١٩٤٥

The Cactus found on the
Cactus at the mouth of Mesquito
Creek on the great Cal
Little Rock is the
Cactus Ferox

Mesquite
Cottonwood 26 ft
Highest sand hills on
S. from [illegible] 25 ft

Cole Sycle 10 m. from 25 ft
Willow
Village at Mouth 14
Willow
Bluff land from Still water 17 ft
Highest Pecan trees
Pop. [illegible] 17 ft

in red paper Box Trunk
Malin

Pl. [illegible]
" Bicarinata "

Still water
Paludina White Bear Lake near
Cyclas - Pond near Still water

Carnelian Lake

Paludina Integra

Lead in Plana

Plana Carnelia

Varnish for Shells

Canada Balsam &
Spts Turpentine equal parts
Boil in water Bath.

Varnish for Bivalves 2 or 3 coats being
= glass sol. in warm water then varnish with the
above shell varnish

Lake Shells St Clair Lake & River
Lea

Unio - Rubiginosus -

121. " Multicornis — Rafinesque

131 " Elipsis — Lea

137 " Quadralus Rafinesque

102 " Bullatus "

152 " Elegans - "

120 " Securis Lea

139 - ~~Reflexus~~ Commutatus Barnes

138 " Tuberculatus Barnes

2 B. " Mytiloides

Short memo

Left home Ap 6. 1848. at New Hamp

Ap 7th ~~Stayed the 6th~~

All started from Bamory 2d may.

At St. Louis 4th may

Started from St. Louis 11th may

Still Water may 17th

Our camp sat 6 St Peters 25th may

at St Peters Sunday may 28.

Start up St Peter Thursday June 1st

Traverse des Sioux Tuesday June 6th

Saturday June 10th go up Blue Earth

Started down Blue E. June 26th

July 1st Lunar eclipse 35. foot.

at mouth B. E. go up St. Peters June 29.

Mr. Nancys sat July 1st

Monday July 3d Little Rock

arrived at St. Snelling sat. July 15.

Start for Still Water July 26th

arrived Still Water Saturday July 29.

Sunday July 30th 12. O'clock m. windward

mid. Temp. 66 - 10. Lodges of Sioux of

Little Crow village, are just pitching their

tents on the opposite side the lake, we

passed them yesterday about 8. miles above

Traverse, we might have met Sioux.

they are going up the St. Peters on a hunt

ing excursion.

walked out to a small little lake about

one mile below town on the right hand,

in company with Mr. Miller & Mr. Farnes

lake about half mile long, nearly round

water as clear as crystal, shore pebbly

and sand beach, going in the water, in place

near shore yellow sand like Stephens

while passing by Mr. Miller struck his

saw Along the shore Planorbis companulatus

P. Bicarinata. P. & P. also Cyclades

physas, pseudinas, and Anadontas
light showers during the afternoon
sunset. Cloudy. Wind N. N. W. 2, Temp
=erature 60°

Monday July 31st 6. o'clk A.M. clear
Wind west North west 2, Temp 56°. AM Hawes
& Mr Bartlett & myself walked out 6 miles to
Cannellan Lake, this is the pretty
lake I now saw. It is about 3 miles long
and at the widest place 1½ to 2 wide
and in one place, near the middle
divided, nearly, by a long narrow projecting
or Peninsula, has a small wooded
Island covered with trees. Beautiful grove
along the shores and jutting points.
The shores are everywhere covered with
small boulders and gravel of every
Col. primary rocks. Saw amongst them
some pretty agats &
many beautiful porphyries. The water of the
Lake as clear as crystal, so that the bottom
can be seen where it is 10 or 12 feet deep
It deepens gradually from the shores
and must be very deep out in the middle
It abounds in fish, chiefly Bass, trout
& Pickerel. The shore everywhere strewed with
shells amongst which we collected the. Planorbis
Trivolvis, P. campanulata. P. bicarinata. &
several other species of Planorbis. Paludina
Integra. Limnea fugitaris, in great numbers,
Valvata bicarinata. Several species physas
obtusaladen. also Unio Siliquoidus. and
Anadonta Plana. Saw swimming in the Lake
several loons (great northern diver) and some
wild gees. The lake lays the length way
North west & South East, the promontory
that comes so near dividing it puts

I saw evidences that the water of the Lake is subject to elevations & subsidences at long intervals - dead trees along the margin roots below the present low water mark

Out from the North Shore along the South Shore, which is very uneven, being full of bays & promontories, there are many Lagoons or small deep ponds cut off from the Lake by low sand banks the water in these is as clear & pretty as that in the Lake - they generally contain the same shells found in the Lake - The Trees about the Lake are generally small scrubby deciduous & only with a few red birch along the shore. Collected from some fragments of a magnesian limestone (not in place but evidently near the parent rock) some fine specimens of Plu=rotomaria & Euomphalus * sutopi

At 12. cloudy and slight shower Wind N.E. Temp 70.

returned to Camp at sunset, pretty tired having walked some 15 or 16 miles during the day.

Sunset Cloudy wind S. Temp 56°

Tuesday August 1st. Leaving contin=ued my observations upon wind the temperature during our trip up the Blue Earth & St. Peters river and back to this place, I will probably discontin=ue the same during the rest of the season. Mr Randalls party are all here now and will remain till Mr Macy returns from Galena. Mr. Randall who had went down to visit the falls of St. Anthony returned yesterday evening by land. Mr Battell & Dr Parry who are here now accompany him from here up the St. Croix and across the country to Lake Superior.

Mr Randall was very unfortunate in

being robbed of everything as he came away from the head waters of ~~St. Croix~~ the Dessions to the ~~Mississippi~~ head of Blue Earth river. by the Sioux. they took from him his horses blankets and everything giving him in return one old Good for nothing and one pair of half worn Indian blankets they also broke his Instruments.

Wednesday Aug 2d collected to day several specimens of Trilobites & Lingulas from the Trilobite bed above the Village. also collected a number of minute shells mostly helices, pupas &c.

~~Tuesday~~ Wednesday aug 3d Spent the day in packing & arranging specimens, and in writing to friends.

Thursday aug. 4th attempted to measure the height of several elevations about Stillwater this morning, with the Barometer, but owing to a variable state of the atmosphere could not rely upon my observations, am standing waiting here, but we cannot start till Mr Macy arrives with funds from Galena. and we are not certain untill we hear from him whether or not the appropriation bill for the Continuation of the Survey has been passed by Congress.

Saturday Aug 6th the S.B. Franklin arrived here last night but Mr Macy did not come. he received a letter from him however stating that he had not yet received any intelligence from Washington. no draft has yet arrived at Galena, and he did not know whether or not the appropriation bill had passed. as it will be upwards of a week before we can hear again from him we have concluded to go up to the falls of the

St. Croix, and spend the intervening time in examining the Trap rock carpet at that place, ascertained the temperature of the Spring near camp to be 48° two of those near fort Snelling were 47½ and one 48° which is not far from the average Temperature of the Climate

Sunday aug 6th beautiful clear morning south E. wind. rose early to make preparations to start up to the falls, set off at 8 o'clk. Just above the town the valley bears east of North 30° the hills close in on each side so that the valley is not more than from ½ to 1 mile wide with precipitous ~~hills~~ cliffs of Mag.r Limestone underlaid by sandstone, as we go higher up the sandstone mounts higher in the hills so that some 6 miles up the entire cliffs are sandstone, the Limestone having run out. here the hills are more rounded with few escarpments. the cliffs below the are very picturesque, having occasional clumps of pines scattered among the thin Linden ash birch &c there are many narrow islands on both sides, cut off from the hills by sloughs. Stopped on the right side to dine about 7 miles above still water at the base of bluff of sandrock. here we saw some fine Springs pouring from the Sandstone. Saw below this the first cardinal flower yet seen much of a very large species of arrow head along the Islands, has a large leaf and flower, which latter is white also along the west bank of bluff the sensitive

fern. mild parsnip. Equisetum hyemale with many ferns and shrubs. also saw the Euonymus low spreading with bright red sweet berries like pin-trees also small ~~[illegible]~~ spruce along near the mouth of Platte R.

a short distance above this thickly spreads out to some three or four miles in width. the bottom is low a flat being cut up by sloughs into numerous long islands. It seems probable that the whole valley here was once a lake which has since filled up. there below a collection of soft maple, walnut, ash elm willow & cottonwood thickly set with tall sedge grass which is mowed by the settlers along here and makes good hay. in some places on the Islands great quantities of large Bitter root and Ambrosia. the hills seen in the distance are very sparsely clothed with trees, among which I see at some places a few pines. saw bear tracks in the sand on the shores a few miles below.

about 2 miles below the mission mills saw sandstone in thin strata on the Right side the river near the edge of the water. on examining it we found it to contain many pieces of Bivalves, Singulars and fucoidal markings. although the rock contains many of these fossils we did find no good specimens.

At about 3 o'clk we arrived at the Mission mills 10 miles from Still water. Mr Preston Dr Parry myself came ashore in the canoe with the two voyageurs Mr Randall. Mr Rains. & Mr Bartlett walked up and arrived at the mills

about 5.00 P.M. we at the mills
on foot; owing to the dipping of the
strata that the fossiliferous sedimentary
=ions are seen 2 or 3 times before we reach
On the top of the bluff at about 35 feet
above the river. We began to see
here manifest signs of our approach
to the Trap rocks. Some strata
of the sandstone near the edge of
the main bluff is reddened and much
hardened by heat so that it seems
to be intermediate between sandstone
and quartzite. I see in this arrangement
as in the thinly stratified nature
of those lower beds of the sandstone
underlying the lower magnesian
Limestone in this region, additional
evidence that the quartzites are

the newer. The of the Oranjos on the
St. Peters is the same rock changed
by its approximity to the granite.
Monday Aug. 7th saw in the thinly
stratified sandstone this morning below
the mill distinct ripple marks another
evidence of the contemporaneity of this
and the Oranjos quartzite. There is here
on top of the second lower stratum which
is seen about 12 feet above the water,
a seam of blue earth exactly similar
to that and at same higher in these
cuts on the Blue Earth river just
above the mouth of Lincoln Creek.
All started at 4 past 5 A.M. for the
Cedar mills Mr. Porter, Mr. Bartlett,
Mr. Randall and Mr. Haines with the
Oranjoans in the canoe, and Dr. Parr

[illegible]

State Mus[illegible]
of Mang[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
the trap. [illegible]
[illegible] some 37 [illegible]
second deck of the [illegible] some [illegible]
perfect perfection. [illegible]
many to know [illegible]
the growth [illegible]
which the [illegible]
the deciduous trees.

[illegible]
[illegible]

[illegible]

especially to write a good deal
[illegible] down by [illegible] I found
to my great disappointment [illegible]
There are both sides and [illegible]
[illegible] thrilled

3

[illegible] 7 [illegible]

[illegible] of

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] of the country, and

[illegible]

[illegible]

Sunday 8th [illegible] Started early

it raining, clearing soon [illegible]
[illegible] and [illegible]
[illegible] off and [illegible] and [illegible]
the horse [illegible] carrying
saddle, saddle bag, blankets clothes
&c. cleared off about the time
a [illegible] after [illegible] I

Struck off in a direction a [illegible]
a East trying to find the [illegible]
River. after I had travelled with
great difficulty for a [illegible]
country on which there is scarcely
any [illegible] but a terrible thicket
of Aspen Alder, [illegible] as
[illegible] as I could [illegible] about 12
miles I came to a large valley
bearing S.E. [illegible]
I decided to [illegible] side of
where the stream [illegible]
[illegible] the [illegible]
[illegible] I camped,

Monday [illegible] rained [illegible]
[illegible] continued to [illegible] several
of the day. Started early to
[illegible] the river. [illegible]

[illegible] morning. I learned
from him that the C.W. Forester was aground
and would be down the following day. The
Oriole having run as it seems a little
more to my liking.

Sunday 8th [illegible]

Confined to see the water

At about 11.0 A.M. the Oriole floated
and by dint of [illegible] we were soon
along and comfort on the ground
once more. Soon after they came
[illegible] of [illegible]
Bar [illegible] round the boat. I sim
[illegible] my hand my hand and
[illegible]

Friday

Saturday Sept 25

[illegible] to
[illegible] for Sandy.

[illegible]
[illegible]
[illegible] at the [illegible]
[illegible]

[illegible]
[illegible] was a [illegible] of [illegible] pain.

[illegible] in the morning
[illegible] [illegible]
[illegible]
[illegible] down my [illegible] and
[illegible] for me as soon as I could come
[illegible] So I was [illegible] in [illegible]
[illegible] [illegible] that I would be
down in the morning.

Wednesday Oct 11th

[illegible] to his Landing

[illegible] I found Dr Dean [illegible]
waiting for me, and I was pleased to
see me [illegible] [illegible] had [illegible]
[illegible] about me. They [illegible]
[illegible] I [illegible] [illegible]
[illegible] the following day [illegible]
Grand Town of Makah.

Friday Oct 12th

Slowly, [illegible] [illegible] the day
[illegible] & [illegible] and writing to
friends.

Saturday Oct 13th

Glorious [illegible] day. [illegible] Mr Riley
and myself built a raft to cross over to
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] of [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]

[illegible] crystals [illegible] rude
of lead and some [illegible] specimens of
Emerald [illegible] and tourmaline all of which
accompany the [illegible] and
[illegible] We saw
[illegible] with
[illegible] and [illegible]
[illegible] time to make further examin=
[illegible] for and on the other side
the river, for some [illegible] miles and.

[illegible] Feb 15th

Morning clear - Storm with
[illegible] snow [illegible] Evening
Clear, smoky [illegible] brain in
[illegible] for some days past. The
[illegible] of these [illegible]
[illegible] with [illegible] leaves.
[illegible]

[illegible] Morning.

[illegible] Feb 16th

Cloudy [illegible]
[illegible] cabin [illegible]
[illegible]
[illegible] Morning [illegible]
[illegible] Clear [illegible]
[illegible]

Wednesday Feb 17th

[illegible]
[illegible]
[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible] Collection of [illegible]

[illegible] Dr. Brown

came upon the [illegible]

[illegible]

[illegible]

[illegible] — Still and [illegible]

Tuesday [illegible]

[illegible] Tuesday

[illegible]

[illegible]

[illegible]

Pandora [illegible]

[illegible] we arrived at this place

at 1 P.M. Immediately

after which Mr Perry embarked

on the Cars for home, M

[illegible] increased [illegible] the [illegible] enough to [illegible] the day [illegible]. Started on the Sth. Side at 3. O'clk P.M.

Wednesday Nov 2d

Morning Showers [illegible] very [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] at night at 2, O'clk P.M. [illegible] had [illegible] at [illegible] 2 Boxes [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

Thursday Nov. 3.

and came at night, every boat was found by our [illegible] [illegible] of water - more or less [illegible] of clothes &c Any all the Papers.

[illegible] Cold at 8. [illegible] morning - [illegible] Rain showers notwithstanding [illegible] high wind. [illegible] with high wind all day.

[illegible] [illegible] [illegible] [illegible] have been [illegible] to the [illegible] [illegible] Back [illegible] [illegible] [illegible] McPeaton McIlvain [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] Elkins completed [illegible] by [illegible] night

Dates agree with

1854

Calendar

[Owen Survey, 1848 - 1849]

Perry Creek

[illegible] above the Shawnee
[illegible] 18 miles and N.E.
towards [illegible] River. The Shawnee is
[illegible] of the same [illegible] of the Cherokee
Country, [illegible] and [illegible]
[illegible] River, [illegible] [illegible]
the Shawnee and [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] North. Country
about [illegible] miles to Lawrence
generally pretty level. [illegible]
[illegible] near Neosho River. Small
Plain of wood springs. Soil seems
to be sandy or sick [illegible] as further
South. Seems to be overlayed by
[illegible] sandstone. Saw logs
16 ft. 5 of one tree. 5 ft. stream

[illegible]

[illegible] Pier all
along on the margin of the
lake, from [illegible] to [illegible] Island
but not any distance back into
the [illegible]. All the pines are on
the lake [illegible] about the
[illegible] shanties. About
1500 [illegible] and land you can find

[illegible] Deer, Moose, Martin
(Pekan) for Bear, Plenty Bear
meat [illegible]. Rabbit meat
for [illegible] [illegible] Turkey,
plenty Pheasants, Red Squirrel,
Striped Chipmunk, small Black
rattle Snake very numerous. [illegible]
[illegible] Pines

[illegible]

Betwn 1st & 2d Ranges Traf

drift 3/4 of a mile from Flow
60 to Right
Side

No 1 E. 50 f

No 2

measured with tape line

16 ft

Sand
50 f

Singula sandstone

Shiner stone

Singular

No 1a

Traf some 100 feet above the River

all dip slightly from the River

The 1st range

2d Range

Traf

1 a. 30 ft.
Singular — Shiny slate & sandstone in thin layers
1 a

Traf 2d Range

Mill

Falls

A — 2. the water line

No 1a & 1b Between 2d & 3d ranges are not ~~more~~ so much elevated above the water line as they and the superincumbent strata are below the 1st & 2d Ranges. Stone No 1a is some 20 or 30 feet above the water line at the falls. No 1a is scarcely above the water, and the

The following fossil are included in Dr. Morton's List of Cretaceous fossils they belong according to Mr Lyell (see Page 144. Lyell's Travels in America) to the Eocene — of S. Carolina — viz Balanus Pengrinus — Pecten Calvatus — P. Membranosus — Terebratula Lachryma, Conus gyratus — Scutella Lyellii and Echinus infulatus (Morton's synop pl. 10)

Lot Clark in a rice St. over the Canal.

Sand L. Carley Baker St.

Henry Anderson Walnut St.

All can direct me to Mr Bartlett

fall in the river is not over 8 or ten feet

Aug 13 Pork 13 lb

" Sugar 12

" Butter 3

Flour

13 Pork 10 lb

Sioux	English
Makan or makow	Spirit = dirty
mini	water
mini makan	Spirit water
chante	heart
mini-makan-chante	heart of the Spirit water
Schicha	Bad
mattpa	River
mattpa schicha	Bad River
makan schicha	Bad Spirit

Metis half breeds of red River

[illegible] of [illegible] this

by the Earl of Selkirk

The spiral shell often seen in the mountain Limestone resembling a small Ammonite with a fluctuating aperture is the Euomphalus planulatus See Lyell's Elements vol 2. page 123.

The yellow flower with long tubular corol is Salix Humboldtiana (Willdenow) not a Stylus Brothera

Tanner's Geology a good elementary work. [illegible]

Lake [illegible]

[illegible] of Lake Katrine presents a more attractive outline of sylvan crests, it must be beautiful

Palidium [illegible]

P. decora

P. [illegible]

[illegible] feet [illegible]

found at Stel[illegible]

H. calycinum

[illegible] (Cedar)

Lonicera parviflora Lonicera ciliata

" Virginiana [illegible]

[illegible]

[illegible]

2) 2[illegible] 7[illegible]0

7380 7070

7074

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]