Longitude by the

Chronometer

and

Moon

Journal

through China

Thursday 11 Oct

Sights

☉, 26	—	51°, 49'
☉, 28	—	52 12
☉, 33	—	53, 06
☉ 34	—	53 17

Alt.

Lat. 39°, 12', 10"
Decl: 21, 42 S
Eq: ☉ 30 +
Corr. Alt: 53, 16
53, 27

☉ 33 = L 2h, 21' 50" from noon
☉ 34 = L 2 30 50
watch 3 26
Slow - 55 10 + ☉, 38' = 1h, 3, 40

☉, 29' 2h, 12 ±
☉, 26 40

☉, 36, 36 watch
1, 3, 40
9 40, 24
☉ 26 40
1, 13 36 = 18°, 24'
+ 30
Long: at Noon 18 54
Dist: Dth 39, 15

[illegible] long. [illegible] at 5 [illegible] 11 [illegible] ment by O.R. [illegible] no dat. [illegible]

[illegible] is a diff. of 75 miles between the Long. [illegible] and the Chron.; the latter being so much [illegible] of the former, from which it appears that [illegible] spend by carrying current from the [illegible] with that which [illegible] round the [illegible]

A. M. Windsor 12 June 179[illegible]

Tides

H	14 23"	— 54 7½	
0	15 25	— 54 16	
0	19 25	— 54 28+10	
0	20 25	— 54 39	
0	21 25	— 54 49	
0	22 25	— 54 30	

Lat. 39° 36 Decl. 21° 33

50 24 — Eq. 9' 00"

21 33

71 57 = 95079

54 30 = 01546

4.13139 = 13533

.11322 = ft 39.26 Lat

.03147 = ft 21 33 Dec

4.27608 = 2.23 10

3 40 35 Wat

Now 1 17 25

Eq + 1 26 25

1 = 0 23 45 W

2 700 1 26 25

14 42 = 0 50 10

0 14 42

1 35 20 = 23 52

+ 32

24 24 Long E. at noon

39 41 Lat So Ditto

[illegible] 24 hours [illegible] is behind the [illegible] [illegible] of long. — The current must [illegible] [illegible] changed to the contrary direction — [illegible] [illegible] to show, to [illegible] to [illegible] [illegible] [illegible] in so short an interval, [illegible] [illegible] extraordinary

P. M. Thursday 13 June 1793

4 30 — 39° 30 Cos —

3 1 0 = 3 50 04

2 20 45 50

1 5 40 3 4 14

1 5 40

29 30½ = 1 50 34

— 35

29 — 3½ Long at noon

40 — 6 Lat. at Ditto

Lat. 40 0 0 S

Decl. 21 20 S

Eqn — + 9 29

L 3 42 41

W 4 30

0 55 19

Eq. 9 29

0 45 50

Squally at 10 A. M. Crost Jack yard in three pieces, no person hurt and we got up by two — Guest and Owen Affirm our Latitude sometimes of three several Whales —

Saturday 10 Augt. 1793

Took an Altitude of the Sun at noon for the Lati the horizon was land but level and at a great Distance — The Lat. comes out 39° 10′ which must be either five or six miles of the truth — This is very probably the first observation made on this river. at any rate it is the first with an English Sextant. — A weeping willow — At 5 P.M. brought to on the left side of the river where I stepped a shore and for the first time set a foot on Chemung in the Indian or Cayuga country. Found former at work in a field of the Sextant Wood or weed used in dying blue — Drew well circular, built with trees about 12 feet in diameter — circular — Stopped here about an hour — The Indians are arranging matters with respect to our voyage — I was belayed on account of the crowds of people

man to go aboard this they behave with great civility — Admire the black lead pencil — A fellow seeing me pick up a sprig of the dye stuff gave me a prickly vegetable of no value to me — Women people take some of them great liberties if you indulge them, but are easily checked at the first look — Christ gave to your face — Beg of each of the fowls when it was exposed to the cook that fowls had two legs, he laughing, handed to the cook ~~two~~ into the hand ~~from~~ put, and brought them forth — Every house has a gong hanging at the head door, which is beat as a signal for meeting or slackening. Sat. 8c —

They seem all of the same dimension

one is in diam. 2 in 8

There is a cavity in the middle about

Inch D. and deep convex on the inside — Much disagreeable noise — It is now rather cloudy at sun set, no rain for 12 days past —

Second day — 11 August —

Rose at 6½ — Read the provision for the day at 6, passed several villages farm houses — Women smoking tobacco — at 7 received a message from his Ex.y acquainting us that such Gent. as chose to go a shore with him must be ready Dressed at 9 o'clock — We were served at rest at the Salt mount near the Salt springs of Tem-sin — The quantity of Salt pulled up here is immense, it is contained in Baskets of about each. The heifer in shape is somewhat resembles a Pennsylvania Cart vastly

greater - some of them must contain from
1500 to 2000 Baskets, and stand with the
ends to the river, along the right bank
which they extend above one Mile in
length. This salt is said to be brought from
Tokin and some other Eastern provinces
of the Empire — As we moved forward, passed
a prodigious No. of Ships — innumerable
crowds of Spectators — Every inch of the
street and the Decks of at least 500
large Ships were covered with the Populace
— A bridge of boats appeared in
front across the river, at about 100 yards
distance — In a moment it disappeared
the flat boats which composed it were found
in passing were ranged along side the
river on our left — About 10 Minutes
after passed the place of the bridge
we found our tubes in the middle of

Ten-Ten — The river divides at Selfuts
two branches — right — left — a beach
and fine row of houses in front —
— Elegant Theatre with a company
performing at that instant — Crowded
audience of Camenly Gentlemen ~~spectators~~ Consequently —
— From the Theatre along the ~~South~~
North branch of the river the Military
were drawn up to the ~~amount~~ set of 2600
— Mandarin commanding — on the right
flank saw no other officers distinguished
along the line — Band of Music in a
tent on the right of the line — Grand Instru-
ments — Road M. and Battle Standard on the
opposite side to the Theatre and Military
received by his own Guard with ceremonious
ceremony — conducted into a pavilion erected
expressly for the purpose, where he was
received by the Long-tee in Governor and all

the Mandarins of distinction. His Lord-
ship was seated on the left and the Gov-
on the right of the room — here all sat
on low rows of Chairs parallel to seats,
opposite to them, on the right or which
the Mandarins sat. His Lordship & G.
and the Interpreter sat on a high Bord
or table or bench, all the rest of the com-
pany were on a level — The Pavilion was
covered and lined with matts which
in the inside were painted. The pillars
I presume were bamboos, were wrapped
round with red silk — Chairs were of the
usual height, round both in the lep-
ights and backs. Centre on the
bamboo bottom and a fancy rich
red Satin doubled hung over the back of
each — Dessert — beautifully painted hor.
lamps — cylinder & angles rounded — Others

of delft and square — The Govr. is a
respectable looking man advanced
in years — little boy said to be his son —
— Our Military were drawn up without
after 20 minutes took leave and came
on board about 11 o'clock, he was
soon followed by a present of a most
sumptuous dinner from the Governor —
— There was provisions enough for the
~~time the~~ number — Two roasted
pigs — Fowls Several Chinese compositions
dishes — all very good — with an enor-
mous quantity of ~~fruit~~ fruit all for us
few and two Servants — Water, Melons
Peaches Apples &c. Comedians or
rather Tragedians continued from 10
to 1 o'clock, but we came away before
then and how long before and after
I know not — most unfeigned Thanks

mode of fighting — Stalking about
leaping one foot as high as their middle
changing dress almost every time they appear
this entertainment always in the
mor.ng in China — jumping over his
antagonists head — sometimes caught
on his back without attempting a
blow — but suit at one passed the
military who are the most unmilita-
ry looking troops I ever beheld —
deep blue — very heavy — now behind lied below the
chin — the coat is a long spike jac-
keting obliquely backwards, by which
he might very easily be strangled
Tartar bow one end in a leather cas
the other projecting towards the front
thing endeavoring arrows in a quiver
spread behind the shoulders — the same
as I have in London — a sabre, which
seemed hung on the left with the point

to the front — Boot on the left va
armed with metal locks most mi-
serable looking things — Every 24 or
so had a stand of tawdry colours, bands
lesser colours between every two or three
men — Have not as yet seen a fine
look in China — On the left of the
line one Rest poles extend far
above the crop piece, by their means
the tent can be enlarged or diminished
at pleasure — So much for
the Mandarins. The officers stepped them
immensely — A matting and over
that a kind of thin silk. Gauzy covered
the floor of the Pavilion — The Manda-
rins who sat opposite to us had small
foot stools, the Chinese wish to sit with
their bottoms nearly as low as their heels
— Lord M— and Col. B—n — Look —

Stopped at _____ merly beyond Tur-
on the North branch of the river along
which we our route. Her chain was much
drawn and we keeped the North branch
— on the other we saw before us a bridge
of boats, also passed one of the breach lower
mentioned by all the writers — some wooden
bridges but nothing remarkable — Stopped
on the right of this last branch of the
river for some hours. At length a Mr.
Daini of the first rank visited Lord M.
Great procession of Gongs, Colours — Officers.
Tents were now drawn into the ground
two tents were erected — a row of beautiful
red lanterns were placed along the whole
range of the ships, from which we found
we were to rest here for the night —
the vast atmosphere found us by all ranks as
extremely flattering —

Monday — 12. August 93

Rose at 5½ — beautiful morn — Village
large here — country still flat —
Stopped at where we received
the bounty — vast crowds — entertained
with our mode of eating eggs — tea spoon
— sugar &c — Lanterns hung up last
night seemed to be of oiled paper —
a candle was introduced from below
of a cylindrical form about 1½ feet
in length and 7 broad — suspended on a
split bamboo — The tents were for
the reception of the Grand — All
the provisions sent from the Mandarin
in brown paper have a slip of red
paper pasted on the packet with the
name of the article &c written on it —

9½ passed two Military tents on the left, another square tower with 5 embrasures, — a square hole thro' each Merlon, for arrows probably — small Casaltes with two embrasures on the square side — Built strong of brick — at 10. 6 soldiers posted on the right — at 12. 9 soldiers posted on the left — some with bows, some Matchlocks — funks moving down the river by the stream alone by the rudder and so as to stand obliquely both with regard to the water and the shore — in this manner the vessel ~~goes~~ glides along foward down the river — footing obliquely to the stream at 45° — Several families live on board one of these vessels — Men funks draw a little water on account of their being perfectly flat that they can not only go up the shallow rivers and canals, but a Dock for repairing any damage, may be made in a few hours on the side of the river, where I have seen several in temporary docks — the necessary on boards our River boats very inconvenient greatest part of the body exposed — This Evening received a present of two pieces of silk each from the Long-tee of Tien-sin, I am informed — Left at ~~Dokos~~ Two tents erected almost instantaneously — a row of tents as last night, but white — that this afternoon excepted Therm. from 90 to 95 — Passed several mounds of Clay or earth done up smoothly — from footings of Red. Sandstone, height about 4 feet distances varied

Tuesday — 13 August

This Morg a fray between a Chinese on shore and one in a boat, the man on shore wrought himself into a most furious fury — tore his hair at last gave it vent in throwing a large stone which the other in the boat nearly escaped — the Chinese are said to be good marksmen with stones — more of the same movements but attended thither — I have not been, or yet able to find their use

This afternoon now the ~~clouds~~ heavens became covered with thick clouds at last a very heavy shower was seen to the northward, greatest part past us at this time the thermometer was 90 — the day having been extremely sultry as the evening looked a little stormy

and the men had had a hard days labour in constantly tracking against a strong stream, without the least aid from the wind we came soon to anchor — It blew hard during part of the night so we did not set sail till half past 4 P.M.

Wednesday — 14 August 1793

This Morg — at 12 answered at Hoosimoo military drawn up fired three guns from a piece the shape of which I could not distinctly perceive it seemed to be a kind of fire work — swords with the points to the front — bows, matchlocks — colours — a stand between every 4 or five men — fire land erected on the

left of the line — wore white hats with red hair — march lumeltuously — Here we stop for our days provisions which have been much later than usual in being delivered — owing to our not getting so far last night as intended, nor only to early this morn: as usual — A two wheel carriage for the first time — wheels about 4 feet about 20 spokes — large clumsey naves very little dished one small horse — A mandarin in white in it, evening round like a waggon — kind of oiled silk or leather projecting in front — Grass-hoppers — at 1½ 13 soldiers on the left with swords only — at 4 saw a head very high hills which must be the hills near the great wall in Tartary — The boundary of our long voyage — Common crescent saw with a string and stick to tighten it —

~~Tay-ho~~ Py-ho — Thursday 15 Aug: 179[illegible]

Continued our course along the river as usual very high hills extending from N.E to N.N.W there seem to be two rivers, one for behind the other, and which is also by much the highest — Read our provisions at 8 sugar candy much diminished. I have begun to make a projection of the lunar eclipse on the 21 August — Day not quite so hot as yesterday — River very shallow — Lord Minister remarks that the Chinese had no battle ensigns or hardly to look at his ships tho they had never seen any thing like it. The Mobé Raggot observes on this remark that the Chinese too much occupied to satisfy an idle curiosity, they are better employed — We have found Mr Allen very different

for any little Village that we keep
from out an invisible member of inhabitants, all most capably inclined — to run
and seem to be perfectly idle, for they
attend us sometimes two hours or more
setting at their ease on the banks of the
river and on the Decks of such vessels as
happen to be near. They come wade into
the river and up to the neck, and some-
times many of them swim to the vessels
to get a more perfect view. Tracking
perfectly very hard work sometimes
up to the middle in water and mud
at other times obliged to swim across
rivulets which run into the river all
this with cheerfulness, without the least
murmuring — This does not seem to pro-
ceed so much from the commanders of the

mandarins as from a natural willingness
to do their duty — This day at 10 passed
several of the same kind of mounds, some
say they are intended for mending the road
after the flood — Most beautiful moon light
evening — Stood on longer than usual —
to make up I suppose for yesterday's delay

Friday 16 August 1793

Rose at 5H set my watch by sun rising
fine morning — fog concealed the Distant
mountains — Recd. our provisions which
are more scanty than usual, at 7 —
At 10 Past the Village of
Three Bridges of one arch each. The
Bridges extremely large and irregular
— Key stone in one very small all in
bad repair. The Arch is neither Circular
Elliptical nor Gothic, at approaches more
the parabolic form, than any other

then as usual prodigious crowds of spectators — A curious kind of monument lower front a kind of Dome, from the centre of which rose a spire with a number of little circular bandages, seemingly cut out of the wood or stone of which the whole is composed — Chinese hair have in general very white teeth, their colour would be nearly as white as in England, but they are much tanned with the sun — Upper part of their bodies in general uncovered — I have not observed any of them to chew betel, as reported by some writers on China — At 5 A.M. arrived at Tong-shu, the end of our Journey by water. Here a long Gallery covered with Mats is erected for the reception of the presents — Invited to breakfast in public to morrow at the Temple at 7 o'clock — we are all to lodge at the Temple —

Saturday 17 August 93.

Breakfasted at half past 7 in the Temple, which is a Temple of Foo containing a number of Chapels and different apartments — Better Dinner to-day after breakfast went to the junks, only six in the River, all the sailors were unloaded and very awkwardly lodged in two long sheds erected on purpose. The Dexterity of the Chinese in hoisting chests and other more in carrying the heaviest boxes ~~was~~ appeared to me far superior to any thing I had ever seen in Europe — After a day of great fatigue we retired to Temple to supper — went to bed at 8 — Dinner — 8 were to have slept in one apartment, but Capt. M. and Mr. M. preferred the Porches and in consequence of the Persian D.G. followed — very hot — Mosquitos very troublesome — Dined this day at the Sheds —

~~Tuesday~~ Sunday 18th

Rose at sun rise — breakfasted at 7 spent the morn. in repeating those things which are to be carried on men's shoulders, under hat or baggon —

platform for landing too weak — an additional support, tied by a rope with a short piece a cross — rackstick — Tackle — Milk for tea at breakfast — All the Chinese ships are decked by bulk heads across — In ships building Chinese use a kind of Cement of lime oil and another ingredient, this is said to keep the vessels always tight. Certain it is that I have never seen a seam in any com of their largest ships —

The sails on horizontal bamboos have one advantage over the European they have no belly — Mandarins extremely attentive, every thing conducted with the greatest regularity — People work like

horses — Collumni of the Temple no pedestal — ⊔ in the Portico collumns the row of outside pillars are made fast to them in the building by cross pieces which Rectangular tenons fit strong the pillars near the upper part of the shaft and sometimes have a pin driven through the projecting part of the tenon long ways in the form of a wedge to keep all fast in front — Coll. equally thick throughout small enough — Two cross pieces the upper one out on projects ⊡ in front the under one within a few inches of the other and as described above — a large semicircular piece completes the Coll. in capital — iron ogies like ours — no perspective — large pictures bad perspective — house — trees — wants shadows people appear not to touch the ground figures at a greater distance taller than a house nearer hand &c — area of the

Temple paved with bricks – Chinese bricks are 10 inches in length 5 broad and 2½ in thickness – query is there a standard thickness in China? – Lanterns of silk with flowers of coloured paper, very well done, square – Others hexagons the first instance I have seen of this figure, the octagon being the most common with their Pagoda Turrets are octangular – Bell has 8 scollops with 5 holes in the crown . . . which the Chinese say answers the tone. The Bell at the Temple Joshu has no clapper, struck by a billet of wood – Gongs on board the boats also struck with soft steady wood but not covered with netting as some I have seen from Canton – our Gong was from 2½ to 3 feet Dr – concave about 7 inches Dr and 1½ or 2 deep – Near color whitish mixture, seeming by copper and zinc

Roofs of the Temples Tyles convex downwards the joinings covered with an almost cylindrical Tyle running up and down – windows of paper and thin silk – one in our bed chamber octagon some of the silk gauze is so thin that at a distance it becomes invisible and looks like very transparent glass, settled in the frame, into the lower or country as we pleased without any molestation – common people dress all in their common clothes, throw themselves down on a mat, spread any where – Mode of travelling settled, on horse back or in a carriage – All chose carriage except Mr. Bearing who prefers a horse – who are to leave this place on Wednesday 21. – First of the packages set off to morrow – we send our cots &c on Tuesday –

we remarked this morning that the ~~[illegible]~~ vapour from a bit of ice held in the hand descended owing to the current of cold air downwards — We have always Bing-a-wa ice water —

Monday 19th Aug. 92

Employed this day in finishing the preparations for sending off the despatches — Several rounds fired with the two 6 pr. about 7 in a morning — The Mandarins did not seem much pleased, and they could see as quick at Pekin — The following circumstance perhaps contributed to form the opinion of some of them, Just before the firing began, some men were passing on the opposite side of the river at least 600 yards distant. Several mandarins observing them instantly run towards the ~~opposite~~ side of the river following and making all the most significant signs they could to them to get out of the way, but afterwards finding Mr Davis stand during the firing within 12 or 15 yards of the muzzles of the guns Contempt was the consequence. The more ignorant men are the more offended they are at the discovery of their ignorance —

Tuesday 20th August

Yesterday I received an account of the eclipse of the moon on Wednesday next (to morrow) in Chinese from the Mandarin who accompanies us on the way but our Interpreter cannot translate it such much to compare it with the calculation I made out and which with a Type I gave to Lord M^c^. Yesterday Mandarins visit — One pronounces English words very well — Watch — Tea — hat &c and

wards them down — Lost my Silver case
pencil at the shop — Sent off out Coto
bed 7 — 21st August 1793

Slept last night on Stools, tables benches
&c. — rose at 2. drum — some Mandarins appear
immediately after — Carriages — horse — set
out at a quicker pace from — passed thro'
the City of Tong-Shee, High and thick
walls about 25 feet high — Method of fastening
fastening the Gates — Carriages — two wheels
one or two horse, seven horse has both
its traces hooked to the same point at
the bottom of the shaft — No springs
no seat — bottom boards covered with a
bit of cloth — must sit either with the legs
across, the usual manner of the Chinese
or hanging over the side at the bottom of
one of the shafts — covering round like a
waggon — low — wheels 18 spokes feet
in height — scarce any dishing — very
rather narrow but very deep and strong
a wooden saddle much like the Scotch
Cars — Have not yet seen a four wheel
carriage in China — Breakfasted at
7 miles distance — Entered the suburbs
of Pekin at 9¼ and the Great Gate
of the Chinese City at 9 35 — passed thro'
the opposite Gate about 12. — along
the wall which divides the two cities —
had to miles to travel farther to gun-
min-gun, a palace of the Emperor where
we arrived at 2 o'clock — bones being al-
most dislocated with jolting of the car
— Dist. 9 hour in the carriage at 9 8°
— On our alighting we were kept
standing in the passage into the court
where we were to lodge for near half
an hour before we could be permitted to
follow the Ambass. or know what lodge
here we experienced the effects the in-
convenience of the want of our interp —

fortune — strange that the Russian should have had three interpreters and the English only one. — At ~~long~~ last unable from fatigue to stand longer we all marched in quest of the Amb: and Alnapo — and Plumb Esq: — he found, or rather heard of them at the house where they were disputing with the Mandarins about the apartments not being sufficiently spacious — After drinking a couple of Gallons of tea I went to bed very much indisposed — Rose at nine to see the begin: of the Eclipse of the moon — Noise of Bells drums Gongs — None but the ignorant observe these ceremonies — Found the begin: to correspond with my calculation

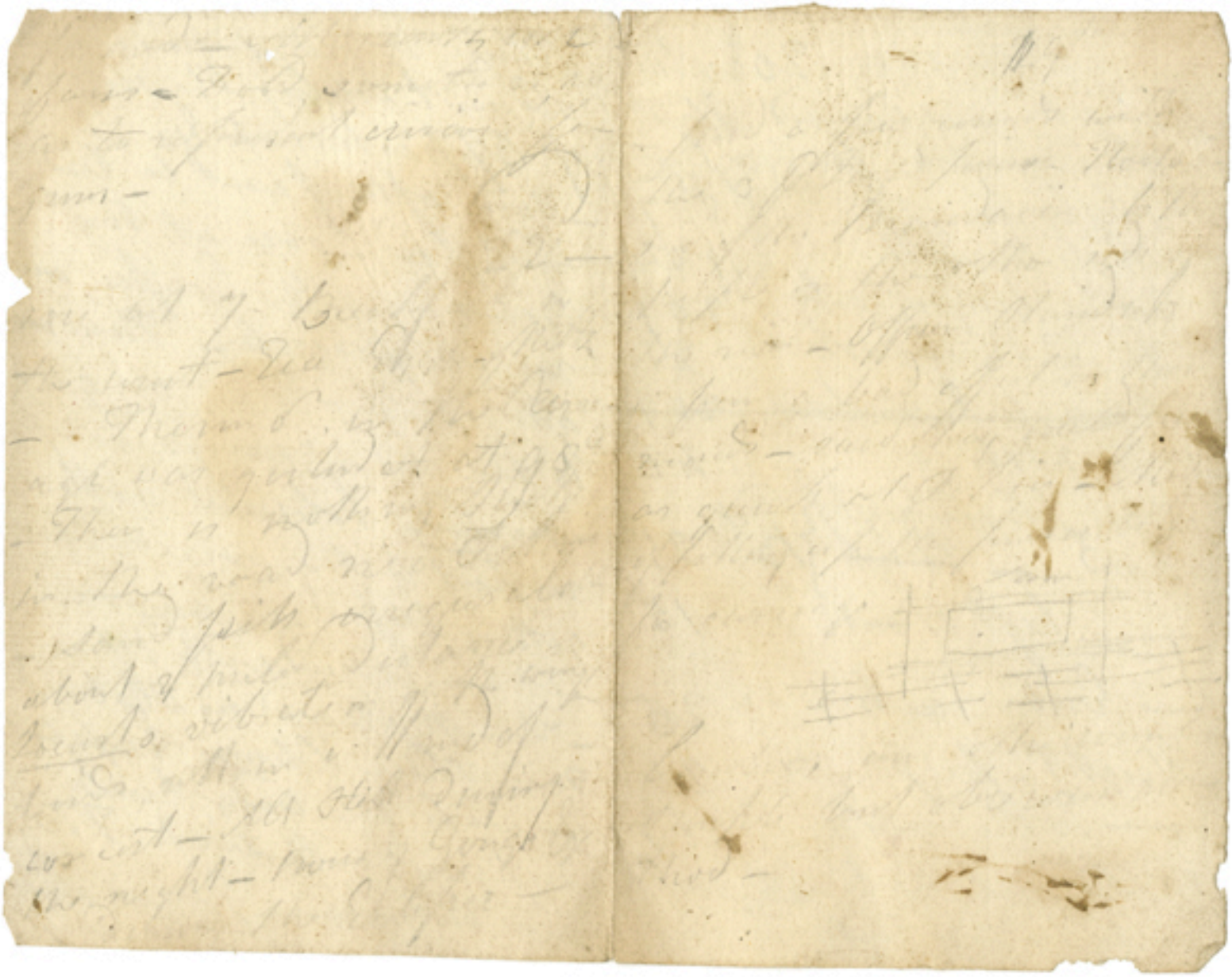
green — ~~[illegible]~~ — green — ~~[illegible]~~ — Roof of the Temple and other well built houses curved — concave downwards — Bricks 10. 5. 2½ some larger — Projection of the roof of the Temple about ¼ of the Colt: like the Tuscan in Covent Garden — Columns have no Capital — Two pieces of wood join the upper part of the col: with the wall and are seen within the portico — entablement projects on the inside of the wall and bears the joist which does not rest on the wall — Sweet woman among the crowd at Pekin, but of the lower rank — homes appear irregular — Steam from the ice in a cask of water moves downwards — This in the Temple owing to the current of cold air occasioned by by the condensation — No order of travelling settled by the Ambs: getting before one another — This wrong — After 11 months arrived at our Journeys end —

20th

[illegible]	257
[illegible]	124
[illegible]	207
[illegible]	21
[illegible]	204
breadth	42
[illegible] right hand	25
— left Hand	15
— Ends each	25
Weight — [illegible]	26
— In the [illegible]	13

[illegible] to be [illegible] down [illegible] in the

plan of our intended [illegible] subject of assortments &c — Soon after I went to bed indisposed — rose at the beginning of the Eclipse, and saw its progress — Nine or after 11 Months we got to the end of our journey — no ordeal observed with respect to the care of our getting before we arrived — Chinese came with dispatch — Lord M. observed no Mate of [illegible] — Chinese dress conceals the body, limbs disguised with black. The face only seen — In good [illegible]



Monday 19 Aug. '93

Fired a few rounds with the 3 P. field pieces — Hollowing of the Mandarins to the people on the other side of the river — officers thinking near impunity a bad effect on their minds — Learn they could fire as quick at Pekin — Mode of getting up the presents from Carriage — bamboos in other — simple but brain method

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Sunday 20 Aug —

Have now measured the space occup. by the presents —

	ft
Whole length	257
Whole breadth	124
Cov: length of each	207
Breadth of each	21
Breadth	42
Plan, right hand, breadth	25
left hand	15
Ends each	25
Height perpendicular	25
to the eaves	13

walls contrived to let down or take up - both in the.

Plan of our intended residence, setting the subject of apartments be-
Soon after Dismissed to bed indisposed
- pm at the beginning of the eclipse
Lasts to progress. Thus after 11 Midnight
we get to the end of our journey -
No order observed with respect to the
carriages getting before one another
— Dhani carried with difficulty -
Lord M. observed no state at Trichin
Chunnie drop conceals the body - like
disfigured with boils - the face only
seen - Dr general will formed -
all nearly white - fans - fold
Sometimes made so as to represent
Canine figures

22°

Rose at 7 - Breakfast in the Court
tea - eggs - milk - Therm: in the camp
was yesterday at 98 - There is no-
thing stylish in the road near Peti
land pits irregularities about 2 miles
distance - Locusts, vibration of the
wing chords all in a kind of concert
— all state during the night —
noise of frogs &c during the eclipse

Wed: Aug: 21 Slept last night on stools, tables, benches, &c. — Rose at 2 — drum — some mandarins appeared immediately after we were ready — came, — set out at ¾ past 4 — passed thro' the City of Tientsin — ~~[illegible] 1 mile distant~~. No order, ~~[illegible]~~ in regard to the carriages — getting behind on another chain carried the difficulty — ~~[illegible]~~ at ~~98°~~ — Breakfast at Tylinh on the road near Pekin — Sand pits — inequalities — about 2 miles distance Locusts relation of the wings chiefly is a kind of cement — Entered the suburbs at 9¼ and the first gate of the Chinese City at 9h 35m — passed thro' the opposite gate about 9¾ — along the wall built under the two cities — Had 6 miles yet to travel to 7 P.M. a palace of the Emperor where we arrived at 2 o'clock time being almost destroyed by the jolting of the car — in one slightly.

Rose at 9 to see the bazaar of the city which compared with my calculations — of bells, drums, pings, &c. — Some had the quiet above — then commenced after 11 hundred here and at our pension

Thurs Aug 22 are still during the night
Rain at 7 + breakfast in the tent — tea
eggs — milk — Most of the articles are

Queen – Mem – Queen Thu: 22 August 93

Rose at 7 rather indisposed – Most of the artists arrived – Nothing determined on – no place for setting up the Planet. Consultations with different Mandarins – Two Sheds erected this day to protect the presents – Dexterity of the Chinese in making their sort of cocoa – fans tied with rushes – no pins nor nails – The Cochineal is previously extracted from the fans – Wrinkles the light but brittle cocoa with four folds of matter –

23. Friday Aug. 93

This day L. Rodriguez Mesquonnes waited on the Ambassador – previous to their arrival a Message from Lord M. desiring that none of us would hold any conversation with them. It was afterwards add not to speak in Latin – Some seem

bordering on the redeemers took
place in consequence of this — One father
addressed Doctor — Ne loquaris latine
domine — Pruss! — That we should
not converse with the Missionaries seem
somewhat strange — but why not in
Latin appears very extraordinary. Time
will explain all, and I am much mis-
taken if, when it is known, it appears
a marble choke of policy — This after-
noon accompanied Lord M. and Sir G.
to the Emperors palace about half a
mile distant — Viewed the great
hall where is the Emperors throne — at
and a Musical Table Clock name on
dial Clark the Leaden hall street
Lond Mays Catherine Ogg — other
times —

— Collation of sweet meats and fruit.
in the Portico — were met in the court
by a Mandarin of distinction — con-
versation — Two Missionaries inter-
preters — It was agreed on that the pla-
netarium should be brought to the
palace immediately and fixed up in
the East end of the Hall — The Globes
on each side the throne — Chandeliers,
Orery — Williamy's Clocks — These to
be fixed up in the palace and all
the other things to be carried back
to Pekin — By Command we have
not been allowed to get to any article
brought from Tong-Shu. The reason
we only guess at, but the inconveni-
ence is great — want of clothes —

— Saturday 24th Aug.t 93

Began to unpack — Three glass domes Globes — ~~Dedals~~ Platform — and one of the cases of the Lustre — All perfectly safe, except one pane of the Dome of the Ptolemaic System which is cracked — Mr Italian Missionary name Diodati is our Interpreter — Pi Q.s method of taking off the lid of a case — impatient —

— On home back to the Palace returned in Diodati's carriage —

Sunday 25 August — 93

Went on home back to the Palace at nine o'clock — Unpacked one of the Lustres all safe — half smashed putting one up — Lord M. and All the suite except Mr Barrow, my self and two workmen, set out to morrow morning for Pekin — we are to be lodged in the Palace and to remain here till all be finished — visits from several different Mandarins, to see the presents — seem little acquainted with the Sciences — pr. pleased with the appearance of the instruments —

Monday 26 August — 93

This morg. found that my trunks were all sent off to Pekin, so that I must remain without clothes till they are sent back — It now comes out that the reason of the Embargo being laid on our trunks was to prevent the servants selling any thing, but the mechanics and servants have outdone in maneuvering the heads of the Embassy — for they have found means to their Chests at all times. —

It now appears that the reason of the prohibition respecting the first Missionaries was this. They were all Portuguese were intended to be interpreters — His Excell. does not like them and as they speak no language but Latin known to the Gentlemen of the Embassy in general hence that language was prohibited. This is a shallow artifice. Learned Doctors not understand Latin! Besides Sir G. spoke Latin to Mr. Plumb in hearing of Lord etc — what shame contradiction — I make the Lurks — Put up the Globes — and prepare the other Lurks for putting up

— Lodgings in the palace — damp rooms —

Tuesday 27 August — 93

Put up the 2d Lurks and Williamson's cloth — also unpacked and put up the Orery — Mandarin asked whether the English Porcelane was as good as the Chinese! — Where are the five planets on the Celestial globe — All are surprised to find China so small on the Terrestrial globe and some suspect that it is made small by the Ching-mu — the English on purpose —

Wednesday 28th August 93

Mr. B. went this morn. to Pekin — Lay the platform of the Planetarium — screwed it by two additional crosses — Screwed down the cover — Unpacked from inner case the Chrono. placed it on the Platform — Fixed the three Bars of the Systems — Systems — took the Covers out of their inner cases and put them on the Systems — and thus in appearance completed the Planetarium — brought late —

Thursday 29th August 93

Glass domes all cleaned — Some cobbles put on — Notes on the Chron.— Fixed the Bar. of William's clock and put it up — Mess. B. and Alexander arrived at 9 this morn — the latter to take a view of the Planetarium which the latter set off for Paris in the evening

Friday 30th August — 93

Adjusted Clock and Bar.— Took out Chron. work and began to clean it — Went for two grandsons of the Emp. — why keep your hat on

Saturday 31st August

Finished cleaning the Chron.— put it together and in motion —

Sunday 1st Sept. 1793

Took down and began to clean the Copernican System — Yesterday three Portuguese Missionaries arrived with orders to see the Presents and have every thing explained — They all belong to the Tribunal of Mathematics. One, Father Andreas is one of the Presidents, the other President is a Tartar — These three Missionaries have the calculations to make every year for the Almanac — Andreas was the Man who visited Lord M. and to whom no body could speak Latin — They together with Ciodale set out at three this afternoon to visit the Ambass.— Letter from Sir G. forbids us to use Latin either to the Portuguese or to Ciodale — on the back side of the letter is first response — which Ciodale saw — what extreme bessing — how shallow the Artifice — I am much mistaken if it is not seen thro already — I wrote to Sir G. by Ciodale received by three Grand Sons of the Emperor — sent us tea most excellent — confections and fruit — peaches and three different kinds of apples — asked to sit on a mandarin bed on his hunches — women so — in Europe

Monday 2d Sept. 1793

This morning the four Mechanics arrived from Peking — nine o'clock — Finished the Copernican System and put it up — took down the Satellite system and began cleaning it — Mechanics dined with us — wine and brandy brought by the Fathers

Tuesday 3 Sept.

Finished the Satellite system — Visited by 3 Nephews of the Emperor — asked many silly questions — looked at and opened our watches — opened them like shells

Wednesday 4 Sept.

Employed in putting the two systems and connecting them with the Chron. — put both in motion —

Thursday 5 Sept.

Tibault employed in cleaning the Orrery — found the clock going but the Arbor had standing — owing to the hands of the clock not being sufficiently pinned — set Bolt-piece to make a screw under of a pin — answers perfectly well —

Friday — 6 Sept. — 1793

Took down the Globe — Bolt-piece employed the cleaning the planet — were Tibault at the Orrery —

— Two other Mechanics a French man and Italian —

Saturday 7th Sept. 1793

— Employed in repairing the communication between the Globe and the — ~~tube~~ took up the middle part of the platform to get at the connecting — made a new support for the Globe rod — —

Sunday 8th Sept 1793

— Finished repairing of the connecting rod replaced the pedestal of the Globe — and began to clean the wheel work of the Globe — Mr. Maxwell paid us a visit

on the 1st and 2d Day of the moon the Chinese sacrifice to the Emperor this in the Hall where we were at work consisted of a round flat cake in a large sized saucer placed on one of the little pieces of wood employed to keep open the door &c — on each side of the saucer in the front were placed two small tea cups filled with spirits or wine and a small vessel in form somewhat resembling a bottle on the floor at the left end of the little table of wood or table — This sacrifice was placed before the middle flight of steps to the throne at about 3 or 4 feet distance — The large vessels of bronze ranged in front of the hall in the court, serve to burn incense and other perfumes when the Emperor is there —

The Chinese have no knowledge of the Sabbath — On the 1st and 2d day of the moon they make three prostrations in the temple — This is the whole of their religious ceremonies —

— They consider the Heavens as the only object of worship —

+ The door frames are the same below as above — hence in entering every door and gate at the palace one has to step over a cross piece of wood from 6 to 12 inches deep —

— The locks small and great are of the same construction, and in general may be easily opened with a stick

— All the windows are of the same kind of paper, manufactured in Corea it is very tough, but coarse —

— The life of a mandarin in China is a life of misery — The mandarins

ask a watch or any thing curious
the Missionary has got from Europe
— If he is denied it, he will contrive
to ruin the Missionary by some man
or other — They are not permitted to go
beyond miles from Peking — There
are about 4000 Christians in and
about Peking — The Ceremony of
the Emperor ploughing is confined
to the Emperor and Princes and a few
of the first mandarins — The feast of
Lanterns is celebrated at his Palace
— The Chinese make no reverence to
their God, but go to the Emperor —
The account given by former Mission-
aries of the Imperial Piety of the Chinese
is greatly exaggerated say the present
Missionaries — all hypocrisy — pure-
ly a mere farce —
— Chinese have no mills either for grind-
ing corn or for any other purpose —

Monday 9th Oct. 1793

Petitpierre employed on the Globe
Tibault on cleaning Adams Globe
— Another Missionary brought two
letters sent from Macao one for Sir G.
S — the other for Mr. Plumb — Explained
the structure and use of the Orrery to
Diodati who is sent for by the Emperor
to inform him whether the Mohammed
he has in Tartary be of the same
construction — Diodati sets out to mor-
row — The letters will be carried to town
by Mr B. to morrow and dispatched
immediately to Pekin —
— The Missionaries have received letters
by the same conveyance with the above
which contain advice that Great Britain
has declared war against France —

I am anxious for the real facts respecting this news — If true it will probably make some change in the Ambassadors movements — Have no great hopes of learning much in China — The extreme jealousy added to the extreme ignorance and pride will prevent our having many opportunities of visiting the manufactories &c of the country —

Doors barred with two flat pieces that are fixed alternately on the half door one above the other below 20 or 30 divide the door in height into 3 parts. These pass through and into the opposite side Door consists of two rectangular frames divided into 3, 4 or more panels —

— Generally inscriptions on the door —

— Grandsons of the Emp: at school — even Brothers

Frater Diodatus missionarius Italicus
Sacræ Cong.: de prop.: fide, monitus fuit
a patre Anselmo ejusdem Sanæ Cong.: Miss.
conscio, ac procuratore, quod eminentissimus
Cardinalis Antonelli præfatus Romæ, ejusdem
S. Con.:, multum commendaverat, excellen-
tissimum Legatum, suis Missionariis, Chi-
nensibus, et opus fuit, quantum fieri
potest, suæ legationi. Ego et omnes Miss.
Itali, sumus, ad obsequium et mandata

Cruel.t Legati. Et in primis ego Frater Nicolaus
Ternia monere Cruel.t Dominum — ne fidet Sar-
doli Gallo Dicto Gramont qui ipse est
in mala fide et istum actione apud Magnodes
Senenses, ad multum suspicantur, ipsum
de mala intelligentia, quam Cruel.t habet
Legato contra Senenses

Queen-Mia-Gnon Tuesday 10 Sept. 1793

Put up the wheel work of the Globe on its base and connected it with the Orrery. In order to ascertain whether every thing is free — put all the three Systems in motion — Tubalcain employed on the Globes —

— when we were approaching Pekin a council was held at which the Missionaries ~~attend~~ were ordered to attend — They were asked whether the English were not a rough uncultivated outrageous people — After a few days acquaintance with us they saw they did not find that we were so uncultivated as they imagine — Received for a present of two hemispheres of the Moon in the Chinese Character — done by the Missionaries — The Constellations have no figures such as the European, the Stars are linked together in Groups, with Chinese names affixed —

— One of the Princes observed to a Missionary that the English must be very proud of their knowledge in Science, when they make such a parade in bringing so many grand Machines to China —

Wednesday 11 Sept. — 97

Therm. at 6 p.m. 68°.

— Globe has moved since last night perfectly well — finished my remarks on the Satellite System — adjusted the sun and planets of the Copernican System to their orbits. — Tabault misplaced on the Celestial globe — Therm. at 12. 76°. —

— This day at 12 coming thro' the Gate of the outer court of the palace, found a man on a seat and another man beating on his back — shoulders with the flat of both his hands — naked — head. upon enquiry found that he was undergoing the operation for indigestion. A remedy which the Chinese say is always efficacious — There are three Kinds of pulse which are procured on different parts of the Lintang — These are connected with the Stom.ch

There are again subdivided into other three —

— One of the head Mandarins has been fined and dismissed as I am informed for not treating Lord M. properly — The Emperor declares in the Gazette that it is his pleasure that the Ambassador be treated properly and (I hope to get that part of the Gazette interpreted) —

— Tables strong and cleanly without drawers — Women have no presses cupboards or other such conveniences —

— we are guarded by a — Lint with soldiers under a pretence of taking care of us, as they must be answerable to the Emperor for our safety — The name of the town in the neighbourhood of which we resided for a few days. Ye-Tien — Therm. at 8 A.M. 70

Thursday 12. Sept. 1793

At 6 A.M. Therm. 68°

— Repaired two wheels of the Globe Sphere adjusted the Sun and Moon to the 5 of Sept. fixed the Globe in motion —

Tabacco smoked on the Globe

— at 12 the Therm. 82.

— at 6 P.M. — 76 in the room
73 in the Court —

— The Mahometans say that the Emperor is to have all his entertainments at the Palace about a mile distant from Guanzi-yuan and that the Ambassador will have lodgings in the Neighbourhood One adds, which I hope will not prove true that we will be dispatched about two months hence (in the tenth moon).

Friday 13th Sept. 1793

This day finished the regulation of the inferior part of the globe, put on the hemispheres and all the planets with the Ecliptic and nodes, brought the planets nearly to their situation, will finish the adjustment and shift the whole planetarium to morrow —

— Thermometer at 6 a.m. = 68°.
at 12 = 82
at 6 p.m. = 77 room
74 Court —

— Another Grandson of the Emperor visited us — wanted his watch cleaned which Pelletier is to do — Name on the Watch Cummin — London Capped and jewelled —

— When the Emperor speaks to any person that person instantly gets on his knees and no man answers the Emperor but on his knees — All the windows of the palace except the great hall, are composed of two panes

which are suspended by hinges from above
the seat either upper or under so that
are in hot weather pushed out and kept in
that situation by a Stick — Enough —
This contrivance is the same as at Rio
de Janeiro for their outer door —

Saturday 14 Sept. 1792

Att 6 Ther.r 68° This day finished
the Planetarium — in 18 days — It has
been a troublesome Job not owing to any
difficulty in the work but the inconven-
ience arising from a number of impertinent
Emuchs Eunuchs of the Palace who made
so much noise and chat that it was frequently impossible
for them to attend to the business — The Sultana
Sultanum will by this mode of causing it
lose much of its effect. An ignorant
people should be taught by surprise
when a Grand machine is shown all
at once and the principles of motion
concealed it seldom fails in its effect.
but when it is shown piece-meal when
the various detached parts are exhibited
and first together in their sight, in short
when the machine is built from its
foundation before them. The time seems
long, they impute every trifling mistake
or hesitation in the workmen about placing
this or that part which can be known
most frequently only by trial to ~~ignorance~~ want
~~of the machine~~ knowledge of the machine
and want of ability in their profession.
For example when the platform was a
hanging land it became necessary to select
such pieces as belonged to each and such
parts which together with machining all
first and level took up a good deal of time
this told the men often that they laboured
much and did nothing — From all which

Sunday 15 Sept. 1793

At 6 a.m. Ther.— ~~72~~ 66 in room
66. out

This day at 11 M.B. and Tibault and Debat pieu set off with Thin and my baggage to Pekin — at 12 fearing the planet Venus (as this was right east) the globe which was a very little slow, this I adjusted — again at 5 all well — This Evening heard at some distance a battle of tongues, very violent language — The writer represents the Chinese as the most mild and well bred people on earth, that if less common mild-drawn should jostle each other in a narrow way, so far from flying into a passion, they would apologise, and continued each other to some distance. We have experienced nothing of this character but on the contrary have seen the most violent fermentation of passion — throwing stones — boxing on the high road — frequent wrangling in the Palace — impudent boy —

Monday 16 Sept. 1793

At 6 Ther. in room — 66 —
in court — 64 —

Don. Comporte arrived at 9 breakfasted and went to the hall. Stole a little behind — Two young Gentlemen from Pruth presently accompanied Mr. Comporte one speaks Tatar — his teacher est very bad one of the Ceremonies a bag (Chou Chung) he very obligingly searched all the sides &c and found some killed some dogs — Set out for town at 12 the conducting mandarin rode in the same carriage — ~~[illegible]~~ City wall along part of which we passed is extremely well built has square towers at remarkably equal intervals, these intervals contain 30 or 32 Embrasures which seem calculated rather for bows and arrows than musketry. These towers — every port hole has a second hole a little below the level of the Embrasures — the towers have 5 or 6

embrasures in proper one. a very plain
the slope of the parapet is very considerable
judging from the gates the walls must be
15 or 20 feet thick — All in the ancient
style. Have not seen one cannon in China
where they keep their guns I know not.

~~Thur.~~ at 12 — 76°

arrived at the Ambassadors house at 12
found Mr. Beaux at dinner with the Gentlm —
went to bed at 8

Tuesday 17th Sept. 1793

At 6 Thermometer — room 73°
— Court 66° —

Employed in arranging some things in my
apartments — opened the two cases bound
together — black trunk and small
trunk — Dr. Comfortis dined with us after
which we finished our visit to the palace
to morrow — Mr. M. wished me to put it
off till the day following day — hurry —
it is settled that I shall do as I please
I take Petit-pierre with me to morrow
at seven o'clock Ther. at 9 P.M. 78°

Wednesday 18th Sept. 1793

Ther. at 6 o'clock — 74° room
70 Court —

After waiting till nine o'clock and thinking that
some change of manner had taken place re-
lative to going to gran-gran, we informed
that the Mandarin had been waiting for three
hours, and Mr. B. said he thought I was
not ready — set off with Petit pierre at
nine arrived at 12 found the sun behind
the gate quickly as before — took out
the cracked pane and attempted to cut
two to the size but broke both — brought
one with the old one to town with me to
try another way chipping it — arrived in
town at 5 o'clock — yesterday covering took
4 occultations of Aldebaran, far easier
the rate of the Chron. — Received from Lord
Mr. Cartney's butler my small case —

Thursday 19th Sept.

Therm. at 6 a.m. 76 in rooms
67 in court —

Rebault has cut a piece of glass to the dimensions but there are two small cracks in it — employed in fitting up my room

— Therm. at — 6 P.M. 78°. room
78 court

Cloudy and sudden flashes of wind some drops of rain — Distant thunder — some lightning — Exponents on making tea

— young M — received some presents from the Emperor — It was certainly very unfortunate to send Mr. S., with to the Emperor — what must the chinese think of the English who make their boys men before their time — Dr. G. seems to think to be at the head of the business — Emperor has degraded all the mandarins who attended Lord M. for not intending him better respecting the ceremony of introduction — Emperor yielded to Lord M.'s request to make his prostrations only before himself and his two first ministers — This quality of the Mind will probably cause people the mandarins will look on him as a haughty fellow who would not do as they do — The first minister of state always speaks to the Emperor and at times to him speaking on his knees

— Mandarin at Shu-sou — The baths in the palace are admirably written — consists of 96 sheets are laid together into a kind of cover which makes a volume — The two tables at the ends of the hall are 30 feet long 2 ft. broad and 5 in. thick each, each of one piece All the columns and posts of one piece the throne of black Ebony from India the Dragons the same —

Pekin — Friday 20th Sept 1793

At 6 a.m. Therm. 74° room 75.

Heavy rain — about for given minutes at 7½ hours — fast in a square but cracked in two places. Got one cut by a Chinese with a red hot iron — not straight — moved the orrery, Williams's clocks, the Globes and the tusks half finished — Compliments received at the palace at 1 o'clock Ne ex better the other Missionary interpreter seem to be tired of us — noisy Eunuch — All the three Mysterious have lost time —

Therm. at 7 P.M. 74°

Showers — very heavy rain about 6 — entered the city at a gate nearer to the Palace of given min given than that by which we usually passed along the inside the wall — which is more battered than European works — consists of two walls the middle filled with earth —

Pekin — Saturday 21 Sept. 1793

Ther. at 6 a.m. 71° room

carriages did not arrive — Employed in unpacking the Electrical apparatus and Gilpin's machine safe — all the jars safe — my own air pump also unpacked and safe — also arranged my bookshelves then into 6 chapters in such a manner that I can lay my hand on any one in an instant — All the balances of the fire works safe — Dr S. experiments on Rope. He has omitted a necessary preparation in the experiments by the water, which if had will never make good rope

Sunday 22 Sept. 1793

At 4 a.m. Therm. placed on the door of the coll. next the door stood at 56° but when carried in the hall through the court dropped to 54° where it stood till sun rise at 4 o'clock when it rose to 7½ — weather clouds no wind

Ther. 59° — went to the palace and took down, cleaned and put up the Chron. — one of the barrels of the Guitar fell and was broken

Therm. at 10 p.m. 71° —

Pekin — Monday 23 Sept. 1793

At 3.30 a.m. Ther. in Court — 60° —

at 5 — — — 60° when

placed on the outside of the window but 58° when

carried in the hand thro the court — 68° in Room

At 7 H Lamp on the Coll: in the court — 62 —

8 H — room — 66 —

— Coast 64

9 — court 67 sun

reflected from the pavement and of spark here

in the court —

at 10 H 72 Court

4. 74 Court

12. 00 Court

Sun thm. on the edge of the frame — 3 H 88 Court

3. 78° room

6 76 court

Tuesday 24 Sept. 1793

Set out at 8 for yuen-min-yuen — met near

town a grand funeral — men carry in the same manner as they do our coffins from

Tonsee — The old bridges on the sides of the road

have their chasms filled with earth and stones

The paving stones of the road when laid down

a-slanted a little lengthwise — Horse never

injure foot — Horse draws from the extremity of

the shaft and bears near the same point —

— The cart wheels are not made with spokes

but with one large cross crossed by two smaller

ones — a leather shaft goes over the saddle

discovered the cause of the Systems being be-

hind — Cleaned Williamys Clocks and first

of the planetarium — returned at 6 —

25 Sept. 1793

at 7 a.m. Cloudy — Therm. — 69 Coll.

72 room —

at 2½ clear little wind — 76 room —

Carriages did not come this morning, till

noon, too late to go —

26 Sept. —

Set out at 8 H finished cleaning the

Chron. case and the pedestals of the

right and left hand System — fixed in

place of glass in the Globe dome —

made an addition to the weight of the

Chron. — were informed that the Ambass.

would arrive in town this day at two

o clock — Set out for town at half past

four — where we found all our friends —

— Observations on Arctinus —

27th Sept. 1793

This day twelve months we sailed from Portsmouth — At the Palace — Smithson only the Planetarium — Did not get off till 10 o'clock — Ti-Q-s answer to my message — Importunate of Mr. B — returned at half past 6 — came by the ~~other~~ gate near the Village — got no observations this evening or Returns —

28th Sept. — 93

Sent off the remainder of the Presents to Yuen-min-yuen — At 12. Thermr. at 76° in room — At dinner have heard that the Lens is ordered to Yuen-min-yuen with being unpacked — The Guns are also ordered away to morrow — The great mistake was in sending a list of the Presents to the Emperor — The Chinese act like Children in seeing, they are curious about trifles get soon tired — The price of provisions or grain no is higher than in London a taeb for a duck — 8 pence p lib for Beef

It is highly probable that that is the price at the gate but that the first cost is not half so much — The great road leading to Tartary has no cross roads all the way to Jehol — Articles bought by the way cheap — Servant who had stolen some Chinese flogged sentd — flogged a second time before he would confess — fraud — The Chinese seem afraid of us. — This hurry in getting all the presents delivered seems to portend our sudden departure from China. I am of the same opinion as formerly that our stay will be short and our opportunities few in this country — That Lens of Watch Glass is not an equal in the world is consigned to everlasting oblivion — Nothing but conquest by some polished nation will ever render this a great country — The prejudices of the Chinese are invincible — Ask them whether the contrivers and makers of such curious and elegant Machinery must not be men of understanding and superior powers — They answer — These are curious things, but what a

their use? we do not understand them
Do the Europeans understand the art of
Government as equally probable — Manner
— with respect to select friends and the
gentle manners of the lowest order as de-
scribed by the Missionaries, nothing like
their picture have we found in China
— They have made out their description
from Confucius, what ought to be rather
than what is — Common in passing each
other use a common Salutation similar
to how do ye do and their only when they
are acquainted with each — when strangers
and running in each other way they
scold as violently as in England — They
are careful in driving, always slow when
passing another carriage and constantly
bawling out when passing along the
street — shrill and piercing bawling
with their whip handle on the shaft
when the horse attempts to meet each
— no fast wheel carriages of any sort
the quiet easier waggons have some-
times wheels of spokes like carriages
— sometimes on broad axes — crossed at both
ends by two other pieces — the wheel non
nearly parallel — The fore horses draw three
a-rang, have yoked to the bottom of the shaft
— Doctor G. and young Mr. G. going a horseback
on the Chinese wall — Settles much dearer
here than at Canton — The impolicity of
some Gentlemen will do no little injury
to the Embassy — Some women in Pekin
very pretty — Head dress looks neat —
— B. employed at the palace in unpacking the
air-pump — Mechanical powers, Birmingham
ware &c. — Sunday 29th — Sat off for the palace
at 9 — Employed in putting up the mechani-
cal apparatus and putting the air pump in order
— arrangement of the Birmingham ware — Young
Staunton with us — many air — sat blowing
round a system of pulleys like a chain for
several minutes — handling every thing with his
reach — B. air at Dinner — Same with
grapes — went in the Even. to our first Lodge
in the neighbourhood at Hung-ya-yuen where
we met with Lord M. Sir G. and the other first
circuit. Mr. G. who was left behind to take
care of the sick — He gave to set out to morrow
at four to meet the Emperor on his return
from Tartary —

Monday 30th Sept

Set out this mor. at 4 to meet the Emp. come on horse back others in Carriages stopped at a small town about 3 miles distance — waited there a half hour then walked about ¼ mile farther where on the side of the road were tents prepared for us — Jungpuna erected on the road — Lanterns in day light — Military — Tartar horse some carry a staff and heavy omega — Letting in a kind of stirrup below — At length we were led to the road side and drawn up in a line, the order was to kneel with the right knee bare — At length at 9 Nang-le arrived in a sedan Mar not. remarkably superb — he made the salutation required, he looked at us seemingly pleasant enough — Next followed the Calao or first minister, with a considerable retinue Emperor attendants in yellow — he was then conducted into the Cavaliade to the house where we left our horses and carriages we mounted and returned to Hung-ya-yuen set out at 12 for Peking where we arrived at two — Mr. Maxwell and Mr. Crew remained at Hung-ya-yuen they did not accompany us to meet the emperor — reason —

Tuesday 1st Octoba —

Doctor G. W. B. and workmen set off for gunpowder-gun as they said to pack up the carriages, I learned afterwards that it was to put up the lens — Dr G. on my application procured a carriage, and Lord M. Dr G. Mr. and I set out for the Palace My. Ladi object was to get some letters which the Calao had received from Shugan — The letter had been opened and Devdati had been called to read one but being in English he could not — I went to the Hall where I found G. and B. in a great bustle attempting to erect the house for the lens — Dr G. as he undertook the business did not remember a single circumstance respecting the putting up of the house — He and Br. went to town I remained with the workmen — before our Mighi proceeded to the Calao —

Wednesday 2 October

Got the house nearly finished — A mandarin of high rank put his hand in my waistcoat pocket brought out a pentknife —

was going to repeat the experiment in the other when I thrust away his hand a little smartly telling him that only pick pockets commit such actions in England — Experiments on the air pump — Mandarin seemed well pleased with the most entertaining —

Calao came again to visit us — Walk!!! Emp. came to the Hall door I turned round the Lens-house — he was very near us expressed nothing observable in his countenance dressed much plain, tho' in the same manner as the first order of Mandarins — came in a plain — 'ist, 'ist! — led to a private room when the Emperor passes — remained all night at the palace —

Thursday 3 Octr. 1793

Finished the house and put up the lens — Mr Hobbs telescope — Calao rubbed the small speculum lenses over with his thumb notwithstanding our presentations of the bad effects of touching either of the speculums — At 3 o'clk the lens was ready for Experiment — Emp. came to the same door, he turned round the house while I stood at the room had a full view of him — He looked at it not more than two minutes — retired into the hall when viewing the air pump &c. he said these things were good enough to a — mere children — Burnt wood with one of the Chinese Cash — Calao lighted his pipe at the focus seemingly no desire of the experiment — Notwithstanding of the Emp. aversion respecting the apparatus — The oldest Eunuch came out and after several hoas, asked us to go down to the Lenses that it was the Emperors commands, we forcibly refused, it was now 4 o'clock, and we set off for town, resolving never to visit the palace again to contend with the most ignorant in prejudice of men — We were informed by D— that an order for our departure in a few days passed in Council and was signed by the Emperor — Question of the Chinese How can an enemies town be set on fire by the lens? How will it act in a cloudy day? One of the Eunuchs had his long nails near the focus felt pain then he burned — The people visited the palace

Pekin — Friday 4th Octr 1793

An order from the Emperor for seven men to repair to the palace. I did not go — Gelto B. and the Workmen went — The lustres had been all taken down and removed away — The frame of the lamp was also taken down — And the two lamps lying on the pavement — were asked to perform other Experiments on the air pump — refused — walked about till 12 then returned to town — This day I heard that the Emperor's letter is received and that we may expect to go in a few days. Mr G. is begun to pack his books —

Saturday 5th Oct

This day at ten o'clock an order came for our departure from Pekin on Monday next the 7th Instant — Our surprise at this sudden command will be easily conceived — now all bustle and confusion packing up — The Tartar Mandarin who brought the order — told us late in the evening that our stay was prolonged till Thursday — On this we relaxed our exertions a little — evening — conversation —

Sunday 6 Octr 1793

This day the Tartar returned and told us that we must set off to morrow by 12 o'clock — This apology was communicated to the Calao and told him to that two days grace was necessary for our getting ready — The Calao went to the Emperor. The Emperor refused, pour down in detaining the Embassade for the cold weather which set in immediately which must distress him much in his journey — Our hurry and bustle now redoubled — I was up the greatest part of the night — Slept none during the short time I was in bed, owing to the disturbance occasioned by preparing the things for packing — all my baggage ready this Evening — got to morrow — empress copy of B — Ring of England —

Pekin — Monday 7th October —
This morning spent in bustle and confusion — many things sent off without packing — State chair &c — Dined at eleven — set out at 12 — before our departure we observed the chinese servants ~~pur~~ tearing off the silk, paper &c from the rooms — This was shown to see — 1a — Qin, but will in all probability be laid to our charge — we passed along the same street by which we had arrived — when about a mile out of the suburbs buried a soldier — gravestones near the road side — Arrived at Yon-Shu-Temple — at 8½ o'clock — great number of hogs all jet black — shops in Tong — streets very neat — town large — above two miles wide that part we passed — Lanterns of various forms — mostly square — some with — others horn — short candle in the bottom — Globular with stand — ivory-mandarin — of split cane or bamboo —

counter round some one end of the shop to the other passage in the middle as is common in England — much paper and gilding in the shops — Shelves — goods neatly piled — On the lanterns are written names &c of articles as our bills — At Pekin besides the Gazette are said to be published 7 other papers all daily — Story said to have been read in one of the public papers — "English had brought an Elephant 6 Inches high — Parrot as big as an Eagle — a hen which eat six bushels of Charcoal P. day — a man a few inches high — a peacock —

Temple - T. Shu - Tuesday 8th October

breakfasted at 7 - Lord M. expressed his regret at our having no opportunity of performing Experiments on Aerostation - said he had mentioned the balloon for works &c - but the principal Mandarin heard the account without the least emotion or surprise - Military Evolutions - The Tartar - said he was indifferent about them. last having the military manoeuvres of all nations — went down to the river side - found the boats ready for us, but much inferior in accomodation to those which carried us up the river. — Laborious hard in getting our things on board — — set sail down the Py-ho at

— are to be conducted to Tien-sing, here into the great canal, along which to Chusan where the ships remain to receive us. it is said we have to pass a few miles on land — This will occasion another bustle —

Py-ho — Wednesday 9th Oct. 1793

Therm. at 12 — 68 in Cabin

Sailing down the Py-ho - water extremely shallow - getting on ground continually from the great quantity of mud mixed with the water and continually carried down it is probable that the Py-ho is constantly shallowing — Why do not the Chinese render the Navigation of the Py-ho more expeditious by cross-cuts? These would both shorten and probably deepen the river - But they would cut off a communication with a large tract of country which is probably the reason why they do not join the meanderings of the river by short canals — Our allowance of provisions rather less than formerly - some had fell as much - The delicacy in ours was therefore probably accidental —

The banks consist of a soft light yellow clay easily washed off and found in great quantity in the water of the river

— At 12 passed the large Village called where there is a great quantity of salt heaped up in mounds as we observed in sailing up the river —

Ay-ho — Thursday 10 Oct. 1793

Sun rise Ther. at 40°, open air
— Last night read Newton and Cotes preface to the principia — This Morn. Doctor Cullen Essay on the production of cold by evaporation —
— at 12. Ther. — Cabin — 75° mean —

+ The light men in canoes down the Ay-ho in such quantities that at the place where the Lion and Hindostan were at anchor at least fifteen miles from shore the vessels ploughed up the mud, tho' the soundings gave above 12 feet lower than the Bal the same thing happened the 1st time we
— Every Chinese author carries seven arrows
+ The Necromancers found Chinese when compared to Europe superior in ~~recent~~ many respects. but Europe has improved so much for these two centuries that the comparison is now totally destroyed —
— Ther. at 7 P.M. — 68°

Ay-ho — Friday 11 Oct. 1793

Ther. at Sun rise — 52° —
— Simpson's Algebra to division —
at 1 past the village of a boat
two soldiers drawn up — helmets with long hoods
woodwork the hands behind —
— Ther. at sun set — 63° —
— Navigation extremely tedious owing to the shallowness of the water — Some of the Chinese observing the Lion and Unicorn in the Kings arms imagined they were Gods which we worshipped! — Our motion are all directed by a Gong in the leading vessel —

Saturday 12 Oct. 179-

Ther. at Sun rise — 46° —
wind N.W. — Sun has risen for these three days past very red, horizon very hazy — refraction affects the lower limb considerably — at one past the village of soldiers
drawn up — Music two wind Instruments like Clarinets. and a small drum which the drummer carries before him — we were saluted with three Guns the usual number in China — vast number of Vessels on the right

At sun set Ther. — 60°

Sunday 13 Oct. 1793

At sun rise Ther. — 44° open air

at 9 entered the Tien Sing — Shipping drawn up — colours — quaker shew than when we passed it in sailing up the river — A temporary Lodge erected on the side of the river about 50 feet out: a quantity of meat, early dresses fruit &c on Tables covered with common cloth seemingly silk ornamented with yellow Embroidery — gold — Does not display gust or beauty — There is a swarming — prodigious crowds of spectators — women — the old relatively ugly — great number nursing — with Child — Three salutes of three guns each — Iron helmets — very long spikes — a guard at least — Squibs or crackers — spears — Matchlocks — There is plenty of a yellow stuff in China — Ther. at 12. — 68 Celsius —

Passed very long junks deeply laden lying in the river — All for winter cesspools — Embankment of the river with reeds or small bamboos stand endwise to the river and mixed with earth, fast with pickets — at 12½ got to the other end of the town — at one a square tower — 5 Emb. on the south face near the river — Bow on each flank

— square — the gate of the square bore about equal to the perpendicular height — On the flanks are two square holes in each bastion and below one of this shape [ ] widening outwards — Embrasures equally high inside and outside — a door in front an opening about 9 feet above the ground under that ⌒ neither semicircular nor Gothic but between the two — built of brick about a mile from Tientsin — Embrasures of Pekin and all their cities are rectangles generally about ¼ of the bastion — note that I have seen similar for cannon — The arches of the gates of Pekin are composed of three arches within each other with the highest end towards the center — Dined at the Emperor's Gardens in our Boat — vast quantities of provisions — Two men rowing water — the made use of an oblong vessel, to which were attached two cords, one to the brim on other the bottom. The ends of the ropes were held in each hand of two men length 12 or 14 feet the curvilinear bucket suspended in the middle. The water was a duct from the canal, after swinging the bucket towards the canal in its return it entered the water fetch and exting about one second by a sudden jerk of the rope about the mouth

of the vessel they saw at about 9 or 10 feet on
where over the top, pulled the rope in their
left hand which overset and consequently emptied
the bucket into a conductor into the fields
The bucket seemed to be half a hogshead
spindle about 12 feet long — By this
machine the quantity raised at each time
was not inconsiderable the strokes repeated at the
rate of 16 p. Minute — at 4½ Mexican
drawn on the left bank — Shells about
in diameter — Spear 18 formed for counter
— The square tower we passed is about 30 feet in
height — built on one side that made with
the reeds — N. B. called after dinner he
says that it is probable we may have to
go to Canton through the country as the letters
which were written from Pekin to the Ships
to ~~cap~~ desire them to wait for us were not sent
off from a suspicion that they required the
ships to sail, the head Lantan who accompanies
us sent an express to Pekin to have them
forwarded instantly — Mr. B. further says
that Lord M. believes that the Emperor means
to send us by sending us away as soon

— There is a large bridge grown ~~where~~
in the neighbourhood we dined, and
to be 16 miles round — We seem at present
to be in a canal tho' the current is at
least 2½ miles p. hour against —
— At eight sampans to Foo or Joss — at ele-
triangular tray with fowls fish and fowl was
placed on the deck near the head of the vessel
The master of the vessel lighted a bundle
of gilt paper which he held in his hand
till it was nearly burnt out, they then cast
der into the canal — During this part of the
ceremony which was performed at the stern
cover of the bow, another person brought out
about a dozen serpents hung from the end
of a stick, he set fire to a leader and they
went off regularly — The connection was im-
perfect as he was obliged to apply a match to
the last — When this was ended, the Capt.
made three prostrations — both times head
to the deck — Candles are also kept burning
before the image in the kitchen I have not
learnt the cause — It is not the first day of the
moon the usual time of prostration in their
temples — There is probably a Bonze temple in
the neighbourhood —

At sun set Ther. — 68° — O. a.
— a large jar of wine, — another smaller of
Sam-shu which in taste resembles good
whiskey — The Tartar Mandarin shewed the
Emperor's orders to him, wherein he was en-
joined to treat the English with all possible
attention — Mustery not great —

Monday 14th Oct. 1793

At sun rise Ther. 47°. O. a.
Cam looks much of the same size and
shape as in Scotland, only not so pointed —
flatter above the greatest width — Water
as much as that of the Dy-ho, mixed with soy.
also stalks heavy straw and other rubbish —
— Stems fenced with reeds — ugly ~~[illegible]~~ before
but looking behind — at 8 we passed
the large village or town of Ching-pang
Military drawn up, triumphal arches &c —
— scolding woman — husband — aboard one of the
junks where the apparatus is — the mandarin
has had with all the volume of a Bristol Di-
rago — In the middle went into the Kitchen —
lighted his pipe came out, and conversed the con-
tent with his husband. Men at the helm

— Embankment with the stalks of the Kow-lo
ang — seems to answer the purpose — Soldiers out
thro' the manoeuvres of the sword and shield —
— Saluted with three guns — current strong —
— another large village — Chinese Women and son begging
— the makes one prostration — Ther. at 9 a.m. 64° —
— Guns fired at 9 and 11 about 8 — we are
better attended than on our arrival — this may
be thought necessary policy to atone for former ill
usage to balance our want of success in the principal
objects of the Embassy — Mandarin beat our Capt.
for allowing 2 or 3 to go on shore — considerable quantity
of money come on board, but for whose we have not
yet learned —

Tuesday 15 Oct. 1793

At sun rising Ther. 47° — O. a —
It is said we pass through several large cities
and the most pleasant provinces of China —
— The shipping appears frequently by the turn-
ings of the river to be sailing in the country
with some times almost a complete
circle — generally lies in one or both
sides of the river — great quantities of earth
heaped up in mounds as on the banks of
the Dy-ho — At 10 the towns changed from
the left to the right side of the river

at 12 Ther. in Cabin — 76°
Servt at Ther. — O. A. — 72
Wednesday 16 Oct. 1792

at Sun rising Ther. O. A. 53°
Hammer made of a stone with a number of small
cons for the Shaft or handle — The stone seems
to be calcareous — 21 Soldiers on the left bank
of the river — Mr. B. informed us in Pekin that
we were all to be made mandarins of the third
order and to have blue button — It is highly
probable that the trade to Canton will be next
by the Embassy — Every attention will be paid
to the Amb: at Canton, if it is probable that
more civilities will be offered to him than if
the business had succeeded — some think that
the Chinese will resent their treatment of us
at Pekin, and redouble their good offices as we
approach the ships — Dr. G. s sketch discovers
— at ten the long village of Tan-cha
— a triumphal arch — making trophies — 42
Silk Lanterns Globular — hung on Sticks
bent at the top — Center of the Lantern abt.
six feet above the ground — here the row forms
at a right angle to the right — and about 300

after nearly the same to the left — we saluted on
every point of the compass — effect — St. Entirely
Three salutes of three guns each —
one Salute of three Guns each — Five hour
Chinese Gate [illegible] at the entrance into the grounds
of Demesne — Dr. S. has attended the B. for a
scratch in his leg — news — by a letter from the little the
head Mandarin has orders to treat us with all attention
and that the grievances complained of at Canton
shall be attended to and redressed — is not this an
apology for former conduct — Sabatier to walk on the
banks when we place — The Tartar and Van-ta-gen
have applied for permission to accompany Lord
M. all the way to Shu-san — L. M. has joined in the
request — Great seal of provisions this Evening — Two Sol-
diers sailing in an open boat —

Thursday 17 Oct. 1793

At Sun rise Ther. O. A. — 53°,
Cloudy — wind northerly ~~East~~ Calm —
— at nine passed through the large village
or town of Nanpechien 120 Soldiers drawn
up on the right bank — Music — Two long and
narrow trumpets four Naut-boys — two small
drums — The long Slender trumpets, ~~with~~ accompany
like the French horn but there is little difference
in their tone — the whole harsh and unharmonious

Two Welsh Cows with each a calf on a fast
of our attendants – They have a boat to themselves
– The weather has been hitherto fine the sky mostly
but there is little or no variety to be seen from
our boats – compared with the banks of the Thames
Rhone &c – or with the Manchester Canal –
– at this Village is a great number of Carts and
vast quantities of bales or packages lying at
a small distance from the river — Thursday
continues cloudy at ten o'clock — two shows
put on the mast – holes were bored by a bit for
into a shaft straight round this a leathern
strap the part where the strap goes round is
a hollow tube the upper part is its axis this
is held by one person while another takes the
ends of the strap in his hands and pulling al-
ternately backwards and forwards makes the
hole – Nails are driven in such as our —
– The mast has two chocks reaching from the
keel to the deck with cross pieces to keep
these firmly applied to the mast —
– at two the large Village or town of
Soldiers — Village after sun set & mid-
night – Military – Music Now something re-
sembling the English air — left hand of Formosa

River yuen-liang-ho Friday 18 Oct. 1793
Sun rise Ther. 0. a. —— 47°
wind light – N. Easterly ——
– At one passed the Village Long-yan
Graphic – Streamers – Military – great crowds
– Return from Pekin authorities our con-
ductors to accompany us all the way to Shan-
sen – The angles of the river still continue
in great numbers – The angles are necessary
in consequence, owing to the beating of the cur-
rent in great force against the opposite side
– Many evident marks of this – The sides of
the river seen in many places to be broken
– The stream runs about 2½ miles ⅌ hour —
– Country extremely populous – All wear
the winter caps –

yuen-liang-ho Saturday 19th Oct. 1793.
At 12 last night arrived at the Village of
Ie-chee – bagpipes – triumphal arches – Stream-
mers – Salutes – Large globe lanterns – continued
burning till day light – Several standard pillars
erected – Banners of Joe – In our respect it was
conducted thus – at day break two Lanterns
were placed at the head of the Vessel, a small

tray with three small lia cups each about 3/4 feet of shell — but shell is only given on particular occasions — five small matches being were then applied to a bundle of red and other fairly coloured papers, during the burning of this ~~the~~ a shower of crackers was fired in order to suppose to awaken the attention of the God the whole was accompanied by a tremendous rattle on the Gong sufficient to have roused Morpheus — The Captain made three prostrations to the burning papers and remainder of the matches which continued to burn slowly away — he then took up one of the cups and lifting it up to a level with his forehead, with a pious stare at heaven he threw the contents over the head of the vessel into the river — The lanterns were kept burning for some time — In other vessels they had instead of crackers, serpents which produce very loud report — The sort of all their explosive fire works is much louder and shrill than any of the same sort in Britain — On the papers opened in Canton, are painted some bonzes pratans, beautiful gardens — which are all to be

realized to the officers in the other world — — some of the Mandarins who were present looked with great gravity at the spectacle — O Nett in the same place — Mulatary on the opposite or right side of the river — — 12 Not sail our delay has been occasioned by the baggage boat, not being come up — Mulatary — some yellow, with music and fireworks — Others white mixed with blue — two men — Malik looks on the right of the line — The wind a head — breeze — cloudy looks like rain — The wind made the Gong and Shell dangle, so that the Gong was struck ~~in~~ with different degrees of strength, it produced many incomparably fine chords — I think that a tune might be played on a large gong — From Mulatary — we have received a load of provisions at our last station — ~~[illegible]~~ Nett cloudy at 4 o'clock —

Dimensions of our Gong —

Diam — 19 Inches

rim — 1½ Inch rim thin about the edges

— yesterday we entered the province of Theng-tong
The day has continued cloudy and it rained at
4 o'clock — this is the first time it has rained since
we left Pekin, and but three or four times since
we landed in China, the air is very dry here — Electri-
cal experiments I am persuaded would succeed well
here — The French Missionary who has an Electrical
machine, says that it is more powerful than in Europe
— The sea men eat breakfast at one bell
after sun rise, dinner at 11, again at 5 or
7 or 8 in the evening. There is no distinction in
the kind of victuals, the same being eat at
breakfast dinner & supper — eat much in
vegetable soups, broths &c with rice — cooks
fish extremely well — Carp, at seven to 8 oz
much the same as in the Mediterr. There are
always in the river two angles near each
other and in contrary directions. This is the
consequence of the country's being so level
any angle casually made must soon generate
on either in its neighbourhood in the op-
posite direction — The current by reflection
must acquire a direction towards the opposite
shore — These appearances which render it probable
that the angles have in general been made in this way.

Yum-Liang-ho — Sunday 20 Oct. 1793

At sun rise Ther. 50° — a.m.
breeze moderate wind E. cloudy —
— Country people wear the same white turn-up
caps or bonnets the sailors wear, the better sort
have black winter caps — Charcoal of wood is
the common fire wood for cooking aboard — the
process of charcoaling much the same as in Europe
— Gunny an act to — of the State of the
patients — Ther. at Sun set — 64° —
— Military on the right bank at night —
— during the afternoon an Eolian concert
on the Gong — Contends a long strong by west
— wind continued fresh all day

Monday 21 Oct.

Ther. at sun rise a. m. 50°
Cabin — 53
wind E. northerly — moderate breeze
Ther. at 12 — Cabin — Gunny side — 63°
At 5 passed on the left a wall of round
with Embrasures of brick — Sword plays in evening
— quarrels among the boat men last night
— Doctor G — and his attendants — 30°. Diff. in
one day of the Ther. C. M. — at 10 a.m. Ther. 56° —
Cabin

Tuesday 22d Oct. 1793

at sun rise Ther. in Cabin — 48°
in O. a — 45

It continued at the same degree for half an hour
coming all of which the sun shone on the Ther
— great quantities of dust or sand fly my about
every part of the cabin covered with it the
same that is mixed with the water in the cups

H 8½	Ther. in Cabin —	50° —
	— in Cabin	52. —
9½	— S. on opp: side	62 —
10¾		
12	— S. on opposite side —	64
1		67

at one passed a high pagode — an octagon
near the N. wall of the city of Lin-sin
It consists of 9 stories the lowest of hewn
stone an equal in height about 1½ of the
rest — a metal cover to the top with
ring handles one distinctly seen with the telescope
the door as well as the whole town of brick
except the lower story — It is decorated
in Ogelby's Dutch Embassy and there he
120 feet in height seems something more
than four time its breadth — window arched

— at 1¾ entered the city between 2 mounds
form a triangular — of earth cased with large
brick, the wall consists of a double wall
each the breadth of one brick but what no
bricks endeavor to connect the two together
— The walls at least the earth part are seen
to extend on both sides of the river quite
decayed — the earth is of the same colour as
that which covers the banks of the river a
kind of fine sand — Along line of Mus-
kets without the city before the N. gate
which we entered and the Pagoda — most
of the men have a spear in the Helmet
which appears of powder — Cannon
mounted on carriages resembling a spear
form breaks — Guns like a Wall piece
mounted on the back of the animal and
moveable on a swivel — large drum —
— about 3 miles from Ling-sin entered
the grand canal, passed between two abut-
ments of masonry in both which are two
grooves, down which boards are slipped
fitting into each other, and serve as

flood gates – they were taken up two or
a-week, by which the current ran towards
the river water fell about feet, the
river turned off to the right and the water
ran round to 3 or four feet higher than
those of the canal – banks very high, the
least way has probably been 20 feet above
the level of the water, houses on the side
there is a fast way sloping a little at
the brink of the Canal — Great crowds
of people –
+ A great flight of swans with young we
observed some days ago on their way to
the southward – Magpies —

remarked Nottingham between the first and
second flood gate from 4 to 7. It is now 8½
and we have passed three flood gates, they are
very narrow having each two grooves for the
boards which are lifted by an Engine
– At 2 P.M. just as we were sitting down to dinner
part of the stem of a Junk lying on the bank, gave
to the weight of the Spectators and threw a num-
ber down into the river and some in great danger
the Spectators seemed but little affected by the accident

At Sun setting Therm.r o. a 68°
at 9 P.M. ——— o. a 52
at 9 P.M. passed two Brick towns which were
joined by old walls like those we passed in the
morning – A very long line of military
drawn up on the left bank, each soldier a
coloured hunter, the reflection of which together
with the moon, on the smooth water of the
canal produced a fine effect – A battle between
two sailors in one of the passage beds —
H
10½ Therm. in Cabin ——— 60
——— in o. a ——— 53

Q. Canal Wednesday 23 Oct. 1793

At Sun rise Therm. both in Cab. and o. a. 52°.
Sky cloudy – water of the canal which last
night not near so thick as either the Dry-ho or green
-lang-ho – we are seemingly in a large vet-
lage or town, indeed the banks have in most
part of the way been lined with houses – at
H
10 passed a flood gate – the breadth about one
and a half our boat —
H
10 Therm. – Cabin ——— 60°
Passed a little reef built with narrow
into the right bank about 8 or 10 feet

4 stones with each a round hole near the top one fixed into the bank inclining towards each other over the opening; i.e. two on each side over against each other

4 II at 12 Ther: cabin — — 67°

— 2 — — 70

at 4 — — 70

4 a sloop gate like the former

5 a line of Military on the right bank at least a mile in length —

8½ another sloop gate same as formerly

holders on each side with coloured lanterns to light the vessel through —

Ther: Cabin — 62

10 Ther in o. a. — 60

Have just got out of a long town touching night clear no wind — canal turns suddenly from a western to an Easterly direction

+ Passage under the sentry house — white walls below the town — Beech —

Grand Canal Thursday 24 Oct. 1795

at sunrise Ther: in Cabin — 52

— open air — 52

7½ passed a sloop gate height equal to the upper deck of the boat, about 10 feet above water — eight rows of hewn stone or brick from the surface of the water keeps on each side — Wind S. Easterly

8 saw for the first time mountains a head at a great distance, between the south and East — 56

9 Ther: cabin —

10¾ a sloop-gate, two obliquely stones on either side with holes their in is to put an axis through to hoist up the boards — long village — Military — tall stalks with a white downy head like an ostrich feather —

12. Ther: — Cabin — 69°

Sun set. Ther: in Cabin — 73

— open air 62

large village — began course of Medicine

between 8 and 9 passed two flood gates ~~within~~
near each other. The Canal is now passing through
ground not so level as formerly —

Friday 25 Oct. 1793

Then at Sun rise Cabin — 50
a long ridge of hills stretching to the South.
11 1/4 Ther. Cabin — 66
passed a flood gate — no cloud in the Heavens
scarce any wind —
10 night — Ther. Cabin 60
have passed three flood gates all à Coke —
— letter with a present of Cheese from the Emperor. Mr
comes again to take my measure from L. M. for two
red coats —

Saturday 26th Oct. 1793

at Sun rise Ther. in O. a. 46°
— Cabin 50 —
no wind, no clouds — Observe the Canal running now
Eastward or in our favour it has hitherto been
against us — sale near three miles per hour —
8 Lake in sight approaches near to the bank
of the Canal — Lamon reeling cotton yarn on a
hand reel the same as used in Scotland
— Jesp horse. Statues of the Gods, very shabby
— many fishing boats on the lake
× on Thursday the 24 Instant during the
twilight a great number of large flights
of black rooks or crows passed over us to the
northward, their Cawing like the British Crows
They are larger, and are sometimes claimed to
fish called Lauwa —
Ther in Cabin 56
9 60
12
— Opp. of taking out the mast — man hoisted
to the mast head on a bar of wood to the middle
of which one end of a rope is tied, the other end over
a pulley at the mast head and made fast to
a running block, over which goes the rope
to one end of which the power of two men is applied
~~to~~ and the other to a fixed block at the bottom
of the mast purchase 2 — A strong rope
was reved over a single pulley at the mast
head and one end fixed to two blocks connected
with two gimp hooks which were hooked to
fastened and supported by heavy jeers and
off. The mast was now fixed down to the keel

and a strong rope served round it about 3 feet above the roof — A rope was also made fast to a cross stick which goes thro' a hole at the bottom of the mast, the two ends of this rope were rolled round to round and short hand spikes, on which two men heaved rolling up the rope as it shortened — The mast was drawn out and lowered to the Deck the bottom part projecting a little over the Head Door — A match block with an iron hook on the shank of which goes into the block and turns on an iron pin below the sheave —

A block with two sheaves at a distance from each other, a groove round the edge as if intended for a strap — Have not as yet seen any strapped blocks in this country

Great undulation in the air through the telescope —

Carpenter employed in making wedges of a sweet scented wood called Chang-mu —

The Chinese saw is fixed at the [illegible] to two pieces of wood by an iron pin —

It can be turned so as to set any inclination

It is managed by one or two men according to the size —

In the evening passed a very long line of soldiers, lanterns reflective pins offset — another shorter line with red lanterns — a flood gate and scanning by a large town or city — another flood gate — a third all in the city which is called

Scan-ing

The plan adopted seems to be that we shall pass through the large towns always at night —

Sunday 27th Oct. 1816

At 1 sun rise Therm.	O. a —	52
	Cabin —	55

Therm. Clouds, calm, at rest

At 11 passed flood gate, the current forward has through the two or three last gates been rapid, even when we passed it the descent at the gate was 6 or 8 feet — The effect produced has been for two days past about 12 to 15 in the height of the water — Lakes, vast number of Villages on the borders of the lake, extensive level fields — cutting down

a tall grass or grain — Short Scythe — Rake of a particular construction —

12. passed a flood gate — long village — Three ploughs in a field in sight — each drawn by a Buffalo and two apes — one of the apes was ridden by a young wife — The plough has only one handle, held by the right hand, and the reins in holden by the left the share appeared thin and broad and the whole very light — but at too great a distance for accurate inspection — Soil seems light and easy —

12. Thud — cabin — 64

on presenting the three foot telescope to a man on the left bank last night they all expressed suspicions it to be a Gun, and being persuaded that the English are most formidable people in the world, think nothing of telling every person they meet —

1 a flood gate 8 planks to shut the passage, a rope goes through a hole in the end of each, drawn up by a round stick put through the two holes in the melons

stones — Men on both sides — Then what barrows with earth on a sort at 2. a flood gate — Large village at 4 a town with 17 square towers I counted that number — it is situated at the bottom of a range of hills extend from N. to S. — Canal broader here than formerly — another flood gate

— 5 another flood gate and long town — but continued as usual that we should pass this it in the dark — Two black men fighting, seize one another by the hair — remain bent down in that position for some time, like boys, neither would quit his hold, till separated by an old man — The towns we have just passed is very large —

Monday 28 Octr 93

at sun rise Ther. o. a — 54
cabin — 57

passed at day light a very long range of shipping — Several loaded with coals — — calm no wind — pine grounds — under water —

12. Thermometer — Cabin 60

have passed no flood gates this morn-
at 1 passed through a large walled city
called Maja-koo a flood gate — Joss house
aged on horse back — prodigious quantity
of shipping — some very large and com-
modious junks — at 2, our jury mast
gave way and fell with a crash —
— arch below the Joss house and the
deities up stairs — Houses built here
this is the largest city we have passed
through since we left Tow-see, at least
the largest that we have seen — water
by the opening of the gate fallen abt.
1 foot — Current some fast, flood gate
against us —

4½ a narrow and shallow part of the
canal — a cross cut open to the left
but a bank on the right cuts off the com-
munication with the other canal —
table stones, some inscribed stones, plaster

in the water to warn us of the shallow
— The sand on the left banks fresh head
encroachments — many barrels loaded
with a black matter which some say
is coal others coke — It has much of the
vegetable appearance

Canal — Tuesday 29th Octr. 93

At sun rise — Therm. in a Cabin 57 — 60

on our right, a long wall separating the
canal from an extensive lake, the wall is
about 5 foot high, built either of marble
or granite — I think marble, there
is a space of 50 feet of earth between the
water of the canal and this wall — vast
number of fishing boats on the lake —
— Several springs — Houses commencing
along the lake over one of which the
water fell into the canal from a height
of 3 to 4 foot — Several junks hanging
with the crown downward — Current
from sun rise in our favour —

At Mat yard — Cylindrical stick, hook

Army by a Strong a moveable W.
of about 16 to 20 lib divisions each
7.2 Inches — longer arm much heavier
than the short arm —— another di-
~~vision~~ ~~cast~~ scale along side the four
each 4.5 Inches —— A long heavy oar
or kind of rudder is fixed to the head of the
boat —

12 Thur [Cloudy] —— 67

The long oar on the bow is to assist the rudder
in the sudden turnings of the Canal —
current strong — in our favour — velocity
nearly equal to that of the boat ——
Canal very shallow touching the
bottom frequently this morn — Above
is arrived that the Lion sailed from Shan-
sai on the 12th Instant, we must therefore
travel all the way by in our present
manner to Canton, which we cannot reach
before Jan^y — our little Cat with
Dog is taught to stand on his hind
legs and beg during dinner —— rain
at 7 o'clock — very dark —

Thundersday 14 Sept

Sights

10. 13	25 — 53°	7'	
10. 14	25 — 53	16½	
10	15 — 25 — 53	26 —	
10. 14	25 — 53.	27 Cos	
13. 7	36 — 10.	17' 41"	
		32 44	
last	2 22	9.44 57	
7.	33 30	7 33 30	
		2 11 19 =	32° 50'
			32
			East 33 20

Lat 39° 40' S
Decl: 21 12. S
Eq^t 9. 45
H 20 6
W. 1 45. 37
D. 42. 29 fast
9 45
— 32 44
32° 50'
East
at noon
Lat 39. 45 S

The Day at 7 P.M Spoke the Lion
Lion longitude — 34° 20'
Own — 33 20
Diff — 1 20

Windsor Lan 15 Jan 179

Sights

H
0. 2 — 52°, 47
10. 3 — 52. 56½
10. 4 — 53. 0
10. 5 — 53, 17
10 - 6 — 53 29
10 - 4 — 53, 17 Cor

Lat 39°. 30 — Decl 21°. 1' S

M. 1871. 31 = 9.4042
06. 1875 17 = 0.0160
4.16679 = 1.4602
0.11259 Log: S: 39°, 30
0.02990 Log: S 21. 1
4.30928 = 2 H 20' 57"
W — 1 56
fast — 32 57
Eq. — 19 6
0 = 22. 51

13. H 7 27' = H 10 0' 44"
Fast 2 24
7. 24 36
22 56
9. 45 53
7 24 36
2 21, 17 = 35° 19
+ 13 Alt mer
35, 32 Lon. E.
39 33 Lat S

Vers. S
Impl. 29' 50
Semidiam. 29 20
mean 29 35

Lunar Sights
Distance
Distance
43°. 41'. 57" Cor
67, 03 Cor — 49: 22 Cor

Longitude
Greenwich — 35, 43. 45
Cumbrian — 35 42. 30
35 43 Long.
Ch. at the Lunar Sights 35. 30
P. M. — 5

Windsor Lan 16 Jan

Sights

H
10, 55' 30 — 63° 30 Cor — Mer 3 —
H
0, 20 — 11. 1' 20"
2.26 0, 42
0, 17 34 = 10 52 30
0, 17 34
30° 46' = 2 35, 4
+ 10
0, 56 Lon. at noon

Lat 40° 16 Decl 20°. 49

H
L 1 23' 30"
1 4 30
10 — 19' 0 Cor
10' 26 Eq
0, 42

The observation for the Lat. & the Lat. assumed from the calculation were deduced from the days observation, there may be an error of 10 or 2 miles from by the Log. there may be an error in Long of 10 or 2 miles

The beginning of the day proved by getting any observation for the Lat — great swell from the North & South pitches very much — Mind Lake on land to be the consequence of fog in the Lat. ~~Lance nearly out.~~

~~Lard~~

Wendover 17th Jan 17[illegible]

Windsor 22 Jany 172

Windsor 23 Jany 1708

A.M.

Lat 39 - 3. Dec^n 19, 19. Eq^n 12' 26

H ° ' 8 33 — 54.15
8 34 — 54.25
8 35 — 54 35

5 59 = 8 36,42
242 1 21 54
5.5618 - 9 58 36
5 56.18
60.34 = 4 2 18
+ 22
60.56 Long: at noon
39 3 Lat Dec

50.57
19.19
70 16 — 94127
54.35 — 81496
4.10143 — 12631
.10900
.02516
4.23639 = H ° ' 2,16 32
3 26 — watch slow
1 9 20
12 26 Eq
1 21.54

It is some what singular that after a run of seven days which we have had ~~that~~ no observation of any kind, and it shd be like an over 22° Long. that the ~~Dec~~ Long by Acc^t and by the Obs^n shud agree within 1 mile

Mundostan 24 Jany 179[illegible]

A.M. Sights

H
10.40 — 56°, 24'½
10 41 — 56, 34
10.42 — 56. 44
10.41 — 56 44 Ca
5. 57 — 10. 43. 52
2.44. 32 7
5. 54 16 = 10 11, 45
5. 54 16
4. 17 29 = Long. 64. 22
+ 15
Long. 64 37 } at noon
Lat. 30. 50 }

Lat. 30° 50'
51 10
19. 3 Decl
70 13 — 9409
56 44 — 0361
4.02057 = 10.40
.10040 = Sol. La
.02446 = Sol. Dec
4.15351 = 2, 3 49
1 19 —
Fast 44. 49
Eqn 12. 42
32 7

P.M. Sights D & Aldebar. Decl N.

H
10. 22' 39" — 29°, 32'. 44" — 31°, 45', 49" — 31°. 46. 1

Mundostan by
Dunthorn 31. 57 00
Wilkell 31 57 — 32
Long: reduced to noon 64° 34'
64 37
By the Chron. Diff — 3

Altitude Distance on for the cents the above a mean of sights + 4 lamb-mer limb —

Mundostan 25 Jany 179[illegible]

A.M. Sights — Lat. 30 44 } Decl. 18° 49 Eqn
51. 16
18 49
94019 — 70. 5
01563 — 54. 39
12,453 = 4.09530
.10707
.02385
4.22710 = 2, 15' 4
W — 1 39 40
Fast 35 24
Eq 12 55
22, 29

H
0 19' — 54° 14'
20.20 — 54 28½
21.40 — 54 43
20.20 — 54, 39
37 — 10, 23.26
2,46 0 22 29
34 14 — 10, 00, 57
5. 34. 14
4 26 43 = 66. 41
+ 16
Long: at noon 66. 57 East
Lat at noon 30, 42 So

Lion's daily note — Friday 25 Jan^y

Time Dist. Lat. & Long. made — In
105°, 40 E — 30.42 — 70, 05 E — 66. 5 Ship 173 Leagues
Long: by time piece — 60, 31 — 136 —
+ Ald. and the D — 67.42 — 148 —

Twelve spunds remain
3 Butts 161 Turns

The time piece on board the Lion has altered considerably lately which has occasioned so great a difference between the Lion and Mundostan —

A.M. Thunderton 28 Jan. 1793

H
10, 5 — 53° 17' Cos Lat. 30, 56 Decl. -10
Eq. 13. 7

L 42, 21, 22
W. 1 55
26, 22
13, 7
13 15

Ad. 5, 35 — 10. 12. 20
11. 22 — 13 15
5, 23 30 — 9, 59 5
5. 23. 30
4. 35 27 — 60° 5
+ 12
69

P. M.

4 22. 20 — 34, 55° Cos Lat. 30. 56
Decl. 10. 31
Eq. 13. 10

H ' "
L 3, 50, 34
4 22. 20
Lat 1, 23 46
13 10
10, 36

Ad. 11. 49 — 4, 25 5
11. 22 — 10. 3
11 37. 30 — 4, 15 2
11. 37 30
4. 37 4.

69, 26 = 4, 37
10
69 0 Long: at noon
by mod. obs.
6 Eq. n. ab.
69. 6 Long: at no
69. 7. Long: at no
30. 56 Lat. at Decl

This day Brooks was standing, not wound up

Thunderton 29 Jan. 1793

Sights

H
42' — 50. 04.
43 — 50, 14.
44 — 50, 25.
43 — 50. 25 Cos
H ' H ' "
5, 01 — 9, 46. 43
2 50 — 6 1
4, 50 10 — 9 40 42
4 50 10
70. 30 = 4. 42 32
14
70 52 Long. at noon
30. 56 Lat. at noon

Lat 30, 56
51. 4
10. 19
Decl 69 23

93596 — 69 23
77670 — 50. 25
16526 = 4. 21016
.10909
.02250
H ' " H ' "
2. 36 20 = 4. 34903
2 17 water
19 20 Lat
13. 19 Eq
6. 1

This wind clouds near the horizon
like pillars of snow on land —

Hindostan Monday 28 Jan 17

Sights

10 3 — 55, 22 ½
10 4 — 55 32 ½
10 5 — 55. 42
10. 4 — 55 42 Ca:

B. 5. 20 — 10. 7. 4
2 52 — 3 45
5, 17 8 = 10, 10, 49
5 17 8
73. 25 = 4 53 41
+ 13
73. 30 long at noon
30 40 Lat at noon

Lat 30 56
51 10
10 2 Dec

93483 - 69. 12
02610 - 54 42
10.073 = 4.03635
# 30, 50 = .10040
# 10 - 2 = .02180
# 5, 43" = 4.03635
156 = Latitude
9 45 fast
13 30
3 45

No 2

Chronometer

29 Jan: 1793

Sights

34, 30" — 50, 36
35 30 — 50. 40
36 30 — 51
35 30 — 50, 58 Ca:

4 52 — 9. 39 28
2 54 — 6, 32
4, 49 6 — 9, 46 06
4 49 6
74 13½ = 4 56 54
+ 12
74, 25½ noon
30, 53 — noon

Lat 30 50
51. 10
19. 49
93327 - 60 57
77670 - 50 50
15.649 = 4.19448
.10040
.02130
2.31.38" = 4.32426
2.24.30 watch
7 8 fast
13 40 Eqn
6. 32
75, 58 Long

30 Jan: 1793

Lat 30, 33 Ocl 17 30

41' — 57. 17 Lat
4, 56 — 9, 43' 47"
2 56 — 8 56
4, 53, 4 — 9 52. 43
4. 53 4
74.55 = 4 59 39
+ 6
75. 1 at noon
Lat. 30, 30 at noon

9 13' 4"
2 23' 53"
2 19 — 4 33 fast
13. 49 Eqn
8 56

Strong current to the North

Hindostan Thursday 31 Jan 1793

# Sights		
9. 36 — 51. 25'	Lat. 30° 47.	Dec. 17° 14
9. 37 — 51. 36½	Eq. # 13' 58"	
9. 38 — 51 40	✓ 2. 25'. 21"	from mer
9. 37 — 51, 45 (a)	2 23 —	Watch
	— 2 21	fast
	13 58	East
	+11 37	

B. 4. 52 — 9. 40. 3
2. 58 11 37
4. 49. 2 9. 51. 40
4. 49 2
5 2 38 = 75°. 39'
+ 6
Long 75 45 at no
Lat. 30. 51 at no

Lions Note — 31st Jan^y —

Longitude —

O. R — 75. 41 E
Ow. — 77. 20
Lunar Avg. 76. 17

St Paul's N. 04° 10 E 26 Le
Ditto 3 miles to the W. of St Pa
Ditto N. 02. 11 East 15 Leagues

A calm for three last days —

Hindostan 1st Feby 1793 —

This mor. at 5 the lion made the sig. the Land we immediately saw it a head he st to be St Pauls — a fine breze Easterly —

Sights —

A. M. — Observation 2 Feb.

1 Regulus

10h 17′ — 50° 40′ Co. Lat 30° 42′

B. 5h 31 — 10h 19.55 Decl. 16 39′

— 3,2″ Eq. 14′ 12″

L

P. M.

2h 0′ 0″ — 55° 05′ Co. Lat 30.42 S

B 0″ 15′ — 1h 1′ 30″ Decl. 16 30 S

Eq. 14′ 12″ +

L

Observation 3 Feb.y — 1793

Lights

50′ — 55° 55′ Co.

50 40 — 56.00 Co.

50 20 — 55 50 m

5h 04′ — 9h 53′ 10″

— 3.4″

Lat 37.55 S.

Decl. 16 21 S.

Eq. 14′ 10″ +

+ 25 at noon

Lat at noon 37.40

L

Meridian 4 Feb 1793

Sights

H
9. 3. 30 — 50°, 46', Cor. } Lat. 36° 00'
9. 8 50 — 51 46 C. } Decl.

H
3. 4, 52' — H 9, 41, 13 —
— 3, 6

Lon 02°. 42
+ 27
Long at noon — 03°. 9

Lat. — 35. 49 nor

Sights of ☉ and ☽ Distance

H
9, 12' — ☉ 52.12' — ☽ 33.05' — 90°, 1' 30" } 1st Dec
9. 17 — 53. 17 — 31 56 — 89 59. 00

9 26.48 — 55, 00 — 30. 9 — 89. 55. 30 } 2 Dec
9. 28 25 — 55 24 — 29. 48 — 89. 54. 15
9. 30, 10 — 55 40 — 29. 25 — 89, 53 40 } — 15 of Jan

Long at noon + 27' West

Westhill { by 1st Set — 04. 22 } East
2 Orth — 04 17 }
Chron — 03°. 9
Lat — 35 49 nor

Meridian Tuesday 5 Feb. 1793

20' 35" — 56, 12 Cor Lat. 34. 29 So
Decl. 15 46 So

H
4, 35' — H 9. 24. 11W Eq. 14' 28" +
— 3, 8 Lat at noon 33 24

Long at noon — 05°. 17' East

Sights of ☉ & ☽ Distance

H
9, 34' 50" — ☉ 60.00 — ☽ 26.30 — 76°, 56' 10" } Eve
9. 37 00 — 60.10 — 26. 9 — 76. 54 55 } — 15 Feb
9. 39. 5 — 60, 24 — 25.42 — 76, 54 00

Long at noon — + 4' West
by Westhill 06°. 22 East
Lat — 34. 24 So
Long by Chr — 05. 17

There being 1°. 5 Diff. between the ~~Lunar~~ moon and Chron & yesterday 1°, 13' both moon on the same side, the Chron. must be at least 4' East of Greenwich Time

Long. of Louis note 06 54 P. Cal.

Amsterdam 59°, 30' W — 160° Long. Westhill 17°, 22 E — 297 Leagues

Thunderstan Wednes: 6 Feb

H 9. 17' 25" — 56° 37' Cor — Lat. 33° 34
34, 50 — H 9, 39' 24" — Decl. 15, 20
3. 10 — 32 46 — Eq^n — 14. 32
4 46, 50 — 10 32 9 — + 13 mo
4' 46. 50 — H 2, 4' 27" — 242 35 Wa
5 45 19 = 06 20 — 0 30 0 Slow
+ 13 — 14 32
Long at noon 06, 33 — 52 40
Lat noon 33 20

Lunar Sights — Dist Moon

	☉	☽	Dist
H 9. 26' 31"	50, 10	54 30	64 26 30 +
10 42 41	69. 40	36, 11	63. 55 — 00 =
11. 44. 32	70, 55	23. 17	63. 25. 35 =

	Corrected ☉	☽	Dist
Mr 1st	50. 21	51. 09	64. 59' - 07"
2 —	69 59	35 49	64. 27 34 —
3 —	71. 06	22. 56	63. 58 00 —

Long: 1st set — 07° 40 } + 12 Lib
2 Dit. 07 32 } + 6
3 — 07. 39 } — 3

Thunderstan Thursday 7 Feb 4

Night

H 9. 43' 30" — 51° 05 mean of three sights
3. 57 — 0. 46 19 — Lat 32° 20' So
3. 12 — 59 5 — Decl^n — 15 9 So
55 40 — 9 43. 24 — Eq^n — 14' 35" +
3 53 40 — + 9 Lib noon
24 = 5 49 36 — L H 2, 34 —
+ 9 — 3 16 30 Lib
7. 33 Long: at noon — 42 30 Slow
2. 12 Lat: noon — 14 35 Eq^n
59 5 11

The Dead reckoning is a head of the observed by the Lunar 25 miles to the westward —

Feb 4 1793

H 9, 50' 30" — 52 55 Cor — Lat 31° 34
4, 6 — H 0, 55' 21" — Decl^n 14° 50
3. 14 — 50 54 — Eq^n 14' 38"
4. 246 — 9 54 15 — L 2 25. 14
07 52 — 4 2 46 — 3 9 30
+ 9 — 5 51 29 — 44 16 Slow
08 1 Long at noon — 14 38
31 24 Lat Obs — 50 54
Corr. 30 10 — Var. Lon 10° 32' W

Windsor Sat: 9th Feb 93

Sights

H
8 52 — 53° 40' Cor: 1' = 11' in Altitude

H
4. 7 — 8. 56. 30" Lat 31° 54'
13. 16 — 1 2 36 Decl 14° 31' S
4. 3. 44 — 9 59 6 Eqn 14' 39"
Chron 2 44 — 4 1 20 L 2. 20' 3" } +
4. 1. 20 — W 3 8
8 9° 31' = 5. 50 — 47 57 Glow
+ 7 — 14 39 Eq.
8 9. 30 Long noon — 1 2 36
32. 4 Lat noon

By comparing Long: by the Chron: and that deduced from the Moon on the 4th 5th and 8th inst: it appears that the Chron: has gained more than what has been daily allowed — This day the 2' 44" addition or 6' might have been subtracted — and 4" will be the daily rate in future —

— cannot 20' against us — we likely — we then suddenly Var: 11° — W — change — meld —

Windsor Sunday 10th Feb 93

Sights

H
8. 5' — 44° 44' Cor — 7' — 11½ Altitude

H
3. 18' — 8. 7' 49"
6. 4 — 1 7 57
3 11. 56 — 9. 15. 46
3. 11 56
90. 57 = 6 3. 50
+ 14
91. 11. Long at noon
33 18. Lat at noon

Lat. 33° 9' S
Decl 14 12 S
Eqn 14. 39 +
+ 14' noon
L 3 1 42
3. 55 — Watch
53 18 Slow
14. 39 Eq
1. 7 57

Monday 11 Feb 1793

H
8 51' — 54° 10 Cor | 1" = 11' Altitude
Lat 33° 45 S
Decl 13 52 S
Eqn 14 39 +
+ 9'
L 2 11. 42 W
3 9
57 18 Slow
14 39 Eq
1. 11 57

4. 5 — 8. 55. 11
6. 8 — 1 11 57
. 58 52 — 10. 7 8
3 58. 52
92° 4 = 6 8 16
+ 9
~~92 13~~ Long at noon
33 55 Lat Dello —

N.B. The Lat: calculated seems should be 34, 45. Hence Long: 92° 49'

12 Feb 1793

Sights ☉

H
8, 17 — 40, 06 Cos — 1' = 11½ Altitude

H
33 29 — 8, 19. 35" — Lat 34. 41 S°

6. 9 — 1 14 4 — Decl 13. 32 S°

3, 22 51 — 9, 36 39 — Eqn. 14 30 +

3 22 51 — + 5' —

93, 27 = 6, 13 48 — L 2, 40. 34

+ 5 — Watch

93. 32 Long } var — 3 43 slow

34 35 Lat } — 1. 2 26

14 30 Eqn

1 17 4

---

13. Feb. 1793

Sight

H
8. 26. 10" — 50°, 18' Cos. 1' = 12 Alt

H
33. 41 — 8 32, 01" — Lat. 33. 34 S

6 02 — 1 18 53 — 36. 6 Decl

3, 34 40 — 9. 50 54 — 13 12

3 34 40 — 93544 − 69 18

76940 − 56 18

16604 = 4. 22021

.00092

.01163

94° 1½ Lon = 6 16. 6

33. 53 Lat —

2 22 00 = 4. 31276

1 4 47 slow

1 14 36 Eqn

1 18 53 +

---

14 Feb 1793

Sights

1 — 19 10 — 50°, 29 Cos — 1' = 12' Alt

H
3. 32 — 8 23. 42" — Lat 32. 41

6. 15 — 1 25. 34 — 57 19 Decl

1 12 5

25 45 — 9. 49 18 — 94060 − 70 10

3 25 45 — 77144 − 50 29 00 Alt

95 53 = 6. 23 31 — 16924 = 4. 31430

+ 19 Long at noon — .07406

96. 12 — .01102

32. 30 Lat at noon

2 29 50 = 4. 31430

1 14 00 W. slow

14 34 Eqn

1. 25 34

---

14 Feb. 1793

Lunar Sights — Antares

H ☉ ☽ — Centers

12 30 36 — 59. 14 — 49 20 — 47° 45 37

2 34 30 — 34 46 — 52 27 — 40 59 46 Centers

2 45. 27 — 32 06 — 51 32 — 49 04 54 Centers

Longitude reduced to noon

1st 96. 42 } East —

2 — 96. 44

3 96. 34

Meridian — 15 Feb

Sights

8h 3, 30 — 49° 30′ Corr — 1′ = 11′ Altitude

33, 18 — 8h 10′ 36″ Lat 31° 6′ 50″

6 18 — 1 34 31 — Decl. 12° 31′ 50″

3 11 42 — 9 45 07 — Eq. 14. 31 +

3 11 42 — + 12

90 21 = 6 33 25 — L 2h 36′ 30″

+ 12 — 3 56 30

90 33 Long Noon — 1 20 00

30.59 Lat noon — 14 31

1 34 31

— Lunar Sights. —

	☉	☽	
5h 2′ 30″	21. 21	49. 2	61. 37. 34 Mean of 5

Long: reduced to noon 99° 10′ —

n.b. the above are the Altitudes & Distances of the centres — 62 9 19 Centres

True Dist — 62. 9 29.

16. Feb. 1793

Sights

8h 17′ 30″ — 58° 40′ Corr — 1′ = 10″ Altitude

3 44 39 Lat — 10. 20. 16 — Lat. 29° 49′

5. 15 — Decl. 12° 10′

10. 25 31 — Eq. 14. 27

3 44 39 — + 14

= 6 40 52 — L 1h 51′ 42″

+ 9 12 fast

14 27

5 15

Lunar Sights — Dist ☉ à ☽

	☉	☽	
1h 36′ 50″	63. 7	28. 17	73. 24. 39 } Ecl
1 53, 37	59. 59	31. 11	73 31. 14 }

Longitude reduced to noon —

1st Alt. 100. 44 } East

2d Alt. 100. 30 }

1st True Dist. 72° 41. 15 }

2 — 72. 50 1

Mondayan 17th Feby 1793

Lights

1' 15" — 44° 57 Cos

+ 14 12

29.36 — 9 5 31

12 12

9 17 43

2 29 36

= 6 48 07

2

+17

2.19

1' = 13" Alt

Lat 27 19 S°

Decl 11 50 S°

Eq: 14 23 +

+17'

L 3 0' 56"

2' 30 45

2 11

14 23

12 12

17 Feby 93

Lunar Lights

Alt ☉ ☽

1.12 30 23' — 39.45' — Decl — ☉ à ☽

10 12 True Distance — 86 01. 1

10 12 = long — 86 30' 9" East

Lon Long. of Signal 103° 30, afterwards in a conversation she told us her long: was nearly the same as ours — It was determined to steer N & E — This with about 1° W Var will make a north course

Thundarton Mon: 18 Feb 1793

9h 15' 25" — 47° 16' Co 1' = 13" Alt

2. 41 Ant. — 9 10. 59 Lat. 23. 30

6. 27 — 6 12 Dec. 11 28

2. 34 33 — 9 25 11 Eq. 14 17 +

2 34 33 + 3

102. 39 = 6 50 30 L 2. 52. 40

+ 3 2 44 35

Long 102. 42 mon 8 5

Lat 23 - 9 Alto 14 17

6 12

O. M. Lunar Sights Ant 18 Feb

1 Set 4h 11' — ☉ 33. 25' — ☽ 36. 50' — 97° 42' 39" Co

2 — 4 14. 5 — 30 24 — 38 52 — 97. 46. 29 Co

True Distance Longitude

Lat. 22°, Lyons { 1st Set 97° 9' 27" — 103. 18

2 Set 97 15 27 — 103. 21

Feb 1793 19

35' 10" — 52° 13' Co 1' = 13½ Alt

— 4h 30' 49" — Lat. 20° 16 S°

6. 30 — 6 16 Dec. 11. 8 S°

54 30 — 9. 45 5 Eq. 14' 11" +

2. 54. 30 L 2h 32' 45

102° 39' = 6. 50 35 2 24 50

19. 55 mon 4 55

14 11 Eq

6. 16

Lunar Sights Feb 1793 19 Ant.

46. 10" — ☉ 22. 41 — ☽ 37. 30 — 109. 14 26 Centre

Alt 19° 17 Dec 11° 3.

Distance Long °

Unlikelihood 108 43. 5 — 103. 5

Time at 6h 21h 46. 24

— at this 4. 30. 42

6. 52 18

20 Feb. 1793 —

4 9 31' 25" — 51° 32' Cor. 1' = 13' Alt

2 57 — — 9. 34. 45' Lat. 17° 39 So

6 33 — 6 11 Decl. 10. 47

2 50 27 — 9 40 56 — Eq. 14 5

2 50 27 — L 2 36 29

Log 102. 37 } = 6 50 29 — 2 28 35 Co

Lat. 17 27 } — 7 54

14 5

6, 11

21 Feb. 1793

15" — 55° 35' Cor 1' = 14' Alt

Lat 15 32 So

Decl. 10 25

Eq. 13' 57" +

L 2 19' 52"

2 12 45

7

67

50

21 Feb

13 6.36 — 9 50 12

6 50

9. 57 2

6 24 — 9. 6 24

3 6 50 38

02° 39 } = 6 50 38

15 21 } mer

Lunar Sights

Alt ☉ à ☽

☉ — ☽

1' 36.06 — 18° 28' — 120° 00. 36 Co

2. 31.17 — 22.32 — 120 7 30 Co

Lat 17° 6' 8 Decl 10° 41

The Dist. by Wollaston —

1st Lat 119° 17. 01 — 103 — 2 } Dist

2 — 119. 20 1 — 103 — 7

Mat. ne spero — This owing in a g

measure to the under transmitting pr

cold to a warm region —

Lunar Sights

* Alt ☽ — ☉

34' 0" — 52° 38' — 38, 37' 12" Corrected | 51° 54

50 56 — 49 33 — 38 44 19 Corr | 53 50

Lodlich fact 6' 39" Luna

Dist 30° 22' 23" —

— 30 33 32 —

22 Feb 179

Sights

H 9, 46' 20" — 55, 43 Co. 1' = 15" Altitude

H 9 50, 35"

B. 3 14 — Lat 13° 30 S° —

6 39 — 7 54 — Decl 10. 3 S° —

3, 7 21 — 9 50 29 — Eq 13' 49"

3 7 21 — L 2 19' 35"

102. 47 Long 6, 51 0 — 2, 13 40 Wa

5 55 fast

13. 16 Lat — 13 49 Eq

7 54

22 Feb 7 —

Decl Dà * —

Lunar Sights

☽ H *Alt. ☽

2 0. 0. 21" — 40, 50 — 52. 06' — 50° 44 05 C

H 17 48 5 — 51 35 — 50. 24 — 50 40, 17 C

H 9, 29' 36" — *Arg. 49, 54 — 60° 38' ☽ — 29° 02, 35 C

Aldebaran — | watch fast

1st True Decl Lyons 50° 20 35 } — 5,

2 — 50 · 26 · 30

Regulus Lyons — 29 2 55 } — 5,

Longitude

1st Aldeb 103. 23 } East —

2 — 103 24

Regulus 103 55

23 Feb

Co: 1' = 14½ Altitude

55 — 57° 50' H 9. 57' 25" Lat. 10° 32' S°

22 — 9. 57 0 Decl. 9° 41 S°

6.42 — 0 50 — Eqn 13 41 +

15 10 — 10 5 55 — L 2, 10 11

3 — 3 12. 18 — 2 5 0

12. 18 — 6 53, 37 — 5 11 fast

03. 24 — 13. 40

10. 40 now — 0 30

By comparing the Chron. with the mean of the last ten lunar sights it appears the Chron. is this day 9' 42" fast — Greenwich time therefore subtracted that quantity from the time by the Chron. and propose to allow in future 4" ⅌ Day —

Sunday 24 Feby 179

H
10 13' 15" — 62° 48' Lon^d 1' = 15 Alto

B. 3 42 — 10. 16' 46" Dulin. 9° 1

9 46 + 13. 32 Eq^n 13. 3

3 32 14 10. 30 16 Lat. 9° 0

— 3' 20

10, 26 40 01

3' 32 14 9. 1

103. 30 = 6 54 34 9 0 1

+ 3 100

103° 41 Long 99999 — 09 4

0. 50 Lat 00942 — 62. 4

11057 = 4.04364

·00530

·00575

As the sum of the Dulin and ~~the~~ com- H
plement of the Lat 1 56' 13" = 4.05477
exceed 90 subtract 1 46.45
from 180° or subt. 3 20 Lat
the Dulin from 90°

Lion made a signal but on account of the great distance it could not be seen distinct — Lion bore far to the East Lion not in sight — we think too far —

25 Feby 1793

Cad: 1' = 15 Alto

8' 25" — 47° 27 Lat. 7° 21'

51 35 Dulin. 0, 56

H
38. 50 — 9 12. 25" Eq^n 13' 22"

9. 50 13. 22 + 11' till now

20 10 9. 25 47 L 2, 51, 54

19 2 51 35

9 25 20 19

2 20 10

6° 30½' = 6. 57 18

05 Lat

At 5 P.M. saw land a head judged it to be part of the Island of Sumatra — At 7, saw land on the Larboard bow — Night coming on and being hazy it is proposed to proceed under easy sail till day breaks, and then will happen to blow to lay to — not in sight —

An Eclipse of the moon at 4 A.M.
but mumble by clouds — At ten
a Ship a head which turned out to be the
Wilkan Capt. Wood from China to
hailed her. Capt. M. went on board
Mr. Davis Purser came on board
Pindostan — learned that the Emp. of Ch
had refused his assent to receive the
Ambassy, and had given orders for
to conduct us in the Chinese seas; —
sent a letter by Mr. Davis to Mr. Jo
Wilson Watch Mr. London —
no observation — Cloudy squalls rea
showers — Calms — Came to Anchor
No account of the Lion — Dispatch
were brought by the Wilkan to Bat
for London — Above 20000 Pyrat
in Prows among these Islands fitt
very vessel and murder the crews —
Dallays give no quarter to the Dutch
consider them as usurpers — Each
has a 24 founder in the Bow —

At 6 A.M. weighed and stood for
North Island — many beautiful Islands
in the straits — all covered with trees
and extremely green — even the smaller
rocks detached from the greater Islands
are covered with trees — Sumatra on
our left — land high — Java on the
right also high and picturesque —
sweet aromatic fragrance in the air
very sensible — This with the sun
Moon produces a charming effect. —
A Ship and boy a head — Mr. Manelle
went in the Jolly boat — bring her word
that they are Americans and that the
owner of both is on board the Ship
Capt. Ingram dined with us — Came
out from Nootka Sound to China with
furs — Spaniards will not deliver up the
Island to the English agreeable to the con
tention a remonstrance has been sent
to England — At Japan he could not

dispose of his furs — a Raw forbidden
was supplied with provisions by the
rose gratis — Wants to sell the Co
and we wait for the Lion whom we
have not seen for these 5 days pa
now to have the proposal of Somerset
how made to Lord M'Cartney —
Lightning vivid flashes with two and
vibrations no thunder on account of
Distance — near the horizon to the No
ward of the Straits — We are now, a
half past seven Lied. in the narrow
part of the Straits — The Great Natu
of beautiful Islands for a Reign of
Pelago — Still on the Sumatra sh
M'Bushby and I have christened
the name of Cuffel from the strong
resemblance it bears to the hill of the
name near Dunsfries in Scotland —
Mallay boat — Turtles — fowls — Mont
Banana's — Mangostines and stellait fru

bout the size of a large plumb
and consists of division somewhat re
sembling a walnut but soft and of
most delicious flavour — Asked the
Man for a large turtle — Several cages
birds very small — Man
with the a paper with among the name
several ships which have passed
the Straits — he speaks Dutch — says
tide runs northward through the Strait
all day, and southward during the night
60 fathom in the middle of the Straits
Shoals of fish sporting on the surface
smallest size fished up by number
large sea fowls which are always
ready on the first appearance —
the rope by which the Mallay boat
was made fast to the ship appeared very
luminous in the dark when there was very
little light seen at the sides or sides of the
ship — Globules frequently varied from the
size to some distance on both sides but
most frequently towards the ship. —

Thursday 28 Feb. 1793

At 7 A.M. saw the Lion — and at
8 A.M. Anchored off North Island
2½ miles East of the coast of Sumatra
— The coast appears in covered with wood
with some Lawns — beautiful Verdure
— The Straits at the narrowest part are
about 4 or 5 miles broad — Ship has
no motion —

Friday 1st March 1793 —
first the boats arrive to water —
water healthy sort but good
Saturday 2 March Longitude by the
Chron 106°, 3' — This afternoon went
ashore — Trees — Grass — rude — Stole of Nature
Nuts like a Gold — but wound with leaves
Beds — Tea Kettle — ~~with~~ bottle — Shells
Fern — Cris not waved like the Macassar
bought a buffalo for Dollars — flogged
him by the Thomas to the ship — fire
fly caught two, different colours — Water cresses
Coot — Mallays have expressive countenances —
Lizards and Geckos happen noise at night have
red heads — Lamentous appearance of the sea
on so than I ever saw it — every stroke of the
oar raised a wave of fire upon the water deep
from the oar produced a fine effect — head of the
boat like the flower of a lilac or fire and
the globules which fressed along the sides
of the boat had a shining resemblance
to the sparks ascending from the lavers
on fire into the atmosphere — The
night was quiet as on the shore and dancing
as we approached the ship sparks fewer through
weather larger —

Sunday 3d March 1793

Longitude by Chron.t 106. 6' E.

Gentlemen of the Lion dined on board the x Cocks Settler has put down the hut was St Paul's in Salt contrary to the facts related by my instruments — Sir prepared to sail for Batavia to morrow

Monday 4 March — weighed and set sail for Batavia distant about 30 leagues — Came to Anchor at 7 P.M.

Sunday 5 March Anchored in Batavia road at 4 P.M. — Several Chinese Ships in the road — Several Company's Ships from Bengal &c — French Frigate — crew of men! — Capt. S of the Ship with us — most articles are dear at Batavia — Lion has been very sickly — Oranges brought on board the Lion by Mr Bell about 7 P.M. —

1793

Road of — Batavia — March —

Wd. 6 March

At Sun. rise the Lion saluted with 9 guns and the Frigate returned with the same No — At 8 A.M. An Dollmer or member of the supreme council came on board the Lion in great state was received by 11 guns about an hour, and at leaving the Ship saluted with 5 guns —

Last night the water extremely luminous — Lightning in light flashes of seldom more than two vibrations few clouds consequently little thunder — Sir G. M. Sir E.G and Capt. M. went on shore walked on the Gravel — also settled our mode of living at the Hotel — Officers from the French Ship came on board us with specimens of his

wine and Brandies – Claret Madeira &c – The Dutch will not permit the Frenchman to dispose of his cargo – By their means our Gentlemen expect to purchase from him on reasonable terms –

Thursday 7 March

At 4 A.M. a violent storm of Thunder and lightening attended by a heavy rain. The flashes were very large – Eng. Fleet &c – more than one mile – The storm was preceded by a very offensive smell on flash struck the sea about the dist. of 1½ mile the water was thrown up & all round the spot struck for a number of yards it was very fiery, it represented a flower in fire works – Grand phenomenon

Fri. very Bilty – Refreshing sea breeze wind about nine and in general pretty much up at ten – colours refreshing – An Elegant boat with the Deputy came on board the Lion to invite Capt. M. officers and Gentlemen of the suite to the Assembly at the General's being the Maidstone birth day – Capt. M. has been on board the Lion brought orders for the Gentl. to appear on board the Lion in our uniform to mor. at 8 A.M. — Dine afterwards wt Sh. P. at Dinner —

Sunday 8 March —

At 8m see the Fort fired – Commodore and other Dutch Ships in the Harbour – Lion and Mindorton large men of war then – then several other Ships — At 8½ A.M. set out in uniform for the

tion — At 10½ A.M. Lord M. and
his suite left to Tion — Saluted by
the Tion which together with the Fa
was manned. — Noon was rea
at the bottom of the canal, one w
joked to each boat and in a f
minutes drove us to the gate of
the citadel or Castle Dist. near an
English mile — We were received
by the troops under arms, offi
two court. galleries and respa
ments reached the Gover. — Lem
Brandies were instantly hand
about — sweetmeats — Respeat
three times during our stay. A
was about 20 minutes — Mal
slaves attended Bar. footed all
in cotton or volume felts hav
Kerchief tied round the head, some

ge a turban — A loose coat of
jacket and drawers — Apartments
all papered or painted generally
with ground — Gover. or General
he is commonly called is an a
pleasant looking old man. has re-
sided here 40 years — From the
Governors we went to Mr. Wiggeman
member of the supprème council
Here is a large Gallery we were
again presented very quaint of
them with various wines — Spirits &c
Hall appears to be 80 or 90 feet
in length open on one side when
it is supported on pillars —
Canal and drawbridge before the
door — Two field pieces —
Dined at two — Much show —
At least twenty slaves attended

forks like the French of solid S
Brown forks and spoons all lai
together on the right side of the p
great variety of excellent fish - f
Tarts &c - a small plate of or rath
large saucer of rice placed betwee
coming plate - Chance fashion - Lo
Lord sat at the middle of the Ta
with Lord M. on his left and
E. G. on his right hand, no at
his back or in ~~[illegible]~~ England to the hea
and foot of the Table. there were
occupied by young Gentlemen of th
Embassy - Mr Appleby Mang
with a great variety of other exce
fruits - Madeira Claret and
other wines - Drank freely - wo
from Table about 4 - Water ha
about by Slaves in the hall for

washing hands before dinner. the
Dame after we got up from Dinn
and now in the Dining room the
Baron &c all below - Gratung -
Excellent beer from Europe -
Returned to the Hall where wine
fruits &c were ready on the table
Coffee - Tea - Sugar - Candy always
placed along side the commo
sugar. Dutch prefer the former wi
most cans to the table - large
spitting vessels of metal in the
form of Vases placed betwee
two or three chairs -
Smoking before dinner -
Mr Weggeman is President of
a Literary Society who have
published several Vols. of Transact

I was carried from the General's
ments in the Castle to Mr. Wigge
mans by a Mr. Dufeuis who spe
English tolerably well — He told
he wanted to return to England wi
his parents minded, that he han
married the General's Daughter,
I found afterwards not be the fact
that he could not prevail on his
wife to leave Batavia, but hop
he would prove successful in
gen — From Mr. Wiggermans
walked to the inn. Lord M. w
invited to stay at Mr. W's house
likewise Sir G.c — The other
were accommodated at the F
Hotel which is a very large
and Noble building. Every
Stranger is obliged to lodge at the Ho

In the Evening went to the Generals
the difficulty in procuring a Coach
overcome my being too late for the
his works — Chinese play — Supper
Mr. Dufeuis acted as master of ceremo
nies — Company called Gentlemen an
Ladies — Members of the council
the Lord Macartney — Sir G. Staunt
Sir E. G. &c — Dancing — country
Dances insisted — music too slow
Ladies have female Slaves sitting
at their feet — Some lemonade &c &c
one — very beautiful, and well dispos
walked behind their mistresses backs
into the supper room — Dufeuis perched
about the glass — felt heavy felt hea
felt sick — Toast — Stand holder — made
speeches — House of Orange — King of Pr.
Trade and Navigation — The Prince —

Bachelors &c Dancing after o
— was carried in a gentleman's chair
to the in— found great difficulty in
admittance into the city— Reached
the Inn about two o'clock — after
spending a much varied day —
Saturday 9th Visited by the two
Gentlemen who conducted me to
the Inn last night— met Dup
in a walk visited him at the Mor
pital— Gin— Dined at the Tav
Mr Maxwell at the head of the Tav
Variety, but fare Dishes agreeable
to English palates — Gin and
wine — fruit and a smooth charming
Billiards — Two tables besides bo
Macaroni — This is the only Decent
Lodging house in town —

The Canals Mrs. every part of the
city are extremely dirty mixed with
all sorts of animal and vegetable
matter— Men and women ease them-
selves on the steps. I have seen young
women & females parts from the waist
of Petet — They are water instead
of Paper — A Petition was made
some time since to the Govr. Genl.
to have the trees cut down from
the streets and some of the canals filled
up. on consulting the inhabitants
the Genl. found that they objected to
this scheme, and said that there has
had existed in the time of their
forefathers and did ~~[illegible]~~ the pre-
sent Genl. pretend to be more wise
than them —
Remained at Batavia till

when I was
on board the Nimrod — I was a
by a very severe Cold, owing to
having eaten some raw Oysters
— bathed with Mr Dorset running
baths — daily shooting Debts — fa
regularly shot — Chinese at Nine o
locks — Chinese Apothecaries sh
— Lock — Burying ground —
+ The very existence of the
Dutch here in Java absolutely de
at Batavia — men have been sent
on purpose to the spot where it
was supposed to have grown — an
no such tree could be found —
— on the contrary at Bantam it w
appeared to be true and the King
Bantam sheets it secret for the
purpose of poisoning his enemies

The Dutch here drink vast quan
lots of Gin and wine — drink in Punch
before Dinner —
This is undoubtedly the most
unhealthy spot on the Globe —
the town may be looked on as
almost in Inundation — the water
is so shallow that no ships
of war can come within 3 miles
of the works — the season of Landing
is extremely difficult — the works a
the canals could retard the progress
of a European Army 'till ~~they~~
it was cut off by the disease of
the Country —

Result of 1st Satt. Inst.

10th April	H 4,	51'	52"	Recorder
	5	37	36	L. M.

10th at 10 P.M.	H 5	42		Brooks
	4	15	28	Recorder
	1,	27	32	Diff B. and R
			15.	Lost by Rec
			2.	Gained by B
	1,	27	15	Diff. & time of Eclipse
6.51.34"	5,	51	52	
7	R	19	07	Time of Ecl by B
6.51.41			0	Gain by B 12"
6.19.7		18	59	Brooks 9.13
1.10.48	Two days after Watch			4.1.44
	Gaborn	6.20	44	Watch slow 2.50
4.4.34	B'	6.19	7	Prestbury 4.4.34
				9.13
105°.57' Long?		4	51	Brooks time 6.51.34
105°.57'		6	19	7
		1	10	48
		6	7	
		7.	3	48

6.19.07
1.10.41
7
1.10.48
6.7.30
7.3.48

Eclipse

109	35 −	L	2	6	10
109	30 +	L	4	14	55
109	27 +	L	3	0	35

Shrewsbury 10th April

At 12 A.M. went on shore at the Settlement with proper Apparatus to observe the immersion of Jupiter's first Sat:
Two Telescopes of 3½ feet Reth one by Dolland the other by Nairne power used in both about 80
Mr Parish managed Nairne and my self Dolland. We were fixed at the Instruments ten minutes before the expected time — Mr Jupiter was within 25° of the Zenith the fatigue of the body and head was awkward painfull, we relieved each other by observing in turns! bell within two or three minutes of the immersion
The disappearance was observed by both and ~~the~~ announced precisely at the same instant of time, which was

noted by Doctor Gillan and Mr. Barr who held the Chronometer

Time			
H			
4	51′	52″	Rivadon
5	37	36	L. Mr. T. R

At 1 P.M went on board the Hindostan and compared Rivadon with Brookbank as follows —

H			Brookbank
5	43		
4	15	28	Rivadon
1	27	32	Diff. B. R.
	15		lost by R. since the E
	2		gained by B since the
1	27	15	Diff. at time Eclipse
4	51	52	Time of Ecl. by R
6	19	7	Time of Ecl. by Brook

12h April. — A mean of four different sets of sights calculated separately gave as follows

			watch	
Brookbank	H 9	13′ —	4 1 44	watch slow
			2 50	
			4 4 34	
			9 13	
Brook. slow			6 54 34	App.
B. time at Eclipse			6 19 7	
App. time the Eclipse			1 10 41	place
Time at G.			6 7	
			7 3 41	
			7″	
B. gained since the Eclipse			48.	
105° 57′ Long. =			7 3	
			6 51. 34	
On the 12			12 14.	
B. fast by G.				

12h April

Brookbank has gained from

Lond	3.4″	G. Day
Amsd	7.	G. Day
Rio	21″.	G. Day

In 212 Days or 7 months —

14th Spirit Ships run to Angra pom
where the Sullivan and Royal Ad.
were at Anchor — Country a picture
esque appearance covered with wood
— This afternoon and

15th all this day employed in writ
letters — One to Ernest Nelson
Mr Anderson Doctor Forth slow
and Mr Copland — Gave my
name to Mr Monteath Surgeon
of the Sullivan — Letters were al
sent on board the Royal Ad.
and Sat. in the Evening and

16. The Ships out of sight towa
fair — This Morn went on sho
— Col. Cathcarts tomb — wood 4 fee
high 30 inches broad supported
by two pieces of wood driven into
the ground — about 4 or 5 inches

from the ground the following
Latin Inscription by Doctor J. Ewart
is done in black letters on a white
ground —

— Two guns with a Sergeant and
men constitute the Defence of the
place — Little Village — Pleasant Sea
and Air — Huts of Bamboos and
covered with leaves — well calculated
for a hot climate — Bamboo
matting — Buffalos — Fruits —
Canes — Shells — Indigo manufactured
— Canoes — Heavy Showers — Lightning

Wed^y 17 March — Doctor L. Dined
on board the Windsor Castle — Dispute about
the Shark — Caught a Shark
7 feet in length — In the Stomach
was found half a young Buffalo
several pieces of Tortoise — Shell
two of which I have preserved
and a surprising number of
other articles — Nothing comes
wrong to this voracious ani-
mal — The Shark will ~~in a~~
~~a little time~~ return to the bait
when but a minute before he
had been severely wounded
This can be accounted for only
from his voracious appetite or
his want of Memory — The
subject of debate concerning the

Shark between Dr. G. and S. was this. Dr. S. affirmed that live sharks had been taken out of the Stomach of a large Shark, ~~and~~ that he himself saw two young sharks taken out of the Stomach of an old Shark alive that they lived for some time after in a tub of water — Dr. G. admitted this fact on Dr. S.' evidence alone asserting that there were no other proofs on record — Difficulty of accounting for the fact no sufficient proof of its non existence. —

Thursday 18th — A Writer in the Gentleman's Magazine for 1789 endeavours to prove a Mr. Thos. Nollis Esq. to be the author of Junius's letters — The proofs are think insufficient —

Sailed for North Island made little way a strong tide against us

Friday 19th At anchor off the northernmost sister — At daylight and stood up near North Island come to anchor —

Saturday 20th At anchor equally — Very heavy showers

Sunday 21st
~~Saturday 20~~ April 1793

At 6. A.M. weighed and stood to the North. –

Lights

H
9 29' 20' — 51° 16' Cor 1' = 12' Alt
Lat 5° 34 S°
Decl 11 59 N
Eqn — 1' 26'

H
B. 2. 52 — 9. 32. 19
12.41 — 1 26

2. 39 19	9.	30	53	L	2	18 53
		41.	47		2	30 40 W
	9.	42	40		11	47 Star
	2	39	14			
		3.	21			

105 50 Lon
5. 36 Lat at noon

On the 12 April Broth was found 12' 14" fast by Jupiter and nine days at 3" P Day gave 27" and 12' 14" + 27" = 12' 41"

Monday 22
Tuesday 23
Wednesday 24
} Tiding it along the East coast of Sumatra made little way

This day a boy Wood was drowned dropt from the yard arm –

– In Q Stevenson came on board the Hougton to stay with us for some time – An Eclipse of Jupiter second sat this cont – Weather unfavorable

Thursday 25 April 1793

Lights for the Long

H
1. 43 — 57° 3' Cor 1' = 12' Alt
Lat 4° 18 So
Decl 13 · 21
Eqn — 2 11"

B. 5 36 — 12. 22. 8
12 53 9. 6

5 23 7	12	31	14	L	1	52 · 6
		2.	11		1	43
	12	29	03			6 Star
Lat 4° 18	5	2[illegible]	7		9	+ 4
10 6 30	7	3[illegible]	56		9	10

This Even.g at 11H 29' Apt. Imm
There was an immersion of the Sa
tel. of Jupiter. We were prevented to
observe it on board, and had great
hopes of success, the Ship having v
little motion, but unfortunately
night at ten grew cloudy, and con
tinued till after the time of the eclips
immersion

~~Friday~~ The following Double
Altitudes were also taken

H ' ° '
12 18 — 71. 9 } Alt.s corrected
1 43 — 53 3 } Lat 4.18
Decl. 13.20
1 24 —
½ 57. 42, 30 Log S' Lat .00122
Decl .01187
.013.09 Log. Ra
2.04882 = 27 15 Rah 4.03027
.01309 Log Rah .73429
2.03573 = 685 4.77765 = 1, 9 H
94637 1, 42
95322 = 72 25 27
12 35 10
13 20
4 10 Let W flow

Friday 26th April 1793
Sights — Double Altitudes
H H
10 57' — 68°, 00' Cor B 4, 14 = 10 59' 36"
1 20. 30 — 59 49 Cor — 6, 46 = 1, 31, 23
Lat. 4, 3 at noon
4, 2 Calcd
The last night winded Decl. 13, 40
Eq. 2' 24"
Imply
H ' ' ' ' H
1 20, 30 — 59. 49 Cor L 1 30 33
1 20 30
6.46 — 1. 31. 23 W. flow 10. 3
12.56 7 39 Eq. 2 24
6.33 4 1 39 2 7. 39
6. 38 4
7 5 58 Lat 106, 29 ½
Lat 4. 30

Saturday 27. Saw the Island
in the entrance into the straits
of Banka

Japanned — Spear neat
handles with black and blue
rings — our soldiers find them
worthless — Dennis provided
by Captain Portuguese
Mobiller Capt. Mastic accom-
panies us from the straits
of Sunday — hold Plankets
Lancaster flags — red wood — blue
and green according to the order
of Broadarrow — Death of
Mr Tolbitt prince to the Indian
sick for eight days — Sea cows lots
Tide — excellent water — second fine
just from the King
Elephants —

1 Set	108	56	
2 Set	109	9	
		.05	

104-02½ Morice

Morice

11.36
38.28
14.52"

5.11.16
7.38.28
32.48"

55.56
49°
06.56

6 — 9°
9"
9"
9"

9° —

8.3.28
7.32.48
30.32
2.18"

— Turon Bay —

Dimensions of the bay — Water — Silk tents — Post-house — Survey of the bay — Squalls, heavy showers — Fashion — presents — bows — rice sold — Village — market 8 Dollars for a Doller, 100 for a Dollo — trade — Lomacy — Kings birthday — Portuguese Ship — misrepresentation — Chinese swam to the Portuguese ship — Mandarins boat — Eclipse of infidels Pot — two Gentlemen offer Sirloin of Beef — W. Dunar — soundings — Immodest — fine river — Cash — Silver Bar — Saddle — stiff bones — woody — High ground round the bay — lower part flat — river enters about the middle — Stones very bad — large drain, Cesspoison — small mahomedan like a ~~chinese~~ how bay round mean that of a Stable — 3 fowls singing — another of the Hounds fans & flowers — reverence in the Chinese fashion — British band of music stops — the Kings Father and a country dance — but neither were liked by Co. Chinese — would not Sabre — air of Gay — their wife their cuddled instruments — play tailor — about 1½ could at one o'clock between 3 and 400 spectators all male — the Dr 3½ long about 10 feet — B nearly

Japanned — Spear meat
handles with black and blue
rings — our soldiers find them
worthless — Dinner provided
by Captain Portuguese
Mobiles Capt. Thistle accom-
panies us from Fort Stirling
of Sunday — hold Flag
Lunch flags red white — blue
and green according to the order
of Brad Darnie — Rattle
Mr Tothill joins the Mission
— sick for eight days — Shaw lies
sick for eight days — second fire
Tide — excellent water — second fire
just for the King
Elephants —

1 Set. 108 56 54.12

2 Set 109 9

.05

104-02½ Morice

11.36
38.28
14.52"

Morice

5.11.16
7.38.28
32.48

55.56
49"
06.56

6 — 9"
9"
9"

9°

8.3.28
7.32.45
30.32
2.18"

Sunday 28th April

At 11 A. M. Windsor Black fa
a Mann was made fast to the
and brought in through the fior
next the foot on the larboard si
had just round the Capstan — The
Hawser broke and soon after the
Ship moved off her Bed —

Monday 29 Wednesday 1st M
+ went on shore —
Tuesday 30 Nothing remarkable

Thursday 2 May Lord Macartney
Sir Erasmus G. Mr. Crew Mr. Pa
Mr. Dunini Dined on board in —
— Chariots without horses — Ballo
loige — whether dangerous —

Friday 3 80 Seamen down in
the Lion — Flux —

Saturday 4th 100 sick in the
Lion — Buried one in the Windso

~~Sunday 5 May~~ — Monday
— All the islands which are nu
merous are evidently volcanic
productions — great quantity metal
ic, either iron or lead — red ochre

Friday 10th Crossed the Line
very in water spout —

Plimdottar 11th May 179

H 9 15' 40" — 40° 17' Cor.

13 H 2 37 — 9 19 40
13 41 — 3 56

2, 23 19 — 9 15 52 L
+ 9 4 W
9 24 56
2 23 19 Slow —
9 1 37 = 105, 24 E Lon

Lat 1° N
Decl. 17 50
Eq. — 3 56

2 35 16
2 44 20
9 4
1 3 N. Lat

Sunday 12 May

H 9 34' — 54 11 Cor. 1' = 12" Alt.

13 H 3 1' — 9 H 37 12
13 44 — 3 57

2, 4, 16 — 9, 33 15
14 58

Cur. E. N. E. 15 Miles

9 48 13
2 47 16
9 6 57 = 103, 14
Lat 2 30 North

Lat 2. 20 N
Decl 18° 17
Eq. — 3' 57"

L 2 11 2
W 2 26
Slow 14 3

Sunday 12
Plimdott. ~~Monday 13~~ May 179

Sights

P. M.

H 4 26' — 19° 43' Cor 1' = 14" —

13 9 57 — H 4. 32' 15"
13 44 — 3 50

9. 43 16 — 4. 28 17
14 30

4 42 47
9 43 16

104° 53 E 6. 59 31

Decl. 18° 17' S
Lat. 2. 44 N
Eq. — 3' 58"

L 4. 40 30
W 4 26
Slow — 14. 30

Monday 13th May 93

Sights

H 9 6' 20' — 48° 50' Cor. 1' = 13" —

13 2. 36, — H 9 10' 14"
13. 47 — 11 11

2. 22. 13 — 9. 21 25
2 22 13

Lon 104° 18' E = 6 59 12
Lat 4 37 N

(— no current)

Lat. 4. 20
Decl 18°. 20' N
Eq. 3' 59"

L 2 20 30
W 2 53 40
Slow 15 10
3 59
11 11

Mundartan Tuesday 14 May 93

Sights

H 9. 9' 30" — 50°, 45' Co 1' = 14".14

B. 2 40 — H 9 13 9

13 50 — 13 7

2 26 10. — 9 26 9

2. 26 10

105°, 00 E. = 6 59 59

6 42 Lat

Current 14' E 6 N ½ N

Decl 18° 43'

Eq 3' 59"

Lat 6°, 31' N

L 2 11 33' 24"

W 2 50 30

17 6

3 59

13 7

P. M.

H 3. 52' 50" — 20°, 2'

B. H 9 25'

15 50

9, 9 9

H 3 57' 0"

3 59

3 53 9

10 Slow

4 11 9

9 9 9

105°, 30' = 7 2

Mundartan Tuesday 15 May 93

H 8 40' 30" — 46°, 55' 1' = 14"

B 2, 21 — H 8 51 10 Decl 18° 57'

15 56 — 3 50 Eq 3' 58"

2 5 4 — 0 47 12 Lat 7° 36' N

20 0

9 7 20 L 2 51 22

2 5 4 Slow 20 0

Lon 105° 34 E = 7 2 16

Lat 7 44 N

N.B. There an error of 9'

Lat. produces 3' Longitude + error + L and

Longitude — Acceleration to the Northward

Lunar Sights × 14 May 93

H	Dist ☉ à ☽	☉	☽
8 40' 40"	48 51. 15	50, 30	65°, 17'
— 42. 36	— 52 06	50 9	65 42
— 44 10	— 52 30	57 47	66 3
45 45	— 53 00	57. 30	66, 23
— 47 26	— 53 23	57 5	66, 44
1st. out gives	105 31	45 2	105, 23 45
	mean 105 27' 45"		

Pondicherry 16 May

H					
9. 9'	—	53°. 5' Cos	1	= 14"	
				Lat	0° 42'
2. 43	—	9	13. 13	Decl.	19° 11'
16			3 50		
2. 29		9	9 15	Eq.	3' 50"
			24 43		
		9	33 50	2	2. 26. 17
		2	29. —	W Star	24 43
			4 50		

Long 106. 14 E ± 7
Lat 1. 0 36 N

~~Thursday~~

At 5½ A.M. saw Pulo Condore bearing E.b S 15 or 16 leagues — At 2 P.M. anchored in the entrance into the bay in 4½ fathom moved to 9 fathom — In the afternoon Sig. M. with some more Gentlemen on shore surrounded with the natives who seemed cheerfull and seemed Cochin Chinese, one female said to be the Governors lady spoke and wrote Chinese and was understood by Neam. We informed them Nelson wanted

Pondicherry — 17th May 1793

provisions, fowls, &c, for which we would pay them a fair price. They promised to get what they could by morrow

This evening much thunder and lightning more intense and beautifully variegated than I have ever seen — The flames were seen issuing in a variety of beautiful figures — sometimes zig zag sometimes straight line 3, 4 or 5 at a time but almost all in nearly an apparent horizontal direction, ~~not~~ or if you should look now appeared to strike the sea and even for minutes ~~dest~~ distinctly to the high land of the Island. The thunder on account of the distance which at least was 2 miles, was not loud. Indeed I have heard very little loud thunder since I left England. We have had lightning every night for three months past

Saturday 18 May 1793

This morn.d boats sent to sound and a shore for provisions. But the Gentlemen in the Latter were much surprised to find the houses all deserted, the inhabitants fled & every thing belonging to them left behind — Household furniture, poultry &c — with a letter left on the Government house written in Chinese of which the following is a translation (see letter.) So that an answer was left by Mr. Nean (see the answer) with two bottles of Persian Brandy from the Lion sent on shore on the Island right hand of the bay. The boat on account of the heavy sea was in great danger and with much difficulty got on board — Doctor Scott Mr. Mr. Cun. Mr. Hutchi. Mr. Alexander Mr. Bar[illegible] — young Prentice Maunder and myself unshipped this Pinnace —

The Lion Made Signal for all hands on board, and then to weigh —

Mindoran 20 May 1793

Sights

H ⊙ 57′	—	47° 10′ Cor	1′ = 14½	
M. 2. 1	—	9 59 40	Lat 12°. 16′	
16.16		3 50	Ost 20. 3	
1 - 44 44		9. 55 50	H 2 55′. 56″	
		7 4	L	
		10 2 54	W 3. 3	
		1 44 44	Now - 7. 4	
		10 10		

L. 109° 34½ } = 7
Lat. 12° 25 N.

P. M.			
⊙. 59	—	50°, 52′ Cor	1′ = 14½ Lat 12°, 33
4, 7, 30	—	20°, 40′ Cor	1″ . 14¾ — 12°. 45
3. 7 5′	—	W 2, 3′. 25″	1′ Sights P.M. 20°, 5′
3. 9. 15	—	4. 13 12	2″ Set P. 20°. 6′
			Eq.n Coll. 3′. 50″
1st Long	—	109° 30′	
2 — Long	—	109. 31	
Lat at noon	—		

Pindatar Sunday 21st May 179

Night

☿ 8. 51' 15"	— 46°. 29'	1' = 14 ½	
☽ 1. 40. 39" Cor	— ☿ 8. 50. 16' Cor	—	Lat 13° 46'
	0 12		Decl 26°. 15'
	8 50 28		Eqn 3' 46"
	1 40 39		☿ L = 3. 0' 33"
	7 17. 49		W 3 8 45
Lon 109°. 27'	=		Hour 8. 12
Lat 13 49			

Wednesday 22 May 1793.

Thursday — 23 — Passed many Islands and high Lands on the westward Coast of Cambadia —

24. Off the Bay of Siam, but by contrary and sometimes no winds could Fishing boats in great numbers — — both by force an old man out of a fishing boat to pilot us — He was terribly afraid when he came on board — miserable appearance — no teeth — colour nearly that of the Malays — spoke loud and distinct — frequently pronounced Mung mate, which we afterwards understood signified Do not understand you — much surprised at the Ship, height of the masts &c of men —

Saturday 25th Anchored near the entrance into the bay, in the neighbourhood of the Lion — Our old pilot who I suppose expected when he came on board to be put to death, is now in high spirits. The Captain gave him a few dollars and treated him otherwise with such respect that he laid aside all fear: speaks loud and extremely distinct — We took down several of his words which are very different from either the Chinese or Malays.

Bay of Turon

Sunday 26 May 1793

Windsor 16th June 1793

Lat. per Turn

Sights 58°. 0 d

H 9. 12. 30. — ~~49.60~~ — 1' = 13 ½ Alt

B. 2 21 — H 9 15' 15"
10 24 — 15
2. 2 36 — 9. 15. 30
+ 53

Lat 16. 39
Decl. 23. 23
Eqn + 15"

9 14 37
2 2 36
12 1

L 2 40 23
2 47 30
+ 53

100 - 0
+ 10 Long = 7
110 10
Lat 16 51 noon

16th Jun

Sights ☉ and ☽

Dist centre

H 1. 53. 53" — ☉ 5. 30 37 — ☉ 62°. 25' — ☽ 32°. 10'

True Dist ☉ 4. 46. 15

Lat 16. 45'

Long: 109°. 0 East

Dist centre

H 3 31 23" — ☉ 6 1 30 — ☉ 40°. 7 — ☽ 53°. 51' Centre

True Distance ☉

Lat 16. 53

Longitude — 109°. 9'

In this ☉ ☽ the sun and ☽ are in the same Vertical circle as the sum of the Altitudes and Dist. is 180° exactly

Mindoran 17th June

Sights

9. 29 — 55° 50' — 1' = 14' Alt —

13. 2h 39' — 9h 32' 22' Lat 17° 54' —

10. 29 — 6 55 Dec. 23 25' N

2. 20 31 — 9 39 17 Eqn. + 25' —

2 20 31

109 41 = 7 18 46 L 2h 24 30

+ 7 — 2 31 00

Now + 6. 30

Lo 109. 48 at noon

Lat. 17. 59 at noon

17th Jn

Sights ☉ and Moon — Dist. Centres

☉ 37° 29' — ☽ 45° 13' — 97° 17' 52'

True Dist. 96. 41. 0 Dmth. Lat 18° 11 N —

Gren. Time 3h 36 32' à

Ships time — 3 45 4 h

7 21 36 = 110° 24 E Long —

Longitude at noon 111° 10'

☽ and ☆ Antares

The sun and moon were again in the same vertical circle — twice running!! —

Mindoran — 10th June 179

Sights

H 9. 14' 15" — 54° 36 Co 1' = 14" Alt —

H 9. 21' 20" Lat. 19° 12.

13. 2. 29 — 2 Dec. 23 26

10 34 — + 15 22 Eqn. + 37"

2. 10. 26 — 9 36 26 + 0 Altnoon

9 10 56

= 7 25

111° 29 L 2h 31. 20

+ 0 Long at noon — W 2 45 45

111 37 Lon at noon — 14 25

19 22 Lat at noon — + 37

+ 15 2

---

10 June

1st Sights ☉ & ☽ —

☉ Centre — ☽ Centre — ☽ Cent.

3h 26' 11 — 38. 37 — 32. 37 — 108. 41. 48

107 57 36

True dist by Dunthorne — ~~108. 41. 50~~

Long — 112. 20 E. Gw

2d Set — ☉ Cent. — ☽ Cent — Dist Centres

3h 33' 43 — 36. 54 — 34° 18 — 108 45 2

108 1 29

True dist by Lolchell — 112 20 —

Longitude E. Gw

Rivadeneira — 19 June 175

Begins

H
☉ 22.10 — 43° 53′ 1′ = 14′ Alt

B. 1 H 39′ — H ☉. 30°, 51′ Lat 21°, 10′
10 39 + 19. 4 Dec. 23.27
1, 20 21 ☉, 49, 55 Eq. + 50″
1, 20, 21
112° 23′ = 7, 29 34 + Alm
L 3 H 15 31
W 3′ 33.45
Now 7 10 14

Lat 21. 10 noon

At 5 P.M. saw land which we judged to be the Great Ladrone — Hay to all night — A

20 June at 8 A.M came to Anchor of the Ladron Islands on every side — Macao distant about 8 Leagues — Heavy squall Loud thunder and much Lightning from 11 to 1 o clock — Pilot Mon.r Sr. J. M. Mond Capt. M. and the two Chinese Missionaries set out in the Athelles Capt. Simlie for Macao — very squally Thunder

21.— much rain heavy squalls with thunder and lightning —

22 Sat. The Gentlem returned from Macao leaving Neam and Chang and bringing in their stead other two Missionaries P. Monnie, and Lamiot the former an Irishman the latter Frenchman both of St Lazarus. The former is mentioned by La Lande as having set out for China in 1788 to continue the Astronomical observations — He has been at Macao ever since (5 years) having never during that time been able to procure a passage or made opportunity to return. He goes out to the French Superior there — Two of the Chinese made their escape the night of the 20th —

Sunday 23d June 17

Set sail at 5 A.M.

Lights

H 9 2' 35 — 55° 35' Cod 1' 14½ Alt

B^k 2h 23' — 9h 0. 10

Lat 22° 4'

Ch. 2h 23' — 9h 0 10 Decl. 23. 27

21.40 29 29 Eqn. 1 42"

2 1 20. 9 37 39 L 2h 29' 30"

2. 1 20 W. 2 57. 25

114 5 Long — 7 36 19 Slow 27 47

22 4 N Lat + 1 42

29 29

By comparing B^k with Mr. Brown's time keep^r he is found to be on the 22d June 21' 40" East of Greenwich on the 12 April found by an immersion of the first Sat. Just Broadside bank bore 12' 14 feet of Green = 8" Lam

Pl day

23 June

at 2h 32' 15" P.M. — 47° 43"

B. 7 53 — 2h 37. 25

21. 42 2h 37' 25" Lat 22° 11'

7. 31 10 33 1 Decl. 27. 27

3. 10 26 Eqn. 1. 4

7 31 10 L 3 4 12

7 39 8 W 2 32 15

114° 47' } = 7. Slow 31 57

at time obs. 33 1

24 June

Lights

H 9 9' 35" — 60° 35' 1' — 14' Alt

B. 2h 29' — 9h 11' 45" Lat 22 56

21 60 44 5 Decl. 23. 26

2 7 10 9. 55 50 Eqn. 1 55

7 10 + 11 Alt

117. 10 = 7 48 40 L. 2. 8 15

+ 11 W 2 5 25

Lon 117. 21 at noon Slow 42 10

Lat 23 0 at noon 1 55

Alt. 44. 5

Current Easterly } 24 miles

P. M.^m 24th June —

H
3 2' 30" — 30° —

13h 0. 26 — 3H 0' 4" —
21 52 — 47, 32
0, 4 0 — 3, 55 36
0, 4, 0
117° 52' = 7, 51, 20
— 19
117, 23 Current 2' Miles —

Lat 23° 10
Decl. 23, 26
Eqn. 1, 50
L 3H, 40, 4
— 3 2, 30
— 45 34
— 1, 50
47, 32

Sunday 25 June 1793

Last night the Sun set with clouds threatening, and the moon rose in a hazzy atmosphere with at one time a long dark kind cloud across — we apprehended a Typhon — This morn.^g the Sky was cast, very dark at eight, soon after it began and continued to rain heavily till 2 P. M. Much thunder and lightning — one Clap had the interval not more than 2 seconds. I was afraid of some accident to the other Ships — no observation

26 June Yesterday for the Chrono^m Longitude, but could neither get Meridian nor Double altitudes, as the Lat was therefore uncertain, did not work the mor.^g sights — Great swell — Ships rolled and pitched much

Thursday 27 June

Sights

8h 6' — 51° 27' Cor. 1' = 13' Alt

B. 1h 31' — 8h 8' 47' Lat 26. 30

22 16 — 1 ~~X~~6' 26 Dec 23 2

1 8. 44 — 9 15 13 Eqn 2' 37

1 8 44 — L 3

121. 37 = 8 6 29 — L 2h 50. 6

+ 3 — 3 52 30

Long 121 40 E — 1 59 36

Lat 26. 30 N. — 2. 32

1 6 26

28 June

9h. 2' 36' — 64° 31' Cor

B. 2 32 — 9h 7' 30" Lat 27° 10'

22. 24 — 11 10 32 Dec 23 17

2. 9 36 — 10 16 02 Eqn 2' 44

121. 36 — 2 9 36 — L 1 51 36

— 6 = 8, 6 26 — 2 57 24

121. 30 — Mer 1, 5 40

no observ. latitude — 2 44

1 8 32

Wanderer 30 June 17

Arcs Alto

H
10. 46' 45' — 74° 40'

B. 3. 22 — H 54 27

22 40 — 12 40

2. 59 20 — 11 7 15

2 59 20

122° 00 = 8 7 55

— 8

Long 121. 55 ~~Cal~~ } at noon

Lat 20. 50 ~~N~~ }

Lat 20° 49
Dec 23 1
Eq + 3 10
— 5 Altme
L 1 3 37
1 13 15
Mer 9 50
3 46
12 40

at 10 saw Land which we found to be the Mayson Islands — at 2 P.M. saw the Islands off Johnson Harbour — Mr Mitchell went in the Jolly boat to a Chinese junk to engage if possible a Pilot — did not return till 9 o clock — we were alarmed — Pyrates frequently on the coast — A man from

1st July

this morn.g a man from the Junk came on board — quietly surprised at the size &c of the ship — could not understand the Chinese on ~~the~~ board, understood the working of the ship to pilot us up to Johnson's Harbour — the speaker boxed — with action — Fish brought, some like Flounders — M — Lion appeared

Both ships came to Anchor at 7 A.M. off the Harbour of Chusan — Dutch cock N.W. Dist — Capt. M went on board — resolved that Mr G. A. &c should go in one of the boats to Chusan for Pilots, and to Anchor somewhere within the Islands — Man jumped over board but was prevented drowning

Windestown — 2 July

Sight — at anchor —

	H						
	8. 27' 21	—	44° 32'				
B	1 1	—	8 30' 59"				
	22 56		13 52			Lat 29.	
	0. 38 4		8 44 51			Dec. 23.	
			0. 38 4			9' 3.	
Long	121°. 52'	=	8 6 47	L	3. 22		
Lat.	29 24			W	3 32		
				Stow	10		
					3		
					+ 13.		

Signal for weighing but the wind facing remained at Anchor — At 12 o'clock I counted 200 fishing boats all in sight, each 10 or 12 men, many came on board — expressed great surprise at the bulk of the ship height of the masts &c — Strong — well shaped — curiosity — extremely good natured — Slight tinge of black — Pronounce the Ch — like the English not like the French

The country must be extremely populous — Mirror — Window glass Telescope surprised much — Watch Chek, Chek — shew a great degree of curiosity — good omen — A Pilot — has been seven times at Pekin — — Our mode of eating — Run to the boats when the Boatswain piped all hands to heave up anchor — — Fish excellent — very cheap — Eggs —

3 July — Sir G. and Capt. Maitland set sail in the Clarence Brig for Chusan to get pilots &c — Many fishing boats about the ship — The Islands in sight appear to be fertile and well cultivated —

4. Gave money to a Sailor on leave to go ashore and purchase bessoms — he left his companion as hostage

5 July — Fish — Eggs bought very cheap — Boat anchor with 4 ~~Bullocks~~ Bullocks ~~&c~~ cost 52 Dollars — ~~150~~ 200 Eggs for 1½ Dollar — Boat from the Lion 2 men died last night — Orders were given on board that no boat should go ashore — water of the sea red and as if mixed with clay — There must be a large river near this place — This evening a thunder storm began at 6½ P.M. Large dense clouds — Vivid flashes of Lightning for a while in the N.E. quarter — flashes horizontal double-tailed — afterwards common in the South W. quarter — quick succession — ~~Lore~~ Ordinary equal — storm — nearest ¾ Mile — perfect calm surrounded — Anchor-ground good —

Minorca 6 July 1793

A mandarin of rank came on board, asked a number of questions, took down the name of the ship, and Mr Sir George Staunton Capt. Macartney, who was on shore — The mandarin gave presents &c — Drops a pale yellow, a blue glass globe on the top of his cone, a white hat or bonnet — Dipped little metal bowl black & rub very smooth — Second man to him — Dress black, he asked most of the questions and conversed with an old pilot — The mandarin was very polite, appeared very grave and stiff in his manner, wrote very fast — his face exhibited the Mercy the 8th — A good hearty fellow — Dress — fish coat

of a large

in his boat and brought aboard in Baskets, — Started every dish and found them extremely good and well flavoured — Samsu — Tastes exactly like a Monkey — perfectly clear — Two Chop sticks — great Dexterity in lifting food &c — A China Spoon for sauce holds about the same quantity as a large table spoon —

— One of his attendants Dressed his back than standing on Deck — The little conical hat is nearly of the parabolic shape — Black Silk boots — Soals thick and even no heel — broad at the toes — Clothes all of the same shape, I have seen no buttons of any sort on their dress — Mandarins dined in the Balconey — — took the number of guns, length & breadth of the Ship —

Another Mandarin came on board inferior order — Sometimes a military officer — Heavy rain in the Evening —

Sunday 7 July — 1793 —

Intelligence that the Gentlemen are on their way from Canton — and may be expected sometime this day — Many fishing boats — Mandarins just come on board — manner of lighting the pipe a flint or chip of hard wood or bone a little of tinder fungus, this is instantly lighted by a spark or two in the flint with the steel — The attendant who lights the pipe takes a whiff or two himself then gives it to the Mandarin — it will be his new cabin, wrote some words — Tien —

The Mandanas yesterday drank several cups of Sassafras — The cup resembles a tea cup but deeper in proportion — It holds about a glass full — The sassafras tasted as if new and much like white — Gentlemen returned from Chiwan in the Evening had much trouble in settling the business about the — Sat three hours on the same Seat in the house of the first Mandanas asked a thousand questions — — He spoke for an European who had learned the language at Canton — Interpreter Dest shown by a Man — Course of Letters — wanted to conduct us from province to province —

— Sir G. Pine would neither sit down nor eat nor drink till the pilots were got — an hole of Intrust — The Stream is near Mandanas, tell Unknown that Sir G. was too busy —

Monday 8th July 1793

Left anchor at 1 P.M. wind not fair, in the evening it began to blow a Great swell all night — no observation this — Ships rocked very much during the night —

Tuesday — 9th July 1793.

Morn. — Great swell and heave of the sea from the land — an officer were surprised at it — Ships rolled and pitched very much — Barometer to 29.51. —

Lat. 06 29° 41' no obs. for Longitude

10th July 1793

H
9. 27' 20" — 57°. 56'

B. 2
24 52
1. 30

9. 29 18
18 17
9. 49 35
1 30
8 9 35

Lat. 30°. 04
Decl. — 22. 14
Eqn 4' 52"
L 2 19 15
W 2 32. 40
13 25
4 52
18. 17

Log 122°. 24 } noon
Lat 30. 04 }

11 July 1793

H
8 43. 50" — 48°. 44'

B. 1 37 —
24. 8
1 12 52

9. 2 35
19 37
9 22. 12
1 12 52
8 9 20

122° 22 Log } noon
30° 04 Lat }

Lat 30°. 46
Decl. 22 07
Eqn 5'
+ 2' Allow
L 3. 1 33
W 3 16 10
14 37
5
19. 37

Friday 12 July 1793

10 35 20. — 71. 46 Lon
17
24 46
2. 52 44

H
10. 40' 29"
21 50
11. 02 19
2. 52. 44
8 9 35

Lat 32. 10 N
Decl. 21 58
Eq 5 17
— 1 Allow
L 1 8. 7
W 20 16 33
5 17
21. 50

122° 24'
— 1
122. 23 Lon } noon
32. 15 Lat }

Yesterday a little before dark a black fog came on the lion fired from a gun but the signal was unintelligible. The Hindostan fired at intervals of half an hour 6 guns from the 12 pounder with 6 lb Powder, well rammed — no answer from the lion — fog all night

this day — cleared a little about noon

N.B. Fog lie on the Mark all night —

Macao 13 July

Thick fog — at night smell sam — Sails and clothes are soon wetted — lyes very low — It is proposed to lay to all night — The fog sometimes smells bad — Very thin near the Zenith — about 30 fathom for the last days past

14 July 1793

H 8. 48' 20" — 49° 22' — Lat. 35° 20'

B. 1. 32
24. 32
1 7 28

H 8 51 27"
21 5
9 12 32
1 7 28
8 5 4

Decl. 21. 40
Eq. H 5 23
L 2 55 58
W. Ho 15 42
5 23
— 21, 5

121° 16'
— 4
Long 121 12
Lat 35 31 } at noon

At 5 this morn met the Endeavour Capt. Proctor returning from Teen Sing to Macao — Fast quarter anchored by the Mandarins where are the French —

15 July 1793

Last night Fog — Lost sight of the Endeavour in the middle watch —

Night

H 2 30" — 51° 43' — Lat 36. 24
9. 2 47 — 9. 4. 47 — Decl 21. 31
24. 40 — 20 — Eq. 5' 29"
1. 22 20 — 9. 24 47 — 7 Lat now
1 22 20
8 2 27

L 2. 42. 59
W 2 57 30
Now 114 31
5 29
20 80

120 37
— 4
120 30 Long } noon
36. 36 Lat

N. Now +1° in Alt occasions +1° 16' in Longitude — But +1° in Lat gives +16' in Longitude — Prime generally

+1° Alt = 5' 4" Move L minus
+1 Lat = −1 5 Move L

Saw land on the Lat side at an island off the coast of China

16 July

H
9 - 27' — 56° 50' Co° 1' = 11' Alt —
2 33

13. 2. 17 — H 9. 33' 21" Lat. 36° 43'
24 48 — 22. 47 Decl. 21 22
1. 52 12 — 9 56 8 Eq^n. 5 35
1 52 12
— 0 3 56 L 2^H 15' 40
W 2 33
Now 17 12
5 35
22 47

Long 120° 59' } noon
Lat 36 43 }

Chinese coast opposite barren — mountain
Lunar Results

H ' " ⊙ " D ' Dist Centre —
3 5 11 — 43 30" — 35 15' — 89. 48 9
True Dist by Diametr 89° 11. 40" } Lat 36. 44
Time at Ship — 3^H 23 35 } Decl. 21. 20

H ' ⊙ 26 D Dist centre
3 45. 14" — 35. ~~47~~ | 40. 22 — | 90° 1' 44"
T. Dist. by Diam — | 89 31. 14

Long by the 1st — 122° 18 } — 8 noon
by the 2 — 122° 10 }

1st Example Dist nearest limb

⊙ D° ' 89. 17
43. 30 — 35. 15 — 31 9
35 15 89. 48 9
0. 15 8 15
8" 0. 45 18 — 9 8 3 9 Sum
7 29 42 T. Alt. 9 8 1 3 9 Diff
½ x 3. 44 51 — 49 1. 34
9.0779518 — 40 46 34
9.0149030
9.9961070
T. 9th — 9.6890410
19.6890410 = T. 44° 21' 9" ½ x T. Alt
9.8445209 3 44 51
9.8246676 = 40. 6 00
9.8003645 = 40. 36 18
19.7050321
9.8525160 = Co. S. 44° 35' 50"
89. 11. 40

Rt 7030 — 35 36 80 36 4 — 18 M.
3203 — 1° 26. 7 — 90 2 11 — 21 H^r
3835 = 1 14 26
10
19 14 26 } G.^h Time
4 45 34
3 23 35
8. 9 9 = 122 17 Long
7
122 10 noon

Saw the Sun a few hours down

17 July —

Night

H 3, 10 — 40°, 19' — 1' = 11½ Alt —

B.O. 9 — H 3 23 00 — Lat 36° 56

24 56 — 26 42 — Decl. 21. 9

7. 44 4 — 3 49 42 — Eq 5' 42

7 44 4

121 24' = 0 5 38 — L 3 39 00

+ 3 — W 3. 10' —

Long 121. 27 } noon — Slow 21

Lat 36. 51 } — 5 42

26, 42

Spoke the lion at 10 A.M. — The Sailors on board the lion have given out to go to what Islands capt J. which they have seen this morning —

~~Day in the Day~~ — Clear and beautiful moon light night —

18 July 1793

Observation — P. G. M. Dove

on board the Innocent — Thick fog

Observation —

H 37' — 58°, 44' — Lat 19 37. 31 N.

9 — 9. 40. 42 — Decl. 20 49

B 2:30 — 25 34 — Eq 5' 57"

25 12 — 10 6 16 — L 2 2 17

2. 4 48 — 2 4 40 — W Slow 20 43

5 51

120. 37½ — 0 2 28 — 25 34

Slow 37. 35 } noon

Lat 37. 35 }

Coasted along the Chinese shore — sandy — other people well cultivated at 3 P.M. many Mandarins in the fields — collected 10 or 12 in different inland grounds at — looking at our ship, which caused us in — to a bay which they mistook for Macao — here came to anchor at 5 P.M. —

20 July

+ 2° 50′ 30″	— 45° 41′	Lat	37° 50
	+ 1 1	Decl.	20. 37
13 7 56	3. 0. 25	Eqn	5′ 54
25. 20	25 21		
7. 30 40	3. 25 46		+ 16′ noon
	7. 30 40.	L	+ 3° 9′ 57′
118. 47	= 7 55 6	Mer	19. 27
+ 16			5. 24
			25. 21

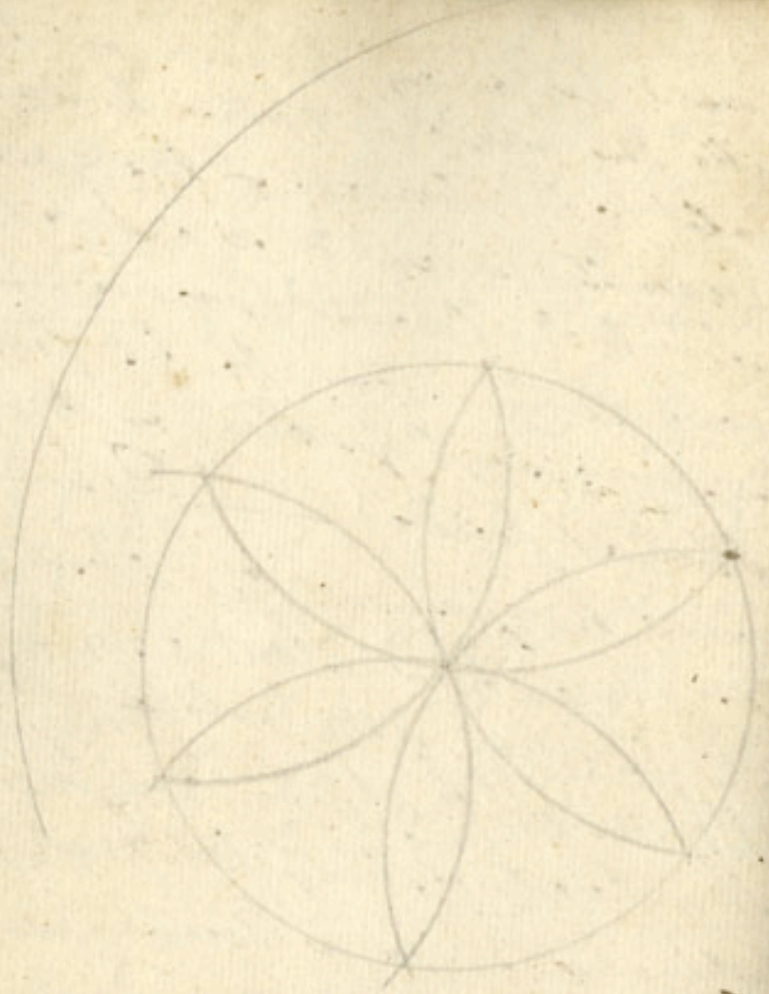
Long 9 3 } noon
Lat. 37. 37 }

21-10 A.M. Set sail — Crossed Boston bay as we called it 5 or 6 miles wide almost circular circumference Islands have formed round — Sunset outlets — Mandarin came on board — Received order to give every assistance and if the large ships could not enter the harbour on account of the shallowness of the water, boats and every convenience would be prepared for our conveyance to Pekin

observed for in any place on the shore either the cutter or rather barge could possibly be hoisted — the ground consequently indeed is so level — this circumstance to the Chinese forcibly — Heavy rain seems to be frequent here — very deep Gullies in the middle of several fields — Some heavy current people on the shore —

At anchor about 2 miles from shore. Left view of the walls and towns of Tinchor. The wall appears 3 or four miles long and upwards of thirty feet high — Ancient fortification — Square towers some with the angle, some with the side to the field — Battlements — Embrasures about the edge of the meadows — This town!

Mr Comfiblett sailed in the jacket to capture the harbour of Teen-sing —



Sunday 21st

Off Tien-chen — Nan Doctan 21st July 1792

At Anchor in Tien-chu-fu-bay, with a few Boats — no observation — Tide seem to have something peculiar in its motion. It appears to flow fast from East to West into the Gulph of Loatong, while ebbing — Course —

22 July

Sent a boat on shore for a Pilot. The head mandarin ordered the boat instantly to put off, not permitting the people to purchase fruit — at 1 P.M. weighed and stood to the N.W. into the Gulph — Weather all this day fine, most delightfull moon light evening — Coast curiously figured rocks on the shore, circular and slip-like notches worked out —

Tuesd. — 23 July 1793

Light 8H 53' 40" — 46°, 30' — 1' = 11'

Fr. 1H 37' — 8, 56" 16'

45. 44

1, 11 16

0 46

9, 5 2

9, 11 16

= 7 53 46

Lat 38, 24

Decl 20 4

Eqn + 6' 2

— 17' noon

L 3H 3' 36'

W 2, 44

6, 2

— 8, 46

110°, 26

— 17

Long 118° 9 } noon

Lat. 38 32

Wed.y 24 July

H

9 14' 30" — 49°, 22' 1' = 11' Altitude

2 45 30

Fr 1, 58 —

25 52

1 32 0

9H 16 43

4 22

9 21 3

1 32 0

7 48 57

Lat 38, 56

Decl 19 51

Eqn 6' 2"

L 2H 47 10

W 2 45 30

fast 1 40

6 2

4 28

117°, 14 E } = noon

38 56 S

Line of a greenish yellow colour — 4 Hand on the Starboard bow at 9 at N

Fr. coming — Moon rose in Lake blue

for lower limb flattened by refraction —

25 July 1793

10H 32' 30" — 60°, 44' Long 1' = 10'

3 10

26

2 45

— 10H, 29' 12

1 56

10 31 0

2 45

116° 32' = 7 46 0

Lat. 39° —

Decl. 19, 37

Eqn = 6' 3

L 1, 41. 37

W fast 4 7

6. 3

4 56

The same calculated on the spheroidal principles 116°, 16 Longitude

— L of deviation 18' and 39°, — 18' = 38° 42'

The calculation from this time

Latitude is the same as above

— for meridian altitude cloudy —

Lat by dead reckoning 38°, 59' —

Ver. this morn. Gt. altitude and

Azimuth 2° ½ west — It was on

the 23 July nothing and has been

along the whole Eastern coast of

China — and round of the Pirates

26 July 1793

Cloudy — rain — Thunder — during the Space of 6 or 7 hours continued Thunder — at Night continued Lightning — no Thunder distance too great — No observation

27 July 1793

☉ 39′ 20″	— 41° 43′ Lon	1° = 11″	
B. 1 24	— 8 41 49	Lat 38° 51′	
26.16	1 23	Dist 19′ 6″	
0 57 44	8 43 12		
	0 57 44	Eqn 6′ 3″	
Lon 116 22	= 7 45 20	L 3 25′ 20″	
Lat 38 51		W 3 20 40	
		Fort 4 48	
Var ☉ Amp. E 1½° W		6 3	
		1 23	

scan any Light appears in the Water very phenomenon tends to over-throw the Electrical hypothesis —

28 July 1793

Longitude Pt. Chron 116 17 E
Lat Pt Mard. altitude — 38 57

By a comparison of the Lunar Lights with our present supposed distance from Pekin it appears that the Chrono meter is 1° 25 or 30 miles west of the real longitude — Boatbeats her Time gained lately more than what we have allowed — It then is no objection only of making observations or bound of consequently of taking sights of Eclipses of Jupiter Satellites, or occultations of fixed Stars. It is proposed to take a series of Altitudes every day for time to ascertain the rate —

☉ à ☽ 29th July —

42°, 43′ — 30°. 10′ — 102°, 14′. 14″

True Dist by Chron — 101, 29 35″

True time at Ship 0 41, 19

at G^h — 0. 40 50

~~0 00 29 118°~~

118, 7 | = 7 52, 29

By Amplit. 118 0

Lat. at noon 30, 52

Long by Ob^n 118, 0

Time

H 0, 61′ — 44°. 14′ lat

13^H 54′ — H 9′ 8 28

26 32 — 4 4 Lat 30°, 52′

1, 27 20 — 9 12, 32 Decl. 18 44

1 27 28 Eq^n 6. 0

Ampl. 116. 16 = 7 45 4 L 3 10 57

3 9 00

1 57

6. 4

4 4

night

H 5 55 A.M — 12°. 40′

Lat 30°. 52

Decl 18 30

Eq^n 6

L 5 54. 10

Long 116 13′ 30″ Chronometer

Lilahel

42° 43′ — 30°, 10′

30, 10

72 53 ¾ 36° 26′

12 33 ½ 6′ 17

102° 14′ 14″

44 43

101, 29 31

36° 26′ L. 10.13185

6. 17 — 9.04181

102. 14 ½ 51. 7 — 9.90656

6 52 — 9.00022

13

— Dunn —

30th July — 1793

☉ and ☽

D. ☽

46°.39′ — 30°.00′ — 09 24 37

1 52 Feb. 3

09 26 29

09° 26 — Sin Log. 9.99990

46 39 Co-Sn — 10.13036

57′ 45″ 91. ☽ .4937

42′.00″ — .63204

09 26½ Tang. 12.01126

30 00 Co-Sn. 10.21066

4937

2 Ac 21″ = 2.71562

1′ 42.00

41 39 09 26.29

41 39

08. 47 50

09 21 14 — 36.24 — 6942

09 48 361°.32 30 — 2005

07 48 — 4057

Ned Qr. 1 10 43

Ship 9 2 30

117° 59′ Long E = 9 51 55

116 13½ by Chronom.

This last night concluded my observations in the Windsor — when I have spoke of the taking and calculating every night by both Chronometer and Lunar observations during the voyage of ten months — upon the whole I am of opinion that the Chronometer be extremely useful at sea and no Capt. should be without two at least, yet in long voyages the principal dependence must ever be on the Lunar Obs. Experience also convinces me that when the Lunar sight are taken at proper times, when the dist. is carefully observed, and the calculations properly made, the error arising from a mean of at least three sets of sights, will seldom exceed ten miles, frequently not half that quantity — I would never take a sight when either altitude is less that 10 degrees nor if above 30° so much the better —

when the Altitudes are nearly equal is less risk of error either in the first operation or calculation — If the various methods of calculation of Mr Dunthorne — provide there be a table of Log. Sines to seconds just of not either Lyons or Dunn's which is nearly the same or Gardiner's ~~more~~ better calculated for general practice — Dunn's I think with Lyons Tab.s for the 3 are the shortest of any — If Tab.s 8. and 9 of the Regul. Tables were improved it would render Dunthorne's still shorter —

Astronomical

If the Lat be certain take the sun's altitude as far from noon as possible provided it be not less than 10 degrees but if the Lat must be determined from the Log. then between 8 and nine will be a proper time for the Altitude and the change of a Meridian Altitude will give the Lat at noon from which in the Log based the Lat at the time of observ. will be had sufficiently exact for general the more rapidly the sun rises or falls the better — It will be convenient to take at least three altitudes and at 1 minutes interval if the two ~~intervals~~ differing altitudes are alike it may be presumed that the altitudes were correctly taken. This difficulty also shows what error in Longitude will arise from 1 or more measures error in Alt. For Example 1' = 10" Alt. then 1' mult in alt. equal 6" in time or 1½ error Long.

If more than one Chron: be aboard it will be proper to keep a regular state of them compared going, marking their daily Rate of difference — In this manner the Chronometers were managed aboard the Wanderer — Brook bank having been made their friend and — But in long Voyages the best Chron.s will vary — ~~the only~~ to remedy ~~for this~~ ~~is to~~ compare the Chron.s from time to time with some observation — Take every opportunity of observing on those eclipses of Jupiter first and 2d Satt: the 3rd & 4th are not sufficiently correct — A Telescope magnifying 60 or 80 times is fully sufficient. With this the Imm: or Emg: of the 1st Satt: may be ascertained to a few seconds, and the New tables of the Satt: are almost perfect. Thus the Longitude may be ascertained much more accurately than by any other method whatever —

To observe an Eclipse of a Satt: from the long roughly find the Diff: Time between London and the Ship, and if the Longitude be East add, but if West Satt: it from the Time of the Eclipse in the Ephemeris will give the time nearly when the Eclipse may be expected and will shew whether it will be visible or not at the Ship — Settle at the telescope ye hour before at least let another person hold a good seconds watch well regulated for the Ships time and of which the rate of going is known nearly — Let the moment of Disappearance be noted by the assistant and as soon as you come on board compare the watch with the Chron.r Next day take a series of altitudes of the Sun for the true time at the Ship. This compared with the time in the Ephemeris or rather with the time calculated from the new tables given. The Diff: Longitude

The Immersions are preferable to the Em
in the first Sat. former ~~happen~~ only can
be observed and from the Conjunction to
the Opposition of Saturn, and the latter
V.V. Imm. on the West Limb of Jupiter
and the Emersion on the East side and
nearly in the plane of the Ecliptic —
— To ascertain the daily rate of a Mod.
pendulum of a Situation from which the
occultation of a fixed Star behind any
fixed object can be observed — Observe the
immersion occultation of the same Star
for as many nights as possible and
allow 3' 56" of acceleration for each night
or if the interval be 10 days or a fortnight
more accurately 3' 55.9" — Two
Stars may frequently be found to answer
the purpose, as at the Island Pulo-Salas
Bantam point, which I ascertained the
rate of our Chron to a second and

by a very favorable Eclipse of Jupiter
first Sat. The Longitude of the Island to
be 105° 38' E — If two Stars cannot be
had properly situated, fix a perpen-
dicular bar, or small post, with a
fine cross nearly perpendicular to
the apparent diurnal motion of the
Stars and Drive a Short piece or Stake
into the ground nearly in our Perpendi-
cular of the Star to be observed and two
or three nails driven into the Stake
above each other with give as many
repetitions of the same Star within a few
minutes of each other. The Star ought not
to be nearer to the horizon than
10° — This at Cooperi Island in
the bay of Tanjon —

A register of all the Lunar Eclipses observed and calculated should be kept. A collection in a few years might be made from actual observation so just as at last to enable ~~the~~ one to ascertain the Lunar distance by inspection — The table might be complicated by calculation —

5 August 1793

All the baggage, servants &c having been put aboard Junks, this day at 10 A.M. left the Mandarins and set sail in a Junk for the river Ta-ee which we entered at 5 P.M. — At leaving the Lion Lord Macartney was saluted with 15 Guns from both ships — ships manned — Prince conducted when out of sight of land — he had three chairs from the Mandarins — All the Junks are built alike, round mast at head and stern two mast — sails either of matting or canvas, all of a rectangular form hoisted by rope going over tackle at the top mast — Blocks straight and flat, no strapping, rope passed thro' a hole below the sheave. Pin much inferior to strapping — not so strong — Cables consist of 4 strands, each of them of smaller strands much twisted, while no substance similar to tar or pitch appears

— Anchors of the fluke of iron, consists of 4 flukes round about 12½ feet long making an angle of 60° with the shank which is octagonal — no stock — ring with swivel another ring at the fluke end — cat and fully like ours — Rudder very broad upright part round 7 or 8 feet above the deck. Tiller fixed to rear to upper end, strengthened by two side pieces bound together by a strong iron strap behind, 1 foot length. High — ropes to the rudder make nearly a right angle at the tiller — Our Cabin round 3 feet above the level of the deck consisted of a slender frame made of split bamboos and woven with trellis — about 9 feet long and 6 broad and 4 high form of a tent —

Excellent galley with stoves fitted up very conveniently for cooking — We cooked a leg of mutton with rice &c — Dined at 12 sat cross legged on the floor, neither chairs table-cloth knife fork or spoon, and we had not yet sufficiently recovered the chop

sticks to be able to make use of them — We had brought some wine, and spirits from the Mandarin — fruit —

On entering the mouth of the river the Chinese coast appears of a great beautiful green — On the ~~left~~ right a prodigious extensive field of the rice plant that cover is useful in China. It serves for fuel, nettling, and a variety of other uses grows to about 7 or 8 feet in height is of a fine dark green — cultivation — Botanic name — The head and stern rise by gradual curves not by steps — Curves of both nearly the same — two checks at the stern within which is the rudder — Frame nearly of the same breadth throughout flat bottomed — are in general about long and broad

About a mile up the river we passed several houses on the right — Girl — After this to the village Pacha — Here the boys anchored — off the Mandarins

house – Shore lined with Military
10 Stands of Colours – Junks beat up
both against wind and tide – Towed some
times – rope fastened to the mast head
fastened at the other end to both ends of a
stick laid over the right shoulder, the rope
at the front end coming below the left
arm – Shore behind the foremost pull
by off-sets – Tide seems very rapid seems
to flow regular – prodigious crowds
of people all along the banks of the
river, women as well as men – houses
of mud, roofs either flat or tiles formed
into sloping ridges – River at high water
in some places as broad as the Thames
– anchored off the Mud mandarins who
had enlarged his house by the addition
of two very large fireplaces for the Amb.
and his suite – Lord M and Sir George
and Son with Mr. Plumb as interpreter
accepted the invitation, but the Gent. re-
mained for the night aboard the Junks
– we spent the night rather uncomfortably
As there was not room for five cots in
our Stateroom, we resolved to content
our selves with the boards covered by a single
matt – I found my situation so disagreeable
as to change it for the open boat deck
where I slept in the coil of the cable
for half the night – Cat – Telescope –
Tobacco pipes – bottles –

6 Mey. 1793

Fine Morning – breakfasted on tea
made in a large grey beard – cold
meat – Tea has a different taste from what
it has in Europe – no milk – The Captain
much pleased with some empty bottles we gave
him – Nothing remarkable occurred till
M. B. return from our shore with a plen-
tiful dinner – In the afternoon we moved
into the river boat which is to carry us
during the remainder of our water passage
– All the other Gent. are also transhipped
and we are all lying close along side each other

— Seamen sing out when hauling and
after their work near the conclusion
sudden jerks — another time when
pushing up the river — strong water
— mostly naked to the middle — windlass
merely of the usual form has no pawls
the hand spikes serve for pawls. a rope
round the windlass extends below to the
rudder by this the rudder is raised in shallow
water — bound with a long taper bam-
boo — two or three circles of bars are bed round
it with rope-yarn — Depth called out in
feet — Chinese foot is to the English as
7 Augt. 1793

Stepped soundly — Cot on a platform raised
22 inches from the floor — The boat is
divided into 6 apartments 1 a servant
for the kitchen &c 3 my cabin 4. Doctor Mills
5 back dining room, three — Mr Huckey Mills
6 Mess.rs Alex.r and Barrow —

— Doors heavy — turned over bad fa-
shioned — Hinges two wooden pieces fixed
to the inside of the door, and which fit
round holes in two pieces of wood fixed
to the lintel and threshold — floor
leaves a large chasing — to keep the
door close instead of an iron hook
a round piece of wood in shape of a cask
is placed before it — windows of Bristol
shutters — Stringer like the Doors — hinges about
1 1/4 inch square — The area of the wooden pool
is to that of the transparent part as
sometimes in the middle a piece of
silk flowed in a pretty manner, and very
transparent —

Dimensions of the boat
— of my Cabin
— of the dining room

8th August

This Day Fahrenheit — Thermometer lying in a Cabin
on Land of the Side of which the sun shines
stood at 92° and at 8 in the Evening at 87°
This day and yesterday were employed in
getting all the Baggage transported — the
commanders Lower into the boat all safe
ly safe — It is said we sail up the river
to morrow morning — Part of our provisions
kept by the people on board — they gave them
up with a very good grace — Lieut. the
Chief is desired to enumerate the articles
sent from the Brandywine he never fails
to mention the article needed, and says it
is in such a place, it is immediately
brought — Jar of Brownse — Madam —
Flowers — Band played this Evening for
the first time — Chinese Sailors, seemed little
enamoured with the air of which there was many

I think the Chinese will value our
prisoners as much as the Cookie Chinese
at Canton —
Chinese Cookery — not unpalatable

Friday — 9th May 1793

Left exit 12° — at 1 Dogrees, ~~who~~
when lowering on the left side of the Deck
it lay over the left shoulder and V. V.
have also observed the forest rise perpen
dicular without the right arm — I have this
moment discovered this to be a pendulum
among the length of the rider which covered
the moon, and the distance — On the lower of
the side the shape head is apt to sink to
far from the shore, the forward this two
of the lower have a pointed wooden en
chor with one stroke, which they thrust
into the ground, this gives the shape head
a leg towards the shore, and the small

out immediately — The Shanks of all
the Anchors are Octagonal — Our
Bullock made signs for a Cask of Sam-
see promised him last Night, he was
desired to take the cows of the Earthen
jar he carried it to the Kitchen where
in a Minute or two having taken out
a quart at least, and offering his Bowl,
with a smile for the promised liquor —
a knife for peeling cucumbers concav
the convex side next the cucumber; for
performs the operation very quickly —
Slicing of cucumbers done by striking
a ~~Bone~~ Bone in the cucumber and the end of it
across a brass bar fixt on the edge of a
plate — A man on shore wheeling a
wheel barrow with a Dail. The water of
the river yellow as Sandy all along
Coast against us Lowering and Mancuv-

The Single fluked Anchor is composed
of one Shank and fluke — ~~—~~ fast
by two straps of iron. The fluke is pointed
with iron — Men now wading up to
the chin in water — The boys men
who manage the small ~~[illegible]~~ on
Grapple high considerably behind
the ~~boats~~ — frequently swim
across ravines on the shore — Very
hard labour — Men can go it with
great cheerfulness — no murmuring
— The Men who disembarked our baggage
under most unfavourably hot day yet never
asked either money or Drink, tho' we
do not debate Sam-see, even sometimes
get tipsy with it — A good offence
boys swimming — Thus a couple of
apples into the river, they caught them
with great dexterity — Opposite a Village
called — Many Mounds of earth now

to be Salt — Indeed the salt appears on the ground where the water running from it has evaporated — Quite the prospect some of the mounds are covered with matts others not — It is probably rock salt — Two very large Guns — country very flat — The boat hooks, oars & have all a cross piece on the hand end like a spade or a shovel — unapt — The salt mounds are in general in form of a Pretty tent some of them 12 or 14 feet high — Frame work upwards of thirty great and small which may contain about — Barrels — several cuts or Docks in ~~each~~ both sides of the river for admitting Ships to Load — passed several large Villages — population immense — Houses all mud walls and most of them mud roof at least the inside covered with mud — Roofs at much the same as the fashionable houses in Eng

Saturday 10th August

Calculated the time of sun rising by which got my watch this morn — Shores are almost continued Chain of villages — The Curvilineal meandrings of the river are most enchanting. In the space of a few hours we sail on every point of the Compass — The river still mountains its breadth which is not much less than the Thames — Country still level interspersed with a moderate no trees — At 7 A.M. stopped to receive our provisions for the day at — Head Man (Darnie came on board — Hearty fellow — sung and danced — A few turns were played on the fife which he followed solemnly near with his voice, on of his attendants seemed much taken with the yellow haired Laddie and Cae du — Valeish played by Mr Hughes — The Mandarin accompanied by Hughes with his fan on some lea taps, barrels

on the table — He is a favourite of the Emperors and conducts us all the way — wears a fan the different folds of which exhibit different figures — On his left wrist a hoop of Gold wire more than an Inch thick, large than his wrist will go over his hand — The ends brought together but not united, like a ring for Rings — Invited us first, into his Cabin, drank tea, and tasted some English Madeira — He pronounces English with great readiness, words with the letter R. excepted — says "Very much, very well how do you do" distinctly, but laboured in vain at "Bath" &c — We are allowed by the Emperor a sufficient supply of all sorts of provisions —

Hanna and Lamiot the two Mandarins ~~which~~ to whom Dr. G. Macartney gave a passage to the Landing place in the Gulph

of Leotong, are left aboard the Jackall — Will they hear from Pekin, should the Jackall sail before any dispatches arrive — They go on board the indiaman, which sails for Lord Macartney's dispatches, and Capt. Brooks has orders should they not be taken off his hands to carry them back to Macao — When sailing at great ~~an~~ which entrance on a point projecting from the side of the Velvet near the bear, we see a tower about the same as the first part of the Highland Laddie — women appear very modest never approach close to the shore, keep generally behind the men's backs, or corner of houses, have hair very black: face not as yet seen — hair of any colour but a very deep black, two men lived in a tuft on the crown but not ostensibly near to observe accurately the head dress — Feet converging by small angles thick and clumsy — seem much crowded with our dogs — fortunately our travellers, which

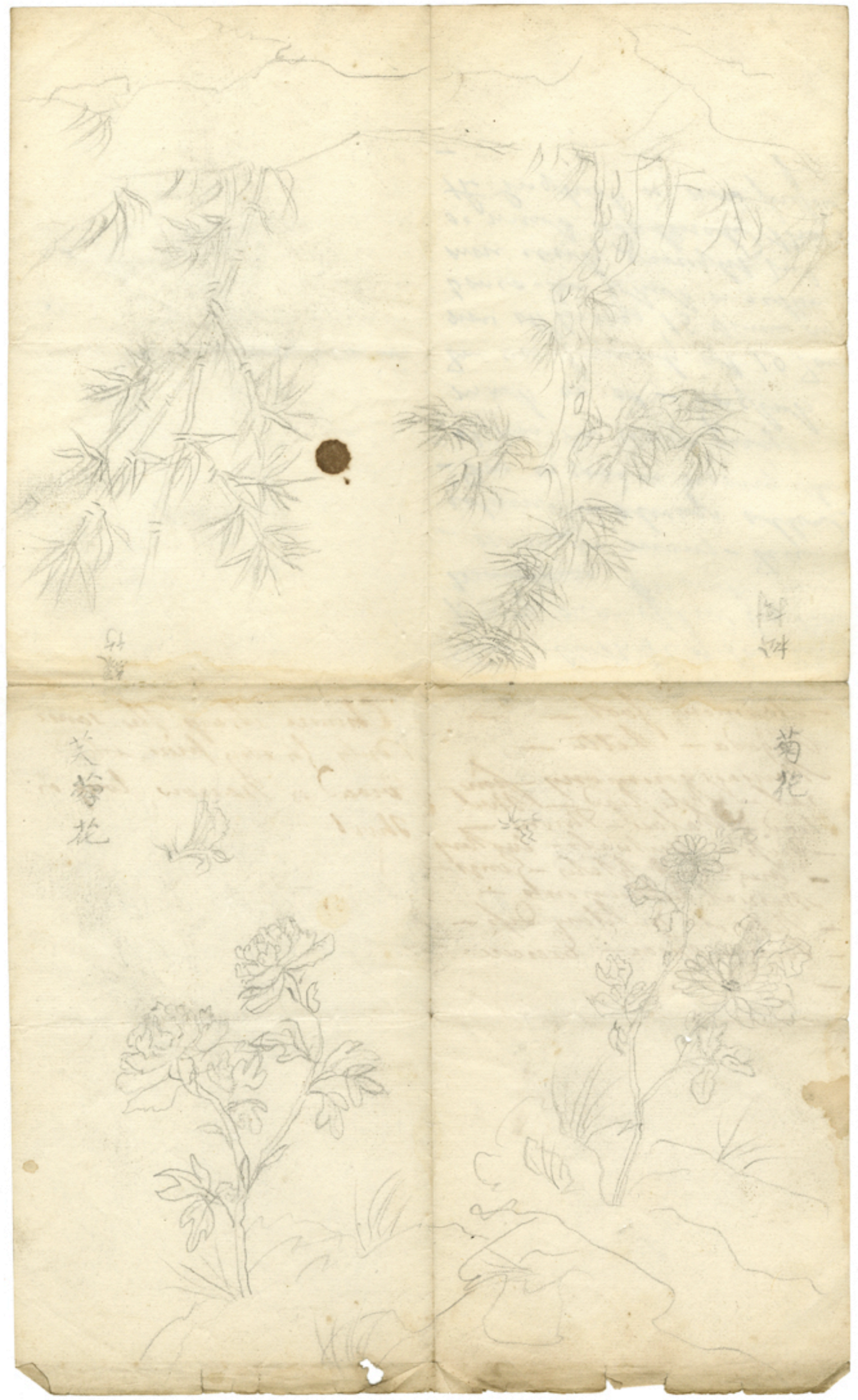
are as different from their loose trowsers and drawers — A number of boys swim they strike with the hands alternately — River continues equally red or yellow as at the mouth it is mixed with a reddish earth which on standing subsides, the water is then extremely good — It is no wonder that there should be a bar and the water so shallow at the mouth of the river considering the great quantity of earth annually carried down, It is probable that the bar will not only continue to rise but that the depth of water in the Gulph will continue to decrease — I have not as yet had an opportunity of examining the kind of earth mixed with the water of the river. It is very probable that most of the rivers on the East coast of China are of the same reddish yellow colour. Hence the colour not only of the Gulph of Leotung but also the whole yellow sea takes its name —

Grand Canal - China Wed.y 30th Oct.r 93

At 8 am Ther.r on cabin 55°
Canal more that double the mean breadth and very shallow — Great bridge —
— Vantage says the whole money allowed for our maintenance at Pekin was 1500 taels p. day, and that 500 served, so that the Mandarins had 1000 for their allowance
— Vantage says the taxes in China are 1 to 16 p.c. head for one year but their accounts are so contradictory little information can be had from them — It blows strong, we cannot proceed — The Chinese constantly laugh when they see us taking a turn by walking backwards and forwards —

12 Ther.r on cabin 66°
set off at 2 — The vessel has shoal water — but no sand for a large

The cloth &c of the Company now offered by the Mandarin French — same as money — Tea returned — always allowed — Tin as good as money since it has the usual assay mark on it — English Tin was formerly at 10 Taels now it brings 15 same as Banca — Tin which is rather more costly wrought but so much adulterated that the English is now preferred —


芙蓉花
菊花

earth at wave fordan is felled deliberately below and carried up —

4 Ther Cabin — 60°

happed this afternoon a floodgate dangerous on account of a projecting point of the right bank of the canal —

Thursday 31st Oct — 43

At sun rise Ther on o.a. 45°
Cabin — 48

After fluky clouds — wind E. northerly — 1st Thermometer low — hemisphere with golden &c — Village

4 a long grove of willows planted in rows the side to the canal on the right — a long Village or town many spectators —

Sun set Ther. o.a — 62

— One of the track men had been entrusted with money to buy some cutlets at the last village, he went off with some clothes belonging to some of his companions & one was sent to track for him, he was found drinking, bow-chaw was taken before a magistrate and committed to gaol — A great wrangle among the men, I know not the cause — Observed some chimney at the last village making Dist peats, that is sifting small coal or cows dung as practised in some parts of Scotland —

Friday 1st Nov 1793

At sun rise Ther. o.a. — 52°
Cabin — 48

Canal very broad must have been a river which lying in the line was taken advantage of by the Chinese — These floodgates seem to answer the purpose very well — soon shifted — easily adjusted to any height of water. each board or plank is about 6 or 8 inches broad, a rope is tied to each end the other rounds is round stick put into the two holes of the incloning stones the holes about 3 to four inches in Dr —

On ~~Tuesday~~ Tuesday night last we entered the river which forms a part of the direct passage by water to the south a small canal was continued to the right out of a large baron — There are floodgates on the river so that it may be considered as part of the canal — river very shallow in some parts —

H 10	Ther. in O. a	66
	Cabin	68

Saturday 2 Nov 93

at sun rise	Ther. O. a	54°
	Cabin	58

At 7½ ~~formed a Canal with~~ entered the Hwang-ho — or yellow river on our left. ~~this I take to be the mouth of the Hwang-ho~~ It flows from W. to E. Emptying itself into the East sea — It appears very broad and much larger than any we have yet seen — The water is full as muddy and the colour as the Ty-ho — The breadth where we entered it is about ~~[illegible]~~ The colour seems to be much like that of the Ty-ho and

H 10 sailing up the Hwang-ho left bank direction almost south, strong current against us — Sides of the river lined with villages and here we are passing a large village on the left, houses neat and clean white washed — Worst fine buildings — A number of houses with reeds mixed with earth in the walls, none of them have ~~to~~ doors to the river — now a long village on the right opposite to the other —

10½ left the river to the left hand and got into a canal, some parts natural — sides of the same constructed as formerly —

H 11 passed a floodgate with a great descent, extremely dangerous for small boats — we were whirled by the eddy on the right bank, got off —

just passed another canal communicating with river on the right in both at a distance, the water descends as much as that through which we passed — + for entering the Whang-ho. — I sacrificed to the Dragon of this part of the river — great number of Corpses.

H
12 opposite to a burying ground on the left bank of the river all tumuli like the barrow on Salisbury, rather more pointed, this may have been the case with the other like have disturbed them — the coffins are laid 20 feet, sometimes below the surface — this is a common burying ground — passed through a lock water descending with great rapidity

12½ another flood gate — descent — rapid

or 2 Entered a town which is very large and spacious — we have been passing through it till the present moment 3½ the houses are well built, both clean and neat — the habitants are better dressed than in the provinces of Petchelee and Shang-tung — a great number of handsome arches — Pailloy — always three Pálaks —

H
10 another large town or village the former is Hoingan a town of the fourth order —

— Entered the province of Kiang-nan on crossing the Whang-ho —

Sunday 3 Nov. 1795

At sun rise Ther. - 0. a 58°

Mon. Cloudy - sailing with a fine breeze — passed a village — matting on the walls of the common houses, has a good effect — Now the the canal is much higher than the adjacent country, which may partly be land under water — rice fields — more than three times its former breadth —

yesterday afternoon two boats passed us with 8 or 10 ~~L~~ men on fishing birds on the gunwales of each, they were drying themselves after having been at work one not fastened a tied ~~by a stake~~ —

H 11 arrived at the walled town or city of Fo-in-shen (Nanking) — the canal runs parallel to west wall of the city the canal here is 10 or 12 feet above the level of the country —

H 12 passed the suburbs of the town the channel continue to make the canal pass only through the suburbs of the principal city — the lands on the left rice grounds, under water on the right an extensive lake — the country as far as the eye can reach considerably below the level of the canal

Ther. — cloudy — 62

wind northerly, small breezes — sailing

more bundles of reeds stalks of the cane — seeing I took them at first on the banks of the ~~fey~~ Whang-ho for houses being of that shape but I now find the are bundles of these reeds made of ready for repairing the banks of the canal —

H 1½ passed two sluices a double one on the right and about ¼ mile further on a single one on the left the water from through each out of the canal over a height of 2 to 3 feet — and supplies the low rice grounds — sun begins to shine for the first time to day —

H 3 wind freshens the jinks drawing so little water will not be kept from the opposite shore, without two oars on head with their single oars, the repeats make way L 45° stern foremost —

— a large village or town —

— N. C. stayed with us all night —

9. Canal — Monday 4th Nov. 92

At sun rise Ther. O. A. — 53
Cabin — 54

Cloudy fresh breze from the S. W. ward — hauling and edging with the single anchor —

9 Military posts — Fire alarm from the large vessels at the Military posts generally 5 in number, a composition is fired to advertise the country of any important event [illegible] whole height about ten feet — [illegible] A platform along the left bank supported by cross frame and each of these by six perpendicular — The fire alarm seem to be most of them unfavorably

H
10 passed a large well built town, canal on the left a brick wall supported on piles or rather pickets, they are about 3 Inches in Diam.r — wooden stairs — houses on this (left) side in general two stories — Roofs in the lower story — Ladies looking out from above the window a large square or rectangular opening window paper — frame suspended at top or casement — some of the women have petticoats — country pleasant — water — Villages nice grounds &c —

Houses in this province have chimnies rising above the roof but frequently placed on one side the roof-tree —

Hay boats prodigious generally two or three joined together — Habitation in the middle boat down to the gunwale and the hay touching the water

Mr M— has signified to me that Lord M.q wishes to see Doctor S and me to day — Boats Junks with gunwales 12 or 14 feet in length. —

H
12. Ther.r — Cabin — 64 —

1½ very extensive burying ground

2½ Military — Hospital — little Encampment

— pretty country seat — Circular Temple —
square detto both supported on pillars
according to the Chinese fashion — Lay
down with a number of lesser houses de-
pendant seemingly on it —
— Sanfin at the burying ground —
— circular walls of earth with a hemisphere
or barrow in the center — one entrance
— some of the large have such ways
under ground — The colours of the
soldiers are triangular with a white
loose sheaine flowing along the My-
pottamus — Stockings — Garter for
the knee to the foot — At every mi-
litary post there is a look out Gatha
the fashion of a square pyramid with
a roof and Gallery at the top, ascend
by a ladder — Height about 20 feet —
feet — Mr Ewart waited on Lord M.
who gave to Dock & a collection of quest
respecting the silk manufacture, which he
worked we should pay to get answers —
Things — now in the m out elaborated in China

for silk worms — conversation of Mr Crosft
studies — Nooses and Women hooks —
sympathetic Clocks — Chinese flood
gates — From the colours of the Chinese
books it is probable they are dried without
the fire coming in contact with them
in a kind of oven — called on Sir G.
on our return — Chop-sticks — Soy-sauce
cups and saucers — Court Calendar of
China — consisting of Vol.s under
one cover like the Emperors book at
Yuen-min yuen

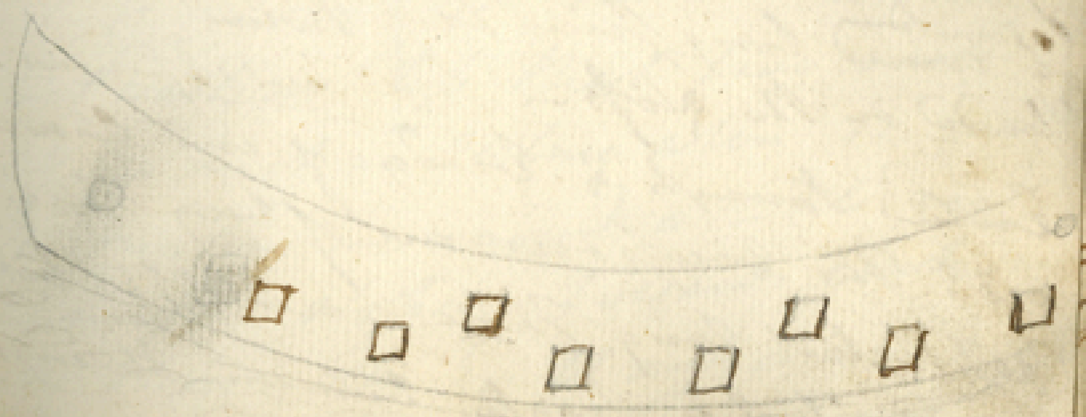
Blue River — Tuesday 5. th Nov 1793

At sun rise Ther. a. a — 54
Cabin — 54

at sun rise entered the blue river which
appears to be at this place from 26
miles broad, we crossed in an oblique
direction downwards — Most beautiful
Pagoda in high preservation on a mount
which appears to be artificial from a small

Island in the river,— there are a number
of good houses adjoining. The mount about
100 feet high the Pagoda of 5 stories ter-
minates ~~w~~ a brass ball— round the long
spindle of this ball are seven or eight con-
centric rings running by of metal— hori-
zontal at the top in the middle the largest
and diminishing both ways so as to
form two frustums of a cone— from the
uppermost ring chains extend to the
corners of the roof — In the middle and
at the upper end of these chains hang
bells which are made to ring by the
wind— Also bells at the angles of
the other projections below— A railing
of open work on the outside of every
story about ½ height— Beyond this
beautiful little island is an angle of
the river forming a bay where I counted
42 Chinese men of war. They are
built narrower and higher than the
merchant men— the superstructure

on the deck which is a clear curve from
head to stern. The stern is flat and a-
dorned with various painted devices there
are also a great number of flags above
several streaming on the river. All that
I saw had eight ports on each side
which did not seem to be more that
10 or 12 inches wide— They are all
rectangular ~~being~~ and somewhat longer
in the perpendicular than broad
they are placed in a curve corresponding
to that of the ship— The side of the
ship above water is painted black and
a broad white line surrounds the ports
It is shut with a lid. The ship's side
appears very thin—



They have commonly two marks are
kept very clean and neat in the outside
at least. The bottom is painted white —
About 40 men appeared on deck
dressed like the common soldiers —
On leaving the river we entered a ca-
nal on the right, where there is a
large city. — Large elegant houses
Immediately like of the roof like the
British Chinese, but I suspect often
for ornament. Those are sometimes the
Tiers are there —

some time one more on each
side — Each has a pro-
jecting cornice — with
a wound long piece ex-
tended on the top —
Entered through a bridge of one Chinese
arch. The bowsprits are of very little
depth but long. Those near the bottom
about 8 feet in length. between these is

another row of small ones then a tier
of long — about 5 feet & dimensioning to
the top. There not seen any arch with
the key stone distinguished — It is of the
same cast as most of the rest — between
the semicircle and Gothic. Or the
Gothic rounded at top —
Lt. M. last night said that the Chinese
books were dried in the sun —
The canal where we now lay at
anchor runs along the west wall
of the city — The embrasures are only
$\frac{1}{5}$ or $\frac{1}{6}$ part of the battlements — many of
the merlons
+ Yesterday at 4 P.M. passed through the large
city of Yan-choo we sailed along the
east wall, not less that two miles
3 gates in it — Along also the wall
the merlons are raised a little and
the middle sloping towards each end
like steps — The Embr. not above 1 foot
wide — Chinese made of layers bricks —

passed under another bridge similar in size and workmanship to the former — over this the principal entry into the city — A semicircular wall on two projecting parallels like Pekin — None of the Chinese cities have detached, that we have seen — side of the canal before we passed the first bridge, lined with great Earthen jars — Several junks on the stocks varied from 9 to 16 divisions — All built with a side to the water supported about 15 to 18 inches above ground near the edge of the water — The supports, a row of stakes is along each side consist of a number of pieces of wood seven eight 12 a 15 inches long and 2 or three inches square, forming a pile like pickets laid out to dry — This I suppose is to facilitate the launch

some of these supports are decorated with trellising to prevent accident — other supports seen since walking the above are two feet high —

— The canal is edged with such high ground that we can see nothing of the country

— In passing through the last bridge a beautiful Pagoda on a rising ground came in view — It is an octagon consisting of seven stories, terminates in an tower, something like a pyramid flat only pointed, spindle with eight projecting arms of metal or sheets tinted formerly hung, the holes were visible through the Telescope. Height about 90 feet — This pagoda inclines a little to the left. The inclination begins at least is apparent from the fourth story increasing upwards — Finishing not four bamboos joined at top and forming at top, and bent into nearly gra-

drants of circles have their lower ends
attached to the four corners of a net that
hanging below forms a kind of green
arch. This is let down by a rope and
tackle into the canal after it has remained
there for some time, it is suddenly drawn
up when the fish are entangled in the
middle or concave part of the net. The
same kind of net is used on the Lakes
but much larger — I saw also some
of the framed boards for fishing by moon
light a few days ago —

12th Ther. in Cabin — 69°

At 1½ passed a brick work where
there appeared a Kiln — black with
smoke —

A plough drawn by one bullock
no culter — a share broad and
beam very much curved — one shelt
board — land light sandy —

— bricks seem to be made with dry sand
from the banks of the river mixed with
water and probably a particular clay —
They crumble when the surface decays
The Chinese flood gates answer the pur
pose well enough, the opening of any
one hitherto has produced a change
in the height of the water not exceeding
three feet, more frequently 15 or 18 inches
Two sacrifices this day one at
9 the other at 4, In the first two fowls
a cock and a hen were killed on deck
and the blood sprinkled on the offset
parts of the deck — In the latter
the usual obsequies of burnt paper
crackers and gong — a tray with
fish flesh and fowl — vinegar, shaw
shu — rice and oil, each of the liquids
were tasted to the mouth then thrown
into the water, a few grains of the
rice were tasted with the fingers and also
thrown into the canal — then a very
small bit of the fowl, mutton and fish
followed the other articles — This is the

second day of the moon which is usu-
ally our occasion all this is a good reca-
cation — The Captain finds employ
selfe by washing his body all over
and putting on clean clothes —

— Cum Det — 63 —

— This whole day we have been
south considerably below the lines of
and consequently have been prevented
from seeing the country, but the the
beautiful variety in the morning sig
fically compensates for the rest of the
day —

+ Sir G. observed last night that the Chi
nese never allowed an Ambassador to
remain above a certain time — That the
Portuguese Ambassadore was allowed to
remain for a shorter time than any, tho
the Embassy was always sent away at the
first proper season for their departure
— But as the month of Feb. a proper season

for the Russian Ambassadors departure
and did not the Portuguese Ambassador
with the Emperor at his private Table
He mentioned a simple pair of bellows
and by a stretch on the way to Schol
consisting of a box piston and double
valve which made a double blast —
saw some days since in the province of
Shang-long a man with a large wheel
barrow accommodated with a sail extan-
guter like that of a ship — It enabled
him to carry nearly before the wind a
much greater load than he could have
done without it —

— I observed more jars lining the banks
of the canal and a stair down to the
water composed of round stones like
our millstones —

8th Entered the city of
passed through a bridge consisting of
two upright piers on which are laid
planks which form the entrance into

the city — wall on the left — 2 lib
& passed under another bridge & the
former flat above which I suppose to
be of wood. The road along it leads
in through another gate into the city

Wednesday 6 Nov 1793

At sun rise Ther. o. a. 56
Cabin 56

The Ther. has for two days past been hung
on the side of the cabin opposite to the cot
and near to an opening in the boards, by
which means it shews the same temperature
as in the open air — Clear and Calm —
— country variegated with high and level grou
+ The Long-Tou of Kiang-nan said to Mr Ham
that it was a shame to keep men so fast on
of the country who had come so far to visit
China — This I presume is a little blarney sho
coxcombe — If it be an established rule of
the court of Pekin not to permit an Embassy to
remain beyond a certain fixed time, why is
not mentioned by the writers on China, why

was not the circumstance known to the
English Embassy? who was in possession
of all the books and every information on
the subject? — The truth is that every at
tempt to an explanation involves the bu
siness in more difficulty and renders it the
more probable that the behaviour of the
Gentlemen of the Embass. themselves was the
principal cause of our treatment in this
respect —

at 8 H entered the suburbs of the city
of Chan-choo below a bridge of
three arches, that in the middle by much
the largest — Piers small below one solid
stone arches the same as
the other — another bridge similar
to the former — we are now at rest opposite
to the great city wall — Embarcations
and Mandarins Lake Pow of Pekin —
Houses are mostly of black brick or framed
blacks — At fine pavilion beautifully
ornamented — roof like a sedan chair —

4 another bridge of one arch: Canal
9 continued before, beyond the first and cut a
Tangent — cross piers long —
10 a pagoda at some distance on the
left 6 stories spindle with one 7 or 8
circles which are smaller than on that
in the island of the blue river —
passed through a large town — seem
there seems to be a cotton cloth manu-
factory here. Second long pier having
over a very high frame of wood slender
and open not less than 30 feet high
— The arches ~~then~~ at the pier incline
towards the water so that if continued down
to the water would be of more proportionate
than related dimensions —
— Passed 4 stone triumphal arches. The pa-
pendentes, of one piece each — sometimes
long — cross pieces also of one piece —
have not yet learned what stone are it

10 1/2. Our Captain laid aboard on the
bank — The canal we have not seen
11
12 A letter is received from the Emperor
respecting his assent to our going to
canton — Thermometer — Cabin 68 —
+ Two men carried on a pole the
boat in which we saw yesterday
pass the canal at ~~into the~~ Pekin — Capt.
M. purchased two — He has just now
brought them to Mr. A. to draw them —
Passed several military posts this afte-
noon — some of the fire alarms curiously
constructed all have circles representing
some thinks the sun and moon other
the eyes —

Thursday 7 Nov. 1793

Ther. at sun rise O. a. 60
Cabin 60

Foggy with small rain — passed through
a town or large village — Second bridge
of one arch — Same Architecture as formerly

9th a rice field just getting above
ground — water very shallow between
each plant — in rows but not straight
— Stopped for two hours. A great
wandering of the Provincial waited on
L. M^n — A dispute is said to be
making out with regard to our future
Journey. Past for Chinese Chinese
Canton — great number of carts
for the carrt — Jonks innumerable
— at 2 pm passed through a long town
houses handsome — painted — black
and white frame — bridge with three
arches — for every arch there are four
pillars projecting, two on each side
the lowest about $\frac{2}{3}$ of the height of
the arch above the water, these have
long stones reaching down to the foot
but not projecting — the other two rise
the crown of the arch — the road over
the arch consists of two stairs straight

with a small front at the top of every
three together —
at 3½ turned into a river on the left —
passed through a bridge with three arches
to the large city of Soo-choo
— river along the wall — turn to the right
a bridge to the left with three flat
arches — the towers have but one loop
in front and one in flank — Embrasures
of the wall larger than from arches —
four feet wide — Merlons 9 or 10 — depth
of the Embrasure 4 or 5 feet — not one
foot thick — repairing several parts —
— 17 new houses on the stoop, on the left
side between the river and city wall
their heads towards and near the water
the backs at an angle of the wall which
is round as they are in general, the back
are varied in their position, ends, edges
alternately to the front — Tables of stone
in cutting down — about 2 feet long —

In this city we observed two fine Pagodas at a distance — ~~In the midst of the roof~~ ~~the roof~~ ft Pitt. The head of the mast shot against the wall on the side and overturned shook every thing on board. The Vessel made water very fast at the head, and was some time before the leak could be stopped —

Friday 8th Nov. 1792

Ther. at Sun rise — 0. a. 58°
Cabin — 60°

Calm — Thin mottled clouds —

Small brick houses on the banks of the canal and scattered over the rice fields to a considerable distance Tombs in the fields of the peasants are interred — a few instances, but mostly thin little brick houses colored black about 5 or 6 foot height, the shape of a house — Not confined to any particular position with regard to the cardinal points though most appeared in an E and W and N. direction than any other — In some the coffin is quite uncovered, the lay on the top

and the house serves as a case for them

H. 4½ 9½ A large town about a mile distant on the right, pieces of water interspersed with beautiful islands between the Canal and town — On the left also at about 2 miles distance. Lake — Large town — In short the country is every where covered with villages — wood and water —

— Rice reaper — Sickle blade about 5 Inches long 1½ broad round wooden handle, making an obtuse angle with the blade. Edge turned downwards like a Scythe — Four or six cuts fill the left hand sheath is afterwards round and separated from the growing rice solely by the left hand it is laid across the ~~midst~~ ridge in a smooth even row — There are no bands laid below it — This is an after work — When it is tied into sheaves a stick, bamboo is stuck obliquely into the side of the sheave near the band. A triangle is made of three of these sheaves which are supported with the upper downward an excellent contrivance for drying —

Grand Canal — Friday 8th Nov. 1793

10 Ther. — cabin — 68°

11 Rec. a present consisting of two small boxes of artificial flowers, 4 small cups and saucers and twenty Chop sticks — I have not got how from whom —

4 Coffins lying on the bank of the canal one of them seems to have received its contents very lately, as it is quite new —

12 A bridge of three arches — some difficulty in getting through as the wind blows fresh a head — The arches have generally 5 rows of upright stones on each side besides the narrow cross stones and crown stones — The former diminish regularly towards the top — The two small arches we are now at have only 4 rows — quere are the arch stones let into or any how fastened in each other — Piers slender below — four projecting stones of each arch as before, with their faces perpendicular — The Chinese manage their junks well in calm weather, with a fair wind, but when the wind is contrary they can do little, as they

have no hold of the water they are cast by
forced to leward — be as obliged by the
wind to stop at 7h
— Dr. G. has informed me that I am to accom-
pany Capt. M. and Colt B. to Canton. The
apparatus must be taken care of and the
Controller accompanies Dr. G. —
— The Taylor informs me that he cannot finish
the coats on account of his thumb which he
has hurt — Has no Sleeve lining —
— Ven-tao-Gin is now sitting to Mr Wisley
for his picture — first time — I visited Mr
Pain and his friends — Another present a
little box of Artificial flowers from ~~Sou~~ gegen-tao
Gin — The former was from Sou-tao-Gin —
from 7 to 8 ~~after~~ nine we were passing the
Along the wall as was
large city of
canal through the Suburbs narrow, but a large
row along the wall — Towers 5 embrasures. A Row
of Shed for a extent ~~at the~~ about same distance in
the towers — 5 coloured Lamps hanging in a

Canal — Saturday 9th Nov. 1793
Sun rise Ther. — 0. a 64
Cabin
65
rain — wind Southerly — passed two
bridges of one arch each nearly each other. In
the last the arch was prepared a little from the
left — Barns hard. — The country at
least near the river covered with Mulberry tree
said to be the white Mulberry — about 6 to 8
foot high, stem from 2 to 4 inches thick —
— Stone flat arches called Ray-la-Monu-
ments — passed through a long Village
— great quantities of Mulberry trees, mostly
stripped of their leaves — heavy rain the whole
day. Ther. considerably higher than for
several days — many crop ears — cabins
much annoyed by the rain getting in to
our ~~to~~ cabins — Clerks manned by the Captain
with the red candle on the under side —
Tracking very troublesome — foot slipped back
on the clayey soil —

Canal — Sunday 10 Nov 1793

at sun rise Ther. o. a — 54
Cabin — 57 —

Dark - cloudy - wind Northerly —
— large plantations of Mulberry one full of leaves
The ground is kept clean among the Mulberries —
— The Chinese will not bury under water hence the reason of raising little houses over the coffin which are laid on the surface. Poor people who cannot afford to build a house leave the coffin exposed on the surface some were seen quite naked along the banks of the Canal — here being fair blowing a fast breeze we have got up the said
— 12 H cloudy wind Northwardly
— Thick in Cabin — 56
1 H arrived at Nan-Shu — where we are to part with those who go to Canton — called on L. M. who granted leave to me any part of the apparatus for a course of lectures —

Nan-Shu — Monday 11th Nov. 1793

At sun rise Ther. o. a. — 50
Cabin — 56

wind Northwardly — little — somewhat cloudy
— took a walk about 3 miles into the country, through rice fields, Mulberry plantations — Tallow tree (Ta. shu), leaves when young very green — grow yellow in when old the fruit which contains the tallow is about the size of a sloe, at first green, when ripe black, the cind or shell opens and leaves a little Hemisphere very white on the tree, the matter of which is the tallow, this contains a small stone which when broken yields an oil which it is said they work up the tallow into good candles — observing — carrying the cases to a great distance — sugar cane — find bamboos — one supporting a branch of the tallow tree —

Man-she — Tuesday 12th Novr — 1792

At sun rise Ther. o.a. — 60

Cabin — 58

morning fine — quite calm —

— In all our operations no plan or system has been adopted — no regular order given at least adhered to — Our only interpreter an ignorant bigotted priest without an atom of learning without curiosity and liberality — The first questions frequently different from the intention of the proposer either through ignorance or prejudice — we pass through the country like so many dumb persons having no opportunity of asking questions or receiving information on the most common subjects — It is agreed on that Sha give a course of lectures at Canton — L. M. allows me the full use of the apparatus —

— The process of making the tallow from the La-chu — is said to be by boiling the little shell balls (probably first bruised) in water the tallow swims on the top and is thrown off — Order to send off all the baggage for Nee-sow Monday

— Nine hungry and hurtle as usual —

Lun.o 22 Lat. 8 — Hydrometers

Man-xii — 13 Nov — 1792 —

At sun rise — Ther. o.a. — 60

busy with packing — we set out to morrow at 8 it is said — Capt. M. Col. B. and Mr. A. and my self introduced to Son-ta-Jin who is to be our conductor to Chusan — A present of 20 Chop slates and 9 forks —

— Mechanics —

Mechanical powers — compound Engine

The course will consist of 12 lectures on Mechanics, Hydrostatics, Pneumatics, Electricity, Magnetism, Optics and Astronomy — together with some miscellaneous subjects — among which will be Experiments on Philosophic fire works — Phosphorus &c

All the Electrical apparatus

Mechanical powers Steam & Blast

Optical Ditto — Ditto —

A few of the models

The Small fire for fire works —

Compound magnet — Bars

Also Chemical articles from Doctor Gillan —

Sun rises this day 13 Nov 15

at Nan-xie — at — 6. 45

at Canton — — — 6. 35

at Canton on the day of the winter Solstice — 6. 43

Should the journey to Canton be finished about the time proposed, and the rate of travelling be tolerably regular, there will not be one minute Diff. in the sun rising during the whole time —

Course of

of 12 Lectures on the following subjects —

Mechanics - Hydrostatics Pneumatics — Electricity - Magnetism Optics and Astronomy —

The number of lectures on each subject, will depend on the state of the apparatus at Canton —

Mechanical powers and optical apparatus from Barr & Blt —

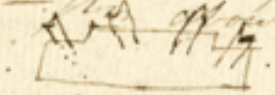
All the Electrical apparatus

Lom. 22 Lat. 8 — Hydrocarbons

Sunday 17 Nov

Wind E.N.E. — Thick. — 60°

Set sail down the about 5 at day
light observed the beautiful windings of this
large river — Passed a big boat of an hundred tons
— Pelikan — Saluted with 3 guns & departed
this morning — The mountains on the left are
still smoking appearance of there being volcanic
productions — Cones very perfect. In one instance
the crater very distinct. The Deutsch & the Lance
from the crater — 9½ passed a monument
Brunswick & Lyles Bell shaped like an oven
Hence on the form on of them — Bells bell mou
Dutard coming into view on our left. Bold
majestic mountain on our right — but on
given to the summit — 10. cross river at night
angle on our left — Name 5 fathom on our
Green — Gave them food & shirts & no
women. The principal chief appears more
than a common soldier, followed by the
others came a few minutes after our landing
his right hand in the Chinese manner
Manilla on for the present —

H
10 3/4 Came to anchor off a town of Mandarins
and Nine fine hoppies on the right
— There is generally a large pagoda there
on the opposite side of the Mandarin hoppies
— on that we are now ahead of is painted
a huge Tiger —  15 feet high
and 25 feet long. Before us the no-
blest rural scene — verging shadows of the clouds
passing along the side of the spotted mountain
beneath the red Sahara hue loaded with cultivated
mingled with the deepest verdure — houses —
on the shore a line of Mandarins with their various
colours — on their right the hoppies already
mentioned — still nearer to the shore
on the river with their flags and pendants
beautifully variegated with the most brilliant
colours — on the further a fine crisp green
Det-ay. Immense fo — All taken together
form the noblest scene I ever beheld —
The river is broader than the Thames at
London — 12 a friend of Oranges are
sweet meats from the Mandarin
— blue bottle lacker as if he expected

something in return —
H Thermo in O. 0 —
Still at anchor —
weighed — at 30 M. anchor is heaved
in this manner a rope round the windlass
ends as a double stopper having a cross piece
of wood at each end 3 or 4 coils being round
the windlass — Three men are put one round
the cable at the head of the vessel and drawn
alternately to the windlass about 8 feet
distant, the windlass being turned alternately
in opposite directions — ~~[illegible]~~ stopper
— obliged to lower it down the rear — bad ma-
nuvers. one vessel and another ran foul of
each other three different times — river much
broader than Shin ee ee at anchor — broad
foot — Sunset Therm. 60° — 1 H after sunset
Therm. 58°, — Most charming evening — full
moon rose with unclouded majesty — on the
oblique side of a hill — there is a few mi-
nutes eclipsed by the mountain, in five minutes
she emerged from the other side — reflection
from the water — Bells near — hues — mist
rises from the lower part of the hill — on the

side of a mountain — High rocks on the
shore — islands — planet saturn a little
above the moon, not a breath of wind &c —
At ½ after sun set Therm.° — 56° —
Lion

Monday 18th Nov 1793

at Day break Therm.° — 59°
Middle of the Twilight — 59°
Sun rise — 57
Magnetic amplitude — 57
— 2¾

At 5½ passed the city of Ninpo one known
to the English who might in all probability
have a factory there still but for their own bad
behaviour — sailed along the East wall of
the city entered obliquely into the river
Lin-ho ~~about~~ and came down the river Lin
towards Chusan — A very long line of
military before we came to ~~Chusan~~
Ninpo — another after we passed it
— The Centinel in the Work out lower beats
his gong loud — beginning slow and increasing
to great rapidity each time this is followed
by two rattles from on the wooden mortar

Jan.° 22 Lat 8 — Hydrometers

side river at Ninpo about 8 feet at full
moon which is ten day —
At 9 came to anchor on the left side of the
river where is a military post and a town
of soldiers drawn up — immediately opposite
the river here is more than three times the breadth
of the Thames — ~~we~~ In colour like the Ty-
ho — the sand is in great quantity —
At 8 weighed and stood down the river —
It seems about two miles —
At 8½ Quan-tao-gin came on board
A tall bold mandarin came on board and
much surprised at my dress — beard signified
that it was very improper for a man of my
age to shave ~~my~~ his beard —
At 9 went on shore conducted by Quantagin
where we met Song-tag-gin — who presented to
us from the Emperor the following articles for
which we made the usual English obeisance on the
right knee — toward a large feature to the N.d
Presents — A large parcel of tea — ten little
Cylindrical baskets of the flowers of tea it is said
the very finest that grows — eight pieces of
black Nankeen cloth — 4 ditto white flowered
silk — A bundle of raw silk and 10 pounds Tobacco

Capt. M. Lieut. B. and Mr. Alexander had ~~the~~ each the same quantity

All the Servant received about $\frac{1}{3}$ of the above quantity —

10th flood tide very rapid — detained here till the turn of the tide — Experienced again the want of an interpreter —

+ It appears we entered the river Lin-ho at our second launch — The river which meets the Lin-ho at the angle of the East wall of Nimpo is not a continuation of the Lin-ho as I suppose — High water this day at 3 o'clock about 7 feet perpendicular — The tide is turned but the wind blows so fast in our teeth that we must remain at anchor till it abates — This circumstance together with the rapid tide may render the Navigation to Chusan troublesome —

6th Thermometer	o. a	60°
7½	o. a	58

The Thermometer was afterwards plunged into water and then exposed to the air it fell by evaporation to 55, but in 10 minutes it rose again to 58° —

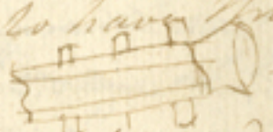
Jour. 22 Lat. 8 — Hydrometers

Friday 19th Nov. 1793

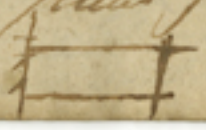
Lin-ho — weighed at 3 and Moored down the river little wind — unfavorable. Side of Shi-shopu Mer pinnaces — Music — Songs at our setting out, and afterwards —

~~7~~ 4		63°
4½ Nov.	o. a	57

Sun rose —

7th came to anchor off the ~~town~~ town of Wathu — we are now in sight of the sea — which is much agitated by yesterday's wind — The Chinese for the salute Guns in a perpendicular direction this prevents all accidents — They say that they level their guns only at the Enemies — I observe pointing their Guns to have Iron or Copper projecting rings thus  — The entrance into this river might easily be rendered impassable by a few battaries — These might be so placed that every ship entering the river would be exposed both to a direct and cutting fire within less than half pound shot — Island in the middle of the mouth — rocks high ground on the right (entering) — fortified

Friday 29th Nov 1793

Thermt. at 9am nine — cloudy 58°
— at 9½ went on shore walked
through the town and Suburbs
— weaving mats — an upright
frame with small pillars along
which through an iron rods a
weaver slides by which the lon-
gitudinal fibres are crossed over
the latitudinal fibres in simply
by a bag. There is a handle fixed
to the moveable frame which
serves both as a slae and hed-
dle, it both crosses and shifts
the fibres first in close to the
other — gave them and the
threads crossed? — 2 smiths
bellows a square box rather
deeper than broad — two valves
in the front ~~a valve~~ opening
inwards — a handle composed
of two frames joined by a cross
thus 

The lifeat is nicely contrived only interrupted for a moment at the change of direction —
— Blast but weeds
Length about
Depth
Breadth —
— guess how are the other valves situated? what is the form of the interior part? —

3. A mill grinding rice upper stone about 20 inch diam and 4 or 5 inches thick. In the eye of this is a conical hopper of matting was fixed it consequently turned with the stone in a horizontal plane round the stone by which was fixed a lever — Bulbous radius very short — upper stone lying in this slow manner on the under grinds the rice — the ground rice falls from every part of the circumference of the stone. with the meal quarrier — A rice fellow horizontally is moved backwards and forwards by a jointed lever — by the meal the rice is separated from the coarse grain —

4. A shelling machine formerly of two stones rather wood — the under a complete solid circle the upper a ring of the same with the under one — the diam about 20 or 22 inches — the ring of the upper about 4 or 5 inch both teeth cut in both along the slider and sloping one way — the upper was turned by a lever of 5 or 6 feet with a hole in the end into which a pin or the upper side of the upper circle near the circumference goes —

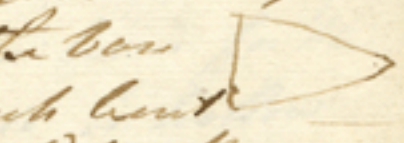
5. Cotton machine for breaking the seeds — the iron spindle about 1 foot in length and 3/4 inch in diam below which a wooden cylinder of the same length and 1 1/4 inch in diam on the further extremity of the iron spindle is fixed a cross of wood each arm 18 inches long with weights on the extremities at a small distance from the under

near the center of the axis is a pin on which a moon of a line, the lower end to a pedal this moved by the foot — a winch is applied to the lower wooden spindle and turned by the hand the roller in small quantities is passed between the roller and the reed board —

6th Pump — A trough or conduit in which runs a wooden chain with rectangular leathers — placed obliquely, the lower half of the chain runs in the conduit, the upper half slides down the concave surface of a split bamboo — Two rollers 4 inches in D. two levers on the ends of the upper roller and at right angles to each other, a pitch in the extremity of each goes into the handle — the proportion of the levers

at right angles is equal to the mechanical principle — not followed in Britain —

7. Plough — one handle beam sheath — narrow head thin triangular share with a pure share very little obliquity to leave the furrow slice open — It is cut entirely from the bottom and lifted on the share is about 11 inches long and 9 in the beam



the beam is much bent — no butter — held by the one horn — a pin on the side of the head — Beam 6 feet long Mandlets the mortis of the beam 30 inches between the beam and head 9 inches — Mead share feet long and 2½ inches thick

8. Farmers — exactly of the same construction of those of Britain only one eye open directly behind not above — Square hospitably four vanes —

— saw velvet and wire but do not know whether it be European manufacture — Pickles drugs — hedge bill — Several plants of the Tallow tree — — Collumns with a Globe of stone for a federal — Embrasures of the square tower near the hospital 22 inches long wide — merlon 13 inches thick below and 11 above — On the City wall the square tower for the defence of the gate is hollow — magazine within — Rampart 8 foot broad — Embrasures 1 foot thick — width within double of that without — wall twelve three times the area inhabited ascends as usual — 1 field of Cloon in rows across the ridge — a crop of rice has been taken from the same field —

— Bed like British post beds
Double posts in front round
and slender — Sheets of Chi-
very narrow — Chinese Mirror
of metal, a little convex —
Both copper and brass wire —
+ yesterday as review of the house
on shore —

Saturday 30th Nov

Sun rise — Wind S.E. 54
got under way at 11½ saluted
with 7 guns — about 12. Ship
struck a rock in the middle
of the channel, she was stopped
great heel — piece of plank appeared
on the water astern — Sounded the
pumps no water, concluded part
of the false keel was gone —
— she got off of her self — at 1
a great deal of mud appeared to
be stirred up, as the mud lies
so light in the water, it might
have been raised without her
touching the bottom, as happ-
ened to us at
2 Pm. — S.E. 62
4 The ship began to scrape
this with her heling produced
about 5 a disagreeable motion
— clear of the islands — The harbor
of Chusan is difficult of entrance but safe
when in it — the rock on which we struck
lies in the middle of a narrow passage

8 much motion run 7 knots
— ports all lashed in —

Sunday — 1 Oct.

Ther. at sun rise — 60
wind — Cloudy. Ship
rolled much all night — have
run upwards of 7 knots all
~~hr~~ night —

12 H Ther. — 65
— Bar —

Lat at noon by Double
Altitudes — 27° 7′ S.

Swell prodigious — rolling
and pitching all day —
— under our bare poles at
6 A.M. — 10 blows very hard
tremendous sea — lay too
during the night —

Monday 2 Oct. 93

Ther. at sun rise — 66°
wind N. Easterly — blowing
very hard — spent a disa-
greeable night, without sleep
and the mind affords but
little comfort — blows very
hard, as we are near the
straits of Jonno, are obliged
to lay to. Dark overcasting
— from last observation to find
got up a new one —
a part of the main top sail
gone away — Every precau-
tion to secure the mast
7 H weather continues the
same hard gale with rain
dark and a tremendous
sea — the water tumbling
on astern — a sailor shewed
me a strange light on
the water he said certainly —

because there is no stars
this lightning never can be
in a cloudy night" —
— Moonst. we lay to. yet we
make 3 or 4 knots owing
the strength of the wind the
way —
11 P.M. much motion
— Tuesday 3 — Dec 93
Sun rise Mer. o. a. 64
wind Northerly — abated a
little — It blew extremely
hard during the night, the
vessel heeled almost to her
beam ends — this morning
it. sea not so tumultuous
as 8 H land on our starboard
~~bow~~ weather bow — Know
not, apprehend to be an island
— water on our larboard, reddish

some great river or perhaps
bank may be near — 10 still
rainy — standing down the chan-
nel — anxious for the night of
more islands to ascertain pre-
cisely our situation — 12 no
observation, raining all day
Thur. 12 66
— 9 knots at least —
lay to at for the night.
+ Thur. has not varied this whole
day —
Wednesday 4 Dec
Stormy gales through the night
more moderate towards the
morn. — at 9 H saw land on
the right — Observation for the
Lat. — Double Altitudes gave
Lat at noon 23. 4 —
at 2 wind hauled — calm the
the Event — light on the wave

— During the whole of this
head Gale the Ther did not
vary above two degrees —
The wind was northerly all the
time — clouds frequently appear
to move in different directions
the upper stratum always a-
gainst the wind —

Thursday 5. Dec.

Ther at Sun rise — 66° —
wind fair, passed a number
of islands

Friday

Ther. at sun rise — 67°
— fine weather — saw Pedro
Blanco — a great number of beau-
tiful islands scattered over the
ocean — Lat. observ. — 22°,
— Came to anchor at —

Saturday — 7. Dec.

Sun rise Ther. — 68
— An old pilot came on board
from whom we learnt the fol-
lowing information that Quel
Bat. had defeated was against
France, and most other states
in Europe had done the same
— That the King, Queen and Dau-
phin were put to death, that
only 4 ships had arrived at
China, the rest were sent or been
sent to the Mauritius —
— The lion is here we passed
her in the night, she is said
to have taken a prize —
— We are unsuspected for pirates
— were detained by Mr Jem
from La Chance Port, who
returned 5 — Mr Brown 5.
mate of the Bombay Castle
came on board, — learned that

The King of France was betrayed
nothing certain about the Queen
and Dauphin — England, Holland
and Spain at war with France
— Bonaparte Tigris — Prattatis fold
— nodding top of hills —
— water here white like the
other great rivers the mud
coarsely stained esp.

— Our present jonk is of the same con-
struction as those we formerly saw at Chu-
san — wooden anchor and shank no
stock, but in stead of this a round shaft
thrust through angle near the junction of
the flukes it is about feet long. In
heaving the men stand on both sides
of the windlass when one has pulled
down his hand spike he pushes it thro
to his comrade on the opposite side and
thus alternately — Cable made of cane
brought from a distant part of the Empire
— windlass ill made. Cheeks are not placed
parallel to each other but to the sides of
the vessel, by which means there are two gaps
between the windlass and cheek — Manner of
tiding it down with the fore sail

+ At Nan-shan a drill used to make gimlet
holes with a bow and three strings the two
outside ones wound the same way round the
cylinder, the contrary direction, the bow about
the length of a common drill bow —

10 Went on shore met with Lon-to-Qin an
condator who informed us that he and Quang-to-qin

Jan.° 22 Lat 8 — Hydrometer

were no to take their leave of us — Neat wan-to-qin
and of Nunpa were to conduct us safe to
Chusan we received each a present of a parcel of ping-
long, and after heavily shaken by the hand left him
we were sorry he did not accompany us to the ship. —
He is a polite well behaved man is fifth Calao
and a great favorite of the Emperor and Minister. —
High rocks at wind contrary no appearance
of sailing in a British ship we should have been off
the Chinese vessels cannot work well to windward —
— The High rock on the right hand (entering) the
harbour has a square tower with embrasures
from which have been fired from the rock and two
men of war lying below, several times to day
I have not seen one gun mounted in any fortres
one in Chinese — The tide runs at the rate of
Nine knots an hour — 5. wind still against
us —

Dec 26 Employed in getting the apparatus to the Lecture room — opened the optical exhibition, found every thing safe

— 27 Unpacked apparatus

— 28 Mr. B. carried me a long telescope, with several smaller ones, theodolite chain, with mania barometer — found among Nairne & Blunt's apparatus, tests artificial fire water

— 29 opened the rest of the Chests — very little broken

— 30 Gave Dr. G. a catalogue of the apparatus with a receipt to Lord McC. for them

— 31 Putting the electrical apparatus in working order

Jan. 2 Preparing electrical experiments

— 3 Commenced course of Lectures

— 5 2d Lecture

6 Sent away Dallmeyer's telescope — received the magic picture from Dr. G.

— 7 3d Lect — fire & explosions

— 10 4th Lect — on air

— 13 5 Lect — sounds

— 14 Waited on Mr. Moore — showed me the circular instrument & theodolite — Bill of the articles from Lord McC. amounts exclusively of the prismatic & models to £190

— 15 — 6 Lect. Mechanics

— 17 — 7 Lect Electricity

— 19 Putting up the Mechanical powers comp. engines &c

Extracts from Dr. Dinwiddie's Journal

1794
Dec. 19 Mr Irwin called in the e.[ve]. – told me that Lord M. had no objections to my stay on this side of the river –

Plants for India –

— 20 Waited on Lord M. – informed me that he wished to send some plants to Bengal and proposed to me to go with them – Represented the necessity of having some apparatus with me, Lord M. desired me to make out a list of what articles I wanted, and then he would consider of it –

— 21 crossed the river from my three trunks Duncan Book chest and chair – The idea of sending the plants by Hugh's report is dropped – they are to be sent by the Sockale –

— 23 – crossed the river, sorted the chemical apparatus, which consists of a furnace cap retorts, and recevers, ——, crucibles, muffles, measures, indicators tubes syphons &c – Gave in a list of philosophical apparatus

– Rec.[d] a letter from Dr. Gilman informing me that Lord M. had granted me all the apparatus –

24 – crossed the river – busy prepar.[g] the things for send.[g] over to the Factory – Found all my numbers, 45 articles, came to the Factory –

25 – Got over all the apparatus –

Dr. G. says that Lord M. is to present me with the apparatus – tomorrow we are to separate them –

Jan.y 22 Left S— Hydrostatics
Feb. 21 Finish.d packing
— 23 Left Canton with his apparatus—
— 25 Wrote Messrs. Browne, Hamilton, Capt. McDuleth & Thibault
informed Brown that Lewis will to have the model of Woolwich and large pair of fire works sent next season—
March 3 All day mak.g out a register plate thermometer for Lord Mc. Cartney
4 at do do & Barometer
5 Writing all day—
6 Sent Regist. Therm & Barom to Lab.
7 Sent Memorandums & letter
April 17 Made out Mrs memorandums & Mr. Maxwell — settled with Maxwell — bal: due 236

Canton — Thursday 19th Feb. 1793

Barometer Thermr. 8 a.m. — 56

bed room — 62

Sky clear as for some time past —

at 10 Lord M. and suite proceed the Factory and return at the hour appointed for train about 10¼ — was received by the Dowager — Dinner from the Factory, wines from the Emperor — Magnificently served by Sir G —

Dined with Mr. Bruce — Mr. Dickinson Capt. Boyd — Mr. Porter — Mr. Porter called in the Evening — told me that Lord M. had no objections to my remaining on this side of the river — He sails to India — Last night Mr. Bruce showed me a bedroom — with two adjoining rooms —

Canton — Friday 20th December 17

at Sun rise — o. a. — 56

B. room — 62

at 4 left B. and Mr A. to wait on Lord M. His Lordship informed me that he wished to send some plants to Bengal and proposed to me to go with them. On representing the necessity of having some apparatus with me, L. M. desired me to make out a list of what articles I would want and said he would consider of it — Dined at 3 Pagodas — Juggler extremely dexterous — remarks — Rings joined and disjoined — plates whirled round various ways, lost for a while in motion from one place to another and received on the point of the sword on which it whirls — Two plates thrown at the same time the one over the other both in motion and both caught on the pointed sword — Chair jan balanced on the arm, tongs &c with much dexterity

tongs

Cup and mallet used — Cups and balls — Two Boys musical instruments on a sort of plate — the one whirled on and in the other various ways — Sticks on which the plates are whirling held horizontally obliquely — This extremely difficult — Out of one of the cups he brought instead of the balls a pair of tongs — Tumbling boys nothing extraordinary — A female character so natural that it was impossible to have known the person to have been a man. He was probably a Eunuch, little and justings of his dress, bed and sleeping scene — Buffoon well supported — Opticist separates from Cap. Ma— fantoche — female character and her child a very little doll

The juggler talks only to one character who stands by, and pretends to deceive him. This is better than in Europe, where he is for

(+)

Saturday 21st Oct. 1793

This at Sea 55°

crossed the river, found only three hundred Bureau Boots chest and Chair —

Begun began at 12. and finished at 3½ no jugglery — The Dress of some the Islands by Lord's respect is dressed They are to be sent by the Jackall (x) actually leaving some of the company with his confident Surgeon

Sunday 22 Oct. 1793

This at Sea 54°

Chopping bought two Tumblers for one Dollar bird fetches every thing, little Boys, discharges a kind of cross bow from which is long pea is thrown perpendicularly upwards, the bird immediately flies up and catches it the thrown is turned down a fixed pin, and after that a wooden peg is put into a hole through the nose of the stone, the bird pulls out the peg, and immediately flies upwards and catches the pea — Collection of birds and insects — Black monkey Tortoiseshell, the real coloured is Dirty inclining to copper, it is however washed over and made very white — Filigree work in silver — Mother of pearl snuff boxes — Handsome face marker — Maids at one Dollar each — Pagoda — Mahogany — Tantalus cup — Organ some very small — Satisfactions —

At dinner met Mr Daniel Jun. — The
of the Ganges not known, takes its orig
in inaccessible mountains covered with
snow, cement extremely rapid bridge of
rope — no boat can live in this stream
Rennell, gives a certain turn to the up
per part of the river, which Mr D — found to
be true, and learned that there was no
branch of the river to the west, where Ren
places it — The Mahomedans have com
mitted the same ravages on the Hindoo
temples that Knox did on those of the Ca
lies — In some that remain, the signs of the
Zodiac are painted — In one near Madras
there is an Elephant of exquisite workmans
hip and as large as life — The Architecture
cut out of the solid rock very much resem
bles the Egyptian Architecture — Some of the
Moorish Architecture — Mosques — are very grand
— Few remains of the Antiquity about Cal
cutta, but many in the woods of the new
province — Natives extremely mild and in

Language easily learned — The Memory
of the Hindoos it is hoped will revive some
the English are masters and the Mahome
dan Interest has so much declined
Gen McNall's Report on the Celestial
Globe — Manner of finding the Latitude
In some places in the Northern parts of
Hindostan the people hang a kind of
basket to a rope extended over a deep
valley or river and draw themselves over to
as frequently to save two or three days jour
ney —
Evening — French Artillery alledged to be
superior to the English — This was formerly,
but is not now the case —
Ganges has no single source — Rather it
rises from the melted snow on the Mountains
and many small streams collect into
larger and afterwards form the Ganges —

Monday 23d Oct. 1793

Thermt at sun rise 0. a. 60°

— Crossed the river — sold the Chemical apparatus which consists of a furnace, glass retorts and receivers, Cucurbit — Crucibles muffles measures, Endiometer tubes &c. &c. — Gave in a list of Philosophical apparatus — Dr Gramm Gave us Lord Mark Kerr and Mr. Stewart dine with us — Came over in Mr E's boat — Dressed in the factory — At supper received a letter from Quot. Gellar informing us that L. M. had granted us all the passports —

Tuesday 24th Oct. 1793

Thermt at sun rise — 0. a. 60°

Crossed the river — Being in preparing the things for sending over the factory — Found all my members — 45 Arbeles came to the factory — At dinner — 3 fowls on one spit, one roast another boiled and the third raw — Heard that Lord M. goes off in a few days — Height of the Chinese wall 20 feet, of the Tower 36 feet — Two battlements, and three Embrasures on the front and flank of each tower upper story of the tower arched — Bricks 15 or 16 inches long, breadth half thickness fourth as usual — Walls of Pekin built with the same sort of bricks — Thickness of the parapet = length of one brick — The Embrasures of the towers in a line with the battlements of the curtain. — The brick does not does not seem to be old —

and I am of opinion that the wheel
not so old as it is alledged — There are
small holes below the mulcum pa
down and covered by the cordon — Be
Chinese pump wrought with the
the roller at the upper end has on
axis through which are passed spo
with broad pieces on which the ma
head holding a cross stick or ra
The quantity raised is small — The
wooden chain does in the pump
at Lord Macartneys, lay on the 30 be
roller at the end but is supported
on arms projecting from the roller
Water mills are used in China for
raising water, buckets of bamboo, like
Persian wheel — Also used for Navigation
crank on the axle — wheel very
diameter —

Canton Wednesday 25 Oct. 1793
Thermometer at Sun rise 64 o. a.
got on all the apparatus — put into
the warehouse — L. M and suite dined
at the factory — Cards and supper in the
next room — Dr G says that L M
is to present me with the apparatus —
This morning we are to separate Mem
about two sat down to dinner —

Thursday 26 Oct. 1793 —
Therm. at sun rise 66 o. a —
Cloudy —
This day employed in getting the apparatus
down to the Kitchen room — opened the
official exhibition chest found every thing
safe — Dined at the factory — Coffee with
Mr Irvine — Lady Fox at Supper all
busy in sending letters as the packet closes
to morrow — Grand Chop for the sailing
the ships was not issued at 12 yesterday

Hitherto no advantage has accrued to the Embassy, rather the contrary — The of the customs being more strict than formerly —

Friday 27th Decr. 1793

Ther. at Sun rise — o. a. 60°

Employed in unpacking apparatus — Dined at Capt. Thompson's. Large party — Gen. and second at the mandarin dined with us — Lady — Discovered that St. and Jas relations —

Saturday 28th December — 1793

Ther. at Sun rise 58 o. a.

Heavy rain — almost during the whole day — Mr. B. carried over a Large Telescope with several small ones Theodolite and chain — Marine Barometer — Spectacles Dined at Mr. Dickinson — Messrs. Hamilton Brown — Perpetual motion — Brown and Nairne and Blunt's apparatus Gerard's artificial fire works —

A Chinaman floats a board in each bucket to prevent the water forming waves and consequently flowing over — Chinese wash cloths by treading them with their feet — men, as the women in Scotland —

Sunday 29th Decr. 1793

Ther. at Sun rise — o. a. 57°

Employed in opening the rest of the chests very little broken — Dined at the factory — Messrs. Parish, Crew, and Scot at Chinese — Set next Capt. B. at dinner drank tea with him. Mr. Meirop — Cooks always cross at the time of high water both at Canton and at Macao — Plant water with water impregnated with fixed air grew better — Chinese have no centers for their wheels turn them on a heap of Coal — good crucibles made here — Coal — Glass Jars made here — they are thin — They not will do — At

Saw the Caoutchouc tree — white — English sun —

to this settlement in the shades of Mar-
we shall probably call there going to Bay
Canton — Monday 30th Decr 1793
Thermt at Noon 9 a — 55°
Gave Doctor Gillan a catalogue of the Mus
with a receipt to Lord Macartney for them
and with Capt B — Hydrographica —
Sunday 31st Decr 1793 —
Therm at Sunrise in 9 a — 57
And the Electrical Apparatus is now under
mounted Naomi Machine which acted well
— Dined at the Jas and Bottoms found them
sound — Propose beginning on Thursday mor
Dined with Capt Thompson, after dinner took
a walk to the fields in the opposite side of the
river — Observed some Indigo of a smaller species
that in India was chalkfield by the Mulattoes
who surrounded Lord M. This was not to be the
case formerly nor that since the arrival of the Em
bassy — Called at the gate of one of the Mus
merchants, but could not get admission — return
— supped with Capt Thompson — going — saw in
the new year — Governor of Manilla has been
in England, extremely civil to the English

& bringest they are Doubtfully to make
with copper bracs — Brisk hills near
Canton — road in Scotland — north — bigger
Carriage over the hills where they could easily
have been carried round below — The Dutch
gar is extremely useful to the
Chinese who have so many boats, they
could not work half the yr with com-
mon oars —

Monday 8th Oct. 1793

Gen. wea. Ther. 68° at 12. — 72

Light at anchor no wind last night at
N.W. Cape set off for the shore up
the river — Mud raised by every boat
of the ship — water thick —

I now enter on another year of my life
last birth day was at Rio de Janeiro
this in China — what varieties happen
in ~~the~~ ~~two~~ short a time!
I have been for three 15 months combating
every difficulty which wind and weather
storms and tempests produce — I regret
has been, at least since our arrival in
China want of knowledge of the language
to travel through a fine country to
have an opportunity of seeing Pagodas
Canals, manufacturing towns without
being able to ask a single question is
extremely mortifying — to be conducted
to the bottom of the Bailiffs by a Calas

of the Empire to receive a present from
a foreign power, the Emperor & the
Spanish, from the Emperor & the
Calao's farewell speech without being
a word he said and consequently to feel
into numberless blunders in our ob-
to reply — The circumstance of having
our and that an ignorant interpreter —
what information could we derive respecting
the business or arts in a country where we
not conversed with the inhabitants? — With
countenance will Lord M. return to Europe
his shameful treatment? — No apology will
help — We go home are asked what we
done, our answer, we could not speak to
people

Monday 9th Oct. 1793

Sun rise Ther. o. a. — 70°
at 12 o'clock 72 —
one ignorant last night on the Secondbar — get off at 4 this morn — No wind
Under way at 12. agrounded again
at 2. The Pilots are extremely ig-
norant of the river — Read the Proceedings from the 14 to the 22 of Oct. — The Viceroy of France is brought to his trial, the questions put to him are in general frivolous, his answers appear extremely patient — Ther. — at 7. — 71° —
some gentlemen dine the manager of our present business —

Tuesday 10th Oct. 1793

Ther: at Sun rise — o. a. 68°
at 10 " 69 —
last night Messrs. Drummond and Robinson the former a Supra Cargo the latter
which vessel came on board — Mr. D. is come
out to settle Coa's affairs —

still at anchor — This is the third day
we entered the river — varied by a
moderate breeze — Colds no end the
Gang, we returned the compliment —
three days — Capt. M. Coll Lt. and
Mr. Dean Dr. set out in the Prince
for Canton — we gave them three Ch
their own pendulum rental the
return and our answer, fire effect —
Nets of Straw —

Wednesday 11th Dec. 9

at sun rise Ther. o.a — 67
at 12 o'clock 72

Capt. Proctor and a Mr. Brown dined on
board the Windsor — The Chinese are not
likely to make any alteration respecting
their trade — Trade will always find its
level, can never be forced, no advantage
having a port to the northward on account
of the cheapness of carriage and freight Mr
Pot overturned — Dutch Camlets 10 Sl. Cu
English — English broad cl
Jasper blue

better than Dutch — If the Chinese wish
to see manufactures they will have at
Canton or any place, and it is generally
that the deputation attending the navigat
the Eastern coast of China, with the gene
not that are off the coast will move up
with more
advantages ~~on remote~~ all other
proper advantages ::

Thursday 12 Dec. 1793

Ther. at sun rise o.a — 68°
Set out in the pinnace for Canton — fine
river — 5 Pagodas, octagon — projections
between the stones not near so great as
those in the north, terminate differently
some in a conical roof, one only is
single but no bells — Intender rice fields
stopped at the Chief house about 1/4 hour
waiting for a Chief Ther it seems was
owing to our not having a pendant in
the boat — The Captains boat are never
stopped in going up and down the river
They pronounce on their tongues to amuse

~~now~~ nothing in these boats — There are
~~now~~ chiefs from between Canton and
Wampoa where the Mandarins live at from
great quantity of shipping on the river
which is at Canton — about yards
broad — Crossed at the English factory
at 12 o'clock from Capt. M and Colt.
Brown they introduced to Mess. Brown
Jowen and Jackson — Mr. Duncan Surgeon
to the Factory delivered me a letter from
Doctor Scott of Bombay — Saw some
beautiful flowers frequently painted —
at Mr. Jowen's — Fans most beautiful in
Jersey — Fans varnished — Dined at 3
Mr. Brown is the head of all the company
servants — sat at the middle of a most
sumptuous Table Colt. B. on his right
and Doctor D — on his left — about two dozen
at Table — Altho' the freights and cargo
of goods to the Northward be moderate yet
there are considerable imports which raise
the price of the articles much above as

quite at Canton — Dine early — supped
at 9 + breakfast coffee in Colt Brown's apartment at 7 — At Supper — Some
language — The Table is said to cost
the Company from thousand pounds
a year — English has seven eighths of the
whole trade of Europe — When it was asserted that the trade with China was very
advantageous to England, it objected that
further was mostly purchased by money
and consequently that the Chinese trade drained
the country of money — To this it was replied
that silver is as much an article of trade
as any other thing, the end consequent
can make no change in the trade. It
only shows that it is more advantageous
to purchase with money than goods
Read news paper — March —

Canton — Friday 13th Dec. 1793 —

Pleasant at 9 we were outer room — clear — 66

breakfasted in our own apartment

afterwards Mr. Fox brought a pair of

excellent Bantam Fowls for one Dollar

— Took a walk — Shops — Jewellers — Models

and handsome face makers — many Jesuits

Chinese and Tartars — some Russians — Pagodas —

Mechanique — Bought one pair of Silk Hose

for one dollar — Scratching board — Musk

whisk — Combs — Tumblers &c

Dined at 3 about a Dozen —

after dinner at Mr. Fowris — a Book

of the Indian transactions — one page

on Chinese Astronomy — The Embassy

was expected by the Emperor 9 months

before it arrived — 3 months negociation

was necessary to get over the necessity of

Mr. Hobbelling from Canton. At length

on the Commissioners declaring that both

conduct he would not proceed at all

the Emperor consented to allow him to

land at any port he chosen and a Guard

of 300 men were appointed to attend him

They were in readiness at every port on

the East coast for near three months.

The commissioners were much afraid that

the Emperor perhaps would be worn out

with much at a loss to learn the reason

of our delay, at Rio de Janeiro — Tenerife

Bay — Straits of Sunday &c — The despatches

were ready at Batavia on our arrival —

Commanders — Pretended they could not

enter the Chinese sea before the end of

April — Could the not have made Macao

and relieved the Commissioners from the

anxiety which they felt respecting the

disposition of the Emperor so long disap-

pointed and so little accustomed to such

treatment — Why not accept of the Banner

He was finally sent by the mandarin
to go between the Dutch & French and
his Parole to stay — and finally turn it
again that he is one of the most corrupt
men in the Empire — offended French
he is not a man, but the greater some
thing considerable in French way — an
Young Frenchman is no — Young
Dutch may mean is no — I
it ought not to have been mentioned
at all —

Canton Saturday 14. Dec 1793

Prest. at Dean's — Asia

Visited the House and Gardens on the
opposite side of the river where L. M.
is to reside large and spacious —
The fort on the river begun by the Dutch
under pretence of a war house, brought
cannon in Carts — one burst and the
cannon fell out, the Dutch were instantly
expelled, and the embrasures which they
had barely marked, were opened and
still remain a fort — The house now
preparing for L. M. belonged to a
Young merch. who lost his reason. It
was purchased by the other Young Frenchman
but they have not put it in complete
repair, ~~from~~ from an opinion ~~that~~ this
that government will seize it — Saw
the new houses of the Young Frenchmen
large and elegant — Now the sea is just
into the Chinese trading hour —

Shipping — two bales — Domine — Swan
pan and Chongable box for Collector
Lagrand was — Capt. M. and Mr. Bo
arrived from the Ship — Two letters —
Letters from Europe — Capt. Rea from
Commander of the from
the Siege of Pondichery — That very
Cold 3 months, and when the Governor
had Capitulated, the common Soldier
surrounded the his house and but for
the interfering in of the English sem
would have cut him to pieces. One
of the Soldier assembled to harangue the
English Soldier, telling them that the
Letter expected that the Elder sons of he
body would have acted such a part, we
have supported despotism. One of our
rank and file, why do you not first a
bayonet in that scoundrel — When they
were brought to Madras, they were denied

gave in through their officers their remon
in order that their nation might be aware
found: they replied we have no officers
we are all equal. A little parling 2 days
brought them to their senses — After the
delivery of their arms, the officers dressed
in Mourning and performed funeral
service for the King — The answer sent
by the Garrison to summons to surrender
was detailed in the most haughty and re
solute terms, that they were determined
to spill the last drop of their blood in
defence of their liberty —
— The news from Europe is that Dumou
after being three times beaten had written
to the National assembly that surrounded
with so many powerful enemies, it was im
possible for him to defend himself. Nothing
but proclaiming Louis the 17 can save France
from destruction. The Convention immediately
summoned him to a trial, and sent three
commissioners to seize him Dumouriez

and Crew began to commence very hostile. Commissioners assembled 22,000 of Ten troops and arrived from Pekin they towed our Ships as a trader. They all with one voice declared to be contraband. The Chinese finding out the National Colours and finding a complete one, the troops followed his example. When the Commissioners came to the Camp, they were politely received, but told they are prisoners and would be kept as hostages for the lives of the Queen and Dauphin. Demarcation sent to the Austrians with four regiments — Britannia has declared in favour of Royalty and declared the Dauphin King. — Bombay Gazette —

+ Gen. Knox be quarrel and drawn across the Lead of bank fermenting beer the Lead soon disappears — There is a good Chart of Canton river to Macao by Capt. Hudson —

Canton — Monday 15 Oct. — 1793

Barometer Thermt. — Clear — 58° —

Capt. Mott, Dickenson and Mott at the Factory saw the Dipping needle sent to Sir G. Staunton — visit — At one the new Com-te of Hoo Fooseen paid the factory an his first. The Mandarins were sent to meet him, and as customary offered him a magnificent present, which however he declined accepting — Lord M. will arrive on the 20th instant — Sappan — Freezing mixtures — country beer — Chinese butter — oranges —

Monday 16 Oct. 1793

Barom. rise Therm. 52° —

— arrival of Mr. Dunn Senior to the Factory — Mr. B. has in at the head of the whole business — Commission — Secret committee and commercial committee — Dined with Capt. Cunningham of the Bombay Castle — Indian Hooker — Mr. Cleighton drank tea with us — Supped with Capt. C —

Thursday 17th Decr. 1793

Thermometer at Noon 52° —

Breakfasted with Mr. Dunn — Stayed for Faithey — Difficulty of getting gongs on board — Take up a Dollar to the Mandarin — Stretch with Mr. E — at 12 — Gongs being received — Casting lead for the Sea sheets — Looks both China and European — Looking Glasses large and well finished of China manufacture — Spy-glass — Mariner's compass — Box — Mandarin cutlass, box with a weight on the upper end, rais with Emery and oil — Cotton cleaning machine, pretty and like a harp with one string, which when struck by its elasticity acted on the cotton it is supported on a spring of wood shut on the Reach — Cutting watch, and small home glasses, a cutlass of steel, the opposite with great ease, a circular pattern of the wood, without any noise — Mirrors well polished, some large — Boy ornamenting Chinese bottles with a pencil — very quick work for Mandarin large — common — with two stones and two nuts there last year shot for the flowers wanted — prepare cutlass drill stuck in, was before — please with a cross stick — Taylor Gone — Sailors Nankin Jangs have a small, carton, a deep rim, both kinds of blue — Painting on glass — Small heads of men and women made of a kind of Clay red colour in counter form of a bear of paper or cotton — imitated — fine colour — Dinner Mr. Daniel — Trees, roots and fruits in China — Thus, little inconvenience from the tubes being open — The Gun should have been of a larger size to have had any good effect on the Emperor — Those sent were little bigger than three oun — The excise or imposts on goods carried through

the Emperor is very great so as to justify
our wishes to establish a factory at Canton
— The late Tsong-lu at Canton was
commander in Thibet against a rebel
— ordered L. Lord Cornwallis to send troops
to crush the Rebel to take him either
dead or alive, but rather alive — Lord
C. knowing of the Chinese Embassy and
unwilling to do any thing that might
tend to impede the business returned
an answer more mild than he deserved
mentioned the wish that the King of G. B.
had to cultivate a good understanding be-
tween the Emp. and himself &c — The rebel
hearing of this divided — The Tsong-lu rebel
afterwards and I believe conquered. He seem
that this transaction might come to the
ears of the Emp. he listened to Peter be-
fore and its being spoken of — coming to
the ears of the Emperor — This may pro-
bably be one cause of our sudden departure
Difficulty of getting interpreters at Canton
none at Batavia — Supper — Pudding
given to Students in Geo. Natural Philosophy
Special — Difference in length between the
Astronomical and Pendulum telescope
Canton — Wednesday 18th Dec. 1793
Thermt. at Sun rise 6 a.m. — 53
in bed room — 62 —
Sky as usual perfectly clear —
wrote on Mr. Dechemeon — Mechanique
— writer and Draftsman — He drew the
King and Prince of Wales in my presence
I saw also a fop and dog of his doing
Prince. Dog and fear, when you take away
the fear, the Dog who is looking up at
the bee, begins to bark and continues
barking till you replace it when he im-
mediately ceases — Two birds, hopping about
Conjuror with a book in his left hand

wand in his right discovers a hat, he puts it first into a small drawer. There are 16 pictures in all any one of which being taken and put into a little drawer and the drawer shut the conjurer first knocks three times, lifting up the book and leaves his wand leaves he looks attentively at the book when raising his ~~hand~~ hand to a little door in the upright part of the machine a door flies open and exhibits the same picture which was put into the little horizontal drawer — He then makes a signal with his wand and the door shuts — Should ~~the figure~~ you attempt to deceive him by putting no figure into the little drawer he shakes his head twice and proceeds no further

Song — Song all the time —

— Machine with water falls and beautiful coloured spirits, changing colours ~~every~~ at short intervals —

Mag hunt — Fairy Queen — Musical bells —

Morgiana watches, hour on the dial the sun's correct motion — Moon's peculiar motion — The motion of the moon's node — Shewing of the fixed stars — a figure moves one of 24 the other of 12 hours continue and is the center of the watch. —

The Crafts man moves from one part of the figure ~~to the other~~ with great ease and seemingly extremely natural —

Dance Miss Campbell, Whitman Mikin and Warren of the Lion — Below Mounds, Jobabeth man gentle nobe hospitable — Canoe set out find the place of the setting of the sun — A mackerel sky they call a fish sky and say it portends wind, they have no religion, but acknowledge a god but think it unnecessary to worship him because he will do what he pleases any rate — Change and full of the moon affect the weather — have names for the planets

Language easily learned, they pronounce
the letter R. readily — pronounce distinctly
Best leaves — Free commerce between Ro-
sex. but adultery is punished with death —
Have neat huts — cook their victuals in
earthen ware which they make neat —
why do you wear powder? because it is the
fashion in our country. Is it desirable to
be old? — Dight with barbed spears
Bows & arrows with the arm horizontal —
+ Capt. Brown is just returned from waiting
on Lord Macartney and has brought me
a letter from William Jardine dated the
9th Oct. 1792. in which he mentions the
receipt of letters from me at Teneriffe
dated 23 Oct. The date of his must therefore
be a mistake. It should have been 9th
I suppose. He mentions his appointment
to be appointed to an old practitioner in
Grenada, Doctor Saunders had been appli-
ed to and through the recommendation of Doctor

Chapman — He was to sail the day
following — Address at Mr Rogers
St George's Grenada —
Capt. Brown Irvine Sailors and Capt.
Brown waited on Lord Macartney, all well
but headache and sails on at 2 miles dis-
tance from town — He is to be at his
house to morrow morning —

Canton 4 Jan 1794

Ther. at sun rise — 0 - a

at noon —

at sun set —

55 a

I now enter on another year with fel-
lowship than for several past — I hope
to make some observations in the course that
may be useful both to the inhabitants and
to myself — I propose to keep an equa-
table register of the Ther. at sun rise sun set
and noon and of the barometer as far as
can be done — I propose also in my pas-
sage to Bengal to practise taking observations
Also to make out in the course of the
year a set of lectures on Philosophy
Condense the Journal of the Embassy into
a small Vol. — Revise Mathematics
particularly Algebra Conic Sections and
Fluxions — To write a treatise on fire
works —

Canton Thursday 2. Jan.y 1794

Ther.: at sun rise. v. a. 53°

at noon — Ditto

at Ditto

Employed in preparing Electrical Experiments off machine very powerful —

Dined with Mr. Hamilton — Com. Thomas — Thomas creatures can imagine do no

[illegible] — Capt. M. knows nothing about the Chinese trade — Breakfast — Evening at the factory —

+ a piece of real Coffee was from Capt. Brew and red Dye Stuff for Cotton from Mr. Hamilton —

+ also some Cobalt ore from Mr. Hamilton —

Canton 3. Jan.y (Friday) — 1794

Ther.: at sun rise — v. a. — 46

— at noon

— at sun set

The evening of 7 began my course of lectures — Electricity — large Machine would not act — experiments on Nairn's small Ditto — Experiments secunde vitt — must have the furnace higher not believe which will be on Sunday — Dined with Mr. D. — There were upwards of thirty Gentlemen in the room, but not all subscribers — The Chinese have no instrument for taking the sun's altitude, nor any other nautical instruments than the Compass divided into 24 points a more convenient division than 32 —

Canton 4th Jan.y 1794 — Saturday

Ther.r at sun rise — 53°

at noon

at sun set —

— attended at 12 according to appointment in the Lecture-room — several gentlemen — repeated some experiments —

— Dined with Capt. T. — Prepared some of the Experiments for to morrow — supped at the Factory —

Sunday 5th Dec.r 1793 —

Ther.r at sun-rise in o. a — 56

at noon

at sun set

Gave the second Lecture on Electricity

Large Jar broke by a spontaneous discharge — In consequence of which several Experiments were omitted — Great moisture would not be brought to act — appeared damp within — Respirat.n and Chemical did not succeed — Powder Magazine not charged — Dined and supped at

Canton Monday 6th Jan.y 1794

Ther.r at sun rise o. a — 61°

Tried several Electrical Experiments all of which succeeded — Chemical Lecture with Capt. T. — Sent away Dollond's telescope — received the Magic picture from Doctor Gilson — supped at the Factory — Mr. D— d — thinks the atmosphere was very clear of the same night

Tuesday 7th Jan.y ~~December~~ 1794

Ther.r at sun rise — 52°

Gave the Lecture on fire — Inflam.n of the essential oil did not succeed — Nitrous air of the pale kind — D. G. says Doctor B. is afraid —

One of the Chinese asked how much Gent.l expected to make by my goods

Canton Wednesday 8 Jan 1794

Thermometer at Sun rise o. a. 50°

Lord M. and Suite arrived at the factory at 10, set out for the Lion about half past ten. The Lord sent a Mandarin forward by all his Captain boats in two lines, fine appearance, reached the Lion about 1. the war mandarin as also the Mandarin — left the Lion and the Embassy at 2 was just abreast the Mandarin and by Capt. Gray the Lion saluted with 19 guns 18 pounders — Chinese stopping their ears — kept abreast the Mandarin —

Canton Thursday 9th Jan 1794

Therm. at sun rise on board Mandarin 54°

— after arranging seat of Capt. Macartney & officers effects instruments — set out with Mr. M'Crea for Canton — Tide equal we did not arrive till five — x x —

Canton Friday 10th Jan 1794

Thermometer at Sun rise in o. a. 54°

Lecture on air — Experiments all succeeded — Dined at Factory — supped with Mr B — Three Chinese, swedes, at the Lecture —

Saturday 11 Jan — 1794 —

Ther. at sun rise in o. a. 58° —

a walk through the suburbs — weaving flowers with — chopping Dollars — Green stone seems Malachite or Jasper — another which we take for lead — Though Mongrai house very large — small courts — house with gold fish — Painter — Apothecaries shop — visited Capt M — saw his machinery — Swan — Serpents &c — Bonsai — Specimens — Dined with Mr B — after dinner took a walk to the other side of the river — Tomb of Antonio, Gregorio Lopez a missionary — Chinese permit strangers to buy among them, more liberal in this respect than some Europeans — fields, like Indigo, covered with straw from the sun,

free circulation of air — Chinese frequently
plant two different species of vegetables on
one edge — Potatoes and turnips — Peas and beans
— Peas are lately introduced into Macao
by Mr Mellon, from Macao the wine for some
time carried to Canton at a great expence
— The farmers about Canton finding a good mar-
ket no cultivate them in considerable quanti-
ties — Plant them as in Europe — we have green
peas tho' in the middle of winter every day
to our dinner — Brewers of different di-
mensions from the common — Chinese
employ the bricks of an old house to
rebuild — Bamboo doors — Shells fishi-
fied — part of a vault — shards lion —
these shells are twenty miles from the
sea — fine hare of burying ground very
expensive — Large Gardens rich walks
belonging to a Joss house a Temple for
all countries the Priests live comfortably
— Service, Hymns &c at stated times

Notwithstanding superstitious the Chinese may
be deemed, they possess one convenient quali-
ty, they never quarrel with strangers about
religious matters — Their worships never
interfere with their labour, being performed very
early generally before sun rise, or late at night
after work — Method of filling Tea Chests —
The Chinese Catty is found in to the English
Hundredweight as 4 to 3 — Its the only
exception from the decimal division in Chi-
na — The Catty being divided into 16
— In bombay accounts are kept in Rupees
quarters and decimals, — would not Rupees
and decimals be better — Principal Exports
from Britain to China are Cloths, lead and
tin — Very great quantities of the former are
here — Market over stocked. This from appear-
ing induced the woollen Manufacturers to
extend their business too far — two years
will probably occasion a great deal change —
Tin is also much fallen. There is this year
a loss of 5 per Cent on this article

Chopped Dollars preferred at Canton but
New Dollars 2 or 3 P Cent better in the
two provinces — This the Company may pro-
bably not know — Great quantities of Dollars
manufactured at Birmingham for the China
market — Equally good with the Spanish ar-
rive Chiefly — The Many Merchants pay
all Duties, these are included in the price of
teas, by this the Company are saved from
much trouble and imposition — Duties
laid on, in general with great judgement —
watches and other small articles which may
be easily smuggled pay no duty, but Bullion pays
the high duty — Cotton duty low because
manufactured in the country — The liberties
of the Company's Servants are of late years
much retrenched, thirty years ago it was
common for a Lady to sit at the head of
the table, Dutch factory — One of the regu-
lations of the Embassy is said to have been
the prevention of the Supra-Cargos to remain

all the year at Canton — Is there any order
from the Emp.r to the contrary? Mr Reid and
servants remain — The Supra Cargos there-
fore wish to leave Canton during the summer
This is also the wish of the secretary Mr Staunton
who would otherwise be confined to Canton
the whole year round — The Company have
endeavoured to procure the perpetual re-
sidence of the Supra-Cargos here, but hitherto
in vain — Rent at Macao, servants
&c about two thousand Dollars, and expence
of Boats &c — at least ten thousand —
Dolittle writes insist that the balance of
trade must ever be against that country — This
seems ill founded, bullion differs not from any
other commodity, notwithstanding it has been
made the standard of commerce, if bullion is short
export it, if scarce supply its place with some
thing else —

Sunday Jan

Nokia lea packed - metre
gestures — number — great
room — Theatre — Monsieur
conductor — Showing Tobacco
with a stone — polishing
medles 12 or 20 in the hour
and rubbed over each other
on a stone — The nails of
the profiles were $5\frac{1}{2}$ long
— Earthen ware — Boilers &c —
cast iron — Brazen Jongs
trumpets — Glass tubes
curiously coloured — yellow
blue and other colours —
— Stone cutter — Turning lathe
two treadles with a rope the
alternate pressure of the
feet produces a reciprocity Mr
+

7 —

This is the Meridian
found on the Globe
for the 29th of Feb.r in
Leap year

+ What is the ∴ quantity
of Ds. Water in by a
Ship at different depths

Rich.d Ald 4. 30. 5 N
66. 0. 51

21. 29 51
6, 35, 9

12. 6-42. 1
1402 | 38'

Sunday 12 Jan.y 1794

Thermt at 9 min 20 is in 0. a. — 63 —

Dined with Mr. Sd — M. — one of the
Young Members dined with us could not
easily comprehend the meaning of Doctor of Law
asked what weather it was going to be, whether
I would move away that picture from the room
Doctor in Medicine is the only title with
which they are acquainted — Concert at
the Spanish factory at seven — Mr. Murcott
led the Band, with about 8 or 10 other per-
formers, concluded at 9 — hoisted at the
Commodores — whether those are now rather
under than over-masted — Chorograble picture
Ether —

Monday 13 Jan.y 1794

Thermt. at 9 min 20 — is 0. a. 53°
morning cloudy and windy — wind N. 7
Day cold — Dined with Mr. H — Lecture on sounds
small company owing to a great dinner at
the factory — Supped with Mr. H —
method of making ice at Calcutta — water in
plates of earthen ware laid in shallow pits

abroad to the north end fires in case
the Thermometer be no lower than 50°

Sunday 14 Jan.y 1794

Ther. at sunrising o. a. 46°
mod. clear wind North.y —

Dined at the factory — called on Mr. Brown
showed me the Circular Instrument, and Mode
of use — what is the scale on the vertical arch of the In-
strument? — Bill of the artificers from Lord Macartney
amounts exclusive of the fire works and models
to 190 £ — Wages ~~[illegible]~~ per day
Wages — Dr — two refitting Telescopes at
four pounds each — Capt. Wilson's Circular
Instrument — Conversation about Pekin

Wednesday 15 Jan.y 1794

Ther. at sunrise in o. a. — 45°
Clear — wind Northerly —

Walk on Mulberry Grove — all night
Dined with Mr. M. — supped with ditto — Rudy
Imeaton — in great punchain about they put
3 punchins above and two below and bring the
ball from the middle stream, his servants
coming, but then short ropes the ropes

Longitude valve — Gibbon valve — Chan
pump —
Profession of Law — a numerous one of high rank
is without profession — Interest 18
a 20 p cent on some occasions 2 p Cent a
month is given — Chinese will not trust one
another, hence the advantage of the Supercargo
lending money to the Chinese merchants —
— Knowing of debts very difficult in China
you may say the property of the debtor
whether you find it in the power of the Dr.
be confined? — If the Debt be a high pro-
darg. it is extremely difficult to recover
— China merch.s in general very principled

Thursday 16 Jan.y 1794 —

Ther. in o. a. sunrise — 50°
Cloudy — wind northerly —
Dined with Mr. Bal — whether the
Dutch applied to G. Mratin for assistance
Ning Merchants want money at present
very much owe great sums to the Dutch
Mr. B — would not trust one of them above
two years, he thinks the trade will be
resumed in that time — Not about pre-

passing electrical Experiments — Supped
with Mr. Fy.

Friday 17th Jan.y 1794 —

Thermom.r at sun rise 0. a. 55
Cloudy — wind north.y —
Dined with Mr. B—e — Lecture in Electr.
all the Experiments succeed except the
Church — Bad eyes — Supped at Mr.
H— rooms — Book Sacks translated into
Swedish, by Capt.n Clawson —

Saturday 18th Jan.y 1794

Thermom.r at sun rise 0. a — 56 —
wind northerly — Thin Clouds —
Between four and five this morning there
was an alarm of fire, it soon burst out very
strong, and appeared to be in the house of the
surgeon to the English factory. It was in the Swedish
factory, the house next to Mr. Duncan, a
number of Engines were brought, none of them
seemed to play well except the Dutch Engine

It seems a little extraordinary that there
is little or no water in the factory, and that
the more as water is always found at a few
feet depth. Open wells with a tube to fix the
leading hose on to prevent the Engine shifting
would be useful in a future case fire or to
frequent — A pipe might bring water supply
from the river to all the factories — A Fire
fire proof would also be of great service as
it would secure the books papers and things
of greatest value — The Engines are mostly
out of order. It would be worth the while
to give Debault a Salary to keep the En-
gines in order — Dined with Mr. B. — Mr
an Armenian Merchant dined with
us he speaks English well, and Chinese tol-
erably — I propose to write to Doctor
Scott —

Sunday 19th Jan.y 1794

Thermometer at Sun rise - a.a. 57

Mod.t Clear wind N. Easterly —

Employed in finishing ~~my~~ by the Electrical Apparatus, and putting up the Pneumatical powers, Compound Engine &c — Dined at the Factory — Chronometers, either large or small go best — Watch more affected by alternate of heat and cold than large ones — Sculler — Saw — Saw Cast Lubock Velocity circular instrument — Shall describe it afterwards — Concert — supped with Mr. B — Chinese coal near Canton, grains of the wood distinct in it — Mr. Daniel saw in a cave below on a Cataract of 200 feet perpendicular, a stratum of coal — some petrified others soft like a pencil — water in other places moves over immense beds of marble, of all colours — The longer a man follows the sea the more timid he grows — Cast. The — an exception to this — Breadtree found in great plenty in the Chinese seas — Islands — I observe in an English paper that the arrival of Capt. Bligh at Jamaica with a great many bread fruit trees — Mr. W. advises me to write a letter to the Secret Committee expecting my stay here — Dined Cold B — Hunt supped, and adverse conversing with Mr. Bevan on the Subject of Nova Zeb.

20th Jan.y 1794

Ther.t at Sun rise — 54°

Cloudy — windy — wind N. —

Second Lecture on Mechanics — Opened and supped at the Factory — Mr. Dickinson invented the Chain Machine, the Cylindric reciprocating machine has been used in Sing-songs long ago —

Sunday Mod. Sun rise 58°
wind Northerly clear — It is in general
a little cloudy about sun rise but soon
clears up — There is a great degree of dryness
in the air when the wind is Northerly — sound
open and Cracks in a surprising manner
There is on the other hand a very great degree
of moisture when South every thing swells —
Wednesday 22 Jan. 1794
Mod. A Sun rising in O.A. — 54
wind Northerly
Dined at Mr. Hamilton's supped
at Mr. B — s — Lecture on Hydrostatics
well — Tho' the water rises slower as
the ships fills, yet more dangerous — burst
her sides — a Ship model of a Man of war
dock — Gun every mod. at day break
and Reveille — Corresponding observation
of the moons transit over the meridian, take
her distance from a fixed star at both
places — If a horse lie down with lightly
habitant is a sinner — Thunder cried —