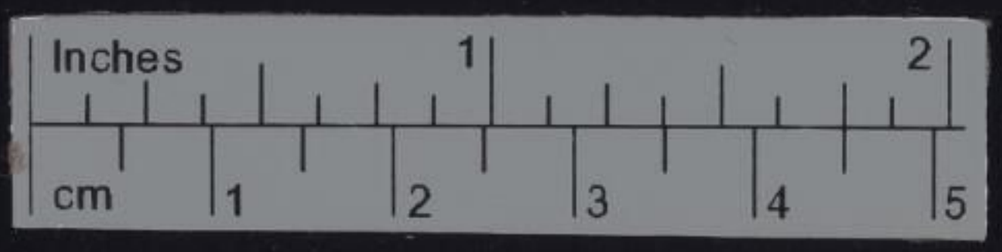
12 to 1675



C. Darwin

Athè 93° 50' & 86° 10'

Amherst 124° 30' & 55° 30'

Anjila 87° 5' & 92° 55'

1832 [1] H. Jago

12 The following specimens were collected at Quail Island. Jan. 17th: near Santa Fraya. St. Jago.

Four Specimens

Feldspathic rocks forming a horizontal cap for island

13 Do. (Alumina shell)

14. Do

15 Do

17 Next strata. remain of sea coast cemented together the upper parts are rather more friable & finer. —

18 The lower bed of (13) resting on cemented sand. Coarse.

19 Do.

20 Do (cont to Dr. Dieffenbach

21 Upper rounded bed of the white sand. in contact with feldspathic rocks

DAE 236.1

Quail
2P
Sediment
deposits

Fine grained pale almond
calcareous slightly indurated
muddy sand.

(33(2 Turbo. + Serpula

Jan. 17 1832. H. Jago Inail Island

22 Do

23 Do.

24 Do

25. Convex white concretions often becoming pisiform. Lower bed of white sand

26 Do

27 . Shells . corals . Echinus . from the grey & lower part of the sand

28 Do

29 Do

30 Do.

31 Do Echinus

32 Do Echinus. all its parts in proper plane when found

33 Smaller shells. —

34 Pebble on sea shore

35. Breccia forming at present day

36 Cementing matter of these breccia

(47 +Legs of a Geb. about 30 feet above level of the sea

Jan 17 | 1832. St Jago Quail island

[3]

37 Chiefly ~~Arca.~~ Ostrea from the lowest & more soily bed of white sand

38 Do

39 Do

40 Do

41 Do

42 Do

43 Do

44 Do

45 Voluta & Cardium

46. Turritella. Turbo Chama

47. Numerous small shell in the white sand

48. Beds beneath the white sand. & the foundation of the island. Amygdaloid occasionally. containing in the cavities minute white crystals

49 Do

59. V. Measurements ' f 2

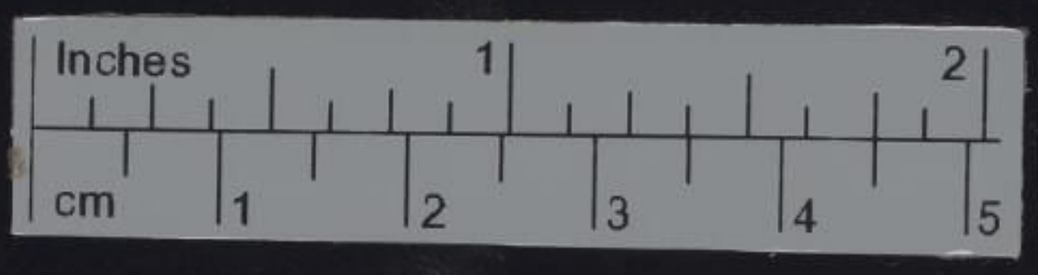
18th of Jan:

(871 Aluminum Smelt

Jan 17 1832 St Jago Quail Island

[4]

50 Do
51 Do
£ 52. Rock. with crystals of Augite & Olivine (?) in same position as Amygdaloid
53 Do
54 Do
£ 55 Do
£ 56 Do
£ 57 Do
58 These are two are undergoing
59 × decomposition
60 Crystalline rocks
£ 6[illegible] Do
62 Contemporaneous dyke. —
64. Lower augitic rock 93°. rel ∠ 92.55
65 Do (91°.34'. +) (sent to Dieffenbach)
66 Do
67 Do [illegible]
68 Lower rocks



Jan 17

69

70

71

72

73

74

75.

76

77.

78

79

81.

82.

Jan 19th

(82) Aluminum Metal.

83.

(84) crystals Cæsius fusible into clear green glass 84.

[5]

Jan. 17 1832. St Jago Quail I

69 Lower rocks. partly decomposed

70 Do

71 Upper felds pathic rock

72 The very top

73 Do.

74 Indurated sand. S. end of Island

75. Modern breccia (of the present day)

76 . Cementing matter. -

77. The lower & more soily bed & grey sand. - Containing great numbers of Turritellæ

78 Do

79 Do.

81. Do

82. The following rocks. occur. 2 miles W of Quail Island Upper series. with crystals of Anorthite

83. Dyke in lower series.

84. Bordering rock. with crystals

(86) Corundum (?) unfusible very hard. becoming blue with Cobalt. — Vitreous Feldspar

89 Matrix Arragonite

(103). Small scales of Mica & hard reddish crystals

(106) easily fusible Jan 20th

(a) ~~are~~ rocks from 101 — to 110 come under or are connected with Tap-like hills. —

Jan. 19th. 1832. St Jago. (W of Ducie Island)

85 Do

86. Various minerals from lower lavas

87 Do

88. Do

89 Conglomerate of amygdaloid in white crystalline...

90 Do.

91 Do.

92 Do

93 Do

101 (a) NW of Port Praya various crystalline rocks forming the more central part of island

Do. 102 : 103 : 104 : 105 :

106. A small vein of Felspathose rock peering up amongst the above

107 Do resting on lavas: apparently more recent formation

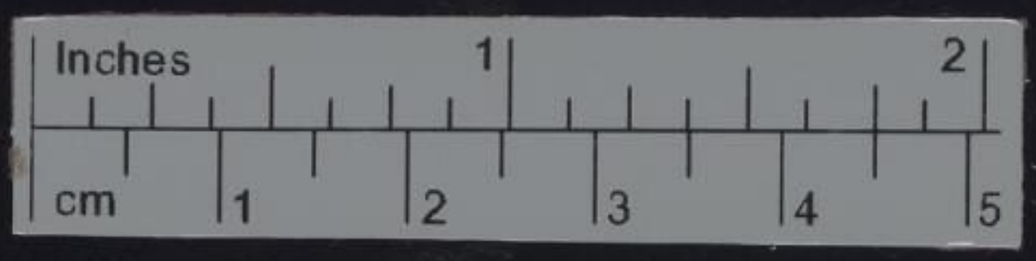
108. Do.

Jan. 20

Jan. 23d.

128. 129. 130. Captain sailed Jan. 24th.

Jan. 20.	1832. St Jago. NW. of Quail Island
109	Altered rock in neighbourhood of the latter. (108) & (107). –
110.	111. 112. 113 114. 115. Scoriæ from Red hill. (Blow pipe) easily melting into a black glass
116.	117. 118. 119. 120. Carb. of Lime. with mixture of scoriæ
121	Flag staff hill. NE of Praya mingled in confusion with scoriæ
122	Do
123	Do
124	125. in neighbourhood of F. S. Hill.
125.	Incrustation. line of former coast. –
?126 ?127 126.	– Table land. NE. of Praya. –
128	129. Central Chain
130	Do with mica
131	Pebble. with crystal



Jan 28th

Feb 2d.

	Jan. 25th 1832
132	Hyd
133.	134
	beh
	Gra
	Con
	for
146	pa
	Ne
	cas
	the
	Wa
147	Ra
148	14
	Ne
153	Ja
	Lon
154	15
	pu
156	15
	Ja

Jan. 25th 1832 — St Iago

132 — High land near St Martin

133. 134. 135. 136. 137. North between St Martin & Ribera grande. surrounding a conical hap of cellular rock. —

28th 146 part of one of the very numerous dykes. that cross & interlace amongst the breccia of Angular rocks West of Juail Island

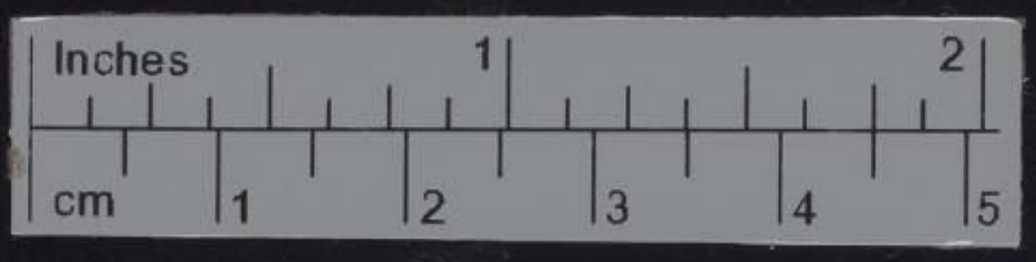
147 Mica por. & Angular rocks

148 149: 150: 151. 152 minerals from St. —

153 Saphire dulls round Fuentes lower part

154 155. Rocks composing precipices round St. Domingo

156 157. Lower rocks round Concet: 2 miles N. of St. Domingo



1832.

369 3° Feb

370

373.

374

375

376 Rh & Braya. Feb 4th

377.

378.

383

Feb. 2^d 1832 St. Jago

158. Basalt resting on it

159. East coast from Praya. — a break in former line of coast. where the superior bed has descended

sent to Dr. Dieffenbach

160. — This rock. where overlying coast becomes a breccia with white base. Carb of lime

161 162. 163 Do Do. —

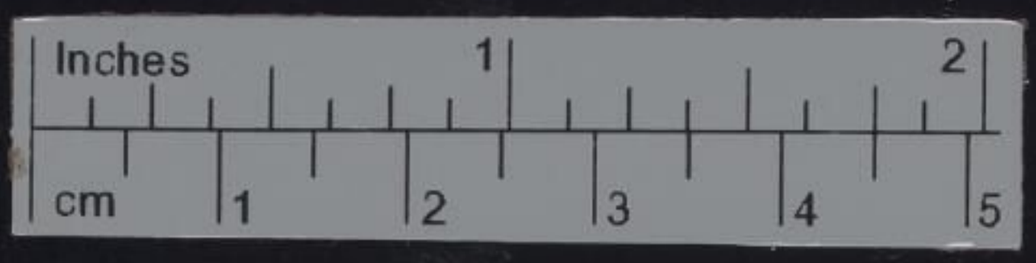
164 165. 166. 167. 168. 169. ~~Compact~~ rock, pap like hills composed of Vitreous Feldspar

170 171. 172. 173. Rocks composing a high hill. N by E of Praya

174 175. ~~176~~ Lost 177. 178. 179. 180 Do.

181. 182. 183. 184. — alternating with fragments rock on the top of hill. —

194. Concretions from former coast



1832
195

224

235. Following notes taken at St Pauls Feb 16th Lab. R. 58'

235

V. Separate Notes

240.

242

Mamillary

246. Yellow crystals in Cavities ??

246.

249.

252.

254

1832 St. Jago

195 Mures Peninsula. Modern
Breccia. Quail Island

224 Anagenite. St. Jago. Bear
Cove of former coast

235 236. 237. 238. 239. —
Serpentine hyal. Fault of
Island with Feldspar, Chlorite

240. 241. Do

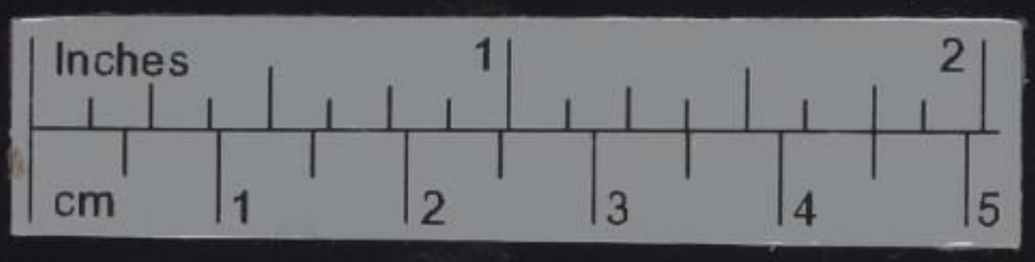
242 . 243. 244. 245. — Euphotide
or diallage rock with
Mica & Serpentine

246. 247. 248. — Vein & beds
of conglomerate. Matrix &
base the same,

249. 250. 251. Conglom. in vein
with Calcareous base

252. 253. Veins of decomposed,
vesicular mass.

254 Gyp. on Island Surface of



1932
Feb 20.
255.
259.
261.
264.
265.

1832

Feb 20th Fernando Noronha

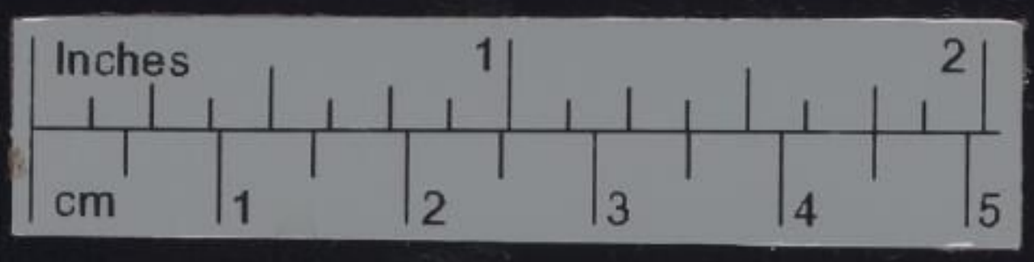
255. 256. 257. 258. Crystals of Vitreous Feldspar & hornblende in peliomean base. — from the highest peak in Island

259. 260. — Do of a slaty structure & regular cleavage lower parts. —

261. 262. 263. Basaltic amygdaloid with crystals of Augite — forms at depths near landing place

264. Do. base decomposing. earthy.

265. 266. 267. 268. — Basalt. with Rubeous Crystals of Augite & Sienna. collected from fallen masses near do. — the rock in evidence above them



1832

hB The term greiss evidently is here used without any exact determination. Pegmatite was very prevalent: 325. 327. singular. the red Felspar is honeycombed. as if certain parts had been removed. — Cavities of crystals in this red felspar

322. Hornblende determined by myself with goniometer. 52° 50' one fragment 125° — a second fr.

March 5th

1832
Feb 29th
310
311.
312
315
317
318.
319
320..
323
326
330

1832

Bahia

Febr 29th (Section of coast South of city)

310 Porous greenstone

311. - Do gradually passing into gneiss

312 313. 314. Varieties of gneiss

315 316. Veins of gneiss running both ways - former more

317 Do. containing Carb of lime & Chlorite

318. R Calcareous earthy vein in do.

319 Broad dyke of Hornblende rock

320.. 321. 322. Hornblend rock entangled in the gneiss

323 324. Surrounding gneiss containing large crystals of hornblende: & felspar & quartz

X R

326 327. 328. 329. Thick

R X superficial bed of decomposing gneiss

330 Vein of Enarthrous rock

R left undecomposed & traceable in the proper gneiss

1832 March Bahia

331 R Ferruginous [rounded grains of quartz. cemented together] sandstone. on coast [over a peninsula] N.E. of Bahia

332 R do

333 R 334 [ferruginous] Jaspery vein [scratch glass] in do

335 Jaspery vein in adjacent bed of clay

336 C? Oxide of Manganese & Iron in do. —

337 338. 339. 340 341. Modern breccia on the coast

342 Corals & shells from do. —

343 R 1 ~~Granite~~ [syenite] interlaced in every direction amongst ~~the~~ a fine grained trap. —

344 R In group. a fine grained mixture of Mica Hornblende & feldspar, the feldspar collected into granular balls. giving at distance an appearance of conglomerate

1832 Abrolhos Islets

396 . 397 . 398 . 399. Sandstone cemented by ocreous particles upper beds

400 401 402 403 404 argillaceous slaty bed from which some salt water exuded (Muriate of Lime?)

405 Lost as of inferior & finer sandstone:..

406. — This curiously weathered by the action of the sea

407 Lost 408. 409. — Greenstone in large beds cutting through the sandstone; containing much iron. — colour greyish-green

410 L Arborescent (?) covering on the Trap. — (Most. Carb of Lime) in considerable quantities

411 L Do. —

468 It is a true gneiss.
& most beautiful rock.
468 Aluminous smell
495 This rock is remarkable
from its tough fracture.
& absence of all cleavage.
is composed of ~~glassy~~ pellucid feldspar.
Quartz. [very little?] mica in small [& irregular places]
black plates. garnets. & ~~Hornblende~~ (??) The stone
when fresh broken. has
a very beautiful appearance
471. not to be distinguished
from ~~the~~ Abrolhos greenstone

1832.

369 Rock from a new Section
formation of Bombay

370 371. 372: Hard fine
grained Sandstone, columnar
Trap & overlying coal

373. A softer bed.

374 Coal ½ mile bed

375 Bed of Sandstone in
formation of Blue clay

376 Soft clayey Sandstone
(Shattered into Chocolate
balls?)

377. Clay Iron-Stone? in veins.—

378. 379. 380. 381. 382.—
Numerous calcareous Rock
in quantity on beach
containing in numbers
Planorbis. Belani. Lymnæa
(Penita & Lybas?)

383 Sandstone (same as 375)

(a) March 29th

1832 May: Rio de Janeiro

467 Mica slate with garnets
lowest beds — (gneiss)

468 × 469. 470. Mica. quartz
— feldspar. (porphyritic with
large lamellar crystals of Do) arranged
in plane. containing garnets
+ lying on + forming to (467)

471 472. 473 474. 475:
Bz × greenstone containing pyrites.
~~compact~~ well crystallized very tough; enormous
~~boulders~~ blocks lying in great
quantity on the granite

495: × 496: 497: 498: 499: 500
M. / Bz Compact ~~gneiss~~ with garnets
forming a small pass amongst
the strata. Decomposing gneiss.

521 Specimen of decomposed gneiss
L forming rounded hill.
red colour —

522 Do white. escaping fine
Bz grained, greasy to the touch

all that can be said is that it — Greenstone
Prof. Miller

525. I could not learn from
the dykes or bed. —

526 .— Neither could I learn
the enormous strength of the
vegetation arrests stops
any research out of a
beaten path. —

526 This would be I suppose a
greenstone abounding with Mica:
it must be, a cotemporaneous
bed like those at Bahia

526 .— Feldspar glossy. melting under
blowpipe. — Mica in very
small scales. — I judge Mossy
from the smell. that hornblende
is present. —

NB Porphyritic Gneiss in large
crystals from Rio

two others L 89°. 18'.

again 90° exactly

1832 May. Rio de Janeiro

523 524. Gneiss. inferior bed & passing into Mica slate

R

525x Greenstone. same as 471 &c but from a different site.

R

x in great quantities; the Rocks were decomposing in concentric layers

526x 527. 528. Block of the rock with a tough cleavage x

R & not decomposing into concentric layers

very little or no quartz?? apparently consisting of Feldspar nor any signs of cleavage in any direction mica & hornblende

539 Inferior mica slate; little mica few garnets; quartz stained in lines by Iron. — granular white Feldspar

fine laminated gneiss

R

540 Do

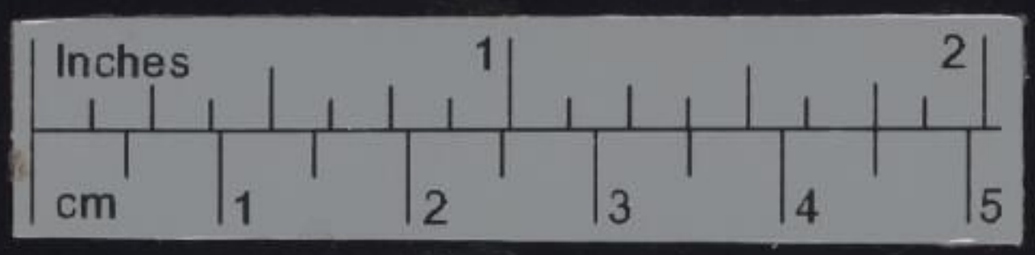
541 R Porphyritic gneiss. crystals large

542. R Do. crystals of feldspar containing garnets

543 Junction of the two forms of inferior

R gneiss Mica slate with porph. gneiss. —

... 539 & common porphy: gneiss



544. The quartz is imbedded in a white amorphous imperfect base; aluminous smell. - can it be altered felspar. if so it is Leptynite??

The bed is of very considerable thickness. —

5 47. strong aluminous smell

556. te Gneiss. very little quartz. granular white felspar there forth all Lofr. like N. Stato. sandy feel. few small garnets, thin layers little mica. —

558 or with reflected layers of quartz

561 like (55b) coarser crystals

563 Granite. Quartz embedded in very compact felspar. Very little mica

1832 June. Rio de Janeiro

544 × 545 : 546 : siliceous rock
R in which quartz is abundantly arranged
in parallel lines. (like pegmatite)
occasionally a plate of mica

547 R × ~~Jaspery~~ Siliceous rock. near white impure
R 548 Do abounding with Iron
549 nearly pure Quartz,
R These 6 latter specimens are
part of a large bed E of Lagoa.

556 Mica slate. with little mica
R × & garnets. alternating with porphy=
=ritic gneiss

557 R Do. !

558 : 559 : 560 : Do. gneiss with much mica
R × in dark small plates

561 . Mica gneiss Slate. with crystals of
R × Talc & garnets. —

562 Vein of granite. feldspar
R flesh coloured

563 Vein of same as (544 rock)
R

576 or. Neighbourhood of Tajenka

608 – Contains in parts oxide of iron

612 R Part of vein; quartz radiated

613 Heated in blowpipe & pounded, particles strongly attracted by the magnet

608 Granular mixture of q. & white earthy felspar & silvery talc

18

1832 June. Rio de Janeiro

576 × : 577 : 578 : Granite. fine grained; mica small plate black; feldspar reddish. —

R

579 Greenstone: with little pyrite part of numerous large boulders; both Tajenka. —

R

603 : 604 : 605. Porphyritic

R gneiss. same as (468) previously took

606 : 607. Mica (gneiss) slate. with

R mica & garnets in rows or bands embedded in gneiss V Geol: (46)

608 × : 609 : 610 : Siliceous rock

R × with talc like (544) on northern side of Corcovado

611 R : 612×. Quartz. cavernous

613 × (impure) Quartz. ~~jaspery.~~ containing much iron. — form

R ~~large~~ bed in same site on Northern side of Corcovado. —

625. This rock sends off small veins into the Mica slate

622 Often coated by decomposition by yellow substance

648 649. 650: 651. These specimens all come from Rat Island August. —

625. 626., Small elongated crystals of white earthy F. porphyritic in a nearly compact. ferruginous base. but 627. almost composed of smaller & less perfectly cryst. of Felspar; hence quite white

652. striated appearance finely crystalline. dark green. Hornblende Slaty greenstone passing in parts into the nature of a ~~clay~~ chloritic slate

very heavy V. next Spec: very easy fusible into green-black enamel

622. Very heavy. Black crystals [illegible] fusible:

1832 June Rio de Janeiro

620 621. Rather Fine grained dark chrome ~~trap~~ greenstone

dyke cutting through mica slate.

622 x :623. 624: Do rather coarse

grained: pale green. felspathic, yet black crame in very tough balls.—

625 x :626: 627: Rock (?) like

those connected with serpentine

also forming same dyke.—

in large angular ~~pieces~~ masses.—

628 Granite. from a large

vein. in big crystals

Monte Video

648 x Phyllade (Chlorite schist?)

649 x Do fine ~~Hornblende~~ slate like (652) penetrated most curiously

by veins of quartz which

proceed from mica slate in

which the slate is enclosed

650 :651. Mica slate. Gneiss, small crystalline, half rotten ~~coarse~~

652 .653. 654 Phyllade (Dentifier)

greenish decomposing forming

with mica slate. lower part of

the Mount.—

659. I was told as a matter of fact that there were stones on the mount which sung like bells.—

655. Rock same as 652, crystals large. large proportion Hornblende. crystals elongated appear placed lengthways

661. White fine grained & greenish micaceous like quartz in patches

82. Blackish green: minute elongated needles of Hornblende can be distinguished fine grained. very compact rock. very hard. Haüyne even fracture

1832
655 X
R
656
R
658 R
659 R
X Porph
661 X
R
+ Quartz. Yes
679. R
680.
R
Slate

1832 Monte Video August

655 x . Hoornblende slate occurring near the last & Mica slate
R

656 657. Slate ~~near Summit of Mount. passing. into fine slaty greenstone.~~ conchoidal fracture
R

658 R. do sonorous. conchoidal fracture

659 660. Summit of Mount.
R more coarsely crystallized
x fel greenstone. tough. highly sonorous. little slaty: in larger more compact masses. —

661 x 662. Hyalomictite. Mica rather abundant in this specimen
R few crystals of feldspar:— occurring in
+ quartz. yes || large projecting masses

679 R. Hoornblende slate coarse moderately

680. 681: 682x. — Summit
R of Mount. — ~~Slate passing into greenstone;~~ striking
Slaty fire. with steel: conchoidal fracture &c. —

727- All the following fossils were found in a small bed of calcareous gravel at Punta Alta.—

693 Fragment was not rolled
Long W 58° " 4'

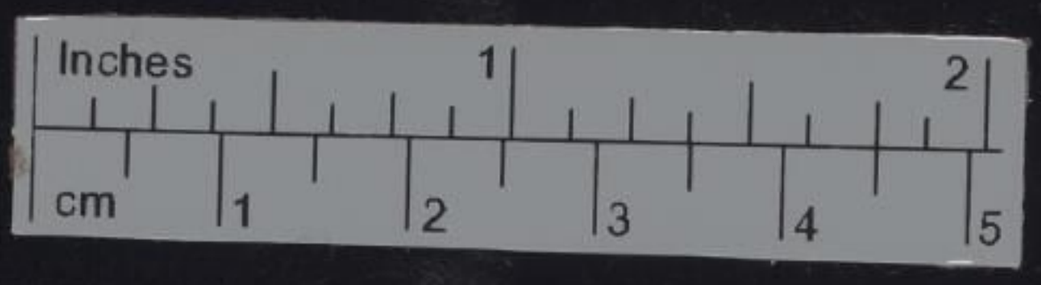
1832

693× Granite: felspar small
R crystals: little mica: perhaps
Aug: 26th gneiss. brought up from
× the bottom: Lat: 38° 28' S.
3 or 4 miles from coast of Patagonia

716 Settlement at Bahia Blanca
Sept: 10th in irregular horizontal strata:
L rock soft. pale colour. spongy
argillaceous calcareous, containing
pebbles of quartz & other extraneous
Matter. —

Bahia Blanca . Sept: 20th. —

727× Part of leg of some large
animal in cemented gravel
728 : 729. Wood? converted into lime
730 Head of the Femur
731 Fragment of bone
732 : 733 : 734 : Do Do
735. Pentagonal open plates
in an earthy calcareous bed



1832

736

739 v

740.

741 v.

742 v.

743 v.

754

755

756.

757 v

758

759 v

760

1832 Septemb: Bahia Blanca

736 : 737 : 738. — Fragments of
the latter : Is it a sort of kiln?

739 v With them, then was the
joint of some limb. —

740. Fragment of bone. Gravel

741 v. A small darker of the
lower jaw of some animal:
Rodentia? Gravel

742 v. Part of the jaw of latter

743 v. 744; Teeth & fragments of
jaw, when in rock. the bone
all united

754 . Part of femur of large animal

755 Extremity of 3 latter.

756. Part of Pelvis (belongs to 3 last?)

757 Fragment of bone Ruminantia.

758 Leg of some small animal Rodentia?

759 v Fragment of ribs, found with
the last

760 Teeth, belonging to some animal:

772 In upper pale earthy clay
776 Vertebrae belongs to some small distinct animal & was found in the red & lower bed: —

769 This is called by the Spaniards Tosca

782. As in parts the gravel
November is overflowed by the tide. Cannot the Balani be modern?! I forgot to examine into this. — the presence of animal matter in the shell would decide the question. —

May not the unrolled state of the bones be accounted by the protection of the flesh? —

1832
769 X
770 (found July 1844)
772 X
773
774
775
776 X
Octr
781
782
783
784

1832 Octbr: Punta Hermoso. Bahia Blanca

769 X. Red & lower bed of earthy clay

770 : 771 : 904 Included layers of

(Found Jan 18.44) whitish compact marle.—

772 X Joint & limb of small animal

C converted into hard black substance

773 } Socket joints of some large

774 } animal in lower red bed.

partially cased in hard surface

775 Fragments of bone converted

into jet looking hard substance.

776 X Vertebræ & scattered bones

in the earthy clay bed

Octbr: 8th Punta alta. B. Blanca

781 Tusk. Cemented gravel

782 V Fragment of bone, with

X Balani adhering to it. showing

how long it was at the bottom:

783 (: ?) common in g gravel

784 : 785 : Thin marly & argillaceous

& layers in the lower parts

of the gravel: —

799. In one I accidentally separated the incisor from above the Molars:

804. The largest one is broken into half: they lie in ~~beds~~ layers. like flints in chalk. or in continuous beds: always dendritic with Manganese. The Tosca is more finely argillaceous close around them. —

807. These are said to belong to 3 Megatherium: Can it belong to the animal of which (822) is the lower jaw: ~~the teeth~~

1832
798
799 x
800
801
802
804 x
805
806
807 x:

1832 Octob: 18th Mon: Hermoso. Bahia Blanca

798 Scattered bones of some small quadrup[ed] ribs. extremities. vertebrae. lying close together, on the Tosca or earthy clay

799 x Two sets. of incisors & molars of som[e] Rodentia. & femur: all found distinct; in the lower red Tosca

800 ✓ Molar teeth of some large Rodentia in the red Tosca

801 ✓ Tarsi & metatarsi of the hind leg of some small Cavia; these were found together with (798)

802 ✓ : 803: Fragment of bones in Tosca:

804 x Concretions of Marl (same as 770) in lower parts of the lower red Tosca

£

Punta Alta: Octob: 16th —

805 ✓ 2 Molars of the same animal as the head (821) perhaps Megalonyx in cemented gravel. —

806 Part of a rib

807 x ✓ : 808. Osseous plates. same as (735) in the earthy clay. or Tosca

810.– The plains of Tosca or earthy clay. which extends horizontally behind the range of sandy dunes or hillocks.—

811 It is to be remarked that not only the different species: but the proportional numbers in each agree; Voluta Crepidula & Venus & Trochus are most abundant both in gravel & on the beach.

(The general appearance of present beach & this gravel is very similar)

821 – The anterior part is broken into 3 pieces: they can be joined by the shape of curious anterior cavity;

1892. Octo: Punta alta. Bahia 25 Blanca

809 Canine tooth pick up on surface
on the surface of cemente
gravel

810 x Pumice pebbles. lying on the
plains & in diluvium at Punta
Alta & Monte Hermoso

811 : x 812 : 813, Shells & crabs from cemented gravel: ~~shewing~~ which appear exactly the same as now live; as (824 ..... 827)

821 x Great head: (Megalonyx?)
it was found in horizontal
position in the cemented
gravel; the upper jaw
& molars exposed. —

822 Lower jaw of some large
animal. (Edentata?). with
one molar tooth: found
in some position & not far
from the latter. —

835. Ravine Found in the bank on which the city stands :—

837 & 8 I bought these specimens: said by the man to have been originally found & to have been found in the bank of the Rio Carcaña: the authority is not to be trusted. There are reasons for believing it came from Rio Luxan: it was certainly bought by a countryman to prove that giants once existed in this country. —

854 Up on the beach of R. de Janeiro: I suppose Ballast :—

1832. 830 831 832 833 834 835X B.Ayres 836 found 1844 837 838X 852 853 854X

1832. November

830 Gold & Silver ores from Famatina · province of Rioja: given to me
R

831 Monocot } wood. silicified; they
832 Dicot } were given me by the person who picked them up in the bed of ȝ Uruguay at Salto

833 . Part of bone?} silicified: found
834 Reeds? } with the last

835 x { Calcareous fine sandstone
B. Ayres & { in beds in the Tosca
836 { White indurated marl
found 1841 { layers of concretions in Tosca

837 Femur } of some enormous
838 x Knee joint } animal: B. Ayres

852 R Gneiss. – on which M: Video is built:

853 R ; 854 . Granite. forming the rocks at Las Piedras

854 x A Terebratula. given as picked

876. This specimen came from
Hith South of ? Bay:—
The numbers 876 & 877
were destroyed:

916. rather a pale coloured felspathic
greenstone

925. Black grey highly crystalline
nearly pure limestone; & with striated
appearance. & under blowpipe splits
into minute thin chips. — whole
rock ~~threaded~~ with thin veins of
quartz. & feldspar harder & strongly
siliceous.—

1832

~~876~~ x

927

~~877~~

928 x

878

Good Success Bay:- Decomposed Slate. fine grained. dark grey. very fissile: plates yellowish colour very smooth (Talcose?). the most abundant rock. & found at summit of all surrounding Mounts Rock almost composed of specular Iron & silex. in layers in slate. at summit of Mountain SW of Harbour

Slate. siliceous with Iron darker colour. more compact forming bare of hills. NW of Harbour

---

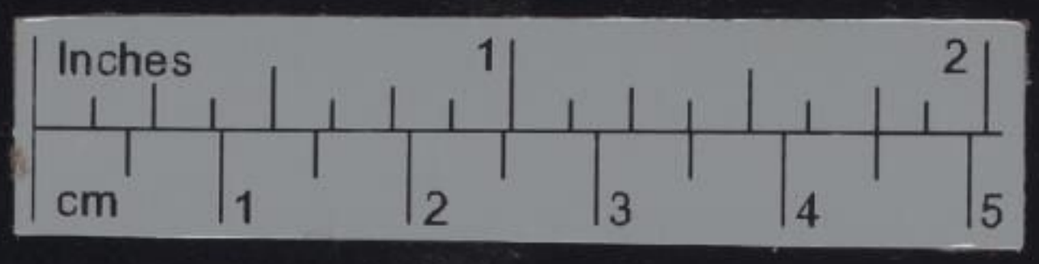
Dec 25th Hermit. Island

916 : 917. Crystalline felspar & Hornblende. with pyrites: bare parts of Island

dark greenstone

918 Hornblende with crystals ?/. do

919 Hornblende in fine acicular crystals: felspar semi-



938 Have 4 specimen from
about 6 miles east of
entrance into Forms Land
within Beagle Channel

942 The general rock
Have three rocks at
East entrance of Bronys Land

941. Dull red purple, consist of
an aggregate of minute
minute crystalline facies. felspar
Felspar, Piece into white flesh
somewhat similar to slate at C
of Good Hope. —

944 Seg. homogenious
Semi. crystalline
Felspathic rock with
Compact
Numerous specks of Pyrites

938. 55° and 125° 15'

Beagle Channel

938 x
939 x
940 x
941 x
942 x
943 x
944 x

1833 Hermit Island

920 [pencil: plain pale-coloured greenstone] Less marked specimen. both from summit of Katers peak a sharp cone 1700 feet high
R

921 Fragment of very impure reddish limestone; resembling that at Plymouth. — in fragments on the beach Wigwam cove. I should think the bed containing was in the Island.
R

922 [pencil: rather coarse crystalline] Greenstone, whole Jerden Island highest peak. conical about 900 ft.

927 instead of (876) original
925 do of (877) (numbers lost)

Beagle Channel

938 × R Hornblende rock: with green mineral
939 R Hornblende [pencil: rock] with Felspar
940 × [pencil: Hornblendic] Greenstone. alternating with .... —
941 × Slate. altered. semi-sonorous. hard
942 R × Compact. dark blue slate. Conchoidal fracture [pencil: obscure]
943 R Greenstone. Part of dyke
944 × R Feldspathic rock: crys fusible: angular cleavage in slate (942) altered by junction of last Greenstone

945 These 4 specimens from the
~~Settlement~~, within Ponsonby Sound:
949 — These 3 from near junction
of Micaceous rocks & Clay-slate
in Beagle Channel
954 These 4 from North arm
of Beagle Channel: about ×
~~N~~ Gordon Islands

946: certain evidence of a passage
& of injection.

951. Green glossy slate. irregular granular
structure few garnets, gneiss
from granite. abounding with
green mica

952 thin layers of quartz. parted by seam of darker coloured mica

953 Black Trappean rock, with acicular
crystals of Hornblende Goniometer

957 Irregular mixture of white quartz & felspar
with Chlorite & mica, the two latter appearing
to pass into each other

1833 Tierra del Fuego

[pencil: Base same as last rather more crystalline than on more tiny felspathic]

945 B { Feldspathic rock, with crystals of do & bits of slate. — easily fusible [pencil: angular unaltered] [29]

946 B × Same as last. — curious specimen; on one side fragments of slate distinct, on the other blended together

947 B White Feldspathic ~~rock~~ [pencil: greenstone] alternating with slate

948 B Slate on summit of hill: much laminated [pencil: rather siliceous Gangue ferruginous]

949 B { Gneiss-like with layers of Quartz [pencil: fine white feld, granite, mixed with ~~silica~~ mica greenstone]

950 B × More distinctly crystalline [pencil: ~~granite~~ mica green] (No granite)

951 B × Micaceous slate; where constituents are not discernible

952 B × Mica Slate — with Garnets: grand chain in North arm of Beagle Ch.

953 × B Hornblende rock. part of dyke in Clay slate at its most N. termination
L 55°
real 55°.30'

954 { Micaceous slate. mica ~~enveloping quartz, with gloss~~ [pencil: affording a mere white glossy crust]

955 fine ~~grained~~ [pencil: green slaty] Hornblende ~~Slate~~ [pencil: greenstone]

956 × Granite [pencil: white] Quartz in large crystals

957 × Granitic rock. (Gneiss) constituents irregular with green mineral.

958. These three. from Island at termination of North arm of Beagle Channel
988. – all these 4. from Hardy Peninsula. West of a Bay. N of Orange Bay
962 The external forms are those of granite. I saw some crystals of Quartz. but there is but little

959. White granular felspar & quartz. with little irregular patches of Chlorite, obscurely linearly arranged

V. m p. 7
960. brilliant granitic mixture of white felspar
125.9 black. Hornblende determined by Goniometer well crystals, & (blacky large scales of mica. abundant)
read. 124.30 I cannot see any quantity
962. Same ingredients as 960. but finer grained
V measurement quite granitic character: 963 do. coarser, large
p. 7 Cryst of F. & H. no mica. Felspar same state as in Gneiss, some Cryst: .3 long: –
975. Hard, heavy compact, pale grey: slightly crystallin struct. – felspathic. ? – melts into white glass. irregular fracture, surface decomposes

1833
958
959 X
960 X
961
962 X
964.
965.
966
975 X
988
989 X
990 54°.10 Hornblende determined by Goniometer

Slaty struct not visible in hand specimen

1833 Jan & Feb. Tierra del Fuego

958 ~~Hornblende~~ Slate fine grained. Black Slate? greenstone

959 Imperfect gneiss. mica not developed alternating with the last. [31]

960 ~~Granite with Hornblende crystals~~

961 ~~Hornblende~~ slate: Greenstone, Heavy. greenish grey. Slate? SE of Londonderry Id

962: 963. ~~Syenite (?)~~ Southern arm of Beagle Channel

964. Common, hard Clay-slate at bifurcation of Beagle channel

965. Felspathic passing into Porphyry greenstone. ~~with Mica~~ West. entrance of Ponsonby S. in Beagle Ch

966 Greenstone. ~~imperfectly crystalline~~: irregular fracture SW end of Navarin Island

975 Compact Felspathic rock. (altered Slate?). Bay. N of Orange Bay

988 Greenstone coarse grained: sonorous, conchoidal fracture angular cleavage

989 do. with much Hornblende & an abundance of veins of pyrites almost composed of long crystals of Hornblende

990 Felspathic Trachyte rock, intermediate with Obsidian with crystals much of felspar crystals partially decomposed of Hornblende & Felspar

54°.10' Hornblende determined by Goniometer

Harsh white crystalline. Trachytic base. with numerous. elongated cryst of Hornblende ~ & glassy Felspar

991. Same locality. as last 4
Specimens
1015. Same locality. only a little
more to the South:—
991. base blackish grey. porph.
994 995. nearly same as 960, 62. 63.—
a beautiful rock.— few scales of Mica
997. I conceive they are crystalline, some = rounded fragments of ancient
submarine volcanic rocks cemented
together.— One embedded bit is deci=
dedly vesicular.— = many broken volcanic crystals &
the whole cemented into hard & heavy
rock but with irregular rubbly fracture
1017. Pale grey & harsh trachytic base. no
cryst of F. but numerous ones of
numerous irregular cavities drusy.
with same & more perfect crystals
1020. Reddish purple. rather hard. Claystone
base, irregular fracture. Porph. with
numberless imperfect white crystalline
specks.—
White enamel
995 994 V. measurement 2.7

1833 Jan & Feb. Tierra del Fuego

991 : 992 : 993: [Singular small] Concretionary, angular rock. with ~~yellow crystals~~

994 : 995. — Syenite (?)

996 Felspathic rock same as (975) only more [earthy fracture] slaty [easily fusible] in structure & character

997 : 998 : 999 : 1000: Imperfectly crystallized ~~greenstones~~: from weathering ~~like~~. Breccia: Lime in interstices: Capt. Fitz Roy. brought them from West side of Ponsonby Sound:—

show

1015 : 1016.— [small elongated cryst of F. Basalt] ~~Hornblende~~ [semi] rock. conchoidal fracture: with spots free from [crystallized whitish] crystals:

1017 : 1018. Slaty Sandstone, [irregular] drusy cavities with opake white crystals. & from intermixture with some mineral friable

1019. Hard [grey] compact. sonorous. [very straight fracture] crystalline Felspathic rock, most strange porph

[closely allied to 975]

1020 Earthy red porphyry with white specks.— These 3 last rocks. occur above the Hornblendic one

1029. — These taken in the North end (or distinct island) of Wollaston Island

1029. Irregular fracture. trappean highly crystalline rock. brownish green. mottled colour. chief embedded crystals glassy felspar: then yellowish crystals same as (in 992) copper. conch: = semi. fract.

1030. 1031. Fine crystall: Basalt. with numerous decomposed cryst. which certainly appear to be Olivine. —

1032. Compact. grey-tinge of Purple. base. porphyry with very numerous cryst. small. well formed of glassy felspar & small.—

1033. 34. Rock same as 1029. blackish green, irregular V. app. cavities amygd- with agate & a dark brown p. 15 substance which can be cut with knife & nail. externally green it blacken & hardens. The agate & green earth Chlorite are intimately united in spherules

1035. Appears like conglomerate. interstices calcareous matter, but matrix is trappean, as much as pebbles. I do not doubt whole trappean rock. putting on deceptive appearances. —

1036. Red Scoria. Part of small breccia. with other fragments. Abut num: Calc

1038. Blackish brown. very-fine cryst base. highly amygd: with elongated spindles & C. of L

1059. V. Measurements: p. 1

1833. Jan
1029
1033
1035
1036
1037
1038
1039
Vide Adjutor Graham
1059

1033. Jan o Feb. Terra del Fuego

1029 : 1030 : 1031 : 1032. Varieties

& Greenstone

1033 : 1034. Do. silt nodules o

ren & Agate

1035 Conglomerate, valley cavity variety

occurring in beds silt last Dep. but

1036 Red Scoria. abundant in Ceylon

1037 Highly pumiceous form. fine cryst. Lava } in the

1038 Amygdaloid silt Cast & Lin } Ceylonese

1039 : 1040 : 1041 : 1042. Vary

& Zeolopathic rock. silt

angular fragments of black:

(1042) showing the latter form

(1039) the former: is the

chief rock. central RE

side of Wollaston Island: —

1059 instead of (993)

1089 - These have not been broken open: —
All numbers from 1089 in this page. were found near to the Settlement & a little to the South of it.

1079 - the whole stained yellowish

1080 - angular fragments of true quartz. embedded in a hard siliceous paste. which from strong aluminous smell. & in parts yellowish colour. shows not to be pure — These angular fragments are some of them ½ long. but are shown to be contemp. formation. & sometimes. but very rarely contains the earthy friable powder in centre.

1082. ~~fine grained~~ micaceous, that is contains scales of mica

1084. fine grained siliceous sandstone, with thread like veins of quartz

1085. almost made of minute silvery scales of mica: whole structure becoming crystalline. —

granular black: minute grains partly both of F. & Q. mixed in a black micaceous matter

1092. very fine grained. hard, pale brown highly micaceous sandstone with plant remains,

1132 Possesses very little inflammability

Piercing like rock of Anglesea.. Henslow

1833 March E. Falkland I^d. — 34

1078 1079x Granular. ~~crystalline~~ quartz
Mem St Jago
rock. with white friable powder ~~in~~ ~~bottles~~ aggregated
in small interstitial spaces : rock strong aluminous smell
=tices : range of hills N of Berkleys Sound

1080 X Resembling a Breccia, same range:

1081 Quartz rock. near Slate formation
Johnstone creek. + (same as 1079)

1082 X Pale coloured + clay Slate : site. Do

1083 common Clay Slate, compact, bands of a white alternating dark: — Do

1084 X Quartz rock. being of fine grain
looks arenaceous. S of Berkleys Sound

1085 x Black Slate with scale of Mica,
rock easy fusible into mottled glass. with unfused particles
near Quartz rock: S of Berkley Sound

1089 X — 1100. Slaty sandstone with
organic remains

1101 ..... 1126 Do do with Terebratulae
& Entrochites

1127 1128. Two pieces, which correspond,

1129 ~~—11~~ 1131. Terebratulae imbedded
in pale Clay Slate, with a soapy feel

1132 Exceedingly compact. peat of great
X Spec: gravity: bottom of 12 foot bed

1133. Has a granitic structure, the rock
patches consist of a soft mineral. which
in the most perfect patches. divides into
scales & is evidently Mica, the white
or yellowish chalk powder shows no
trace of crystalline. — Black points
arranged in lines

1134 Here the fragments appear sub rounded. set in earthy
particles of white matter. Quartz or stone as in a
gold vein. — white matrix thickly interspersed.
hard to poke. — aluminous smell. — at first sight
would be thought a recent aggregation in a
friable calcareous cement. — I think there
must have been motion during formation

1135. Rather coarse. dark green, brown slate. Micaceous
— Scarcely crystalline structure
pink specks. H 2½ resembles
a greywacke. —

1133
1133 X
1134 X
1135 X
1136 Obsidian
1152

1833 March — E Falkland Isd [35

1133 X. Quartz rock with specks like Mica & little Aluminous powder: structure rather slaty. South of Berkly Sound. —

1134 X same as (1080)

1135 X The passage between quartz rock & Slate: Johnstons Creek. —

1136 (Obscure?) Granular crystalline quartz rock. without aluminous matter. — some miles to the North of Berkleys Sound

1152 Rather perfect model of a Terebratula from same Sandstone from the settlement. —

1184 Being on Horse-back. I could
not bring away good specimens
1189... to 1195. All rocks occurred
close ~~together~~. at head of
R. Tapas:—
The amygdaloid. was generally
more amygdaloid
1196 By no means - characteristic

All the specimens from 1184 to 1354. lost

All found from 1184 to 1199

Found July. 44

1188 Reddish highly crystalline, slightly calcareous
metamorphic — ~~gritstone~~ sedimentary rock

1189 -90 { Reddish ~~trappean~~ rock, with cryst of
glassy feldspar, bright red — d

— 91 — Blackish compound of crystals of elongated glassy
feldspar. most among in the axis —
greenish-blackish rock. —

1194 harsh pale purple earthy base. full of small
crystals of glassy feldspar. not very compact

[36]

1833 May. June. Maldonado [Feldspathic rock in layers of red feldspar & hornblende slate]

1184 : 1185. — Layers of [red &] feldspar in slaty
× rock. — E. of Las Minas.

1186 : 1187. ~~Basalt.~~ [Hornblendic rock] with green [crystals of glass abundant] crystals [& feldspar] from ~~[illegible]~~ South of R. Tapes. (about 2 miles)

1188 Trap rock. in close proximity

1189 : 1190 : 1191 : Trap rocks. all
× ~~three~~ sorts together. near the source of R. Tapes

1192 : 1193. [porphyritic] Amygdaloid, [carb of lime] ~~very~~ abundant

1194 × Trap rock, very abundant.

1195 Do. — with drusy [& minute] cavities with quartz ~~& arranged~~ in planes.

1196 : × 1197. — [[illegible] of Hornblendic [illegible] feldspar] Specimens of Breccia chain N.W. of Pan de [jaspery fragments] Arucar

1198 Rock very abundant. Pan de Arucar containing ~~mf~~ [(Coarse Specimen) & large] feldspar & [crystals] quartz:

1199. Greenish [black] porphyry. generally containing
[Small] crystals of feldspar: here [fine] amygdaloid with agate [& other green earth]: at the base of Sierra las Animas. near Pan de Arucar. —

1358 from size of nut to large walnuts irregular in shape. — The calcareous ones. extremely hard. stalactitic structure — when broken. —

352 a piece of pumice — imperfectly crystallized bottled (in chlorite)

(found) Aug 44

1353 Bay. Juan. Maldonado

1312. - Shells. from bed of mud. above level of present sea. several miles inland. -

1350 Shaly Quartz. Sierra larga. near Maldonado

1351 Feldspar. quartz. green mineral

1352 Pen. Punta de Ballena. with imperfect lines of cleavage

1353 : 1354 . Limestone & of lead & Lepas. del Ostreas. -

1355. - Calcareous & ferruginous sandstone, concretions. common in general alluvial covering. -

1356... St Josephs Bay. (Patagonia)

1365 Ostreas, Pectens. & fragments of Crustacea: & also Selenite. from the cliffs East entrance of St. Joseph. by

1366. - Shells. from the much more recent bed, lying above; found above the Ostreas.

1371 This mass can hardly
extend to the Cordilleras:
whence comes this rock??
1373. somewhat resembled that of
the Falkland Isles —
1368. — I think it more probable
that this specimen belongs
to the Jurassic Conglomerate

1371 Highly vesicular pitchstone
1373. or Brown brecciated structure. The
fragments having character of Flint
the rock is not granular, excepting
that the interstices make it so —

Must not be compared to ——
Falkland Is[lands]. — Rock. —

1433, Jurg
1539.
1540 X
1541. X
1542
1543
1544. X
1545 X
1546.
1547. X
1548. X
1549 X

38] clayey mud.—

1833 ~~May Jan~~

1367. Pale coloured impure [½ Calc: semi = indurated] ~~clay~~, with no organic remains, immediately upon the Ostrea bed.—

1368 X I should think the same (??) with Turritella. The Schooner brought it from ~~[illegible] [illegible]~~ bay

Specimens brought by the Schooner

1369 Shells &c &c. from the cliffs in New Bay

1370 do do

1371 X Volcanic rock. picked up in quantities. banks of the R. Chupat: floats in water:

1372 Hard, heavy blue [highly] siliceous slate from C. Blanco:—[semi-infusible] hills 60 feet high:

1373 X A quartz rock (not pure) with interstices earthy particles. C. Blanco

1399. Fossil shells. New Bay. Patagonia

Sent to Dr Owen

1405. All pieces marked (X) belong
to same skeleton
(O) to one under jaw
(P) to a great Lead
(T) fragments of bone found
with the Armadillo like case:
all found at Bahia Blanca

1475. Named by Mr Fox: with respect
to the loose bones. Notes to
geology of Rio. Janeiro. —

1405. The Skeleton in Spirits distinct
from all other bones

(1474. see
fossil wood)

1833 Sp
1405 ✓ F
1406 ✓ B
1407 ✓ C
1408 ✓
Guerden
del Monte
1409 ✓
1410
Vide sheet ✓
1475
1477
1479

1833 September. ~~Bahia Blanca~~

1405 × Fragments of a skeleton & bones

1406 Remarkable tooth, ~~banks~~ cliffs of the R. Carcaraña. —

1407 Part of Shoulder blade, in red Tosca above oyster bed. Bajada

1408 Megatherium case with natural edge. — take at Guardia del Monte, in the Tosca

Guardia del Monte

1409 Fragments of great (Mastodon?) tooth. Banana ~~coast~~ of Parana. rincon de Gorodoña. —

1410 1411 Great oysters in the Limestone — St Z. Bajada

Specimens sent me by Mr H. Fox H. B. M. Minister at Rio de Janeiro

1475 1476 Greenstone Island of Flores.

1477 1478 Greenstone veins in granite Island of St Sebastian

1479 1480 Greenstone loose blocks St Sebastian. —

Number

1510 These teeth are quite small; they sometimes are found nearly one inch long;
1516 I should think from adhering gravel & bits of coloured shells. it would belong to the age of the gravel bed of St Josephs Bay
1522 Resembles those of Maldonado, where ingredients are so fine that the rock is like Sandstone Tile. Lat 48°: 12'
1515. All numbers from 1515 to 1530 collected by Mr Stokes in the small Schooner. Coast of Patagonia
1522. Very pale purple lilac. divided into an infinity of layers like ribbon jasper. hard not scratched by steel. yet sandy feel. fuses easily into white enamel. — allied to base of Claystone. —
1523. appears as if part of vein. —
1524. Dark purplish brown. base. Porph. with cryst of red Feld. — a compact claystone Porphyry. —
1525 Ditto rather redder. few small vesicular irregular cavities. — These Porphyries resemble those of P. Alegre
1526. I should think part of Vein or amyg. cavity.
1527. Rosy red. ~~thin~~ layers. of rather ~~hard~~. easily fusible Claystone

1833 Mr Fox's Specimens

1481 . Basalt loose Rocks. Port Alegre

1482 1483 Volcanic! porphyry Port Alegre

1484 Volcanic porphyry Port Alegre

1485 1486. – Red porphyry (no 1)

~~14~~

1510 x Fish's teeth & one shell from the Limestone of Bajada

1515 x Scoria, carried down by R. Chupat

1516 x Substance (organic?) foot of cliff. new Bay.

1517: 1518 Oyster shells. Tilly roads: cliffs 560 high

1519 1520. Red ~~feldspar~~ claystone porphyry. with whitish opake crystals of do & specks of quartz Port St Elena. –

1521. Quartz rock. Cape Blanco

1522 x ~~Gneiss~~ slate. Summit Pineda. Melaspina bay

1523 Quartz. Island in front of Melaspina Bay

1524 x Port Redonda, (sugar loaf hill) near to above

1525 x Compact Porphyry. East creek. Cameron Bay

1526 x Quartz rock; islands front of Melaspina

1527 . Jasper (?). Melaspina S.E. Point.
with thin veins of Quartz. which sometimes lines drusy cavities: layers not even, slightly contorted. –

1529. Strikingly resembles bed at Parana

1532. Marked (A) in sketch. S. Barranca; cliff 120 feet high South entrance of the R: Negro

1537. Called by me. "Mortar." —

1532. Part of this specimen, but of nearly similar rock plenty

1535. These are larger than the common ones. — not

1529. Slightly indurated. muddy, fine grained sandstone. friable beneath fingers. abounding with broken shells. —

1531. quite friable beneath fingers. —

1532. Very pale coloured. fine grained earthy, slightly indurated substance, adheres to tongue earthy smell: non. Calc: a kind of mud

1533. Non. Calc. white, little Speci. gravity, adheres to tongue. friable with nails. aluminous substance with water but very slightly adhesive

1536. Non. Calc. snow white. remarkably light. so compact as not to be broken with fingers. yet friable. in small fragments. — fuses very easily. — (perfect decomp. of Volcanic ashes. not at all adhesive with water: adheres to tongue. aluminous smell:

an impure mass white clay. fine grained
1833. adheres to tongue, with water does not become clay

1528 Earthy. white sandstone, upper bed
New Bay. — (number I found loose)

1529 × Earthy clay. with small shells. lower
× bed New Bay. — [41]

August Patagones. R. Negro.

1530 Hard grey fine grain sandstone bed; generally spotted with manganese narrow

1531 × Soft. common. blueish grey sandstone

1532 ×× Tosca bed. South Barranca

1533 × ~~Calcareous thin bed. S. Barranca~~

1534. × Hard compact. Calca: Argill: ~~pebble~~ concretion marked with Manganese in an extraordinary [?] manner. foot of S. Barranca, abundant, did not see bed. —
Conchoi: fracture

535. Pumice pebbles cemented together by ~~sort of~~ sandstone: blocks at foot S. Barranca; could not find the bed. —
a strong conglomerate even fracture

536 × ~~Calcareous~~ light. white rock. Bed 3 or 4 feet thick. N.E. of Patagones.

537. × Calcareous. friable soft sandstone ~~matter~~. cementing gravel on the surface: Patagones

538. × Pebbles from gravel bed, above sandstone. S. Barranca

1540. – The only organic remain I
could find in S. Barranca.
1541. Same as those found at
M: Hermoso; helping show that
the one is formed from detritus
of other. —
1544. I saw large white piece with
similar net work from same locality.
1545. – These 3 sorts of sand were
given me. —
1548. Generally less compact & hard.
more sandy. — Like rock near
Las Vacas. —
1549 – of St Gregorio. M: Video
1547. Colours blam bright green. —
1548 Fine grained dark red sandstone. almost
passing into indurated clay-stone. with some
~~sm~~ minute rounded pebbles of quartz. —

1833. Patagones. R. Negro

1539 - july — crystallized. mingled with sediment
Gypsum. occurring amongst gravel. not rolled. Patagones

1540 X Anomia, in Tosca bed (1532)

1541. X Black fossil fragment of bone. gravel bed. Bahia. Blanca

1542 Coronula.— gravel bed - Bahia. Blanca

1543 Bivalve shells, found on sand banks, Arroyo de St. Juan. South of las Vacas; 1 mile or 2, inland.—

1544. X Cumin. Cornelian pebble. Coast of R. Uruguay.— Rincon de las Gallinas

1545 X . Iron sand, large quantities, below high water mark. Hog. Island Bay of St. Blas. —

1546. Black. Iron sand. Isl^d of St. Catherine

1547. X Green. (Cumin) sand. Island in the Uruguay. —

1548. X Jaspery sandstone. horizontal beds. Las piedras. M: Video

1549 X very hard — Argill: Calca. stalactiform concretions from red. Tosca. East end of Barranca

1550 This specimen is unusually pure & compact. —

1553 So called from stream of that name

1562. The Argi: Calc: rocks differ a little in compactness & quantity of Lime. — I have generally called them Tosca rocks from occurring frequently in earthy red Tosca: ~~at some times~~ ~~Mortar clay~~ These rocks generally are coloured dirty flesh colour!

May perhaps be called highly aluminous indurated Tosca!

1551 Not quite so pure, brecciated state fragments. compact. & breaking with a fracture approaching to stalactitic — by ~~stalactitic~~ I mean smooth instead of earthy fracture approaching to crystalline

1554. Brownish & grey finely crystalline Felspathic (in one specimen distinct crystals can be seen) fuses into white glass. —

1561 patches with ~~fr~~ earthy fracture. patches with smooth. compact. latter marking g. dend. manganese

The Aluminous matter is small in proportion to Calc:

[43]

1533

white compact

1550. × Arg: Calc: superior bed, grand ridge. between R. Colorado & Bahia. Blanca

= Dr. Carpenter =

1551, × : 1552. Arg: Calc. great. bed. surface of plain. N of Fort Bahia Blanca

1553 × Arg: Calca: North side of the Sierra of Guitro-Leiguè -- very pale brown. —

1554 × 1555. Fedspathic rock from do. Sierra

1556 : 1557. — Arg: Calc: rock, rapids in river. near town of Tapalguen.

1558. ~~Apt~~ Step hard. brown Arg: Calc: pass of R. Chuelo near Buenos Ayres

1559. Earthy. Arg: Calc: Arroyo. Pabon

1560. very more crystalline variety. Water fall. A. Pabon (road to St. Fe)

1561 × Bed of nearly white hard Arg: Calc: in red Tosca, lower part of bed above Limestone. St Fe. Bajada

1562. × Arg: Calc: small concretions, upper part of the same bed, together with fragments of fossil bones St. Fe. Bajada

1567. Very abundant.— similar to the rock. at Cabra Carmacks.
Arroyo de las Viboras

1573 ~~Good~~ Excellent Authority —

1564. fragments & casts of shells firmly cemented together & containing rarely a few rounded grains of quartz: all the drusy cavities lined with minute & brilliant crystals.— rock white.—

1566. nearly compact. fine crystalline structure; few cavities, obscure marks of shells

1572. appears at first a fine grained slightly ferruginous. calcareous sandstone. — looks organized & small rounded grains of transparent quartz. embedded in calcareous

1576. when cut with knife — fine polished surface dark olive green. irregular fracture. conchoidal on small scale.—

1577. Blackish indurated clayey mud

axis not compact. with small cavities. substance
1833 very fine grained ferruginous.—

1563 Ferruginous cylinders, common in
yellow bed.— Gorodona [?] near R. Carcarañá

October. St Fe. Bajada

1564 X: 1565. Crystalline, cellular. Limestone
1566. X Commoner. compact variety
1567. X Do.— with impressions of shells.—
1568: 1569. Oyster shells either in
Limestone, or in inferior clayey beds
1570. 1571. Pectens & other shells, in inferior clay bed
1572. X Found in large oval balls, in the
~~tube~~ inferior yellowish clay: finely Vesicular, Organic.
1573 X: 1574: 1575. Petrified wood, said
to be found in ferruginous sandstone.
Estancia de las Enchas [?]. near Arroyo of that name
1576 X Fine greasy clay. (Magnesia)
beneath Limestone. above yellowish
sandy clay: between teeth soapy taste & feel
1577 X Black. bituminous clay, in curved
strata. beneath yellowish Clay
1578: 1579: 1580. Shells. Yellowish clay
bed. Beneath Limestone

1582. Arogo Tunag- enters the Cochitas
1595. Evidently a Modern foundation.
1599 All packed ~~together~~ in a
Box. — This box is also
labelled (~~J. Mitchell~~) (1769).

1833 St Fe. Bajada

1581 Horses tooth, apparently coeval with
Fossil bones, Megatherium &c —

1582 ✗ Fragments of bone. R. Tunay

1583: Fragment of bone belonging to a
larger piece. R. Tunay

1584 Cast of shells. Bajada

1585 :1586. — Part of rib of animal
cliffs at Gorodona. Near mouth of R. Carcarana

1594: ✗ 1595 Gypsum in crystals. in clay
& lying on muddy sand (760. Spirits label)
at bottom of Salina. R. Negro

1599 ✗ { Shells. from sandy clay. under Limestone. Bajada
Fragments of bone. Tosca bed. R. Tapas. Bajada
2 pieces of rib bone. cliff of R. Parana. near R. Carcarana

1625 :Decemb: Port. Desire

Fragments of shells; Pectens. Cliffs S of the Port ~~mouth~~.

1626. 1627: 1628: Arca. Turritella. in sandy
clay. cliffs. South of the Port. very abundant

1630 1631. Turritella: Site do: —

1632 Hinge of very large shell; all
in a soft decomposing state.

1634. Colour pale purple; vesicular:-

1637. The above 5 specimens all come from the foot & neighbourhead of the two hills, which are NW of the Anchorage.

Porcelain rock with [illegible]

1644 - Locality same as (1642)

1634. Colour pale. purple. slightly vesicular with minute angular cavities; base in some parts. ~~[illegible]~~ strongly appears to contain minute extraneous fragments of Porphyritic fragments or but in others is clearly porphyritic. with crystals of earthy & glassy felspar. — Short interrupted layers. ~~of a white stone~~ concentric, & thinning out.. sometimes of a white or red stone. sometimes of a darker; give the rock a laminated appearance. The white matter is sometimes earthy, but generally has fine granular crystallin structure. — The passage into large crysts of glassy felspar is beautifully seen. — If process perfected rock with very large cryst in planes. like gneiss.

near the perfect but small cryst of glassy felspar are in same plane with the layers & almond shaped concretions. —

1834 Jan^y Port Desire

1633. Salt (Salt-petre?) [evaporating] from deep flat muddy plain [or valley] in South plains. —

1634 x x 1635. Porphyry where earthy felspar in almond-shaped concretions affects a laminated structure. —

1691

1636 ✓ A compact variety of Porphyry, with angular patches or crystals of earthy felspar, very slightly laminated, together with other variety with quartz. —

extract for all in this page

1637. ✓ 1638. — Two compact varieties of red porphyry lying above (1636) with some crystals of felspar & quartz

1639 ✓ Purple Porphyry abounding with crystals of quartz & porphyry: Brittania rock.

1640. ✓ White, calcareous, clay. sandstone upper bed of great [n] plain. —

1642 ✓ 1643. Pitchstone, beneath Porphyry opposite Guanaco Island. —

1644 ✓ x 1645:) base porphyry with iron? vesicular, cavities lined with quartzose rock & containing crystals of quartz: in Porphyry

1647. There two varieties occurred

near ~~together~~. - 1647. is evidently

more porphyritic than (1648)

1651. The above three rocks have

same dip. — (1651) looks

singularly like Chalk or

Calcareous matter. —

1655. 1656. Rocks opposite Guanaca

Island. —

1654 From behind the Fort

1651 Points fusible with difficulty?

1654 dull purplish base, fracture

rather rough. - a very few

drusy cavities. — porph with

few cryst of opake white F! —

1834 Jan: Port Desire

1646 R . Iron stone. from Porphyry. same. locali:

Cliffs. 2 or 3 miles W of Anchorage

1647 X ✓ 1648.– A jaspery looking porphyry fusible, in thin bed above (1649)

1649 ✓ Base Felspathic? particles of silex & small pebbles of porphyry.–

1650 ✓ Compact. semi-cryst: whitish ^felspathic rock above such rock as (1649)

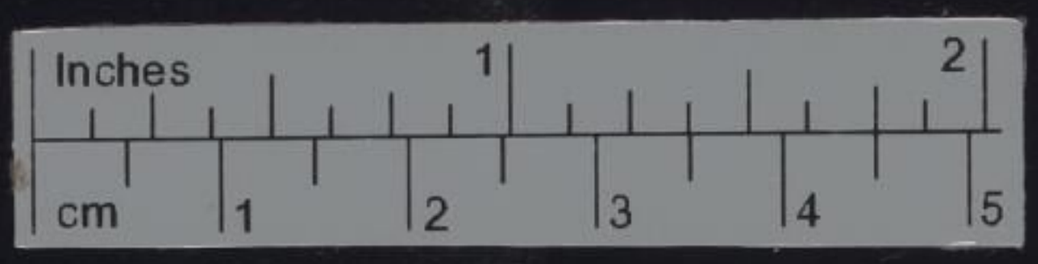
1651 ✓ X Earthy. white soft. Felspathic rock with particles of silex, lying on (1650)

1652 ✓ Rock from dyke, cutting such as above rock.– basis red porphyry. crystals of quartz, white earthy felspar & Mica.

1653 ✓ One of the lower beds in cliffs, with red porphyry.– white, ^vesicular earthy lined with Ox ^of Iron

1654 X Pale purple, compact tough porphyry with few crystals of earthy Felspar this is a common variety.–

1655 ✓ X ~~1656~~. Pale reddish brown porphyry slightly vesicular with few small crystals. beneath ^like rock (1651)



1657. There four specimen. come
from the rough hills. East
end of creek or mouth of
river. — about 21 miles
in the interior. (1657. 1658
the constant variation —
1663. Geological is beneath (1662.
contains layers of fine cryst:
gypsum. —

2B. Remember. streaks & matter in almond
shaped patches. would form. crystals. within
crystals. as mica. in Gneiss gneiss. —
? Can anything be made out of twin cryst. —
Item: Henslow case of fragment of slates turning
into hornblende crystals. —

1654 1656 1657 1662 1663 1665 1666

1834 Jan: Port Desire. West Cliffs

1656 ✓ . Reddish purple porphyry. with imperfect
crystals of earthy felspar. — position same as last rock.

1657 ✓ Bluish & reddish porphyry mingled
together in concretions, vesicular
× with few crystals of glassy felspar
& quartz or

1658. ✓ 1659. Do. where fragments of extraneous
1660 ✓ porphyry appears to be imbedded
in a basis of reddish.

1662 ✓ Earthy very soft, fine dirty-white, impure
sandstone, same geological bed as (1640)

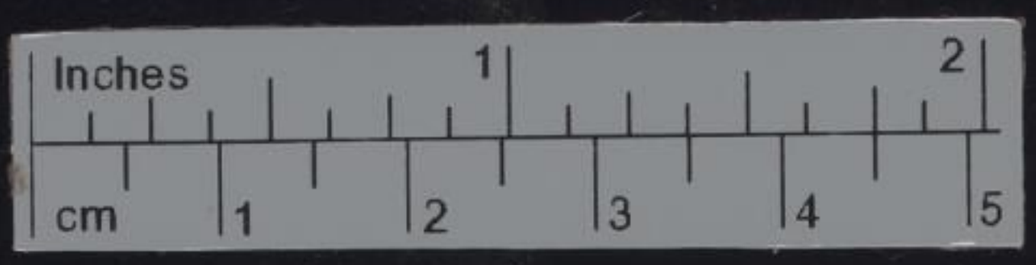
1663 × ✓ 1664: Whitish & yellow soft conch: fracture, clay
stone; (salt taste?) decomposing into
angular fragments — — not effervesce

1665 Hard. conch: fracture, fine grained, white (West cliffs)
felspathic rock. occurring amongst &
below such rocks (1674) & coarser
varieties. — & (1647, 1648)

1666 Whitish-yellowish, hardish, earthy felds: rock
beneath (1667 1668). (same dip)

1672. & 1673. From the great
mass of the clipps: In this
instance they are both
inferior to 1674

1834 Jan. Port Desire. West Cliffs
1667. ✓ same as (1673). ✓ infra
1668 ✓ White, hard, rough fracture. Feldspath
rock. (with particles of silex?) not efferv
1669 ✓ White hard. conch: fracture, fine grained:
uncrys: Feld. rock; lying on & same
dip with (1647: 1648:)
1670 ✓ Rock from dyke; Feldspath rock.
Much black mica, green crystals, &
(Quartz?)
1671. ✓ Rock from dyke (1652) Mixture of
crystals of Mica, felspar. quartz. cemented
by ferruginous Matter. —
1672 ✓ Yellowish Feld rock, hard, earthy. conch fr
1673 ✗ ✓ Whitish-yellowish, hard. semi-crys porphyry
with imbedded white crystals
1674 ✓ Hard, earthy red porphyry: abounding
with white earthy crystals of Feldspar
1675 ✓ same as (1651), like Mortar or Chalk.
~~1677~~.



1018. Miller

The faces of the White crystals are not sufficiently perfect for the Refl. Goniometer -

They are mostly twins - and in their appearance resemble

Leagonite. See fig. 4 to Mr Brooke's paper on Leagonite in the Phil. Mag. vol 10 -

FELLOWSHIP EXAMINATION.

ST JOHN'S COLLEGE. *March*, 1840.

To be translated into GREEK PROSE:

THE situation of man on the globe he inhabits, and over which he has obtained the control, is in many respects exceedingly remarkable. Compared with its other denizens, he seems, if we regard only his physical constitution, in almost every respect their inferior, and equally unprovided for the supply of his natural wants and his defence against the innumerable enemies which surround him. No other animal passes so large a portion of its existence in a state of absolute helplessness, or falls in old age into such protracted and lamentable imbecility. To no other warm-blooded animal has

MS DAR 236.1: Back cover