
e 173.30 b-176.50 B 182

5 minutes after leaving

f.14r

Omatako, 8 feet 25.20

W 20.50

Other Hill 0. 39 30

Red gravel
in 3 to hours 200 rocks
cropped out on level
00

their strike
was thus



to Harbort

50 revolutions of the
wheel in 2 minutes
the wagger went fast
(rotated) 1/2 of the line

2 hours on the
camp road

Arrived Omorakampe
 a large flatly upward long at 8.35
 we went very fast as the country
 was much more open & the same
 hard red gravelly ground. We
 must have gone 7 miles. I handcuffed
 one of the prisoners last night
 with his hands behind his back
 they were quite cold & numb
 in the morning.

Omorakampe	Heaving from	
Diambot N Peak		148° 10'
		156°
Omatake	Extent	
	From	146° 30'
	to	190° -
Omatake East peak		25° 10'

Turn Over

27 Hinges

132.50 f15r

IX- 47 20

99° 32' 30"

— 48 45

99 42 30

— 50 30

99.57' 58"

146.35
48.52

Regular

57th 10

99° 2' 11"

57 10

99 16 20

The above is a March 13

(12th above, E of same)

In addition bearing 2 pages

Omatako 1 4° 50'

2 11° 15'

Left sleeping place March 13 at

9:45 AM name is Omoto

Ground red like yesterday, etc.

refused to take the wagons further
 at the last place on account of
 Om-gundi. I told them I did
 go by Omarum & pacified them;
 I am sure Hande is sadly wanting
 in courage & pluck. Anderson will
 go to the devil further than I
 would. which is a great consolation.

of lower limb

IX	26 ^m 25	93° 2' 30"
	28 52 ¹	92.46' 40"
	35 ^m —	92. — ' 30"

Jupiter East

39 ^m 30	54° 37' 30"	177
41 45 ^a	55 39 50	162
44 10 ⁰	6-6. 45	
4' 5.25	5' 17. 20	F15V
41 48	55. 40. 47	

is certainly the highest table #16r
land. — It drops off on every side
about here are little water courses
running south.

Kahutitene came with us to this place,
two men came to tell him that 4 of the 6
the thieves of my cattle had been put to
death at his werft. — I expressed regret
strongly, at this he said that he could
not tolerate that his people should have
dared to steal my oxen when I was his
guest. that "his heart was very sore"
against them. He left his head man
with me to take me on to his werft
to morrow & started directly. He
is very civil & his men are excellently
behaved. — I hope my men will
not prove unwelcome. The wyes or
drivers evidently set on by Hame

p. 16v

4 1/2 hours to outcrop place
a flag half dried up
From here

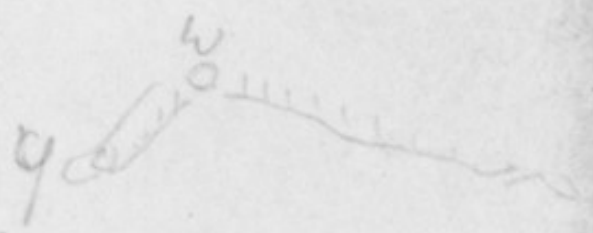
Diamboodih about 2 1/2 miles
off (nearest point).

N. Peak 175.35

S Peak 187.30

from 167

to 241



* is our position. See 2nd ^{*}thru below
by a bed sandstone it crops out
again (keeping the same line) from
75 to 58 making a little hill
A great part of yx is of the
same but I cannot clearly make
out the part toward x — Just about
the little eminence from 75 to 80

Omooveroon, W Peak 34° 30'
 Highest point — 34° 45'
 from —
 to — 37°
 — 34° 20'

Omatako 1. — 3° 50'
 2. — 1° 45'

Diambotot N Peak — 263° 30'
 S Peak — ~~255° 55'~~
 — 255° 50'

The above is on the road
 to take Omooveroon & on
 the highest ground - named
 as for the ground is reddish
 again.

Diambotot
 N Peak 242 40
 S Peak 237 30
 from 264 72
 B 250 4
 221 4

Z  Z
 4
 4.175

Obs. time	Alt	Time	P. 17v
302° 15' 11" 16.40	40° 31.30"	18 ^m 20	
302° — 19 ^m 20	39, 38.50,	20 15	
301° 42' 21.45	38.24 30	22.50	
301° 57' 25.45	11 8 34 50	61.25	
301° 59' 19.15	39. 31.33	20.28	

Above for variation at
Utchiamukompé.

Leaving here on road to Nedge
Scarcely crossed a mountain
in 2 hours time that ran to the NE

In about 2 miles we came
upon rock the strike of which
was 15° to the West of South.
Here the ground is whitish it has
been very red hitherto.

by Omakke. It has anything ^{p185}
 but a direct course making
 in one place a very great bend
 back towards the sea. It does
 not run in the dry season, but
 is full of water pools.

Utchiamakompe

(The Boundary between Damaru
 intermarry, a good deal.)



71

110

23. 49
 48 71

across in which there is deep f18v
crow water they then get among
people who take them on.

The journey is exactly 2 months
the men spend a month there
& then return. - He says by this
road the people are all friendly
& so are they on the opposite side
of Onacande but across Onacande
place he cannot send. As
regards Onabonde He has
long lived there it is a lake
as long as from here to Schinela
Hope (from 30 to 40 miles) no
boat on it. It is fed by the
river that runs between
Komateki & Rohamans this
is a tributary of the river

have no The people are said ^{p138}
to keep close together not in scattered
villages as the other Samara do.

It was at ~~their~~ place that Jorke
was frightened & turned back
when on his road northward.

I asked Kapike about the
country & he gave me much
information very concisely & well
a great contrast to the way in
which the other Samaras have
given it - He sends trading

excursions to the Oorayps but
to quite a different part of the
land & that by the border - The
route he sends by is by Omaru
& then northerly but still
crossing across several rivers
until they come to a plain & dry

If I am not on the spot all
the usual barbarities will ^{follow}
accompany the attack & I shall
get the credit of having prompted
them. But if I am there
they will see I trust, something
like justice carried out &
again I trust they will be so
much overmatched that but
little life need be lost in the
struggle - I am having my
matchets sharpened & serve ^{one}
out to each man. I shall
divide them in three sets
severally under myself Anderson
& Hance & spread out line
with about ten paces between
each man. I wish to heaven
I could send messengers to
Onagunde but not a man

messengers about peace that he would long
since have been at him. That he was
certainly the weaker of the two but
for all that he had absolute want
threatening him if he did not get
back his cattle. I explained to
him the laws I had made Jonkers
agree to & told him that I would
go with him on the condition that
he would not abuse victory ^{was gorybell} of ^{the} ¹⁸⁴⁴
Got it & that I would help him
if his men were attacked in
trying to ~~take~~ carry those laws
peaceably out. But that I would
not help him if one of his own
men ^{made} ~~gave~~ the first attack.
I must speak again to him & make
the matter clear ^{beyond} ^{any} ^{doubt} - I cannot
take an undecided part.

that Omungunda was a great roper.
It was he that stole Mr. Hahn's
wagon oxen & returned home with their
tail cut off - dreadful atrocity.
What a rage Mr. Hahn must have been
- & that he murdered all happened by
I. I. - Kakikene. spoke very sensibly
about always taking proper precautions
when travelling in strange places
keeping watch & not letting the
natives mix freely with my men.

I wanted to send messengers to
Omungunda but not a man dare
go. I had wished to take Kakikene
& part of his men with me.

News came that another of Kakikene's
wrecks had been robbed by Omungunda
& the old man could stand it
no longer. He had told me that
if it had not been for my

We had arrived at Kutjionkompe on
 Saturday March 12 & there we found Kahif
 and about 40 men waiting to receive us.
 He had sent me about 10 days ago a
 magnificent Black Ox as a present &
 yesterday his men brought me from him
 2 oxen & 3 slaughter cows. I talked to
 him at some length & gave him a brooch,
 a pointed arrow with blue beads & a large gold
 chain - He was in mourning but still
 put them on & really looked well. The
 next morning however, the pointed
 arrow had got a little battered by sleeping
 in it & the appearance sadly destroyed.
 He had been in great distress of late
 his brothers & children killed & his
 remaining two taken prisoner by
 Opungunda. I promised him at
 his earnest request that I would
 go all I could in the way of helping
 to get them back - He told me

f21v



f.22r



For Index Error
on

A22v

32.20

32.25

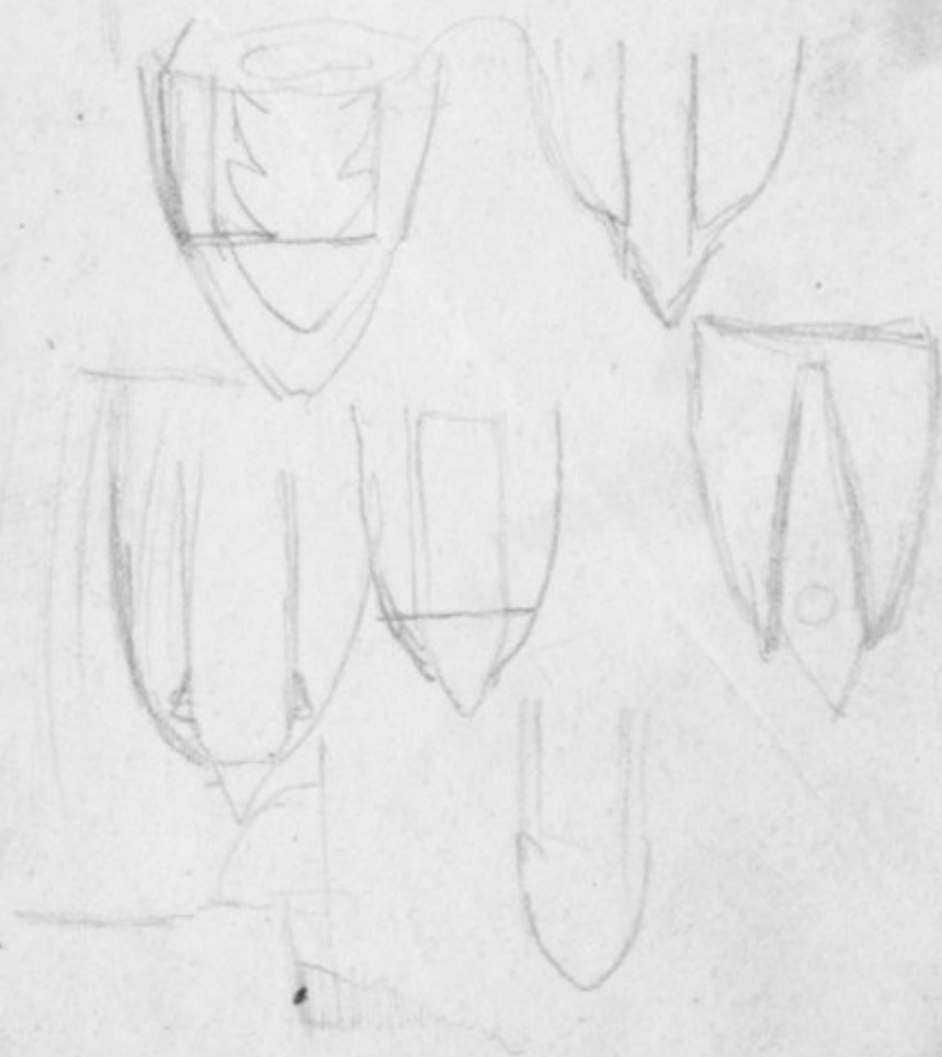
32.25

27.50 nit Cor

28.5 better

28.5

Chron $1\frac{1}{2}$ 6^m 42° slow.



at Kuty onkompe.

f23r

Castor

Pollux

11 ^m	71° 58'	16 ^m 20	79 48 15
12 ^m 35	71 55 30"	17 55	79 45 -
13 ^m 45	71 51 40	20 22	79 41.5

Rigel for line

24 ^m 72	93 58 -
20 22	92 57

Chron Sextant rest of O.
O lower limb

48.55	58 14 20
49.27.	52.30

74 ^m -	47.38.40
74 ^m - 58°	47. 8.40

51.5 ^m Dist	74 13 25
54.5	74.14.40
55.20	74.14.45
57.5	74.15.25
58.10	74 16 20



Clean guns

p23v

Have out sails

Cast bullets

Made bags to put them in
with powder prim & caps.

From Sunday March 8

100 open

Monday 1 shot.

Hanne bought 2
Wednesday 1 shot - (blackish)

27 goats 30 sheep.

Friday 1 white & red, -

Altitudes for Komatoko

f24r

East peak ————— $39^{\circ} 30'$
West do ————— $42^{\circ} 20'$ (?)

Distance between peaks $1^{\circ} 3' 35''$

On

Altitudes for Komatoko

East peak ————— $18^{\circ} 10''$
West do ————— 13° (?)

Distance between the peaks

$-20 + 55' 55''$

Off

Breadth of base of E. peak. $2''$ —

Height of highest peak above
level of eye $35' 10''$.

John Allen 16
Phlebas 16

go easy

f24v

Rest of Guns 32.

Th	Anderson	Hause
Timber	John Allen	John Allen
John	Jack	Phlebas
	John F. H.	Saul
Kambury	Pabite	

Watches from 8 to 5 9 hours

8 to 11	Galtin	John
11 to 2	Anderson	Phlebus or John Pa
2 to 5	Hance	Timboos or one of the boys

John
Phlebus
John St
Timboos
Paul
Jack

8 to 11	Galtin	John Allen
11 to 2	Anderson	Timboos
2 to 3	Hance	Jack
3 to 5	John	Phlebus
	Timboos	John St
		Paul
		Timboos

at 5

P25r

water among stones about 2.00 yard
long 3 ft broad - deep

p.25v

Again from fleg.

Dianboth

28

Peak 719

N 289.45

S 290.15

+ 376. -

From Kutri on Kombe,
Omatako

K 352.40

X 354.40

T 358.25

Stampy todlu

N. Peak 289.40

S Peak 284.25

ky

π

325
351

298
324

From Oranundango a large fley
120 yards by 50.

Amatako 1-357.50

Diambot 2-356.45

N. peak 313.30

S. peak 307.45

Wagon 190

Amarum 325

Onapish 298.

Onabonde 54

From the Fountain Okamheke

About $\frac{2}{3}$ miles from Fley (above)

Fley 303

Wagon 257

The ground about is limestone etc

Konyet from $345^{\circ} 45'$

Konyet to 353°

Notch in middle $350^{\circ} - 45'$

It has become lyp

Clouded ~~$363^{\circ} 20'$~~ 3, 20

On drench Takonyaw $8^{\circ} 30'$

From hill top on road the water shed of
the country
Komatako the top is cloudy f27r



a b c d e 334° 45'
Diambo to the highest peak ~~334° 45'~~
Sotto it hand high peak 339° 15'

a. 1°

b. 1° 35'

c. 2° 40'

d. 3° 15'

e. 3° 40'

High peak 218° 35'

Sch. hill (highest point) 203° 30'

High dump - 186° 15'

High point - 194° 40'

Watch. ~~2. 27. 15.~~ fast for app T.

f27r

7. 27. 15.

Canopus	2 ^h . 39	
Castor	3. 42	72° 6'
Procyon	3. 49	124° 10'
Pollux	3. 54.	79° 44'

From 3rd outspan Place

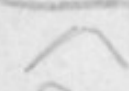
F28r

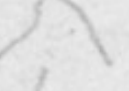
High Peak 218

Highest Point Somelent Hill 199

* Somel Hill from 210 to 195 45

High Point (see 2 pages back) 191.30

Hill  186.15 (176.15?)

Hill  181 (171?)

High lump  180.10

in Worker's Chain

Siam both East part k 348 45


k L 350

Highest pt of main Hill 348

Whole extent fr 350 45 to 346

the two peaks of left part

seem now in one 341 45

from High Point to High lump is a
ridge of round cap. height 191.30
High lump the last slope to the Main

* In this I include no. of the hills
of above they were too low to be seen

At the cross water, last page f28v
the second or third place the
river forked - we went over the
hills to the east of the first fork
& after 12 miles or so about SE by E
we came to another river. The
thorns were very thick but by
keeping along the ridge we continued
to get through & out, had to use
the axe twice - Since Schmolens
Hope was route has been something
there



f29r



High Peak 221.15 P29v
 Hill of obs. from 220
 False P 222.10

General course of
 East branch of river about 3/4
 Highest Peak Schmel Hill 158.30

From stone of former observ. by
 cross water
 Schmel Hill from 159.30' to 195.50

A	163.30	Wagon 360 450 yds off.
B	166.15	
C	175.50	
D	179	
E	180	
F	177° 45'	
G	192° 30'	
H	194° 30'	

False High Peak 204° 25'

High Peak 214° 45'

Another High Point not taken before

last place Y 133.45

Z 139.30 129° 25'

Yorker Hill
 from 300 paces S. of rock

ABCD had offered
 these are very good the
 perhaps was quite level

From Hill top on Exploring road

7.30x

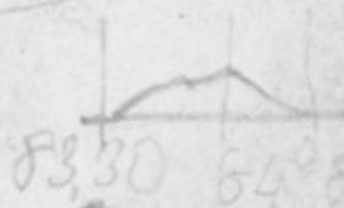


whole extent of all the hills from
 $35^{\circ} 3' 45''$ to 8°

60
 7.20
 5

Giant

very dark hill



Near Hill



110.30 x

Other Hill

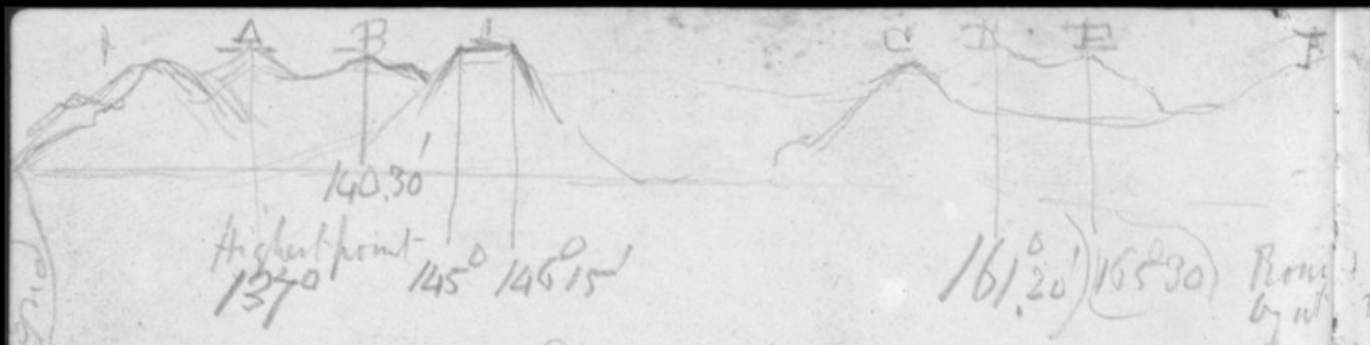


116.0 5

Hill in plain



74.10 46.10 650



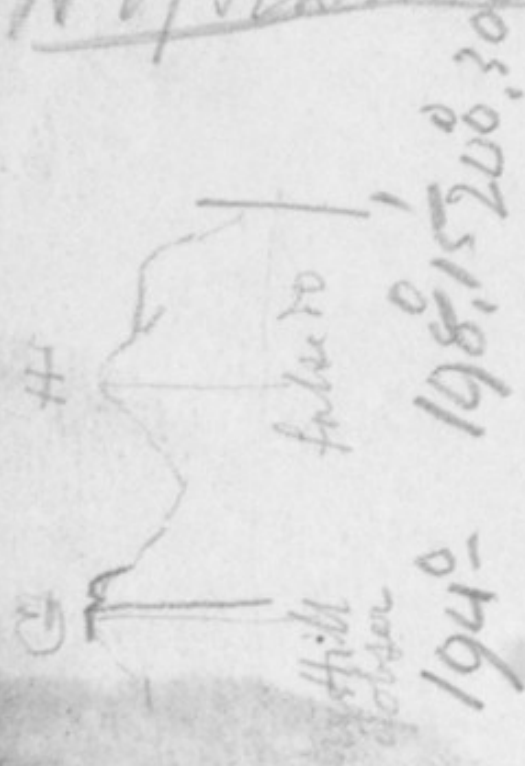
Whole range of Hills Schmelten Hike as far as right of drawing from $132^{\circ}30'$ to $200^{\circ}-30'$

Schmelten House I should think about 209
 Distance by road seemed to be 5 miles

f.30v

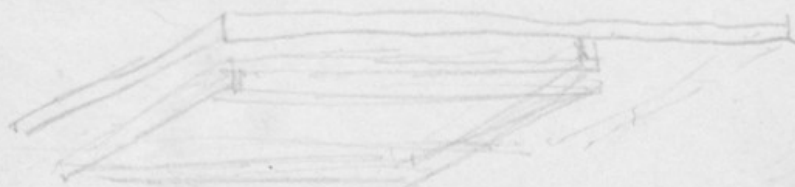
From Fountain 5 miles
N of Schmale's Hope

f.31r



Head 1760
Bianco

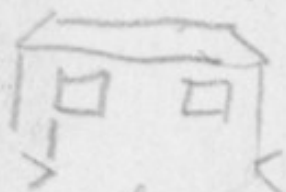
f.31v



Continued

f325

From place of break last
page breadth of House, $(1^0 - 15' - 30'')$
Rt Hand of House $58' 40''$
to left edge of left window



4. 10

34. 9

29. 11

Length of that part of
house -

Height of m about 1200 ft #32v

From 600 paces. of House
alt ① lower limb $67^{\circ} 52'$

Yonkers table $109^{\circ} 27'$ W

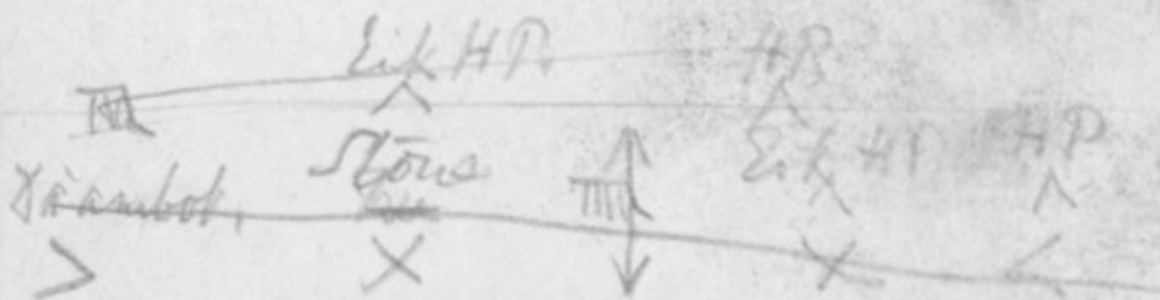
alt ① $66^{\circ} 7'$

High Peak  $83^{\circ} 9'$

alt ① $65^{\circ} 16' 30''$ (unclear)

Diamboctulle  $73^{\circ} 28' 40''$

alt ① $64^{\circ} 21'$



Alt Diamboctulle $44^{\circ} 40''$

H, P, $55^{\circ} 30''$

Y Table $33^{\circ} 40''$ (unclear)

Continued

f.33r

Diambotodthun
middle hill E end

x v v y

sc $13^{\circ} 6'$
y $13^{\circ} 20'$

From NE corner of House

m

$55^{\circ} 30'$

S

$83^{\circ} 40'$

p

$86^{\circ} 45'$

length of House $37\text{ ft } 2\text{ inches}$

bearing of House $10^{\circ} -$

The above gives as distance
from house

Little Hill of it 307 yd

to m

2465

n

5727

p

7600

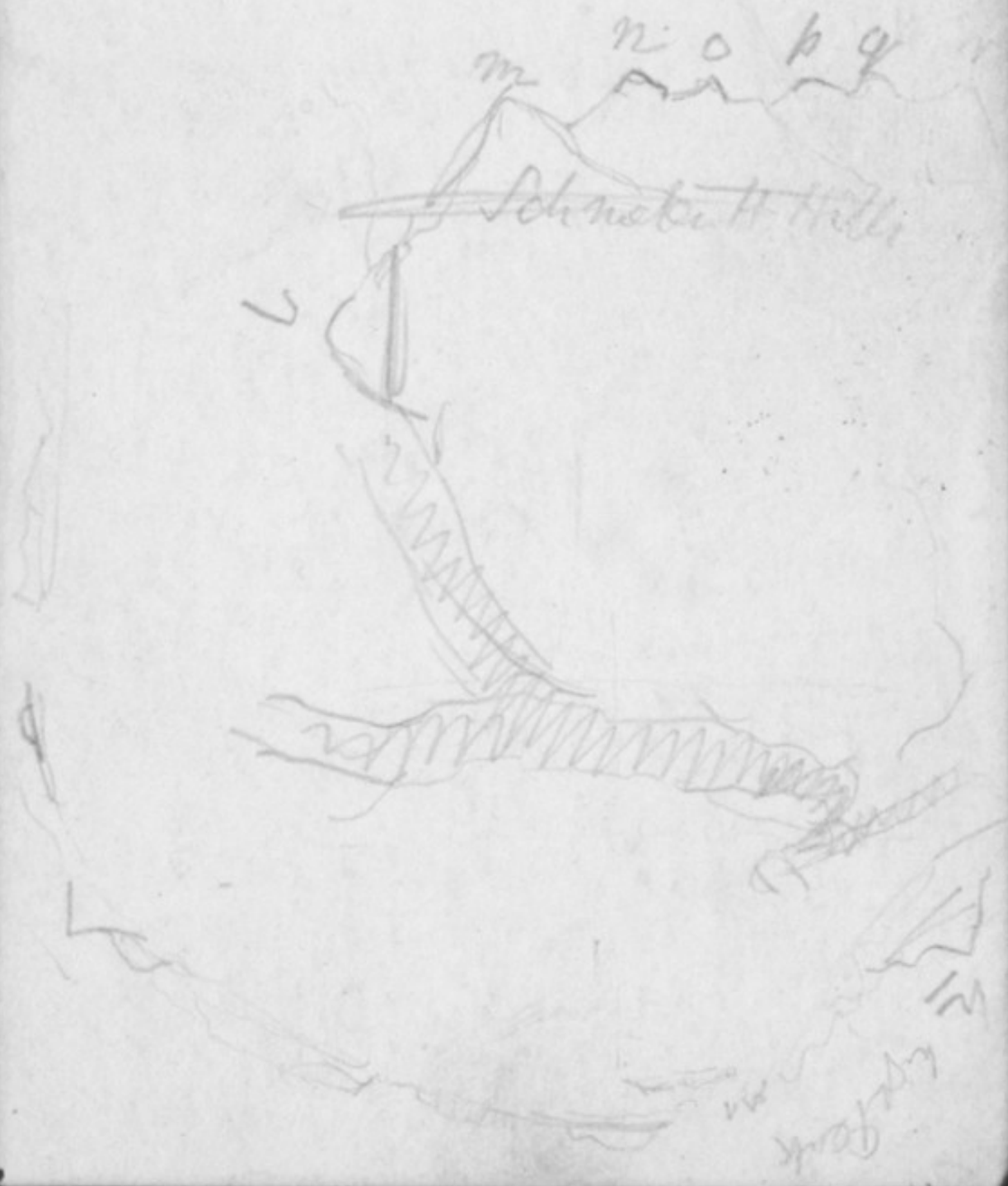
approx

from Little Hill oppo ~~the~~ Schmelton
Corner of valley

f33v

Schm. Hill

Schmuck House



See page below

p. 34r

Urkham's false High Peak $205^{\circ} 40'$

~~High Peak~~

Corner of valley 212° about

High Peak $220^{\circ} 15'$

House NE window $286^{\circ} - 50$

[Little hill round which
river runs) $35^{\circ} - 25'$

top of Round Hill do do $- 60^{\circ}$

m $66^{\circ} 15'$

n $74^{\circ} 40'$

o $80^{\circ} -$

p $84^{\circ} 23'$

q $85^{\circ} 28'$

r $87^{\circ} 28'$

vs

W

X

Y

Z

1

2

3

4

5

6

7

8

9

10

11

12

S. $78^{\circ} 7'$ - $80^{\circ} 30'$

$\pm$ $84^{\circ} 35'$

from $285^{\circ} - 55'$

to $287^{\circ} - 1'$



Mappe is to the right of A. F34v
direct road to Bamarina from
Chunelien Hpr.
Omeigond

Maps
~~Campbell~~
~~Lyell~~
~~J. Allen's letter~~
Bani's list
~~Jack~~
Mrs Montagu...?
James. cheque & note to M.

Wokopona are the Red people
they are to the north of Komocooona
& behind Koniat

N ~~W~~ / Shiakanien de dead
Name

River comes from Koniat by 3 pools
Omamun River - opposite Shes
Frango

Omamun River is
Opposite Ma parero it comes
out from Hill as far as
Gonker's Place from here near
Onatoko

a little river comes from Onatoko
to Omamun

Omamun is near both Koniat
& Onatoko but very far from

of the

f.35r

Allen

f35v

5 lbs coarse powder
3 or 4 oxen for a market

Omarum & pph,
Cattle sold for horses & horses
Articles of clothing, Nam
Hahn inform?
map.
Sir J. Alexans - map

Writings		Maps	
Moss	J. Allen's letter		5. 10
Sa	J. Allen's letter		5. 10
Campbell	Barni list		2. 5
Salzell	Willis		1. 10
Col. Ingham (how spell?)			6. 10
Vanderhoff			6. 10
Barn	Barn papers, list		17. 15
Kicker			
Jurat	John's letter		

Thomas Allen (uncle of John Allen) lives
in Whitechappel. f.36r

~~Galane~~
~~Whitechappel~~
Dorset
Cowell Court

John Allen was at the Blue Coat school
Sept 1845 to Jan 1846 his sister Charlotte
Allen was there before him -

Thomas Allen - Boot & Shoemaker
Cowell Court
Whitechappel.

~~From Hansa~~
When Morris Dixon first came into the
Country they gave for an ox
ten lbs of Coarse powder
or a musket
16 lbs lead.

Long sheep a knife trader by hand he
then lasted about 18 months

We told you before he had but 100 men.
 He only told 21 with 6 of them
 from the bank
 22. Boston

$$\begin{array}{r} 46 \\ \hline 22 \end{array}$$
 Many cattle were sold for him
 About 300 calves are born in a year
 The milk men consume them
 The whole expense of feeding
 a cow is done for the milk
 to the Bay Black cow in 80 days
 10 to the house
 10 to the house
 6 to the house
 4 - leader

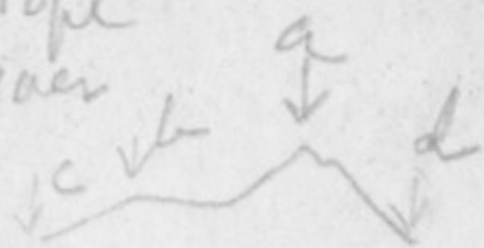
From Schnelein Hope
 opposite side of river
 Lion's Mount

a 30° 50'

b 30° 45'

c 31° 45'

d 31° -



How many oxen can a tribe breed
for sale in a year.

What is the expense of taking a
wagon down to Walpisch Bay &
back.

Can oxen be sent during the dry
season at all times from Rukh-bell
to Walpisch Bay.

Would there be any ~~difficult~~ ^{steps}
to undertake to furnish a considerable
number of oxen & bring them to
Walpisch Bay - payment there
to be made for them. —

I came in a small skiff & filled it
nearly with cattle, still I took 4
waggon loads of my own things.

Ex 3. of Mr. Schomburgk.

The expense of keeping a ship waiting
at Walpisch Bay is so great that
the greatest inducement must be
shown in sending down the oxen.

The waggon could take about 6 oxen.
A very hot & dry season from August.

The more extensive the commerce between
the Namasqua & England the more dependent
they would become on her. ~~They wish~~
I am sure is very generally to be authorized
& justly ruled - The Namasqua feel that they
~~are not able to govern themselves~~ - Swarth
for instance told me of his own accord that
he desired to be governed by British laws the
strangers in the land who are but half
are too strong for them. I made a list of
50 people grown up men & women here who were
born in the colony they have too much sense
little at ~~to~~ be ruled by the Namasqua.

~~What~~ I firmly believe that if the
British Government were to send a person of
common good sense, decisive & just here, as
a resident ~~with full powers~~ ^{that he would be able to}
open & protect a commerce that would ^{keep strict} ~~lead~~ to
increase. This country appears to be the natural
outlet of a land of great fertility, & the material
for pushing a traffic ^{already} ~~there exist~~. & if the time
~~opportunities be ripe~~ ^{it is ripe} & we will not lose
sight of the opportunity.

D. U. Lumb

Time, Alt.

O. L. Lumb

Time, Alt.

50.42 81° 42'

59.40 85° 49' 20"

(109.47)

Distance

f38v

Time

Alt.

52^m 36° 109° 29' 50"
 54.28° 109° 28' 30"
 55.35° 109° 28' 30"
 56.44° 109° 27' 15"
 58.7° 109° 27' 5"

For Time. Sun not very hot. Watch in shade.

f.39

Old time.

Almes. ^m 4 alt.
 vy 40 30 76° 58' 30"
 42 16.2 77° 48' -
 43 55. 78. 32. 16

vy ^m 3 10 87 46.10
 4 32.3 88 5.10
 5 47 88.40

Index error

on 32.15 - good

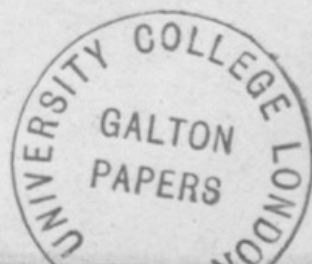
32.30 } these are both too
 32.30 } much. I cannot screw
 the tiny screw right

off 28.5 - good

28.5

28.15

27.50



Upper Q		Upper L. Moon		Distance	
Circle with ^{simple tube} telescope		Circle with ^{simple tube} telescope		Sextant with ^{simple tube} telescope	
Time	South alt	Time	South alt	Time	South alt
30.11 ^m	70° 48' 30"	32.37 ^m	41° 49' 20"	34.50 ^m	122.29.5
32.37 ^m	41° 49' 20"	41.52 ^m	37° 40'	36.36 ^m	122.28. -
43.32 ^m	78° 40' -			37.55 ^m	122.27.40
				40.10 ^m	122.26.40
				44.55 ^m	122.23.40
				46.23 ^m	122.23.15
				47.31 ^m	122.23
				48.41 ^m	122.22.10
				50.2 ^m	122.21.35
57.33 ^m	81° 20' 40"	53.40 ^m	32° 21' 40"		

122.47.10

For Time, Sextant had been 10 minutes on the
stand. — Watch wound up at 5 before 5, and set by
quartz to time. alt. placed 6 minutes in its position

Sun East		Moon West	
Time	Sext. alt	Time	Sext. alt
17.16.42.3	65.34.15	Index Error, sextant,	
19.12.1	66.43. -	32.45" on alt 28.5	
20.38.2	67.20.50	32.25" 28.5	
21.3		32.25" 28.	
27.30.3	84.24.40		
53.34.3	85.24.20		
		32.35	10
		31.57	28.3
		31.57	31.57
		32.32	32.32
		25.4	to be subtracted
		4/64.29	
		10.7	

Names of wells on road to Enon
Tambourine - Cale Fontaine
Okongava. - 7 wells.
ondyoombaraka.

ondontu diakakongo - Schmel
Hoper river.
ovikokerero water hole
in Kiamboya a dam
jakonyava rukua.

From small hill of obs

4.425

254 30.1

Barny Bluff ~~24.30~~

264.80

High Peak 220.30

(see before)

a 4.25

α 5.40

b 13.45

B 11.0

c 14.15

d 14.30

e 14.45

f 15.15

Peak in High Peak } 206
Range near Eikhans }

Highest peak of Schmel Hill 99.45

High Hill of observer 100.30

Course of Schmel River 348

kdaamba vrambuta kankel
 okongue, ia ptace na ita Polle
 2 de 1/2 diambozo
 okombare
 okonagikuma.

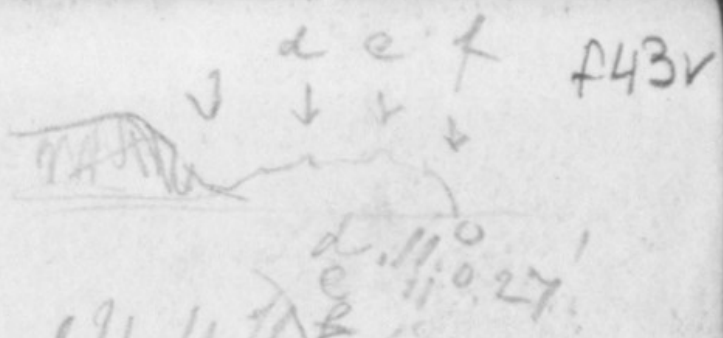


f. 43r

at ~~ondodiapnotado~~
~~on both sides~~
The nearest hill,
~~ondodiapnotado~~

Komattakmba Kochihangero
Komoramba Road
diambepera another Hill
ramataba
Komarara Kapitelo Chamakou
Komarara

A 357.020
 B 3656
 C 9° 45'
 D 10° 30'



Highest peak Channel H. Hill
 Whole extent of, 159° 45' to 196°
 Round hill where river leaves the hill

192
 180
 372
 360
 12
 270 30
 180
 450 50
 300
 88 30

209
 180
 389
 350
 29

177 45

Direction of Hill above Kroat. very strong

270.30

High Hill of observ ^b 154

Small d^e 209

High Peak 219

Barren Bluff 248.

at fountain 1 1/4 hour for Bar

Rough upwards N. 15 W.

at Crow water in branch of Road of

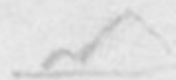
High Peak 215°

do in same chain but by Fikhan 204° 30'

High hill Schin to observ 192° 50'

Conical hills in place

East one  134°

West  133° 45'

The hills abc see back

a 355° 15'

f44r

Feb 13, Schmale's Hope Dist 42 or 43 of the number
 Jan 40 or 41

D Centre

Aldebaran

nearest limit
 distance

VI. 15.56	66° 41' 50"	VII 13 30	102° 2' 30"	VII 18 46	47° 40'
27.43	70 16'	25 32	100. 35. 30"	20 20	47 36' 40"
				21 55	47 38' 20"

For Time, VII 32 24 - 2 upper limit 72.30' -"

Sun. Morning Morn. Schen H. Feb 19
Lower Limb.

5th August we went on board the Form.

Latella 16^m 7¹ m m. t. fr meridian
alt (double) $44^{\circ} 13' 10''$ -
Schen H. H. H. —

f45v

Fifty seven Oxen that can be
impaired including Red Oxen & cows
Frieschland, Ceylon Timmerman, Buchanan
Fairland (Spring A)

3 belonging to House.

2 belonging to John Allen.

(1 bad butt of John Allen
1 bad ox also of John Allen)

1 killed.

17 Sheep 7 Goats (4 large 3 she)

7 Alms 3 been 2 cows 2 calves

16

4

5 16

$$\begin{array}{r} 7157 \\ 684 \\ \hline 51.3 \end{array}$$

$$\begin{array}{r} 69 \\ 25 \\ \hline 104. \end{array}$$

$$12 \frac{1}{2}$$

$$37 \frac{1}{3}$$

f46-



93

95
 6 Han-Cow
 4
 3
 1

 89

45
 42
 75

Calves

$\frac{1}{2}$
 3

9.7.

Open.
 Of my cattle Seventy Five Over
 it may be Seventy four, & one Calf

For House

Cow

Calves

111

1

1

1

1

30 Open, 5 cows 5 calves

Hill that divides the Valley

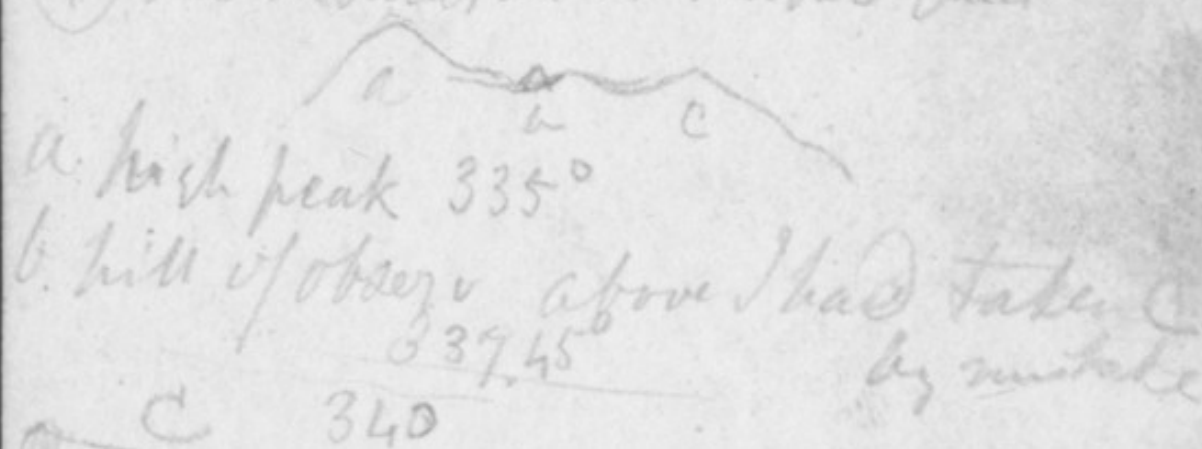
f47v

Left Peak abrupt 357°

Right Undecided 357°

Highest Point 355°

* The mountain is shaped thus



high hill behind Jones 195°

(From sleeping place on
the Pookop)

Two much amused at the cleverness with which two squat sturdy beaver took possession of a great piece of dung they rolled it together before them to a spot in the sand & then the biggest borrowed earth in all directions from under it and it gradually subsided in the ground the lesser one remained on the top & adjusted the earth over it in 5 minutes it had quite disappeared.

From Flag 3 miles W of Copperfoot
west

High Table - 184° - 10'
Mountain by road (Noboll) 209° 10'
do 213° 15'

Peak I have taken as High Peak in
all my observations near E. Thompson but
not it, this is the peak where we
left the little Snake in mountain } 313° - 30'

High Peak 336° 45' (*)
Highest Peak S. of H. M. 10.30.
Valley 1 of little Snake about 345°
Valley 2 - about 11 f. 48°
Hill of observ about 339° (*)

f48v



Forkham. Mission House to opp side of River

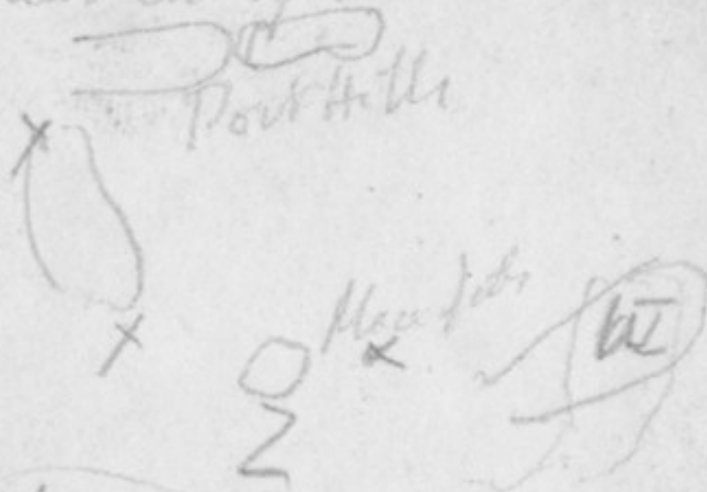
f49r



Captain P walking away with his laws.

f49v

From near end of plain



fr 2940
a 2953-3000

D distant hills

K 159.10

g 162

L 154.15

A 193° 30 about

D 45.15

X 150

Y 103

Z 62

356 15 fr 42. to 330

219° Rehebra

From Hill 1 mile fr Rehoboth

f. 50 r



a 17° 45'
 b 26° 50'
 c 43° 40'
 d 45° 45'
 e 47° 45'
 f 57° 20'

g 53° 10'
 h 53° 35'
 i 54.7
 k 54.25
 l 56° -
 m 58° -

n 59° 20'
 o 113° 15'
 p 134° -
 probably direction
 of Western Vale

Rehoboth
 Church 140°
 110°

Adelbaru

118° 30' VII 32^m 45°

Progen

70° 38'

35^m 26°

Adelbaru

87° 20'

37^m 49°

River of Kehoboth lies chiefly
in the sand about 163°

It comes from peak A of a little
to the westward (10°) of A.

Getuigeenes

Getuigeenes

f5a

The sun rose Monday Morn about Jan 25th
(moon some 15° W of Antares) 136° 15'.

~~"To be placed Place"~~
~~I will punish the same crime with the same punishment~~
I will not punish theft with death not a
~~small~~ ~~to~~ small crime with a great punishment
yet I will do my best that an offender shall
be punished

I will always punish the same crime with the
same punishment without regard of persons for
it is just to do otherwise

If cattle be stolen from me or from any people
I will recover it ~~back~~ ^{twofold} from the ~~thief~~ ^{or those that sent or from those that sent them}
that is say I will take back the oxen
that were stolen or as many as they be
I will ~~also~~ seize an equal number as
reight oxen.

I will also flog the thieves with 40 lashes.

f. 51

Reh both prob lat 23° 20'

Aldebaran
 Star 4 degrees of Sirius,
 7 Argus

Thave 8.

Now my laws are these

1 I will not treat the innocent as I treat the guilty

3 I will not allow women or children to be murdered

2 I will not shoot off the ^{wealth} ~~lives~~ of innocent people

to make ~~amends~~ for that which has been stolen by others

But ~~the~~ ^{wealth} which is stolen from me I will

recover two fold that is to say, to ~~be~~ ^{the} ~~whole~~ ^{value}

or stolen ^{on any day} ~~or stolen~~ ^{by them} ~~or stolen~~ ^{also an equal number}

Leicht oxen. I will also flog the thieves with
 40 lashes.

I will take ten oxen or "haft" oxen from
 those who hide a thief to keep until
 he be given up to me.

If one of my ~~man~~ cattle watchmen is murdered
 in the field that my cattle may be stolen
 I will have the murderer shall be brought

Any one of white men, not operative, or servant to
is with the chief of the tribe, that form a tribunal.
The chief & any two white men, ^{not an operative} ~~as a tribunal~~ ^{can} ~~order~~ ^{order} an arrest or search.

The chief & any two shall form a tribunal to
decide a case of felony.

1st conviction 2 fold

2nd two fold & flog not exceed 30

3rd two fold flog & banish.

f54r



Katrine

Piet with Mr. Hardy, wife

p54v

Dawn

Janet

John Abbott.

Lydia & Christen (Rehoboth)

Elizabeth

with Samuel W. Kleinschmidt

General Grogan

Jacob Lambert.

Kert

Guess (?)

Prince

John Harvey

Little Yonker (at Yonker's place),

53-64
6
59-60

Reinhard

8 millionaire

7 wives

4 Closter

1 wife

Samuel

Robert

1 wife

6 or 7 more

Jonathan

Frank

James

6 or 7 wife

Ham

J. Allen

7 Morris & wife

Fielden

Silberbauer & wife

Alwayton & wife

Pick family 5 grown up

Timmons & wife

Cornelius

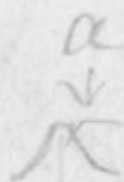
41 or 42

High Hill in valley



184 ASS

Not far distant



46 191.

at 88.30

a conical hill in line with it



Tribunal for judging Europeans

From outcrop place by water. nearest Rehe

Table M 42.30 & 44.30

High Hill in valley 28

A 9°

B 213°

C

a } 182°, 186.30°

b }

~~Eschmann Hill 37~~
~~High Peak 360~~
~~High Peak 360~~

From top of Cloof on road to Rehoboth

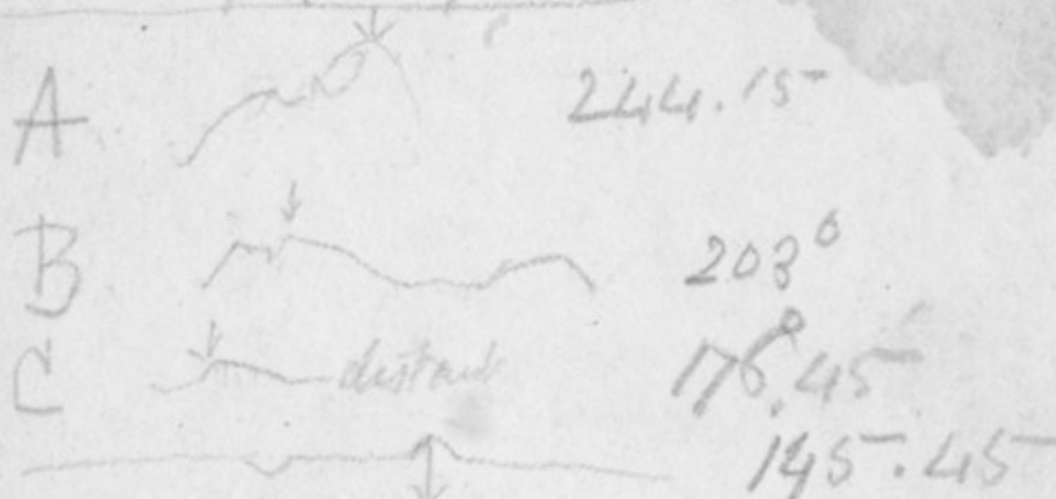


Table m 98
 Eschmann Hill 36
 Schmel Bep. Highest Peak 18° 30
 very distant Hill 4 30
 High Peak 360



172°

remainder of the ... oxen, I shall be mine

I will take ten oxen from those who hide
a thief or thieves as ... oxen & I will
keep them until the thieves are brought
out to me to be flogged, but when they
are brought out I will give the ... oxen
I will take 20 ... oxen from those
who hide a murderer, or ~~thief~~ thieves,
& thieves.

Zeicht oxen.

lant oxen.

Write to Vanderbyl
Government
Mother
Boulton
Hallam
Douglas

Amiral
& Sir Tyndall
Campbell

Get for Anderson

Carry
Houses
Mammoth

Yunker Belt

p57r

But if the thieves fly ~~with the cattle~~ to a werft ^{for their}
and when ~~I ask them~~ my men ask the werft
will not give them ^{not harm the people but will} ~~them~~ I will recover
my twofold from that werft ^{being their hands} for they are guilty
& I will also take ten oxen besides ^{other} & keep them
until the thieves are brought out.

And if the ~~owner~~ ^{samson} of a werft to which the
thieves have fled run away when they
see my people coming & leave their cattle
then I will take my twofold neither more
nor less from those cattle ~~but~~ I will take the
.... oxen besides.

~~But~~ ^{drive my cattle} If the thieves fly to a werft and when my men come there
and ask for the cattle the werft will not ~~give~~ ^{deliver} them ~~for~~ ^{the}
into the hands of my men. Then I will not fire upon
the werft ^{but} I will take my twofold from ~~the werft~~
~~that werft~~ ^{for it is guilty}. & I will take oxen besides
to keep until the thieves are brought out. ~~me~~

I will take ten oxen from those who hide
a thief or thieves as oxen ^{brought out} to keep
until they are ~~brought out~~ & I will take 20 oxen
from those that hide a murderer.

~~For they~~ I will give them back
the oxen shall be mine but he
from whom the cattle are stolen shall have
his own & half as many again the

I have pledged my word to the E. L. to act ^{that I will act} for the ^{people} with justice & law towards the Damaras.

Now my laws are these.

I will not confound the innocent with the guilty
I will ^{not} shoot off a ~~shot~~ ^{as I speak} to make amends for
stolen cattle

I will not allow women or children to be injured.

But, that which is stolen from ^{or my people} me, will recover
two fold - ~~and I will punish the thieves~~ ^{and I will} with 40
lashes.

~~I will take 20 oxen from those who hide the
thieves. & I will take 10 oxen more from those who~~

I will exact blood ~~for every man~~ ^{for every man} who murders me.
shall be brought here & put to death.

I will take 20 oxen from those who hide a murderer
& not give them back till he is brought to me.

I will recover two fold from ^{any} ~~the~~ ^{any} thief that hides
the thieves. & I will take 10 oxen more ~~from those who~~
will ~~not~~ ^{drive away} keep till they are given up.

~~I will reward a man for bringing a thief to me from
a man who brings a thief to me from a thief.~~

But if the thieves fly to a coast & they be not
brought out to me, ~~then~~ ^{it is} from that coast that I

will take my two fold. & I will drive
away 10 oxen more ~~from those who~~ ^{from those who} keep them
until they ~~thieves~~ ^{thieves} bring them to me.

If the coast flies away and leaves their
cattle I will take my two fold, whether

therefore be now acted on.

I had an interview with Cornelius
the second man among the Red people
& said much to him of what I had said
to Jonker - He for his own part fully
gave his assent to what had been done
& the Captain of the Red People will be here
in 8 days to meet me on my return
Cornwall is too far off. I must write to him

Continued below.

neither more nor less, & I will also take the
chief oxen.

In the Division. -

~~one of my people is~~
The Samara ^{kniff} ~~fell~~ ^{any} of my cattle will be
in the field that he may steal my cattle
then I will have ^{the mynders} ~~that man~~ brought to my
place & there put to death.

cannot make out that there are more
than 40 horses at the outside along
with him & his men. Those I have seen
are sorry half starved beasts I can
hardly bolt them up into a cantle.
If any they are vilely ridden &
much pulled about their mouths.
Jonker sent this morning Jan^y 24
his express to Cape Town - I have
been very careful not to take too
much upon myselfⁱⁿ what I have
done I have tried to act as a private
individual who has means of communication
with Government. Mr Hadley &
Timmer cattle were stolen, half of
them last night about 30 Samaras
were sent on foot if they follow
them to a wreck they will come back
& the horsemen will start - I had
just got Jonker's agent to my house
when the news came, they will

Rickham's Jan 24th

f595

The greater part of the Namagwa
here have a great resemblance to
the common "felon face". & their shrubby
dress & manner would almost warrant
us to ask for why their then ^{peckish} ^{provision} ^{of} ^{food} ^{is} ^{so} ^{poor}
their very hung ^{they} have been ^{so} ^{very} ^{particular}
particularly criticism in their behaviour to
me. The ladies have not universally
that very remarkable development they
was so striking in Samuli's wife at
Barmen - Some of the young men ^{& women} have
very pleasing effeminate Chinese faces
& are particularly like ^{the late} ^{Mr} ^{Storror}
Wouker is decidedly a talented man
& seems in full vigor his shrewd
remarks concise description & keen
observation show him to be no ordinary
man. He came out quite as a
diplomatist in the long conversation
I had with him about the interest
artfully trying to turn the conversation
to his own ends - He says ^{he} ^{must} ^{be} ^{above} ⁶⁰ -

I have pledged my word to the E.G. to act from this day forward with justice & laws towards the Samaras.

Now my laws are these.

I will not allow a whole werft to be shot off in retaliation of cattle stolen from me or from my people.

^{my men to mutilate & kill}
I will not allow robbing or children to be murdered & ^{what is stolen from me I will take back two fold & I will} kill.

^{That} if cattle be stolen they shall be followed and recovered and as many again shall also be taken from the men who stole them (as a fine) and besides that each of the men shall receive 40 lashes.

If the cattle be traced to a werft & the men who stole them be not given up the cattle that were stolen shall first be driven aside next an equal number of cattle shall also be driven out to them & kept. Lastly ten more which ten shall be returned if the men who stole are given up to be flogged.

If however one of my people be murdered I will have life for life the murderer shall be brought to my place & there put to death.

Should his werft not give up then 20 cattle shall be driven to one side & not be returned until he be given up.

Half of the cattle taken as a fine shall belong to me the other half to him on whom the theft was.

The ten (or twenty) shall be mine. p59v

Interview with Cornelius

For Law add,

If the Samaras all run away
and leave their cattle then the
same number as above stated shall
be driven aside ^{& not more} & one or more of
herd of the Samaras shall be caught
& informed that on the thieves being
given up the 16 or 20 thief oxen shall
be returned & no harm done to those
who bring the thieves.

What is stolen from me I will take
back two fold ~~back~~ ^{more} ~~and~~
& I will punish the thief or take oxen
from them ^{from them} ~~from them~~

dat nicht van diersdinge f60v
bier sal angaan. —

If cattle are stolen
If a ~~theft~~ is committed take
double from the ~~man~~ ^{criminal} & flog
very severely ~~very severely~~ ~~him~~ ~~40~~ ~~If cattle are stolen~~ & they
be traced to a large werf & if
the man who stole ^{then} is not ^{at once} given
up take drive double the number
of cattle aside with ten more
~~the chief~~ ^{if possible} which can do not return until
the man is given up to be flogged.

If a man is murdered the
murderers must be ^{brought to your place} ~~that~~ if not
given up drive 20 cattle aside.

But in all cases use every endeavour
to find the criminal rather than
to ~~steal~~ ^{lose or lose only} the cattle.

Some taken

institute of water they therefore ^{pg 1r}
preserve rain water in natural
tanks & use it all the year round

I groef om te say von mein
^{sammern}vroote haartseer. van de
oortloocht de ik an u gethan hat
^{the}Om ~~hier is de~~ ^{huis} de alre Samarans de derchle
by al huss van de vohn u
u brustere, aln de is end
in de werft ~~bestroeyt~~.

Ik viet dat u hier wohn
under die Engels. Goovernment
hier wohn, And ik groef
dat u ~~want~~ die Engels Goovernment
Maak frast dat wat ik
gethan hats. mein ~~de~~
begrijp ^{pal} worte. Ik beloof u

native to go northward from the
look of following the sea & getting
water at the rivers he crossed. —
Berg Samaras live on the hills above
these ~~vallies~~ ^{rivers} & cattle Samaras on
the plains,

About the Narweas () he
described them as very populous very
industrious & under a King (the name
all his information from hearsay.) They
make most of the spears that the
Samaras have they speak their language
they live in good houses & have some
system of warfare. They make also copper
beads — They plant calabashes & much else
use a very strong poison for their arrows
which they shoot from very small
bows. Their city which is
2 or 3 days journey across to F61V

but they were sandy & with hardly
any water. The fourth he did not
see but heard it described as being very
large & containing much water & grass. On
his way he saw Elephant spoor & followed
them for some way but could not come
up with the animals. He was on his
road to a wrecked ship, the coast where
she lay was sandy. He had to bring water
by ride over some 8 hours off at which
point, a poor one he left his waggons.
The vessel was partly broken up & her
cargo cotton was strewn along the beach.
Two seamen had landed before he came
& tried to converse with the natives there
Samaras but got no help from them. They
wandered along the beach & were not seen
more. The country on this place was
not heavy sand - there were sandhills
but hard ground between. Youker
thinks it just possible for a

~~of the English & the~~ f63v
I have done ~~that~~ ^{much}
I acknowledge that much
wrong has ~~of late~~ ^{been done} in
this land but I pledge my word
to the English Government that from
this day ^{forward} I will abstain from all
~~oppression~~ ^{injustice} towards the Damaras
I promise that I will with all
my power keep peace with them
and that I will use my influence
as well as I can to persuade the
other Namaquas to do the same.

Yorker told me that he knew of
four rivers to the North of Orange the
first he had followed a long way nearly
down to the sea there was much water
& plenty of reeds the Toppies told him
that it actually met the sea & that there
was good water to its very mouth the
second & third he also knew of

Cornelius 1 knife

1845

Wh. 1

Piet 1 ~~bucket~~ mould X

1-X

Youker attempted to ~~justify~~ ^{challenge} his conduct. but I refused to enter upon the subject. —

~~As Jacob 1 piece~~ ² ~~Wh. 2~~

Phillip

~~from henceforth to avoid all opposition of the
solemnly engage with all my power
to keep peace with & abstain from
to Demaray and to use all my influence
with the other Mamaguas to make~~

I acknowledge that much wrong has
been done in this country but I pledge
my word to the E. 18th that

at Eikham.

f64v

Sirius	10 ^m 50 ^s	112° 38'	20 ^m 16 ^s	117° 15'
Capella	12 ^m 5 ^s	42° —	18 ^m 0 ^s	42° 9' 30"
Aldabaran				
α Eridani	15 ^m 51 ^s	86° 34'	16 ^m 38 ^s	86° 12'

4' index error to be subtracted,
It blew too much to repeat the other

~~Capt. Jonker~~ 1 Hat }
2nd Braces } 9 sheep
Bullet Mould. } brought 8—

~~Jonas~~ 1st Braces } 1 sheep

~~John Jonker~~ 2 1/2 Braces } 4 paid 3

~~John Harris~~ 1 1/2 Braces }
~~bullet mould~~ } 1 —

~~Levin~~ 1 1/4 Braces } 1

~~David~~ 1 1/2 Braces } 1 —

~~Christian Jonker~~ 2 Pieces } 4

~~Seaman~~ 1 Piece } 2

~~Adam~~ 1 Piece } 2

f65r

Hm George Lord von Berge
 Lord Gordon Lord Formanline
 Haddo Mellick Farvi & Heller
~~Lord of H.~~ von der Kunitz
 von England;

The star Tharsame the & Eridani
 is 40° to the south of Canopus.

paid	
Capt Walker	8
John J ^r	3
David	1
Piet	1
	13

not sharp	1
	14

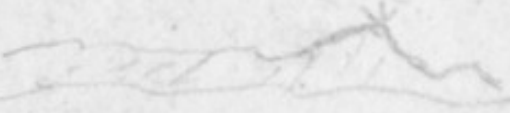
Given away	2
	12

Ich bitte in ich frage in de name von
 haren ~~Majestät~~
 die Königin von England, als Admiral,
 General Gouverneur, Commanden
 Magistrats & aller officiers,
 aller friede an soldate ⁱⁿ ~~Musken~~
 et vi. Princes ^{op} ~~hoofden~~, friende
 an bon unser Königin nicht allen
 te lat ~~N~~ - Franc. Salt verbe kann
 toz merhenden seiner volk
 sonder ^{hinderen} ~~geven~~ ^{als} ~~erlaubt~~ ^{permitteren}
 om iemand kein latte hinderen
 als an ander hand om kein de
 helpe in aller ~~flac~~ maniere so
 viel als de natie lat in sein
 vlie. De deuce

In de ghesch u dat will dat them
 te ~~hat~~ unter geskreiven ~~diese~~ ^{hand} ^{schreiben}
~~und die wappen~~
 und hat gesichte unser wappen
 dar of gedruet ~~mit~~ mit wort

From Eikhams Hill 4661
 High peak 351.45'
 Hill of Obsero near it (very nearly) 358°
 Peak of Schmel. Hope Hills 11° 40'
 Hill of Obsero very nearly 10° 45'
 Extent of range fr 10.30 to 12.20

a } of Iron Works part of factory
 b }
 c }

Conical hill & right - of Schmel Hills 12.30
 Course of Eikhams hills & stream 352.80
 Highest peak of a broken hill 36° 45'
 Opposite 
 Hills of  81° -

Highest part of range at back
 of Eikhams some 4 miles off } K 159°
 } L 162°

Hill  224.45'

On road to Lakeville
 Course of hills to back of Eikhams 80.00

f66v



He two streams I did not see f67r
The one we followed was evidently
much the larger branch & had
plenty of running water. The other
was dry then. Shows about the Lakehouse

Kwrichachop (the
name of a tree) is (oh soft)
the name of the little Swakop
River
We continued to the river we followed
High Peak

For a Sneller, \$3.10. — 8 oxen.

For a large untaught, 10 large horses
taught 12 —

From Yonkers Place, back to
High Peak 356 very nearly

Course of the river about 1850

On road bearing N 73 42 High Peak 7 F67v

The High Peak is 3 hours
from the cattle post & one
of a chain of mountains that
run N- for 5 hours to the river.
We followed after 5 hours we
left it & went across to Goakem
we were labouring for 5 hours
at not more than $1\frac{1}{2}$ miles
an hour across the spurs of
a ridge on the other side
of which we come to Goakem
River, the point of purchase of

From Hill about 1 mile. can be
less than 2 miles from High Peak

f68c

High Peak 225°

River Hill 29° 299.45

Mountain ^{not} very probably 299.15

Gable M. ^{very} probably 310

Sugarloaf Hill 310.5

Barnen House 324.5

Chancel Hope Hill of last obs. 324.30

Cattle post hill (cannot identify) 324.30

a) ^{19°} 24.20 359

b) of two pages back — 25.20

c) a high conical hill just } 19°

one out to left of a } 19°

Barnen Bluff 332° 15

on F. (Kaxlon) of 2nd } 327

it yet close by

Rocky (Kaxlon) hill

f68v



Samaritan Boy asleep round
a fire with a dog keeping his
head warm



Coming from Schmel. Hope to find
first out, pass place some 2 hours
road. by river.

Harmon Blatt $277^{\circ}40'$

Range of low rocks fr 289° to 303°

Hill of last resort $48^{\circ}40'$

High peak $218^{\circ}20'$ $(97^{\circ}45')$ Yonder

A new hill of Yonder range

our position $\approx$ I think $\approx$ $\times$ $\approx$

85°

Line of Schmel Hope Hills
fr 46° to $55^{\circ}50'$

Highest peak $62^{\circ}45'$

Two isolated peaks of this range (there may be more but
hidden  $m \ 99^\circ$

f. 69v

Highest peaks of this range 91° Schin Hoke Hills
Hill to its left (not high)  69°

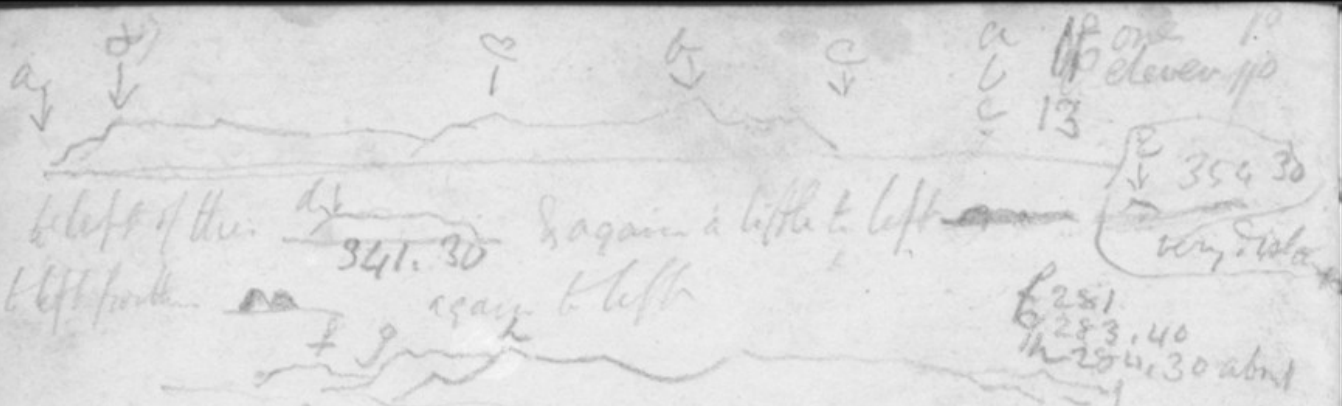
Stork's divides into two branches

General courses - about 18°

Went a third branch some 8 miles down.

Hill of former obs.

It blew very much. I could not keep the stand steady, any one
of the above may be nearly 1° wrong



Mount Liever fr 265.49 to 271
 Bowen range fr 260 to 266
 rocks low, between here & Bowen fr 254 to 261
 cattle post hill 138° 30'
 High peak 186° to 187.20
 Gravelly hill
 the really last bit of chen & phosphate
 10/10
 f70r

Monday Jan 13, 1857. Schmelens Hope. Lat. $21^{\circ} 59' 34''$ f70

Pollux East. 2 cent. 11. 8.14 West limb.

VII. 23.58	35.22	25 ^m 30 - 103.37	29 ^m 33	51.41.50
37.43	41.1.20	35 ^m 41 - 103.21.30	31 ^m 40	51.40.30
			33.45	51.40.20

Fortune Procyon Lat. $42^{\circ} 34'$ $42^{\circ} 8'$

Saturn West. 2 cent. 11. 8.14 West limb.

52.30	63.53.10	52 ^m 101.51.10	56 ^m 25	45.46.40
4.25	50.20	1 ^m 30 101.3.30	58 ^m 50	45.47.20
			1 ^m 1	45.47.30

From Wagon at Barmen

F. 715

Hill where observation
last page were taken

Hill thought to be Gorge Hill } $257^{\circ} 8'$ $258^{\circ} 15'$

Bluff } $253^{\circ} 20'$

High hill opposite Barmen 269° (High Peak)

Hill where observation
were first taken } 297°

Warm Fountain — 239°

From Hill $\frac{1}{8}$ mile NO — from Schmelen

Bluff 255.30 (not Barmen Bluff)

End hill of Barmen range 264.30

High Peak 220.10

For lat Schmelen's Hope

Mean alt Capella $44^{\circ} 24' 40''$

22.12.20
22.10.19
67.49.59
65.50.25
21.09.34

For variation compass

4th AM

1X 53.40	alt Ocerhe	55 ^m 1	119 ⁰ 2
56 25	120.30		
	121.15 40	57 ^m -10	116 ⁰

d 243
a 246, 30
Bluff 248, 30
George Saddleback 1 259° 30'

2 256°
b 253, 20
Conical Hill 261°

Jagged R (?) 264°

Antler Hill 267, 30; 268

Yellow Hill 268, 40

Tent Hill 263

c 269, 30

North Plain 274, 10 (fr 272° 10' to 274° 40')

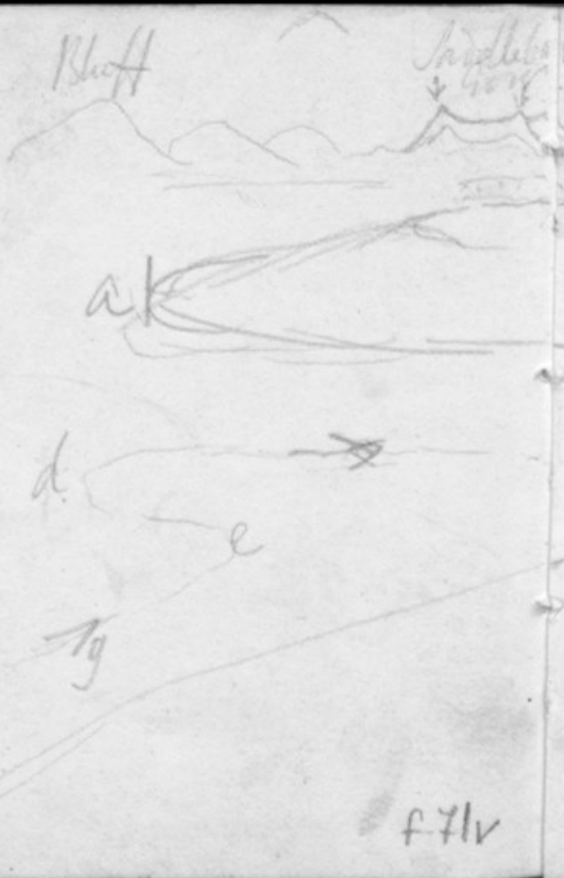
Scheep Hill 275, 20

2 276

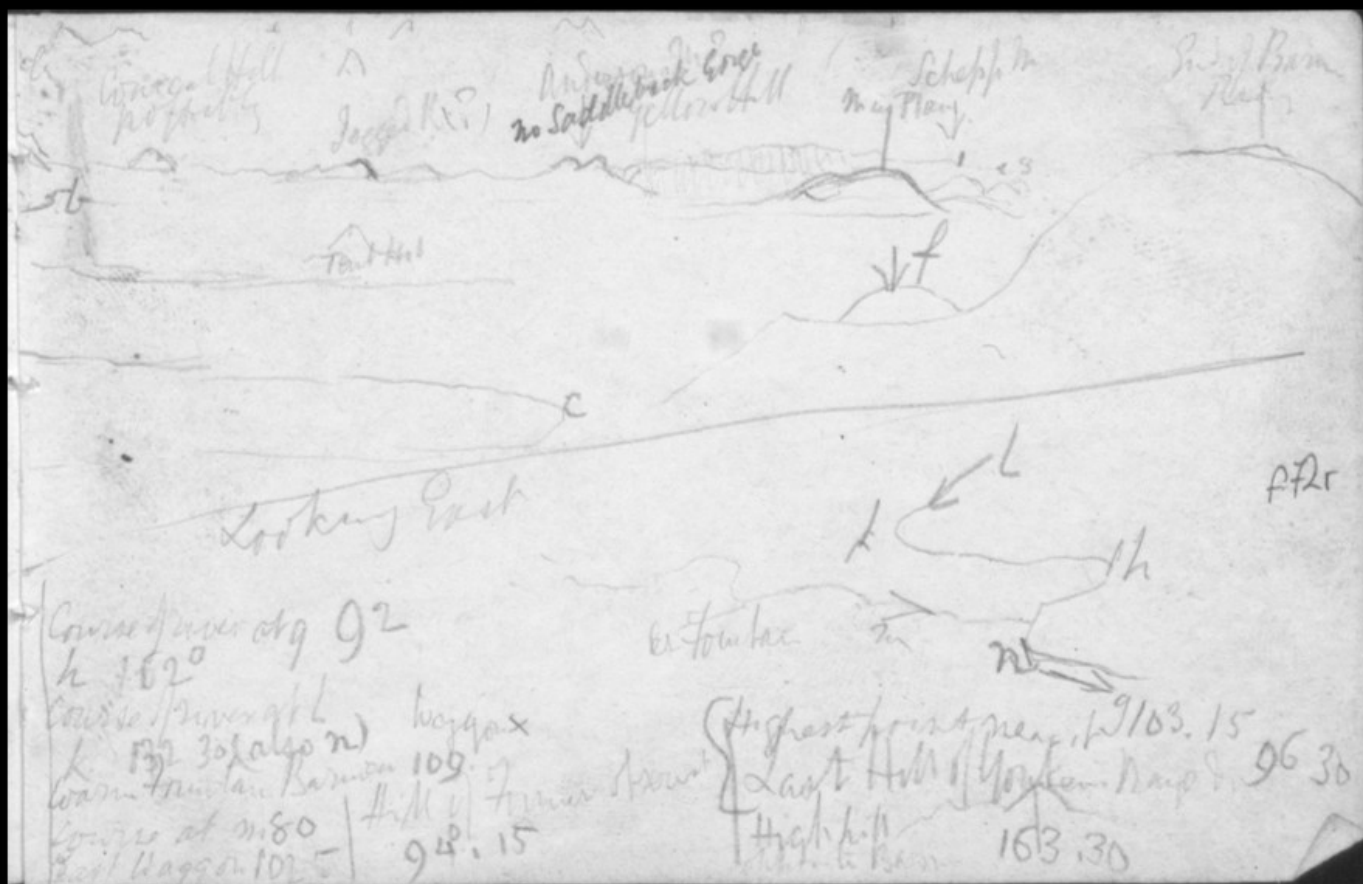
3 276, 20

f 274, 15

Int. L. fr 268 to 276°
fr 278° 30' to 205°



f 71v



The coffee Tree begins to be common
from here.

872v

From Warm Mountain Baxter, Encomienda
a Hill end of Parma 92 30
range. va

b. 101

c. 89 15 in the road. c

d. 100

X maybe wrong 148.30'

Saddle back gorge. 238.15

Wm. Owen

Name of Mtn. Fountain
etamondura

AF3r

Where
Wagon Road crosses great river about 300 yds
Top of ^{very doubtful} Scheff. M. 267.10

Gorge Saddleback 196.15

Mountain in Plain 121.30

Course of River ^{which last extends to 104 to 154}
- 177° 30'

Scheff. M. extends from 251° to 275° 30'

A mile from this river we come to
another smaller one it runs straight from
Gorge Saddleback

500 yards to Rock at mouth of Rivulet (in River)
Scheff. M. left peak higher ~~282°~~ ^{282°} saddle
to peak the one taken at 259.20

Gorge Saddleback 250

Peak of plain 259.30

X Hill in foreground 161.30

Rock 130. - Pt. 1

Course of River 1/2 mile

A range of hills runs along it

beginning 3 miles from rock

71 5 12 + 12

Tent-shaped hill $110^{\circ}30'$

f73v

There is a hill which

might be Gable Mt though I do not think it is

$287^{\circ}30'$

* Another river runs from exactly the same course that meets the Swakod. some 4 or 5 above where we are & on the side of foot of M (see above).

Mountain Anderson Talke about 115.15
Warm fountain (by gorge) $176^{\circ}45'$

From Wagon Schecht M $12^{\circ}30'$

Anderson Hill

Saddle back by gorge $a 112^{\circ}10'$ $b 117^{\circ}40'$
 $126^{\circ}30'$

Base $71^{\circ}40'$ 70°

$L 98^{\circ}14'$ $78^{\circ}30'$

double alt $20^{\circ}20'$

make alt
 610 ft

From Highest peak of Scheff Mt. 7745

Mt Lieven from 279° to 250

Highest pt 257.

Top (Station) of Yellow hills 255

Jagged Rock 249° - 20

Bank of River opposite & southern end from
Yellow Hills

The other bends are undefined. 240° 30

Cone Rock above N. to the bank 197.45

Highest peak of Saddleback above gorge 137° 50

Mountain in plain near Baxter. From 9°

End hill of Barren range 03° 30' 9.18

Schmelen Hill 85730 | 6-86.0 | C 8

Hill that I thought was 101 ft high 84° 45' | 1-58.5 | F 10.20

Hill  14° 45' 17°

Southernmost bend looking 19 30

(N) above gorge 130° 45'

direction of Scheff Hill range 65°

* if then turns down to George Saddleback
River takes in water from

of N. to the gorge from 33 pretty nearly.

1224 ft yards

57° 53'

f74v

118° 8'

Double Alt

33° 41'

For Height of Yellow Hill

4' to be subtracted as a X Error
gives the height of the peak not the very
highest but nearly so 1270 ft.

Onziadjikenne is the name
of this place in front of the X mark

Bearing from Mule Fountain 609° 45'

Jagged rock 252.30 (253° 50' higher & water)

Yellow Hill 265

Highest peak Schepi M. 18° 45'

Highest peak Saddleback Gorge M. 106° 10'

Conceal hill highest peak on other

side of river

19°

f 75r

Southernmost bend of river (by George) 89.15

Saddle Back M. by the above N peak 91.0

Scheffmans M. - 75.30 (highest hill)
Tent shaped hill 101 e

Schmale's Hope M. a b c d e f

a 83.30 b 84.0 c 84.15 d 84.40

e 85.35 f 86.5

g 74.30 h 76.45
Schep M.

k 125.30 l 107.0 m 91.0

Run of this hill 32.0

Hill by Kingston F. 73.0
the middle of a range extending
to 64.0

Hill on of Youken's range includes
the cattle post hill 91.30

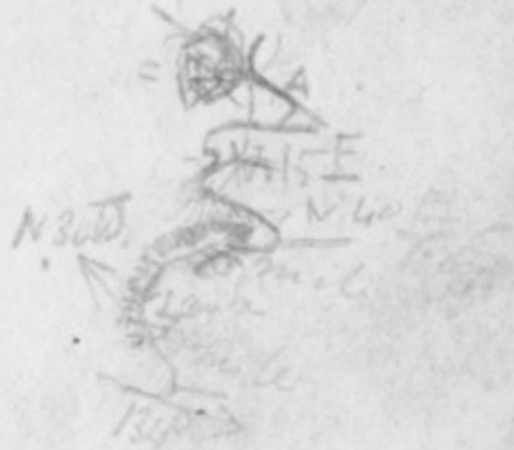
from there to 262.30 I see
nothing but barren hills

The above station line to the top of 318.0

Cone Hill to SE of Jagged Rock 190° 20' 475

Direction of road for Bakunda acmt. "at the river"
near river going to S 30 E close by
head

N 15 E
S 30 E



Wagon road goes (NE)
to Schell M. on the whole

From halting place peak of Schell M.
Course of river at A 20°

From top of yellow hill

Round Hill 259
Jagged Rock 244 15
Bake in hill 227

Cone Hill 210 (ac above 245 20 475)
Fig tree 221

Bakunda hill w. before Fig tree 252 very near
from

River at hill fountain (looking up) 134°

Base 630. ⁶²⁹ measured back

Highest tree on fountain hill 169° 15'

Station on other side river hill top (?) 138°

From B. Highest tree etc — 226° 30'

Station (certain) — 352° 20'

Base direction of 308° 30'

Bakandu is the Damara name of the
fountain place round it —

From Bakandu hill the other end of bay

Other end of bay hill top 12° 45'

Jagged Rock 253° 30'

Top of Round Hill 279° 30'

Edge of Hill 298° 30' about 2 feet

Edge of Hill round which Gable in water 306°

North head of river 5 miles off about 310° 30'

Hill 310° 30'

Highest part of Mt. Lusan 1st 28° 30'

Highest part of Cone Hill 116° 30'

Hill 116° 30'

From mountain opposite to "Hill" from town
 (Bakundee)

f76v

Jagg. Rock Round Rock
 Cone Hill



Top of Hill far to S of road & across $310^{\circ} 30'$
 Edge of Hill round which defile falls in W. sec. $305^{\circ} 20'$
 Opposite top $288^{\circ} 0'$ to $289^{\circ} 0'$
 Round Rock $275^{\circ} 0'$
 Jagged Rock $250^{\circ} 30'$

to lowest hill  that will seen } 191°
 in one with Jagged Rock & reversed.
 Saddle back in α 80° River Hill
 " " β 67.50 Green Saddle
 " " γ 62.30

Cone Hill (see sketch) 293
 Mountain (about 1 mile off) $174^{\circ} 30'$
 Apparent bearing of Jagged R. from here 54°

of Mt. Leaven f. Jagg. Rock
 App. bearing of Jagg. R. f. Mt. Leaven } $S. 65^{\circ} W$
 taken yesterday from other side } at 245°

From Otjimbingue bearing of Gable M^t 358.10.

Distance from Otj to Gable M 10 1/2 hours.

About 2 miles W. of Gable M^t, Erongo ^{born from Otjimbingue}
to Erongo 9 hours. Gorge 159.25. $337.30^{\circ} \pm \frac{1}{3}$

Two hours from Gable M. on road to Peak of Erongo
at Damara works the direction in which the
nation south of Omaruru & Omajje generally
lies 233.48.

Height of Erongo (highest peak) 3200 ft
Length from 14 to 15 miles

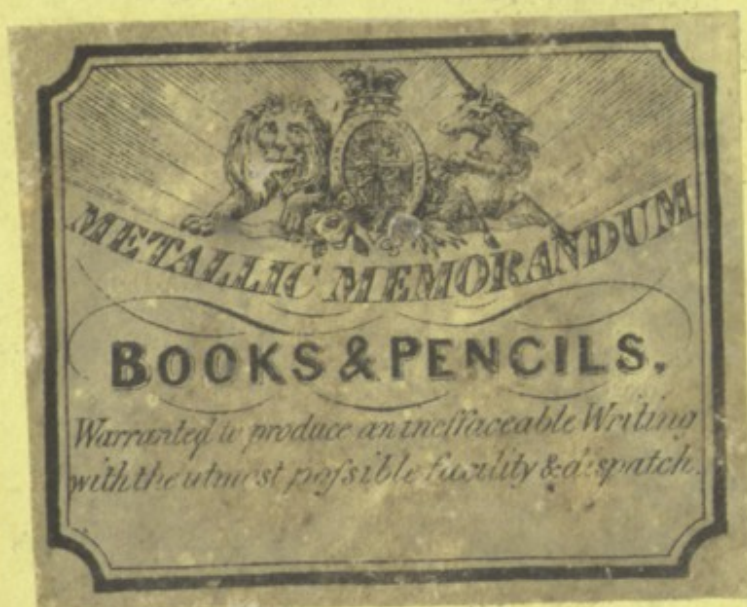
14 ft 8 ⁱⁿ $\frac{3}{4}$. Circumference of wagon wheel

78 - 51 - 11 at Erongo Otjimbingue.
Peak of Jagged Rock 140 20

	RA	Decl:
Aldebaran	4.27	N. 16.12
Capella	5.6.	N. 45 50
Canopus	6.21.	S 52.37
Procyon	7.81	N. 5.36
Pollux	7.36.	N. 28.23.

f77✓

228
180
48



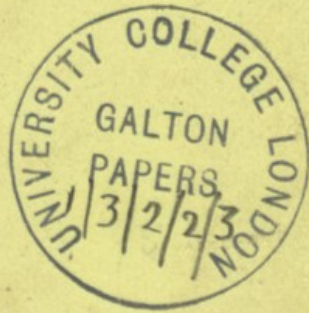
2. $\log \sin \text{Hor.}^{\circ} L = \log \cos \text{Pol. Dist.} + \log \sin \text{lat.}$
 $+ \log \cos \text{ine } \frac{1}{2} S = \log \sin D$

($S = \text{alt} + \text{Pol. Dist.} + \text{lat.} \quad | \quad D = S - \text{alt} \text{ or } \text{alt} - S. \quad |$)

Omanbonde (III)
Ovambo journey
back to Okavari



f.1r



f.lv

$$\begin{array}{r}
 304.40 \\
 111.30 \\
 \hline
 193.10 \\
 96.35 \\
 111.30 \\
 \hline
 208.5 \\
 180 \\
 \hline
 28.5
 \end{array}$$

$$\begin{array}{r}
 80.40 \text{ fr Nalt} \\
 65.20 \\
 \hline
 25.20 \\
 80.40 \\
 112.30 \\
 \hline
 30.80 \\
 80.40 \\
 106.30 \\
 \hline
 25.50
 \end{array}$$

$$\begin{array}{r}
 304.40 \\
 106.30 \\
 \hline
 198.10 \\
 99.5 \\
 106.30 \\
 \hline
 204.35 \\
 180 \\
 \hline
 24.35
 \end{array}$$

$$\begin{array}{r}
 99.5 \\
 304.10 \\
 \hline
 205.5 \\
 180 \\
 \hline
 25.5 \quad \left(\begin{array}{l} \text{mean} \\ 25.20 \end{array} \right)
 \end{array}$$

4. 18. 36
 19. 41. 24
 10. 39. 18
 3. 21. 7 Argon
 19. 41. 26
 11. 6. 10
 3. 47. 30 8 Lenin
 19. 41. 20
 11. 41. 27
 7. 23. 13 Lenin

Pace

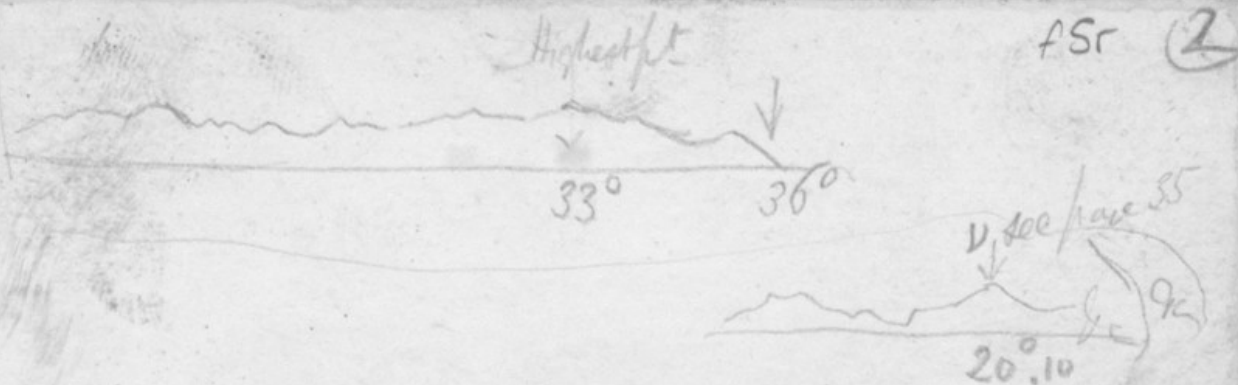
f2

Hours	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$
2	$\frac{1}{2}$	1	$1\frac{1}{2}$
3	$\frac{3}{4}$	$1\frac{1}{2}$	$2\frac{1}{4}$
4	1	2	3
5	$1\frac{1}{4}$	$2\frac{1}{2}$	$3\frac{3}{4}$
6	$1\frac{1}{2}$	3	$4\frac{1}{2}$
7	$1\frac{3}{4}$	$3\frac{1}{2}$	$5\frac{1}{4}$
8	2	4	6
9	$2\frac{1}{4}$	$4\frac{1}{2}$	$6\frac{3}{4}$

Date	Name of Place left.	Time of start	Stop in road	Time of arrival	Miles per hour	Dist. gone.	Course. ^{f3v}
Tuesday	Onabondo	6:50 ^{4:30 AM}	35 ^m	11:55 ^{AM}	2 $\frac{3}{4}$	12 $\frac{1}{2}$	325°-160°
	The shallow Fley	1:4 ^m PM	15	5:30 ^{PM}	2 $\frac{3}{4}$	12	about 10° north
Wed. 4	Tree in flat.	6 ^h AM	15	9 ^h AM	3	8	Tree.
Thurs	Okatjokama	5 ^h -50	30	12:45	3 $\frac{1}{4}$	24	
"	Fley	1 ^h 55.	5	5:40	3	14	
Sat. 4	Onabondo Wagon	4 ^h 10 ^{AM}		11:35			
	Fley	2:53,		4:30			75°
Sund.	Nain	7:20.		4:30			
Tuesd.	Okatjokama	6:45	10 ^m	10 ^h 35	3 $\frac{1}{2}$	12	450
Wed. 5	Mountain to the N.	4 ^h -	15	11:15	3 $\frac{1}{2}$	14	
Thurs	Okamame	7:30		10:45	3	9 $\frac{1}{2}$	

name of Place / arrival	Remarks on road.	f41	Lat. & Place of arrival
a shallow Fley	Excessively thorny, a succession of deep hollows between fleys		
a tree in Flat	Thorny out of the River excellent sand road after - Palms		
Okatjokkama	Excellent road except a bit of thorns 10 minutes later		
Fley (above)	Water in Fley had sunk $\frac{1}{2}$ inch in 2 days it is now 4 inches deep		
Onabonde			20.2.33
Fley			
Hain (Giraffe)			20.2.38
Okatjokkama	We stopped 3 hours missing the little bridge		19.55.50
Point under the Flat ground	numerous palm trees		19.47.4
Spanumee			
Onakamombuti			19.30.4

Okatjokeama the first weiff } on road to Oaiaifu. f4v
Otamunee the second
Rajoukaku the large hills to the East in the range.
(highest point)



Unicorn pt 357.15,

Hill in distance 302.15

Extent from 327° to (erroneous)

(From Hill above wagon $\frac{1}{2}$ mile from them)
Omabade,

2 1/2 ft

9 1/4

f5r

5 ft

4 ft

Halfgerth 5 1/2 ft
11 ft



On flat where giraffe was shot.

f6r

Omabonde (Lamarantag) 28°.

Fley. (Lamarantag) 257° 30'

Hill in distance (last page) highest pt 312.30

(is part of the range) last hill from 311.15

Unicom pt 337.15 to 313.30

Highest pt 359.45

Extent of Hills from to 13 30

West okatpokeama (Lamarantag) 85° 30'

West Othamunee (") 67° -

Sunset 304° 40'

Sunrise 111° 30' (106° 30' I thought to have been)

Merid Alt of y. (1)
19 observed
102° 14' 45"
lat 20° - 45'

f.6v

5

12 ~~Acres~~

4 mile radius.

16 square mile

12 square miles in ①

360 x 6 trees

30 x 6 " to square mile

180 trees, 4500 acres

540 = 3.

24

24

96

48

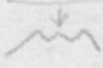
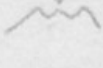
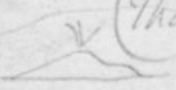
370

p7r 6

7 At Otjiekama fly side 2 Azim 102.34° S $19.55.14$ Merid Alt lat pV
 & Leonis $114.45.10$ $19.56.31$
 (very good) 7 Hgus $102.47.5$ $19.55.17$

Unicorn Pt 322° ~~right~~
 Highest point 333.7576 From the top of tree the
 but it may be on 331.45 (a) barbs are daily in the way
 For Az Monday 10° S about $6^{h}20^{m}$ April 14th
 Mean of 3 obs (center alt $10^{\circ}40'$ Az center 108.53
 (not double)

Course $55^{\circ} 45'$ | at $10^{\text{h}} 35^{\text{m}}$ | arrived at a small fountain under a stone at $10^{\text{h}} 35^{\text{m}}$. ¹⁶ Perhaps, ^{min} the palms were most numerous along the road. to the exclusion of every other tree or bushes. I counted 50 (as an average) in 10° & suppose that the radius of the visible horizon was 2 miles.

Rajoukaper highest pt. a) 	307.50
2 nd highest pt. b) 	310.45
Highest pt. of the more distant range	319.56
Temple.  (That is F)	324.50
Hill near road 	335.75
Sid Hill 	338.15
Pyramic Sid from 303° 6'	346° —
Flat W End — 303° 36'	

Lat. $10^{\circ} 41' 4''$

9

Course at start ~~XZ~~^D, 18° ,

Ojérikaku

30 yds. slide mine $3\frac{1}{4}$ yds.Direction of face
of Ojérikaku

N. 55 W

Leaving Pt. Munnice Course 42°

Apr 10

Direct to N. Side of Pt. Munnice N. 60 W



N. 60 W.

From hill 1 mile W of W. K. K. in a straight line

Otopokaka highest pt at $266^{\circ}15'$
B' $269^{\circ}30'$
B'' 270°

Start of from $262^{\circ}30'$ to 275° (that is the main hill)



General direction of Knoll hills, $276^{\circ}30'$

1st set of hills $289^{\circ}30'$

f. 10r 12

f
298.30

The hill of observation from Weyen 305°
For their latitude $(\eta \text{ Argu } 101^{\circ} 15' 18'') = 19^{\circ} 30' 48''$

¹³ Lunar Distances, at West

April 22nd F. 10V

Time by watch. Ball about 11^h 42^m

TV¹ 23^h 55^m

dist near limb. 080

100. 32. 40

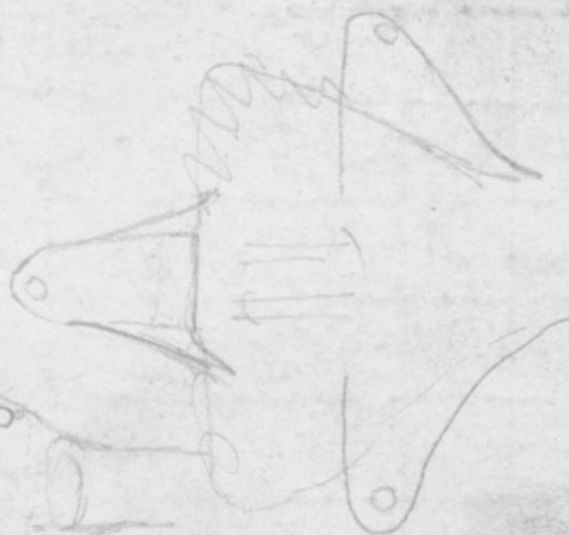
high alt 11^h 40

30. 7. 45

high alt 11^h 40

44. 52. 48

p. 115 14



Day/Month/Year	Place	Time of Start	Time of Arrival	Stop	Hours on Road	Miles per Hour	Distance
26 th Sat ^y	Okamabati where waggon are	7 ^h 5 ^m	9.55	55	1.55	2 1/2	3
afternoon	Cattle Post.	1 ^h 10 ^m	3.20	5	2 1/2	3	6
27 th Sun	Kutisanaghonue Tongtavis on Hill	6 ^h 10 ^m	10 ^h 25 ^m	35	4	3	12
afternoon	Tree	2 ^h 10 ^m	5.30	12	3 1/2	3	9
28	Mr. Valley	5 ^h 30 ^m					
	Mutivakani (Big Dam Town)						

ALL

Course	Name of Place of arrival	Courses	Page	Lgt of Place
	Yammaras cattle host 2 fountains		18	19° 30' 46"
XV. 50th	Kubrianachouque		19.20	
	Under a tree	Lost an hour		
	In valley (S & W) between T. & C.	by going round perhaps instead of between h. & p.		

f12r

17

26. ^{beasts} ~~beasts~~ & one calf. we take with us.

12 pack & ride

12 horse

1 Bull of John P. Nelson

1 Cow & calf

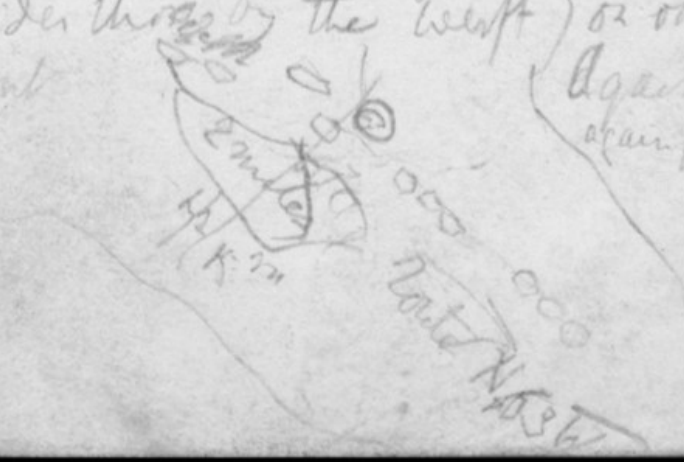
20 sheep.

28. beasts & one calf.

1 Little one of John Williams

29. beasts & one calf.

~~scattered by irregularly~~
very full of trees but few thorns there would have
been infinite trouble with a wagon. Regular pioneer
Heathland kicked off his pack, & was very wild we lost
35 minutes catching & packing him again. The Sam was
"gaw" about dreadfully in going anywhere. There are ~~Q~~ ~~knobs~~
besides those by the west } or our road & then placed
about. Again lost 20 minutes in
again packing the same ox.



FBR

19 Leaving Kutjianashongue Okamabulung f13v

9.2 an hour after leaving the 10 hut we came to another a small one on the top of a hill about 50 M. 11.2 an hour after reached the sleeping place a series of fountains round the brow of a valley ^{mainly} called Kutjianashongue

from this place

	F ^{little} ^{simple}	50° 55'	} S
	F ^h	11° 18'	
7. ^{292° 20'}	T ^h	9° 37'	} extent of h 12°
	F ^h	18° 46'	
from 301 yd west of it	F ^h	58° 18'	} N k 13.50
c		extent of k 5° 39'	
d		k is the isolated	
e		k & k are the two main	
f			
g			



The low hills by which we slept Elephant shooting (to left of the single hill) from leading pt 15°18' & extend 9°41' further. Leading point (8) 115° Az Comp.

From all these 14 as index sum to be subtracted. The "little Pimple" is not the same as the Pimple of a preceding page.

21

F14v

After travelling $2\frac{1}{2}$ miles toward point 9.

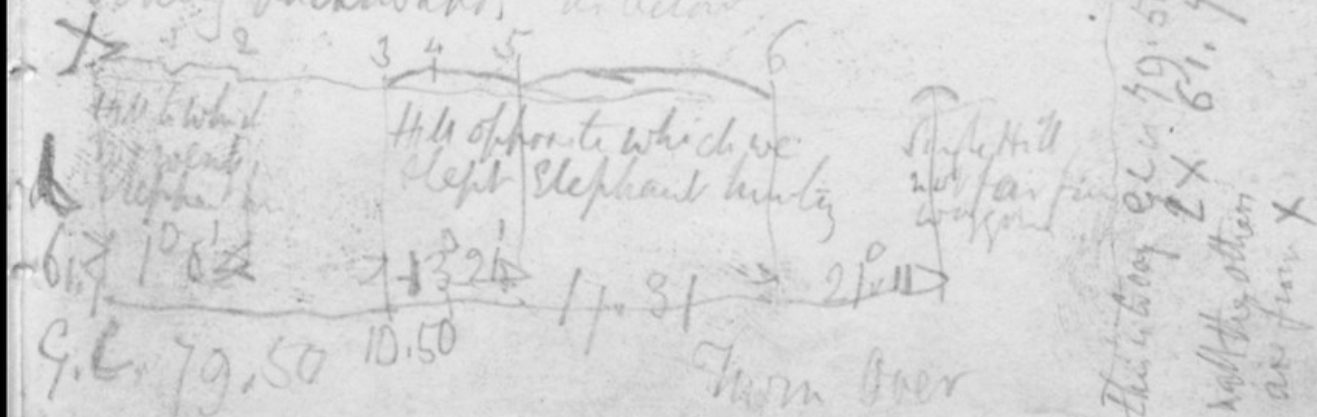
The angle between the starting } 126°
 point & the isolated hill I was } roughly very
 (In case I sh^d have no other means of fixing
 L I took this.)

Again after $3\frac{1}{2}$ miles towards pt 9. from the
 e.g. 25 14.5 e.g. 11 52 (S)
 19° 13' } N. whole extent of the 35.16
 41.35 } The angles are good 14 1/2 miles

415r 22



looking backward as before



23 The bearing of Σ is $84^{\circ}30'$

$\begin{matrix} XL \\ \times C \\ xy. S \end{matrix} \left\{ \begin{array}{l} \text{North left, } 59^{\circ} 60^{\circ} 12' \\ 20^{\circ} 47' \end{array} \right.$

QH.L $56^{\circ} 42'$ to V. of η .

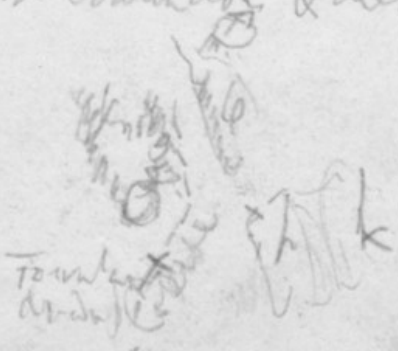
q.m.L $52^{\circ} 20'$ to left of η

HQ.L 45°

this is 4 miles from
sleeping place.
a pack was loose.

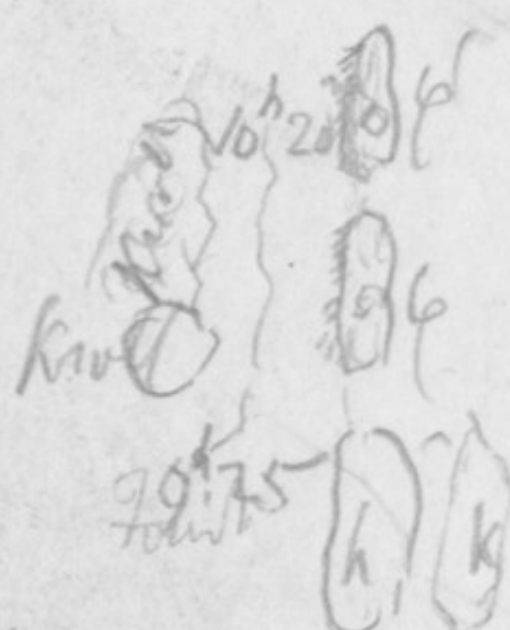
10 minutes further on, going towards e. H was
exactly in front of hidden K that was at $8^h 40^m$ we
had had about 30 m stoppages.

We arrived at a dried up Towns at 9.25. & ²⁴
in 10 minutes after that going toward Q we were
westward of a knoll turning its corner we went up a valley
broad for the valley is about a mile broad & bounded
by Q on the right & knolls on the left. h & Q may be
considered as almost continuous & they ^{run} are in the same
straight line.



f16r

25
f.16v



We offpacked at 11.40 but we
had lost the road & were chasing
after the car that we had lost
9.35

From top of hill (p. 25)

X (h. 22) $85^{\circ} 45'$ (H3)

X 1 $0^{\circ} 37'$

X 2 $1^{\circ} 3' 30''$

X 3 $8^{\circ} 5'$

X 4 $8^{\circ} 57'$

X 5 $10^{\circ} 40'$

X 6 $14^{\circ} 40'$

(X 20)

X 7 $17^{\circ} 41'$

X 8 $24^{\circ} 4'$

X 9 $25^{\circ} 5'$

X 10 $25^{\circ} 20'$

X 11 $26^{\circ} 3'$

X 12 $24^{\circ} 25'$

X 12 $25^{\circ} 57'$

13 $27^{\circ} 27'$

14 $27^{\circ} 15'$

15 $27^{\circ} 57'$

Top of hill L 61°

of K 41°

Extent of range of h & k 83° to 12

their strike, 360° about

Pyramid Hill 353.30

Eastern limit of great range 3°

turn over

27

g. $327^{\circ}30'$

f17v

from 333° to about 307 but it is not isolated, it is the^(284°) first large hill going Eastwardf. 291° from 301° (where it began to pour g) to 257 little hill 284° e $269^{\circ}45'$ I fear there have been mistakes along
Southern limit of range (visible from here) 201° The fountain at Catla post must be exactly in same line
as X.7 or $17^{\circ}41'$ from X. I see clearly the dust of the
cattle though I can make out nothing else. -

φ is 108, but close by.

F18r 28.



The run of g is N. 72 West
& that of one side of f is ~~more~~
the same. f18v

Again the run of g & the
Pyramid Hill seen exactly
in the same str line.

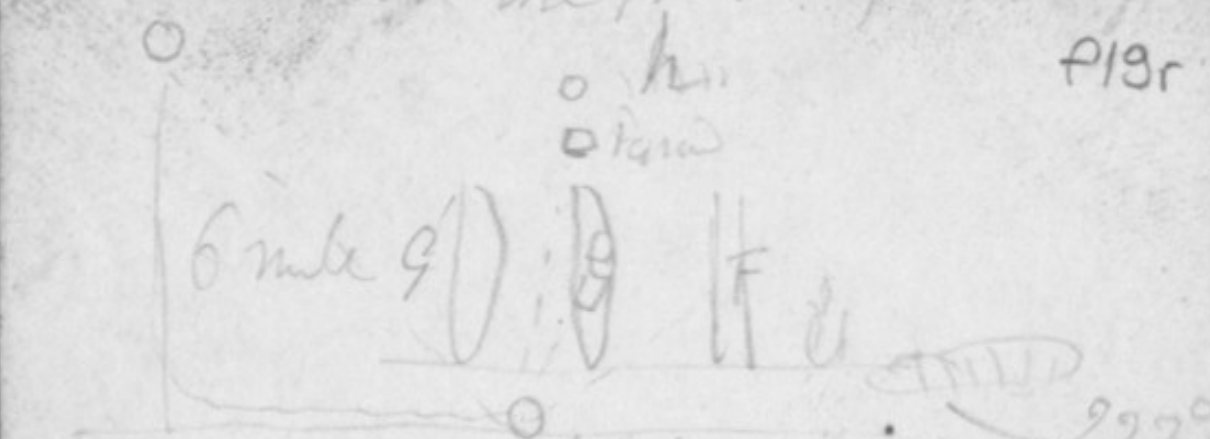
The ridge of f is True North
25° West about.

Monday.

g is but a narrow ridge say 400 ft
parallel to it & NE of it 400 ft
also off is another ridge. These are
separated by a level valley along
which I conceive we ought to have

gone. We took 20 minutes
at the guide question
therefore stopped
and I am now to

took for it. I went up a little but
 whence took the following bearings



At the end of the peak of it) 82°
 G' 102
 G 125
 F 169°

We left the place at 10 $\frac{1}{4}$ &
 went north.

From top of hill above fountain
400' - due East of encampment
L 113° 30' joins h & k on the side
k highest point 135° 15' extend to
behind pyramid hill

Pyramid Hill 139° 45'
145° 10' (6) from 141° 30' to behind g
g highest point 159° 15'

g from 146° - to 200°
f highest point 189° 45' to 201°

e but questionable 204° 30'

Hill of observ. 30) 212° 30'

S.W. pt of valley 257°
N.W. 276° which covers the range of the hills

h & k

FIG 19v

direction of the range of hills

hills seen thro. of the valley
highest pt 275°

from 274° 45' to 276° 45'

p20r

Map No. 11

32



4 hours from Tontaw on horse & wagon
7 1/2 " — Bergsman Tontaw to Tontaw on horse

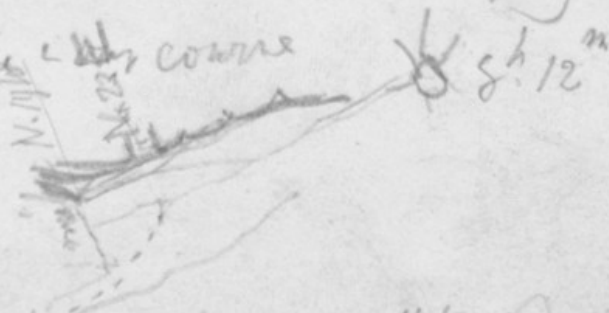
Okutpashongue

335 The course of the valley in wh. Omurakani is is 66° (at its beginning). A20V

Left Omurakani at 7^h (A.M.)
after 60 minutes the valley opened out the hills to the
left (NW) sloping short but those of the right keeping
on their line. the dotted line ^{is the} course

Crossing a gap between the hills
we went down a valley N. 23 E

down hill then across
flat & through a range of lower hills. Here off peaked at 11
having lost 30^m on the way. Here merid alt (October 1904
April 30th) was $111^{\circ} 30' 20''$ or lat $19^{\circ} 26' 13''$

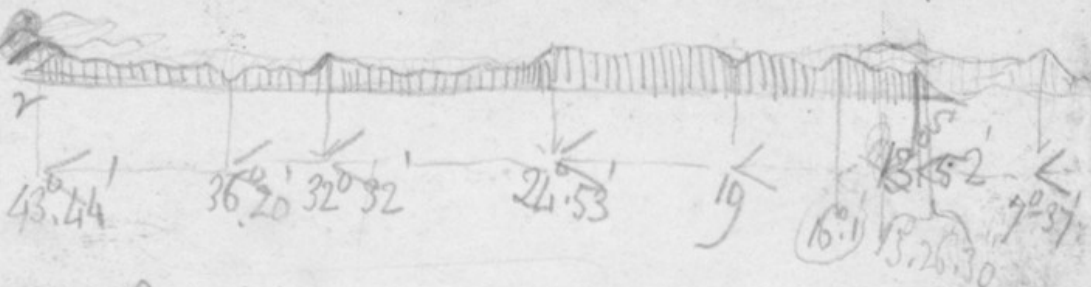


We lost the way the guide knew nothing about the
the country so we returned starting at 2^h 30^m
cleared the first row of hills at 3^h -
crossed the flat & came to the ^{2nd} ~~point~~ range at 4^h -
crossed the range & flat by it & came to the range ~~principles~~
range at 5^h 5^m Arrived at Tomb? at 6^h 47^m -

351

f21v

Hill of Oboro



Hill of Oboro 200°

do about fountain 105°

what I am almost sure is V (page 2) 255° -

Pyramid Hill 137°

255
42.??
211.30

SW runs directly towards G

F22r 36



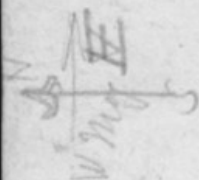
15' to be subtracted
from all these as before

between trees $5^{\circ} 59' 30''$
bearing of S. T. $187^{\circ} 30'$

(From fountain
Mitsukano Omurakane)

N 52 E 57 SE N 22 W

A22v



Flaw
1st route



Left Omarikene at 7^h 15^m for Kut, a small place

Hill over the Front } 51° 35'

> Hill over

little Hill over Pyram 74. 58° 28' + 62° 4'

little Hill over > V 12° 1'

11 8 . 32
115. —

F23v

from hill $\frac{1}{2}$ mile from Waggons

Waggons 98 about.

Elephant Hill 22, 5 70°

6 81

as seen at present from 85° 30'

to 68

But Elephant Hill

1 45°

as seen at present from 48

43

Single Hill (same page)

352 30

740 (late) Hill

320. 15°

67

298. 10

292. 45

(p 4 295°) (p 4 295°) (p 4 295°) the hill that
climber not 67

Lunar Distances at Okamabuti May 11th Even 1851.
 Dist^{ns} with Sextant alt with Circle - the time apparent at
 place to 3rd minutes.

Double alt (upper limb) (East)		Dist near limb of Regulus	
VI 34 ^m 52 ^s	93° 20' 40"	VI 42.10.	70° 54' 30"
47.53	96.41.35" Mantube	45.3	70 55.50

again for time with tele scope.

VI. 51. 36	98. 7. 20	} the 3 rd time
54. 47	99 23	
	22. 40	
	23	

For index error of sextant, I could
 only bring the two images of same star
 in contact. I tried it on several stars
 & find an index error which before
 about 3" to be added to the readings.

For latitude meridian double alt of Argus 101° 14' 25"
 (which gives 19° 30' 23" —)

f24r

Shakodomateniya

Uchopachopo the hill h & k
~~Uchopachopo~~ the name of the
 hole by fountain (baboon)

Mutchikango baboon fount
 Omutumba (no water)
 Mutchikoto large fount
 Muchando water
 Muchanatusda - like Muchando
 a small fount
 Mundonga Rayoroph

f28r

Memoranda

2 pencils for Hansie.

Heard about my instrument box, taking care of.

Take Sulph. Line

Accordion

ox for Nangoro.

Sword

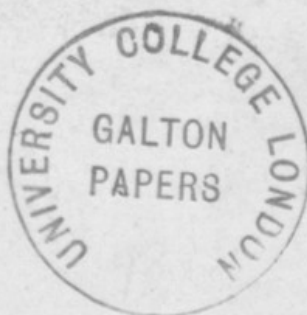
Little Bullet mould

Smart Red Coats - keep Hand k.

White's Ephemeris (for stars)

Chambers tables.

Copy Rad & Sed of O for 6 weeks.



May 21st Wednesday morning Okamatuli

Alt 0 upper limb

Alt 8 upper limb

distance near limits

h ^m 22 ^m 35 ^s	22 ^m 35 ^s	48 ^o 18'	24 ^m 52 ^s	83 ^o 49' 40"	26 ^m 32 ^s	109 ^o 8.25"
					27.52 ^s	109 ^o 7.50"
					28.45 ^s	5.20
					30. —	6.55
					30.55 ^s	6.50
33.19 ^s	52.29.		35.23 ^s	79 ^o 2.40	31.45 ^s	6.25

on 31^o 40" 28.30"
31.30 28.20.

Given long 18^o 9'

55 ^m 9 ^s	60 ^o 40' 35"	57 ^m — ^s	69 ^o 10'	58 ^m 21 ^s	108 ^o 57' 70"
16 ^m 15 ^s	64 ^o 40.20	4 ^m 15 ^s	65 ^o 54'	59 ^m 31 ^s	108 ^o 56.40.
				0 ^m 35 ^s	56.25
				1. 33.	55.55
				2. 45.	55.25

the index error must have increased I think 18^o 24' will be the true long deduced.

Given long 18^o 25' 30"

f25v

alt @ upper limb	Alt moon upper limb	Dist near limb @ D
IX. 17 ^m 26° 68' 38" 20"	19 ^m 18° 56' 4.20"	20 ^m 36° 108° 48' 20" f26r
	26. 41° 55' 44" 20"	22 ^m — 48 10
		22. 58 47 50
		24. 1. 47 13
28. 41. 72. 14. 35	Que. Long 18° 21' 30"	24. 55. 47. —
Index error on	31° 40' off. 28. 20	
	31. 50 28. 30	
	32. 15. 6. 2	
	31. 50 28. 30	
39. 54° 76. 5. 40"	42 ^m 13° 48° 46 30	43. 22 108. 39 53
50 15 79. 20. —	49. 4 45. 40	44. 38 38 55
		45. 54 38 25
		46. 43 38. —
		47. 42 37. 40

Oxen 15 ride & hack

f26v

8 slaughter

8. belonging to the Obangpo

39
2 cows

1 calf.

30 sheep

3 goats

32

6

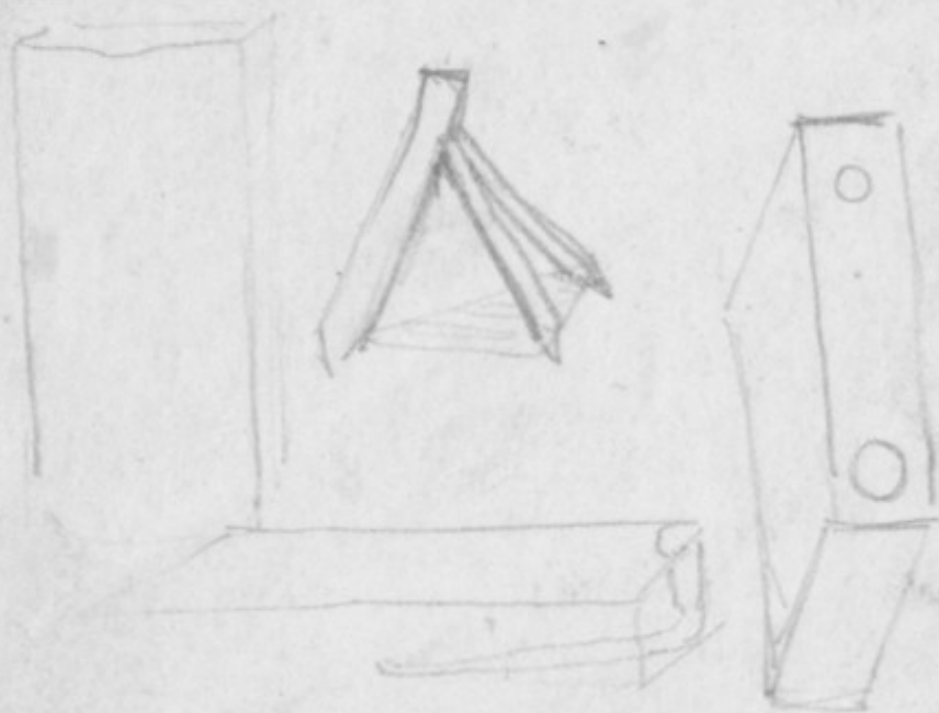
13 fine

9

13 kill

1 for

22
1981



Left fountain 2 hours from Okamabshi at 7.40

Nambashua, arrived at fountain at 12^h. 20^m delay -
from 400 yd from it

it (the fountain) bore 314°
Highest pt h $316.15'$
from $30'$
to $341.15'$

K extend to 353.30

$\angle 27^{\circ}$

But elephant hill cleft in middle 88°

Elephant hill cleft in middle $100.15'$

Single hill opposite Okamabshi, in plain $119^{\circ}.30'$

Has
 Cande has never been to the Ovatom
 Nangoro people tried to go & trade
 there but it was too far -

The Ovatom hunter fight too much
 & though he has been there yet it is
 not do to trade.

"The field" is broad between the
 & the Ovatom - he does not know
 who lives there.

Awapangare is the name of
 the people who live on the river
 & take the Ovatom to across to trade
 they go freely among the Ovatom
 on the road there are many
 elephants & eland & buffaloes.
 & plenty of sea cows in the river
 the stream is very strong.
 it is some way from the sea.

Ovabundya, live among many
rivers & live only today from
the Ovapangari

the Ovapangari are nearer than
the Samaras.

Omboongo is the name of the
river - plenty of crocodiles alligator
there, he told me after it was Omboongo,

~~Omboongo~~

Miquera ya mahaka.

The Portuguese sell brandy
the Ovampes take ivory & beys
are friends with them & speak
the same language as the Ovampes
the Ovapangari - different
All the black, he knows of calls
oxen oukompe Limbo does
the same. —

The Ovampo.

A28v

Ovampanyama, the name
of a nation of blacks NW.

Ovagangara do live W. &
live close by the sea. - they
are just the same as the Ovampo
their Captain's name is Okangorotop -

The Ovampanyama do not
live by the sea. the Ovagangara
live between them & it.
there are Red people living among
them.

Chipangajara is Nangoro's
brother, the great captain, but
under Nangoro.

f29

the road from Omaru to
the Ooamps is at Kaihene
land, very near the sea.
You can see it from it.

Katouoof was the Captain
the Ooamps killed, 5 years
ago. He shot off a great
many Samaras & was just
like Kaihene.

Omatoko means the
"kate"

Echnameno - "they took
out all the young women's
teeth" - - -

Ga Kabien Kabaei

f29v

the names of the Berg Damm
Captain

Okarheke the naked man,
some women wanted to crop
& strip off their silver beads
so, — ~~it runs very strong~~
at times, —

Ya Kontgava a very "sassy"
rhinoceros that no one could
kill live on the hill, —

Dambolottu the place where
they got the red stone to
smear themselves with. —

Crongo ~~seems to be~~ a safe
place, a place of security where
people hide things.

Omarura bitter-water

Omuapim hot water

Ogironjuba the stone

is as red as a calabash

Koniak Buffalo one man

killed 5 Buffalo there in
a day by a fountain.

Ogimbrigue ("every one")

some Berg Samaya long time
killed some Ovaherero - they
killed them all, none escaped.

Left sleeping place at above

fountain at 5^h 50^m

ootui is the name of hill $\frac{1}{2}$
of the fountain too.

Prinjo the fountain by G.

f30v

198 30 Highest pt. G.

178. ^{Highest} peak of G. -

about 50 yards across 40 ft deep
about 1 mile from G.

178 paces round it in quartering

6 hours altogether from
to Mutchikango

The Gampara with their
The Gampara have 206
beasts of which 14 are
large ones & ^{3th or 4th} nearly all the
rest cows or heifers - (that
looking beasts but intelligent)

The Gampara guide says that
the Gampara have four eyes
like the Samaras, but have

not much illness. — there are
very many old men & women
here

Left Muchikamp at 25th
with 5 minute delay stopped
to put all the packs to right
at 10^h 20^m we turned round the
hills to the left after crossing the
1st plain, our road now is
N 7° W (comp. obs). — It has been
for the last $\frac{3}{4}$ ten hours extremely
stormy quite out of the question
for a wagon, where we went, better
ways through other places might
for ought I know be found but
the way we went is never do
The ground of the plain has been red.
but the hills are all limestone

Left at 10.40

12 October have kept the

#31✓

Course N. 7 W very steady, are
on the top of the last ridge of hills
having crossed a plain since I last
wrote. bounded by hills in the
usual direction but rounded at the
West end. about 2 miles from the side

by 2.45.  we had gradually
changed to N. 70 W. There
were still some hills in front
of us

Stopped to sleep at 3.30

Very woody but not much land
space between $2\frac{1}{4}$ & $2\frac{1}{2}$ miles an hour
Started in morning (Monday)
at 5.17^h arrived at Ojibwa
at 9.30. no delay on the road
& a magnificent place it is too
3 miles an hour. N. 20 W

Boundings - Depth of water, F32r
147 ft over the cavern
the tides are 35 ft -
166 ft

L. of N.E. $\Delta 72^{\circ} 40'$ to determine
the breadth base 153 ft
opposite cavern 188 ft

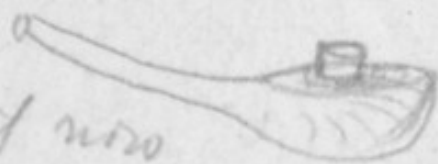
(check) Isiskae (large water) is the
Namagua name.

About 24 Red people were here, really
good looking civilized people. The Captain
gave me some Koodoo ment. The Alti
could make them understand well.

They had a very pretty pipe made
out of a small calabash with
a piece of clay let in it to make

The Cowl

p32



I don't see it now
but draw from recollection. - The
shape however was much better than
I have made it above. -

There were some ducks 5 or 6 in
the water. & a ^{low} cavern opened in upon
it to which Andrieffin swam. It
was only about 20 ft ~~deep~~ deep. He saw
some owls sitting there. There
are minnows in the water. I have
hitherto seen no fish of any description
elsewhere. The guide tells me there are
large fish in the water.

f33r



Section of Omutehikoto

They say Naggon, place U N
 n Arcus camp

100 28' 40"

100 30'

100 32'

— 32.20

— ~~32.20~~

— 33 Good reading

34

33.40 =

33.40 =

32.50

100 33.50

50, 16.55

48

50, 16

39 48.53

58.52.50

10 16

Latitude from N. H. 19. 10. —

f33r

Left Mutchikoto at 6.30

MUTE. N. 10 E or N.

it is on the northern boundary
of the hills which I can now see
from N 55 W - they are far here
but continuous at present I can
only see about 9 miles of the range
after a hour a conical hill to
of Mutchikoto bore 211° . (6^h 52)

(see picture next page) (The hills extend a far as
I can see on both sides)

N 50 W

Stopped at a Otjando several small
4^h 40^m — 55^m delay well as a limestone hill
2 $\frac{3}{4}$ miles an hour
watch had gained 50^{min} it took 2^h in the M.

we soon lost sight of the hills & had no
landmark. — passed a deep hole
small down which a man crept & then was
under a stone (got a little water at top
about 12 o'clock)

f34v

FBSr

Left Orlando at 11.42

N. 30 W

N. 50 W

N. 20 W

Water at 4 no 2 day
off packed 5^m after

(not water proven).

Argar

99.40

.42

14.20

46.25

49.-

50.-

52.20

54.

54.10

56.20

56.20

57.-

59.-

59.20

100. + 1 -

100. + 40"

100 1.40

1.40

2.20

2.40

1 had

2.40

2.40

2.40

2.30

1.50

1 -

100. 2.50

52. 1 25

48

52 - 37

39 59 23

58 58

18.54.37

lat of little Town

Left at 5.40. at the little FBS
 Fountain we abruptly changed
 our course & went due north
 Arrived at 1.40^m — 30 sec. mts
 delay. The breeze ceased & a broad
 plain stretched before us. — Then
 we saw a small round flag with a
 little water in it some 20 yards
 before we came here. (Muchamela)
 looked in a fountain yielding about
 as much water as Bernier. So
 our general course I estimate at due North
 10° W. — From Okamabiti here
 has been entirely limestone.

Sunset: ~~318.25~~ 318.10'. Sunrise 92°

89	40	99	45
94	40	99	46
	41		46.30
99	41.20		47
	43		47.40
	44.20		48
	44.20		

46.35"	99° 47' 50" for merid alt
47.20	
47.40	
46.40	49.53.55
46.-	49.53.5
44.40	40.6.55
	58.54
	18° 47' 5"

Lat. Omuchamatawa.

318

92

226

113

205

25. variation Comp

Questions to Enche

what direction does the Omuchamatawa run to the SE corner
 do Omuchamatawa live to the E of the place that the same way
 is the road from Omuchamatawa to the Omuchamatawa shorter
 does it cross the Omuchamatawa larger than ours yes
 give name of hatching place
 does it go through the the Omuchamatawa
 the Omuchamatawa road is the shortest

f36r

route from Nanyoro to Omaramu - distances by

	10	hours	Quests
Opamarunga.	10	2	
Kukuma.	6	3	
Chotumare.	11		
Mokuaa.	6	3	
Mobika.	8	6	
Mushadthantu.	6	3	
Monomatanga.	6	3	
Motukuta.	6	3	
Omaramu.	10		

There is much work
they go slowly.

f36v

I no where or see the Omaramu
it is to the south of him he goes to
it but that is all.

by the road he cannot see the
sea (right)

Opamarunga is done by Nanyoro
place (right)

the road is not so far as the
way we came (they all say so)

Nanyoro place is about S. 40 W.

the river a W of Nangoro #37r
(I don't believe much of the above
is accurate)

They say Oumarn is a little bit comp
Nangoro
He says the Matjona Omatjona are
E 50 S. very far he knows of none
who have been there. no Red people or any.
The Oumarn do not live as far
south as Kulkurna. —

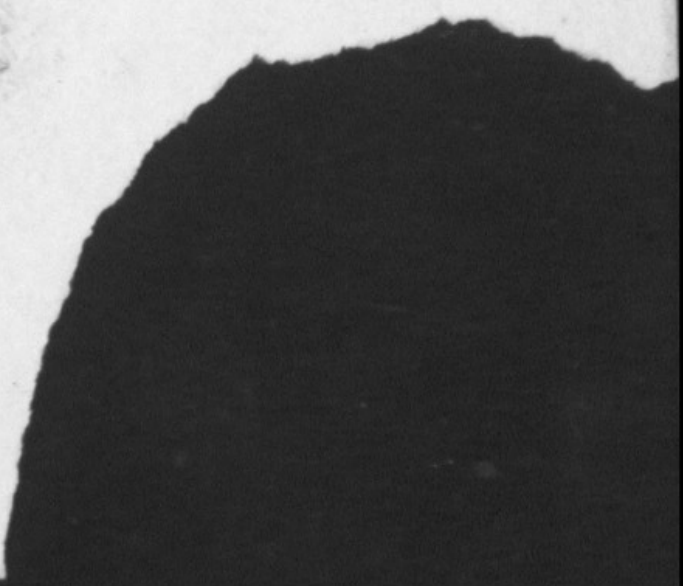
Left at 9.55 by
watch (really about $\frac{1}{4}$ to 8)
at 2.40 came to the E border
of Etokha an evidently dried
up lake of magnificently
running ^{comp} E & W the ground is
white with effloresced salt

there is so much mire & the #37v
W that I cannot guess the length
the guide says that it is full
in the rainy season & that travel
cannot or do not cross it but go
round.

Came to the other side of it
at $4^h 40^m$ well

Arrived at edge of flat & sleeping
place at 7^h - (In the time of stay
I allowed for the delay immediately
after - there was no other delay)

f38r



f38v

Kangwa

Kangwa

Intongo

Uringa

Angero

Andap

Akoos

7 Arqin

f39r

99.10

99.15 20.

15 20 Eon.

16 — Eon

16 20

16 30

17 20 not yet

17 10 got

17 10

17 10

17

17

17

16 30

15

99.13 —

99 17 5.

49. 38. 32
48

49. 37 44

40. 22. 16

58 54 4

18, 31 37

240 ft of beam
the Saman has round
his waist

Left at 7:40

Course N. 15 W.

Southern boundary of Flat N 820

we keep 1 or 2 miles from it
eastern limit.

Came to the last water on flat
at 8:40 we gave the other water

It was much better than when
we slept & left at 9:38^m
we travel quite 3 $\frac{1}{4}$ miles an ^{hour} on the flat.

Course N 10 W.

12^h 50^m got across the flat.

& stopped a little there was
water near. Went on

again at 1:45.

Arrived at sleeping place
without water, having gone through
the dry country at 5:15. The
watch had lost 30 minutes between
sunrise & sunset.

Left in morning at 6^h 45^m
arrived at some water hole with
a very little water in one only at
10^h 55^m - Came to another

almost dry water hole
 Came to Netjo's place at 3.30
 who showed us his field of
 thrashing floor & fed us. I was
 most civil in every way. Left
 at 4.30. Came to our place
 at 5.10

5.30
 4.10
 5.10 4.10
 12.50

98.42.20 Lower land ① 9
 43.20 Dec 22.16
 43.40
 43.40
 44. —
 43.50
 43.20
 42.20
 41.31

98.44.
 49.22
 15

49.37

40.23
 22.16
 18.7

240x

740



f41r



24
48

9
632 4th O^e, a tree

Left Grider's House at 9^h 5^m
Stopped to water the oxen at 11^h 15^m

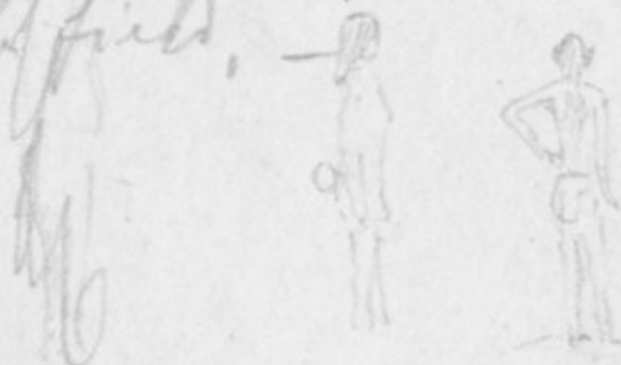
They could give no water so
went on at 11.30

arrived at } at 12^h 54

Namboranga

Left at 2^h 40^m

8 going just 10 minutes further off track
by a stubble field.



3 miles per hour

3.49

3.59

3.44

11 miles

16.20

f41v

f42r





a dagger.

Ma teke = it is thick

Left our hospitable entertainers
 Thursday at 7^h 55^m (Ehoompa
 stopped from 8.30 to 9^h - at one
 of the Ovum for traders horses to
 eat hot dough & fat.
 Arrived at ^{Namwop} 11^h 50^m with
 1½ hour further delays.
 (or 1 hour)?

f43r

4.
3.

9 miles



I come to see if the natives wish for trade, of things
traders will be safe - & if so what the natives
want & what they have to sell.

We want cattle. I can make anything.
the trading route will probably be by the sea.
I should like a list of the things with specimens
that the ovambo want, & their usual value
in cattle here.

~~Should~~ traders be allowed to travel about
the country.

Bars of iron?

Brandy "

last read. 49' 10" or rather 5"	
2 am 49' 10" . . . 5"	
3 49' 5" —	
Index Error for diam ①	
on	off
29.30	26.40
29.40	26.30
2	
29.35	26.35
33.25	
63. —	
31.30	
15.45	
1.55 to be added to the reading	

For lunar dist^{ns} at Nangren Place Friday June 6th 1857
 Chron about 2^h 20^m fast. P44r

11 ^h 12 ^m 52 ^s	42° 37' 40"	} Sun's lower limb West,
14 ^m 10 ^s	42° 8' -	
15 ^m 11 ^s	41° 43.20"	

18 ^m 30 ^s	87° 41' 50"
19.55	87. 41. 30"
21.25	bad
22.20	bad

23.10	87. 45.
24.20	87. 44. 20
25.28	44. 30
26.45	45. 30
27.35	45. 10
28.35	45. 20
29.40 (good)	45. 50

31.25	45.50	too much abate
32.26	87° 46.50	very good
33.10	46.50	good
34.26	48. -	fair
36. to little	48. -	
36.52	48.20	
37.50	49.10.	

f44v

X. 5^m 45^s Polaris near limit D. f45r
 8. — 54° 8' 30"
 9. 20 — 9. 20
 10. 30 9. 40
 10. —

19^m — Antares dry k. limit
 20^m 52° 83° 15' 20"
 22. 45 83. 15' —
 24. 42 " 14. 10
 26. 147. " 14. —
 " 13. —

For index error
~~True star~~
 on Jupiter — 2' — "
 32/40 bad = 1° 30"
 — 2' 20"

or 2' 10" to be added to the
readings.

~~Moocanga Makutub~~ f45v

~~Magagatanda~~

~~Atchitanga~~

Moocanga ~~Atchitanga~~ runs
into the Curere & ~~Atchitanga~~ goes
to the sea. point of junction

N. 19 E compass

Three men say all this and also
that there are plenty of sea cows
at its mouth & also that the
sand is not generally at all
event frequently covers it. —
they say on further questioning
that it usually covers it but that
the sand is so soft over it
that men cannot walk across it
there is much game about the

p46r

Quaraya acitanda & many
people who are peaceable.

- The
Ipundua alone fight with
the Oomps & ~~speech~~ don't know
about the language. the Oosparay
do not fight & live by the same
river.

They know nothing of the source
of the Ouaraya Atchitanda
but say it comes from very far
(The Cuene they mentioned of
their own accord.)

The point of junction of the river
appears to be much further from
here than the mouth of the
Cuene is.

Ombou is the name of the bits of
 shells they wear by which they
 judge very much they are about
 this size ^{or larger} are the
 Centre part of a
 spiral shaped shell



Section



They are rough
 and white
 like an ~~egg~~ ^{shell}
 crockery



f46v

Whole weight to be carried back 750 lb

Sunday Nov⁸ 340 corn
already bought 60 flour. 9475

The Horizon glass was not quite parallel
as I adjusted it, see index error below.
I did not determine the error again in the
night observation.

~~For latⁿ Nangan place.~~

Sun's lower limb

V	35 ^m 26 ^A	56° 32' - "
	36.30	56° 6
	38.00	55.33.

Near limb Sun & Moon

V	47.55 ^o	114° 1' - "
	49.30 ^o	114° 2' -
	50.50 beyond	114. 2.40
	52.30 do do	4.10
	53.50 Eood	4.20
	55.20.	4.50 turn

indep Error
on

29.40

29.50

29.40

29.46

33.8 15.43

52.54

31.24

L. Crucin

91.25.10

1.41

91.26.51

45.43.25

57

45.42.28

44.17.32

62.16.12

17.58.40"

lat of Nanyow

27

26

26

26

26

26

33

91

25

25

24

25

25

25

25

25

24

24

23

23

23

23

23

23

23

23

29.46

31.27

1.41

added to the 29

27

26

26

26

26

26

33

91

25

25

24

25

25

25

25

25

24

24

23

23

23

23

23

23

23

23

23

047v

Regulus b. near hind June 8th

X ^h 6 ^m 20 ^s	45° 45' 20"
9. 22	45 46 30
11. 57	47. 20
13. 58	48. 10

But hind & Antares

TX 23. 40	54° 59' -"
26. -	58. 10"
28. -	56. 30
29. 49.	56. 20
32. 25	55. 30

Alt. Antares for line

9 36 ^m 3	- 92° 28' -"
39. 15	93 53. 20
40 54	94 39. -

F48r

Huñi.

f48v

Huñi

Ovampo.

Ovampo

1 5
2 6
3 7
4 8
9
10
20
30



f49

How. 160 - in 3 bags (New saddle bag - new buckskin bag)
Pias. 86. in 2 bags. New saddle bag. & canvas
Corn 340. in 7. buckskin bags.

How.

160. in 7 bags

f50r

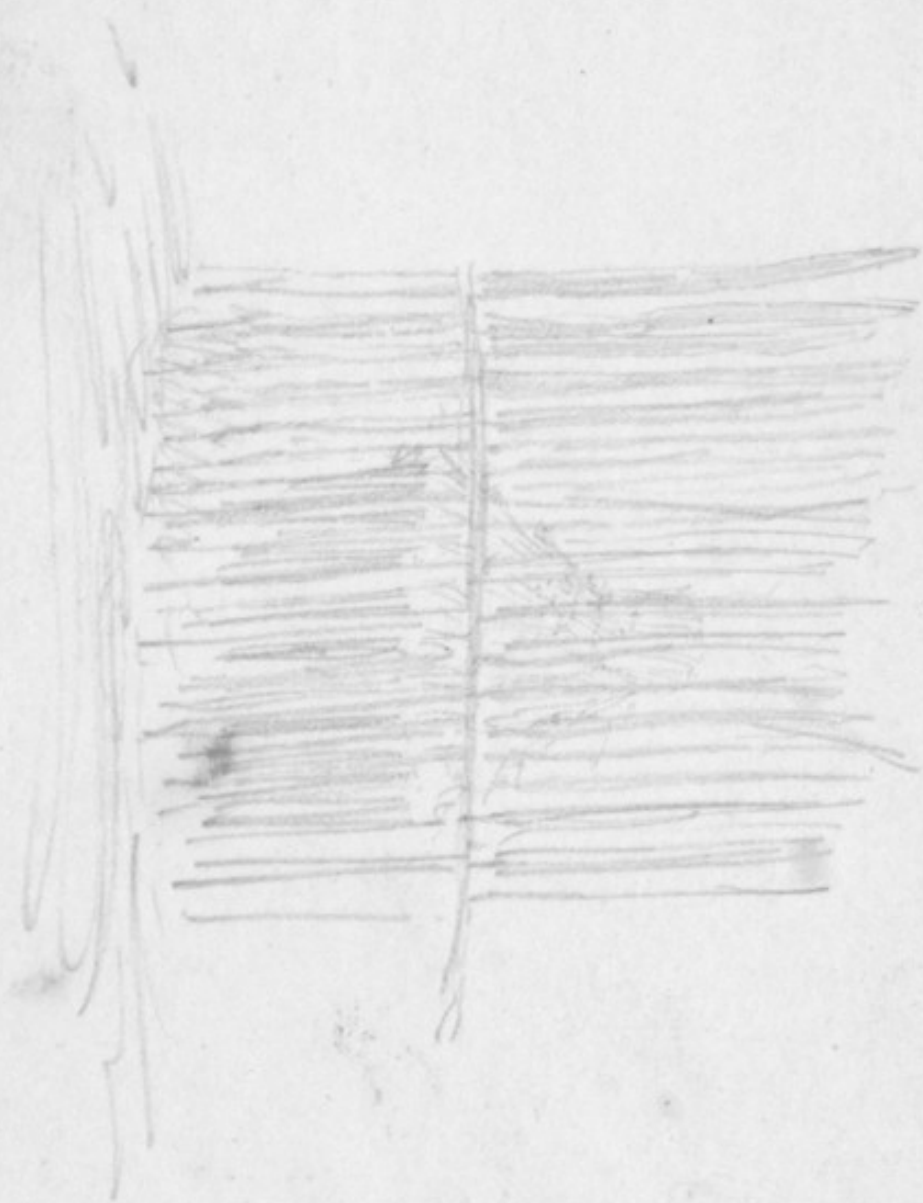


p50v

A beer ladle
made out of a
calabash
the stick run
through



f51r





Height of Hut
 walls 3 ft
 diameter $5\frac{1}{2}$
 breadth of door $1\frac{1}{2}$
 height - 2.

Mukurn Mukovange, is
 the river that runs through
 the ovation country & is different
 to the Atchanga.
 Okaseka is the name of the
 little river $\frac{1}{2}$ day SW of here.



ASTV

f52r



By tables
Known, SS' & PSS' or $PS'S$

From $ZS'ZS$ & SS' calculate $ZS'S$

From $ZS'S'P$ & $(ZS'S + PS'S)$ calculate ZP

$$\cos S = \frac{\sin ZS}{\sin S'Z} \cdot \cos S'S$$

$$\cos ZP = \cos S'Z \cdot \cos S'S$$

Sun's lower limb (day after full moon) (Sat⁹?) morning day when we were at Ham Rayors. (but did not)

11 ^h 45 ^m 9 ^s	67° 19' 20"
46.38	67° 50' —
47.57	68° 13' —
49. —	68° 46' 20"
50.21	69° 2' —

For index Sun

on	off
29.30	27. —
29.30	27. 10
29.40	27. —

29.33	29.33	27. 3
32.55	31.15	32. 57
02.30	1.42	
31.15		
15.37		

the weather

PS3r

1 ^h 1 ^m -	88° 11' 20"	O. trace high
2 ^m 17 ⁰	88, 27, 40	
3 26	88, 41, 20.	
4, 17	88, 52, -	
5, 12	89, 0, 40.	

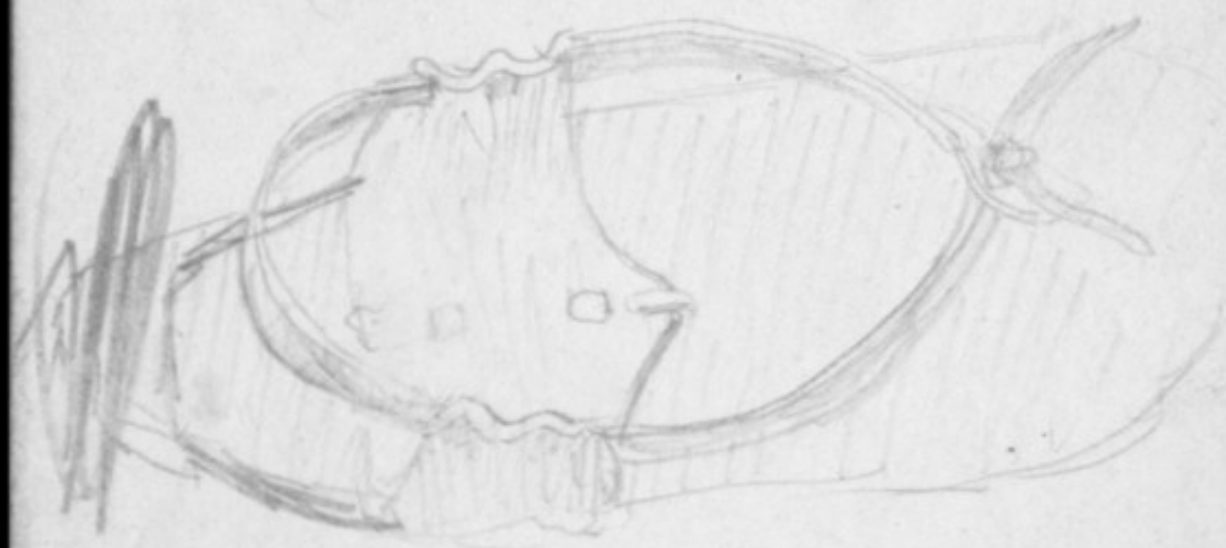
This is the morning of day of
knowing Nanyou. It blows
very heavily & the quicken
is not very steady.

Left Nanyou at 1^h 45^m
hoped 33 wreaths in 1^h 10^m
of travel, & I see about $\frac{3}{4}$
mile on each side.

Anderson made 46 wreaths in 1^h 25^m
stopped at 5^h 1^h 50^m stopp'd
under a tree.

To make sure of the day of 153^r
the month of leaving Haveron
the moon was between 42 & 44
E of Antares at about 8 in the
evening.

Looking back, the road we have come
is 346° (very fairly).



Started next morn (Monday)
at 8^h 30^m

had 15^m stoppage at 10^h 6^m
crossed what seemed to be the

They were running about SW from
11^h stoppage

at 10^h 47^m got to the large well,
11^h 5^m left them.

1. 35 stopped at well to water
the oxen. I slept there.

Next day (Wednesday) the
oxen had strayed & we were
long in recovering them.
Started at 1^h 30^m.

Arrived at Emide's place at 3^h 40^m
8^m stoppage

Came to water hole (dry) at 9. The
repacked & left at 9. 20.

Next page

FS4r

To Nengok Water Hole	2 ^h 20 ^m	
2 nd	3, 5	5, 25
Flat	7, 40	

13.5

To water on flat	3.12
------------------	------

To cattle post	1.
----------------	----

~~Little Mountain~~

~~Hyando~~

North Side of Stober	2.20
----------------------	------

Cattle Post,	6.45
--------------	------

Little town	6.30
-------------	------

Hyando	4.17
--------	------

Water hole	9.5	37.9
------------	-----	------

Mutahkango.	11.-
-------------	------

Mountain	11
----------	----

68.19

+ 4.17

22.5

1.9

FS4v

Left Grind House at 6:45

Came to Nalgos at 7:57

Packed all night

& left at 8:14

Came to water hole at 9:14

repacked & left at 9:20.

Got to grief with Combed 10:28

Went on at 10:47

Arrived at ^{last} water hole 12:53

Left at 1:31

Course ~~STOP~~

~~We exactly followed our shadow at 2:10~~

~~No good we gave about 10~~

~~Stopped at 4th to sleep - too early~~

fssr

fssv
Left early next morning at 4:50^h
traveled $3\frac{1}{4}$ miles to
Came to the trees the Samson
manana at 6^h

stopped 12 minutes
Came to former stopping place
at 7:30^{am}

stopped again on the whole 18
Arrived at 10:35 the wells
were extremely salt water, not
drinkable.

It proved undrinkable only
Loren W. took it to
we packed up & went on at 11:35^{am}

Arrived at 5^h 5^m at the flat
Looking back, course was 335-

Otiphako wa Motenya
is the Ojampo name of the flat.
The oxen were sadly tired with
their 18 $\frac{1}{2}$ hours without water
& we had to watch them all night.
Kohikenei of 1000 gins down here
looks much better this morning.
The grey sand of Ojampo land
ceased when we entered on the
flat.

Left well at 12^h 44^m
got to edge of Flat at 2^h

(turn over)

#56r

f 56v



Arrived at 4¹⁵ ^{m m}. 2 delay
 we encamped some 5 minutes
 from the border.

Shape of Storpa as it appear



Started in morning at 5^h 6^m
direction of road over first part
of Cloosha 350

across 2nd (the bend) 346
came to ~~Sright~~ end at 7.11^h

Green reports light breeze
transverse, — strong

on road 17^m delay

at 10^h passed a small salt flat
 $\frac{3}{4}$ mile in diam it lay to the
right of our road and 1 mile from
it.

Flew at 10^h 17^m

f5fr

stopped 3 minutes

PSFV

Onkurin's grave 10^h 26

Tati Kurin! Tati Kurin!

2nd Fly at 10 49.

Edge of Flat by Little Port at

11^h 51

and Flat 270°

5 minutes delay

Came to other side of Flat 11.30

Arrived at Tomb 11.53.

It appears ^{certainly} that of the two
roads from Oparure to Coamps
land that ^{the} one leads to Nany
Place the other (that near the
sea) goes to quite another

set of trawlers under a
chief Nyehing. f58r

Etatha joins the flat to
the guide Chikorongo Onkang
old Timboos - The Samara
pronounce Etatha "Omatotha"
or "Etatha".

For time Omuchamata da Mo

XI^h 56^m 19^s

57.36.

58.50"

XII^h - -

72^o 29' 20"

72.51. -

73. " -

73.33.49

The wind blew very hard
for index

on
29.20

4
27. -

For day with pocket watch
D.H. of Sun abn. 84^o 30'

Kukwambe. 1 day from Nya
are just like the branks

Changangara, - 1 day from above
Chambanga.

Okanamatze means camp
Obangara are the people
who fight with Nya
Obagwambe are friends
all ^{thereabouts} grow corn. —

Neuchakajara are the
people the Jararas they
don't — they don't
& do the same he does. f58v

know the name of chief f58r

The ~~big~~ river runs to the
the Navaho live by
they are just like before
our Snordan quite the
river is large many white water
& alligators & runs by mountains

They

The little river Wakasea is
dry in the summer

boats can go up

The big river is

It is too broad for men to
talk to one another across

f.58L

$$\begin{array}{r} 93.3 \\ + 1.41 \\ \hline \end{array}$$

$$94.71$$

$$46.32.20$$

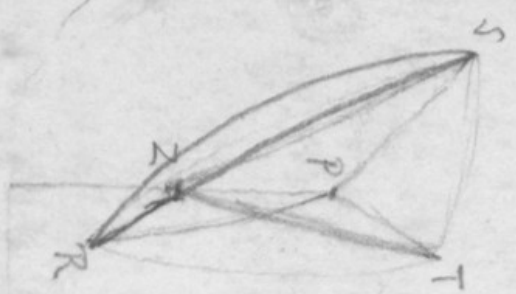
$$57$$

$$46.31.23$$

$$43.28.37$$

$$62.16.9$$

$$18.47.32$$



our kral was this time opposite from
before it was some 500 paces north of it.

α, Cruc. June 22

Amuchanaturidae 62

92.56.20"

92.57.20

93

93.2' -

93.3' -

93.2.10

93.2.50

240,

93.3

93.3

93.2.30

93.3. -

46.31.30

Lat. 18.47.62

600 yd south of place
off tower of fort

light Mt. Loo

Good very

f60r

Left Omutchamata ^{f. 60v}
at 6^h - 24^m

Packed horse 8. 25.

Moved on at 8. 30.

Further delay ^{15 m}

Off packed at old road by formula
at 2^h -

We went very slowly through
thicket about 2 $\frac{1}{2}$ miles on.
Now $\frac{1}{2}$ about 10° E of due South
the thorn had ceased to be trouble.

Started in morning at 5^h -
delay ^{9 m}
7^h -

Arrived at Otia 9^h - 30
we have come nearly due E.

fglr

The road is a very strong rocky
at starting & occasionally 11
afterwards rich as would fairly
knock about a wagon.

Upper limb $60^{\circ} 40'$ about W of

June 23rd (?) Sun.

1 ^h - 52, 21	55 52, 40
53, 31	55 21, 30
52, 47	52, 52, —

For lat. (C) lower limb

94 ⁰ 34'	94, 40, 50
35	41, 10
37, 40	41, 20
94 38 40	60, 50
39, 40	
39, 50	40 —
40, 10	
40, 30	
40, 50	

Index time

30 — 27 —

29 — 26, 20

The last is the best

Left Oyando this same afternoon
at 12^h, 27^m

Offpacked on the road to sleep
at 3^h - 58^m

No delay.

For latitude

2, Cruce 93, 26, 40

93, 27, 10

1, 42

93, 28, 52

46, 44, 26

56

46 43, 30

43, 16, 30

62, 16, 9

18, 59, 34

27, 40

27, -

27, 10"

26, 50

26, 50

27, 20

27, -

26, 30

25, 40

f6lv

f.62r

Left in morning at 5.36

(we had a glorious fire land night
passed the deep little water hole dry
at 7.2718^m delay.Arrived at 12.32 as per the
(Mutehukotoy)

slipways.

stayed next day there.

In the following morning before
starting for time O Lower L.

XT 39.46

40.41

41.21

84° 23' 5"

83.35.1"

83 44.1"

June 27
Left Muntchuko at 11^h 34^m
top of first ridge of (low) hill
the other side slopes gradually
a round hill apparently isolated
is close on the right at 1^h 13^m
~~Another 20^h left at 12^h 27^m~~



at 1^h 27 went up a bush
 Strath straight ^{3 mile road} down
 on each side - those left
 Ceased at 2^h 37^m f63r

Stopped on the road to sleep
 June 28th 4^h 44
 Started in morning at 5^h 53
 our course was 92° South of
 the sun at sunrise
 Came to L.M. on the right at 7^h
 & changed course to 75° with the
 or looking back 343° (A2 Course)
 delay (all backs wrong) - 32 minutes
 Came to principal ridge morning
 120° at 8^h 49^m

64.39
 92
 28
 781 30

23.21
 113.21
 92
 21 21

68.39-
 25
 83.29
 100 feet

f63v

942

9
9'4"

58
219

175



very strong from 9 35
to 9 42

~~to 9 42~~

at 10 35 the Isolation that
bore ~~100~~ 98° 30' (impossible)
Muntirakane ~~Maabou~~ will be about 140
which is the direction we have been
present course 121°

got into the fountain with gal. 11.12
arrived at Muntirakane at 12 1/2

Mitchell Kato Omura Kane

Arcturus 101. 9 40" Aug 28

101. 9 50 50 35 46 9' 30" f64v

1 42 50 36 58
101. 11 32 39. 25. 2

too late 13. 57. 37

2 Centauri 98. 23. 40

98 25. 45°
1 42 24. 20

98. 27 27 25. -

49. 13. 43 25. 40

48 25. 40

49. 12 55 25. 50

40 47 5 25. 40

40. 12. 43 25. 50

19. 25. 48 lat 24. 20

24. 20

23 20

#65r

In time,

Poplar Hill, Centre

X, 15.7 117° 44' — "

19, 42 117. 3' — "

21, 7 116. 25' 30'

Started from Mankakane

6th 17th

17th delays.

Came to camp at 9^h 3^m

17th delay at it

Reached foot of Pyramid 10th 51

Came to P. Tomb 1, 10

2nd — " 1, 25

(Ostui)

A65v

Left Botum at 6^h 12^m,

20^m delay
Left Kutjiauchayne 8^h 30^m

Fountain near Wagon 10.34

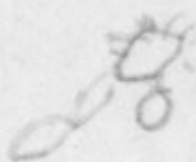
12^m delay. —

Arrived at 12.10
one deserker (Kornel) at
the still alright

OK. In the C tower line
Morning. Tuesday July 1st

10 ^m 30 ^s	60° 58' —"
11 ^m 42 ^s	61° 20' 20"
12 38	61° 30' —"
13 55	62° 20' 20"

Left Kamabuti 12 1/2



Garland Falls
↑



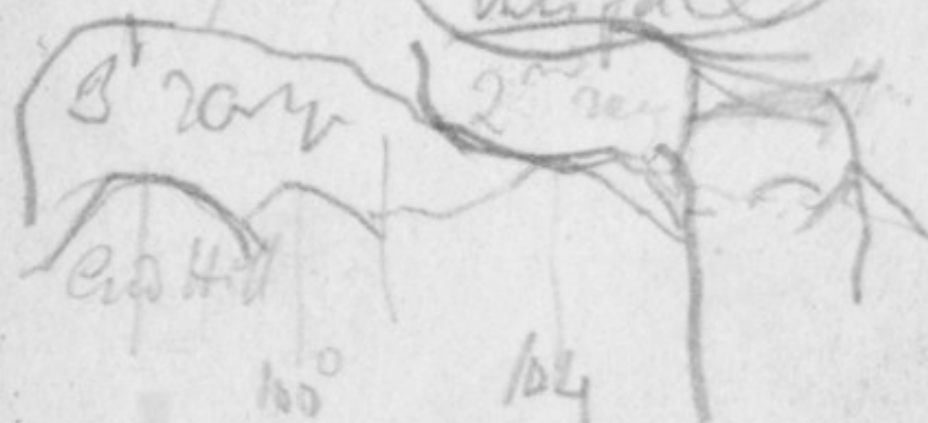
A-66r

From $1\frac{1}{2}$ mile 340 ^{looking back} from
 frontani at Kutbiana ashm
 where the waggons were

~~100~~ ~~105~~ ~~30~~ East Hill $97^{\circ}30'$

Elephant Hill 90° 2^{nd} 106°

~~100~~ ~~105~~ ~~30~~ 87°
 Solitary hill in plain
 East of Kutbiana ashm 106°
 this face



Corrections

Put Elephant Hill in one with
 & behind a solitary hill (Conte)

Eleph Hill north 92°

West Hill 101°

f66v

From 1 mile 30° ~~back~~ from Otjaminee

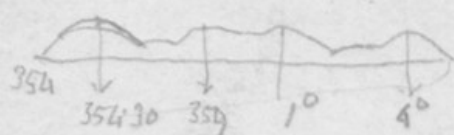
A67+

Drive at Otjaminee

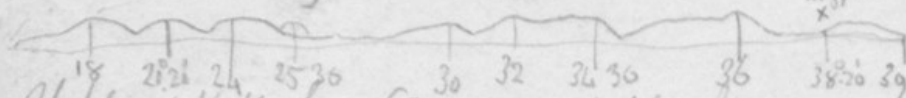
12. plants at 5-10 m

3 1/2 hours on road

Okahekaka is the best



Knoll hills



Elephant Hill from 62 to 57

blue Notelimit 58

Isolated Hill $343^{\circ} 30'$

Highest point h 327.30 f 309 294°

page 12 from old chart to

Okahekaka highest point b 280.30 2 (1) $312^{\circ} 30'$

Hill like c but higher & less broken
half way between A & f from the spring 300.30
Runs out

Amcom



This is from near the top of four miles
 end hill 230 stone

f67v

7 324.30
 middle hill 317
 2nd of 3 321

end of main hill 313

U 307.30
 a 305

0 203
 6 207
 e 302

e 7 mid

4th hill
 Big Red Knob hill
 Okanokote

Bearing of e from
 the spur of Okanokote
 is between 300° & 305°

From the fleecing place 400 yds from the little fountain
under the stone (Okapukua) P68r

~~Unicorns pt 303~~
Okapukua highest pt (a last page) 305° 40'

2nd highest (to do) 309 20
End of spur of 0 - 316°

Middle pt - last part 318

End of spur 0 - 323

7 - 325° 30'

Big and knoll hill, - 2° 20'

Okapukua, the fountain, 25° -

The palms began
between 4 & 5 miles
from Otamunee.

Lower limb.

5^h 1^m 47^s

54° 20'

15.40

49. 19'

23. 18.

46. 28. 20

Upper limb

3^m 30^s

76° 58' 30"

14 11

82. 43,

25. 41

86. 46, 40

Left hand

4^m 55^s

98° 2' 20"

6^m 10^s

98° 2' 55"

7^m 17

98. 2 50

8^m 28.

98 3. 5

9. 50

98 3: 40

10. 45

4. 10

11. 37

4. 25

13. 50

5 —

try them

16. 50

98. 6, 35

18. 9

6 55

19. —

4. 25

20. 45

7. 35

20, 31	7.55	f69r
21. 20	8.25	
22. 2	8.35	

Telescope in proper plane and
The images perfectly coincide
happening

on
31.50
31.50

off
28.45
28.45

these divisions are bad

For time @ lower limb

5 ^h 36 ^m 16	41° 35' 40"
37 21	41 10 40
38. 21	40 58
39. 14	40 31

From Okabokeama,

P69v

7 344.40

b } Highest Pt 335
a } 332 30.

From the next fly thru
from it where we sleep.

h h s Lower limit 0
5.54 52.49.50

b, 19 52 23.20

β Centauri 8^h 39 } watch time.
Arcturus 8^h 55.30
 α^2 Centauri 9^h 15.11.

Point B 337.20
a. 336.

β Centauri ~~100° 35' 00"~~ 100° 36' 20"
100° 36' 45" 100° 36' 35"
100° 36' 20"

336.40' alt.

Arcturus $100^{\circ} 9' 57''$ $100^{\circ} 10' 20''$

$100^{\circ} 10' 15''$ $100^{\circ} 11''$ — 9

$100^{\circ} 10' 40''$ $100^{\circ} 10' 20''$

$100^{\circ} 10' 50''$ merid alt.

α^2 Centauri, $99^{\circ} 28' 5''$ $99^{\circ} 28' 15''$

$99^{\circ} 28' 10''$ $99^{\circ} 29'$ — 9

$99^{\circ} 29' -$ $99^{\circ} 29' - 5''$

$99^{\circ} 28' 55''$ $99^{\circ} 28' 25''$

All the above are read right
Z the light was very bad
at times especially at the first
part of the last set $99^{\circ} 29'$ is
right.

On road to Omaramba

Big End Knoll hill 3° —

at first reaching the Omaramba
there were 90 sheep 5 having been
killed & 68 open cows.

f. for

$$\text{Range} = m^2/v$$

$$v = \frac{\text{range}^2}{m^2}$$

pf/v

$$\text{Penetration} = n \times \log v^2 = n \times \log \frac{\text{range}^4}{m^2} = N \log \text{range}^4 = 4N \log \text{range}$$

~~Anderson's~~

$$p = \text{Anderson's } p' = 2p \quad p = 2p'$$

$$\log R = 2 \log r$$

$$n \times \log \frac{\text{Range}^2}{m^2} = 2n \log \frac{\text{range}^2}{m^2}$$

$$R = r^2$$

$$2 \log \text{Range} = 4 \log \text{range}$$

$$\log V = 2 \log v$$

$$\log R = 2 \log \text{range} \quad \text{range} = 10$$

$$\log \text{range} = 2x$$

$$v = 3/c$$

$$p = \log c = \log v = \log r$$

$$2 \log R = \log r$$

$$\text{Penetration} = M \cdot \log \text{range}$$

to me. I have been in com
hotalo

to rear fish
when settled near periodical river
how to guard against floods
fixing sandy soil
to make paint & dyes
how to pull out teeth
seed per cent lead will do

how to put out a chimney in fire
make gun powder
collect shells & the
make shell, buckle
look a saddle bag
saddle bag for riding
saddles
bats in house - but a bird

how to preserve eggs

FT2✓

to kill rats

midwifery & the management of children

to make a door lock

clothes leather trousers

a belt for carrying things

a knapsack

hints about glands

to make poison what to do

to cut artery

gates how to make

to fasten make a raft of timber &
to float it down stream

various ways of making heavy weights
a water & wind mill

to make for sea water

bringing canvas for tarpaulins
musical instrument bought for the
quintet. done.

Sage crop

Corn which has been
thrashed this morning

Preservation against moth & ants

best season of year to fell timber

to season it well & quickly

substitute for north wood hogs

serving with better result

to cut chaff for fodder

stack leaves for fodder

make smooth floors covering paths

make a bridge. suspension

to get cattle out of a hole

a wagon also.

Grass roots

AFB 1

The most useful herbs
to make coffee from corn
bumps & candles -
wicks & rushlights

Wild fowl shooting, seal catching
carpenter & sheeping skins
to put a fresh edge steel to an axe
to clarify or distill water
to make a fire - timber frame, ^{timber}
charring poles stuck in the ground
good fence now to make
to carry a bag of the saddle
grafting & budding.
to blast rocks & split them with wet
wedges & fire
a hand mill made of two stones

gun to "stall"
 bows & arrows
 back tines for sewing
 to make hit toe flour
 corn "
 sugar cane, to make sugar
 knitting
 to make wadded
 sledges for carrying timber cut wheels
 grease for waggons wheels
 steel to make
 back saddles, to make
 traps & snares hitfalls
 straw hat to make
 to prepare wool & cotton
 bees their management
 bacon how to make,
 black pudding
 sausage

firmness of the meat, #492

best for coffee, coloring

to salt, meat for, butter
start to make

bullet make of the world

tobacco pipe to make

gun bag

calabashes then various uses
clothes, bottles, pipes

vinegar for hanging

hair & pitch

take stains out of clothes

ropes how to make & string

gun & paste

gunpowder

sticking Mass gun & paper or cloth

skin, to be done, to tan stretch
water bags skin & handle f75r

Soap to make

Ink to make

Linseed to make

Cotton work. Felt & roves

meat to cook - bread bake, leaven
sheep's head. Cheese.

to make guts
fish hooks.

roasts bopth

cuts out of horn

to make crockery
baskets.

Immigrant Dict
House inst build
Bricks
Lime
mortar

Field work
Gua work
Animal.

AFSV

chalk lines
Carpentering the ship & spike shaver
to set and to make glue
Cartels to make & tools.
Blacksmith - Tinsmith
To make bellows
A ground knife
Field labour - flaxseed
When to sow & regard rain & sun
water how to raise
Plough a simple form of
oxen to break
to pack - nose sticks

170

fff



Length of ramrod $29\frac{1}{2}$ inch
 " shadow - 57.

Length of horn $24\frac{1}{2}$ yards
 to ground
 30 to top.

$57 : 29 : 24.5 : \pi$ $12\frac{1}{2} - 15$

$$\pi = \frac{29}{24.5}$$

$$\begin{array}{r} 116 \\ 58 \\ \hline 696 \end{array}$$

$$\begin{array}{r} 57 \overline{) 711} \quad 12\frac{1}{2} \\ \underline{57} \\ 141 \\ \underline{114} \\ 27 \end{array}$$

P77v

May.	RA.	App	noon	Decl. N.	Diff	1 hr.	Sid T. M. N.
Tues 20	3. 46. 24	19. 54. 48	31. 17	3. 50. 11			
Wed 21	3. 50. 23	20. 7. 16	30. 31	3. 54. 4			
Thurs 22	3. 54. 23	20. 19. 23	29. 45	3. 58. 4			
Frid 23	3. 58. 24	20. 31. 10	28. 58	4. 2. -			
Sat ^r 24	4. 2. 26	20. 42. 36	27. 70	4. 5. 57			
Sun 25	4. 6. 28	20. 53. 41	26. 60	4. 9. 54			
Mon 26	4. 10. 30	21. 4. 24	25. 90	4. 13. 50			
Tues 27	4. 14. 33	21. 14. 45	24. 98	4. 17. 47			
Wed 28	4. 18. 36	21. 24. 45	24. 06	4. 21. 43			
Thurs 29	4. 22. 40	21. 34. 22	23. 13	4. 25. 40			
Friday 30	4. 26. 45	21. 43. 37	22. 18	4. 29. 37			
Sat. 31	4. 30. 50	21. 52. 30	21. 24	4. 33. 33			
Sund. ^{June} 1.	4. 34. 55	22. 0. 59		4. 37. 30			

20th Equinox T = 3.46

31st App T = 2.34

A78r

f78v

Mean Refr	Altitude of * for lat 19°	
10	5' 15"	ϵ Leonis
15	3' 30"	α Leonis
20	2' 35"	η Argus
25	2' 2"	δ Leonis
30	1' 34"	β Leonis
35	1' 21"	α Crucis
40	1' 8"	η Canum Venaticorum
45	— 57"	η Ursa Majoris
50	— 48"	η Bootis
55	— 40"	β Centauri
60	— 33"	α Bootis (Arcturus)
Diff in alt		α^2 Centauri
20	8"	ϵ Bootis
40	7"	α Corona Borealis
50	6"	
60	4"	

93° 6'
116. 38
100. 12
99. 20
117. 12
73. 38
63. 46
21. 54
103. 44
98. 42
102. 6
97. 34
106. 36
87. 34

2 Argus	2	9.13.6	+1.6	S. 58° 39' 4"	-15
ε Leonis	3	9.37.23	+3.	N 24. 27. 28	-16
α Leonis	1	10. 0. 26	+3	N 12. 41. 36	-17
η Argus	2	10 39.18	+2	S 58. 54. 7	-19
δ Leonis	2.3	11 " 6.11.	+3	N 21. 20. 21	-19
β Leonis	2	11. 41. 27	+3	N 15. 24. 17	-20
α Cruci	1	12. 18. 21	+3	S 62. 16. 19	-20
β Canum Venet	3	12 49. 3	+3	N 39. 7. 27	-20
η Bootis	3	13. 47. 35	+2	N 19. 8. 48	-18
β Centauri	1	13. 53. 21	+4	S 59. 39. 3	-18
α Bootis (Arct)	1	14. 8. 52	+3	N. 19. 57. 37	-19
α ² Centauri	1	14. 29. 32	+4	S 60. 12. 53	-15
ε Bootis	2.3	14. 38. 29	+2.0	N. 27. 42. 17	-15
α Coronae Bor	2	15 28 23	+2.5	N. 27. 13. 9	-12

f 78r

alt = 90 - lat - decl
= 90 + lat - decl

mean RA	Decl
May 1 2 ^h 33	14° 59' N
2 " 37	15 " 17
3 " 40	15 " 35
4 " 44	15 " 52
5 " 48	16 " 10
6 " 52	16 " 27
7 " 56	16 " 44
8 " 3.	17 " "
9 4	17 " 16
10 8	17 " 32
11 11	17 " 48
12 15	18 " 3
13 19	18 " 18
14 23	18 " 33
15 27	18 " 47
16 31	19 " 2
17 35	19 " 15
18 39	19 " 29
19 43	19 " 42
20 47	19 " 55
June 1 51	20 " 7
June 15 55	20 " 21

(O. M. M.) 15. 48. 11

Thompson's Exchange

Pennsylvania

Genes.

Acres
Acre
Acres

8.2
14.41
4.26

5.4.22
18.56^m
12.18

June 8th

7.8 31.14 2.6m = 41.24

17.4
8.17
8.33

426
21.26
13.33
7.33

25.5
29.6
19.18
17.33
10.9

64.2^a

17.58
112.18

30.16^a
10.76

779v

For a short excursion,

f80x.

Coffee

Meat

Salt

Pepper

Panmken

Canteen

Rug

Carrop

Powder

Bullets

Caps

Rag to patches

Tobacco

Trader Box

Large Tin

Plate

Knife & Forks

Clothes

Lept

Soap comb Brush

Tow

oil

Apple seeds

Am.

Writing things

Drawing things

Sealant &c

Santhorn foil

1084

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