

Please advise us if you find any errors in this list. Not all the dates for the Steere birds have been entered into the database, so this file along with the locality in the database will allow users to figure out the dates for these specimens.

October 12, 1964

## THE UNIVERSITY OF MICHIGAN BEAL-STEERE EXPEDITION, 1870-1875

### Itinerary and Chronology of Joseph Beal Steere's First Expedition

During the years 1870-1875 Joseph Beal Steere made a collecting trip around the world, in the course of which he ascended the Amazon, crossed the Andes and worked in Peru and Ecuador, visited China, spent some time in Formosa and the Philippines, and visited the Molucca Islands before returning via Singapore, Suez, Marseilles and London to Ann Arbor. An account of this and Steere's later expeditions was published by Frederick M. Gaige in 1932 (*Michigan Alumnus*, 38(18): 344-346, 352-353, Feb. 20, 1932; *The Ark*, University of Michigan Museum of Zoology, 10(5): 2-7, 12, March, 1932), the information for which was taken principally from a series of ninety-six letters written by Steere and published in the *Peninsular Courier and Family Visitant* (a weekly newspaper published in Ann Arbor) during the years 1870-1875. The account in *The Ark* gave a chronological list of the localities visited by Steere on his first expedition, so far as it could be determined at that time. In his Annual Report of the Museum of Zoology for 1918-1919 Alexander G. Ruthven published a portrait of Dr. Steere, who was Curator of the Museum from 1867 to 1881 and Curator of the zoological collections from 1881 to 1894, and gave a not-quite complete list of his publications. [The same portrait, and a photograph of a bas-relief sculptured head of Steere, appear in Gaige's account].

The revised and amplified chronological itinerary of Steere's first expedition which follows is based upon a careful re-examination of the *Courier* letters, information in his article "Formosa" (*Jour. Amer. Geogr. Soc. New York*, 6: 302-334, 1874), and a new collation of data contained in "Journal B" and in "Catalogue No. 3 - Beal-Steere Collection" of the Museum of Zoology. With the aid of new and better maps and gazeteers now available, many of Steere's more obscure localities have been found, and with the help of information contained in his letters on distances and times involved in many of his trips it has been possible to intercalate the probable times of his visits to many localities between known dates. All localities mentioned in the Steere letters and in the *Journal* and *Catalog* are here included, whether or not collections are known to have been made at them.

The place-names given are those used by Steere, with their equivalents as found on modern maps in brackets when they are not the same. The "Box" numbers (not given here) are the numbers assigned by Steere to the boxes in which specimens from a given locality were shipped to the University of Michigan Museum, as shown in the *Catalogue*. In a few instances these numbers are the only clue to the time of his visit to a particular locality, but since he frequently repacked specimens before final shipment the numbers are unreliable for this purpose. The geographic position of localities in South America that appear on the American Geographical Society's *Millionth Man of Hispanic America* or on the "*Carta do Brasil ao Milionesimo*" published by the Instituto Brasileiro de Geografia e Estatistica in 1960 is indicated by the system used in the former,

i.e. a latitude-longitude inters followed by a letter indicating in which of the four adjoining quadrants the locality lies – a NW quadrant, b \_ NE quadrant, c - SW quadrant, d - SE quadrant. The village Beruri, 4-61a, will be found in the  $1/2^\circ$  quadrangle lying northwest of the intersection of Lat.  $4^\circ\text{S}$ ,  $61^\circ\text{W}$ . in Brasil. when possible localities not on available map are indicated by distance and direction from places which are shown. T.H. Hubbell

## LIST OF DATES AND LOCALITIES VISITED

The chronological sequence in which the localities are listed is believed to be entirely correct. The geographic considerations, and the less certain are indicated by c. (circa). Within the brackets after each citation of a dated letter are the volume, number, and date of the issue of the Courier in which it was printed. All these issues are preserved on microfilm in the University of Michigan Library, Rolls,

### 1870

Sept. 20 — Sailed from New York; 40 day passage outside of Bermuda and West Indies, 38 day out of sight of land

Base at Maranham, [San Luís, Maranhao], Brasil, Oct. 30-Nov 17

Oct. 30\*—Arr. Maranham [San Luis de Maranhao] (3-44a)

31\*—Letter #1. Maranham [9(53), Dec. 30, 1870]. Account of voyage

Nov. 16\*—Letter #2. Maranham [10(1), Jan. 6, 1871]. Account of Maranham

17\*—Left Maranham for Pará

Base at Para [Belem, Para], Brasil, Nov. 24, 1870—June 11, 1871

Nov. 24c.—Arr. Para [Belem] (1-48c)

25\*—Letter #3. Para [10(2), Jan. 13, 1871]. Work done at Maranham.

Dec. 8\*—

Letter #4. Para [10(3), Jan. 20, 1871]. Descr. of Para and surroundings; has made various trips up and down river in past two weeks; work

18\*—Letter #5. Para [10(4), Jan. 27, 1871]. Further descr. of Para; spent last week in long trips into surrounding country, all much the same

19 —First shipment of specimens to Ann Arbor via New York

23 — Left Para for Vigia [Para, 1-48a]

24 — Letter #6. Vigia [10(6), Feb. 10, 1871]. Arr. today; descr. Para branch of Amazon

### 1871

Jan 5\* — Left Vigia, arr. Para

6\* — Letter #7. Para [10(7), Feb. 17, 1871]. Descr. of Vigia and trip back

16 — Left Para by boat for Chaves and Ilha Caviana; 4 day passage around Ilha Marajo or Joannes; third morning crossed 15-mile wide mouth of Amazon, stopped briefly at Macassa; reached Chaves at night

20\*— Letter #8. Chaves (N.shore Ilha de Marajo, Para, 0-50d) [10(12), March 28, 1871]. Descr. of trip; plans. Left same day for Ilha Caviana, to stay at Lionel fazenda (0-50ab)

Feb. 1\*—Letter #9. Caviana [10(13), Mar. 31, 1871]. Descr. Ilhas Caviana, Marajo and Mexiana, nearly all campo; plans

12\*—Letter #10. Ilha Caviana [10(14), April 7, 1871]. Good collecting until winter rains set in Feb. 6; abandoned idea of crossing Ilha Marajo; monkeys; birds make same sounds as related kinds in Michigan; life of fazenda owners like that of ancient Romans, living in cities with country estates; living condition and mores of people on estates; poor housing and poor food

17c. —Left Ilha Caviana for Para; four day passage around Point Marquiry [Cabo Maguarinho] and up river, by schooner

20c.—Arr. Para

25\*—Letter #11. Para [10(15), April 14, 1871]. Descr. of return passage; plans for visit to Ilha de Marajo.

[N.B.— In [10(16), April 21, 1871, a letter from Alexander Winchell commending the content and style of the Steere letters]

Mar. 10 — Letter #12. Para [10(17), April 28, 1871]. Spent last three weeks preparing and packing collections from Ilha de Caviana and getting ready to go on up Amazon.

[N.B. — In this issue of the Courier a comment quoted from the Detroit Post on the wide attention attracted by the Steere letters].

24c. — Left Para for Soure [on SE side of Ilha de Marajo, Para, 1-49b]; spent 8 days there

April 2c — Returned to Para from Soure

3 —Letter #13. Para [10(18), May 5, 1871]. Descr. of country around Soure, and collecting trips in vicinity; plans to visit Indian mounds in interior of island

17c. — Small schooner from Para to Arare river [Rio Arari] on SE side of Ilha de Marajo (1-49d); stayed at McGee fazenda on lower river

May 1\* — Letter #14. River Arare [Rio Arari] [10(25), June 23, 1871]. Came here few days after Easter; waiting for boat up river to Cachoire [Cachoeira do Arari]; descr. of country and customs of people  
3c —Arr. at Cachoire [Cachoeira do Arari, 1-49d]

6-7ce — Canoe trip to island in flooded campo near Cachoire and return

10\* — Letter #15. Cachoire [10(26), June 30, 1871]. Descr. of town., region, people, collecting trips in vicinity

12c —Went to Fazenda Tojal or Tujal near Cachoire for a few days hunting

16c —Left on four day trip to Indian mounds on Lago Arari; reached state-owned Fazenda Arare after one and one-half days canoe travel; visited mounds on Ilha Pectoral in Lago Arare across from Fazenda St. Ignace (1-49d); returned to Fazenda Arare

19c —Returned to Cachoire

20\* — Letter #16. Cachoire [10(27), May~27 1871]. Descr. of fazendas, trip to Ilha Paecoal, mounds and artifacts

23c. — Returned to Fazenda Tujal for more collecting

26c —Second trip to nearby Fazenda Coralline, return to Tujal :

29c —Second trip to Fazenda Coralline, back to Cachoire

31 — Down Rio Arare by canoe and across to Para

June 1 — Letter #17. Pará [10(28), July 14, 1871]. Descr. previous week's activities; plans

11 — Boarded steamer for trip to Santarém

12 — Passed among islands in mouth of Tocantins; stopped at Brevis [Breves, SW angle of Ilha de Marajo, 2-50a]; passed Tagipuru Channel

13 — Entered Amazon, stopped at Gurupe [Guru], night at Porto do Moz in Rio Xingu  
 15\* — Got lost; reentered Amazon opposite Almerin [Almerim]; descr.  
 15\* — Passed Monte Alegre, entered Rio Tapajos and reached Sanitarium in evening  
 17\* — Letter #18. Sanitarium [Para, 3-55b] [10(31), Aug. 4, 1871]. Descr. Of trip to Sanitarium; [set out for Taperinha immediately]  
 18 — Left for Taperinha by boat, arrived next day; large sugar estate at foot of mountain or edge of tableland (3-54a).  
 21-22c — Visit from Taperinha to "black lands" on edge of tableland and return  
 28\* — Letter #19. Taperinha [10(32), Aug. 11, 1871]. Descr. of trip to Taperinha, plantations, collections; was in Taperinha on 23rd.

July 18\* — Returned from Taperinha to Sanitarium  
 19\* — Letter #20. Santarém [10(34), Aug. 25, 1871]. More observations on country and people; plans  
 20\* — Left Santarém by steamer for trip to Obidos.

[N.B. — There is a discrepancy in dates given in Letters #20 and #21; latter says left Santarém for Obidos on July 17

22\* — Letter #21. Obidos [Para, 2-56b] [10(39), Sept. 29, 1871]. Descr. of trip up Amazon, varying nature of shores, Obidos; collecting

Aug. 1\* — Left Obidos for trip up Amazon and Rio Jamunda [Nhamunda] to Faro [in Para at Amazonas boundary, 70-80 mi. up Jamunda from Amazon 2-57d]; spent several days there  
 6c. — Left Faro by canoe, down Jamunda  
 7c. — Down Jamunda, spent night at Lago Grande on way to Amazon  
 8c. — Reached Amazon after dark, moored to floating vegetation raft, drifted  
 9c. — Reached Obidos in the morning  
 10\* — Letter #23. Obidos [10(41), Oct. 13, 1871]. Desc. of life of escaped slaves in their "mocambos" or places of refuge; descr. of Faro and trip there and back  
 12-14c. — Made trips to the 100-ft. bluffs at Obidos, and to Serra de Scana, a mountain just below Obidos  
 15\* — Letter #22. Santarém [10(40), Oct. 6, 1871] Inscribed boulders on Serra de Scama; news of death of original companion (.Mr. Lyman) of yellow fever in Para; plans for trip with Prof. Hartt to Mount Alegre

[N.B. — This and the letter numbered #22 are in reversed sequence. The numbers were not assigned by Steere, but are merely installment numbers assigned by the Courier; long letters were sometimes broken into two or three separately numbered installments, and two letters were printed under the same number].

19\* — Boarded steamer at midnight for trip to Monte Alegre  
 20\* — Arr. Monte Alegre in morning  
 21\* — Started trip to Erere by canoe; arr. that afternoon at the village, at the foot of Mt. Erere [2-5c, west of Monte Alegre].  
 22-27c. — Collecting around village of Erere, on plain  
 28c. — Trip to Monte Erere; stayed night in camp at foot of mountain  
 29c. — Second trip up mountain; return to Erere and to Monte Alegre

- Sept. 1\* — Trip to Mount Tajury [west of Monte Alegre]; spent night at Rio Jacare  
 2 — Climbed Monte Tajury [Tajuri], spent night at village of Sandoso 10-12 miles W. of Monte Alegre  
 3 — Returned to Monte Alegre  
 4\* — Letter #27. Monte Alegre [10(50):, Dec. 15, 1871]. Descr. of trip to Erere and Monte Erere; many caves, steep, level on top, 1000 ft.high. On 4th took steamer to Santarém, arr. next day  
 6\* — Letter #25. Santarém [10(47), Nov. 25, 1871] Descr. of trip to Mt. Tajury; 1200-1400ft.high, plain on top.

[N/B.- Letters #27, #26, #25 are out of order as printed and there is no #24

10-14c. — Visits to American settlements at Panema, across spurs of mountains back of Santarém, Diamantina, and return to Santarém

15? — Letter #28. Santarém [10(51), Dec. 22, 1871].

[N B. - As printed, the date of this letter is given as Sept. 19; this is probably an error, as it describes events after return from Mt. Alegre, and Letter #26 says, left for Tapajos on Sept.17]

Descr. of American settlements at Panema and Diamantina; unreconciled Southern sympathizers; little success; hard life; description of country.

17\* - Left Santarém by steamer for trip up Tapajos

18\* — In morning at Altar do Chao [Alter do Chao in mouth of Tapajos River]; voyage up Tapajos, stopping at villages on both sides

19\* — Arr. at Itaituba, 200 miles above mouth of Tapajos

20 — Trip down Tapajos; stopped at Currituba

21 — Arr. at Santarém

22 — Left by steamer for Manaus

23 — Went ashore at Obidos to pick up collections

24-25c. — Passed Japumda River, stopped at Lupa

26\* — Arr. at Manaus in evening; could not land until next day

27\* — Letter #26. Manaus [10(48), Dec. 1, 1871]. Descr. Of events since Sept. 17; lands along river Amazon; 2<sup>nd</sup> American Bolivian Expedition at Lupas.

- Oct. 11\* — Left Manaus on trip up Rio Purus; first day down to mouth of Rio Negro (or mouth of Rio Negro (or mouth of rio solymoens, the Negro being considered the main stream and the Amazon taking the name of Solymoens above their junction); waited all night and next day for pilot

13\* — Up Amazon to Manacupuru, a little wooding-place; left at midnight. (Indian baby fell overboard at night; parents not long concered)

14-17\* — Ran out of wood; spent four days reaching mouth of Purus river; got wood at Berury [Beruri, 4-61a], just above mouth of that river.

18-19\* — Up the Purus; aground each night

20 — Reached Itaituba [Itatuba, 6-63a], after passing Piranhas

21 — Ariman { Arima, 6-63a}

23 — Canutama [7-64a] Fortaleza de Ituxi,? La Brea?

25 — Arr. Ituchy [Ituxi; 7-65d], after 15 days of travel (from.Manauas).

27\* — Letter #29. Ituchy [11(6), Feb. 9, 1872]; continued as Letter #30 [“XXVIX] [11(7), Feb. 16, 1872]. Descr. of trip up river; geology; people; towns; Indian tribes; most of surrounding country along Purus is "varzia," or land covered with water at flood

30c. — Started up river for Marrahan, camping at night on praias (beaches)

[N.B. — In Letter #31, Steere says that after several days in Ituchy, he started up the river [Purus] on a five day trip to Marrahan [modern spelling would be Marraha or Marraa, as shown in Lagoa Marraha on Millionth Map], the highest point on the Purus inhabited by civilized people. Lagoa Marraha on the Millionth Map is shown nearly opposite the mouth of the Ituchi River. If Steere's Ituchy was what is now called La Brea, at the mouth of the Ituxi River, a 5 day journey would have taken him to the vicinity of the modern Fortaleza de Ituxi, which is near the mouth of Rio Mamoria [7-66c], a stream which he mentions ascending in Letter #33; the geographic relations suggest, therefore, that his "Ituchy" is modern La Brea, his "Marrahan" modern Fortaleza de Ituxi. These identifications are, however, tentative].

Nov. 1c. — Arrived Marrahan.

10\* — Letter #31. Marrahan [?Fortaleza de Ituxi?] on lake off Pio Purus [11(8), Feb. 23, 1872]. Trip up Purus by canoe; camped on praias; met Mr. Piper, head of ill-fated Bolivian Expedition to gold mines

11-14c. — Trip by canoe in search of wild Indian tribes; to Pammary Indian village on long lake (former bed of Purus), camped at mouth of Marmorea river [Rio Mamoria]; next day up river looking for Jamamagy Indians, not found, returned to lake; returned to Marrahan.

15\* — Letter #32. Marrahan [11(9), March 1, 1872]. About rubber, sarsaparilla, turtle butter, seen on way up from Ituchy.

17\* — Letter #33. Marrahan [11(10), March 8, 1872]. Descr. of trip up lake and Rio Mamoria looking for Indians; plans.

18 — By canoe down to Utasi [Utari] on Purus, where high land reaches river; [this is below Fortaleza de Utuxi and above La Brea at mouth of Rio Ituxi, 7-65c]

19 — Down Purus to Fazenda Labria belonging to Colonel Labria of Marrahan; spent several days here, collecting

23\* — Left Labria by steamer for Manaos

29\* — Arrived Manaos

30\* — Letter #34. Manaos [11(11):March 15, 1872]. Descr. recent events.

Dec. 1-10\* — Spent ten days packing and forwarding collections

11\* — Left Manaos by steamer for trip on up Amazon stopped once a day to "wood up;" passed Teffe, Fonte Boa, San Paulo

18\* — Arr. Tabatinga, Brasil [Amazonas, on Peruvian frontier, 4-70d]

## Peru

19\* — Arr. Loreto [Loreto, 4-72b]; transferred to another steamer

21\* — Arr. Pebas [Loreto, 3-72d], for one month's stay

25\* — Letter #35. Pebas [11(13), March 29, 1872]. Descr. Of trip up Amazon from Manaos to Pebas.

## 1872

Jan. 15\* — Letter #36. Pebas [11(17), April 26, 1872]; concluded [11(18)" May 3]

Descr. of life in Pebas; most of time here spent collecting fossils; Pebas located on Ambiyacu [Ampiyacu] river about a mile about jct. with Amazon; comments on languages of Peruvian Indians, which he finds more difficult than those of Brazilian Indians.

25\* — Letter #37. Pebas [11(19), May 10, 1872]. Fossil collecting; mosquitoes; Peruvian traders; differences between Peruvians and Brazilians in energy and temperament; low state of Christianity; Lack of marriage; Vicotiria regia; tiger killing dogs in village.

26-27\* — Left Pebas by steamer for Iquitos; first night in mouth of Rio Napo

28-31\* — In Iquitos [Loreto, 4-73a]. packing collections and preparing for trip across mountains.

[N.B. — The next six letters, though numbered in proper sequence (#s38-43) in terms of the events described, are evidently in part mis-dated, either by Steere or more probably by the Courier. Calculation of the distances travelled by steam, canoe and raft, and durations of stay at various places mentioned by the letters, have led to the following chronological placement: Letter #38, Yurimaguas, dated Feb. 25, should be Feb. 15; Letter #39, Borja, dated Feb. 29, should be Feb. 19; Letter #40, Barrancas, dated Feb. 25 correctly; Letter #41, Lagunas, dated Mar. 1, correctly; Letter #42, Yurimaguas, dated Mar. 6, Yurimaguas (second visit), was probably begun on the boat before arrival at Yurimaguas, since it states that Yurimaguas was reached Mar. 7; Letter #43, Chanusi, dated Mar. 18, should be Mar. 28. These dates have been used in calculating the intercalated dates].

Feb. 1-6c. — From Iquitos by steamer up Amazon and into Marañon at jct. with Ucayali

7c. — One day around at mouth of Rio Huallaga.

8-13c. — Six days up Rio Huallaga to Yurimaguas [Loreto, 6-76a].

15\*? — Letter #38. Yurimaguas [dated Feb. 25; see note above] 11(20), May 17, 1872]. Descr. of Iquitos; factories to supply steamers, run by Englishmen and equipped with English machinery; immorality of priests and need for good teetotaler Protestant missionaries; Confederate Navy officers mapping upper Amazon and tributaries; descr. of trip to Yurimaguas; many stops at Indian villages, etc.

17-18c. — Steamer down Huallaga and up Marañon to Borja, arriving late second day; ashore next morning (19<sup>th</sup>).

19\*? — Letter #39. Borja [Loreto, 5-78d] [11(22). May 31, 1872]. Dated Feb. 29, but see note above. Descr. trip to Borja; day after arrival two members of steamer crew drowned when small boat was swamped on trip up to rapids of Pongo Manseriche, where Marañon breaks through the mountains.

21c. — Left Borja on balsa raft, camped on playa.

22c. — Arr. at Limon [Isla Limon on Marañon, Loreto, 5-76a]; stayed one day hunting.

24c. — By canoe down river to Barrancas [Isla de Barranca, Loreto, 5-77b]; spent day after arrival hunting [Letter #41] (Letter #40 says “spent several days at Barrancas”).

25\* — Letter #40. Barrancas [11(23), June 7, 1872]. Descr. of trip down Marañon from Borja; great fluctuations in river height; descr. of people of Limon and their customs; peccary hunt; collecting fossils and birds in hills around Barrancas; jigger fleas in feet; “spent several days climbing over hills and searching for fossils and game”

26c. — Canoe down Marañon to Aripari (2 hours), there hired new crew, passed San Antonio new mouth of Pastaza about noon, reached village of Cherui at midnight.

27c. — Continued down river, reached Cedro Isla [Isla Cedro] before night, near mouth of Huallaga; engaged new crew.

28c. — Up Huallaga, camped on playa, landing place for Lagunas.

29c. — Walked 2 hours to Lagunas [Loreto, 5-77a]

March 1\* — Letter #41. Lagunas [11(24), June 14, 1872]. Descr. Barrancas; “spent day after arrival hunting, an dnext morning went down by Canoe” [compare with information in letter #40]. Descr. of trip to Lagunas; around this village first good agriculatural and cattle land seen.

2-5\* — In Lagunas

6\* — Left Lagunas by steamer for Yurimaguas; arrived on Mar. 7.

7\* — Letter #42. Yurimaguas [Loreto, 6-76a] [11(25), June 21, 1872. Letter dated march 6, but states arrived at Yurimaguas March 7. Descr. of people and customs at Lagunas; people afraid of Steere on account of his beard, which is a property of the devil; school, language, death customs, worship; first mail by steamer received in four months; plans for trip over Andes.

8-20c. — In Yurimaguas, sharing pottery made, studying language of Indians, packing collections.

21c. — Left Yurimaguas by canoe few miles down Huallaga and then up Chanusi river [Rio Shanusi]; night in plantation.

22c. — On up Chanusi, spent night in Tambo [hatched shack]; heard tier.

23c. — On up Chanusi; men drank aguardiente with carbolic acid used for preserving specimens; waited day to see effects, then two days more to Canusi.

26c. — Arr. Chanusi [Shanusi, 6-76c] In San Martin

28\*? — Letter #43. Chanusi [11(26), June 28, 1872]. Dated March 8; see note on previous page. Descr. Yurimaguas, had of navigation and beginning of overland trip to Pacific Coast; French colony; to get pottery had to order it made and wait for it; difficulties in studying Indian languages of the area; descr. of trip to chanusi

April 5\* — Letter #44. Chanusi [11(27), July 5, 1872], and Letter #45, continuation [11(28) July 12, 1872]. Full descr. of Chanusi, a village of 150 inhabitants; the celebration of Sancta Semana, dancing, feast, penitentes, etc.

7\* — Left Chanusi for trip over Andes, starting on foot with boys carrying 50 lb. loads; hunted ahead; night alone in Tambo.

8\* — Trail to San Juan Loma at foot of mountains [6-77d], stayed night

9\* — Trail up mountains, night in Tambo.

10\* — Trail over ridge, past three peaks, from dripping cloud forest to dry west slope, reached village of Cumbassa on Cumbassa River, to Tarapotoa after dark. 12\* — Letter #46. Tarapoto [San Martin, 7-76 13-17c. — Several days at Tarapoto observing life of village and resting.

18-21c. — Trip to Juan Guerra, two leagues from Tarapoto at jct. of Rio Huallaga and Rio Mayo, to collect fossils.

26\* — Letter #47. Tarapoto [11(36), Sept. 6, 1981]. Descr. Tarapoto, a mud town of 2-3000 inhabitants near jct. Rios Mayo and Huallaga; climate, agriculture, food, disease, sugar, aguardiente, trips.

26\* — Left with mule for Moyabamba, night at Lamas [6-76b?] [6-77d], near Rio Mayo but several hundred feet above it.

27\* — Day at Lamas

28\* — Crossed Rio Mayo, passed tobalosas, night in tambo on plain

28\* — Rained all day; night in tambo.

30\* — Hard day trip in rain; saddle broke; night in tambo

May 1\* — Arrived at Moyobamba [San Martin, [6-77d]

2\* — Letter #48. Moyobamba [11(37), Sept. 13, 1872]. Tarapoto to Moyobamba looks short distance on map, but took five days on mule; descr. of journey.

10\* — Letter #49. Moyobamba [11(39), Sept. 27, 1872]. Descr. of Moyobamba, good climate, on plain 200-300 ft. above Rio Mayo; methods of house-building; hat-making; balls and dancing; absence of marriage; hard lot of children.

22c. — Left Moyobamba and arrive at Rioja [San Martin, 6-77c]; found feast in progress, could not proceed.

23 — [Collected; visited warm springs]

June 4c. — Stuck in Rioja on account of feast and inability to get transport; got tired of waiting, and

5c. — Started on foot for Chachapoyas with peon; night in tambo at food of mountains.

6c. — Climbed mountain on deeply trenched path [cajon], camped on ridge.

7c. — Descended to valley and spent night in place called Udj Ho or Udjko (the hole, in Indian) in tambo.

8-10c. — Remained at Udjko, collecting

11c. — Moved on up valley, camp in tambo.

12c — Over ridge, night in tambo at Almirante at foot of high mountain range.

13c. — In rain over the summit, down to valley and night in tambo.

14c. — To village of Molina Pampa and Taulia; stayed one day.

15-16c. — Reached Chachapoyas [Amazonas, 6-78d]. [Stayed here, with side trips, until July 9].

26\* — Letter #50. Chachapoyas [11(42), Oct. 18, 1872]; Letter #51, continuation [11(43), Oct. 25, 1872] Descr. of trip over Andes to Chachapoyas; Descr. of life at Taulia; dancing; customs; center of carrying trade over mountains between Moyobamba and Chachapoyas; at boundary between rainy and dry belts; descr. Chachapoyas, 8000 people, on high barren dissected plain (9000 ft. elev.), supported by government funds; if guano income failed would fall to pieces; cockfighting; trade in market, and “marrying a scarce article to an abundant one.”

28 —

July 3c. — Six day trip to Quillip (2 days ride up Utcubamba River valley)

6\* — Letter #52. Chachapoyas [11(44), Nov. 1, 1872]. Descr. of trip to Quillip; first night at “old man’s house,” garapatos; towers and terraces on mountainsides; second night at hacienda at foot of mountain; visit to “fortress” of Quillip, descr.; night at hacienda; ruins on another side of mountain next day, shot condor, night at hacienda; next day to “old man’s house,” following day to large bat cave and back to Chachapoyas.

8c. — Left chachapoyas with mule; first night on bare hillside.

19-12c. — Up the Utcubamba river valley

12c. — Crossed river and followed deep shaded valley upward.

13c. — To foot of second great range of Andes.

14c. — Over Calle Calle summit (c. 14,000 ft.), down to within sight of Balsas and Maranon.

15c — Down within a few miles of Balsas [just over boundary in Cajamarca, on Maranon, 7-78a].

16c. — To Balsas, crossed river, night near Celendin [Cajamarca, 7-78a].

17c. — Arr. Celendin; stayed day.

18c. — Down valley past Huauco, up onto high plains and ridges, night at hut in small valley.

19c. — Over another mountain range to Cajamarca.

- 20\* — Letter #53. Cajamarca [11(45), Nov. 8, 1872]. Descr. of trip from Chachapoyas; now at Hacienda Tartar. [From next letter: did not intend to stop here, but decided to wait out revolution expected about August 1 in Lima]
- 24c. — Returned to Celendin, one day journey, arrived next morning.
- 25-26c. — In Celendin; town deserted, people had just stoned subprefect to death, afraid of reprisals.
- 27c. — Celendin; news of revolution; people returned, parade and bull-fight.
- 28c. — Returned to Cajamarca.
- Aug. 14\* — Letter #54. Cajamarca [11(46), Nov. 15, 1872]. Decided to wait until expected political troubles were over; trip to Celendin and events there; few days heard of revolution in Lima and assassination of President Balta and the brothers Gutierrez; descr. of Cajamarca; customs, ruins, pottery, hot baths, Indians, crops, cultivation, trumpets.
- Sept. 3c. — Left Cajamarca for Callao; over ridge to valley of Madalena river, crossed river, up to tambo on ridge for the night.
- 4c. — Reached Contumana [Cajamarca, 7-79d]
- 5c. — Reached Cascas after day in mountains [Cajamarca, 7-79d]
- 6c. — Left Cascas at midnight, crossed last low range of mountains, two hours on plain to Acope [Libertad, 879a]
- 7c. — One day in Ascope
- 8c. — Passed estate of Tascala (sugar) and went on to Paihan [Paijan, Libertad, 8-79a] for the night.
- 9c. — Through remains of Pre-inca towns, reached Malabrigo on coast at noon.
- 10c. — Boarded steamer for trip down coast to Callao.
- 12c. — Arrived at Callao.
- 14\*? — Letter #55. Callao [11(48), Nov. 29, 1872]. N. B. — This letter, as published, is dated Aug. 14, the same date as #54 from Cajamarca; the date here assigned fits internal evidence in the letters and the geographic requirements.
- 20\* — Letter #56. Callao [11(50), Dec. 13, 1872]. Descr. Callao and Lima
- Oct. 1\* — Letter #57. Callao [11(51), Dec. 20, 1872]. Descr. Peruvian “World’s Fair” at Lima; has made several short trips, to Ancon (2 or 3 days?), north to Lima; to Isola San Lorenz, 3-5 miles from Callao. On this date left by steamer for Pacasmayo, but stopped at Isla Macabi and decided to stay a few days on this guano island.
- 4-8c. — On Isla Macabi [near Puerto Chicama, Libertad, 8-80b, about 290 miles north of Callao].
- 9c. — By steamer one day to Pacasmayo (Libertad, 780d)
- 10-26c. — Working in and out from Pacasmayo, buying pottery at Pacasmayo, Cheban and San Jose; several trips along RR running up valley toward Cajamarca — to railhead at Pai Pai and by horse 20 miles more to Galliaetas.
- 27c. — Boarded steamer at Pacasmayo for four day trip to Callao.
- 30\* — Arrived at Callao
- Nov. 1\* — Letter #58. Callao [11(52), Dec. 27, 1872]. Descr. of Isla Macabi, guano industry, mummified birds and seals in guano, seal dung main source; landing through breakers at Pacasmayo, collecting ancient Peruvian pottery in vicinity of Pacasmayo, also “huacas” (mummies), descr. of trips on railroad, inscribed rocks at Galliaetas.
- 2-24 — At Callao, packing materials and preparing for trip to northern Peru and Ecuador.

- 15\* — Left Callao by steamer for north
- 17c. — Went ashore at Puerto Casma [Ancash, 187 miles north of Callao].
- 19c. — Landed at Huanchaco, port of Trujillo [ Libertad, 8-79c]; went to Trujillo.
- 20c. — Spent one day in ruins near Trujillo.
- 21c. — Returned to Huanchaco.
- 23c. — “Took next steamer for Pacasmayo” [one day trip]
- 24c. — “Next morning took sailing ship for Tumbes” (four days sail)
- 27c. — Reached mouth of Tumbes river [Tumbes, 4-81b]; to Tumbes, 2 miles inland
- 28 —

- Dec. 2c. — At Tumbes, hunting
- 3-7c. — Trip southwest along coast to Zorritos [spelled Torritos in printed letters]; a couple of days hunting on hills, along coast, then returned to Tumbes.
- 10\* — Letter #59. Tumbes [12(8), Feb. 21, 1873]. Descr. of Trujillo and Pre-Inca ruins there, as large as New York; Inca road to coast younger than ruins; descr. of Tumbes, petroleum wells and refinery, trip to Zorritos and wells, passing Coralles (supposed site of Pizarro’s landing), descr. of region.
- 18-20c. — Up coast to Punto Hambali [Jambali], collecting shells; two nights on beach; return to Tumbes.
- 23c. — Left Tumbes with horses and mules; reached Arenillas in Ecuador [just across boundary]

## ECUADOR

- 24\* — Reached Santa Rosa [3-80d]; several days hunting
- 28-31c. — Trip to Biron (hacienda), 12-15 miles up river at foot of mountains; returned to Santa Rosa.

1873

- Jan. 1-9\*c. — Remained at Santa Rosa; took ship to Guayaquil on Jan. 9.
- 11\* — Reached Guayaquil.
- 17\* — Letter #60. Guayaquil 912(9), Feb. 28, 873]. Descr. of region around Tumbes; collecting; trip to Santa Rosa; Christmas celebrations, singing; government; currency; poisoning stream for fishes at Biron; rubber tree and rubber collection, not as in Brasil; passage to Guayaquil.
- 18c. — Took boat up river, beginning of trip to Quito
- 19c. — Arrived at Bodegas [2-80b], or Baboya, port for Quito in dry season
- 20c. — With mules for Savaneta, 15 miles above
- 21c. — Ascended valley, camped at night
- 22c. — Climbed all day in rain, reached village of Camino Real [2-81a].
- 23c. — Reached Guaranda {2-81a}, near foot of Chimborazo
- 24-25c. — Waiting for mules in Guaranda
- 26c. — Rode around east side of Chimborazo, passing through paramo, the Arenal (sand plain on slope of volcano, road here reached nearly 16,000 ft. elevation), again paramo; nearly fifty miles on mule-back this day, camped in hut (passed Mocha in dark).
- 27c. — Rode back to Mocha, then on to Ambato [1-81d]
- 28c. — Ambato to Latacunga [1-81b]

29c. — To Machacha, passing between Volcan Cotopaxi and the Illinini  
30c. — Reached Quito, leading horse the last two leagues.

- Feb. 1\* — Letter #60 bis. Quito [12(18), May 2, 1873]; Letter #61 (continuation) [12(19), May 9, 1873].  
Descr. of Guayaquil — buildings, streets, soldiers, trade, old earthworks, climate, etc.; descr. of trip to Quito; country, fair at Latacunga.  
6-8c. — Trip from Quito to Volcán Pichincha, ascent, return to Quito. 15\* — Letter #62. Quito [12(22), May 30, 1873]. Descr. of Quito; Jesuit college museum of natural history; visit to Pichincha, close call in descending into crater; return to Quito.  
16c. — Left Quito with mules for Guayaquil  
17c. — Reached Ambato  
18. — Spent night in a tambo at Chuquipaqui at base of Volcan Chimborazo  
19c. — Reached Guarranda  
20-22c. — Held up in Guaranda by fiesta.  
23c. — Left Guaranda with mules; four days through mountains to Savaneta  
26c. — Arrived at Savaneta and took canoe to Bodegas  
27c. — Arrived at Guayaquil  
28—
- Mar. 4c. Steamer from Guayaquil to Callao (estimated duration of voyage six days)

#### PERU

- 5-18c. — In Callao, packing and shipping collections.  
19\* — Letter #63. Callao [12(23), June 6, 1873]. Painters of Quito; trip back to Guayaquil and Callao; now in old room, surrounded by shells from Tumbes, fish and monkeys from Santa Rosa, birds and plants from Quito, and geological specimens from Cimborazo and Cotopaxi.  
24c. — Trip up Oroya Railroad; to Chosica  
2528c. — Several days at Chosica, examining ruins of pre-Inca city and excavating grave-pits under floors of rooms.  
29c. v By horse down valley a few miles to another ancient ruined town.  
30c. — On up the railroad to San Bartolome, Verrugas bridge, and Surco at present railhead; by mule to Matucana.  
31c. — By mule to San Mateo, gorge of Infernillas, and stayed at summit headquarters of American railroad engineers.
- Apr. 1c. — In spite of soroche, to Summit tunnel at 15,000 ft. and down to Pucara in headwaters of Ucayali drainage.  
2c. — In Pucara, too sick to travel, but skinned vicuna.  
3c. — Pucara; visited silver and lead mines.  
4-6c. — Three day trip back to Lima  
7-14c. — In Lima, packing specimens; trips to ruins in plain where stand Lima, Callao, Chorrillos.  
15\* — Letter #64 Callao [12(9), Sept. 26, 1873]; Letter #65 (continuation) [12(40), Oct. 3, 1873]; Letter #66 (continuation) [12(41), Oct. 10, 1873]. Descr. of trip up Oroya Railroad; ruined cities near Chosica, mummy burials; high state of ancient agriculture, with terraces, compared with present; attributes lack of energy and industry of people to guano income, which ruined Peru; ancient tools of

cultivation (digging stick) still in use; geology of railroad route; fatalities in constructing Verrugas bridge from verrugas disease; soroche; mines; trip back to Lima.

16 —

- May. 4c. — Continued visits to ruined cities around Lima  
5-6c. — Trip by train to Chorillos, thence by horse to Pachacamac, about 30 miles S. of Lima, to visit the Temple of the Sun; spent night at hacienda in valley of Lurin  
10\* — Letter #67. Callao [12(42), Oct. 17, 1873]. Visits to mounds and ruins in vicinity of Lima; descr. of Pachacamac, ruined city and Temple of the Sun; mummies, aprons, pots; life of Chinese “slaves” on the haciendas.

#### May 22 to Aug. 2, 1873 — Voyage to China

- July 10\* — Passed in sight of Ladrone [Mariannas] Islands  
Aug. 2• — Arrive at Macao, China.

#### CHINA

- 3\* — Letter #68. Macao [12(43), Oct. 24, 1873]. Descr. of voyage on sailing vessel, passing near Sandwich Islands and Ladrone Islands; north of Luzon becalmed, collected seaweeds, etc.; sea snakes in Canton River; voyage of 72 days, no land except distant sight of Ladrones on 50<sup>th</sup> day.  
4\* — Steamer to Hong Kong day after arrival at Macao  
8c. — Steamer to Canton, 6 hour trip.  
9-23c. — In Canton, one week making acquaintances, rest of time observing and collecting insects, etc.; returned to Hong Kong about Aug. 18.  
24\* — Letter #69. Hong Kong [12(44), Oct. 31, 1873]. [N. B. — Letter #70 [13(14), Apr. 3, 1874], is a re-printing of Letter #69]. Descr. of Macao; trade in coolies; descr. of Hong Kong; descr. of Canton; collections.  
25\* — Steamer to Swatow; stopped for one week; made trip to Tatapo on other side of Island.

[N.B. — The *Peninsular Courier* [12(48), Nov. 28, 1873] quotes from *Ocean Highways* (London) a description of Steere’s trip, and his discovery of the rare shell *Bulimus labiatus*, of which only three specimens are known; that belonging to the British Museum was stolen]

- Sept. 4\* — Steamer to Amoy  
5-20c. — In Amoy, waiting ship to Formosa; buying fish, pottery, etc.  
21\* — Letter #71. Amoy [13(15), Apr. 10, 1874]. Fever and toothache; descr. Swatow; buying crustacea and fish at markets; customs of people ound feet; sea shells, potter, etc.

#### FORMOSA [TAIWAN]

- Oct. 3c. — teamer to Tamsui at north end of island; went ashore.  
4-6c. — Steamer to Takao [Kao-Hsiung Shih (recent Chinese), Kaohsiung (same), 22 deg. 34’, 120 dec. 18’]

10\* — Letter #72. Takao [13(16), April 17, 1874]. Amoy; customs, christian services, pidgin English; descr. of Tamsui, old Dutch fort; voyage to Takao through Pescadores islands; Apes' Hill at entrance to Takao Harbor, part of enclosing ridge; purchase of crustacea and fishes at markets and harbor; collecting land and tree snails; plans for trip with missionary into interior of island.

11-12c. — Left Takao, arrived at Taiwafu [T'ai-Nan-Shih (modern Chinese), Tainan, 23 deg. 00', 120 deg. 12'].

14\* — Campbell (missionary), Bullock (English Consul) and Steere left for interior; got only 20 miles, stopped at hoisiutiam (village, not identified, on road to Kagee = Chia-I Shih).

15\* — Stayed night near Kagee [Chia-I Shih (modern Chinese), Kagi, Kia-Yi, Kaagii, Chiayi, 23 deg. 28', 120 deg. 26'].

16\* — Left main north road [to Tamsui], turned NE, stopped at village at foot of mountains [near modern Tou[liu?].

17\* — Ascended stream valley and climbed over hills all day, [stream probably the river that empties at 23 deg. 50', 120 deg. 16', Japanese name Seira Kei, Seira-kei, Sairi-kei; valley extends east, river drains lake Jih-yueh Taan; camped 2-3 ours from lake.

18\* — Reached lake [Jih-yueh T'an (modern Chinese name), Jitsugetsu Tan (Japanese) Lake Candidius, 23 deg. 52', 120 deg. 55']; stopped at aborigine village at east end of Lake. Also called Lake Tsuisia (Steere), Dragon Lake; the village was called by Steere Tsuisia.

19-22c. — Stayed a few days at Tsuisia to hunt and collect; boar hunt.

23c. — Went [north] to Posia or Polisia [Poli-sha?] (Poli, modern Chinese name), a plain 5-7 miles across with about 30 aborigine villages, stopped at villaged called Ogulau (can't read rest of line.)

24 —

Nov. 9c. — More than two weeks at Posia or Polisia [Poli, modern Chinese Puli, 23 deg. 58', 120 deg 57'], collecting and preparing specimens — fish, shells, snakes (nearly 80 on trip, mostly from here), deer, monkeys, large flying squirrel, pheasant, beetles, crickets, grasshoppers, etc.

10c. — Left valley of Posia, down stream valley toward coast, camped on river.

11c. — Crossed steep mountain and followed narrow valley down into coastal plain east of walled city of Chungwha (Chang[hua, Shih, modern Chinese name, 24 deg. 10', 120 dec. 32'], stayed on large chinese estate.

12c. — Three-hour walk to Toasia [=Tai-chung Shi?, 24 deg. 15', 120 deg. 42'], and on to Sek-whan settlement of Laisia — 12-15 miles, among hills [=Tung-shih?, 24 deg. 16', 120 deg. 48']. From Toasia Bullock went back to Taiwafu by way of Chungwha, and from Laisia Campbell turned back south, leaving Steere along.

19-20c. — Trip from Laisia to Twalam, 10 mles SE, and return.

23c. — Left Laisia, rode 12-15 miles north [to around modern Ta-hu?], then toward the sea, coming out near the port of Oulan (modern Chinese name Hou-lung, 24 deg. 37', 120 deg. 47'). then inland; spent the night at Tung Kiang.

24c. — Continued north over high rolling plains, past walled city of Tekcham (modern Hsinchu Shih, 24 deg. 48', 120 deg. 55'), stopped for night at small town in hills

25c. — Reached Sinchin [modern Hsin-chung] on Tamsui river [Tan Shui Ho], and went by small boat to Tamsui [Tan Shui, Tan-shui]

26\* — "Next day (Sunday)" went up river to Bangkokee [Japanese name Banka?, 25 deg. 02', 121 deg. 30'] and to another mission 5 miles away.

- Dec. 1\* — Letter #73. Tamsui [13(17), April 24, 1874]; Letter #74 (continuation [13(18), May 1, 1874]; Letter #75 (continuation) [13(21), May 22, 1874]. Descr. of trip to interior with Campbell and Bullock; left Taiwau fu with two servants, five coolies and three chair coolies; descr. of country; tree-ferns and tall grass in hills; descr. of Tsui-whan people of Tsuisia valley and lake region; collecting; boar hunt; savage escort; stay at Ogulan in Posia valley; Che-whan people; continuation of journey north; fish-poison; missionaries;
- 5c. — Went to Kelung [modern Chi-lung Shih, Japanese Kiirun, older variants Keelung, Chelung, 25 deg. 06', 121 deg. 49'], stayed some time.
- 14c. — Trip to Coal Harbor and return to Kelung
- 17c. — Returned to Tamsui; packed collections for shipment; trips in vicinity.
- 25\* — Christmas at Tamsui
- 30-31c. — Ship to Takao; stormy passage.

1874

- Jan. 1\* — New Years at Takao
- 2\* — Letter #76. Takao [13(22), May 29, 1874]. Descr. of mission work at Tamsui; trip to Kelung; purchase of shells, fish, etc.; mines at Coal Harbor; collections by tea ship to New York; country around Tamsui plantations, sulphur springs.
- 3\* — Started for Taiwau fu, stayed overnight at Koosia, 6-8 miles N. of Takao.
- 4\* — Reached Taiwau fu [Tainan Shih]
- 5-9c. — Trip to Kongana, village of Pepo-whans in mountains east of Taiwau fu.
- 10\* — Letter #77. Taiwau fu [13(23), June 5, 1874]. Descr. of trip with missionaries to Taiwau fu; Ape's Hill near Takao; Whale's Back ridge in plain; descr. of walled city of Taiwau fu, enclosed in brick wall 18-25 ft. high and seven miles long; old Dutch fort; trip to Kongana; descr. of Peop-whans; traces of Christianity surviving among them since Dutch days; ancient MSS; fossil collecting; returned yesterday from Taiwau fu.
- 13c. — By ship for Pescadores Islands; driven back to Takao by storm
- 14c. — Beating up coast to opposite Taiwau fu.
- 15c. — Went ashore at Sayson on Fisher's Island, Pescadores [Penghu islands, Hoko Shoto (Japanese)]; stayed here, purchasing corals and fish, and making trip to south end of island, until about
- 20c. — By junk to Taiwau fu.
- Feb. 1\* — Letter #78. Taiwau fu [13(24), June 12, 1874]. Descr. of trip to Pescadores; pagoda lighthouse on Fisher's Island; buying shells and corals; descr. of makang and Penghou Island; people wreckers and pirates; excitement over wrecked junk; collections made on trip included half-ton of corals, 2 bushels of shells, 10-ft. octopus, 12-gal. case of fishes with several hundred specimens; return to Taiwau fu, passing island of Apine and old Dutch fort, Zeelandia.
- date? — Returned to Takao.
- Mar. 16\* — Started (with Bullock and a New orker in business in Takao) on trip to east side of Formosa, to shoot pheasants and visit with savages; started in late p.m., and "after crossing the bay at Takao (a walk of five or six miles through rice country) came to Pitau [Pitao], a walled city," where they stayed. [This seems to be the modern Kao-hsiung, inland about the right distance from Kao-hsiung Shi = Takao].

17\* — Crossed Tamsui River, went through several small towns, reached Hakka villages and then those of Pepo-whans at foot of mountains, stayed at village of Ban Kimseng [not located, probably about latitude of Takao].

18\* — Two hours climbing up ravine to village of savages on steep mountainside; stayed night.

19-21c. — Went on up to larger savage village about 1000 ft. higher, a few miles west of long ridge that forms the divide to the Pacific drainage; this village 12-15 miles from Pacific coast; went back to Bankinseng [variant spelling]

22c. — Stayed one day in Bankinseng (Sunday).

23c. — Long day's trip back to Takao

24-30c. — In Takao, preparing collections for shipment.

31c. — Steamed to Amoy, China.

## CHINA

April 1-3c. — In Amoy; arranged shipment of collections by first tea ship

4-5c. — Steamer to Canton

10\* — Letter #79; Canton [13(27), July 3, 1874]. Descr. of trip into mountains E. of Takao; country; Ban Kinseng, market, arguments with priest about Catholicism and Protestantism; meeting with savages; trip to villages in hills; descr. of people, houses, chief, daughters for sale, war with people on E. slope, plunder and skulls, small boys slept in skull house dormit; return to Takao, voyage to Amoy, Hong Kong and Canton.

11-30c. — In Canton, collecting insects, etc.

May 1\* — Letter #80. Hong Kong [13(28), July 10, 1874]. Descr. of Canton

[N.B. — There is an unfilled gap of about two weeks between May 1 and June 16, the dates of letter #80 from Hong Kong and Letter #81 from Manila; Steere says that after two weeks waiting in Hong Kong he got passage to Manila, which would have him leaving Hong Kong about May 14-16 and arriving in Manila four days later; he also says in Letter #81 that he has been waiting in Manila nearly two weeks for travel permits, which would have him arriving in Manila about June 2].

30? — Left Hong Kong for Manila; rough four day passage [see note above]

June 2? — Arrived Manila, Philippine Islands. [see note above.]

## PHILIPPINE ISLANDS

16\* — Letter #81. Manila [13(43), Oct. 23, 1874]. After two weeks waiting in Hong Kong got passage to Manila; rough four day trip; descr. of Manila, walls, moat, houses, people, trade in hands of Chinese, Tagalog [Tagalog] language, dress, cock-fighting; been waiting nearly two weeks for permits to travel and carry firearms; some collecting; visited Dominicans' museum; tomorrow set out on trip to interior.

17\* — Up Pasig River to Laguna de Bay and across lake to Santa Cruz for night.

18\* — By calesa to village of Mahayhay at foot of volcano; stayed two days.

21\* — Trip up extinct volcano Mahayhay [14 deg. 05', 120 deg. 26'] [Mt./Banajao]

23c. — Set out on foot for coast; reached village of Bulukon [=Lucban?]; stayed four days collecting mollusks and beetles.

28c. — Continued to Mauban on coast; stayed one? day  
30c. — Trip to reefs for corals and shells

- July 1c. — Second trip to reefs.  
2-3c. — Return to village of Mahayhay.  
4-5c. — Second trip up volcano Mahayhay.  
6c. — Packing collections for return to Manila;  
7. — Stayed night at Santa Cruz  
8. — Reached Manila.  
11\* — Letter #82. Manila [13(45), Nov. 6, 1874]. Descr. of trip to Mahayhay and Maubon; cocoanut groves, sensitive plants, making of tuba wine, coffee plantation; trip up volcano, thorny rattans, leeches, fifty species of ferns collected; at Mauban twenty to thirty species of corals, coral fishes; total collections more than 1000 beetles and many other insects, several hundred freshwater and land shells, many ferns; benefits of Spanish rule and Catholic religion to Filipinos; plans.

#### Palawan and Balabac

- 16\* — Steamer from Manila for Paragua or Palawa; passed between Mindoro and smaller islands to south.  
17\* — Passed Cuyos Islands  
18\* — Coasted along Palaway to Puerto Princesa; stayed there a month.  
26\* — Letter to Courier [not one of series]. Puerto Princesa [13(42), Oct. 16, 1874]. In a little Spanish colony; good success in collecting. Plans to go to Mindanao, then to Zebu and back to Manila; trip will take five or six months. "I send you two letters which I have just had time to write up from my notes."
- Aug. 1-7c. — Week's trip to village of Tagbanna tribe on river [S?] of Puerto Princesa; return to base there with attack of fever.  
15\* — Letter #83. Puerto Princesa [13(51), Dec. 18 1874]. Trip to Palawan; Puerto Princesa a prison colony; descr.; visit to Tagbannas, descr. of people, agriculture, houses, customs, language; now waiting steamer for Balabac.  
17c. — One day voyage to island of Balabac.  
22-23c. — Trip south along coast to fishing grounds and return; another attack of fever.
- Sept. 5-10c. — Steamer expected to arrive on first of month did not come, so took trip 15 miles S to village of Dalanan [Dalawan]; there bought shells, insects, etc. Sever attack of fever on way back.  
19\* — Letter #84. Balabac [14(2), Jan. 8, 1875]. Descr. of Balabac, another penal settlement; Malay attacks; many sick with intermittent fever, deaths every day; collecting; fish traps; nests of mound-builder birds;. Descr. of birds (tabon) and eggs; collecting on reefs at low tide, corals, coral fishes, shells, fish with crushing teeth; fever; trip to Dalanan [Dalawan], people, benefits of Mahommedan religion for them, warlike character, arms, canoes and larger ships; alarm of Moro attack at Balabac; expecting ship.  
20-21c — Two day voyage to Samboanga, Mindanao

## Mindanao and Basilan

22-25c. — Another severe attack of fever; recuperation

27c. — Left for Basilan island; arrived at Isabella for three weeks stay.

- Oct. dates? — Visited small island of Malamaui [spelled Malacani, Malancani, Malamani in catalogues], and also other nearby islands, including Lampinigan, all with small villages.  
19\* — Return from Basilan island to Zamboanga  
20\* — Letter #84 bis. Zamboanga [14(6), Feb. 5, 1875]. Descr. of port of Zamboanga, town and surroundings, people, houses; formerly free port used by whalers for supplies; attack of fever; stay on Basilan; Moors on island in league with those in Soo-Loo [Jplo]; only Isabella in Spanish hands; dangerous to go farm from town and only a few Indian hunters would accompany Steere in his trips after birds; squirrel; large tracts of pine forest; trips to nearby small islands; people of villages would be pirates if not prevented by Spanish; On Lampignan saw Moro shield from Mindanao, also the cane points carried in shield to put in trail to spear bare feet of enemy; cockpit in Isabella.  
23c. — Went to village of Dumalon on coast of Mindanao, 8-10 miles and 3 hours by canoe east of Zamboanga; better forest; stayed some time.
- Nov. 1-2c? — Received note from Prof. Thompson of HMS Challenger, briefly stopping in Zamboanga, to sail next morning; rode horse to Zamboanga and spent day on board, returning to Dumalon next day.  
10c. — Returned to Zamboanga by canoe at night along coast  
13c. — Trip to Santa Cruz Island, opposite Zamboanga.  
26c. — Left Zamboanga on Spanish baroque for Panay, but did not stop there on account of anticipated typhoon.
- Dec. 16c. — Arrived Manila after three week trip; fever and low rations; several days recuperating after arrival.  
20\* — Letter #85. Manila [14(20), May 14, 1875]. Descr. of stay at Dumalon, in the tribunal (town hall, jail, and official residence of administrator); ranks of administrators (governors of provinces, gobernadorcillos of larger towns, tenientes of smaller towns); good collection — birds, monkeys, etc.; visit to the Challenger, good impression made by attitudes of officers and crew toward science; descr. of country around Dumalon; fireflies along beach; fruit bats on Santa Cruz island; Moro Moro dance; voyage to Manila.

## Visayan Islands

- 21\* — Steamer to Ilo Ilo on Panay Island; arrived on 23<sup>rd</sup>.  
23-25\* — Typhoon in Ilo Ilo  
27c. — Crossed to Negros Island to climb Mt. Malespina (Kaolaon); stayed in village on coast.  
28c. — Terrible storm, making roads and stream impassable; stayed few days hunting on plantation. [N.B. — Steere says in Letter #86 that this last storm was on Christmas, which does not agree with his having left Manila Dec. 21, arriving after three day trip, undergoing first storm, and “a few days after storm” taking boat to negros]

- Jan. 1\* — In a small village on west coast of Negros  
 4-6c. — Visit to sugar plantation (Costeker); decided impossible to climb kaolaon  
 7-8c. — Two days trip north along base of mountains  
 9c. — Reached coast of Bacolod; took schooner, stuck all night at mouth of Mataban River on sandbar.  
 10c. — Fishing-boat to Iloilo

Peninsular Courier [14(27), July 2, 1875]: "At the late meeting of the Board of Regents the honorary degree of Doctor of Philosophy was conferred upon J. B. Steere, who is now on the ocean, returning from a five years' tour in the interests of Michigan University and the cause of science. This is an honor that Mr. S. must feel proud of, as it is the first time that this degree has been conferred by the University. There is no higher honor that the University could bestow upon one of her alumni."

- 15\* — Letter #86. Ilo Ilo, Panay [14(21), May 21, 1875]. Three or four days in Manila to recuperate health after voyage from Zamboanga; three day trip to Ilo Ilo; principal city of Panay is Jaro, a few miles inland; descr. of city, people, weaving of cloth of abaca and cotton [jusi] and of abaca and silk; clothing; baguio [typhoon] or cyclone, damage by wind and water; trip to Negros; banana plantations, descr. of fruit bats and their behavior; New Years' celebrations in village; sugar estate of Costeker (Englishman), one of few to have climbed Kaolaon; cogon grass plains; trip north to coast and return to Ilo Ilo  
 16c. — Trip to interior of Panay; jaro, village of Madsin; reached small village beyond Madsin.  
 17c. — Fiesta in village  
 18-19c. — Two-day hunting trip to forest.  
 20-21c. — In Madsin, putting up birds.  
 22c. — Return to Ilo Ilo  
 24-26c. — Trip to Guaimaras Island and return to Ilo Ilo.  
 28\* — Letter #87. Ilo Ilo, Panay [14(31), July 30, 1875]. Descr. of trip to interior; fiesta at village above Madsin; dancing and extemporaneous responsive songs: "Boy: My eyes are astonished. From whence has come down such beauty? and more of such like. The girl meanwhile dancing quietly opposite and listening. After the conclusion of this apostrophe she answered: "The youth is bold and his mouth full of flattery, and of such must maidens beware!" putting on a laughable look to represent the passion he was supposed to have. "If I could possess such beauty I should be happy, but if she refuses me I shall die." The girl, apparently relenting, responded, while she covered her face with her hands and seemed almost to blush through her dark skin, "The words of the youth are passionate, but I do not wish his death. Let him ask my father." The young man [Indian], who had been listening with marked attention, now started back and exclaimed, "My love has departed. I have discovered that the beauty has a turned-up nose." This was altogether too much for the girl to stand and she ran away and hid herself among her mates in one corner of the room." — Enforced dancing of old couple who owned house for amusement of gobernadors and priests; hunting with gobernadorcillo, 8 men and dogs; camp near forest; all but two of men left, afraid; collected ferns, etc., and geological specimens near Madsin; back in cart to Ilo Ilo; trip to Guaimaras, porous limestone, rich in land snails, birds; visit to cave: plans for trip to Zebu.  
 29c. — Crossed to Bacolod on Negros; stayed one day more (fiesta)  
 31c. — Started north with buffalo [carabao] cart, reached Silai [Silay]

- Feb. 1-3c. — Trip around north end of island.

- 4c. — Reached Escalante at northeast angle of Negros after five days of rough travel.
- 5c. — By canoe across to Tiburan on west shore of Zebu [Cebu] Island.
- 6c. — North and east to village near gap in central range of mountains
- 7c. — Over the mountains to Sogot, arriving 10 pm after rough and dangerous trip.
- 8c. — Had fever; west on to Calmon
- 9c. — Reached Carmen
- 10c. — Visited coal mines; went on to small village.
- 11c. — Hired carabao cart, and lay in it during trip to Zebu [Cebu]; fever
- 12\* — Letter #88. Zebu [Cebu] [14(32), Aug. 6, 1875]. Descr. of trip around north end of Negros and across Zebu; country, bad roads, locusts, sun birds, coral churches at Calmon; coal mines.
- 15c. — Started trip south from Zebu, along coast
- 16c. — Reached Carcar on east coast, horse across island to Barile.
- 17c. — Shell collecting and trip to forest at Barile.
- 18-24c. — A week's travel south on coast; arrived at [Tanon, Tanar?] at south end of Zebu
- 25c. — Boat across to Dumaguete, on southeast coast of Negros
- 26c. — Boat from Dumaguete back to Zebu
- 27c. — Boat across to Loon on west coast of Bojol [Bohol] Island.
- 28c. — Outrigger boat to Tagbilaran, south coast of Bojol; stayed one day.

- Mar. 2-5c. — Visit to Panglao Island, opposite Tagbilaran; stayed first night at Dauis, then went to Panglao at west end of island, worked on reefs, bad attack of fever; back to Tagbilaran on fourth day.
- 6-7c. — In Tagbilaran, putting up specimens and dissecting flying lemur.
- 8c. — Boat back to Loon, horse and foot north along coast, through village of Inaveraga, stayed at Pampany [Pampanay?]
- 9c. — Boat to Calbon Island
- 10c. — Collecting shells on Calibon Island;
- 11c. — Boat to Zebu
- 12-19c. — Packing collections for shipment, buying shells and sponges in Zebu.
- 20\* — Letter #89. Zebu [Cebu] [14(33), Aug. 13, 1875]. Descr. of Zebu; Magellan's monument on Mactan Island; dress; people old themselves in low esteem, lower than Tagalogs; sugar cane; mostly in small naïve holdings; these people have more chance to advance themselves than where there are large foreign plantations; trip down Zebu; cogon plains; maize a common food; land snails in patches of original forest; fishing stools planted at low tide; night travel to avoid heat; descr. of Dumaguete on Negros; trip to Bojol and Panglao; reef collecting, boat sank under weight of specimens; return trip; buying corals, echinids and starfishes at Calibon Island; Zebu.
- 24-26c/ — Three day voyage to Manila

#### Luzon

- Apr. 10c. Began trip to Batan [Bataan], crossed manila Bay to Orani, on to Hermosa for night.
- 11c. — By horse north across plains into mountains; night in village; Negritos
- 12c. — Second trip into mountains to see Negritos; night in village
- 13c. — Returned to Manila
- 14-18c. — Packed collections and prepared to leave Philippines
- 19c. — Steamer for Singapore; 6 day trip.

## MALAY PENINSULA, SUNDA ISLANDS AND MOLUCCAS

24\* — Arrived in Singapore [Saturday; Letter #90 says day after arrival was Sunday, which was the 25<sup>th</sup>]

25\* — Letter #90. Singapore [14(24), Aug. 20, 1875]. Several days in Zebu, collecting and buying shells and sponges, glass sponges few (all bought by Challenger); packing collections for shipment; return to Manila; trip to Batan [Bataan] to see Negritos; horse into hills from Hermosa, found three Negritos, who called more of tribe; descr. of people, ornaments, tattooing, knife, bow, use of joints of bamboo for cooking, filed teeth, language origin of Philippine languages, partly through intermarriage of few arriving Malay adventurers with older native tries; return to Manila; visits to museums, packing collections for shipment to New York; voyage to Singapore; burial at sea.

- May 8c. — Left Singapore on wooden steamer Konig Wilhelm II for Moluccas  
10c\* — Letter #91. On board Konig Wilhelm III [14(39), Sept. 24, 1875]. Descr. of Singapore; botanical gardens, people and races; had planned to buy bird-of-paradise skins, but no good ones available — native vessels from the Moluccas bring them only in the monsoon season in September and October; decided to make short trip to Moluccas to get some.  
11c. — Lay off Samarang, Java, to discharge cargo.  
12c. — Reached Sourabaya at east end of Java; stayed two days.  
15c. — Went ashore at Bai.  
17c. — Arrived at Macassar [Makassar] at south end of Celebes  
18-25c. — At Macassar, collecting butterflies, buying birds-of-paradise, and waiting for steamer.  
26c. — Sailed from Macassar for Moluccas.  
28\* — Letter #92. On board Steamer Konigen Sophia [14(40), Oct. 1, 1875]. Influence of steamships on Hadji pilgrimages to Mecca and resultant rejuvenation and reformation of Mohammedanism in the East Indies; Dutch have not encouraged Christianity, in order to conciliate the natives, but the difference in faith between rulers and people already a cause of trouble; more true faith among Mahomedans than among Christians — Dutch Christianity dead in the islands; descr. of voyage; in Sourabaya a German collector of animals and birds for zoological gardens, has his own collection of butterflies and anthropoids; descr. of Bornean orang-outangs — would be easier for us to go down to their level than for them to rise to ours; descr. of Bali, Macassar; latter a free port; people and customs; chew betel nut mixed with tobacco; Malay ships that make long voyages; collecting; cholera; trader with whom stayed struck with apoplexy just as Steere left.  
29c. — Reached Gorontalo on south side of northern peninsula of Celebes; stayed one day.  
31c. — Arrived Menado [Manado] on north side of end of northern peninsula of Celebes
- June 1c. — Reached island of Ternate off east coast of Halmahera; stayed next day.  
2-3c. — Left Ternate, reached Bouru [Buru], did not go ashore.  
4c. — Arrived at Amboina [Ambon]  
5-28c. — In Amboina; several days in hospital with fever; rain; short trips around town and toward end of stay few trips to hills; packed collection.
- July 1-3c. — Left Amboina, arrived at Ternate  
4-11\* — In Ternate; climbed to crater of volcano; collecting trips on slopes  
12\* — Left Ternate, arrived Menado on Celebes; bought specimens

13-18\* — Week's voyage from Menado to Macassar  
19\* — In Macassar  
20-21\* — Two days to Sourabaya  
22-25\* — Four days in Sourabaya, waiting for ship and boxing and shipping part of collections to the United States by an American ship.  
26\* v Left Sourabaya on eight day voyage to Singapore.

Aug. 2\* — Arrived in Singapore  
5\* — Letter #95. Singapore [14(43), Oct. 22, 1875]. Descr. of Ternate; trip up volcano, descr. of vegetation, crater, collecting rock specimens; purchased birds from Almaheira [Halmahera] or Gilolo; collecting butterflies and other insects, land shells; bought from natives locusts, beetles, cicadas, shells, centipedes, scorpions, snakes; descr. of voyage back to Singapore; insane lady aboard ship from Sourabaya to Singapore.  
7-12c. — Hurried trip to Malacca [Malay Peninsula]; two days there buying birds and other specimens; return to Singapore.  
15\* — Boarded ship for voyage home  
22-22c. — Stopped one day at Pont de Galle, southern end of Ceylon  
23-29c. — Ran down nearly to the equator to avoid the monsoon, then NW along the African coast  
29-30\* — Reached Aden, stayed one day.  
31\* — Left Aden for four day voyage up Red Sea

Sept. 3\* — Reached Suez; entered canal  
4\* — Reached Port Said and the Mediterranean  
8\* — Letter #96. On board French steamer Iraonoddy, off Port Said [14(44), Oct. 29, 1875]. Heard good collections of natural history specimens, especially birds, could be had at Malacca, so made a hurried trip there from Singapore; descr. of coast, history of town (founded 300 years ago and held 150 years by Portuguese, then by Dutch, now by English); two days examining specimens and buying the best; back to Singapore; bought sea shells and corals; descr. of trip to Aden, passage of Suez Canal. Bids goodby to readers of his letters.  
date? — Arrived at Marseilles  
date? — Arrived at London

Oct. 21\* — Arrived at Ann Arbor. END OF TRIP.  
22\* — Article in Peninsular Courier [14(43), Oct. 22, 1875]. "The great traveler, Joseph Beal Steere, of whom citizens of the entire nation have heard so much, returned home on Thursday night of last week [paper published Friday]. [There follows a apnegyric on his accomplishments on the expedition]. "He brought with him many boxes of specimens for the University, and many more have yet to arrive."