The travels of Joseph Beal Steere in Brazil, Peru and Ecuador (1870-1873)

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ABSTRACT

Joseph Beal Steere (1842-1940) was sent by the University of Michigan in a trip around the world, from 1870 (September) to 1875, to collect materials in all departments of natural and human sciences for the University’s Museum. He went from New York to Brazil (São Luís, Maranhão), proceeding up the Amazon, and spent about eighteen months on that river and some of its tributaries. Arrived at the head of navigation of the Amazon, at the mouth of the Río Santiago (Peru), he floated back two hundred miles on a raft, to reach the mouth of the Huallaga. He ascended this river to Yurimaguas, going thence across the Andes. He made part of the journey on foot and horseback; on the way he spent some time in the old cities of Moyobamba, Chachapoyas and Cajamarca. He struck the sea-coast at a town called Huanchaco, near the city of Trujillo; thence he went to Lima; and from there to Guayaquil; and thence, overland, to Quito, continually adding to his store of specimens. While at Quito, he ascended the volcano Pichincha and went to the bottom of the crater. He returned from Quito to Lima and made an excursion along the coast of Peru, collecting old Peruvian pottery from graves, etc. From Lima he went to Cerro de Pasco mining regions, making collections of minerals. Returning to Lima, he crossed the Pacific in a ship bound for Macao, China. From Macao he journeyed successively to Hong Kong and Canton; from Canton to the Island of Formosa, where he spent six or eight months making journeys among the savages of the interior. From Formosa he went, via Hong Kong and Canton, to the Philippine Islands, and spent ten months there; he visited several places never before visited by naturalists, and found forty new species of birds. From the Philippines he went to Singapore, thence to Malacca, and made a trip through the Dutch Moluccas, touching at several places in the islands of Java, Macassar, Amboina and Ternate. From these islands he returned to Singapore, and from there, via Suez Canal and the Mediterranean, to Marseilles, stopping at Naples. He went through France by rail and via London and Liverpool went home, after an absence of little more than

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three years. Periodically he wrote letters telling of his adventures and impressions, with notes on the regions visited, to a weekly magazine edited in Ann Arbor, the *Peninsular Courier and Family Visitant*, where they were published. The 62 letters written by Steere in South America (Brazil, Peru and Ecuador) are here transcribed and commented.

**Key-words**: Joseph Beal Steere; Travels; Brazilian Amazonia; Peru; Ecuador; Letters.

**BIOGRAPHIC DATA**

Joseph Beal Steere [Figs. 1, 2] (Anon., 1943: 1175; Barnard, 1878: 70-71; Marquis, 1918: 2574; Shavit, 1990: 466) was born in Rollin, Lenawee County, Michigan, on February 9, 1842, the son of William Millhouse Steere, of Quaker ancestry, originally from Ohio, and Elizabeth (Beal) Steere, of New England descent. Steere's early education was obtained in the common schools and in life in a farm. He finished his preparation for college at Ann Arbor High School and entered the literary department of the University of Michigan in 1864. He was graduated from that department in 1868, having made a special study of natural history. He took the law course in 1868-1870 and was graduated from the law school in the latter year. Immediately afterwards he started on a tour, in the interest of the University, to make collections for the departments of zoology and botany. He went from New York to Brazil, proceeding up the Amazon, and spent about eighteen months on that river and its tributaries. He shipped his collections down the river to the American Consul at Belém, who sent them home. Arrived at the head of navigation of the Amazon, at the mouth of the Río Santiago, he floated back two hundred miles on a raft, to reach the mouth of the Huallaga. He ascended this river to Yurimaguas, going thence across the Andes. He made part of the journey on foot and horseback; on the way he spent some time in the old cities of Moyobamba, Chachapoyas and Cajamarca. He struck the sea-coast at a town called Huanchaco, near the old city Trujillo; thence he went to Lima; and from there to Guayaquil; and thence, overland, to Quito, continually adding to his store of specimens. While at Quito, he ascended the volcano of Pichincha and went to the bottom of the crater. He returned from Quito to Lima and made an excursion along the coast of Peru, collecting old Peruvian pottery from graves, etc. From Lima he went to Cerro de Pasco mining regions, making collections of minerals. Returning to Lima, he crossed the Pacific in a ship engaged in the coolie trade going for a cargo in Macao, China. He made the voyage of eleven thousand miles in seventy-two days.

From Macao he journeyed successively to Hong Kong and Canton; from Canton to the Island of Formosa, where he spent six or eight months making journeys among the savages of the interior. While there, he found manuscripts preserved among the aborigines, which he concluded to be relics of the Dutch mission established there two hundred and fifty years before. From Formosa he went, via Hong Kong and Canton, to the Philippine Islands, and spent ten months there; he visited several places never before visited by naturalists, and found forty new specimens of birds, which are now in the Collection of the University. He contracted in those islands the malignant fever so prevalent there; but found time to make large collections of insects and shells, corals, etc. From the Philippines he went to Singapore, thence to Malacca, and made a trip through the Dutch Moluccas, touching at several places in the islands of Java, Macassar, Ambonais and Ternate; at the latter place he ascended the volcano of that name. In the Moluccas he made a large collection of the birds-of-paradise. From these islands he returned to Singapore, and from there, via Suez Canal and the Mediterranean, to Marseilles, stopping at Naples. He went through France by rail and via London and Liverpool went home, after an absence of little more than three years. This was in 1875.

An account of this great expedition and other further expeditions made by Steere was published by Frederick M. Gaige in 1932 (*Michigan Alumnus* 38(18):344-346, 352-353, and in *The Ark* (University of Michigan Museum of Zoology) 10(5):2-7), based on a collection of 96 letters written by Steere during his voyages and travels and published in the *Peninsular Courier and Family Visitant*, a weekly magazine edited at Ann Arbor, during the years 1870 to 1875. The notice published by Gaige (1932) gives a chronological list of the localities visited by Steere in his great 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 Steere 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 [Hubbell, 1964].
FIGURE 1: Joseph Beal Steere.
FIGURE 2: Joseph Beel Steere (center) with University of Michigan students, 1887 trip to the Philippines.

FIGURE 3: Ilha de Marajó and neighboring area, with some of the localities visited by Steere.
FIGURA 4: Middle Amazon River, showing location of Fazenda Taperinha, Panema and Diamantina (after Smith, 1879).
Some idea of the importance of the collections made by Steere may be gathered from the following rough estimate. There are three thousand birds [Sclater & Salvin (1878) published a paper on the birds collected by Steere in South America; cf. below, Appendix II; Brodkorb (1937) those collected by Steere in the Caviana and Marajó islands; see Appendix III below]; one hundred thousand sea-shells; twelve thousand insects; one thousand corals; three hundred fishes; two hundred reptiles; five hundred crustaceans; five hundred specimens of ancient and modern pottery; a small collections of Chinese bronzes; a collection of arms, clothing and implements; a collection of plants and woods; a collection of fossils; a large collection of ores and rocks; a collection of photographs; a collection of pith paper pictures from China. Steere discovered forty new species of birds in the Philippines.

On his return, he found the Regents had conferred him the degree of Ph. D. Soon after, he accepted the position of instructor in Zoology; and in 1876 was made assistant Professor in that department. In the summer of 1876 he made a trip to England for the study of collections in the British Museum. He was promoted to full professorship in 1879, remaining in that position until 1893. During this period he led several groups of students into excursions in the Amazon (in 1879 he revisited Marajó island; cf. Brodkorb, 1937: 6).

He married Helen Buzzard on 30 September 1879.

Leaving Michigan University in 1893 he dedicated himself to agricultural pursuits. A last trip to the Amazon, accompanied by students, was undertaken in 1901, in order to collect specimens for the Smithsonian Institution. Eigenmann & Bean (1907) [See Appendix I below] published on the fishes collected by him on that occasion, dedicating to him the species Taeniosoma steerei (Siluriformes, Pimelodidae), now a junior synonym of Goslinea platynema (Boulenger, 1888).

Steere died in his home at Ann Arbor, Michigan, on 7 December 1940, at the age of 98.

Steere’s itinerary in South America (1870-1873)

Hubbell [1964] compiled the data of Steere’s expedition, transcribed below, to which we add some corrections and additions. [Within square brackets

![Figure 5: The Purus River, with some of the localities visited by Steere.](image-url)
are cited the volumes, fascicles and dates of the *Peninsula Courier and Family Visitant*, where his letters were published].

**1870**

**September**

20: Sailed from New York; 40 day passage outside of Bermuda and West Indies, 30 days out of sight of land.

**October**


**November**


17: Left São Luís for Belém (Pará).

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**FIGURE 6:** Map of Peru [part] (after Orton, 1876).
FIGURE 7: Steere traveled from Tabatinga to Lagunas along the rivers Amazonas and Marañón.
content and style of Steere’s letters. Alexander Winchell (1824-1891) was for many years state geologist of Michigan and professor of geology and paleontology at the University of Michigan. He defined and first named Mississipian (Lower Carboniferous) strata along the upper part of the Mississippi river. Mt. Winchell in California was named after him. As a lecturer and writer Winchell did a great deal to reconcile the conflicts between science (particularly evolution) and religion; he embraced evolution as God’s way of working out his purposes in the world.

March

10: Letter XII, Belém [10(17), April 28, 1871*]. Spent last three weeks preparing and packing collections from ilha de Caviana and getting ready to go up Amazon.

24: Left Belém for Soure, on SE side of ilha de Marajó; spent 8 days there.

* In this issue of the Courier a comment quoted from the Detroit Post on the wide attention attracted by the Steere letters.

FIGURE 8: Steere’s itinerary in Peru, from Lagunas to Puerto Chicama.
April

2: Returned to Belém from Soure.
3: Letter XIII, Belém [10(18), May 5, 1871]. Descr. of country around Soure, and collecting trips in vicinity; plans to visit Indian mounds in interior of island.
17: Small schooner from Belém to rio Arari (SE side of ilha de Marajó); stayed at McGee farm on lower river Arari.

May

1: Letter XIV, rio Arari [10(15), June 23, 1871]. Came here few days after Easter; waiting for boat up river to Cachoeira do Arari; descr. of country and customs of people.
3: Arr. at Cachoeira do Arari.
6-7: Canoe trip to island in flooded campo near Cachoeira do Arari and return.
10: Letter XV, Cachoeira do Arari [10(16), June 30, 1871]. Descr. of town, region, people, collecting trips in vicinity.
12: Went to Fazenda Tojal [belonging to Benedicto da Silva Frade] near Cachoeira do Arari for a few days hunting.
16: Left on four day trip to Indian mounds [tesos] on Lago Arari; reached state-owned Fazenda Arari after one and one-half days canoe travel; visited mounds on ilha Pacoval in lago Arari across from Fazenda Santo Inácio; returned to Fazenda Arari.
19: Returned to Cachoeira do Arari.
20: Letter XVI, Cachoeira do Arari [10(27), May 27, 1871]. Descr. of fazendas, trip to ilha Pacoval, mounds and artifacts.
23: Returned to Fazenda Tojal for more collections.
26: Second trip to nearby Fazenda Curralinho, return to Tojal.
27: Second trip to Fazenda Curralinho, back to Cachoeira do Arari.
31: Down rio Arari by canoe and across to Pará.

June

1: Letter XVII, Belém [10(28), July 14, 1871]. Descr. previous week’s activities; plans.
11: Boarded stremer for trip to Santarém.
12: Passed among islands in mouth of Tocantins river, stopped at Breves (SW angle of the ilha de Marajó); passed by the furo do Tajapuru.
13: Entered Amazon, stopped at Gurupá, night at Porto de Moz in the Xingu river.
15: Got lost; reentered Amazon opposite Almeirim; descr.
17: Letter XVIII, Santarém [10(31), Aug. 4, 1871].
Descr. of trip to Santarém; set out for Fazenda Taperinha immediately.
18: Left for Fazenda Taperinha by boat, arrival next day; large sugar estate at foot of mountain or edge of tableland.
21-22: Visit to “black earths” on edge of Serra de Taperinha and return.
28: Letter XIX, Taperinha [10(32), Aug. 11, 1871].
Descr. of trip to Taperinha, plantations, collections; was in Taperinha on 23rd.

July

18: Returned from Taperinha to Santarém.
19: Letter XX, Santarém [10(34), Aug. 15, 1871]. More observations on country and people; plans.
20: Left Santarém by steamer for trip to Óbidos.
22: Letter XXI, Óbidos [10(39), Sept. 29, 1871].
Descr. of trip up Amazon, varying nature of shores; Óbidos; collecting.

Note: There is a discrepancy in dates given in Letters XX and XXI; latter says left Santarém for Óbidos on July 17.

August

1: Left Óbidos for trip up Amazon and rio Nhamundá to Faro (Pará, boundary with the state of Amazonas); spent several days here.
6: Left Faro by canoe, down the Nhamundá river.
7: Down Nhamundá, spent night at Lago Grande on way to Amazon.
8: Reached Amazon after dark, moored to floating vegetation raft, drifted.
9: Reached Óbidos in the morning.
10: Letter XXIII, Óbidos [10(41), Oct. 13, 1871].
Descr. of life of escaped slaves in their “mocambos” or places of refuge; descr. of Faro and trip there and back.
12-14: Made trips to the 100 ft. bluffs at Óbidos, and to Serra da Escama, a mountain just below Óbidos.
15: Letter XXII, Santarém [10(40), Oct. 6, 1871].
Inscribed boulders on Serra da Escama; news of death of original companion, Mr. Lyman, of yellow fever in Belém; plans for trip with Prof. Hartt to Monte Alegre.

Note: This and the letter numbered XXII 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 numbered installments, and two letters were printed under the same number.

September

1: Trip to “Mount Tajury” [Serra de Itauaiuri or Itauajuri], (west of Monte Alegre); spent night at rio Jacaré.
2: Climbed Serra de Itauajuri, spent night at village of “Sandoso” [?] 10-12 miles west of Monte Alegre.
3: Returned to Monte Alegre.
4: Letter XXVII, Monte Alegre [10(50), Dec. 15, 1871].
Descr. of trip to Ererê and Serra de Ererê; many caves, steep, level on top, 1000 ft. high. On the 4th took steamer to Santarém, arr. next day.
6: Letter XXV, Santarém [10(47), Nov. 25, 1871].
Descr. of trip to Serra de Itauajuri, 1200-1400 ft. high, plain on top.

Note: As printed, the date of this letter is given as Sept. 19; this is probably an error, as it described events after return from Monte Alegre, and Letter XXVI says left for Tapajós on Sept. 17.
17: Left Santarém by steamer for trip up Tapajós river.
18: In morning at Alter do Chão, near mouth of Tapajós river; voyage up Tapajós, stopping at villages on both sides.
19: Arr. at Itaituba, 200 miles mouth of Tapajós.
20: Trip down Tapajós; stopped at Urucurituba [left margin of Tapajós, opposite to Fordândia].
21: Arr. at Santarém.
22: Left by steamer for Manaus.
23: Went ashore at Óbidos to pick up collections.
24-25: Passed Nhamundá river, stopped at Faro.
26: Arr. at Manaus in evening; could not land until next day.
27: Letter XXVI, Manaus [10(48), Dec. 1, de 1871]. Descr. of events since Sept. 17; lands along river Amazon; 2nd American Bolivian Expedition at Faro.

October

11: Left Manaus on trip up rio Purus; first day down to mouth of rio Negro; waited all night and next day for pilot.
13: Up the rio Solimões to Manacapuru, a little wood-placing; left at midnight.
14-17: Ran out of wood; spent four days reaching mouth of Purus River, got wood at Beruri, just above mouth of that river.
18-19: Up the Purus, aground each night.
20: Reached Itatuba, after passing Piranhas.
21: Arimá.
23: Canutama; mouth of Ituxi River.
25: Arr. at mouth of rio Ituxi, a tributary of the right margin of the Purus, after 15 days of travel from Manaus.
27: Letter XXIX, mouth of Ituxi River [11(6), Febr. 9, 1872, continued as Letter XXX (“XXVII”) [11(7), Febr. 16, 1872]. Descr. of trip up river; geology; people; towns; Indian tribes; most of surrounding country along the Purus is várzea, or land covered with water at flood.
30: Started up river to “Marrahan” [now Fortaleza do Ituxi], camping at night on praias (beaches).

November

1: Arrived Fortaleza do Ituxi, village situated at the right margin of the Purus, near the lake of Maráa, about 4 km (up the Purus) from the mouth of the river Mamorá-mirim or Mamorá-azinho, a tributary of the left margin of the Purus, and almost 60 km, in a straight line, SW of the modern Lábrea.
10: Letter XXXI, “Marrahan [Fortaleza do Ituxi]” [11(8), Feb. 23, 1872]. Trip up Purus by canoe; camped on praias; met Mr. Piper, head of the ill-fated Bolivian Expedition to gold mines.
11-14: Trip by canoe in search of wild Indian tribes [Cf. Steere, 1903, 1949]; to Paumari Indians village on long lake (former bed of Purus), camped at mouth of Mamoriá river (or Mamoríá-Grande), a tributary of the left margin of the Purus; next day up Mamoriá river looking for Yamamadi (“Jamamagy”) Indians, not found, returned to lake; returned to Fortaleza do Ituxi.
15: Letter XXXII, “Marrahan [Fortaleza do Ituxi]” [11(9), March 1, 1872]. About rubber, sarsaparilla, turtle butter, seen on way up from Ituxi.
18: By canoe down to Utari on Purus, where high land reaches river.
19: Down Purus to Lábrea belonging to Colonel Labre; spent several days here, collecting.
23: Left Lábrea by steamer for Manaus.
29: Arrived Manaus.

December

1-10: Spent ten days packing and forwarding collections.
11: Left Manaus by steamer for trip on up Amazon; stopped once a day to “wood up”; passed Tefé, Fonte Boa, São Paulo de Olivença.
18: Arr. Tabatinga, Brazil, Amazonas, on Peruvian frontier.
19: Arr. Loreto; transferred to another steamer.
21: Arr. Pegas (Loreto), for one month’s stay.
1872

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January

15: Letter XXXVI, Pegas [11(17), April 26, 1872], concluded [11(18)” May 3]. Descr. of life in Pegas; most of time here spent collecting fossils; Pegas located on Ampiyacu river about a mile about jct. with Amazon; comments on languag-
es of Peruvian Indians, which he finds more difficult than those of Brazilian Indians.

25: Letter XXXVII, 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; *Victoria regia*; jaguar killing dogs in village.

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

28-31: In Iquitos (Loreto). Packing collections and preparing for trip across mountains.

Note: The next six letters, though numbered in proper sequence (XXXVIII-XLIII) in terms of the events described, are evidently in part misdated, either by Steere or more probably by the *Courier*. Calculation of the distances traveled by steam, canoe and raft, and durations of stay at various places mentioned by the letters, have led to the following chronological placement: Letter XXXVIII, Yurimaguas, dated Feb. 25, should be Feb. 15; Letter XXXIX, Borja, dated Feb. 29, should be Feb. 19 Letter XL, Barrancas, dated Feb. 25 correctly; Letter XLI, Lagunas, dated Feb. 1, correctly; Letter XLII, 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 XLIII, Shanusi, dated Mar. 18, should be Mar. 28. These dates have been used in calculating the intercalated dates.

February

1-6: From Iquitos by steamer up Amazon and into Marañón at jct. with Ucayali

7: One day around at mouth of Río Huallaga.

8-13: Six days up Río Huallaga to Yurimaguas.

15: Letter XXXVIII, 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.

17-18: Steamer down Huallaga and up Marañón to Borja, arriving late second day; ashore next morning (19th).

19: Letter XXXIX. Borja [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 de Manseriche, where the Marañón breaks through the mountains.

21: Left Borja on balsa raft, campted on playa.

22: Arr. at Limón [Isla Limón on Marañón, Loreto]; stayed one day hunting.

24: By canoe down river to Barrancas [Isla de Barranca]; spent day after arrival hunting [Letter XLI] (Letter XL says “spent several days at Barrancas”).

25: Letter XL, Barrancas [11(23), June 7, 1872]. Descr. of trip down Marañón from Borja; great fluctuations in river height; descr. of people of Limón and their customs; pecary 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”

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

27: Continued down river, reached Isla Cedro before night, near mouth of Huallaga; engaged new crew.

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

29: Walked 2 hours to Lagunas [Loreto].

March

1: Letter XLI Lagunas [11(24), June 14, 1872]. Descr. Barrancas; “spent day after arrival hunting, and next morning went down by Canoe” [compare with information in Letter XL]. Descr. of trip to Lagunas; around this village first good agricultural and cattle land seen.

2-5: In Lagunas

6: Left Lagunas by steamer for Yurimaguas; arrived on Mar. 7.

7: Letter XLII, Yurimaguas [Loreto] [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.

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

21c: Left Yurimaguas by canoe few miles down Huallaga and then up Río Shanusi; night in plantation.
22c: On up Shanusi, spent night in tambo [hatched shack]; heard jaguar.

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

26c: Arr. Shanusi in San Martín

28c: Letter XLIII. Shanusi [11(26), June 28, 1872]. Dated March 8; see note on previous page. Descr. Yurimaguas, head 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 Shanusi

April

5: Letter XLIV Shanusi [11(27), July 5, 1872], and Letter XLV, continuation [11(28) July 12, 1872]. Full descr. of Shanusi, a village of 150 inhabitants; the celebration of Semana Santa, dancing, feast, penitentes, etc.

7: Left Shanusi 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, 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 Cumbasa on Cumbasa River, to Tarapoto after dark.

12: Letter XLVI, Tarapoto [San Martín] [11(35), Aug. 3, 1872].

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 Río Huallaga and Río Mayo, to collect fossils.


26: Left with mule for Moyabamba, night at Lamas, near Río Mayo but several hundred feet above it.

27: Day at Lamas

28: Crossed Río 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 Martín]

2: Letter XLVIII, 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 XLIX, Moyobamba [11(39), Sept. 27, 1872]. Descr. of Moyobamba, good climate, on plain 200-300 ft. above Río Mayo; methods of house-building; hat-making; balls and dancing; absence of marriage; hard lot of children.

22: Left Moyobamba and arrive at Rioja [San Martín]; found feast in progress, could not proceed.

23: [Collected; visited warm springs]

June

4: Stuck in Rioja on account of feast and inability to get transport; got tired of waiting, and

5: started on foot for Chachapoyas with peon; night in tambo at food of mountains.

6: Climbed mountain on deeply trenched path [cajón], camped on ridge.

7: Descended to valley and spent night in place called Uscho [or Uschco] (the hole, in Indian) in tambo.

8-10: Remained at Uscho [or Uschco], collecting

11: Moved on up valley, camp in tambo.

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

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

14: To village of Molinapampa and Taulia; stayed one day.

15-16: Reached Chachapoyas [Amazonas]. [Stayed here, with side trips, until July 9].

26: Letter L, Chachapoyas [11(42), Oct. 18, 1872]; Letter LI, 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.”

July

3: Six day trip to Kuélap (2 days ride up Utcubamba River valley).
6: Letter LII, Chachapoyas [11(44), Nov. 1, 1872]. Descr. of trip to Kuélap; first night at “old man’s house”, garrapatas (ticks); towers and terraces on mountainsides; second night at hacienda at foot of mountain; visit to “fortress” of Kuélap, 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.

8: Left Chachapoyas with mule; first night on bare hillside.

12: Crossed river and followed deep shaded valley upward.

13: To foot of second great range of Andes.

14: Over Callacalla summit (c. 14,000 ft.), down to within sight of Balsas and Marañón.

15: Down within a few miles of Balsas [just over boundary in Cajamarca, on Marañón].

16: To Balsas, crossed river, night near Celendín [Cajamarca].

17: Arr. Celendín; stayed day.

18: Down valley past Huánuco, up onto high plains and ridges, night at hut in small valley.

19: Over another mountain range to Cajamarca.

20: Letter LIII, 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]

24: Returned to Celendín, one day journey, arrived next morning.

25-26: In Celendín; town deserted, people had just stoned subprefect to death, afraid of reprisals.

27: Celendín; news of revolution; people returned, parade and bull-fight.

28: Returned to Cajamarca.

August

14: Letter LIV, Cajamarca [11(46), Nov. 15, 1872]. Decided to wait until expected political troubles were over; trip to Celendín and events there; few days heard of revolution in Lima and assassination of President Balta and the brothers Gutiérrez; descr. of Cajamarca; customs, ruins, pottery, hot baths, Indians, crops, cultivation, trumpets.

September

3: Left Cajamarca for Callao; over ridge to valley of Magdalena river, crossed river, up to tambo on ridge for the night.
2-24: At Callao, packing materials and preparing for trip to northern Peru and Ecuador.
15: Left Callao by steamer for north.
17: Went ashore at Puerto Casma [Ancash, 187 miles north of Callao].
19: Landed at Huanchaco, port of Trujillo [La Libertad]; went to Trujillo.
20: Spent one day in ruins near Trujillo.
21: Returned to Huanchaco.
23: “Took next steamer for Pacasmayo” [one day trip].
24: “Next morning took sailing ship for Tumbes” (four days sail).
27: Reached mouth of Tumbes river [Tumbes]; to Tumbes, 2 miles inland

28: December

2: At Tumbes, hunting.
3-7: Trip southwest along coast to Zorritos; a couple of days hunting on hills, along coast, then returned to Tumbes.
10: Letter LX, 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 Corrales (supposed site of Pizarro’s landing), descr. of region.
18-20: Up coast to Punta Jambali, collecting shells; two nights on beach; return to Tumbes.
23: Left Tumbes with horses and mules; reached Arénillas in Ecuador [just across boundary].

ECUADOR

2: Reached Santa Rosa; several days hunting.
28-31: Trip to Biron (hacienda), 12-15 miles up river at foot of mountains; returned to Santa Rosa.

1873

January

1-9: Remained at Santa Rosa; took ship to Guayaquil on Jan. 9.
11: Reached Guayaquil.
17: Letter LX, Guayaquil [12(9), Feb. 28, 1873]. 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 Brazil; passage to Guayaquil.
18: Took boat up river, beginning of trip to Quito.
19: Arrived at Bodegas, or Baboya, port for Quito in dry season
20: With mules for Savaneta, 15 miles above.
21: Ascended valley, camped at night.
22: Climbed all day in rain, reached village of Camino Real.
23: Reached Guaranda, near foot of Chimborazo.
24-25: Waiting for mules in Guaranda.
26: Rode around east side of Chimborazo, passing through páramo, the Arenal (sand plain on slope of volcano, road here reached nearly 16,000 ft. elevation), again páramo; nearly fifty miles on mule-back this day, camped in hut (passed Mocha in dark).
27: Rode back to Mocha, then on to Ambato.
28: Ambato to Latacunga.
29: To Machacha, passing between Volcán Cotopaxi and the Illinini.
30: Reached Quito, leading horse the last two leagues.

February

1: Letter LX bis, Quito [12(18), May 2, 1873]; Letter XLI (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.
6-8: Trip from Quito to Volcán Pichincha, ascent, return to Quito.
15: Letter LXII, Quito [12(22), May 30, 1873]. Descr. of Quito; Jesuit college museum of natural history; visit to Pichincha, descending into crater; return to Quito.
16: Left Quito with mules for Guayaquil,
17: Reached Ambato.
18: Spent night in a tambo at Chuquipaqui at base of Volcan Chimborazo.
19: Reached Guaranda.
20-22: Held up in Guaranda by fiesta.
23: Left Guaranda with mules; four days through mountains to Savaneta.
26: Arrived at Savaneta and took canoe to Bodegas.
27: Arrived at Guayaquil.

March

4: Steamer from Guayaquil to Callao (estimated duration of voyage six days).
5-18: In Callao, packing and shipping collections.
19: Letter LXIII, 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 Chimborazo and Copopaxi.
24: Trip up Oroya Railroad; to Chosica.
25-28: Several days at Chosica, examining ruins of
   pre-Inca city and excavating grave-pits under
   floors of rooms.
29: By horse down valley a few miles to another an-
   cient ruined town.
30: On up the railroad to San Bartolomé, Verrugas
   bridge, and Surco at present railhead; by mule
   to Matucana.
31: By mule to San Mateo, gorge of Infernillos, and
   stayed at summit headquarters of American rail-
   rod engineers.

April

1: In spite of soroche, to summit tunnel at 15,000 ft,
   and down to Pucará in headwaters of Ucayali
   drainage.
2: In Pucará, too sick to travel, but skinned
   vicuna.
3: Pucará; visited silver and lead mines.
4-6: Three days trip back to Lima.
7-14: In Lima, packing specimens; trips to ruins in
   plain where stand Lima, Callao, Chorillos.
15: Letter LXIV, Callao [12(39), Sept. 26, 1873]. Let-
   ter LXV (continuation) [12(40), Oct. 3, 1873];
   Letter LXVI (continuation) [12(41), Oct. 10,
   1873]. Description of trip up Oroya Railroad;
   ruined cities near Chosica; mummy burials;
   high state of ancient agricultures, with terraces,
   compared with present; attributes lack of energy
   and industry of people to guano income, which
   ruined Peru; ancient tools of cultivation (dig-
   ging stick) still in use; geology of railroad route;
   fatalities in constructing Verrugas bridge from
   verrugas disease; soroche; mines; trip back to
   Lima.

May

4: Continued visits to ruined cities around Lima.
5-6: Trip by train to Chorillos, thence by horse to
   Pachacámac, about 30 miles S. of Lima, to visit
   the Temple of the Sun; spent night at hacienda
   in valley of Lurín.

10: Letter LXVII, Callao [12(42), Oct. 17, 1873].
   Visits to mounds and ruins in vicinity of Lima;
   desc. of Pachacámac, 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.

DOCUMENTS

Note in the Peninsular Courier and Family Visitant,
(September 9, 1870) announcing Steere’s departure
from Ann Arbor

JOSEPH BEAL STEERE, a graduate of/ the
class of 1868, and of the law class of/ 1870, of the
University, left this city on/ Monday evening for
a three years’ tour in/ Central America, Australia
[sic], and the East Indies, under an engagement
with the Uni-versity to make and transmit collec-
tions of/ Natural History, Geology, or Antiquities,/ for the museum. He will probably return by way
of China and Japan, thus making/ the circuit of
the world. Mr. S. is a young/ man of ability and
integrity aad [sic] will un-doubtedly make some
valuable collections/ for the University during his
travels./

Steere’s letter announcing his trip (Peninsular
Courier and Family Visitant, September 1870)

CORRESPONDENCE

NEW YORK, September 16, 1870.

DEAR COURIER, – I sail to-morrow, in/ the
shooner Francis G. Davis, for the/ ports of Mara-
nam [sic] [São Luís, Maranhão] and Para [Belém],
in Brazil. We shall likely reach Maranam [São
Luís] in thirty/ days, and after unloading part of
the cargo,/ will go to Para [Belém], where I shall
likely have/ my headquarters for several weeks. I/
have spent part of my time, while waiting,/ in mak-
ing a trip to Boston. I expected to/ see Prof. Agas-
siz and get letters from him/ to persons in Brazil. I
did not find the/ Professor at home, but got a great
deal of/ information in regard to the country, best/
places to collect in, methods of preserving/ speci-
mens, etc., etc., froms Messrs. An-thonyle and Allen,
who accompanied Prof./ Agassiz\(^1\) on his trip to the Amazon."

I don't like the appearance of New Eng.-land for farming purposes. I should think/ the Northern Pen-
insula of Michigan would/ be about as good, and we Wolves/ don't/ think that worth cultivating; but the/ Yankees are an enterprising set, and make/ up in manufactures what they lack in soil/ and climate. From what I saw of them I/ should suppose they had left the strict/ Puritanic principles of the forefathers a/ great way behind. I saw much more ca-/rousing and less church-going during the/ Sabbath I stopped at Fall River than I/ have been accustomed to see in Michigan./ I should think that Spiritualism, Mor-/
at Fall River than I/ have been accustomed to see in Michigan./ I should think that Spiritualism, Mor-

1 "In the winter of 1865 it became necessary for me, on account of some disturbance of my health, to seek a change of scene and climate, with rest from work... Toward Brazil I was drawn by a lifelong desire... as a mere vacation it had little charm for me. I could not forget that, had I only the necessary means, I might make collections on this journey which, whenever our building could be so enlarged as to give room for their exhibition, would place the Museum in Cambridge [the Museum of Comparative Zoology (MCZ), Harvard University] on a level with the first institutions of the kind. While I was brooding over these thoughts I chanced to meet Mr. Nathaniel Thayer, whom I have ever found a generous friend to science. The idea of appealing to him for a scheme of this magnitude had not, however, occurred to me; but he introduced the subject, and, after expressing his interest in my proposed journey, added. 'You wish, of course, to give it a scientific character; take six assistants with you, and I will be responsible for all their expenses, personal and scientific'.”

This was the origin of the celebrated Thayer Expedition to Brazil (1865-1866), as related by Agassiz in the preface of the book *A journey in Brazil* (Agassiz & Agassiz, 1868), where it is narrated. As professionals, participating in the expedition, were Elizabeth Cary Agassiz, Prof. Agassiz's wife, James Burkhardt, artist, who executed hundreds of beautiful drawings of fishes, John G. Anthony, conchologist, assistant curator of mollusks at the MCZ, Frederick C. Hartt, geologist, with whom Steere would make several excursions [The geological results of the Thayer Expedition were published by Hartt in 1870], Orestes St. John, geologist, Joel A. Allen, ornithologist, curator of birds at the MCZ and later at the American Museum of Natural History in New York, and George Sceva, preparator. Dick (1977) published the stations of the Thayer Expedition to Brazil.

2 Wolverine – A native or resident of Michigan, called “The Wolverine State”. The origin of this association is obscure: it may derive from a big trade in wolverine (*Gulo gulo* (Linnaeus, 1758)) (Carnivora, Mustelidae) furs in Sault Ste. Marie in the 19th century or may recall a disparagement intended to compare early settlers in Michigan with the vicious and glutinous animal.

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Mr. Dills has had very poor health since/ we started from Ann Arbor, and has given/ up going to Brazil with me, but will sail in/ eight or ten days for Buenos Ayres./

I have bought a gun and some kinds of ammu-
nition not to be procured on the/ Amazon, together with preservatives and/ other things too numerous to mention,/ which I expect to be of use when I get to/ work./

I shall long remember the kindness I/ received from the people of Ann Arbor,/ during my six years residence among them./ Write to me at Para, Brazil, care of the/ U. S. Consul. I will write as soon as I/ reach Brazil and get to work./

Yours, &c.,/JOSEPH BEAL STEERE

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Letter I

[Peninsular Courier and Family Visitant, 9(53),
December 30, 1870]

FOREIGN CORRESPONDENCE

Number I

MARANHAM [São Luís, Maranhão],
BRAZIL, October 31, 1870.

We arrived at this port last night/ after a pas-
sage of forty days in length/ – thirty-eight days out of
sight of/ land. We sailed from New York on/ the 20th
of September and lost sight/ of Sandy Hook and the
low lands of/ Jersey that evening. We came in sight of
Santa Anna Island and light/ house and the timbered
country be-/yond, early yesterday morning. I/ was very
glad to see land once more/ after having looked so long
on leaden/ clouds above and leaden waves be-/neath./

Our course led us outside of the/ Bermudas
and all the West Indian/ islands, and we were at one
time/ almost as near the coast of Africa as/ to that of
America./

My experience of sea life is very/ much like that
of others who have/ gone to sea for the first time. I
think/ we have had about the usual number/ of storms
and squalls, and rather/ more than our share of calms
and/ head winds. The most of the time/ during the
voyage the weather was/ cloudy, but we had as few
days of fine/ weather, with long lines of warm,/ fleecy
clouds hanging along the hori-/zon; just such as we
have at home in/ October, and I often myself/ looking below them for the green/ wheat fields and corn shocks and the/ cattle wandering over the fields./ After a three days' pull of sea sick-/ness I got along well with our sea// fare of salt beef and potatoes, but/ the boat rolled so sometimes that it/ was troublesome eating it. Our sup-/ply of croton [sic; water] ran so low on account/ of the great length of the voyage/ that it became almost coffee colored./ It seemed too bad to drink such stuff/ while there was an ocean of clear,/ sparkling water dashing all around/ us. The man who shall invent a/ cheap and practicable method of fresh-/ening sea water will be a benefactor/ of his race. I had much trouble to/ sleep in rough weather, and thought I/ would wedge myself fast against the/ side of my birth [sic; berth] with my valise and/ other baggage, I would often wake/ up feeling as I had worked hard for/ very little sleep. I spent my time in/ reading and in studying Portuguese,/ and in fair weather I would hang in/ the ropes over the vessel's side and/ fish for sea weed and whatever else/ was afloat. We found plenty of gulf/ weed – Sargossa [sic, sargasso] – in the gulf stream/ and south to latitude 20° north./ It/ was commonly floating in detached pieces from a/ few inches to a foot in/ diameter, but we sometimes/ saw quite/ fields of it. In almost all cases these/ pieces extended in long lines across/ the waves instead of parallel with/ them as one would expect. These [sic; there]/ were several kinds of fish watching/ around these bunches of sea weed and/ within them I found many species of/ barnacles./ I saw several of these curious crea-/tures called Portuguese men of war,/ and fished one of them up. They/ are composed of a curious crested/ air sac, six or eight inches in length,/ beautifully colored around its border/ with pink. Hanging under this float/ and supported by it are a number of/ long blue and purple tendrils. The/ float and each one of these tendrils is/ considered an individual animal, but/ performing some special duty for the/ good of the community. They secrete/ a fluid that blisters and burns one's/ fingers like fire. I was much disap-/ pointed in regard to the/ constellations/ that have arisen in the south dur-/ing/ our voyage. I have heard much of/ the beauty of the Southern Cross,/ but it does not compare for brilliancy/ with our own Ursa Major who hardly/ rises far enough above the horizon/ here to make one think of home. The/ captain called me on desk one night/ during a thunder storm, to see the/ electric lights at the mastheads. I/ believe they are sometimes called St./ Elmo's candles. These balls of light/ seemed to be about four inches in di-/ameter. They were hardly/ visible/ during the flashes of lightning but/ showed plainly when it was dark or/ when the mast swayed over toward/ a dark cloud. The sailors have a/ superstitial fear of them, and tell/ stories of their rolling down the rig-/ging and exploding on deck./ The day we left New York I was/ surprised to see large numbers of/ butterflies flying about over the water/ fifteen or twenty miles from the coast./ Many/ had fallen into the water, and/ it seemed as if all but-/terflies must/ fly to the ocean when they feel their/ end approaching so as to receive a/ salt water burial. When in latitude/ 24°13' north, longitude 46°47'/ west/ of Greenwich, nearly a thousand/ miles from any land, a grasshopper/ flew on board the vessel, striking the/ sail and falling to the deck. A heavy/ gale was blowing from the east at the/ time. He seemed to have life enough!/ left to make another thousand miles/ flight, but I pinned him up in the/ name of Science. It seems almost/ impossible that any thing of so short/ flight should get so far from land, but/ they must be taken up by currents of/ air and carried without any exertion/of their own. I was told while/ at Grand Traverse, Michigan, that the/ grasshoppers sometimes come down/ upon them in swarms out of the/ clouds from the west. They supposed/ they came from the praries [sic; prairies] across/ Lake Michigan, but this would not be/ more than one hundred and fifty miles/ at the most. When within six hun-/dred miles of the Brazilian coast, a/ large and beautiful dragon fly came/ about the vessel. He did not stop to/ be caught, but I expect to find others/ of his tribe here. We were followed/ from near Sandy Hook by a large/ flock of Mother Carey's chickens3 that/ made a business of gleaning the few/ scraps the cook threw overboard./ They left us off the Bermudas, but/ when within a few hundred miles of/ this coast a solitary one came out to/ welcome us in. From the equator to/ this coast we saw many birds. Large/ flocks of them would wheel around/ and swoop down upon small fish that/ seemed to be driven to the top of the/ water by larger ones below. Some of/ these birds came to roost in the rig-/ging one night and the sailors caught/ one for me. We saw many dolphins/ and porpoises and one whale. The/ sailors speared two of the dol-/phins/ weighing fifteen or twenty pounds/apiece, and we had them cooked./ They tasted very much like fresh/ white fish. Flying fish are the most/ frequent signs of life on the ocean./ They seemed to be everywhere./ They are much smaller than I expect-/ed, being generally from four to six/ inches in length. They would start/ up singly or in little coveys like quails/ 3 Mother Carey's chickens – Birds of the fam. Oceanitidae, Hydrobates pelagicus (Linnaeus, 1758).
from before the vessel and would go/ hurrying away over the waves, some-/times to a distance of eight or ten/ rods. They do not generally rise/ more than two or three feet from the/ water, and I think they seldom rise/ from smooth water unless frightened./ but when the sea is all ridged up/ with waves, they seem to take pleas-/ure in darting out of the side of one/ wave and away into another. When/ near the equator we saw them in/ flocks of several hundreds at a time./ They came on deck several times but/ I found great difficul-
ty in preserving/ them, their scales are so loose./ Every
thing is new and strange here, and I hardly know what
I shall do./but I have first-rate health and will/ write you next time how I succeed in/ collecting.

JOSEPH BEAL STEERE

Letter II
[Peninsular Courier and Family Visitant, 10(1),
January 6, 1871]

FOREIGN CORRESPONDENCE

Number II

MARANHAM [São Luís, Maranhão],
BRAZIL, November 16, 1870.

Our vessel has completed her load-/ing at this
port, and starts for Para [Belém]/ and the Amazon to-
morrow. As soon/ as I could get ashore I hired a room/
and swung my hammock, and went to/ collecting,
boarding meanwhile with/ the American consul, Mr.
Evans,/ who is from the State of Ohio, and is almost
the only American here. He/ treated me with great
kindness and/ did all in his power to make my stay/
ples-
sant and profitable. Two young/ men of Professor
Hartt’s4 company of/ of [sic] seventeen – who are col-
lecting in/ Brazil for Cornell University – left/ Maran-
ham for Bahia and ports further South, just before I

went here. I/ was very sorry that I did not meet/ them as
they had been over part of/ the route I intended tak-
ing and could/ have given me much information./

The city of Maranham [São Luís] on the island/
and in the province of the same name,/ has about
forty thousand inhabitants./ and is one of the oldest
cities in Bra-/zil, having churches that date back to/
the year 1,700. The city is built of a/ dark red, vol-
canic, sandstone, that is/ found in abundance upon
the island/ and all along the coast. This stone/ is quite
red and porous but the walls/ are two or three feet in
thickness and/ covered with stucco and seem capa-
ble/ of lasting for ages. The streets are/ very nar-
row and uneven, following/ the general contour of
the ground/ without grading, and roughly paved/
with the same rust colored sand-stone./ The whole
aspect of the town with/ its tile roofs and little bal-
conies pro-/jecting over the narrow streets, the/ gen-

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4 Charles Frederick Hartt (cf. Brice, 1994; Brice & Figuerêa,
2003; Cunha, 1989 (pp. 69-76), Freitas, 2001, 2002; Hay,
1900; Katzer, 1933; Lopes, 1994; Mendonça, 1941; Menezes,
1878; Sanjad, 2004; Simonds, 1897) was born in Fredericton,
New Brunswick, Canada, on August 23, 1840, but grew
and was educated in Wolfville, Nova Scotia. His interest in
geology began at the age of 10 or 11, when he began working
for a professor at Acadia College, where he obtained his B.
A. (1860) and M. A. (1863). A local shoemaker in Wolfville
taught him Portuguese, one of the several languages he would
master. His family moved to Saint John, New Brunswick, in
the 1860’s, and Lyell, then just 24, published a paper about
a gold deposit at Corbit’s Mill, Nova Scotia. He came to
the attention of Louis Agassiz and in 1865 was one of the geologists
chosen to accompany him to Brazil on the Thayer Expedition.
Agassiz sought evidence of Pleistocene glaciation at sea level
in the tropics that would have destroyed all land life and
required a Divine recreation, thus refuting Darwin’s ideas on
transmutation of species. Hartt’s studies in Brazilian Amazonia
made him doubt of Agassiz’s hypothesis. In mid-1867 he
went back to Brazil (Hartt, 1868a-b), this time alone, to study the
southernmost coral reefs of Brazil, at the Abrolhos Islands. In
1868, by Agassiz’s rerecommendation, he was appointed head of
the Department of Geology in the recently founded Cornell
University in Ithaca, New York, and in December of that year,
having an academic position, he married Lucy Lynde. In the
early 1870’s Hartt announced publicly that Agassiz’s glacial
drift was simply the result of bedrock weathering (Agassiz,
1866). In that same year of 1870, the results of his two journeys
in Brazil were published as Geology and physical geography of
Brazil (see also Hartt, 1943). Still in the same year he went for
a third time to Brazil, in the Morgan Expedition, named after
Colonel Edwin P. Morgan, the major underwriter, taking with
him another professor and eleven Cornell students. On this
and a subsequent (second Morgan Expedition) expedition in
the following year (see Hartt, 1874b), this time with one of
his students, Orville A. Derby, he worked in the Amazonas.
In 1874 the Hartts had two children, Rollin (1869) and Mary
Bronson (1873). That year Cornell granted Hartt a leave of
absence for his fifth and final visit to Brazil, leaving his family
in Ithaca, to conduct the first geological survey of the country.
At first he worked on his own initiative but in early 1875 was
officially encharged of the Comissão Geológica do Império
do Brasil, created by Dom Pedro II. Lucy and the children
then joined him in Rio de Janeiro. By late 1877, however,
the Imperial government, seeing little immediate economic
benefit and few published results, reduced and finally, by
January 1878, cancelled all funding for the Commission.
Hartt’s family had returned to the United States a few months
earlier, Lucy pregnant with twins, which she lost upon her
return to Buffalo. Hartt continued in vain to obtain support
for the Commission. In the spring of 1878, after he returned to
Rio de Janeiro from an exhausting inland expedition, he
died of yellow fever on March 18, 1878, at the age of 38. He
was buried in Rio de Janeiro, but in 1883 his wife had his
remains brought to Buffalo, New York, for interment in her
family plot.
eral air of quiet and decay, re-/minds one much more of a picture of/ some old Spanish or Portuguese city/ than of a town in this newest and/ wildest part of the New World. The/ lack of business and bustle may be/ accounted for perhaps by the grad-/ual filling up of the harbor, upon/ which the city depends for its exis-/ tence. There is already very little/ good anchorage left, while the entr-/ance is difficult, being only practica-/ble at high tide. The Brazilian gov-/ernment has an engineer here at pres-/ent examining the harbor but they/ will likely examine and talk with their/ proverbial slowness until the harbor is/ entirely destroyed when Maranham/ will be left to the ants and lizards/ that already claim possession. Nearly/ all the articles of export and consumption are brought here from the/ rivers Stapia [sic; Itapicuru] and Mearim, the, the/ soil of the island and mainland near/ being very thin and poor, producing/ nothing but a few vegetables and/ fruits and not enough of these to sup-/ply the town. Cotton, sugar rice [sic] and/ corn are brought down the rivers in/ considerable quantities. There is a/ tide here of about twelve feet, and/ small trading schooners from the dif-/ferent plantations run in near shore/ and at low tide are left high and dry,/ and the bed of the harbor becomes a/ very animated market. I went on/ board several of these vessels while/ left in this way on dry ground. They/ are outlandish in their model but seem/ capable of standing quite a sea, they/ are usually covered with a rude thatch/ of palm leaves to keep the sun from/ the crew and cargo, and underneath/ this one will see two or three ham-/mocks swang up together with apples/ and bunches of bananas, while pen-/ned up on one end of the deck a/ fine/ shoat grunts contentedly as if/ he had enjoyed the voyage. In/ another part are palm leaf baskets of/ oranges and yams or of funny little/ ears of Indian corn, with a bundle of/ stalks of the sugar cane, which is/ sold/ in pieces and eaten like candy. The/ hold is filled with dried fish or char-/coal or with mandioca meal called/ farinha here which forms the principle/ food of the negroes and the poorer/ classes who will gather around a/ gourd of it like chickens and crowd/ it dry into their mouths with their/ fingers. This with a drink of cheap/ and fiery native rum completes their/ meal. Large vessels lie off at anchor/ and load and unload by means of/ lighters. The city is supplied with/ water by little water carts, each drawn/ by a diminutive ox harnessed into/ thills like a horse. One may see these/ carts each surmounted by a huge/ water cask moving slowly about the/ streets at all hours, the drivers incit-/ing their beasts to greater exertions/ in climbing the steep hill sides by/ hissing at them. Hissing is also used/ here to call attention. You sel-
dom/ hear a call or shout, but while pass-/ing along the street you hear the sen-ora [sic; senhora] at her/ window overhead hiss at/ the negro woman below who is sell-/ing sweetmeats from the basket upon/ her head, or the merchant standing/ in his door hisses to stop his friend/ who is passing./

Horses are very little used for/ draught on account of the unevenness of the streets, all of the heavy/ freight/ being lashed to long carrying/ poles and carried upon the shoulders of slaves. These are trained to the/ business and are splendid fellows/ with great massive shoulders and sym-/metrical forms. I saw sever-/al that would make models for a Hercules./ Eight of them will carry a pipe of rum/ or sugar at a fast walk to any yard [sic; part] of the city. They grasp each others [sic] shoulders thus fastening themselves/together and move off four abreast./ keeping step to a song which a leader/ sings to some well known tune, after/ he has sung a couple of lines they all/ break out on the chorus loud enough/ to crack one's ears. Their songs/ when translated do not seem to differ/ much in sentiment from those sung on/ the plantations along the Mississippi,/ generally having reference to the poor/ old darkey and his hard work, or to/ the attractions of lovely Dinah. They/ sometimes intersperse a few words of/ English, one chorous [sic] that I/ heard, closing with 'My poor Sally', which/ sounded strange enough in its fellow-/ship with the Portu-
guese. I often/ stopped to watch these gangs as they/ went by, their bodies – naked to the/ waist – glistening with sweat and the/ carrying poles sinking deep into the/ great muscles of their shoulders, which/ are often knotted and calloused like the/ necks of oxen under the yoke. Lesser weights are carried by fewer num-/ bers and when there are two they do/ not sing but keep time by alternate/ groans long drawn out through the/ nose./

The marketing is all done by slave/ women who carry their purchases up-/on their heads, and all the smaller pro-/duce of the country is brought in, in/ the same way.

Every morning on my way to the/ woods, I met great troops of negro/ women each having a few or-
anges or/ squashes, or a little bunch of cabbages/ or lettuce in the ever present palm leaf/ baskets, and at night I met them on/ their way back with a bottle or/ two/ of wine and a little tobacco or sugar./ The washing is all carried to the little/ fresh water brook in the country,/ sometimes to a distance of six or sev-/en miles. They wash the clothes by/ striking them upon a board or by/ spreading them upon the board and/ beating them with a stick in one hand/ while pouring on water from a gourd in the other. While hunt-
ing along/ the streams after birds and insects I/ was seldom out of hearing of their/ sticks and frequently came in sight of groups [sic] of them at work, often entirely without clothing./

The sense of propriety here in re-/gard to clothing differs essentially/ from that at home, and one is consid-/erably shocked at first but soon be-/comes accustomed to it and thinks no/ more of it. The children of the ne-/groes and of many who call them- selves something else are not dressed,/ even in the city, until they are seven/ or eight years of age un-/less it/ is with a charm or string of beads, and/ as one gets beyond the influence of/ police regulations the matter grows/ worse. The negroes seem elevated/ but little above their condition in Af-/rica, and I should think there was/ danger of their getting wild and idol-/atrous again. Many of the supersti-/tions and customs brought from Afri-/ca, are still in full force among these./ I noticed that of filing the front teeth/ to a point like those of a shark, and/ the curious one of sticking a cow's/ horn for good luck in their huts and/ shops./

The people here are of all imagin-/able colors, the whites, negroes and/ Indians having become so intermin-/ably mixed that one of them would/ be as puzzled to tell his race as we at/ home would be to trace all the strains/ of English, Scotch and Irish blood/ that go to make up a genuine Yan-/kee. The European families here/ who have kept their blood pure must/ be very few indeed. There does not/ seem to be the same prejudice of tint/ is the name for it, among the nations/ called Latin, against intermarry- ing/ with colored races as there is among/ the English and the heterogeneous pop-/ulation of Brazil and of all Spanish/ American countries and the half-/breeds of Canada are the result. What/ the color and the capa-bility of the re-/sulting race will be is a question for/ the future to solve./

It appears to me from what I have/ seen here as if it would result in the/ destruction of all who are concern-/fed in it. There is no particular/ prejudice against color here, many/ holding high civil and mili-tary posi-/tions whose color and hair show them/ to be mostly of Indian or negro blood;/ yet among all classes and colors that/ lay any claim to respectability there/ is the strongest prejudice against la-/bor. The opinion of all such persons/ seems to be that it is bet- ter to wait/ three hours for a slave to do some/ little service than to do it one's self in/ ten minutes. They have cultivated/ patience in this respect to a surpris- ing degree, but this everlasting wait- ing is vexatious enough to those who/ are unaccustomed to it. As a conse-/quence of this system all such places/ as are considered honorable that is to/ say where there is no bodily labor to/ perform, such as public offices, pro-/fessions, clerkships, etc., are over-full./ while the mechanical arts and farm-/ing are generally left to the slaves and/ the poorest classes, who have no gen-/ius or ambition. The children are/ brought up from their infancy to de-/spise labor and I often saw them idly/ sauntering to school while some old/ white headed family slave followed at/ a respectable distance, with their/ books and dinner basket./

In one case I saw three young men/ going to a festa [party] followed by a little/ negro girl of about twelve years of/ age carrying three heavy mahogany/ chairs for them to sit in upon their/ arrival. I broke down my standing/ for respectability as soon as I ar-rived here by carrying a hammock and/ other things I had purchased to my/ room, instead of having a negro to/ do it while I stalked on before with/ folded arms. With all this feeling/ against labor there is a strong move-/ment in favor of Emancipation, but/ it seems to be actuated rather by po-/litical and prudential reasons than by/ any humane feeling for the slaves/ themselves. Notices of fugitive slaves/ are frequent in the papers and/ in one I saw the advertisement of the/ sale of a large number of men, wo-/men and children belonging to an or-/phan asylum. The price of a young/ able bodied man is about $500. The/ women here do not seem to have as/ much freedom as those at home. They/ are not often seen upon the streets,/ and their principal employment seems/ to consist in going to church on the/ frequent saint's days and in watch-/ing the people of the street from their/ balconies and windows, which open/ immediately upon the side walks and/ bring them face to face with the pas-/sers by. They appear pale and spirit-/less in com-parison with our Ameri-/can women, but their large dark/ eyes are certainly beautiful./

The men especially those in whom/ white blood predominates are gener-/ally narrow-chested and infe-rior look-/ing and are said to be much given to/ wine and other means of dissipation/ but counteract the bad effects of such/ habits to some extent by frequent/ bathing and attention to cleanliness/ of the person./

They are much more polite than we/ are at least as far as the outward/ forms are concerned, always sa-luting/ both strangers and acquaintances by/ touching or taking off the hat, and/ upon taking leave invari-ably shaking/ hands with the whole company though/ the parting is only to be for a few/ hours./

I have seen very little here that/ would pay for adoption at home but/ these people who live under the equa-/tor have methods of making warm/ weather endurable that seem worthy/ of trial in the States,
where we certainly have for a few months of summer weather hot enough for any latitude. One of these is their custom of sleeping in hammocks. A bed is almost most unheard of, but every room has hooks or rings in the wall for suspending hammocks, and the people sleep in them, sit in them, smoke, read, and do almost everything but work in them. They are knit or netted and allow of free circulation of the air about the body instead of holding and concentrating the heat like a bed. Another is their custom of keeping all water for drinking purposes in coarse unglazed earthenware vessels of the same material as our flower pots at home. These allow of rapid evaporation not only keeping the water cool but actually lowering its temperature. The water from the wells and springs here is all quite warm when drawn and would be almost unfit to drink but for this means of cooling it. These vessels are made with narrow necks like ancient urns, but I do not know that this is any advantage to them.

JOSEPH BEAL STEERE

Letter III

[Peninsular Courier and Family Visitant, 10(2), January 13, 1871]

FOREIGN CORRESPONDENCE

Number III

PARA [Belém], BRAZIL, November 25th, 1870.

I have been intending to write some sort of an account of my examinations and collections in natural history while on the island of Maranham [sic; São Luís], but I suppose it will be difficult to make such a report interesting to your readers. The number of scientific and Latin terms used in such articles generally, is one reason they are not to the taste of most readers, and my letters will be free from that objection, as I have now but few scientific works to consult and shall send those home by the first boat, as they have but little reference to this part of the world. I had expected to find the coast of Brazil very low and showing no rock strata at all, but for the two or three hundred miles we have coasted along the beach it often rises into hills several hundred feet high and the shore itself is often quite steep. The rocks that out-crop along the beach are light colored sandstone, and clay shales almost too soft to to [sic] deserve the name of rock. They are filled with fossil shells, fish, wood, etc., but these are generally in a poor state of preservation. Above these is a dark colored sandstone that is plainly of volcanic origin as considerable [sic] of it is vitrified and it all shows the action of heat. It looks very much like Lake Superior iron ore but is composed of angular pieces of very pure quartz [sic; quartz], held together by some substance resembling iron. Above this layer which does not appear to be continuous, is the sand forming the soil of the country and this appears to be composed of the same volcanic sandstone worn to pieces by the waves. This soil is very poor in vegetable matter though the country is covered with a dense growth of the timber that is depositing leaves and decay wood all the time. The island and whole coast look as if they had but recently emerged from the ocean and I was strengthened in this opinion by finishing valves of a large oyster that still exists in the sea adjacent and the spires of other large shell shells lying upon the surface and four or five miles from the beach. They may have reached there by human agency but it is not probable. The island and main land adjacent show none of the tall timber for which Brazil is famous. The trees do not grow to more than twelve or fifteen feet in height, but stand very close together and are so bound together with trailing plants that it is impossible to make one's way through them except along the paths the ne groes have cut out in their search for fruit or wood for charcoal. Every one who travels in the woods here carries a large sword-shaped knife for cutting his way through. Palm trees of various kinds rise here and there above this jungle to a height of thirty feet and where the land descends toward the little brooks finding better soil and more moisture they crowd out the rest of the timber and stand thick together making a continual twilit by their dense shade. In the bases of their huge leaves beautiful ferns take root and hang trailing toward the ground, and great callas six feet in height with flowers a foot in length stand at their feet. Below at the water side sweet scented white lilies grow, and to complete the picturesque great strangely colored butterflies float here and there in the gloom. I found considerable difficulty in making my knowledge of botany of any avail at first, every plant here is so different from those seen at home. Families that I had only seen repres one by little herbs rise to the dig-nity of trees. I was especially troubled to tell a palm tree from the bun ches of huge grass that grow here. In fact a young palm tree is a bunch of grass, all its leaves rising from the ground but gradually the stem rises up in the center like a corn stalk and the leaves drop
off below and in time/ we have the tall palm with its
cluster/ of leaves at the top and below these/ leaves
its bunches of cocoa nuts or/ other fruit. Some kinds
have leaves/ fifteen or twenty feet long, and they have
thick boat-shaped bases six or eight feet in length that
do not decay/ readily, but pile up around the tree in/
great heaps. I looked in vain for oaks/ and elms and
willows, but found many/ trees and vines related to our
locusts/ and acacias, some of them filled with/ beautiful
blossoms, though this is the/ dry or winter season when
most plants are resting for the coming wet sea-
son./ One day while hunting birds I follow-ed on an
old path from the sides of/ which hung great trumpet
creepers,/ and orange-blossomed tree helio-/tropes,
but lacking the perfume of/ their humble brethren of
the green/ house. I came finally to a pair of/ stone
posts supporting the remains of/ an ornamental iron
fence, all buried/ in wild vines and bushes, beyond this/
I crossed stone ditches made for irri-gation, now
choked with ferns and club-/mosses, and farther on
stood a min-/eral bath house with broken naiads/ and
spouting lianas. Upon one corner/ the ants had built
a great black nest/ and their covered way led wind-
ing/ down over the ornamental tiles with/ which the
wall was covered. Strange/ water plants clung to the
walls and/ dipped their leaves in the water be-
low.

At my feet were roses and honey/ suckles still strug-
gling for existence/ with their wilder cousins. Here
and/ there stood cocoman palms and orange/ trees,
but instead of fruit, loaded with/ wild vines or ants
nests. Upon the/ hill above stood the mansion – its/
walls blackened with smoke and its/ roof of tiles fallen
in, one corner in-/habited by negroes, the rest left to
the/ bats and lizards. At the spring be-/low where the
water had broken from/ its artificial barriers, and ran
again/ where it listed a group of slave wo-/men wash-
ing, hastily threw on/ some article of clothing, said
their/ 'bom dia Senhor' and went on with/ their work.

I never before saw such/ a complete triumph of nature
over/ the works of man. I heard after-/ward that ten
or twelve years ago/ this was the property of a rich
noble-/man who had not spared money in/ beautify-
ing it. It seems to me that/ the ruined cities of Central
America/ that are found buried in the forest/ need not
be traced to a race existing/ before the time of the Az-
teca, but/ may be given a more modern date. A/ hot
and moist climate can work won-
derful. These houses/ are from two to six feet in
height./ But it is not alone in the forest that/ ants
abound. They undermine the/ streets and colonize the
walls and eat/ out the inside of timber and furniture/
leaving a thin shell to crush at the first/ strain. They
swarm over the tables/ and in the vessels of water and
one/ must look sharp or he will eat and/ drink ants.
I think of trying to send/ some of the smaller nests
home but do/ not know whether I can pack them so/
as to bear transportation or not. 

Lizards are almost as plenty and of/ as many spe-
cies, but are not so/ troublesome. The tile roofs and
stone/ walls make good hiding places for/ them and
wherever one goes he will/ see these ugly little gray fel-
lows that/ stand and look with a queer nodding/ mo-
tion of the head until one is close/ upon them when
they scamper into/ their holes. If the ceiling is not
close/ they crawl all over the walls. One/ morning I
saw my colored landlady/ cautiously tipping up the
water jar/ with one hand while poising her slip-/per
in the other, but before she struck/ the lizard was out
of the jar and out/ of sight. I saw no snakes while
upon/ the island, and I don't think they/ stay near
salt water, but the first day/ I went into the woods
while watching/ anxiously for huge boa constrictors
or/ poison coral snakes, I was consider-/ably startled
by the splash of great/ frogs a foot or more in length
as they/ plunged in the little spring. They/ have a pec-
uliar metallic note that/ sounds as if it was produced
far under/ ground. Most of the birds that I/ collected
were snipes and other shore/ birds. I saw many par-
rots, pan-o-/keets[sic], ibisce [sic], etc., that have been/
brung down the river from the in-/terior, and saw
the eggs of the South/ American ostrich for sale and
a young/ one running among a flock of chick-ens.
spent most of my time collecting sea shells, expecting that I should get no other chance as the river at Para is fresh. I collected about a hundred species and many specimens of most kinds. I made quite a collection of insects though this is not the most favorable season for them. The butterflies at home are most plenty in open and sunny places and in the middle of the day, but here they fly most in the morning and evening, and in the middle of the day seek the densest shade.

I feel pretty well satisfied with the result of my two week’s work, and expect to be more successful here on the Amazon.

JOSEPH BEAL STEERE

Letter IV

[Peninsular Courier and Family Visitant, 10(3), January 20, 1871]

FOREIGN CORRESPONDENCE

Number IV

PARA [Belém], BRAZIL, December 8th, 1870.

Last evening the mail steamer North America arrived from New York this morning I hurried to the post office expecting letters enough to make up for the long dearth I had suffered, but I did not find a single letter nor even a paper. No one can tell what a bitter disappointment such a small matter may become until he has tried it. Three small steamers have left New York since the schooner I took passage upon and the only mail I have received yet is a number of the Courrier, and that came by the first steamer. It almost seems as if the people at home had forgotten me and had left me to fight it out alone with the In-dians and Portuguese. My mail must have been mislaid or mis-sent. I hear that the postage to Brazil has been raised to 15 cents a letter and that letters without this amount have been sent to the dead letter office. What-ever the reason may be I shall try to wait in patience through another long month. I have now spent two weeks here and feel competent to say something about the city of Para [Beém] and its people. Para [Belém] is about the size of Maranham [São Luís] but is much more modern in its appearance. The streets are wider and the houses constructed with more attention to good looks, and there is a little railroad here a sort of cross between a street railway and a rail-road proper. It runs to the little village of Nazareth, one of the suburbs of Para. The cars are drawn by donkey engines placed in the end of the cars. They go whistling about and have quite a home-like sound.

The state of morals as at Maranham [São Luís] and all over Brazil is low, very low. Marriage is scarcely ever heard of among the lower classes and seems to have very little respect among the higher.

Drinking is universal, men, women, and children of all classes and con-ditions drink. Those who cannot procure wine or brandy, drink the native wine called cachaca [sic; cachaça]. The waste places around town are filled with heaps of wine and beer bottles that have been carted there to get them out of the way. The better class of mer-chants who have little villas in the suburbs of the town have a queer cus-tom of using them for borders for flower beds and walks, as small stones are used at home. They are stuck into the ground necks down and serve a double purpose, holding the soil in place and demonstrating to the public the capacity of the proprietor’s stom-ach. They are also often used for a sort of (chevaux de friz [sic; chevaux-de-frise]) for the stone/walls, being broken and then plastered thickly on the tops of the walls making a sharp and sure barrier against thieves [sic; thieves]. There is no trust placed in one’s honesty here and all gar-dens and enclosures are surrounded by such walls or by sharp pointed pickets ten or twelve feet high. The races do not seem intermixed so freely as at Maranham [São Luís] and one of ten sees Indians of pure blood. They are a strange looking race. Their features are much like those of our North American Indians, but thin hair grown down over their foreheads in some cases nearly to the eyes, giving them a comical appearance. Para [Belém] is the real outlet of the great Amazon/River. The channel on the other side of Marajó Island being so choked with sand bars as to be unnavigable. Here the rubber, nuts, deerskins, etc., are transshipped from the little flat-bottomed river steamers to the ocean vessels that carry them to other coun-tries. For this reason Para [Belém] is growing as fast a place can grow in this country and rents and real estate are high. There is much more life than at Maranham [São Luís]. The merchants move with a quicker step and even the stone-breakers in the streets strike as if there was an end to life and labor. But more brute force and unskilled labor still drive skill and machinery from the field. I have yet to see any sign of a saw mill in this whole coun-try the only sawed lumber I have seen being that brought on our ves-sels from New York and used for box-ing rubber. The lumber for flooring easing etc., is all laboriously hued [sic; hewn ou hewed] out of plank.
from a tree by hand. This necessitates the use of the smaller trees and the softer kinds while immense trees of the most beautiful woods in the world are allowed to rot. The wood work made from these hewed plank looks coarse and bungling, but there is a steam planing mill at work here now that appears to find plenty to do in planing these into shape. I have not seen a plow since I have been in the country, the soil being worked with heavy plantation hoes. I have not seen a plow since I have been in the country.

The lower classes are bigoted and superstitious, as much so likely as any Catholics in the world, but the upper classes seem to have intermingled a good deal of French free thinking with their Catholicism.

I am living in a little room twelve by fourteen feet in size, quite after the style of Robinson Crusoe, though have not so much as a cat to keep me company. I have no floor but the earth and the tiles are my ceiling. My hammock is swung across one corner and along each side a bench, one covered with birds and preparations, the other with books and my water jug which looks rude enough to have been moulded by the hands of my man Friday, these with my gun and insect net hung on the walls and a box or two to serve as chairs make up the sum total of my household furniture. I go out early in the morn ing and then spend the afternoon until supper time in skinning and preserving them. I shall go next week down the coast to a little village where I expect to find wilder woods and more birds. There are any number of strange birds and beasts here and I shall ship some of them to Ann Arbor before I leave Brazil.

JOSEPH BEAL STEERE

Letter V

[Peninsular Courier and Family Visitant, 10(4), January 27, 1871]

FOREIGN CORRESPONDENCE

Number V

PARA [Belém], BRAZIL, December 18th, 1870.

The schooner Victor sails for New York tomorrow, and as the captain has kindly offered to take collections or letters to the States for me free of charge I will take advantage of his offer and send a few lines by him. I had expected to go to Vigia during the past week, but the Consul was absent so I could not get letters and I did not think it best to go among strangers who do not speak English without some sort of introduction. The Consul has returned and I shall go down in the steamer that sails on the 22d or the 23d. I have spent the last week about as usual taking long trips into the country in search of birds, shells, etc., and my room begins to wear quite the aspect of a museum, with preserved birds on the benches, rock and shells in the corners, some bat skins stretched on a board and a couple of sloths hanging on the walls. These sloths are curious gray

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5 Maize Dent – The endosperm extends to the top of the grain in Dent Maize, with the hard endosperm being present only on the sides. This causes an indentation of the mature grain at the top due to the shrinking of the softer material. This is the largest maize, stems sometimes attaining a height of 15 ft. A single ear is produced. They are very large, up to 10 in. long, weighing three-quarter pounds and sometimes having as many as 48 rows. The deep wedge-shaped grains are generally yellow or white. Dent maize is the main type grown in the Corn Belt of the United States and it gives an enormous yield. It is the source of most of the commercial grain and also of livestock fodder and ensilage. Over 350 varieties have been developed.
fellow, about as large as cats. They seem to be nearly all legs, and have no toes, but their feet end in large claws that press against the hard sole of the foot and thus enable them to cling to the trees. They cling to the under side of the limbs with their backs down and when on the ground seem as comfortable on their backs as in the normal position. The natives call them ‘prequisas’ [sic: prequisas] which means ‘lazy fellows’ in Portu-geuse, and they also call them fellow-countrymen, in allusion to their own back [sic: lack] of energy and think it a good joke. I have already found three species of kingfishers here one of them not much larger than a humming bird, and of the same bright colors but they all have the unmistakable marks of kingfishers and the same rattling notes but much weaker than the free bold cry of our American bird as he dashes down from his favorite dead limb and away, first grazing the sur-face [of] some back woods mill pond in his search for a breakfast. I have also found three species of a strange family of birds that are closely allied to the woodpeckers in color and shape and habits, but lack the two toes behind that form the distinguishing mark that forms that family, though they have the feathers of the tail terminating in spines in the same way to support them upon the sides of the trees. Their principal food seems to be ants, that swarm over the trees as well as upon their ground here. As far as my jour-neys have taken me up and down the river and into the country around here it all bears the same appearance. The river is full of islands and they with the main land are low and flat, just above water level and thickly covered with timber. This timber is generally tall and straight and grows much like the elms in the swamps at home the trees often bulge out into great spurs at the base, and in some cases sending out roots from five or six feet above ground so that they appear to stand on legs. This peculiar manner of growth must be caused by the moist climate and the rainy season which at its height must make a lake of this whole coun-try. The timber differs from that at home in this particular that while at home we have large tracts of oak or pine or beach [sic: beech] and maple, here all kinds are mixed together so that though there are most beautiful and valuable woods here, one might have to make a road for half a mile and cut down many trees of worthless timber to procure a valuable tree or a cluster of them. This is said to be the case all the way up the Amazon and will always be a great draw back in developing the timber interests of this country. More than one enterprising Yankee has come here expecting to find great groves of cedar or ebony wood handy for shipment but has gone back to the states a wiser and poorer man. The trees are all loaded with vines, some of them of such a size that one can hardly tell which is the vine and which the support. In some cases the tree has decayed and fallen from their embrace leaving the vines still standing upright in their own strength. I often make my way into rubber camps which are all about and even within the bounds of the city. They are tapping the trees now and each one is surrounded with a girdle of little clay dishes stuck against the side of the tree under an incision through the bark. They soon run full of a juice that looks just like milk and tastes much like it. They go around once a day and empty these little cups and carry the milk to their shanty when then build a fire of a certain kind of nut that makes much smoke and little flame. They take a flat wooden paddle about as large as one’s two hands and pour the milk over this and then hold it in the smoke and heat for a few moments until the rubber is coagulated when they pour on more milk and go on in this way much as our mothers used to dip can-dles, adding coat to coat until they form a cake that weighs six or eight ponds when they split it open on the side take out the paddle and the rut-ber is ready for shipment. The bit of rubber that sticks to the tree and to the cups are afterwards pulled off and heated and pressed into blocks that form rubber of the second quality. There is another tree here that yields a thick yellow juice with which rub-ber is adulterated and I hardly ever find one of those that is not covered with marks where it has been tapped. It must weaken the rubber as it has little strength of its own.

Professor Hart [sic: Hartt] and his company returned to the States by the last steamer. I was unfortunate enough to not to see him though he had two off his company looking for me over town. He left me quite a quantity of rum for preserving and also several cases, nets, etc., that will be of value to me. The Brazilian government furnished him with a steamer to ex-plore the Amazon just as they did professor Agassiz while he was here. Professor Hart publishes a report of his explorations here in Para and in Portuguese and I hear that he intends to return another season. I am told that his views in regard to the geo-
log-ical formation of the valley of the Amazon differ materially from those of professor Agassiz, but I hardly know in what respect as yet.

I was awakened this morning before daylight by negro women singing on their way to attend mass at the church near by. I was soon out of my ham-mock and ready to follow them into the church. Their singing did not appear to me a part of the service but a hymn to the Virgin or something of that sort
sung in a strange minor key/ that sounded as much like a wail as/ anything else. The church was dimly/ lighted but adorned with many pic/-tures and statues of the virgin and/ images of the cross, and much tin-SEL/ and glass and chandeliers. There/ was not a seat in the church but the/ congregation which consisted prin-ci-pally of negro women dressed in white, knelt on the stone floors while the few/ of the stiffer necked sex stood be-/hind them. The services were all/ chanted in Latin, but at the proper/ time a boy rung a bell for the faithful/ to make the sign of the cross or to/ bow their heads which was all they/ could do as they were already kneel/-/ing, while the male darkies in the rear/ scraped out behind with one foot in/ true negro style but with a strange/ shuffling noise on the stone floors. At/ the critical points in the service a/ man at the doors would send up two/ or three rockets, with a flash and noise/ and great smell of burned powder./ After the service the congregation/ joined a procession with the rocket/ firer at their head and singing the/ same wild song as at their entrance/ set out for another church. Day was/ now breaking and a few white women/ were coming in to hear service re/-peated./

I could not but contrast this super-/stition and ignorance with our en-/lightened worships at home, and after/ all even such a recognition as this of/ the Divine Being seemed preferable/ to the perfect state of apathy and un-/belief of the most of those I come in/ contact with here and it seemed pleas-/ant to go into a place where the name/ of God was used with reverence even/ if it was in a strange tongue./

I should think that all Americans/ would go home from this country/ fully convinced that it is our Chris-/tian Institutions that make us the peo-/ple we are and resolved to support/ them better than before./

JOSEPH BEAL STEERE

Letter VI

[Peninsular Courier and Family Visitant, 10(6),
February 10, 1871]

FOREIGN CORRESPONDENCE

Number VI

VIGIA, BRAZIL, December 24th, 1870.

I left Para [Belém] yesterday morning on the/ little steamer Odorico Mendes which/ coasts along from Para [Belém] to Maranham [São Luiz],/ call-ing in at all the places of any im-/portance along the shore. The cap-/tain and first engineer are English/ and/ the opportunity of conversing in my/ mother tongue with those acquainted/ with the country in-/sured me a pleas-/ant trip. The weather was good and/ we had a fine view of this outlet of/ the Amazon. The main channel is/ four or five miles wide and keeps to/ the south shore, while the north shore/ is hidden by many low islands densely/ wooded to the water's edge. As we/ approached the mouth of the rivet/ the land seemed to rise a little though/ still low and in front of the little vil-/lage of Caloris [sic; Colares] masses of dark vol-/anic rock rise a few feet above/ water./

Vigia itself is just at the mouth of/ the Para branch of the Amazon/ though it is at present almost inland/ from the filling up of the bay in front/ of it by debris brought down by the/ river. The pilot pointed out a large/ island covered with timber twenty/ or thirty feet high that has risen from/ the water within the last twenty years.

The steamer stops a couple of miles/ off while passengers and baggage are landed by the boat. It was growing/ dusk when we left the steamer and/ the shores were covered with cranes/ and other water fowl – quite an excit-/ing sight to a collector's eye. After/ running aground several times in the/ shallows we finally arrived at the/ town but found no steps nor dock to/ land on but made our way through the/ mud to terra firma [sic; firme]. I was received/ with much kindness by the gentleman/ for whom I had letters from the Con-/sul, and am installed in a good large/ airy room. I went to the woods this afternoon and saw many birds, among/ them a strange looking toucan/ that I never saw in a museum. They tell me of three/ species of toucan here and/ many species of parrots and parro-/keets and if I am well I shall make a/ good collection./

Vigia has 13,000 inhabitants and/ was founded in 1690. There is an/ old unfinished church near that looks/ as if it might have been begun in the/ time of Columbus. The houses are/ all of one story and built of adobe-/sun-dried mud, strengthened by posts/ planted in the ground and by small/ sticks of bamboo woven in horizon-/tally. On the principal streets these/ houses are plastered and white-wash-/ed, but as one goes towards the sub-/urbs the white-wash and plaster ra-/pidly disappear and then the mud and/ tiles, and the houses are built and roof-/ed with palm leaves and look like low/ hay ricks that have weathered two or/ three winters. None of the houses/ have glass windows and a very few/ have floors. In these houses with the/ earth for a floor live many of the bet-/ter class of people, who dress well on/ the street and send their children to/ Para [Belém] to study. They own many/
slaves and would consider it an ever-/lasting disgrace to do anything them-/selves, yet they live in houses that a/ backwoodsman in the States would/ despise and would set about at once/ to floor with puncheons or slabs if/ nothing better offered. But the slaves/ here probably find enough to do in/ their slow way in providing their mas-/ters with something to eat and weat/ without flooring their houses. The/ food of the people here is as inferior/ to ours as their inhabitants, and likely/ differs very little in kind or in manner/ of preparation from that of the Ta-/ino tribe of Indians who occupied/ this part of the country when it was/ discovered by Europeans [sic]. The great/ lack appears to be in something to/ take the place of potatoes, some veg-/etable easily raised and kept for use. It could like-/ly be found but no one/ troubles himself about it and all classes/ go on eating farinha prepared from/ mandioca plant which is the real/ staff of life here. Those in better/ circumstances eating it with meat and/ rice the rest with a little dried fish/ or alone. This farinha is in grains of/ all sizes from that of coarse corn meal/ up to kernels of corn themselves./ It is very hard at first, too hard to be/ crushed by the teeth and it seems/ very much filling the mouth with/ dry coarse sand, but it soon softens/ when put into water or soups and this/ is the only way I can eat it, but the/ natives generally eat it dry tossing it/ into their mouths with their fin-/gers/ when too poor to own a spoon. Those/ who are able use considerable coffee/ and make if of a superior quality/ though they drink it with sugar alone,/ milk being unknown in cooking here./ The manner of eat-/ing is as fol-/lows: a cup of coffee in the morning/ with a funny little cake of wheat/ bread about as large as one's/ hand, with a little stale English or/ American butter, at ten or eleven/ o'clock a breakfast of far-/inha and fish or beef with rice, and at/ four or five in the afternoon dinner/ of nearly the same materials. I find/ this manner of living rather unsub-/stantial, with/ my hard tramping in the/ woods, and miss the early breakfast/of bread and butter with meat and/ potatoes and milk that even the poor-/est can procure at home. Consider-/able corn is raised here, but there are/ no mills and as far as I can learn it is/ used to feed the pigs and chickens and/ parrots. Fruit of good quality is/ cheap and if these people cared they/ might live on bananas and pine ap-/ples and oranges but they plant few/ trees and do not seem to have that/ zest for food that we, who are depri-/ved of it a great part of the year,/ possess, I have seen no apples,/ peach-es, cherries nor grapes, though/ grapes and peaches are said to be/ raised in some parts. There are many/ wild fruits that the natives admire,/ but very few of them suit my taste,/ though there must be some that

are/ valuable and that would pay to in-/troduce into the warmer parts of the/ United States. If we ever do get/ anything from Brazil that is valua-/ble it must be from the wild forests and/ plains. Everything that man con-/trols here degenerates. The horses, cattle, swine, poultry, and even the/ dogs, are poor and ill- shaped. The/ sheep are of all colors and look as if/ they might be the direct descendants/ of the flock of Jacob, without im-/provement. They are not sheared/ but the wool grows and drops off to/ make way for a new growth.  

Just before I left Para [Belém] a barque ar-/rived there from Boston with the Col-/ony for Bolivia which had been so/ long advertised in the New York Tri-/bune.  

The leader of the party, Mr. Piper,/ has an im-/mense grant of land from/ the Brazilian Government subject to/ certain conditions of settlement and/ this is supposed to be only the ad-/vance guard of an immense emigra-/tion to flow into Bolivia6. The

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6 In its issue of Feb. 5, 1874, under the heading : “A Bostonian’s wanderings”, the New York Times said: “Mr. A. D. Piper, the President of a small party of colonists who sailed from Boston for Bolivia in November, 18 [1870], and who was reported to have been murdered by hostile Indians, has been heard from within a few days, his letter giving the particulars of his journey, and the reasons of his long detention. It appears that the party reached the River Amazon in safety, but there, owing to a lack of capital, the majority of the party abandoned the formation of a colony in Bolivia until a more propitious opportunity presented itself. Mr. Piper, however, remained, and having obtained a small steam-boat, pushed his way inland, and penetrated a country that was so far beyond the reach of civilization that a long time elapsed before his expedition was heard from. In July, 1873, news was received that he and his party had been massacred and the tidings were believed by his wife and friends residing in Boston. Mr. Piper’s letter is dated Labrie [sic; Lábrea], December, 1873, and in it he describes his trip up the River Purus as the roughest he had ever made. On his way up the stream his party left him at Labrie [sic; Lábrea], and he had to rely for assistance wholly upon his two engineers and the guide, a negro man named Dan, except what assistance he could get from the natives. Afterwards one of the engineers abandoned him, and he was compelled to proceed with the sole aid of the other and the negro. He finally reaches Hucayal [sic; Ucayali] where he selected a site for a town. Here he erected the frame of a warehouse, 54 by 34 feet, and arranged with the chief of the tribe to cover it in with palm thatch. George M. Remick, a young man from Newburyport, Mass., also selected a tract of land in the vicinity for a farm and cleared off a space for a farm, and put up a frame house. At this place they were abandoned by the black man Dan, who stole their best canoe and disappeared down the river. Mr. Piper was delayed so long that he lost the opportunity of the seasons’ trade with the natives, but he sewed a quantity of cotton and started. The stream, however, had got so slow by this time, besides being obstructed by fallen trees, that the return passage to Labrie [sic; Lábrea] was long and tedious [See Steere’s Letter XXXI, Nov., 1871, about his meeting Piper in the Purus; mentions to other members of this ill-fated adventure are to be found in Steere’s
The ants have spared. The wild vegetation grows, the hogs come out of the woods and root up what the determined to eat up everything. Droves of wild contend with immense numbers of ants that seem soldiers understand from experience. They have to this last is no small labor as some of our returned pound the hulls from the rice for their supper, and en work in the fields with the hoe and the children enough to pay their debts, and this when the women are fortunate if at the end of the year they have crop of the fazendas for their necessities and thus pay here. They have to run in debt to the proprietors that are more expensive than those of the people for the two or three cents worth of food they receive here. The mails are very irregular at the best and the lands granted for colonization are generally remote, so that if the colonist gets letters six months after they are written he is fortunate. There is no strong, well organized school system as at home and the colonists too poor to hire a teacher must let their children grow up naked and half wild among the natives.

There is a great difference in settling in this way; without railroads, telegraphs, mails, schools, churches, without any of the comforts of civilized life, and in settling in the New States of the west where the railroads follow soon when they do not lead the pioneer; where the government establishes regular mail routes and the settlers hire their passage home. Their work here is cut off from the settled part of the State by the immense pine belts of Mecosta and Isabella counties. This pine land is either owned by capitalists who keep it for lumbering purposes or is too heavily timbered or is too poor for cultivation while there is no other in reach. It has proved a barrier to the settlers who have pushed into the country behind it, having no settlers to make roads, and to keep up means of communication through it, and they have in the habit of calling the country below, its open fields and bearing orchards, “God’s country”, but even they have mails and schools, without any of the comforts of civilized life, and in settling in the New States of the west, where the railroads soon follow when they do not lead the pioneers; where the government establishes regular mail routes and the settlers hire their passage home.

There is a portion of the State of Michigan on the head waters of the Muskegon river, that is cut off from the settled part of the State by the immense pine belts of Mecosta and Isabella counties. This pine land is either owned by capitalists who keep it for lumbering purposes or is too heavily timbered or is too poor for cultivation while there is no other in reach. It has proved a barrier to the settlers who have pushed into the country behind it, having no settlers to make roads, and to keep up means of communication through it, and they have in the habit of calling the country below, its open fields and bearing orchards, “God’s country”, but even they have mails and schools, and highways, and railroads are pushing in to help them out, here the most enthusiastic put the day of railroads at some centuries in the future, and if it is settled sooner it must be by some such race as the Chinese who do not have the expensive habits and cultivated tastes of even the poorest of our people.

Mr. Piper gave me an invitation to go with them [sic] and there are many attractions in such a wild expedition to one of my temperament but I thought it best to follow my original plan and route though there is undoubtedly much in the country they are about to enter that would be of interest.

JOSEPH BEAL STEERE
I returned here from Vigia yester-/day in one of the canoes of the/ country. I found no shells nor coral/ within reach, but collected and pre-/served ninety-one birds in eight days/ time. Some of them are of the same/ species as those I collected here, but/ there are many new species; among/ them a toucan, a small hawk, a crest-/ed wood-pecker, and a large bird/ called an ondow [sic; hudu]⁷, that has the feet of a king fisher, but its beak is/ like that of the tou- can. It tunnels a/ hole in a bank for its nest, just as the/ kingfishers do. I can hardly believe/ that I am discovering new species of/ birds in this most fully explored part/ of Brazil, but I have certainly found/ several families here that are not/ mentioned by Prof. Baird in his clas-/sification. Among these a bird that has the bill and general appearance/ of a kingfisher, but on closer exam-/ination I found that his toes were in/ pairs like those of a parrot, and I/ afterwards saw them catching beetles/ in the air and carrying them to the/ limb of a tree where they pounded/ them in pieces with their long beaks./ I brought back an animal/ alive with/ me that is very similar to he sloths/ in its habits, but is not much larger/ than a rat, and has a long prehensile/ tail. The natives call it tamandua [sic]/ and mention other species of the same/ genus. With my birds I got many/ scratches and wounds and look like a/ prize fighter that comes out of the ring victorious, but bleeding./

The woods here are frightful to/ hunt in, many of the vines being/ armed with thorns, and a low spread-/ing palm whose stem and leaf-stalks/ are covered with long, sharp spines,/ plentiful; besides these there is a spe-/cies of trailing grass which climbs/ with the sup-/port of the bushes, to a/ height of eight or ten feet. Its leaves/ are edged with sharp, serrate teeth,/ and when one goes into the bushes/ after a wounded bird he is fortunate/ if he returns without a long palm/ spine in his flesh or without having/ his face and hands cut to the bone by/ the trailing grass. But this is all a/ part of the business, and must be en-/dured./ I am noting the habits of the/ birds and other animals I collect, and/ though this has probably already been/ done with the most of the species/ here, yet I should find new spe-/cies/ such notes would be of great value./

While hunting I made my way into/ several mandioca plantations, and/ saw the process of making both kinds/ of farinha. The mandioca plant/ grows to the height of six or eight/ feet in the plantations, and has large/ palmate leaves similar to those of the/ castor oil bean. Where a plantation is/ intended to be made they cut down the/ small trees and bushes, and these thor-/oughly cover the ground with limbs/ and leaves. When this is dry and fired/ it burns the ground over throughly./ In this burned field which looks very/ much like a carelessly prepared back-/woods fallow, having burned and/ blackened trunks scattered over it,/ they plant pieces of the stem of the/ last years growth of mandioca./ These pieces which are planted about/ two feet apart, soon root and send up/ stems. Corn and cotton are some-/times planted with the mandioca and/ some sort of cultivation kept up, but/ more generally the bushes and weeds/ are allowed an even race. If I un-/derstand correctly the mandioca is/ ready to harvest in six months from/ the time of planting, but by this time/ it is nearly covered and hidden by/ bushes and weeds. The slaves then/ go in and pull up the stems, which are/ very slightly root- ed, and find from/ one to four tubers on each stalk./ These are shaped like sweet potatoes/ and weigh from half a pound to a/ pound apiece. These are thrown in/ piles in the open places and gathered/ up and car- ried to the furna [sic; forno]. This/ furna [sic; forno] is a small shed, roofed with palm/ leaves, covering a circular fire place,/ built of clay to a height of two/ and a/ half to three feet, and with openings/ or arches around the sides for putting/ in the wood. Upon this is placed a/ flat, shallow earthen dish four ou five/ feet in diameter. The furna [sic; forno] is always/ near the water, and those tubers des-/igned for farinha d’aqua [sic; farinha dágua] are put into/ pits until they fer- ment and fairly rot,/ and I have found them from the/ strong smell arising from them. When they are/ sufficiently soft they/ are put into presses made of bamboo/ woven into long, narrow bags. These/ are weighted and hung up and the/ juice that flows out caught in earthen/ vessels and allowed to stand, when a/ fine white sediment falls which is/ mandioca [sic; tapioca]. The mass remaining in/ the press is emp- tied into a wooden/ kneading trough and the skins/ and hard pieces picked out, and is then/ put upon the furna [sic; forno] and stirred over/ the fire until it is cooked and dried/ sufficiently to bear transportation/ and the/ moisture of the climate, when it is put into

Vigia has abundance of the best quality of fish, and fruit, and farinha. and if one wished to get out of the world with its noise and confusion, and find plenty to eat and get it cheaply, I know of no better place than Vigia, with its sea breezes and pretty river, its shores dotted with bamboo fish pounds. Though there are thirteen thousand people here, the streets are as quiet as those of a country village, except when a procession passes or the soldiers are out.

There is a small drug store here, the proprietor of which does some thing in the way of prescribing, but there is no regular physician and the sick must go to Para to be treated if able and if not, let nature and time kill or cure.

It would be a fine place for one or two of the young physicians of our University to practice in, but whether they would make much money or whether the lives of the people would be prolonged in consequence, are doubtful questions.

There is no hotel in the place, but I was treated to the best the town afforded by my host Senhor Cassiano Alvez [Alves], had servants at my elbow to do my least wish, and when I was ready to return he procured my passage in the canoe of one of his friends, sent by baggage and provisions for the voyage on board, and after all this, seemed almost offended because I wished to pay him.

This is Brazilian hospitality, and though some may say that like that of the Southern States, it is the product of slavery, and does not incommode the masters who offer it but the slaves who perform the service, yet, no matter what its cause is, here it is a virtue well worthy cultivation by our more practical Northern people.

There was no person in the city that could speak English, and I had a good opportunity to learn Portuguese. The Portuguese is derived very directly from the Latin, and I was somewhat startled on my return in the canoe to hear the different parts of the vessel, the prow and stern, the oars and sails, and the winds and waves, called by the very same names that Virgil uses in describing the voyage of Aeneas and his Trojans to Italy. The language seems to have the same tendency to drop the longer and more difficult endings of its verbs, and to grow more simple and brief, that other modern languages show.

There is no wine or liquor of the kind that is consumed in the United States, but there is good strong drink in the place than Vigia, with its sea breezes and pretty river, its shores dotted with bamboo fish pounds. Though there are thirteen thousand people here, the streets are as quiet as those of a country village, except when a procession passes or the soldiers are out.

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There is a curious use of (b) for (i) [sic; ‘v’] and (r) for (l) that makes the language sound as if spoken by a person that is tongue tied. This apears plainly in the words (obrigade [sic]) obliged, (praga) a plague, (prata [sic]) plate, (prazer) pleasure, (pobre) poor, and (abominavel) hateful.
We ran considerable risk of ship-/wreck on our return, a storm coming/ up that split our sail and broke the/ most [sic] loose from the thwarts so that/ it hung by a few old ropes ready to/ go over the side and sink us, but we/ hold to it until the wind went down a/ little and then lashed it fast and/ worked our way in near shore and/ anchored until morning. We had a/ fugitive slave on board going back to/ his master in irons. His feet were/ fastened together by heavy fit- [sic, fetters],/ and if the vessel had gone down he/ must have gone with it. I tried to/ find a hammer and would have taken/ off his irons and run the risk, but I/ could not make the crew understand/ what I wanted, and so the poor fellow/ had to run the risk. 

JOSEPH BEAL STEERE

Letter VIII
[Peninsular Courier and Family Visitant, 10(12),
March 28, 1871]

FOREIGN CORRESPONDENCE

Number VIII

CHAVES, BRAZIL, January 6, 1871.

I arrived here on the Steamer/ Soures, after a pas- [sic, senger of four days/ around the upper end of the great/ island of Marajo [Marajó] or Joannes, which/ lies in the mouth of the Amazon. It/ is over one hundred miles long, and/ contains, as its inhabitants boast, more/ land than the kingdom of Portugal./ Marajo [Marajó] is surrounded by an immense/ number of smaller islands which are/ separated from it by narrow streams/ called furos, that are real channels of/ the main river. These furos are deep/ and we passed through some that/ were so narrow that the steamer almost touched on either side./

The islands are densely timbered,/ palm trees of various species gener-/ally standing near the water, and back/ of these, trees of other families. The/ palms of Brazil seem to prefer the/ lowest and dampest ground, instead/ of the high and arid land that is the/ home of the palms of the eastern con-/tinent. These islands and the shores/ of the main land adjacent are the/ home of the rubber gatherers, and we/ saw many of their huts standing near/ the beach. They were all raised sev-/eral feet above ground on piles, so as/ to be out of reach of the flood that/ covers this whole country during the/ rainy season. I went on shore at/ some of the stopping places with a/ smart young Bra- zilian from Para [Belém],/ and we entered several of these little/ cottages that are made of pieces of/ cane and bamboo tied together with/ tough vines from the woods. They/ made me think of the play houses I/ used to build in my school-boy days,/ but I was somewhat surprised to find/ a sewing machine in one of them. It/ was American, and Howe's patent,/ and my companion and the lady of/ the house had quite a discussion re- [sic, regarding the comparative merits of this/ and another machine, to the patentee/ of which they gave rather a warm/ name, and it was quite a while before/ I recognized the cognomen of Singer,/ the well known inventor though they/ had only softened the – g – in pronoun-/ing his name. The Brazilians [sic] make/ bad work in pronouncing our lang-/uage, and it seems as if there must be/ some national defect in their ability/ to imitate sounds. Though Ameri-/ cans are perhaps just as bad in the/ same circumstances./

We had a large number of passen-/gers when we left Para, owners of estates, with their servants and re- [retiers, returning to their fazendas, and/ officers of the army on their way to/ their stations. They seemed very gentlemanly and quiet, not so much/ given to talk as Americans under the/ same circumstances. They drank lit-/tle, though there was always wine on/ the table, but seemed to make gamb-/ling their prin- cipal amusement. The/ greater part of them engaged in this/ though I was glad to find a few who/ had scruples against it. They always/ played for money, the stakes gener-/ally being at first a (milreis) about 50/ cents of our money, and gradually in-/creasing, as they wound up, to three or/ five dollars./

I saw many Indians at the different/ islands, many of them with the same/ furtive, scared look, that those of our/ own country have; but some had lost/ this entirely, and I saw several whose/ satisfied air and appearance of good/ living showed them to be men of prop-/erty. Two or three of these took/ first class passage and were treated/ with all respect and politeness by the/ other passengers. If some ethnolo- [sic, gist wishes proof of the Mongolian/ origin of the Indians let him take a/ trip to Chaves. I saw several whose/ eyes had an unmistakable Chinese/ slant, while others, as far as form and/ features are concerned, would pass for/ good Chippewas. All the Indians of/ this low country are fast losing their/ native language and customs and/ merging in the general population, but/ when I reach those who still retain/ their tribal connection and name I/ will try to take some notes in regard/ to their language, customs, etc./

On the morning of the third day/ from Para [Belém] we broke out of the nar-/row furos we had followed so long/ and crossing the main channel of the/ Amazon, which is perhaps fifteen/ miles wide at
that place, anchored in/ front of the little village of Macassa [sic; Macapá]./ This is on the north shore of the Am-/azon and instead of the low, muddy/ shores of the islands, that all appear/ to be formed of the sed-iment of the/ Amazon. We saw [sic; Amazon, we saw] a great bank of/ red sandstone rising up fifteen or/ twenty feet above the water. This/ covers several acres and upon it/ stands a large fort built8 of the same/ material. This rock is worn down to/ water level where the village stands,/ but in the river in front of the vil-lage/ a little remnant rises up to the same/ height as the main rock. It has the same color and strata, and plainly/ shows that that [sic] the great river has/ been wearing away as well as build-/ing up in these parts./

The village, half buried in palm/ trees, the great rock and fort and the/ little detached crag, form a pleasing/ picture and I regret that I have no/ knowledge of drawing./

After sending the last of our pas-/sengers but myself ashore in the boat,/ we steamed away again and soon lost/ sight of the great river among the/ fu-/ros and islands. Just at night we/ came to anchor in a little bay between/ a couple of islands that forms the har-/bors of Chaves, the river often being/ so rough that the boat does not run/ there. A little schooner soon drew/ up beside us and we were boarded by/ the passengers from Marajo [Marajó]. They/ were a jolly set and boiled out of the/ schooner's little cabin like bees. Many/ of them were inhabitants of Para [Belém]/ who had been rusticating in the cam-/pos of the island. I soon had friends/ among them and found one who had/ been to the United States to school/ and spoke good English. Most of/ the Brazillians [sic] with whom I have be-/come acquainted seem to look/ upon/ the United States as almost the model/ of perfection, and are quite curious in/ regard to our schools, railroads, tele-/graphs etc., but I have been surprised/ at their lack of knowledge of geog-/raphy, one young fellow, well educa-/ted in other respects, asking if Ire-/land was a part of the United States,/ and another if the United States was/ an island. They have as little knowl-/edge of their own country as of others,/ much of Brazil being marked unknown/ or unexplored./

There are very few maps, or charts,/ or books of geography in the country/ and I should think some enterprising/ Yankee might make his fortune by/ printing a series of cheap maps, such/ as are so common at home – especi-/ally for this country, and sell-ing them/ here./

All the Brazilian [sic] steamers are fit-/ted up with an upper deck aft, that is/ open to the breezes on all sides. The/ roof and supports have rings and/ hooks for hanging hammocks, and/ here the pas-sengers lounge during the/ day and sleep at night. Though/ alone and friendless in a strange land/ and anxious for the welfare of friends/ at home, I passed many pleasant hours/ thus, swinging in my hammock and/ looking out over the yellow waters of/ the Amazon, so strong is the power of/ pleasant surroundings and good health/ to drive away gloomy thoughts./

I am under obligations for this trip/ to a young Louisiana by the name/ of McGee, who is teaching at Para [Belém],/ chancing to meet me and finding that/ I had made no application to the Bra-/zillian [sic] Government for recognition or/ assistance, but was going it alone, he/ went with me to the President of/ the Province, showed my letters and ex-/plained the object of my journey here,/ and procured me a free passage to this/ place, with a letter to the authori-ties/ commending them to assist me in ev-/ery way possible. I intend to make/ my way through the island of Marajo [Marajó]/ to the village of Cashuaris [sic; Cachoeira do Arari] on the/ other coast, near Para [Belém], but shall go/ with my host, the superinten-dent of/ police here, to his fazenda or cattle/ estate on the island of Caviana for a/ few days./

JOSEPH BEAL STEERE

Letter IX

[Peninsular Courier and Family Visitant, 10(13),
March 31, 1871]

FOREIGN CORRESPONDENCE

Number IX

ILHO, [sic; Ilha] CAVIANA,
BRAZIL, Feb. 1st, 1871.

The same day that I arrived in/ Chaves my host, Senhor Lionel, took/ me and my baggage in his canoe and/ and [sic] started for this island, a distance/ of fifteen or twenty miles. I did not/ fancy navigating the mouth of the/ Amazon any more in such shaky ves-/sels as the natives use; but we had a/ safe pas-sage; though part of the way/ there was quite a sea, the Amazon be-/ing so broad here at its mouth that/ the winds raise almost as large waves/ as in the open ocean. In the evening,/ as we drew near the island we heard/ music and saw the flash of rockets,/ and Senhor Lio-nel informed me that/ they were celebrating a festa in
honor of some saint, at the house of his neighbors, and that he intended to stop there for the night. We sailed to within fifteen or twenty rods of the shore and wading the rest of the way, and climbing a rude pair of stairs that led up the bank, we found our selves in front of a large low hut. It was built after the fashion of the country of pieces of cane and bamboo tied together with vines and thongs of raw hide, and was covered with palm leaves; the whole thing being raised on posts, above high water. One room of this was floored with rough, hewn plank and this served for the ball room. It was lighted by little rough clay lamps, made by the ne groes and filled with the oil of the an diroba which grows in the forest here. It was surrounded by rude benches, though they were made of the valuable Brazilian cedar which, torn from its home in the upper Amazon by the floods, floats down and lodges all along these shores. In one corner stood a little table, and upon this a brown earthen jar and a bottle filled with cachaca [sic; cachaça]. The dancers were of nearly all colors and conditions, the only regulation seeming to be that they should all be free. The dress of the gentlemen was generally a white shirt and pants, a coat not being a necessary article of clothing in this climate, and probably owned by few present. There was much the same display of flashy jewelry and large neckties that one will see at a back woods ball of the West. The dress of the ladies was more varied, some having costly dresses and strings of gold beads, while others danced bare footed. I noticed one young lady who wore a little French bonnet about as wide as one’s two fingers through the whole performance, seeming to think, naturally enough, that it was meant more for ornament than protection. The music was made by a couple of violins, the same number of banjos and guitars, and a clarionet. They were played alternately by nearly all the men present, there being no regular musicians. The music and dances were mostly French, and did not differ much from those at home, but as a sort of interlude between the sets, the band would play one of the simple fandango tunes when some young fellow would rise, and spreading his hand above his head, would commence snapping his fingers and dancing in tune with the music, and would thus approach the object of his choice, who would rise in time and begin the same performance, though her movements were generally of retreat rather than of advance. After a series of mysterious movements about the room of turning in unison as if in pivots and of strange pas ses as if they sought to magnetize each other, all the time snapping the fingers of one hand and then the other, in time to the music, some other fellow would step before the one upon the floor and would continue the dance. The lady would be received in the same way, and thus the dance would go on until all who wish ed had taken part, when they would begin a regular cotillion or waltz again. They call this landeau [sic: lundu], and say that it is an ancient dance of Portugal [sic], but very similar to the fandango of the Spanish. It gives great room for personal peculiarities and preferences, some dancing it with cold formality, others expressing much feeling and passion by their movements.

About midnight the dancing eased and drawing aside a sail that parted on one corner of the room, they all knelt before the household gods, which were kept in a little wood en case, and consisted of an image of Christ upon the cross, at the foot of which there were several grotesque figures to represent the Roman soldiers, St. John, Mary, etc., and another image of the Virgin with several pictures. After chanting a song, or a pro nobis, in mixed Latin and Portuguese, which seemed to include a pretty large scale of all the saints in its supplications, the female part of the congregation kissed the images, and the men made an awkward bowl and scrape of the foot before them, and the candles were put out, the curtain drawn, and the dance went on with renewed zeal.

The host seeing that I took no part in the dancing, swung my hammock in a shed adjoining, and tired with the day’s tossing in the narrow boat, I went to sleep with the music clashing away within a few feet of my head. On waking up in the morning they were still dancing though the cup of cachaca [sic; cachaça] was passed oftener to keep up the spirits of the flagging. I was pained to notice that the ladies were not treated with the same respect as the gentlemen, others expressing much feel ing and passion by their movements.

At noon there was a great dinner of beef, farinha and rice, and a little wine, and toasts were given and re sponded to in modern style. It seems that the inhabitants of the Island, being nearly all cattle farmers and living at distances of from six to twelve miles apart, have these reunions five or six times a year to increase their acquaintance and friendly feeling. At four o’clock in the afternoon when we left, dancing was still kept up, but the cachaca [sic; cachaá] was beginning to tell and many were getting boisterous.

We arrived at the fazenda of Senhor Lionel after dark, and the next morning, his horses had bro-

\[^9\] _Andiroba – Carapa guianensis_ (Meliaceae).
ken out of/ the carrol [sic; corral] during the night, we started/ on foot to look for them, accompanied/ by a little Indian herdsman riding an/ ox and carrying the lassos./

This island and those of Marajo [Marajó] and/ Mexiana are nearly all campo, there/ being but a narrow strip of woodland/ around the coasts and extend- ing into/ the campo along the little streams. The campo of this island seems as/ level as the ocean as far as/ the eye/ can reach. It looks much like an old/ neglected orchard, having low scrub-/by trees scattered all over it that look/ much like old apple trees, cling- ing to/ the branches of these trees are many/ prickly leaved agaves [sic] and different/ species of tree orchids, though the/ latter are unfortunately not now in/ blossom. The sharp spines of the/ agave furnish a secure resting place/ for many species of birds. The cam-/po is cut up with many sluggish/ streams that serve to collect the rain/ and slowly conduct it to the river. In the bushes along the banks of these/ streams I saw many birds that are pe-/cular to the campo, among them a/ little black fellow with a white head./ and another with the breast such a/ bright carmine, that it seemed to be/ painted. From the streams them- selves rose many a species of water-/fowl, and in the more open parts of/ the campo the huge jabirus and toyu-/yus – the storks of this country – were/ stalking about./

My host is the owner of over two/ thousand head of cattle and we could/ see them in herds on every side feed-/ing upon the tussocks of coarse grass/ and rushes with which the campo is/ covered. His herdsman gradually/ collected them together until they had/ over a thousand bellowing frightened/ fellows gathered together in one place,/ and then while the rest kept riding/ around the herd and keeping it crowd-/ed together, my host and his princi-/pal herdsman rode into the mass of/ cattle on trained oxen and examined/ them for wounds, which soon prove/ fatal if not attended to in this climate. /I saw several bleeding from wounds/ that my host said were made by/ the vampire bat. I could find none who/ had seen bats in the act of making/ these wounds, but the farm- ers here/ laugh at any one who has doubts in/ regard to it, and as many of them/ live with their cattle day and night it/ is probable that if any other animal/ did the injury they would discover it. As soon as the men found a wounded/ animal they threw their lassos and/ soon had it lying sprawling on the/ ground, when they covered the wound/ with poison to keep away the flies./ These cattle are raised solely for the/ market of Para and are worth on the/ island about thirty dol- lars each. I in-/tend to collect here for a few days/ and then try the island of Marajo [Marajó],/ and if possible make my way across/ toward Para from which place you/ will likely hear from me next time I/ write./

JOSEPH BEAL STEERE

Letter X

[Peninsular Courier and Family Visitant, 10(14),
April 7, 1871]

FOREIGN CORRESPONDENCE

Number X

ILHO, [sic; Ilha] CAVIANA,
BRAZIL, February 14th, 1871.

Finding much game here, I put off/ going to to the island of Marajo [Marajó], until/ the sixth of this month, when the/ winter rains set in suddenly, rais- ing/ the streams and lakes of the islands/ so that my host advised me to give/ up my long intended trip through that/ island, and I shall take passage with-/in a few days on one of the cattle/ transports direct for Para [Belém]. I have/ collected a hundred birds here10, many/ of them very beautiful, among these/ parakeets, trogons, toucans, and oth-/ers just as beauti- ful that I do not/ know what names to give. I have/ had the greatest trouble in preserving/ and drying my specimens after I had/ collected them. The weather is so/ damp that boots and shoes after stand-/ing a day in the house will be co-/vered with a blue mould, and water/ will often run out of the barrel of my/ gun after standing in the corner over/ night. I have lost several fine birds/ from this cause, but I think that the/ hundred I now have are safe. I shall/ be glad with when May brings brighter skies and drier ground. I have also/ procured three howling monkeys, or/ guaribas – as they are called here, two/ specimens of opossums, a small spe-/cies of alligator, many insects, shells,/ plants, etc. The first monkey that I/ shot was eating fruit in a tall tree,/ and when I picked him up and ex-/amined his feet and hands and looked/ at his countenance, I felt a little as a/ man must feel who has committed murder. My next trial was eating a/ part of him for my supper, but the/ slim fare of farinha and salt, half-/dried and half-roasted beef, that I had/ been living upon had fitted me to/ eat almost any- thing and under the/ circumstances it tasted good, much/ like chicken. After the first trial I/ could kill

10 Brodkorb (1937) published a list of the 49 species of birds collected by Steere in Caviana Island [See Appendix III].
and eat them without com-/punctions of conscience. They are/ about as large and lank as a fox hound,/ and jet black, and when full grown/ have about a third of the tail red. They/ generally go in troops of eight/ or ten which I think were fam-/ilies, comprising all sizes and sexes./ While ascending in the forest silently/ waiting for game, I have several times seen/ troops of them passing along./ generally led by the father of the/ family, the rest following playfully af-/ter, throwing their long tails from/ side to side and catching at the limbs/ of the trees as they swung them-/selves from the top of one to another. I/ don’t think they ever descend to the/ ground of their own accord. Their/ howling sounds much like the noise/ made by a drove of enraged hogs/ and may be heard at a distance of/ several miles. It seems to be pro-/duced by the vibrations of a proto-/berance under the chin. They howl/ most during the evening and early in/ the morning, and are also noisy just/ before and during a storm. The ne-/groes point to the finger nails of these/ monkeys, which are very human in/ their appearance, and say that for-/merly the merly the negroes were men, thus/ inverting Darwin’s theory and mak-/ing the lower animals reduced and/ degraded men instead of man a per-/fected and enlightened animal. Not-/withstanding this belief in their hu-/man origin the negroes are ready to/ eat them whenever they can get them,/ and consider them especially good for/ the sick. I have generally hunted mornings/ and evenings, and spent the middle of/ the day in preserving what I had col-/lected. While at work at this, an old/ grizzled negro, belonging to the es-/tablishment, whose principal business/ seems to keep a sort of almanac/ by cutting notches, in Robinson Cru-/soe’s style, in the long smooth rods/ forming the leaf stalks of the miriti/ palm, short ones for the week days/ and long ones for Sundays, and tak-/ing a new rod for each month, is ac-/customed to hobble out to the shed/ where I work, and wonder at my/ steady labors. He expresses his as-/tonishment generally in the words,/ “obranco [sic; o branco] tem paciencia”. The white/ has patience. This with “the peculiar chuckle” that/ the negroes use to ex-/press admiration is about all his won-/der will allow of his uttering; but/ when I brought in a large bundle of/ plants, his gravity broke down alto-/gether, and laughing until he nearly/ shook his old body to pieces, he said/ something about my carrying all of/ the woods off with me. He seems to/ have quite a mind to assist me, and/ when I killed my first toucan, a large/ and splendid bird, he offered to heat/ water to scald the feathers for me;/ and finding that I did not like that/ mode of procedure he picked up the/ bird and before I was aware of his/ intention begun stripping the feathers/ from it with his fingers, not thinking/ it possible that I could have any other/ use for it than to eat it. I have been astonished since I came/ into this country by the similarity of the notes of birds here/ to those of/ birds of the same family at home. The/ doves all coo whether perched/ in the palms of Brazil or on the oaks/ of Michigan. The owls all hoot. The/ thrushes may be distinguished as well/ by their song as by their form and/ color. The goat-suckers all sing in/ the night and their notes whether few/ or many are all similar to those of/ the whippoe will that used to sing un-/der the window in the long sunset/ evenings of our boyhood. One would/ think that long ago all the birds of/ each family had lived together and/ had a common song; but as with men/ at Babel, there came a confusion of/ tongues, and scattered over the earth/ they all now sing some remembered/ part of the primal song. I should/ think that naturalists would make/ more of this peculiarity in their study/ of species and genera, than they do./ Life in this country like the lan-/guage of the people must be very/ similar to that of ancient Rome/ The/ people live in the cities. The owners/ of estates always have their houses in town/ and pass most of their times there,/ and when on their estates consider/ themselves as merely staying for the/ purpose of making money, and not/ in reality living. Their estates are/ left much of the time in the hands of/ factors and slaves. This life in town/ with all its temptations to immorality/ and dissipation, to which this people/ seem especially open, is very differ-/ent from the pure healthy country/ life of the majority of the American/ people, and which is probably the real/ secret of our success in self-govern-/ment. They take no means to make/ their life on the estates comfortable./ Roads in this part of the empire are/ unknown and they make their way/ from one estate to another on horse-/back by blind cattle paths. Their houses are rude and un-/comfortable,/ and often form part of the cattle car-/rol [sic; corral], or the lower part is used as a/ sheep fold. Gardens are never heard/ of, the most they do in this direction/ being to plant a huge bush of red/ peppers, which they use a great deal/ in seasoning their beef. The negroes/ will generally plant a few flowers, and/ curiously enough, instead of culti-/vating the gorgeous tropical plants/ that are native to this country, they/ plant roses, pinks, china asters and/ portulaccas, just such flowers as we/ see most commonly at home./ The soil of the island is mostly clay,/ and seems much richer than the sandy/ soil of the main land. Much of it is/ annually covered by the overflow of/ the Amazon, and I should think that/ it had all the ele-
ments of fertility of the valley of the Nile, and might raise barley and rice enough to feed a great nation, or sown to more nutritious grasses might support millions of fat Durhams and Devons, while now, un-fenced and unplowed and covered with coarse rushes, it furnishes poor food for but a few thousand small and half wild cattle.

Though I eat at the table of the owner of thousands of cattle and sev-eral leagues of land, I have nearly starved on the farinha and jerked beef that make up the fare here, and am glad enough to eat the monkeys, toucans, parokeets, etc., that I kill for their skins. The slaves sometimes bring me armadillos and the smaller species of alligator, though they gen-erally mutilate them so in killing them that they are useless as speci-mens. The armadillo, baked or boil-ed in the shell is good eating, much like roast pig. The flesh of the alli-gator is coarser, though I or boil-ed in the shell is good eating, much like roast pig. The flesh of the alli-gator is coarser, though I

I returned here in the little schooner Flor dos Anjos, — Angel’s [sic] Flower — which brought a load of forty-four head of cattle to this market. We had a passage of four days, running out into the ocean around point Mar-quiery [sic; Cabo Maguari] and then up the river to the city. The cattle were lassoed and drawn into the water, and then drag-ged up the vessels [sic] side by the horns with a rope and pulley and dropped into the hold, where they remained for the four days of the passage with-out food or water, when they were unloaded in the same way and driven into yards where they were to stand without food until sold and slaughter-ed, which generally takes several days more. I saw many cattle in the yards that were so poor that they could hardly get up alone, and it is upon such beef as this that the peo-ple of Para [Belém] live. The voyages are often six or seven days in length and the pilot told of one of ten days. When they arrived at Para [Belém] several of the cattle were dead and dying and the authorities would not receive them; but they dressed them and salting the meat sold it up the river. The owners of these large cattle es-tates are now talking of buying one or two small steam-boats in the United States for the transportation of Brazil. I was also pleased to find a young man here waiting for me from Massachusetts, who is here for the purpose of making a private collec-tion, and intends to keep me company, at least for awhile.

I see from the COURIER, that efforts are being made to secure aid from the State to build a chapel, etc. It seems as if it is absolutely necessary now to keep the University in the place it holds among the colleges of the United States and especially of the West. The Universities of the East will not always educate our orators and historians and poets. Education and cultivation as well as wealth and political power will eventually take their way west. If the University of Michigan can be kept in its present commanding position the peninsular State will be the future center of intellectual power in the West, for men of education naturally cluster around the Universities that educate them. But it will not keep this position without a struggle; other western colleges are doing all that can be done with money to outweigh its reputation, and it will not do for it to lose its best professors for being overbid by other colleges, or to close its doors against students for whom it has no adequate room or means of education. The alumni are all young men yet, and just making names and fortunes, and none of them are ready to drop off and leave the University large bequests, so that if help comes at all it must come from the State.

Letter XI

[Peninsular Courier and Family Visitant, 10(15), April 14, 1871]

FOREIGN CORRESPONDENCE

Number XI

Para [Belém], Brazil, Febr. 25th, 1871.

I am back again in my old quar- ters, after an absence of five weeks upon the islands; but Para [Belém], though this is the season of Lent, looks much more cheerful than it did when I left it, for on my return I found letters and papers from home with good news of health and prosperity and with means to continue my journey as far as I may wish, after full five months, of utter ignorance of affairs at home, this was almost too much joy for one day. I read and re-read my letters and then swinging my hammock I sat down and read again until I had extracted and absorbed every particle of news, and though wet and tired, and almost sick with my exposure on the islands, I don’t think there was a happier man in...
their cattle, and this will be much better both for them and the consumers.

These islands that are covered with campo have not been formed of sand or mud brought down by the river or driven in by the waves of the ocean like the others about them, but are solid beds of clay that have evidently formed the bottom of the river and have perhaps been raised above wa-ter level by some slight volcanic ac-tion. They are likely kept from growing up to forest by fires, that run over them during the dry season. I saw several places where fire had been running recently, and where these fires had encroached upon the forest, they had killed nearly all the timber. Two or three species of scrubby trees, that grow upon the campo, have very thick, corky bark, that seems to be a good protection against fire, which has scarred and blackened many of them nearly to the top without killing them.

JOSEPH BEAL STEERE

Letter XII
[Peninsular Courier and Family Visitor, 10(17), April 28, 1871]

FOREIGN CORRESPONDENCE

Number XII

Para [Belém], Brazil, March 20th, 1871.

I have spent the last three weeks in preparing and packing the results of my trip to Caviana, and in purchasing cans and cases and other neces-sities for my trip up the Amazon. I have had the proverbial slowness, and procrastination of this people to contend with, but am getting accustomed to it so that I can now swing in my hammock and wait for to-morrow, with almost Brazilian patience. Mr. Lyman and I have procured letters to several of the proprietors of the island of Marajo [Marajó], and we shall go there as soon as we can find a vessel to sail; though the weather is very bad for collecting and preserv-ing at present, rain falling every day; but if we can do anything it will be preferable to waiting here for better weather. The rain storms in this country are generally accompanied with very little wind, or thunder and lightning, but the rain comes straight down flooding everything in a few minutes.

I returned from Caviana just in time to see the last and maddest part of the Carnival. The people seemed to have given up all business, and dressed in their holiday best, were either watch-ing the sport going on in the streets, from their windows and balconies, or were below bearing a hand in the gen-eral festivities.

The trays of the fruit women in stead of loads of oranges, bananas, bacuri [Plantonia insignis (Clusiaceae)], etc., were covered with little waxen balls filled with water of va-rious colors, which were brought bought and thrown from the balconies at the pas-sers by, or from house to house across the street. This seems to have now become but little more than childish play, but it is said to have been car-tied so far formerly, as to make umbrellas necessary to prevent a thoro-ugh drenching. Here and there through the city little squads of masks were seen, performing upon their own res-ponsibility, but the principal inter-est was centered upon a large procession of them, the members of which seem-red to personate public characters, both civil and religious; some hav-ing the shaven crown of priests and other the robes and cassocks of the various orders. They were accom-plished by a band of music and were in no hurry to pass, but stopped to make speeches and strange pan-tomimes to the people along the streets. There were great sights and perform-ances at the suburb of Nazaré; and among these a fountain of Florida water – a kind of perfumery manufactured in New York, which has a great reputation here.

Lent was ushered in with more than usual attend ance upon the services at the different churches. I almost changed my mind as to the infidelity of the higher classes, when I saw the principal men of the city laboring along the streets, carrying upon their shoulders life-sized images of the Vir gin Mary and other saints.

These images were planted upon large platforms, which were covered with flowers, rock work, etc., and must have been heavy, judging from the red and sweaty faces of the bearers. The first great proces-sion was upon Ash Wednesday, when all the images of the city seemed to be upon the street dressed in their richest and brightest colored robes.

I think there must have been as many as thirty of these large-sized fig-u res in sight at one time along the street, each being accompanied by a little band of bearers, who at inter vals relieved each other of the bur den. They carried large wax tapers in their hands, for use at night, or in the churches, and each band was distinguished by the color of the robes of its members. The regular steps of the bearers gave the images a motion that was almost life-like, and one could almost imagine, as an im-age of the Savior, with
hands ex-/tended, passed, that he was blessing/ the multitude kneeling below; or/ that – Mary at the tomb – was actually/ weeping and wringing her hands./

The silence and attention of the/ people showed their sympathy with/ the sight, and the heart would be hard/ indeed that could not be moved at the/ scenes thus brought to mind. When/ an image of especial sanctity came/ up, the people spread their handker/- chiefs upon the ground and knelt un-/til it had passed by; and even the/ troops lowered their muskets, took off/ their caps and knelt in long lines be-/fore it./

A few days afterwards there was/ another great procession, that com-/memorated the scenes of the crucifix-/ion. At its head was carried an im-/age of Christ of life size, bearing the/ cross, and accompany-/ing it were sev-/eral little girls of six or eight years of/ age dressed as angels, with bright col-/ored dresses and great wings upon/ their shoulders, that were colored/ like the wings of butterflies. These/ little angels bore the hammer, nails [,]/ ladder, and other implements sup-/posed to have been used at the cruci-/fixion./

Ever since I first saw the almost/ idolatrous super-/stition of the lower/ classes, and the seeming indif-/ference/ of the better educated here, I have/ despaired of the feeble influence that/ a few missionaries, scattered/ here and there, may have towards intro-/ducing a more enlightened Chris-/tianity among this people, especially/ while we are sending to those shores/ by every ship, sailors, engineers, cap-/tain, and I might say, consuls, who/ have no respect for religion; but en-/ter into all the immoralities of the/ people here with such a zest that the/ natives are astonished. The most/ drunken, besotted wretches I have/ ever seen here called themselves Eng-/lish and Americans, and the drunken-/ness of the English has even become/ proverbial, so that when a man of/ any nation is beastly drunk, they call/ him: good English./

These people all call themselves/ Catholics, and that church has to/ bear the weight of their immo-/ralities, and in the same way they take all/ Americans and English for protest-/ants, and judge of our reli-/gion by the specimens that we send over./

I don't wish to say a word against/ these noble, and self-sacrificing men/ who leave home and friends to preach/ the gospel in foreign lands; but it/ seems as if a part of the same zeal/ and enterprise, and money, would be/ well laid out in more determined and/ systematic efforts to Christianize the/ great body of men who man our com-/mercial navy, and who, if Chris-/tians, would carry the great tidings to every/ port on earth, as they now carry oaths/ and obscenity. I have found several/ men here who know no Englis but/ oaths that they had picked up in this/ way, and they would repeat them to/ me, thinking that I would be pleased/ to hear my native tongue spoken./ The only offset to these evils is the/ influence of those Brazilians who have/ been in the United States, and have/ attended our churches, and have seen/ the real Christians of our country./

I was passing along the street the/ other day and seeing the open window/ and door of an image manufac-/tory:/ I entered and had quite a conversa-/tion with the proprietor in regard to/ the manufacture of this staple, pricing/ several of the saints, among others,/ some black ones with wooly hair, that/ find ready sale among the negroes/ here, who are pleased to have a saint/ among their kindred. When he found/ that I was an American, he told me/ that he had a son in the United States/ at school, who had written to him/ much about our religion and the/ seventy [sic; rever-/ent] manner of our people while/ attending service in the churches, so/ different from the behavior of the/ people here./

That son of an image maker, who/ may be unknown and uncare for by/ Christians in the United States, is/ likely doing more by his letters to/ change the belief of this people to/ something better, than a missionary/ here, with all the prejudice of race/ and religion, and the difficulties of/ the language to contend with could/ do. In spite of the poor specimens/ of our people who make their way to/ this country, the Brazilians have the/ highest opinion of our schools, manu-/factures, and all that goes to make us/ a people, and it is the highest ambi-/tion of many fathers to send/ their children to the United States to/ school./

It is through these educated and/ Christianized sons, at it seems to me, that this people can be most easily/ reached. If we were as zealous and/ enterprising Christians as we are/ merchants, farmers, and manufactur-/ers, the whole would be Christianized/ within twenty years from the mere/ force of our example./

JOSEPH BEAL STEERE

Letter XIII

[Peninsular Courier and Family Visitant, 10(18), May 5, 1871]

FOREIGN CORRESPONDENCE

Number XIII

PARA [Belém], BRAZIL, April 3, 1871.

We are back again in the city of/ Belem or Gram Para [sic] after a stay of/ eight days at the little vil-
lage of/ Soures [sic; Soure], on the island of Marajo
[Marajó]. We/ had a very pleasant trip considering/
the state of the weather, and our let-/ters of introduc-
tion insured us good/ treatment. The village of Soures
[Soure] is/ much higher than the greater part of/ the
island, there being a ridge of/ high land reaching from
the river/ Araré [sic; Arari] to this village, that appears
to/ be of the same formation at the main/ land on
this side, while the rest of the/ island seems to have
been formed re-/cently of the mud of the Amazon or/
from sand blown in from the ocean./ The shores of
the igarape [agarapé] at the/ mouth of which Soures
is situated/ have rocky banks, the rock being the/
same sandstone that is found trough-/out this coun-
try, though much harder/ than usual and filled with
crevices/ that are generally perpendicular and/ make
the rock appear almost colum-/nar. This rock over-
lies beds of/ white clay that are in many places/ most
beautifully colored with red/ and yellow. The shores
toward/ Point Marquary [sic; Cabo Maguari] lose this
rocky char-/acter and are blown up into sand/ heaps
that made me think of the/ eastern shore of Lake
Michigan,/[sic] though the hills are lower and instead/ of
being covered with scrubbby pines/ and cedars, have
the peculiar trees of/ this climate, but bent and shorn
by/ the wind in the same manner. These sandy shores
make a splendid place/ for bathing, the surf rolling
in great/ waves at all times. The little Indians/ and
negros would dive through these/ waves, turn sum-
mer-saults in them,/[sic] and perform at many antics as
por-/poises; but I could only hold my/ breath and let
them pass over me;/ when I would often be taken up
and/ carried quite a distance toward shore. The only
draw-back to the pleasure/ was the fear of sting rays,
which are/ no myths here, but are often seen in/ the
fish market for sale. They are/ quite small, not being
which are/ no myths here, but are often seen in/ the
fish market for sale. They are/ quite small, not being
larger than/ a foot and a half long, but they/
have a couple of spines in the tail/ with which they are
ready to strike/ anything that touches them."

The wounds made by them are very/ severe, and
I saw a sailor, who was/ stung by one while bathing
in the/ river, who could not touch his foot to/ the
ground for nearly two months./

In the dry season the water here is/ salt and the
fish and shells of the/ ocean make their way up; but
as the/ rainy season comes on, swelling the/ volume
of the Amazon, the salt water/ is driven down below
Marquary [sic; Cabo Maguari], and/ the fresh water
fishes follow down/ and occupy the places vacated by/
their briny brethren./

It would be a matter worth the at-/tention of
some naturalist to note the/ change of animals and
plants, de-/pending upon this annual change/ from
salt to fresh water in the mouth/ of the Amazon. I no-
ticed many shells/ of a common salt water species ly-
ing/ up on the beach; but they were all/ dead and oc-
cupied by little hermit/ crabs, that carry them about
upon/ their backs in a manner that would/ astonish
the original owners. There/ are a few species of fish
and shells/ that seem to thrive equally well in/ salt or
fresh water, and I found the/ great purple edible crabs
sidling/ about in the mangrove swamps seem-/ingly
as much at home as if in their/ native element, a sup-
ply of which/ they had perhaps stored up in their/
underground passages, into which I/ sank knee deep
at every step as I/ crawled about to get a shot at the/
beautiful pavons and kingfishers, that/ seem to espe-
cially delight in such/ places./

These mangrove swamps, which/ are found
wherever salt water can/ reach, are a real curiosity. The
man-/grove throws out roots all the way/ up to twenty
feet above ground, and/ these roots often reaching the
ground/ throw out others, and thus the swamp/ be-
comes a perfect labyrinth of these/ inverted branches,
and one can often/ make his way better by climbing
from/ one to another like a monkey than by/ trying to
walk on the ground./

These trees often throw out these/ roots with all
the regularity of the/ real branches above, and with a
trunk/ no thicker perhaps than ones [sic] wrist/ at the
ground, a tree will go on in-/creasing in size as these
huge braces/ come in, until at a height of twenty/ feet
it may be a foot and a half in/ diameter; but the real
branches now/ soon begin and the trunk decreases
in/ size to the top, so that the tree is/ largest in the
middle and tapers to/ both base and top./

We made several trips into the/ woods and col-
clected some fine birds/ and had considerable sport
in hunting/ the little (macacos de cheiro)[12], that be-
long to a family of monkeys much re-/sembling our
squirrels in size, color,/ and even voice. The species
we/ procured was about the size and color/ of the fox
squirrel of the West. We/ also procured several of an-
other and/ larger species of the sloth, the (pre-/guica
seal [sic; penguíca-real][13]). They seem perfectly in-/ca-
cable of rapid motion, even when/ urged by blows and
gun shots and/ when captured, would go to sleep
in/ our hands rather than try to escape./ We cut down
a tree full of the large/ and beautiful purse shaped
ests of/ the javpou [japiim][14], but found no eggs, a
pretty/ opossum having eaten them and/ taken up her

12 Macaco-de-cheiro – *Saimiri* spp. (Primates, Cebidae).
13 Preguiça-real – *Choloepus didactylus* (Linnaeus, 1758)
   (Edentata, Megalonychidae).
14 Japiim – *Cacicus cela* (Linnaeus, 1758) (Passeriformes, Icteridae).
residence (with her/ young) in one of the finest of the/ nests. A little negro boy came run‑ning in one morn‑ing with news that a/ tiger had just left the beach and gone/ into the woods near by; but though/ we hur‑riedly loaded our guns with/ charges that would have left little of/ her spotted skin for a specimen if we/ had found her, we saw nothing and had to shoot our heavy loads at the/ little monkeys much to the damage of/ our shoulders./

We made the trip and returned in/ the cattle boats of the country, and I/ am getting quite accus‑to med to the/ little low, narrow cabins, and the box/ of dirt on the bow, which serves for/ a cook stove, where the crew roast/ their fish or beef, and boil their coffee./

The deck is generally covered on/ the return trip with bamboo baskets/ of (bacure [sic; bacuri]) or other fruit with a few/ baskets of the same material hung/ over the sides of the vessel, in each/ of which three or four poor cramped/ chickens take their passage to market./ One will generally see one of the (ja‑butis) the great land turtles of the/ country tied to the mast or the deck,/ while a string of the little mud turtles/ lie near to keep him company./

These little perquisites [sic] seem to be‑long to the various members of the/ poorly paid crew, who thus contrive/ to make a few vintins [sic; vinténs]. Below the/ deck are long rows of lank cattle/ lashed tightly by their horns to each/ side of the vessel./

When the skies are bright and the/ winds favor‑able the guitar is always/ sounding, while some one of the crew/ accompanies it with a love song, and/ as one lies on deck in the shade of/ the sail and listens to the music or/ gazes down the great river where/ islands have faded in the distance;/ but left the tops of their taller trees/ looming up like fleets of lofty ship,/ he may with truth call it pleasurable;/ but when night comes on, with the/ rain beating on the leaky cabin/ roof,/ while lying stretched on the hard/ floor, with the variously colored crew/ piled upon and about you, in a room/ scarcely large enough for one, you be‑gin to doubt the enjoyment, and when/ some maddened ox makes a sudden/ lurch at his rope, which is sure to start/ a dozen more to try the same experi‑ment, making the hollow sides of the/ vessel to fairly roar again, just as you/ have got to dreaming of drier skies/ and softer couches, you begin to think/ it quite uncomfortable. But as mor‑ning breaks the crew crawl/ out, put on/ their wet clothes, or go without, smoke/ a paper cigar and seem to consider/ this a fair part of the world to live in./ and why should an Ameri‑can, from/ the boasted land of pluck and enter‑prise, grumble./

While I was at Soures [Sourer] I heard of/ Indian remains in the interior of the/ island, and was given two curious/ dishes that had been dug from them./ These dishes are much better made/ than those new in use in the country/ and are still strong and sound after/ their long burial. I intended to re‑turn within a few days and try to/ make my way to these mounds and/ remains to see for myself; though the/ people de‑clare that it is impossible at/ this time, that the country is all over‑flowed and covered with alligators,/ tigers, etc; but I have found that/ many of the dangers of this country/ prove imaginary on trial, and as I have/ already lived through the attacks of/ formigas do [sic] fogo [formiga‑de‑fogo]15, carapawas [sic; carapanã]16, sand/ flies, and a host of other pests, and/ I think I will survive the alligators./

JOSEPH BEAL STEERE

Letter XIV
[Peninsular Courier and Family Visitant, 10(25), June 23, 1871]

FOREIGN CORRESPONDENCE

Number XIV

RIO ARARE [Rio Arari], BRAZIL, May 1st, 1871.

Lent in Para [Belém] closed as it opened,/ with processions and parade. One/ great procession on Good Friday/ seemed to represent the scenes that/ took place at the death and burial of/ Christ. An image of life size was/ carried upon a bier and was accom‑panied by a military band playing fu‑neral marches. A number of little/ girls followed, dressed, as in a for‑mer procession, as angels and carry‑ing the implements used at the cruci‑fixion. One little thing carrying a/ plate with the dice that were suppos‑ed to have been use [sic; used] in casting lots/ for Christ’s clothing; another a rod/ with a sponge, and a third a hand‑kerchief with a picture of the face/ of Christ upon it. The proces‑sion was stopped at intervals and/ this last one was lifted upon a stand/ that was carried along for the pur‑pose, when she unfolded the hand‑kerchief and chanted a hymn. The/ colors of the Brazilian [sic] and Portu‑guese vessels in port

15 Formiga‑de‑fogo or lava‑pés – Solenopsis saevissima (Muniz, 1917) (Hymenoptera, Formicidae).
16 Carapanã – Name given in Brazilian Amazonia to the Culicidae.
were at half mast/ and their yards crossed, and with the/ exception of an English or American/ vessel here and there, that held its/ yards square as if in defiance of this/ mummerly, the whole city and harbor/ wore the appearance of deep mourn- ing. My friend began/ in the next morn- ing by sing [sic; singing] Old Hundred/ or some/ other piece of Church music; but the/ landlord entered our room and in- formed him that no singing was al-lowed upon that day, and brought his/ music to a very unceremonious close./

The Saturday following was the day/ set apart for taking vengeance upon/ the traitor Judas, and various effigies/ of him, made of rags and straw were/ drawn through the streets, and cuffed/ and kicked by the rabble that follow- ed to their hearts [sic] content, prepara- tory to the final hanging or burning,/ to which they were subjected. Easter/ ter [sic] Sunday was a day of general re- joicing; the solemnity of the people/ had exhausted itself; cannon and/ rockets were again in request, the/ stores and shops were opened and/ life flowed on as usual.

After a few days of waiting I found/ a little schooner going to Marajo [Marajó], and/ taking passage, again alone, after a/ pleasant trip across the bay, I found/ myself at the Arare [sic; Arari] River, the long- est/ river in the island, and the outlet of/ Lake Arare [sic; Arari]. It is at this place, twenty/ miles from its/ mouth, wider than the/ Huron at Ann Arbor and with depth/ enough to float an iron clad, though/ the little steamers from the campo are/ crowding it at this season/ in advance of the tide. It can be/ heard at/ quite a distance and makes/ it rather dangerous for/ small canoes,/ often upsetting them. The river Ar-/are is noted for its fish, and there are/ many/ gypsy birds/ were feeding upon the broad leaves/ of these callas or were building their/ nests far out over/ the wild cane, out of reach of the long/ arms of the mon- keys chattering in/ the trees overhead. Here and there/ alligators lay floating upon the water/ like old logs, but as we came nearer/ they plunged to the bottom. Islands/ of grass and lilies that had been torn/ from the banks of the lake and river/ above were slowly floating toward/ the ocean, and I really seemed to be/ in that wild and rich Brazil I had/ dreamed of./

I am stopping now with Captain/ McGee, with whose son I had already/ become acquainted in the city. He/ is an old sugar and cotton planter of/ Louisiana but losing his slaves and/ most of his property during the war,/ he bought a schooner and set sail with/ his family for Brazil. After examin- ing the country/ further south and/ then going up the Amazon quite a dis- tance, he concluded that this was the/ most fa- vorable point for settlement/ and selling his schooner he has set-tled down here alone. Lacking means/ to go into cattle raising, he has broken/ a pair of the native cattle to the yoke/ and is raising sugar cane, rice/ and mandioca, that astonish the natives/ though his shallow ploughing seems/ rather trivial in comparison with the/ deep tillage at home. The place,/ though higher than most of the coun- try about, is pretty well/ flocked at/ present and his corn, sweet potatoes/ and tobacco were poor, the heavy/ rains being almost as fatal to such/ crops here as the frost in the States. The Captain's blue-eyed and flaxen-/haired children seemed out of place/ in this dusky land, but they have/ learned to speak Portuguese as read-ily as Eng- lish and the boys throw the/ lasso with the skill of the natives./

I having been wading about the/ campo for sev- eral days and have shot/ a few birds, among them a meadow/ lark that resembles that familiar bird/ of our fields so much that I thought/ this one had strayed from home, but/ it proves to be another species./

I saw many broad trails where the/ great ant eat- er had trodden down the/ grass on his way from one/ nest of the/ white ants to another, but I saw noth- ing more of him./

I have seen here for the first time/ what the natives call the (pororoça)/ a great wave that rushes up the river/ in advance of the tide. It can be/ heard at quite a distance and makes/ it rather dangerous for small canoes,/ often upsetting them. The river Ar-are [sic; Arari] is noted for its fish, and there are/ many fishermen passing in small ca-/noes watching for (pi- raru cu [sic; pirarucu]19) and/ (peixe boi). They strike the fish with/ a harpoon as they rise to the surface/ to breathe. The harpoon has a shaft/ six or eight feet long/ loosely fitted/ into the socket of the barbed blade,/ to/ which a long and strong line is fas-tened and when the fish is struck the/ shaft comes loose and the fish is/ drawn/ up the boat by the line and killed/ with the knife./

The (pixie boi)3 [sic; peixe-boi] (ox fish) seems by/ the description given to be a seal [sic]. They are very large and valuable but/ I have not seen one yet. The (pir-/aru cu [sic])20 is a beautiful fish with large/ scales bordered with red. It grows/ to a length of four

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17 Aninga – *Montrichardia arborescens* (Araceae).
18 Ciganas – *Opisthocomus hoazin* (L. S. Müller, 1776) (Aves, Galliformes, Opisthocomidae).
20 Pirarucu – *Arapaima gigas* (Schinz, 1822) (Pisces, Osteglossiformes, Arapaimidae).
or six feet and/ weighs from sixty to one hundred/ pounds. The fishermen skin it and/ then peel the flesh from the skeleton/ and cut into large slabs, which are/ salted and dried and form quite an/ article of trade along the Amazon, in/ all parts of which this fish seems to be/ found. It is a real fish but rises reg-/ularly to the surface, to breathe as it/ seems to me, throwing a part of the/ mouth above water, after which I al-/ways noticed several bubbles of/ air would rise to the surface. I have/ noticed the same thing with several/ species of smaller fish in the river./

The captain has acquainted me/ with many of the peculiarities of the/ people of the island, among others;/ with the fact that they prefer the beef/ of their neighbor’s cattle to their own,/ and many are the expeditions made/ at night, with lasso in hand, to drag/ home some neighbor’s fat heifer, and/ the enmities and suspicions caused by/ such customs seem to be about as nu-/merous. He told me a story that pas-/ses current in the island of one of/ his neighbors, an old white headed/ man, who owns several thousand/ head of cattle. His herdsmen came in one/ evening with news that beyond a cer-/tain island of timber in the distance/ there was a herd of strange cattle./ The news seemed to renew the old/ man’s youth, and ordering five horses/ saddled, he set out at dark with his/ men toward the island. The cattle/ were found and the lasso thrown until/ each had a fat ox made fast to his/ saddle, when they dragged them home/ and killing two for immediate use hid/ the rest in some bushes until they/ should be wanted; but to the old/ man’s surprise, upon examining the/ ear marks and brands in the morning,/ he found he had been stealing his own/ cattle. It seems his sons and herds-/men getting tired of salt meat took/ this plan to get something better./

I am now anxiously waiting for a/ boat to take me to the village of Ca-/choire [sic; Cachoeira do Arari], where I shall be within reach/ of the Indian mounds I am in search/ of./

JOSEPH BEAL STEERE

Letter XV
[Peninsular Courier and Family Visitant, 10(26), June 30, 1871]

FOREIGN CORRESPONDENCE

Number XV

CACHOIRE [sic; Cachoeira do Arari],
BRAZIL, May 16th, 1871.

After several ineffectual attempts/ to hire the fishermen along the river/ to take me up to this vil-/lage, I finally/ found a canoe loaded with farinha [sic;/ farinha]/ making the passage and came up in/ that. The natives, (Tapuios), as they/ are called here, that strange mixture/ of white and Indian blood,/ which holds a doubtful position/ somewhere between the proprietor/ and slave, seem so well satisfied with/ their mud hut and canoe that they / cannot be persuaded to do hard labor/ by the offer of high wages. They/ prefer to limit themselves to a pair of/ coarse cotton pants, colored a brick/ red by some native bark, and/ to a diet of fish, and farinha [sic; farinha], and often a dearth/ of that rather to labor for some-/thing better. When they have caught/ a fish they feast in regu-/lar Indian fashion until it is gone, swinging in/ their hammocks and playing the gui-/tar, and then start off in/ their canoes/ without a morsel to eat, and perhaps/ pass a day or two fasting before they/ find another. The fact is the Indian/ is triumphant in this part of Brazil./ imprinting his customs and manners/ of life upon the whites and negros./

Some of the principal men of the/ country think that a compulsory sys-/tem of labor is all that will ever make/ a country of Brazil./

The village of Cachoire [sic; Cachoeira do Arari] has at/ this season as good communication/ by water as Venice, and though the/ houses are raised on posts, the/ water is quite often several inches deep over/ the floors, and sappling the mud walls,/ the whole side of a house often falls/ in. Though living in the water in/ this way gives many of the people/ that (sizoens) [sic; sezões] a sort of fever and/ ague, they try to keep up/ their spirits by playing the guitar and drawing up/ their hammocks out of reach of the flood and wait/ patiently for next Oct-/ober to bring dry ground. The alli-/gators find this season of high water/ a fine one for them and make frequent/ inroads upon the ducks and chickens/ of the villages./

The other night one seemed to take/ a fancy to make a meal of the senti-/nel standing at the door of the guard/ house. The soldier retreated into the/ front room but the alligator followed/ and he had to go still further back/ into the room where the other soldiers/ were sleeping. There is a dry campo/ sixty rods back of the river, but the/ people seem to prefer to live in the/ water thus, half the year rather than/ to build where they would have to/ walk a short distance to their canoes.

I was fortunate in having a letter of/ introduc-
The padre after three days of waiting, by his authority in the village, procured me a canoe with a little/ cabin made of banana leaves tied together with vines to cover me and my baggage, and three young Topuios [sic; tapuios] to take me to the (Ilha dos bichos²¹), the nearest of these mounds forts, after supplying us plentifully with provisions he gave the boys directions in regard to the journey and told them/ their duties toward me, and we started./

We soon left the narrow river or igarape guiapi [Lago Guarapi?], upon which the mound was said to be, and made our way more directly toward it across the camps./

The water upon the campo was/ generally three or four feet deep, the/ men paddling where the water was/ open and pushing the boat along with/ poles where there was much grass or rushes. We made our way for miles through pond lilies just coming into/ blossom. Their leaves and flowers/ though smaller are quite similar to the white pond lily of the North./ There were many vermillion colored/ birds with yellow wings, walking about these lilly leaves and the/ floating grass. They are called (pio-/sauke)²² [sic; piaçoca] by the natives and have the/ toes and claws much lengthened to/ fit them for this manner of life. I/ saw great numbers of the scissor/ bird, hovering over the weeds that/ rose above water, and opening and/ closing the feathers of the tail as a/ butterfly does its wings while hovering over a flower./

The whole country as far as we/ could see, was covered with water,/ and I thought I could realize the ap-/pearance of the earth to the anxious/ eyes of Noah as the flood was sub-/siding. About noon we came in sight/ of the island and after a couple of hours work came up with it. It is/ covered with trees, but appears to be/ entirely artificial, the ditch from/ which the earth was taken still show-/ing around it, but whether this ditch/ was made for defense or simply to/ procure earth to build the mound is/ more than I can tell; though the Por-/tuguese call all these mounds (for-tal-/ezas,) or forts, a name likely handed/ down from the (gentios,) or heathen, as they/ call them, and build a mound above/ water level, too stupid to take exam-/ple of the (gentios,) and all the clothing one cares to put/ on./

The natives recognizing two grand/ divisions, those that attack in the/ chivalric style of those at home, with/ lance at rest and trumpet sounding,/ and those that stealthily and silently/ stab one in the back from behind the/ hammock piercing through its meshes/ and all the clothing one cares to put/ on./

I could hear the alligators splashing/ in the river all night and the melan-/choly cry of some night bird, but as/ soon as it was light I roused up my/ crew and we went back to the island/ where we built a fire and cooked some/ coffee and roasted some fish the kind/ padre had furnished us. After break-/fasting upon this/ and forniha [sic; farinha], we dug/ a little more with the same result as/ before, and then made our way back/ here, to the house of Colonel Bene-/dicto [da

²¹ Concerning the “Teso dos Bichos” in Marajó see Derby (1879b), Gomes (2002), Meggers (1947), Meggers & Evans, 1957, Palmaraty (1950), Roosevelt (1991) and Steere (1927).

²² “Piosauke” (piaçoca). Jacana jacana Linnaeus, 1758) (Aves, Charadriiformes, Jacanidae). See no. 6 in Brodkorb’s list (1937) [Cf. Appendix III].
Silva] Frade, where I am enjoying the hospitality of his son, the Captain, the Colonel passing the winter in the city.

JOSEPH BEAL STEERE

Letter XVI

[Peninsular Courier and Family Visitant, 10(27), May 27, 1871]

FOREIGN CORRESPONDENCE

Number XVI

CACHOIRE [sic; Cachoeira do Arari], BRAZIL, May 20th, 1871.

After a few days of hunting at Tojal, the home fazenda of Captain Frade, he procured me an old man from the village, who was said to understand the route to the island of Pacoval, another ancient mound situated in Lake Arare [sic; Arari]. Upon the morning of the day appointed the old pilot arrived, and making a toldo for his canoe, and having stored a good supply of jerked beef and farinha [sic; farinha] furnished by the Captain, we set out up the river, having a couple of Ta-puios to paddle, and the old man sitting in the stern of the boat to guide it. The sky was cloudy when we started, and we had not gone far before the rain poured down in torrents, but the crew, stripping off their clothing and putting it under the toldo, bent to their work with the rain beating on their bare backs.

We cut off many long eirenits [sic; circuits] of the river by poling across the campo from one bend to another. Just at night we paddled out of the river into a little lagoon, and landing at a mud hut standing in a beautiful grove of bananos [sic], my pilot told the proprietoer without ceremony that we had come to pass the night with him, and swinging our hammocks we soon took refuge from the mosquitoes in the musqueteira [sic; mosquito] bar to be hung over the hammock and reaching to the floor all about it. In this I slept without a bite, though I heard the mosquitoes hungrily clamoring on the outside. In the morning, having made some coffee and roasted some meat for our breakfast, we were start-ling up the river when we saw a band of night monkeys in the tree and killed one of them. They have very short necks and staring eyes that give them quite an owlish appearance, and they are said to feed only in the night. The river rapidly narrows here and the belts of timber that gen-erally conceal the country behind are frequently broken, giving views of the broad campo with droves of cattle wading here and there cropping the grass and pond lillies. At ten o’clock we reached the fazenda of Arare [sic; Arari], longing to the Empire, and having an immense number of neres [?] and over twenty thousand head of cattle.

The government agent Senhor Bastos, treating me with the greatest kind-ness, gave me the permission asked to examine the island of Pacoval, which is upon the government estates and ordered breakfast prepared for me, at which I had as a variety four little potatoes about the size of walnuts, that had been imported from Portu-gal. It seems as if potatoes could be imported from the States to Brazil at a profit as they are worth from three to five dollars a bushel here, but some hard skinned variety would have to be used as the more delicate ones would not bear transportation. Leaving this fazenda, the river making a long circuit before entering it, and that we had better stop at a fazenda near and push across the campo in the morning, when we would reach the mound about noon. When we arrived at the fazenda I found we were among the especial friends of the pilot, and drawing our canoe under the house we swung our hammocks in the open verandah above. A couple of large alligators were lying in the river near, watching with hun-gry eyes the dogs and poultry about the house; loading my gun with a heavy charge of shot, I rushed off in a canoe and getting within half gun shot of the largest, I fired at his head, but he sank to the bottom with a great splash, and I lost my game.

In the morning we started across the campo toward the lake, but my pilot soon proved himself at fault, the igarape [igarapé] we had followed running out altogether in the thick grass, so that we that [sic] we had to turn about. The old man became discouraged, and thinking of the comfort back at the fazenda we had left, ordered the boys to push back, saying that it was too late now to reach the island, and that we would try it another day. It was only ten o’clock, and I thought it would hardly do to be treated in 23 See, for instance, Evans & Meggers (1957), Ferreira-Penna (1876, 1877) and Hilbert (1952).

that way, and told him that we must go to Pacoval that day, though he said we should get there so late that we must pass the night there, and pictured to me the musquitos [sic] and snakes and rain storms to be expected I told him that in my country when we paid money we expected labor in return and that I could stand the pests one night. He called me several hard names in Portuguese to the boys, said (Americanos) expected impossibility, but finding that I was master of the situation, he looked about and finding the real route to the lake we pushed on again. As we came near the open water of the lake we passed through many acres of wild rice, the real [sic red] color of the beards being apparent at a long distance. Many of the heads were ripe and the kernels dropped into the canoe as we were brushed through them. The lake proper seems to be from two to four miles broad and twelve or fifteen in length, but we could not see land in one direction. The island of Pacoval [sic Pacoval] was in sight rising up at the extremity of a low point that puts out into the lake, and after an hours [sic] hard work we landed upon it. It is covered with orange, banana and other fruit trees planted by the fishermen. It is not more than ten or twelve feet above water and about a hundred feet in diameter, but it appears to have been much larger, the lake all about it being filled with pieces of crockery and other debris and the banks are continually caving into the water.

As we came near [sic near] the bank I saw part of a burial urn that the water had uncovered, and jumping from the canoe, I was soon busy digging it out, but the pilot and crew contented themselves with wading about in the water and fishing up things with their feet from the bottom, and in this way found several curious shaped little dishes that the water had washed out of the bank. Just before night we paddled across the lake to the fazenda of St. Ignace, the proprietor of which gave me first such a little stone hatchet as we often find in our fields at home. He said that they were frequently washed up upon the beach and that the people called them thunder bolts, though he did not believe that was their origin. There is none of the stone, of which these hatchets are made in this part of Brazil, and they must have been brought from the upper Amazon, per-haps from the Andes. We went back next day and dug in the mound until about noon, finding many curious things, pieces of idols and heads of strange animals. As at the (Ilha dos bichos) the most beautiful lines and painted pottery seemed to be at the bottom, and I dug one coarse dish from near the top that differs but little from those in use here at present. The larger vases seemed to have all been used to hold the bones of the dead, but these were in all cases too much decayed for removal. Among other things I found some curious three cornered pieces of pottery well made and beautifully ornamented with geometrical lines painted upon them, and with holes in the points for strings. Some of the people here think they were worn on the shoulder as epaulettes. There was the same difficulty as before in the want of tools proper for digging, but the water had washed the island to pieces so much that I made a much better collection, though many things are broken as before by the caving in of the banks or from the weight of others placed above them. As with the other mound so with this, it ap-pear to have been built up to a cer-tain height, and inhabited and then more earth put on and another city built, and so on to the top. The pot-tery found in the lower part of the mound shows a people far advanced in the arts of civilized life, and I could imagine the island of Paccoval [Pacoval] a busy and populous city, and the lake Arore [sic Arari] covered with canvass [sic] plying back and forth to the little farms along the shore or carrying on commerce between this place and others, along the river and lake; while now nothing is in sight but the solitary boat of a miserable Tapuio, perhaps the degenerated son of this ancient people, paddling slowly along in search of a (pirar u cu) or (peixa [sic] peixe) boi. These mounds are found all over the central part of the island and this may have been the home of nations as powerful as those of an cient Nineveh and Babylon.

JOSEPH BEAL STEERE

Letter XVII

[Peninsular Courier and Family Visitant, 10(28), July 14, 1871]

FOREIGN CORRESPONDENCE

Number XVII

PARA [Belém], BRAZIL, June 1st, 1871.

There being no dry campo within reach of Tojal [Tojal], the captain proposed a day’s hunting at Coraline [sic Curralinho], another fazenda belonging to the family where there were said to be many storks

25 The tangas marajoaras, believed to have been used by Indian women to cover the pubic region. Hartt (1876a) published a paper on the subject.
and scarlet ibises. We started in the canoe about three o’clock in the morning so as to finish the journey before the heat of the day.

We arrived at Coralline [Curralinho] at seven o’clock, when the herdsmen were immediately sent to the campo after the horses, and we soon heard their splash- and- ing through the water on their return. When the horses reached the corral near the house, the water was level with their backs and they were easily caught and led behind the canoe until we came near the dry campo, where they were saddled and we mounted. I wished a horse that would stand fire, but as none of them had been used for hunting, they caught me an old fellow that did not look as if he had life enough to jump. As we neared the dry ground great flocks of ducks flew up from among the grass, the first I had seen, as, like the waders, they seem to desert the rivers and lakes and go near the dry campo, where the water is shallow and they can touch bottom with their feet. Farther on great storks were moving majestically about, and a flock of ibises flying in the distance looked like a cloud of armine. I now started off independently for a hunt, but either from the horsemanship on my part, or a misunderstanding of English on the part of the horse, I had considerable difficulty in parting company with my friends, but by a liberal use of the huge Spanish bit, and the rawhide whip furnished me, I finally got off after the birds. I soon came in range of a stork but the old horse would shy every time I tried to shoot, and after an hours’ hunt I had killed but three birds, a stork, a white heron and a duck, though I had sent several others off badly crippled, but a Tapuio who hunted all the time for the captain’s table, had sent several others off badly crippled, but a Tapuio who hunted all the time for the captain’s table, and who was brought along in anticipation of my return, I took him with me. We shipped down easily out of the river making the same distance in a few hours that it had taken days to make in ascending. While we were lying at anchor at the mouth of the river waiting for the tide to turn, we took the boat and went on shore where one of the men gathered a lot of the fruit of the (asai [sic; açai]), and on our return we had a real feast of it. The (asai [sic; açai]) is a species of palm growing on low ground and to a height of forty to sixty feet with a diameter of four to six inches. The trunk is perfectly smooth and white, and just below the small and loose crown of long leaves there are generally several clusters of the fruit in different stages of growth. The fruit stalk looks like a great coarse broom the brush of which is two or three feet long, and hanging within and over this like grapes are the fruit, which are about the size of a cherry, and black when ripe. A bunch of these weighs fifteen or twenty pounds. The fruit consists of a woody nut covered with a black skin or rind, which is the only part used. The fruit is put in hot water until this rind is softened, when it is rubbed and worked with the hands until the eatable part is all washed off, leaving the water thick like cream and of a dark violet color. This is then sweetened with sugar and thickened with farinha and eaten. It is delicious, the next thing to strawberries and cream, and is one of the notable products of this part of the country, the asai not growing upon the upper Amazon. The fruit-eating monkeys and the toucans are very fond of it the guaribos [sic; guaribas] living almost exclusively upon it. The Tapuios climb the smooth trees by lashing their feet together by a cord, and they make a real article of trade of it, bringing to the city heavy large canoes loaded down with it.

Some of the birds had already commenced nesting while I was in the island, among them the anous and keel birds, of which there are two species. They seem to be real socialists in their habits always being found in flocks even at the time of nesting, and instead of each pair building a separate nest they

26 Açai – Euterpe oleracea (Arecaceae).
27 Anu – Name applied to the genera Crotaphaga and Guira (Aves, Cuculiformes, Cuculidae).
build a huge flat nest of sticks for the community, in which they lay twenty or more eggs, and then set it in company. The per/rokeets build their nests within the earthen nests of the white ants which are found in the trees. They tunnel a hole from under the side of the ant nest upward toward the center for eight or ten inches, when they turn to one side and making a little plat-form, have the nicest dryest kind of place for raising their young. They seem to pay no attention to the ob-jects of the little white ants, that seem to lack the means of defense of the true ants; placing all their de-pendence in their walls. Many spe-cies of birds build globular nests, and the opening is generally so small and made of such elastic materials that it can hardly be found, closing almost completely after the bird passes through. The superabundance of hawks and opossums and other egg-eaters compels the small birds to take unusual means for protection. One little brown bird about the size of the blue bird, builds a nest a foot and a half in diameter of large sticks half an inch through and a foot long and gen-erally covered with thorns, and away down among these thorns with no aparent entrance, it deposits its four little white eggs. I could not believe that such a small bird built so large a nest until after repeated observation. One of the most common means of defense is to place the nest in a tree that has a hornet’s nest upon it. The nest of the viu/oa or widow, a little black bird with a white head that is frequently found in the low bushes of the campo, is invariably found on a limb along with a hornet’s nest be-tween it and the body of the tree, thus keeping all animals from cling-ing to it. If this is not reason I do not know what to call it. Among other birds that follow this plan is the bent/vi [sic; bem-te-vi], a brown bird with a yellow breast, about the size of the robin; but this bird has another noteworthy peculiarity; it has the habit of stealing the material for its nest from others. While at Cavi ana, I heard a real dis-turbance among some small birds, a pair of which had built a nest in a lemon tree near the house, and going to see the cause of this, I found that a bent/vi [sic; bem-te-vi] was making regular trips to their nests for materials for his own. He would light on a tree near by and watching a favorable opportunity, in spite of the cries of the little birds and their friends that had collected to assist them, he would dart down and pulling a huge mouthful from the side of the nest, to the great danger of the eggs within, would fly off to his own nest in a tree near by.

There is a little yellow fever in the city, and as I have finished all that I intended to do here, I shall take the next steamer for Santarene [sic; Santarém], which is about five hundred miles up the river.

JOSEPH BEAL STEERE

Letter XVIII

[Peninsular Courier and Family Visitant, 10(31), August 4, 1871]

FOREIGN CORRESPONDENCE

Number XVIII

SANTAREM [Santarém], BRAZIL, June 17th, 1871.

Upon the evening of the eleventh of this month, after a hard week’s work in packing and shipping my collections, and in preparing for the trip up the Amazon, I bade farewell to Para [Belém] and the few friends I had made in it, and going on board the steamer Obidos [Óbidos], at three o’clock in the morning we started up the river. The Amazonian steamers generally leave the city in the night, so as to cross the bay of Marajo [Marajó] before the wind, which generally blows strong up the river during the latter part of the day, has made it rough and disagreeable.

I had presented some duplicates of shells etc., to a museum that has lately been organized in Para, and thus becoming acquainted with Mr. Penna28, the

28 Domingos Soares Ferreira-Penna (Cunha, 1973: 11-41, 1989: 20-47; Verissimo, 1894) was born on June 6, 1818, in Mariana, Province of Minas Gerais, Brazil, then a United Kingdom with Portugal. On September 8, 1858, when 40 years old, he arrived at Belém, Pará, to serve as one of the secretaries to the recently appointed President of the Province of Pará, Lieutenant-Colonel Manuel de Farias e Vazconcelos. He dedicated himself to geographical studies, embracing physical geography, geomorphology, geology and economic geography, especially of Pará; was a pioneer archeologist, investigating the ceramics and other vestiges of ancient peoples of the Amazon, being also interested in ethnology and journalism. Many were his expeditions in Amazonia. Most of his publications have been reedited in 1973 (Conselho Estadual de Cultura). Agassiz’s visit to Belém in 1866 influenced Ferreira-Penna’s decision of founding a Museum in that city. On October 6, 1866, as a nucleus for the future Museum, was founded the “Associação Philomática”, and in October, 1867, the Association was able to lodge a Museum in a rented house at the Rua Santo Antônio, no. 26. The Museum was officially inaugurated on March 25, 1871, and Ferreira-Penna began to form a library. The Museum was transferred to the Liceu Paraense, and afterwards to a house rented in the Nazaré road (nowadays Avenida Nazaré). On January 26, 1884, Ferreira-Penna left the direction of the Museum for a health treatment. He would never return to the Museum, and in the first days
principal director, and a man of considerable literacy and sci-entific reputation, he had the kindness to procure me many letters to offi-cials and other leading men along the Amazon, and also informed Com-mandante Tavares of the Obidos [Ôbidos] of my intended trip with him, so that I was treated with a great deal of deference; rather more than I relished. There was a young Brazilian civil engineer on board upon some govern-ment business up the river and as the captain had also quite a taste for natural history, we passed the time very pleasantly, and I learned much of the country we were passing through. They spoke much of Prof. Agassiz and Prof. Hartt, and with other educated Brazilians held them in high esteem, but hardly know what to think of their conflicting theories in regard to the forma-tion of the Amazon valley.

We passed the first day among the low islands in the mouth of the To-cantins, which are bordered with beautiful groves of asai [sic; açai] and niniti [sic; miriti] palms standing knee deep in water. Just at night we stopped at the little village of Brevis [sic; Breves] on the island of Marajo [Marajó]. This place is said to be quite a center or rubber trade, but it looks poor and sickly and the tottering mud houses appear ready to slide down the low clay banks upon which they are built into the river. During the night we passed through the Tagipuru [sic; Furo do Tajapuru], one of the channels that connect the Amazon with the Tocantins. It is quite narrow but deep, and with others must carry a large part of the water of the Amazon down the south side of the island of Marajo [Marajó], making Para [Pará] river one of its real mouths. Upon the morning of the second day we broke out into the real Amazon but so filled with islands that I could get no idea of its width, though I could often get glimpses as far as I could see. The river is probably about fifteen miles wide here but the Brazil-ians say that if it were not for the islands it would be an ocean. About noon we stopped in front of Gurupa [Gurupá]. With its pretty church on the bluff and a funny little stone fort that perhaps had a name in the history of the re-bellious times of thirty or forty years ago, but it is now dismounted and nearly hidden under the growth of vines that have sprung up and around it. The town is built upon a ridge of red sandstone twenty or thirty feet in height and much like that found in Para [Belém], but this soon fades again in low flooded woods and prairies. In the evening we turned into the Xingu, a river as broad as the Ohio, that comes down from the provinces of Goyaz and Minas Geraes on the south, and stopping at the town of Porto do Mos [sic; Porto do Moz], which I could not see for the darkness, we unloaded considerable [sic] of our cargo into small trading schooners, that carry it up to the campos of the rubber gatherers above. The night was quite dark and during our return to the Amazon, through a side channel, the pilot lost his way and we passed the night anchored in six or seven feet of water, but these steamboats are made flat bottomed for such emergencies, and we did not ground. After we had again reached the Amazon opposite the village of Almeirim [Almeirim], we began to see flat topped hills or mountains on the north at a distance of five or six miles from the river. These appear to rise up uniformly to a height of four or five hundred feet, and the captain told me that they extend off to the north in great plateaus, so that it seems as if the whole country has formerly been at this level and the Amazon has cut its mighty valley through it. We were in sight of these hills all day long, some of them appearing to have but a few acres of small farm of level land on top, while others reached along for several miles unbroken.

On the morning of the forth day we woke up in front of the town of Monte Alegre, a pretty place built at the foot of the hills, and at the mouth of a clear pretty little river that just gave our steamer room to turn about. Part of the place is built along a beautiful looking church through the trees on the hill above. A broad sandy road led winding up this and along it several yokes of oxen were drawing a part of our cargo upon funny little low carts, the axles of which revolved with the wheels. After leaving Monte Alegre, the moun-tains disappeared on the north but soon others came in sight on the south that appear to be part of the same system. As we approached the mouth of the Topajos [sic; Tapajós] the banks of the river seemed to rise a little, though yet hardly out of the water, and signs of civilization began to appear.

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of 1888 he died. The Museu Paraense, after many drawbacks, originated the Museu Paraense Emílio Goeldi.

29 Miriti – Mauritia flexuosa (Arecaceae).
30 The Forte de Santo Antônio, actually located at the Ilha Grande de Gurupá, in the left bank of the river; the city of Gurupá proper is on the right margin. The fort was originally built in the beginning of the 17th century by Dutch invaders. It was taken in 1623 by Bento Manuel Parente, destroyed and then reconstructed. It suffered several attacks in 1629 and 1639, both by the Dutch and the Portuguese. In 1690 it was reconstructed by order of Governor Antônio de Albuquerque Coelho de Carvalho. Further reforms were made in 1760 and 1774. Finally, as it lost its importance in the defence of the region, it was abandoned and reduced to some ruins, as Steere remarked.
Upon my arrival I experienced the truth of the old proverb that "familiarity breeds contempt". The name of America has heretofore been my passport and security for good treatment, but here where the Brazilians have been acquainted for several years with the colonists and the shift-less class of adventurers, which such enterprises always bring in their train, it is not considered much of an honor to be an American, though some of them have won the respect of this people by their honesty and steady industry. I expect to remain here among the Americans for a month and then move on up the river.

J. B. STEERE

Letter XIX
[Peninsular Courier and Family Visitant, 10(32), August 25, 1871]

FOREIGN CORRESPONDENCE/

Number XIX/

TAPEIRUHA [sic; Taperinha], June 28th, 1871/

set out for California, arriving at Sutter's Fort on Christmas Day. After spending the winter there, Hastings left the fort on April 11, 1846, heading east with another small group. He and two companions stopped at the Sweetwater River, where they waited for the year's emigration to arrive. An eastbound traveler agreed to carry Hastings' open letter to emigrants on the trail, inviting them to meet him at Fort Bridge. From there, Hastings said he would lead them on a new route that would significantly reduce the time and distance. Sixty to seventy-five wagons traveled with Hastings on this cutoff and arrived safely in California. Hastings' dream of empire soon collapsed when California was conquered by the United States military during the Mexican War. In 1848, Mexico ceded California to the United States under the Treaty of Guadalupe Hidalgo. After serving as a captain in the California Battalion during the Mexican War, Hastings again took up the practice of law. He married Charlotte Toler in 1848 and was a delegate to the California state constitutional convention in 1849. In the late 1850s he moved his family to Yuma, Arizona, where he served as postmaster. During the Civil War, Hastings sided with the South. In 1864, he traveled to Richmond, Virginia, where he met with Confederate President Jefferson Davis to gain his support for a plan to separate California from the Union and unite it with the Confederacy. However, the so-called Hastings plot came to nothing, as the war ended early the following year. After the end of the war, many disgruntled Confederates left the United States to establish colonies in Brazil. Hastings visited the region, made arrangements with the Brazilian government, and wrote The Emigrant's Guide to Brazil to attract potential colonists. He died in 1870, aged about 51, at St. Thomas, Virgin Islands (possibly of yellow fever), while conducting a shipload of settlers to his colony at Santarém.
As soon as I arrived at Santarem [Santarém] I made enquiry for Americans, and was directed to the house of Dr. Weth/erly [Wetherley] the only one resident there, whom I found all ready to start for this place. As he assured me of a wel-/come and a good localty for collect-/ing I closed with his offer and mov-/ing a part of my luggage into his boat/ we set out the same evening. The/ boat was overloaded and I passed/ the night in trying to find the most/ easy position for sleep across a bar-/rel; but morning came before I had solved the problem, and just when we drew up at the port of Taperiuha [sic; Taperinha], our/ destination, a large sugar estate be-/longing to Mr. Rhome and of several kinds/ of flowers that he had been able to/ raise successfully only by the free use/ of ice; among them pausies [sic; pansies] and some/ kinds of roses, thus completely in-/verting our method.

The house, sugar mill, orchards,/ etc; of the estate are at the foot of the mountains, upon a narrow belt of rich sandy soil, that seems to have been washed from the hills. A few/ rods back of the buildings the mound-/tain rises up to a height of four to/ five hundred feet and so steep that the road has to wind about for a/ long distance before reaching the top. Soon after we arrived we rode/ up to see the field of sugar cane and/ tobacco upon the table lands above,/ and, though we had called it a mound-/tain from below, after-/ seeing the/ level timbered lands extending to the south beyond the knowledge of any/ of the people here, it seemed plain to/ me that this was the former level of/ the country and that the Amazon had/ cut out the immense valley we could/ now see far below us with here and/ there an arm or igaripé [sic; igarapé].
winding about through the prairies, and be-yond, the
great Amazon itself, with its waters yet muddy
from excava-tions still going on.//

The soil of these table lands is a/ rich clay loam
with a subsoil of red/dish clay. Sugar cane and tobac-
co/ grow with the greatest luxuriance and/ I saw some
cane, that was so thick/ and tall that it was perfectly
impos-sible to go through it. This was/ where Mr.
Rhome had used the plow,/ an instrument the native
know not-/ing of, though they cannot but won-der
at its effects.

The hands, Indians and slaves/, were cleaning
off the logs and brush/ from new land and planting
tobacco/ and the thorough way in which they/ did
their work showed that their mas-ter was trained in
a more thorough/ school of farming than is found in/
this country.//

Upon this tableland, there is a large/ orchard of
cacos [sic; cacao]. from the fruit of/ which our cho-
oblate is made. The cacao is generally planted upon
low/land where it is nearly or quite flood-/ed in the
winter but it seems to be/ doing well here, in spite of
its ele-vation. The tree grows to a height/ of fifteen
or twenty feet and is not re-/markable in appearance,
but the/ fruits look just like musk melons and/ grow
on short stems all along the larger branches, but never
upon the small branches and new wood as with most
fruit. The fruit is gath-ered when yellow and ripe
and the/ seeds dried for use; the seeds are/ like large beans
twenty of them per-/haps growing in one fruit and are
covered with a juicy, acid pulp, that is very pleasant to
eat and makes/ god lemonade.//

Mr. Rhome pointed out a number/ of large
spots of several acres each/ which are called black
lands. The/ soil of these is deep and very black/ and
perfectly filled with pieces of pot-tery, and broken
stone hatchets/ etc.34, so that one can not dig a place/
to set a tobacco plant without draw-/ing out several
of them; while in the/ common soil of the mountains
they are of rare occurrence. I immedi-ately made up
my mind that the/ black lands were in fact the an-
cient sites of Indian towns and that the blankness of
the soil was due to/ the offal gathered together by a
large/ population and to the decaying palm/ leaf roofs
of perhps many genera-tions of people, and taking
a spade/ up to the mountain a few days after-/ward,
I found that the black soil was/ in many places three
and four feet in/ depth and containing pieces of pot-
tery all through it. I also found pieces of kneaded
clay at that depth,/ just such as the walls of nearly
all/ the houses upon the Amazon are/ made of at the
present day.//

The pieces seem to be generally/ those of cook-
ing utensils, but after/ considerable digging I found
a jar/ that had been used apparently to bury/ in, but
it was so old that I could find/ no signs of bones and
it fell to pieces/ upon being lifted out. The same
con-/glomerate rock and red sandstone that/ I have
seen everywhere yet in Bra-/zil, crops out along the
hill side, and/ I find [sic] many beautiful pebbles of/
quartz that seem to result from the/ same stone worn
to pieces by the/ water.//

I have killed about fifty birds some/ of them very
beatiful and have/ made my way into the woods fat/
ough to see the great tracks of the/ anta or taper
[sic; tapir]. The animals appear to/ be the same as at
Para [Belém] but the birds/ are quite different.//

On the evening of the twenty third,/ I heard
the tuning of violins and banjos and other sounds
that betoken a/ coming feast-day, and was told that/
to-morrow was St. John's day. At/ the closing of
prayers and the singng/ of the ora pro nobis, several
of the/ slaves and Indians entered the house/ and
tied red ribbons upon the arms/ of my host and the
Doctor, both of/ whom are blessed with the name
of/ John. If some one else should not/ untie the
knot and take upon himself/ the burden, the one
tied owes a present to the one that tied him. After/
this I heard considerable noise out-/side, and going
to the door, found/ they were jumping over three
large/ fires they had arranged in a row near/ each
other. This ceremony, when/ three times repeated, is
said to insure/ good health till next St. John's day./
The Indians and negroes who had/ small children,
were jumping over the fire with them in their arms.
The/ girls generally got some young fellow/ to go
with them, but the old negro/ women had to go
through the ordeal/ alone. They were all, old and
young,/ bare-footed, and it seemed rather/ warm
sport, especially for the girls/ and women, who drew
up their dress/-es, thinking it better to burn their/
ankles than something that would not/ mend so eas-
ily. One poor lame fel-/low hobbled through, seem-
ing to de-/sire health as much as the rest. Fi-/nally
an old hunter who had been of/ some assistance to
me, came and said/ that if four should go through
gether/ it would be bem seguro (very certain),/ and
so to make up his number I went/ through the fire
with the rest, so that/ my health is assured till next
St./ John's day.//

34 The archeological site at Taperinha was first described by
Harrt (1885: 10-14, in the section “Taperinha e os sitios dos
moradores dos altos”); he also described some archeological
artifacts from the same place at pp. 50-52 (“Idolos dos
moradores dos altos”) and pp. 61-62 (“Louça dos moradores dos
altos”) in the same paper.
I shall soon make my way to Diamantina where several American families are settled, and you will likely hear from me there next time.

J. B. STEERE

Letter XX

[Peninsular Courier and Family Visitant, 10(34), August 25, 1871]

FOREIGN CORRESPONDENCE

Number XX

SAUTAREM [sic; Santarém], BRAZIL, July 23th, 1871

I returned here yesterday from Mr. Rhome’s, having spent thus nearly all the month that I had allotted to Sal-tarem [sic; Santarém] and its vicinity, then, and made it impossible to visit the other Americans who are settled upon the mountains more directly back of the city.

While at Taperinha [sic; Taperinha] I examined a bank of shells that is upon the sandy strip of land at the foot of the mound of rain, but not far from the low land, or tara [sic; tárrea] as it is called here, which is overflowed during the rainy season. The bank is forty or fifty feet broad and six or eight deep in the center, where it is bare of earth; but at the edges it is covered by the same sand that forms the soil of the vicinity. By getting into a pit from which shells had been taken to burn into lime, I had a good opportunity of examining the bank closely. The shells appeared to be mostly bivalves and of but three or four species, though I found one or two small Melanias that seemed to be mostly bivalves and of but three or four species of which I had a good opportunity of examining the bank closely. The shells appeared to be mostly bivalves and of but three or four species, though I found one or two small Melanias that seemed to be mostly bivalves and of but three or four species.

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The shells found in the sambaqui of Taperinha all belong to the family Hyriidae and to the genera Pseudon (probably Pseudon syrmatophorus (Meischen in Gronovius, 1781), Catapoder and Diplodon, according to the identification of Dr. José Paulino Soares de Souza, based on material collected by N. Papavero in May, 2003, and deposited in the Museu de Zoologia da Universidade de São Paulo.

35 The sambaqui (shell-midden) of Taperinha was described by Barbosa-Rodrigues (1875: 35-43), who visited the farm in the year 1871; also by Hartt (1885: 2-6), who visited it in 1870 and in June 1871, and Smith (1879). See also Rosevelt, Housley, Silveira, Maranca & Johnson, 1991.

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37 Anta ssp. (Hymenoptera, Formicidae).

38 Caju – Anacardium occidentale (Anacardiaceae).
or four upon one/ piece of leaf. Upon climbing the/ tree I found that they are at work in/ the very tops, where the leaves were/ young and tender. The large jawed/ ants seemed to do the work of cutting,/ as well as conveying, using their jaws/ as shears. They stood upon the upper/ side of the leaf, and cut out pieces as/ large as one’s thumb nail in a few/ minutes. They made a noise with/ their jaws while cutting that could be/ heard several feet distant. The little/ ants that I had seen below riding/ home on the pieces of leaves, were/ here in the tops of the trees, and/ seemed to be very much interested in/ the operation, though I could not see/ that they were doing anything unless/ it was to help the larger ants in get-/ ting the pieces loaded and well bal-/ anced, and I am half inclined to be-/ lieve that they came out and climbed/ the tree simply for the sport of riding/ back, just as school-boys climb the/ hill with their leds for the pleasure/ of riding down. At the nest a large/ number of the little fellows were em-/ ployed in the more staid business of/ carrying out dirt. The males and/ females, which come out at certain/ seasons to found new colonies, are/ much larger and are often eaten, hav-/ ing a spicy taste which is not at all/ unpleasant.

Just as I was ready to go to Sal-/ tarem [sic; Santarém], Mr. Rhome offered me his help/ in collecting a set of woods from the/ estate and with several of his Indians/ best skilled in woodcraft in the for- est,/ gathering the different kinds, after/ much hewing and planing, we gath-/ ered together nearly seventy species,/ many of them beautiful and valuable/ for cabinet work and for ship build-/ ing, etc., etc. Among the trees famed/ here is the Castauha [sic; castanha], or Brazil nut39/, the leaves and general ap- pearance of/ which is much like that of the chest-/ nut. Ten or twelve of the dark, tri-/ angular nuts that we get in the States/ grow inside a case or nest that is six/ or seven inches in diameter, and so/ hard that it takes a good smart blow/ with an axe to crack it. The Indians/ gather these nuts together, a few at a/ time, and bring them into the towns/ along the river, from whence they are/ shipped to Para [Belém], and thence to foreign/ ports, being often shoveled loose into/ a ship’s hold. There is another nut/ here called (castauha [sic; castanha] sapucaia)40 that/ is considered much superior to the/ one exported, but it has not yet be-/ come an article of commerce. These/ nuts grow inside a large case that has/ a lid which drops off when the nuts/ ripen allowing them to fall out.//

I found here at Mr. Rhome’s four/ of the ill-fated Bolivian Expedition,/ which fell to pieces somewhere above/ Manaos leaving its members scattered/ all along the Madeira and Amazon,/ many of them without means to get/ back to the States. Those who are/ here are raising tobacco and with a/ good prospect of success. Among so many Americans I felt almost as if/ at home, but I have likely seen nearly the last of/ them until I reach the Pa-/ cific coast. I go to Obidos [Obidos], one hun-/ dred and fifty miles above here, tomorrow.//

J. B. STEERE

Letter XXI

[Peninsular Courier and Family Visitant, 10(39), September 29, 1871]

FOREIGN CORRESPONDENCE//

Number XXI.//

OBIDOS [Óbidos], BRAZIL, July 28th, 1871

On the evening of the seventeenth/ I found myself once more on the/ steamer Obidos [Obidos] bound up the river./ Before morning we had left the high/ lands about Santarem behind us and/ were again passing between low banks/ heavily covered with low trees and/ vines and bushes. Here and there/ along the water’s edge were orchards/ of cacao, and the huts of the owners/ with the platform on one side for dry-/
ing the cacao, and a heap of the/ brown and yellow hulls of the fruit/ piled before the door were the most/ usual signs of life. Though the Ama-/zon with all its branches must now/ have twenty or thirty steamboats/ and/ perhaps several hundred small trading/ schooners, there are so few for its im-/ mense extent that one may pass en-/ tire days and see nothing more than/ a few small canoes, the same in form/ and occupants as navigated the great/ river before the time of Colum-/
bus./ Just before night we came to anchor in front of/ the place where the high/ land again comes down to the river/ on the north side./

The Amazon flows in a low level/ valley which seems to be from thirty/ to fifty miles wide in this part/ of its/ course. This valley is covered in some/ places by grassy campos or marshes,/ but more generally by a thick jungle/ and is all flooded during the rainy/ season; not as I supposed at first by/ the Amazon itself setting back over/ it, but by the rain water, which ac-/

\[
39 \text{Castanha-do-pará – Bertholletia excelsa (Lecythidaceae).}
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\[
40 \text{Sapucaia – Lecythis pisonis (Lecythidaceae).}
\]
zon;/ thus differing entirely from the an-/nual flood of the Nile, which is caused/ by rains which fall at its sources far/ distant from the locality inundated./ The bed of the Amazon winds about/ in this great valley, touching the/ high land first on one side and them/ on the other and then flowing near/ the center out of sight of terra firma [sic; terra firme],/ as the Brazilians call it, on either side./

The river here in front of Obidos [Óbidos]/ is narrowed down from its usual width/ of three or four miles to a mile and a/ half, but it is said to have a depth of/ six or eight hundred feet. Though/ so deep it is quite rapid and goes/ rippling and eddying by carrying/ along trunks of trees and great/ masses of grass that it has torn from/ the banks above. This is the narrow-/nest place in the lower river and was/ called Porta or the gate, by the Port-/uguese. The principal part of the/ city is built upon the bluff, sixty of/ eighty feet above the river, and lead-/ing up to this a street is cut through/ just such beds of clay and sand as are/ found at Maranham [Maranhão] on the sea coast,/ and which seem to hold a middle/ place somewhere between earth and/ rock, being too hard for one and too/ soft for the other. A little low stone/ redoubt [41] on the beach with half a doz-/en old cannon, and two or three black/ soldiers lounging lazily across them/ keep guard over the row of shops and/ canoes along the three black/ soldiers lounging lazily across them/ keep the beach with half a doz-/en old cannon, and two or

41 The Fortress Gurjão, constructed on top of the Serra da Escama.
42 The Fortress Gurjão, constructed on top of the Serra da Escama.
43 Probably Dr. José Veríssimo de Mattos, a medical doctor, member of the “Câmara Municipal” of Obidos (1865-1868) and afterwards “Deputado à Assembleia Legislativa” of the Province of Pará, and father of José Veríssimo Dias de Mattos (Obidos, April 8, 1857 – Rio de Janeiro, December 2, 1916), a celebrated Brazilian writer, educator, journalist and member of the Brazilian Academy of Letters; one of his books is “A pesca na Amazonia” (1895).
44 According to Snethlage (1914: 157-158), the name “periquito-do-espírito-santo” applies to the following species of Psittacidae: Forpus crassirostris crassirostris (Taczanowski, 1883), Forpus passerinus cyanochloros (Schlegel, 1864) and Forpus passerinus delicinosus (Ridgway, 1888) (Psittaciformes, Psittacidae). For an explanation of this name (“of the Holy Ghost”), see Têixeira, 2000 and Papavero, Têixeira, Cavalcante & Higuchi, 2002: 236-238.
with fine soft hair, and hardly any beard. It seems hardly possible that living for a few gene-rations in this country could have made such a difference. Turtles form an important article in the bill of fare here as the shells along the streets and about the houses demonstrate, and the shells themselves are put to quite a variety of uses. Every morning the servants of the different houses go by the door on their way to the common, with the sweepings and dust of yester day in their turtle shells upon their heads. Turtle shells are also used for hods in build-ing and shovels for digging. They all have holes through them that ap-pear as if made with a small chisel where the arrow with which they were captured entered. Bows and arrows are still in general use on the Amazon for catching fish and turtles, especially the latter, which are wary and hard to approach. The Indian, when he sees the turtle lying on the top of the water, though he never heard of conic sections, calculates his distance with more skill than an artil-lery man and shooting his arrow into the air it makes its course and comes down perpendicularly upon the back [sic] of the unsuspecting turtle, the steel head piercing the shell and the long hollow shaft, which is connected very loosely to the head except by a long line that is wound about it, comes out of the socket and floats on the water the line unwinding from it as from a reel as the turtle goes to the bottom. The shaft guides the fisher-man to the spot and paddling his canoe directly over the turtle he draws him carefully into the boat.

Some most beautiful hanging orch-ids are now in blossom, and I often wish there was a green house con-nected with the University to which I could send a set of them./

J. B. STEERE

Letter XXIII [wrongly numbered; should be Letter XXII]

[Peninsular Courier and Family Visitant, 10(41), October 13, 1871]

FOREIGN CORRESPONDENCE/

Number XXIII/

OBIDOS [Óbidos], BRAZIL, Aug. 10th, 1871

About the first of this month, hav-ing done about all that I could do in this place, I made a trip to the village of Faro. The maps of Brazil, just above Obidos [Óbidos] and coming in from the south in the direction of Guiana, show a little river called Trombetas, and just above this and connected with it and with the Amazon by a chain of lake and furos, another called the Jamunda and upon this last river seventy or eighty miles from its mouth, is the village of Faro, on the back of a pretty lake through which the river passes.

We left Obidos [Óbidos] about midnight, on the little steamer Para [Pará]. It was a clear and beautiful night and we sat on the deck several hours watching the rip-ples of the Amazon as they sparkled in the moonlight. We were passing the mouth of the Trombetas, near which the ancient voyagers are said to have found the race of female war-iors from which the great river took its name. The Trombetas is now the place of refuge for all the fugitive slaves of the vicinity and has a large Mocambo, as these settlements are called in Brazil. There exist in the vicinity of nearly all the large towns in Brazil, at least the northern part of it, settlements of these fugitives, cut off entirely from law and religion and civilization, except through the rare visit of the Portuguese traders, who, brave almost any danger for the prospect of trading their poor wares, off which cachaca [sic; cachaça] forms a large part, a good profit for the tobacco and bal-sam copaiba of these outcasts. At rare intervals, also some poor Ital-i-an Priest, in whom the missionary spirit still lives, pushes his ca-noe up the rivers until he finds their settle-ments, to baptize and to administer extreme unction to these poor crea-tures, only looking for reward in the world to come. I think it is Lieuten-ant Herndon of the

47 Balsam copaiba – Copaiba – Copaifera langsdorffii (Fabaceae).
48 Herndon – William Lewis Herndon, naval officer, born in Fredericksburg, Virginia, 25 October, 1813; lost at sea, 12 September, 1857. He entered the navy as midshipman in 1828, and was promoted passed midshipman in 1834 and lieutenant in 1841. He served on various cruising-stations and was actively employed during the Mexican war. After three years of duty at the naval observatory he was sent to the South Pacific station, where in 1851 he received orders detaching him from his ship, and directing him to explore the valley of the Amazon to ascertain its commercial resources and capabilities. He started from Lima, and crossed the Cordilleras in company with Lieutenant Lardner Gibbon, who separated from him to explore the Bolivian tributaries, while Herndon followed the main trunk of the Amazon to its mouth, returning to the United States in 1852. The report of this expedition was published by the government in two volumes, of which Herndon wrote volume 1 ("Explorations of the valley of the River Amazon") (Washington, 1853) [The 2nd volume was written by Gibbon, 1864]. This work was extensively circulated and is still cited in works of ethnography and natural
United States Navy, who came down the Amazon on an exploring tour a few years ago; [sic] who gives a very pleasing picture of slavery in Brazil, representing them as always fat and happy, but these Mocambo scattered all over the country, seem to prove that even in Brazil where the work is light and the pleasures many, the negroes prefer a life of freedom with all its privations to one of slavery. I made many enquiries about this special Mocambo on the Trombetas and per-/haps the picture will do for all. They have gone above the first rapids on the Trombetas [sic; Tromba-]s, so that troops sent to overcome them can not paddle to their very doors, but must march some distance through the woods, giving them time to prepare for de-/fence or to fly to the swamps. Above the rapids they are settled all along the river, with two or three consider-/able villages, and likely number be-ween one and two thousand; though some estimate them much higher. They seem to pass a very harmless life, living on their little farms or patches, where they raise mandioca and squashes and tobacco, the part of the latter which finds its way into the com-merce of the country being held in high estimation.

Their religion, from the lack of a priest seems to have really gone back to idolatry, though it does not lack much of this on many of the fazen-/das even. They gather together on the saints' day set apart by the Church of Rome, and worship the little wooden images of the saints, which they carried with them when they fled, as the ancients did with their household gods. After beating a drum and waving flags before these images and chanting their prayer-ers [sic; prayers], they have a great feast and dance which only ends when they are all well drunk on the fermented drink, they have learned to make of the Indians from the different prepara-/tions of mandioca; or upon poor cachaa [sic; cachaça] procured from the traders. The Brazilian government has not allowed this waste of goods and chat-/tels in human form without efforts to retake them, and several expedi-/tions have been fitted out to bring them back to labor and obedience. In some cases the soldiers have found them armed and ready to defend their homes, and skirmishes resulting in loss of life on both sides have taken place. In other cases the negroes fled to the swamps upon their ap-/proach and they found nothing but empty cabins to burn. The soldiers invariably came back unsuccessful, often losing a great part of their /their [sic] numbers by the sizebens [sic; sezões] a dead-/ly form of chills and fever that is brought on by exposure in the swamps which often kills upon the second attack. They brought back word of pitfalls dug in the paths, with sharp sticks set at the bottom; just such as the ancestors of this people made in Africa to trap the lion and the elephant. The result is that gov-/ernment has learned to ignore their existence and little is said about them except by those men who thus lose their property. One of my friends told me that he had fifteen slaves in the Mocambo, comprising several famili-/lies, which he heard had increased considerably in num-bers since their flight. They sometimes make their way down to Obidos [Óbidos] and enter the town under the cover of the night to trade or to visit their old friends and relatives.

The existence of these places of refuge, undoubtely work to the ad-/vantage of the slaves still under the power of their masters; who know that if too much work is required, or the lash is used too freely, they will wake up some morning to find their human property gone bag and/ baggage and with no hope of recov-/ery; but this very fact also conduces to the slow shiftless way in which everything is done here. If Mrs. Stowe should come to Brazil and visit these Mocambos she could find plenty of material for new stories in/ the life and hardships of these poor/ people living.
in deadly fear of the wild Indians on the one side and the no less dreaded Brazilian soldiers on the other./We arrived at the little mud vil-/lage of Faro in the afternoon. It has/ four or five hundred inhabitants near-/ly all Indians and I had for a host/ a fine young fellow of the same/ race. His father, an old Indian of/ aldermanic proportions, had made/ considerable property by trade, dis-/playing almost Portuguese or Yankee/ tact in money making, now owning a/ store in the village and a little cottage/ estate near it. This young man had/ been to school and wrote a fine hand/ and had studied Latin and French/ for several terms; but his idea of/ countries and people were most woe-fully crude. He wished to know of [sic]/ America, as this people persist in cal-/ling the United States, was a part of/ Brazil, and if Portugal bordered upon/ it and much more of the same sort./ showing the sort of education re-/ceived in this country. He gave me/ a long account of the appearances of/ spirits in the shape of hogs and/ tigers, that walked the streets at mid-/night, spout-/fire from their eyes/ and mouths, also of a plant that when/ transplanted to the quintal (the en-/closed place about the house) – would/ turn to a tiger during the night and/ make its escape. He had not seen/ the transformation though many had,/ but on making the trial had found the/ plant gone in the morning and the/ prints of the tiger’s feet in the sand./He also told me of strange invis-/ible birds that sing in the quintal/ just before the death of some mem-/ber of the family. All these stories/ were fully corrobo-/rated by the old/ man his father, and other members of/ the family. He taught me several/ words of the Indian language and/ seemed to be very pleased when/ learning something of other countries/ or teaching me some-/thing of his, and/ I shall always remember Manduca/ and the few days spent with him/ with pleasure./The ancient custom of eating/ with the fingers still prevails at Faro./ each one putting his hand into the/ dish for the fish that suits him best,/ and then using his fingers to mix/ due proportion of red pepper and/ famiha [sic] when the same useful appen-/dages carry it to his mouth. After/ the meal a bowl of water and a towel/ are passed around to wash the hands,/ and the fingers and scraping them/ with a piece of wood or a smooth/ roll about/ each other pressing them together/ with a piece of wood or a smooth nut, when if/ they wish them ornamented they/ mark them with colored clays, and/ then burn them until/ they have the bottom of the dish to/ suit them, them [sic] they build up the sides in the same way, laying on one/ roll after another until they have/ reached the required dimen-/sions. After they are nearly dry they polish/ them with a flat stone or something of the sort/ for a table and coil these rolls about/ each other pressing them together/ with the fingers and scraping them/ with a piece of wood or a smooth nut, when it/ they wish them ornamented they/ mark them with colored clays, and/ then burn them until they reach a red/ heat; while they are cooling they/ often rub them with the resin of the/ Jutai50, which gives them a very per-/manent varnish. These vessels stand/ the fire well and ninety-nine one-hun-/dredths of the cooking done in this/ country is done in them. These vessels stand/ the fire well and ninety-nine one-hun-/dredths of the cooking done in this/ country is done in them. The whole/ process of making them put me much/ in mind of the dirt pies of my boy-/hood./We had killed between/ twenty and thirty, when we paddled/ back to the village by the starlight./ I spent in this way several days with-/out materially adding to my collect-/tion [sic], and with no other accident hap-/pening than getting lost in the woods/ and wander-/ing about two or three/ hours, with a prospect of staying there/ all night, which was fortunately dis-/pelled by finding my way back to the village,/ where I hired a boat and my way/ down the river./ I stopped over night at (Largo [sic; lago]/ grande,) another beautiful lake in the/ lower part of the Jamunda [Nhamundá]. The banks/ are six or eight feet above the level/ of high water, and would form a/ beatiful place for a settlement. The/ land is level and appears well adapted/ to cultivation, though it may prove/ rather light. If the soil is good it is/ a much better situation than the high/ lands about San-/tarem [Sanaráêm] which are hard/ to reach, while here a steamboat/ could come to the very door./I saw here for the first time the/ process of mak-/ping pottery, a curious/ one and likely the same that has been/ used for generations by this people./ They mix the ashes of the bark of a/ tree called Caripó [?] with clay taken/ from the banks of the rivers or lakes/ until it is of the consistence of dough,/ when they work it out with the hands/ into little rolls six inches long and the/ size of one’s finger. They then use/ a flat stone or something of the sort/ for a table and coil these rolls about/ each other pressing them together/ with the fingers and scraping them/ with a piece of wood or a shell until/ they have the bottom of the dish to/ suit them, them [sic] they build up the sides in the same way, laying on one/ roll after another until they have/ reached the required dimensions [sic; dimen-/sions]. After they are nearly dry they polish/ them by rubbing them with a piece/ of wood or a smooth nut, when if/ they wish them ornamented they/ mark them with colored clays, and/ then burn them until they reach a red/ heat; while they are cooling they/ often rub them with the resin of the/ Jutai50, which gives them a very per-/manent varnish. These vessels stand/ the fire well and ninety-nine one-hun-/dredths of the cooking done in this/ country is done in them. The whole/ process of making them put me much/ in mind of the dirt pies of my boy-/hood./

As we paddled down the river we saw many masses of ash colored cot-ton floating upon the water. This is from the tree called munquba\(^{51}\) [sic; munguba] a large tree with green bark which sheds its leaves annually, rather a wonder in this country.

While bare of its leaves, it flowers, they being large and cream colored, and with a strange and rather disagreeable odor. The flowers are followed by red fruits, the size of large pears which open when ripe, allowing the cotton to be blown off by the wind or to be torn off by the parrots that eat the seed. The cotton is very soft and fine but appears to be short in staple and weak. The bank of these rivers are covered with the trees and may become a valuable article of commerce some time. The samauma\(^{52}\) [sumaúma], or cotton tree of the Indians is much larger spreading its horizontal branches over nearly half an acre in some cases. The cotton of the two trees appears quite similar but I have not compared them.

Upon my return from Faro, Dr. de Mattos went with me to visit the cliffs on the river above Obidos. There is a short curve in the river here, and the point formed by it is being continually worn away at the bottom, by the water, keeping the cliff nearly perpendicular. It is from eighty to one hundred feet in height and made up of beds of hard sand and clay of various pretty colors, the brightest/colored clays being often used for painting. The beds are horizontal and a part of them at least appear to have been hastily formed; one bed near water level being made up of half rounded pieces of white clay with coarse sand. We examined very closely for fossils but found nothing that could with certainty be called organic. In several places where the water was dripping down from above, trailing pieces of fern and club mosses covered the face of the cliff. After several hours spent in examining the different beds we paddled back to town with the boat half full of pieces of rock and plants. The next day the steamer was expected, but I had heard of strange inscriptions upon the rocks of “Serra da Scama,” [sic; Escama] a mountain just below the tower [sic, town] and determined to visit them. The Dr. engaged a stone mason who had discovered the inscriptions to accompany me, and as soon as it was light we set out. We followed a cart road which led winding around and up the side of the mountain until we reached a height of four or five hundred feet; where we came upon great boulders lying all over the surface and extending into the mountains. Several men were at work here mining the rock to pave a street in the city. The rock is the same coarse red sand stone which is found about Para [Belém] but much firmer and better for building purposes. After going a couple of hundred feet farther we came out on top of the mountain which is nearly bare, the timber having been nearly all cut or burned off by the workmen. There is here perhaps one acre of ground comparatively level, but covered with the same boulders as found below, but almost all of them marked with strange characters; each boulder in general having but one inscription cut upon the smoothest surface whether on the top or side; but in some cases having two or more.

The only likeness to anything in heaven or earth beneath, that I could make out among them was a figure of the sun, formed by three circles, one within the other, the outer one with fourteen rays rather irregularly placed about it. There were other systems of circles, but without rays. The other figures were some of them formed of strange curves and dots. Others with a curious system of lines and right angles, one line following another at a fixed distance through the whole figure much resembling some of the curious puzzles school boys make upon their slates.

The figures are from one to three feet in length. The lines appearing to have been made with some blunt instrument being over an inch wide but very shallow. Though cut in the solid rock many of them are already so worn that their original forms can/…

52 Samauma [sic] = Samaúma or sumauma, Ceiba pentandra (Bombacaceae).
not be made out. There are perhaps thirty rocks thus marked, and all upon the very top of the mountain as if that spot had been particularly sacred. Perhaps it was used as a temple and these figures of the sun were a part of their system of religion connecting them with the sun worshippers of Peru. The other forms look as much like characters of a written language as those of the Chinese, and many contain the history of a people of ancient times. The mountain top with its extended view of the river and country about probably served as well for a lookout from which to observe the approach of enemies as for a place of sacrifice or divination. After examining the inscriptions as carefully as the time would allow, and for lack of pencil and paper copying a part of them upon leaves with the point of a pin, I went back to the town, and packing my things and bidding goodbye to the Doctor and his wife – the kindest friends I have yet found among this people – I was soon on board the steamer Arong and on my way back to this place.

I expected to go up the river Topajos [sic; Tapajós] from here, but finding Prof. Hartt, of Cornell University here, and about to go down to Monte Alegre, near which place he last year discovered a bed of Devonian fossils. We sailed up the little river upon which Monte Alegre is situated, but had gone but a short distance when, on turning a point, we came in sight of Erenê [sic; Ererê], twelve or fifteen miles distant, but rising up a great rough barren almost perpendicular crag, from the lower country about it, – after sailing six or eight miles we turned to one side into a narrow winding igarapé, which led us part of the time directly back toward Mont/ Alegre, and the Indians taking down the sail paddled the rest of the way.

The banks were low and had just emerged from the flood, and they were covered with egrets and snipes and various other families of waders and swimmers, while above them perched in the low trees many species of hawks, also watching their chance for a meal. In some of the low trees that hung over the water along this igarapé, I saw for the first time the curious nests of the perrokeets d’Espírito Santo. These birds instead of burrowing in the nests of the white ants as the other perrokeets do, build themselves rude clay spheres about as large as one’s head, with an entrance in the side. The only one we examined had been deserted by its builders and was occupied by a little finch much like our yellow bird.

Late in the afternoon we came to the port of the Indian village of Erenê [sic; Ererê], the village itself being three miles away, at the foot of the mountain. Here were three or four canoes tied to the bank among the bushes, and in one of them an Indian boy fishing. On the bank, a few feet above was a fire and an earthen pot placed over it upon some stones. A few palm leaves at one side sheltered a hammock that was hung between a couple of stakes, in which a naked, brown skinned, little fellow swung, while his mother cooked the fish over the fire. Back of these a few rods under the shade of some rude scaffolds covered with palm leaves or palha as it is called here – several In-dians were at work building new and repairing old canoes for the coming fishing season which will be at its height in November, when the

After several days of watching and waiting at Santarem, we finally went on board the steamer Obidos [Óbidos] at mid-night of the nineteenth of August, and at eight o’clock the next morning we were at this place.

Professor Hartt set at work immediately to get a canoe and men, and early on the morning of the twenty-first we were on our way to the mountain of Erenê [sic; Ererê]33, near which the Professor last year discovered a bed of Devonian fossils. We sailed up the little river upon which Monte Alegre is situated, but had gone but a short distance when, on turning a point, we came in sight of Erenê [sic; Ererê], twelve or fifteen miles distant, but rising up a great rough barren almost perpendicular crag, from the lower country about it, – after sailing six or eight miles we turned to one side into a narrow winding igarapé, which led us part of the time directly back toward Mont/ Alegre, and the Indians taking down the sail paddled the rest of the way.

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33 Cf. Hartt, 1872, 1878.
water is so low in the lakes and streams that the fish can be easily taken. All the native vessels on the Amazon that I have seen yet, whether trading/ schooners of twenty or thirty tons/ burden, or little fishing canoes are all/ made substantially after the same/ model. A narrow trough is first hewed/ out and shaped at the ends and is then/ spread open by fire, when end pieces/ and thwarts are put in, and, after/ calking with the pounded bark of the/ tree which bears the Brazil nut and/ smearing with native pitch, if the/ owner is too poor to buy that from/ abroad, the vessel is ready for service,/ unless it is wished larger, when side/ pieces are nailed upon the original/ casque until it is of the required size./

Loading our baggage upon our/ men's shoulders, we walked to the/ village over a rolling plain covered/ with coarse red gravel and small/ stones, which were not hidden by the/ bunch grass that grew among them./ A few low trees and great bunches of/ cactus twenty or thirty feet high gave/ the barren hills a beautiful but after/ all a strange appearance, after/ my long stay among the overwhelming/ ing vegetation that elsewhere has cov/ ered the shores of the Amazon. It/ seemed pleasant enough to be able to/ walk along without having one's feet/ tangled at every step with vines, or/ one's face and hands cut to pieces/ with thorns and cut grass. The/ mountain now stood up first before/ us, and we could plainly see the caves/ in its sides, and the curiously shaped masses of rock on the summit. We/ finally crossed a little brook and came/ into the straggling little village of fif/ teen or twenty palha houses, standing/ among groves of orange trees and near some springs that break out at/ the foot of the mountain. There were/ no enclosures about the houses, and no signs of civilization but the/ little whitewashed church with a bell/ hung in a frame beside it. We stop/ ped at the door of what appeared to/ be the house of the principal man of/ the village, there being an old Por/ tuguese two-wheeled cart in front of/ it, under some orange trees, which/ proved his title to at least the two/ oxen necessary to draw it. This was/ when the Professor and his party had/ lived last year and though the propri/ etor was absent with his family at/ work in his patch of mandiocca, we/ made free to enter and make ourselves/ at home. Just at night our host Sen/ hor Liberato – a tall, lank Indian, with/ a little rough straggling beard upon/ his chin – returned, and his wife and/ daughter set about getting us supper/ which consisted of farinha and dry/ salted fish boiled, with a bowl of the/ warm water in the fish was/ cooked, which served for a sauce/ after being well seasoned with red/ peppers and lemon juice. The meal/ was spread upon a mat on the ground/ and we sat or lay around the edges of/ this as best we could, each one help/ ing himself until we had made a/ hearty meal, though we could not/ help mentioning the good things at/ home. We passed several days in/ this way, though the fish and/ farinha seemed to grow poorer, going out/ every day with bags and hammers/ breaking out the sand stones and/ shales which crop out upon the plains/ around and bringing back large num/ ber of fossils./

On the fifth day we concluded we/ would stand it no longer, and the/ Professor went out in the evening/ and came back with a chicken under his/ arm, but this did not seem to have/ any satisfying effect at all, and the/ next day we went in a body to the/ house of a young Indian woman who/ owned a small flock of sheep, which/ she did not seem to wish to part with/ but by our united powers of persua/ sion we succeeded in buying a lean/ red, grizzled fellow that did not/ promise much in the eating line, pay/ ing three dollars for it, a dollar apiece./ We then marched home in triumph, a/ little Indian boy dragging the sheep/ after us with a cord about its neck./ Our friends were all at the field at/ work and we could not wait for them/ to come back, so we concluded to kill/ and dress it ourselves, which we fin/ ally accomplished. Professor Hartt/ laboring at one leg with an old dull/ case knife as if he was about to un/ earth some new theory for the formation of the Amazonian valley. We/ then filled the big kettle with pieces of/ meat and throwing in plenty of/ salt and red peppers, and some garlic,/ we crowded the fire, and stood around/ anxiously waiting until it should be/ cooked enough to eat. It seemed an/ age in reaching this point, but every/ thing must come to an end, and we/ finally dished it out and began eating./ I do not wish to prejudice my reputa/ tion for truth-telling so that I will not/ state the amount of tough mutton we/ ate at that meal, and a catalogue of/ the songs sung and toasts proposed/ would not perhaps be interesting./

The next morning we started to/ visit the mountain, the Professor tak/ ing along his camera so as to photo/ graph some of the views from the/ summit. We passed by the springs/ which supply the village with water,/ which are in the midst of beautiful/ groves of palms of several species, and/ then came out upon a plain of deep/ sand that reached part way up the side/ of the mountain. This had been lately/ burned over, the fire running far up/ the mountain side and adding much/ to the natural barren appearance of/ things. Upon quite a portion of the/ mountain side the rock is perpendicu/ lar, but we found a pass, and after a/ good deal of hard climbing we ar/ rived at the top. Along the perpen/ dicular face of the rock there are/
many caves and we entered several of them, one of them appearing to have been used by a fox or some small species of ounce as a den. They were all filled with bats, and in the largest one we entered, which is thirty feet high and quite long so that it is called the church by the natives, there were so many that the noise they made in flying sounded like a large stream of water running over the rocks. Many species of small ferns were growing in the crevices of the rocks, but some of the most beautiful were already killed by the dry weather. Upon the top of the mountain there is a sandy plain, covered with brush grass and low trees, among which are many cajus. There are many holes of one of the smaller species of armadillos, and many tracks of deer and tapirs, as if they had come up here to escape the hunting from below. The living rock rises up here and there out of this plain in curiously shaped crags, these taking in some cases the form of columns or statues, often larger at the top than at the base. In one part of the rock, which is a coarse white sandstone, is continuous for a long distance, showing strata that dip of toward the Amazon with an angle of perhaps eight or ten degrees. Some of these rocks have curious figures painted upon them with some sort of red paint. Professor Hartt when here last year copied these end has already published them in the American Naturalist. Some of these that I saw here resemble those out in the rocks upon Serra da Escama, at Mont [sic; Monte] Alegre, but the most of them are rude representations of the human figure and that of some of the animals.

From the top of the mountain, which is nine hundred or a thousand feet high, we had a splendid view of the river and country about us, and the plains over which we had been working were spread out at our feet like a map. At the north, distant perhaps forty or fifty miles, a long chain of table topped mountains rose up apparently to a height of fifteen hundred or two thousand feet on the south the table lands behind and below low Santarem upon which the Americanians have settled, were in plain sight. We found a few specimens of fossil wood, and having made some collections of the different qualities of the rock and the Professor having finished his photographs, we went down, but much faster than we came up.

Professor Hartt generally spent his evenings in studying the ‘lingua geral’ and in collecting the traditions of the Indians, going to the hut of some old man or woman, this language having nearly fallen out of use among the younger people here, and listening by the hour as they told stories of the spirits of the mountain and of the woods and the water, for they people these with as many spirits as the Greeks did. The origin of the ‘lin-gua geral’ seems to have been the following, though I have nothing but the account of certain of the Brazilians: The Jesuits wishing the In-dians to speak a general language in order that they might be the more easily taught the principles of Christianity, took the idiom spoken by a certain tribe of the great Tupi nation, which then dwelt all along the Amazon, and the sea coast, and enforced this in their schools and in all their dealings with the Indians of whatever nation, meantime introducing into their language such words from the Portuguese as they considered necessary. Mr. Derby and I accompanied the Professor on some of these trips, and one evening we heard the following story of the Curupiri [sic; curupira] which I think is a spirit of the forest which delights to lead belated hunters astray. The Professor heard this story when here last summer, and has published it, likely in much better form:

57 Orville Adalbert Derby (Kelloggsville, New York, July 23, 1851 – Rio de Janeiro, November 17, 1915) studied geology at Cornell University, obtaining his degree in 1873. While a student, he was invited in 1870 by his professor Charles Frederick Hartt to follow him in a study travel to Brazil (the Morgan Expedition), and returning again with him in 1871, this time going to the Tapajós river in the Amazon. Just after his graduation Derby accepted a post of assistant professor at Cornell and briefly substituted for Hartt during another travel to Brazil in 1874. In June of the same year, Derby got his doctoral degree with a dissertation on the Carboniferous Brachiopoda in the Amazon. When Hartt organized the first Geological Commission of the Empire of Brazil, Derby was nominated its assistant and returned to Brazil in December 1875. In 1877, with the end of the Commission, Derby decided to stay in Brazil and accepted a post at the Museu Nacional do Rio de Janeiro. He became also a member and director of the Geographic and Geological Commission of São Paulo from 1886 to 1904. This commission later originated the Instituto Astronômico e Geofísico da Universidade de São Paulo. Derby founded also the Botanical Gardens in São Paulo. In 1906 he was nominated to the Brazilian Geographic and Geological Survey. He worked in many domains of the geological sciences, such as mineralogy, economic geology, physical geography, cartography, petrography, meteorology, archeology and paleontology. He published 173 papers on the geology of Brazil from 1873 to 1915 and was also the publisher of the first geological maps of Brazil, in 1915. Derby never married and led a solitary existence, living mostly in hotel rooms. After the failure of an invitation by the state government of Bahia, he returned to Rio de Janeiro and committed suicide in a hotel room, on November 27, 1915, a few months after gaining Brazilian citizenship. He was 64 years old. Cf. also Gonçalves, 1952.

58 Cf. Hartt, 1873.
An Indian was out fishing, but/ after working all day had caught/ nothing, and was about going home in/ despair, when he saw a youth very/ short and small, drawing fish out of a/ deep hole in the stream, – every time/ he stooped down he drew out a fish, and the In-Indian began to have some/ suspicions that it was a spirit, but led/ by hunger he went up and asked the/ youth for some fish. The youth told/ him do draw out for himself, but he/ did not have much success, and the/ youth fished for him, drawing out an/ immense number and giving them to/ him. The Indian then sat down and/ began to make a very large basket to/ carry the fish home in, but the youth/ laughed and told him that would not/ hold half of them, and then made a/ very small basket himself and put the/ fish all into it and gave it to the In-/dian, telling him to be careful and not/ open it until he got home. The In-/dian then took the basket and started/ for home, but after he had gone quite/ a distance he began to be very curious/ how so many fish could be put in/ such a small basket, and finally sat/ down and opened the basket, when all/ the fish spread out upon the ground./ and do what he would he could get/ but a very small part of them back/ again. So he finally made/ the ground, and do what he would he could get/ but a very large basket to/ carry the fish home in, but the macacos thought this/ would be a good joke, so one of them/ went down and the jabutim clung to/ his back and he climbed up the tree/ with him. When the jabutim had/ got fairly seated on one of the great/ fruits spathes and was ready to eat his/ breakfast, the macacos ran laughing/ off into the other trees, and said, /now we shall see how he will get/ down.” The jabutim said he had eaten all he/ wanted and was then/ looking around to see how he should/ get down, when an ounce passed un-/der the tree, and seeing the jabutim/ said, “O, jabutim!” and the jabutim/ answered, “O, ounce!” Then the/ ounce asked “what are you doing up/ there?” and the jabutim said, “I/ was eating fruit, but I have eaten a/ plenty and now I wish to get down.” “Jump down”, said the ounce. “I/ will”, answered the jabutim, “if you/ will catch me.” Now this was just/ what the ounce wished to do, as he/ privately intended to make a meal of/ the poor jabutim. So he opened his/ mouth, and the jabutim cried “are/ you ready?” and down he came, striking the ounce on the nose and/ killing him. The jabutim then walked/ home well satisfied, but a few days/ afterward, he said to himself, “the/ bones of the ounce must be well/ whitened by this time, I will go and/ get one and make me a flute.” So he/ went to the inaja [inajá] tree, and sure/ enough, the bones of the ounce had/ been well picked by the (urubu) the vulture, and were very white. So he/ took one of the leg bones and went/ home and made him a flute.

As he was sitting one day at the/ door of his hole, playing on his flute “fee, fee, I play on my flute of an/ ounce’s bone,” an ounce happened to/ be passing near and hear him, and/ coming out of the forest, asked,/ “what is that you are playing?” and/ the jabutim answered, “I was play-/ing ‘fee, fee, I play on my flute of an/ ounce’s bone’.” The ounce was hardly/ satisfied by this explanation, but said/ “if you play ‘fee, fee, I play on my/ flute of an ounce’s bone,’” any more/ I shall kill you.” The jabutim prom-/ised, but the ounce went into the forest near and stopped to listen. As/ soon as the ounce was fairly out of/ sight, the jabutim went on playing/ “fee, fee, I play on my flute of an/ ounce’s bone,” when the ounce came/ dashing out of the forest to catch him. The jabutim slipped into his/ hole, but the ounce put in his paw/ and caught him by the leg. The/ poor jabutim braced himself against/ the side of the hole and hung on with/ all his might, but he was nearly tired/ out when a happy thought struck him/ and laughing out, he said, “O, ounce,/ what are pulling so hard at that/ root for?” The ounce thinking he/ must be pulling upon a root, let go,/ and the jabutim drew back laughing/ into a place of safety. The ounce/ was so mortified that he watched by/ the hole until he died of vexation/ and hunger.

The similarity between this story/ and those of the Germans in which/ the beasts talk with each other and/ play tricks upon one another is re-/markable./

After a second visit to the moun-/tain we packed our collections and/ came back here, Mr. Derby going in/ the canoe to take care of the speci-/mens, while we walked across the/ country, passing over stony and sandy/ plains unfit for cultivation. After a/ visit to Tu-jury, another mountain/ nearly north of this place, we shall/ return to Santarem.

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60 *Inajá* – *Maximiliana maripa* (Arecaceae).
three men to carry our baggage. We walked ten or twelve miles across a sandy campo, covered with bunch/ grass, but too poor for cultivation/, when we arrived at the village or set-tlement of Sandoso [?], which is placed/ out here near the foot of the high/ lands where there is considerable/ timber and the soil is rich enough to raise mandioca. There were planta-tions of several acres in extent, and/ the people seemed to be all busy in/ soaking, pressing and roast-ing farinha. We stopped here to wait for our men/ to come up and to get our dinner/, when we again set out, and after a/ couple of hours walk came to the little/ stream called Jacare [Jaca ré], which is just at/ the foot of the mountain. There were/ a couple of old palha sheds here and/ good water, and we concluded to/ camp for the night and go up the/ mountain early the next morning.// We spent an hour or two looking/ along the stream for plants and rock/ and shells, while our men cooked/ supper, and then we set to work cut-ting palha to make beds and gathering/ wood to smoke away the mosquitoes, we had reason to suppose would be plenty at night. After thus/ getting everything ready we sat down/ and awaited our fate, the Professor/ setting the Indians to telling stories/ to pass away the time. Among the/ stories they told were the two folow-ing which the professor collected last/ year and published on his return/ home62:/

“How the Jabutim Proved his Strength”

A jabutim was at the sea-shore one/ day and said to the whale: “Oh Baleia, I am as strong as you are!"/ The whale made sport of him but the/ jabutim said “Let me tie this vine around your tail and I will drag you/ out upon the land.” So he tied the/ vine around the whale’s tail and then/ said: I will go into the woods and/ when I am ready to pull I will tap on/ the vine and then you must pull with/ all your might, or I will pull you out/ of the water.”/

The jabutim then went into the/ forest and finding a tapir, said to him/ “O Auta [sic; anta]! I am stronger than you/ are aud [sic; and] if you think I am not let me/ tie this vine around your leg and I/ will pull you into the water.” So he tying the vine to the auta’s [sic; anta] leg and/ then said to him, “O auta [sic; anta]! I will/ now go down to the water and when/ I tap on the vine pull with all your/ might or I will drag you in.” Then/ the jabutim went down to the/ vine and tapped on the vine, when/ the whale dashed out into the water/ and dragged the auta [sic’anta] nearly down to/ the beach, and now
the whale being tired, the auta [sic; anta] pulled and nearly dragged the whale out of the water, and so they pulled, first one and then the other, until they were well tired out, when the jabutim went down to the water and said: “Oh baleia! will you admit that I am very strong?” “Yes,” said the whale, you are very strong, untie me.” Then the jabutim went into the forest and found the auta [sic; anta] and said “Oh auta [sic; anta]! will you ad-/mit that I am stronger than you are?” And the auta [sic; anta] said “yes you are very strong, untie me.” And so the jabutim got the name among the beasts of being very strong.

“How the Jabutim got his Reputation for Swiftness of Foot.”

The jabutim once met a deer and said to him “Oh Veado! I am as swift as you are;” but the deer made sport of his short legs and said, “you cannot run;” but the jabutim said “let me run in the forest while you run in the campo and I will beat you?” The deer said: “no one can run in the forest;” but the jabutim said, “I can run faster in in [sic] the forest than on the campo because I am accustomed to running there.”

So they appointed the day for the race, and the jabutim went and col-lected all his friends and relations, the macacos, the ratons [sic; tatus], the antas, &c., and placed them all along the edge of the forest, saying to each, “when the deer comes along and calls, if he is behind you answer, but if he is before you say nothing.” So at the appointed time the jabutim took his place in the edge of the woods and the deer on the plain and the race began. The jabutim did not move but the deer walked leisurely [sic] along, and after going a short distance stopped and putting his head over his shoulder and looking back he said: “O jabutin [sic]!” But a voice in front of him answered: “O veado.” The deer pricked up his ears at this and trotted on quiet quickly for a distance and then stopped and looked back and cried “O Jabutin!” when he heard a voice answer away beyond him, “O Veado!” The he began to run, crying “O Jabutim,” as he ran; but there was always a violice ahead of him that answered “O Veado;” and so he ran and ran until he dropped down dead, and so the jabutim won race [sic] and got the reputation among the beasts of being very swift.

The Indians seemed to be very much pleased with these stories and showed us how the auta [sic; anta], in the trial of strength stuck his toes into the ground and held on to keep from being pulled into the water, and, in the race between the deer and the jab-/utim, with what a scornful air the deer first looked over his shoulder and cried “O Jabutim,” and how startled he looked, when he heard the answer far ahead of him.

We were hardly done with these stories when night came, and with it or enemies the musquitoes [sic] in count-/less buzzing, hungry multitudes. We then wrapped up and lay down, but the musquitoes [sic] would crawl under the edges of our blankets and bite and if one of us put his nose out for a breath of air that immediately be-/come a great point of attraction. After enduring this for a short time we threw the blankets to one side and began running and jumping and sing-/ing about the fires, much to the amuse-/ment of our Indians who seemed to take the bites as a matter of little importance. We finally set fire to the palha shed that we did not oc-/cupy and the dry roof made a great light that made the forest and moun-/tain side visible for a while and then it faded in ashes and smoke. Toward morning it grew cooler so that we could bear our blankets and tired out we lay down and slept until day light when after a hurried breakfast we set out up the mountain. Tajury [Itauajuri] seeming to have been utterly unex-/plored until our visit no one knowing any thing about it except a few In-/dians who had visited one edge of it only, after Cowati63 [sic; cumatê or cumati] the bark of a/the forest than on/ the campo because I am accustomed/ to running there./

Various stories were told us of a large lake upon the top of the moun-/tain with a porpose in it, crevices of the rocks filled with monkeys and ounces, &c., and we were prepared to see almost any wonder.

We cut our way along the little stream for a while, and then directly up the mountain side, though the woods were so thick we could not see where we were going. After a cou-/ple of hours work we came out at the lower edge of a great elevated plain, which forms the top of the mountain, and extended on and upward for per-/haps two miles farther before the highest point was reached. We were now perhaps eight or nine hun-/dred feet above the low ground about the mountain and the highest point was still four or five hundred feet above us, but di-
rectly across our path ran a number of deep ravines or cannons with perpendicular rocky sides. The plain was in many places completely bare showing nothing but solid rock, but in others there was a little soil with grass and a few stunted trees. Our men soon cut their bare feet on the rocks so that they could go no further, but we pushed on across one ravine after another and all the time upward, until we reached the highest point where we had a most magnificent view of the sur-rounding country. On the west to-ward Ererê, the mountain was very steep and covered with timber but on the other side toward the northeast the barren rocky plain extended with a dip of perhaps twelve or fifteen degrees to a distance of two or three miles. The mountain is composed of argillaceous sand stone and seems to be a relic of some ancient age that has been tilted up here out of the way while the rest has been perhaps long ago carried into the Atlantic. We found no fossils from which to judge of the age of the mountain, and after the Professor had taken some observations with the barometer to find its real height, we started back and gathering up our men made our way down the mountain; not as before, but along the rocky bed of a stream, dry at this season.

After following this half way down, we found a nice spring bursting out of a crevice of the rocks, and after a good drink all round we went down to where we camped the night before, but only stopped for coffee, and then walked back to Sandoso [?], and early the next morning we walked into Mont [sic; Monte] Alegre, having been gone but forty-eight hours on the trip. We took passage on the fourth of the month on the steamer Arary, and the next morning found ourselves here again.

J. B. STEERE

Letter XXVIII [wrongly numbered; should constitute letters XXVI and XXVII]

[Peninsular Courier and Family Visitant, 10(51), December 22, 1871]

FOREIGN CORRESPONDENCE

Number XXVIII

SANTAREM, BRAZIL, September 10, 1871.

After our return to Santarem we made a visit to the American settlements of Panema and Diamantina, which are upon the mountain or table land back of the town and six or seven miles distant. There are at present four families of Americans at each of those places, with three or four more scattered above, so that there are about a dozen families in the vicinity of Santarem [Santarém], of two hundred persons that came out as colonists with Major Hastings and a large private emigration besides. Of those remaining but four families are of the original colony. This colony that Major Hastings brought here was organized in Mobile and was intended, according to his prospectus to be made up of those high spirited southern men who could not submit to defeat and its consequences, but who were willing to leave home and seek fortunes in another land; with this there was perhaps a hope of transplanting our language and customs to Brazil, and of here regaining the political power they had lost in the States. For some reason or other the men of the quality wished were wanting and for lack of better material the number seemed to have been made up to a great extent of those whom our country could well spare. They took passage at Mobile in the “Red Gauntlet,” a blockade runner which was seized for debt upon their arrival at St. Thomas and the colonist [sic] completed their voyage to Pará in the regular American and Brazil-ian mail steamer. They arrived in Pará on the seventh of September 1867, and after a stay of several weeks were furnished with transpor-tation to Santarem. The Brazilian government had paid their passage from the States and was now to furnish them with provisions for six months, by which time they were expected to have raised their own; but this all remained a debt against the colonists to be paid when they be-came able.

Major Hastings had also procured of the government upon the same terms of future payment a large tract of land upon the mountain, of which, with true American ideas of land each claimed a mile square; land enough to have served the whole colony. A large palha hut or barracks was now built near the mountains, in which they had chosen their tracts and built houses of their own, and a credit was opened with a certain mer-cantile house in Santarem, sufficient to buy fish and farinha, the meat and bread of this country, for six months. Complaints were soon made of the quality of this, which would have been poor enough at best for those accustomed to American living and some expended their credit in sar-dines and wheat flour, the latter of which sells here at from twelve to sixteen dollars, and they were soon begging of government for something more to eat. Others tried to cook the farinha and to make something fit to eat of it in their way, but all such experiments turned
out failures their [sic; there]/ being enough acid al-
ways present in the farinha to give such dishes a most/
disagreeable [sic] taste. Many now dis-/paired of do-
ing any thing here and/ hung about the streets drunk,
and/ ragged, and dirty – both women and/ men– for
rum was the only thing/ cheap in the whole place and
upon/ two or three cents they could get/ most glo-
rously drunk and forget/ their troubles. About this
time/ Major Hastings died and then gov-/ernment
refused to recognize the con-/tract existing with the
colony, not/ even paying the surveyor employed/ by
Major Hasting to survey the lands/ not recognizing
the surveys made by/ him, so that the colonists were
left/ without legal boundaries to their/ lands, and with
no chance to pay for/ them except such as the Brazili-
ans in/ [sic] general have, and the Americans/ now
here have no titles to the soils/ they occupy and no
way of getting/ it except by employing a government/
surveyor from Parà [Belém], at great expense/ to re-
survey them and then paying/ the regular price fixed
by the Brazil-/ian government. The laws of Brazil/ are
very strict in regard to debt, the/ one in debt becom-
ing almost literally/ the slave oh his creditor, being
oblig-/ed to work for him when called upon./ and
not being allowed to leave until/ he has permission, or
has paid his/ debts./

The colonists were now debtors to/ the govern-
ment, but many of them/ long before this had stolen
their way/ down the river to Parà, and from/ there
had begged or worked their/ passage to the States. At
last the/ government seems to have lost all hope of
succeeding with the colony/ and it finally gave many
free pass-/ages on the steamboats down the/ river to
get rid of them. In this way/ all got away, except a
few families/ who were too poor to go back decent-/ly,
and too proud to do so in any/ other way, and of these
the Ameri-/cans now here are made up./

We first went to Pauema [sic; Panema], the ori-
gi-/nal seat of the colony, and stopped at/ the house
of Judge Mendenhall, an/ Alabamian. The Americans
have/ failed to find water upon the moun-train after
digging to a depth of a/ hundred feet but the best
farming/ lands are always upon the table lands/ at
the top, so that they have all set-/ted at the foot of
the mountains near/ springs and small streams, with
their/ fields four or five hundred feet above/ and steep
roads and paths leading up/ to them, and, where sugar
cane is ex-/tensively raised, – “shoots” of boards/ down
which the cane slides to the/ bottom. The Judge’s pal-
ha house/ had a floor of puncheons and the rail/ pens
with the pigs, and the great/ flock of chickens about
the door,/ made one think of frontier life at the/ west,
though the palm leaf houses/ with doors of the same
material and/ without windows, seemed rather slight/ in
comparison with the solid struct-/ures of logs that
one generally sees/ in like circumstances at home. The/
buildings stand yet among the native/ trees among
which I noticed several/ covered with beautiful scarlet
[sic; scarlet] and/ lilac colored flowers. Just below the/
house stood a great tree of cumaru\textsuperscript{65}/ or tonka-bean,
which was just shedding/ its fruit, which is an almond
like nut,/ covering the bean of commerce, but/ having
on the outside of the shell a/ thin coating of aromatic
fruit which/ is much sought after by birds and mon-
keys, and even the anta is said to be found of it./

We arrived about supper time, and were pleased
to see plenty of corn/ bread, squashes, beans, etc., on
the/ table; there being also a little fish/ and farinha
[sic; farinha] to remind us perhaps of/ what we had
been using, though/ there was no need of this to give
us/ good appetites./

The Judge and his family were/ very busy with
their tobacco, which/ they cure and prepare for market
ac-/cording to the Brazilian method,/ pressing it out
into long rolls and/ then winding it closely with the
stem/ of a small climbing palm. The next/ morning
we went up the mountain/ along a nice road that was
supported/ on the lower side by logs and brush/ and
dug out of the side of the moun-/tain on the other.
On the mountain/ we found a field of eight or nine/
acres, a part of it in fine sugar cane,/ an acre or so in
tobacco. And corn,/ and beans, and squashes lying all/
around. In one part there was a/ quantity of American
cotton of good/ quality but almost useless without/
gins. The Brazilians generally use a/ coarse kind of
cotton in which the/ seeds all cling together in a mass,
so/ that the cotton can be easily picked/ from them
by hand, and one will al-/most always see around
the cabins of/ the Indians several plants or trees of/
this – for it often grows ten or twelve/ feet in height,
which lives many years/ and give cotton, a few bolls
at a/ time, nearly all the year round. One/ of the most
common and characteris-/tic sounds one hears when
passing/ their cabins is the clatter the women/ make
in beating their cotton into/ rolls or bats for spinning.
The spin-/ning is done upon rude wheels that/ turn
with the foot. The cord is then/ doubled and twisted
by passing it/ over a hook in a rafter overhead and/
twirling a heavy spindle in the hands/ winding on the
twine as it becomes/ sufficiently twisted. The twine
or/ cord thus made is used for hammocks/ for which
a coarse strong cloth is re-/quired, the loom being
merley [sic] a/ square frame with the warp fastened/
above and below, a flat sharp edged/ stick being used

\textsuperscript{65} Cumaru – \textit{Dipteryx odorata} (Fabaceae).
to drive the filling/ to its place. Many hammocks are/ made in this rude slow way, but I/ have not seen the
native cloth used/ for any other purpose./

8After seeing all the Americans at/ Panema we concluded to cut our way/ across the mountain, to
Diamantina,/ where the rest of them live. The/ distance is calculated to be six or/ seven miles but we
certainly traveled/ two or three times that distance start/-ling at seven o’clock in the morning/ and trav-
elling steadily until five in the/ afternoon: one of us
walking in front/ with a great knife and cutting the/ vines and bushes that were in our/ way. Long before
we got through/ we were glad to find some of the/
water vine, a reddish vine that is well/ known to all Indians and hunters./ It contains quite an amount of
pure/ cool water and is quickly cut into/ lengths and
tipped up, with the ends/ in a cup, one can soon get water/ enough to quench thirst66. We came/ out finally
at the house of Mrs. White/ a widow woman who lost her husband/ in this country, she still lives two or/
three miles from neighbors, except/ the Tapiuas or In-
ians, who, she said/ treated her with great kindness,
near/-ly always bringing her a piece of fish/ when they
killed one, and after send/-ling her little delicacies,
a few hands/-full of fresh farinha while they were/ making it, or a few ’berjus’ [sic, beijus], little/ farinha
cakes. She seemed glad/ enough to see somebody that
could/ speak English, and hanging ham/-mocks for
us to rest in, she made us/ a cup of coffee; while she
could/ speak English, and hanging ham-/mocks for
us to rest in, she made us/ a cup of coffee; while she
was doing/ this, her daughter, a great strapping/ girl,
who seemed to thrive under the/ Brazilian sun, came
in bare footed/ from the field when [sic; where] she
was doing/ this, her daughter, a great strapping/ girl,
who seemed to thrive under the/ Brazilian sun, came
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in bare footed/ from the field when [sic; where] she
was doing/ this, her daughter, a great strapping/ girl,
The timber along the mountain is/ generally not more than a foot in di-/ameter, though quite straight and/ tall, as if it was of recent growth, but here and there are great gnarled/ *Piquiá* [píquiá] and *Cas-
tanhas* and *futas* which look as if they belonged to an-/other generation. They may have/ been planted or at least protected by/ the ancient possessors for the fruit/ they bear.

We found some very beautiful ferns/ along the rocky streams and about/ the springs that break out along the/ mountain, and at Diamantina I saw/ for the first time a fern fern, with a/ stem six or eight feet in length, a most beautiful tree. After pack-/ing up our collections of plants bits/ of crockery, etc., and making ar-/rangements with some of the/ people to bring them to town we/ walked back, having become pretty/ thoroughly acquainted with the re-/sults of American emigration to this/ part of Brazil./

There are certainly many things/ that are fa-
vorable to the success of/ Americans who settle here. The soil/ is very rich and its producing powers/ are increased by the moist climate./ There is no winter to prepare for, no/ need of cutting or curing hay ort/ building warm stables for stock, so/ that the farmer can always be produc-/ing. Prices are high for nearly/ everything that can be raised, and/ sugar being twelve and fourteen cents/ per pound, corn a dollar and a half/ bushel, tobacco a dollar per pound,/ etc. etc./

Among the objections to Amer-/ican emigration is/ the food that the/ country furnishes which at best is/ poorer than that of ordinary labors/ at home./

The settlers have no cows, the nat-/live cattle being worthless for milk,/ and those imported likely worth just/ as little until they become limited,/ so that milk and butter are things/ almost forgotten by them, though/ they sometimes make a substitute for/ the latter from the oily fruit of the/ *Piquia* [píquiá] and other tree. Potatoes/ can not be raised here and those im-/ported from Portugal are poor and/ cost from eight to ten cents per pound./ Sweet potatoes grow as weeds and/ can hardly be got rid of, but the po-/ta- toes themselves are generally poor,/ for what reason is more than I can/ tell. Wheat flour must be imported/ from the States and costs too much/ to be in common use, but the Ameri-/cans all have small steel mills that/ turn by hand, a many of them use/ very little farinha, living almost en-/-tirely on corn or rice cakes. Hogs/ are easily raised, but the settlers as/ yet have no fences about their crops,/ and can not raise as many as they/ other wise would. Cattle would/ hardly thrive in the thick woods, but/ are easily raised where there is campo/ and where settlers have enough/ ground un-
der cultivation to spare/ some for pasture, they can raise beef/ with little trouble./

The climate is not near so bad as/ it is thought to be by the people in the/ United States. There is a breeze/ blowing almost continually from the/ east, and the nights are generally/ comfortably cool. I do not think the/ weather even gets as oppressive as/ it does at home, sometimes during/ the latter part of July. The Ameri-/cans are able to work moderately all/ day in the sun, but, after all, perhaps/ from lack of the invigorating effect/ of our winters, or from lack of the/ accustomed food, they want the ro-/bust look of Americans at home, and/ their children, especially, look poor/ and puny./

The question of procuring labor, is/ a much more perplexing one here than/ it is in the United States. Slaves are/ running down in value, and useful-
ness, as the question of liberating/ them is consistently/ before the country/ and every one understands that the/ system cannot exist much longer./ The Tapuios or native Indians having/ little more ambition than our own/ Indians in the United States. Of/ their own free will they will do little/ but fish and hunt and make a little/ farinha, but since their acquaintance/ with the whites they have acquired/ some tastes that cost many of them/ dear. They delight in finery and to/ dress themselves in a becoming man-/ner for a church feast or a baptism,/ they will go to some fazendeiro [sic; fazendeiro] or/ shop-keeper and borrow a few mill-
/reis [sic; mil réis] promising themselves to pay it/ at the next fishing season, or to make/ a few pounds of rubber, but the craf-/ty white into whose hands they have/ fallen, is in no hurry for his pay, and/ is perfectly willing to lend them more./ The Indians keep no ac-
count and be-/fore they know it they are forty and/ eighty dollars in debt, an immense/ sum in their eyes, and so they be-/come serfs to their creditor, work-
ing/ for him when called upon, losing the/ rights to leave the neighborhood un-/less with his permission. Their pat-/ron gives them a few days now and/ then to plant their mandioca patches,/ and he sells them a little coarse/ cloth and they and their/ children go on working for him/ as if they were literally slaves. They/ may in some cases pay up their debts/ and become free, but such cases must/ be rare. I do not know to what ex-/tent this system is recognized by the/ law of the land; but it is certainly/ upheld by the officers of the/ government, who in all cases send/ such men to their patrons, when they/ attempt to get away, and some of the/ Brazilians with whom I have spoken/ on the subject say that it is necessary/ to force these men to labor, and they/ wish even severer laws in this

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68 *Piquiá* – *Caryocar villosum* Caryocaraceae).
Letter XXVI [wrongly numbered; should have been letter XXVIII]
[Peninsular Courier and Family Visitant, 10(48), December 1, 1871]

FOREIGN CORRESPONDENCE

Number XXVI

MANAOS [Manaus], BRAZIL, September 27, 1871.

On the night of the seventeenth of this month, I took passage with Professor Harst, and Mr. Derby his assistant, on the little steamer that went up the river Tapajos [Tapajós], and when morn-/ing broke we were thirty or forty miles up the river and opposite a mountain called – Altar do Chão [sic; Alter do Chão69] – which rises much higher than the other hills about it and makes a land-mark that can be seen at a great distance. The river is here six or seven miles wide and its water is of a most beautiful green color with pretty beaches of white sand that reach back to the timber.

The Tapajos [Tapajós] seems to be damned up at its mouth by the Amazon and it acts back like a great lake with an average width of perhaps five miles nearly to Itaituba two hundred miles above. On the south side there is generally a perpendicular bluff of sandstone from twenty to eighty feet in height which is often of a beautiful pink color, but on the north side the shores are usually low with sand/beaches. We saw few of the palha huts of the fishermen, which are so common along the Amazon and the reason is said to be that there are few if any of the fish called pararucu [sic; pirarucu] the staple of this country in the Ta-/pajos, that fish likely being especially fitted for muddy streams like the Amazon.

We stopped first on one one [sic] side and then on the other at little vil-/lages when the mate would take a/boat and crew and go on shore with the three or four letters that made up/ the mail, then perhaps one or two/ Portuguese traders would come on/ board and receive their freight, a few/ gallons of cachaca [sic; cachaça] and a box or two of crackers, and getting into their/ canoes their Indians would paddle him ashore, while we steamed away/ to go through the same performance at another places. Now and then at/ one of these villages a wood scow would haul alongside and the crew of the/ the steamer forming a line to the/ batchway the men in the boat would begin handing out the wood a stick at the time while the first man of the/ line – the burly old Portuguese boat-/swain – would begin counting in a/ voice loud and deep enough to be heard half a mile – pri ме р до/-dois-tres-quarto – and so on until he had/ reached fifty, when he would throw a stick to one side as a tally and go/ over his counting again.

After a pleasant trip of two days/ we arrived at Itaituba, a little town/ of perhaps three or four hundred in-/habitants but of some importance as/ the

69 Altar [sic] do Chão – Alter do Chão, named after the homonymous town in Portugal (Alentejo). Almost all authors travelling in the area made the mistake of calling it “altar”; the name “Alter” comes from the Latin Abelterium or Eleteri, the original name the Romans gave to the village in Portugal in 204AD.
headquarters of a trade with Cuiaba [Cuiabá] which is carried up the river by canoes and by portages. Itaituba is near the first falls of the river which has been spread out below like a lake but narrows down here into proper dimensions.

Professor Hartt found here last year a bed of Carboniferous fossils and as we stepped on shore we picked up several pieces of limestone, with fossils showing in them. The beach was covered with worn fossils, quartz crystals, and curiously colored pebbles.

I now bid good-by to the Professor and Mr. Derby with whom I had passed a month very pleasantly and was soon making my way back to Santarim [sic; Santarém] to again turn my face toward the Pacific. As we went down we took in a little freight here and there, funny little bundles of India Rubber made by piercing the cakes and running tough vines through them.

They were just as they had come from the rubber camps, and each bundle of twelve or fifteen cakes represented so many days work of some poor lonely fellow, who had worked his tread mill round through the woods for two weeks or more until he had made his load, and had carried it down to the village to the hut of his patron and then after having a little spree on a few cents worth of cachaca [sic; cachaça] and getting his supply of fish and farinha he had again taken to the woods.

The cakes in each man’s bundle had a certain family likeness and I imagine I could read something of a man’s character from the rubber he had made.

At Carrituba [sic; Itaituba] we took on board about fifty bundles of Sarsaparilla [sic; Smilax (Liliaceae), from which roots was extracted a drug considered an efficient depurative.] which is put up for market in great cylindrical rolls a foot in diameter and four feet in length closely wrapped with vines. It was likely destined to soon reach the laboratory of Ayers or Townsend or Bristol.

I arrived in Santarem just in time to get my baggage on board the “Belem”, bound for this city. When we arrived at Obidos [Obidos] I went on shore to see my old friends Dr. DeMattas [sic] and wife and found that they had remembered me and had been collecting things that they thought would be valuable for the museum of my University.

After we left the high lands of Obidos we made our way through low country which all appeared to be flowed at high water until we reached

foreign correspondence

Number XXVII [sic]

ITUCHY [mouth of the Ituxi River], BRAZIL, October 27, 1871.

On the eleventh of this month we steamed out of Manaus and down to the mouth of the Rio Negro, or as it is generally called here, the mouth of the Solymoens [sic; Solimões], the Rio Negro being considered the main stream and the Amazon taking the name of the Solymoens [sic; Solimões] above its junction with it. Here we waited all night and the next day for a pilot who was expected by another boat, the contract with the government compelling the steam-boat companies to start a boat on the trip upon the allotted day, though they may keep the passengers waiting a week in the boiling sun just out of sight of the city. We passed the day as best we could watching for the steamer that would relieve us, and fishing over the side of the vessel. Just at night an immense alligator came floating about the steamer to examine us, and lowering one of the boats and gathering all the guns and revolvers on board, we had an exciting chase after him, and succeeded in putting several bullets through his scaly hide, but he escaped us in the darkness. After night the steamer came up, and taking our pilot morning found us slowly pushing up against the current of the Amazon. It had already fallen fifteen or twenty feet,
leaving bare gray clay banks in sight. In many places the banks thus exposed, being softened and weakened by its long soaking had slid into the river carrying with it a great piece of the woodland behind. The only sign of life was here and there a loon or a king fisher perched upon the snags that now begin to show along the banks, or the eyes and the tip of the nose of an alligator as he lay near the shore, patiently waiting for what fortune should send to his jaws. A Portuguese by the name of Fouseca[sic; Fonseca], who was going to the Purus, with his wife and ten or twelve servants to make India Rubber, kept up a con tinual fire all day upon the alligators with an American repeating rifle but without much damage to them. Just at night we stopped at Manacapuru, a little wooding place upon the Amazon, and the mosquitoes invading the vessel we could not sleep until about midnight, when we started again. The next morning Senhor Fouseca[sic; Fonseca], who spoke a little English, came to me and told me that his little son was lost and that he was afraid that he had fallen overboard. He slept in the same hammock with a servant, a stupid looking Indian girl, in a little open cabin at the stern of the vessel. According to the statement of the girl, he had crawled out of the hammock just at daylight and she had gone to sleep again. There was no railing about the place and the little fellow had probably walked over the side and fallen naked into the Amazon and no one had heard him though his mother's hammock hung just beside him. The mother cried a little for a day or two but before the end of the voyage, seemed to have gotten over the occurrence and even in a slight flirtation with the captain. The father scolded the servant for her carelessness, but took a game of cards to console himself.

The passengers were still more careless; one or two only joining the father in searching the vessel. The rest never moved from their seats but after blaming the father for his want of care for a few minutes, went on joking and laughing and discussing the price and prospects of rubber, farinha, etc., as if nothing had happened, though the day before they had been petting the little fellow and swinging him in their hammocks.

The Indian girl put on a stolid indifferent countenance, but I thought that I could detect a look of satisfaction as if she was well rid of a burden. I never dreamed of such want of feeling in people who call themselves civilized and can only account for it from the loose family ties exist ing here.

We now ran out of wood and spent the next four days in crawling one day[sic] steam up to the mouth of Purus tying the steamer up to the bank dur ing the day while the crew went on shore and cut wood, at night getting up steam and running a few miles until the wood was gone and then tying up again. The passengers spent their time in sleeping, playing cards, etc., and I took advantage of the time to collect a few birds, shells, etc., along the beach. We had a cast net on board and the captain often sent a boats crew to fish, for the advantage of the cabin table which was already nearly reduced to the staples of the country, fish and farinha. By going with them I procured several curious and rare fish.

In the woods I found cacao of the same species that is cultivated on the lower Amazon, growing wild and ap parently to have fruited plentifully, and I afterwards saw it in larger quantities not growing upon ranges of mountains as some old geographer has fancifully represented, but in the valley land or varzea, which is reach ed by the flood. Upon one of these dull days a lucky shot from Senhor Fouseca's rifle killed one of the alligators and we towed him to the vessel and hoisted him on deck.

He was an ugly looking fellow over eleven feet in length and with jaws that would engulf a man with little difficulty. A bullet through the brain had rendered him powerless to do concerted mischief but he floundered about the deck in a way that put the timorous to flight. The captain finding that I wished the skin suddenly became enthusiastic in the cause of science and ordered the men to take off the skin to send it to Pará [Belém]. The cooks and the deck hands went to work with their great knives and soon had him half flayed in spite of a few lively squirms and were preparing to attack his tail, but this seemed to be a member in regard to which he was especially sensitive for they no sooner attempted to cut through its tough plates than by two or three blows with it, either of which would have floored a man if he had been well directed, he cleared the deck. The captain now urged on the men again and three or four of them clinging to her tail the rest went on with the skinning and soon had his hide spread on the deck.

The first place we reached in the Purus was Berury [Beruri] which is just at the mouth and here we found wood so that we were no longer obliged to cut it. The Purus is here about half a mile wide but soon narrows to sixty or eighty rods which it holds uniform ly for a great distance. The water is much cleaner than that of the Amazon but still of a muddy white color. The time of rise and fall in this river is much earlier than in the Amazon, the Purus having reached its lowest in September and already
beginning/ to rise while the Amazon is still/ rapidly falling. The Purus is noted/ even in this country of wonders for/ its serpentine course making according/ to my calculations a decided change/ of course in every two miles. At almost every bend there is a great/ sand beach or praias as it is called/ here. The banks elsewhere are as/ steep as the loose alluvial clay will/ stand. The trunks of trees uncover-lead and left standing/ out of the banks/ in those places where the river is en-croaching on the land show that this/ valley is of very recent formation./ The Purus above where it was dammed by the Amazon was sixty feet/ below high water mark and the asai [sic, açaí] palms, cacao and other trees that/ during the winter I had seen with/ their feet in the water were now far/ above our smoke stacks./

J. B. STEERE

Letter XXX
[Peninsular Courier and Family Visitant, 11(7),
February 16, 1872]

FOREIGN CORRESPONDENCE

Number XXVIX [sic]

ITUCHY [mouth of the Ituxi River], RIO PURUS, Oct., 27 1871.

From Berury [Beruri] we slowly made out/ way up, winding about among the/ sand banks, stopping now and then at/ some rude barric to leave the supply/ of farinha, tobacco and cachaca [sic; cachaça] that/ was to support the poor rubber gather-er during another month. The/ praias were covered with screaming/ flocks of gulls and other birds that are/ more generally in the ocean, which/ had gathered together for the purpose/ of nesting in the sand. We were also/ always in sight of porpoises, of which/ there appeared to be two kinds in the/ river.71 As they come up to breathe/ they point their heads almost perpen-dicularly out of the water and then/ go down with a rolling motion that/ makes them appear to roll through the/ water like wheels. We often passed/ through schools of young turtles that/ would give a stupid wondering look/ at the vessel and then sink to the bot-tom. Turtles form the principal food/ of the inhabitants of the Purus and/ we were very soon reduced to the/ same

fare. The oil from these and/ their eggs, with cacao and sarsaparilla/ used to be the products of the Purus./ but rubber has now driven these from/ the field, or they are left to the slow/ siftless labor of the Indians./

We were now regularly supplied/ with wood, but for two or three/ nights in succession we ran upon/ the sand-bars, and in the morning, while/ the crew were digging the sand from/ about the steamer’s prow, we could/ go on shore upon the praias, where/ I collected many shells, bird’s eggs,/ etc. Among the trees that are found/ along the bank of the Purus, is a/ willow that makes them appear quite/ home like.

The Purus, for the thousand miles/ and more that I followed it, runs/ through a valley of varzia [várzea], or land that is covered with water at the/ flood./ This is the home of the india rubber/ tree, cacao and balsam copaïva [sic; copaiba]. The/ soil is a grayish clay that appears to/ be of recent formation. Back of the/ river at a distance of one, two or/ three miles, on both sides, are chains/ of shallow lakes, and back of these/ still more on the varzia [várzea]. The bottoms/ of these lakes are much higher than/ low water mark on the river and as the/ river goes down they are drained out/ into it until there is nothing left but/ small ponds, which are crowded with/ fish, turtles and alligators that failed/ to make their escape while the/ water was flowing out. In the few places/ where the terra firma, or land which/ does not overflow, comes to the river/ it is easily known being composed of red/ sand and clay, covering beds/ of blue clay in strata, and under this/ in some cases a soft blue sandstone/ is found. This terra firma [firme] is generally/ but ten or twelve feet above the var-zia [várzea], and one looks in vain for hill or/ mountain or something else to break/ the endless monotony of the scene as/ he winds slowly about, day after day, among the praias and the steep banks./

At Itaituba [sic; Itaruba] and Ariman [Arimã] low black/ reefs of rocks appear above water in/ the middle of the river. Upon exam-ining them, I found/ they were composed of blocks of soft, yellow sand-/stone, covered with a coating of iron/ ore, in which I found many pieces of/ fossil wood, which appears to have/ existed in the sandstones: but to have/ all decayed except the parts protruded/-ing and thus becoming covered with/ the iron ore. I also found that which/ appeared to be points of leaves. The/ passengers were quite incredulous in/ regard to my fossils until I showed/ them some of the wood that was not/ yet petrified, though surrounded by/ the rock. They then considered it/ antediluvian, wood such as Eve/ used/ to cook turtles and fish with, they/ having a belief in the literal meaning/ of the chapters of the bible

71 Inia geoffrensis (Blainville, 1817) (Cetacea, Platanistidae) and Satélis fluviatilis (Gervais & De Ville, 1853) (Cetacea, Delphinidae).
that treat of the creation that is quite novel at this day.

We had seen signs of recent occupation on the sandpraias for several days; tent poles, bushes set up for shade, turtle shells, etc., and as we neared Pirauhas [sic: Piranhas], we saw a village of the tribe called Pamarys [Paumari] encamped upon the beach. There were a dozen or so open oven shaped huts or wigwams made by bending poles and placing them in the sand and spreading upon them long, narrow mats made of palm leaves. They were very low so that their owners crawled into them, and were open at both ends. Upon the beach were a dozen little canoes, real dug outs, in shape much like those that are found in the little lakes of Northern Michigan where a few Indians still linger. A troop of dogs welcomed us with their barking, and the people came flocking down to see the steamer as she passed, while a great black monkey galloped across the sand after its owner, swinging in a comical manner, its long tail, which was made to catch at the limb of trees in passing from one to another in the forest. The people were quite small, the men averaging but about five feet two inches as I found afterward by measurement. The hair of both women and men hung to their shoulders, being cut square across the forehead just above the eyes. One very modest though curious maiden contented herself by taking a peep at us from behind her hut, her head just appearing above it.

At another stopping place just above we found another village of them. There was a heavy storm at the time of our passing and the wind was blowing the light mats, which formed the roofs of their cabins, over the beach. The women and children were in full chase through the rain but the men cared but little for their flying property, but crowding into a narrow canoe they paddled after us as fast as they could, and arrived at the place nearly as soon as we. Their haste seemed to be caused by the promise of a drink of cachaca [cachaça], for helping load wood upon the steamer. I hurried on shore in the mud to examine them. They are affected with a skin disease which was called by some leprosy. There are three forms or stages of this, one affecting the feet and hands and some times other parts of the body and covering them with white spots; this is the most conspicuous, but is said to be the mildest form of the disease. Another form leaves the part of the skin affected perfectly black, and this also often attacks the face and hands, and I afterwards saw children affected with a disease which may be the first form of this evil. They were spotted here and there with great blotches that turned their natural mohogany color to a sky blue. These spots were generally oval, and seemed to keep spreading until they nearly covered the body. The young rest were generally free from it, it likely appearing first three or four months after birth. They all have their lips and noses pierced with holes in which they keep small wooden pins or plugs; these often standing out from the face and giving it a strange appearance.

Canutama is the nearest a village on the Purus river and was settled many years ago by Senhor Manoel Urbano3, an old mulatto who has been trading upon this river for forty [sic] years. He has gained great influence over the Indians, and has had almost a monopoly of trade with them, but the rubber

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72 This disease is the pinta, caused by the spirochete Treponema carateum, a relative of the bacterium which causes syphilis. The word “pinta” comes from the Spanish and means “painted”. It occurs in rural, poverty-stricken areas of northern South America, Mexico and the Caribbean. Unlike syphilis, it is transmitted by nonsexual skin contact, often between children living in conditions of poor hygiene. The bacteria enter the skin through a small cut, scratch, or other skin damage. Symptoms occur two or four weeks after exposure to the bacteria. The first sign of infection is a red, scaly, slowly enlarging bump on the skin. This is called primary lesion. The primary lesion usually appears at the site where the bacteria entered the skin, most often on the arms, legs, or face. Smaller lesions then form around the primary lesion. These are called satellite lesions. Lymph nodes located near the infected area may become enlarged, but are painless. The second stage occurs between one and 12 months after the primary lesion stage. Many flat, scaly, itchy lesions called pintid occurs either near the primary lesions or scattered around the body. Pintid lesions progress through a range of color changes, from red to bluish-black. The skin of older lesions will become depigmented (lose normal color). The Paumari, or Pammarys, were then also known as Puru Puru, or “spotted” (Indians), as they suffered from pinta.

In 1863, Coutinho (1865), while visiting this tribe, attributed their skin disease to the ingestion of the adipose tissue of fishes, especially the pirarara (Phractocephalus hemioliopterus [Bloch & Schneider, 1801], Siluriformes, Pimelodidae), and turtles, as well as to drinking “caxiri de pirarurucu” (Arapaima gigas [Schinz, 1822], Osteoglossiformes, Arapaimidae), a beverage prepared from the fermentation of that fish; Coutinho commented that the fat of the pirarana, in the same region, had the property of changing the color of feathers of parrots and it could cause the same effect upon the skin of the Paumari [cf. Bonilla, 2005: 43].

73 Manoel Urbano da Encarnação (cf. Ferrarini, 1980: 33-45), descendent of Mura Indians, explored the Purus River in 1861 and made a brief report of the trip, written by Major João Martins da Silva Coutinho (one of the companions of Agassiz in his Amazonian journey) [reproduced in Ferrarini, 1981: 31-35]. Encarnação was one of the first settlers in the Purus region, living in Canutama. He explored several rivers in the Amazonian region, buy especially the Purus, which he ascended again in 1863, with Major Coutinho, during the first trip made by a steamer (the Pirajá) up that river [see Coutinho, 1865], and in 1866, accompanying William Chandlees. In 1882 he sent a letter to Ferreira Penna, in Belém, about the Indians of the Purus, published in 1900 (Encarnação, 1900).
gathers [sic], who have settled/ about him, have de-
prived/ of many of his customers, who now/ go where
they can trade best. I/ found at Canutama Dr. Bur-
roughs,/ one of the ill-fated expedition to Bo-/livia
with Mr. Piper. He stranded/ here on his way down
the river and/ expects to stay for several years. He/ was
just recovering from a wound re-/ceived while draw-
ing a seine in the/ river from a sting ray./

Most of our passengers left us here/ but Mr. Fouseca [sic; Fonseca], my English speaking/ friend
and I came on to this place,/ where we arrived after
fifteen days/ travel. We are now about eight hun-
dred miles from Manaos, in a direct/ line, but twelve hun-
dred by the river./

I am stopping at Senhor Urbano74/, to whom
I have letters of recommen-/dation. He received me
with great/ kindness, but as this is the busy sea-/son
I have letters of recommen-/dation. He received me
with me, but/ promises to do all in his power to/
make
in the rubber camps, he cannot/
visit the wild Indians
with great/
kindness, but as this is the busy sea-/son
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make

J. B. STEERE

Letter XXXI
[Peninsular Courier and Family Visitant, 11(8),
February 23, 1872]

FOREIGN CORRESPONDENCE

Number XXXI

MARRAHAN [Fortaleza do Ituxi],
RIO PURUS, November 10th, 1871.

After several days in Ituchy [mouth of the ituci river], spent/ in hunting and fishing, Senhor Urb-
no sent me with his agent Senhor/ Baptista to this
place which is the/ highest point upon the river in-
habited/ by civilized people, and in the very/ midst
of Indians. Our boatmen for/ the five days trip were
Pamarys [Pau-marisis], and/ one of them, Baida was a
chief of the/ tribe, and speaks some Portuguese, so/
that I had a good opportunity of/ learning their lan-
guage, customs etc./ As below, we found the river very/
tortuous with long sand beaches at/ every bend. When
we reached one/ of these praias, two of the Indians/
would get out and, making a long line/ fast to the boat
would draw it along/ as fast as they could walk, while

old/ Baida sat in the boat, and with his/ paddle over
the side kept us at the/ right distance from shore, and
did his best to enlighten me in regard to/ his people.
There is a tradition/ among the tribe that many years
ago/ there was a great flood; the river at/ its winter fill-
ing did not stop and go/ back when it had reached the
varzea [várzea],/ but kept on rising higher, until finally/
it covered the high land and the peo-/ple all took
refuge in the trees. They/ found new fruits and were
compelled/ to live on leaves, and many grew/ weak
and fell into the water and/ were drowned. When the
river final-ly went back into its channel there/ were
but a few starving people left./ and they for fear of a
return of the/ flood built themselves great rafts and/ at
the approach of winter always took/ their families and
possessions and/ went to live upon them. Whatever/
may be the truth of the tradition, the/ Pamarys [Pau-
marisis]75 are a race of water men, liv-/ing during the
summer upon the prai-/as, their huts standing within
a few/ feet of the water and their canoes./ When the
rising water drives them/ from the praias they go back
to the/ lakes which are always near, and live/ upon
their jangadis [sic; jangadas] or rafts until an-/other
summer. They are very expert/ fishermen and are said
to catch turtles/ by diving to the bottom of the river/
and finding them in the mud. Their/ principal food is
fish and turtles, and/ with this such few fruits as they
can get without getting far from the river./

Their canoes are long and narrow/ and hewed
into shape instead of being/ spread with fire like those
of the Tap-/úios, and their paddles are small and/ light,
but with long pointed blades/ very unlike the round
bladed paddles/ used by the Indians of the Amazon./
Their method of rowing their canoes/ seems to be
original with them as we/ often meet one of them on
our trip,/ drawing in this way his wife and/ children
to better fishing grounds./ They live scattered along
the river in/ little villages, each under the control/ of a
hereditary chief, though this/ chief seems to have very
little power,/ and I could hear of no principal chief/ to
whom they all owe allegiance, I/ could find no name
for God in their/ language, though they have men/
among them who seem to divide the/ duties of priests
and doctors and they/ gave me a name for the evil

74 Steere’s “Ituchy” must refer to the mouth of the ituxi River,
an affluent of the Purus, where a son of Manuel Urbano da
Encarnação, named Braz, had his residence (Ferrari, 1981:
55). It is not Lábrea, as Prof. Hubbell thought, as Steere
mentions this locality in Letter XXXIV as a different place.

75 The Pamarys, as well as the Jamamadis (or Yamamadis) [cited
below by Steere] are tribes of the Arawá linguistic family. The
Apuriná (called Hypurina by Steere, see below) belong to the
Maipure-Aruak linguistic group. Several different names
and spellings exist in the literature about the names of those
tribes. (Some papers about them: Bonilla, 2005; Brown &
Lidstone, 1878; Chandless, 1868; Ehrenreich, 1891, 1897,
1948; Encarnação, 1906; Koch-Grünberg, 1919; Polak, 1894;
Rivet & Tastevin, 1914-1924, 1921, 1938-1940; Souza, 1873;
Steere, 1903, 1949; Tello, 1913).
spirit./ They generally have but one wife. Though the chiefs seem to have the/ right to take two./ They are noted for their fondness/ for paint and the geographical name/ of the river is said to mean the river/ of the painted Indians. They paint/ with (urucu) annatto which seems to/ be indigenous, and they mix this with/ balsam capaiva [sic; copaiba], to give it the requis-it-e consistency. They generally/ paint the body and the legs and arms/ with horizontal lines about an inch/ apart so that it gives them a little of/ the appearance of convicts. The men,/ especially the chiefs, generally wear/ the upper part of the face merely/ daubed with the paint, but the boys/ and young men use more care, one/ young fellow, who afterwards went/ with us to paddle our canoe, having/ lines drawn on each side of the face,/ from the mouth and nose to the ears,/ another who seemed to be the dandy/ of the tribe had his hands and a broad/ line about his mouth painted black/ with some sort of paint. Like the other Indians of the Purus they all,/ male and female, have their lips and/ the nose pierced. This is done by/ the priest or medicine man and seems/ to be a religious rite. They are very/ much addicted to the use of snuff,/ which they make of a strong kind of/ tobacco of their own raising, but/ which is said to grow wild on the up-/per Purus. They cure this tobacco/ and then toast and smoke it over the/ fire until it is very dry, when they/ beat it in a mortar made of a case of/ the Brazil nut and mix with it the/ ashes of the hulls of the cacao fruit,/ which is very rich in potash, when/ the snuff is ready for use. They keep/ the snuff in curious boxes made of/ ampullaria shells, and for inhaling it/ have a couple of long hollow bones/ fastened together. The pour the snuff/ into a smooth clam shell or in the/ palm of the hand and thrusting one/ end of the bones into the nostrils they/ put the other in the snuff and draw/ it all up with one or two strong inhala-/tions. I saw one old chief take a/ spoonful in this way and with little/ apparent effect, but a few grains of/ it nearly strangled me, much to the/ amusement of the Indians standing/ about. Our canoe men always/ had a box with them and when they were/ shivering with the cold after a storm,/ or when we stopped for the night af-/ter a hard days [sic] work they passed the/ box and bones around from one to/ the other. They told me that it was/ very good and warmed them up and/ rested them. Like the Indians of our/ country they have a real passion for/ ardent spirits, and the Brazilians of/ the river with their cachaca [sic; cachaça] have/ made them their most abject servants./ When they wish food the Pamanys are their/ boatmen working steadily for them/ for two or three drams a day and/ what little their patrons may wish to/ give them at the end of the trip./ The first night of the voyage, ac-cording to the custom of the river, we/ stopped upon a good clean looking/ sand beach, and laying down mats we/ had with us and sticking some stakes/ upon which to hand over musquito [sic] nets we were soon prepared for the/ night. While we were busy with this/ our Pama-/nys [Paumaris] had been at work col-/lecting wood and building a fire and/ they soon had a turtle killed and/ cooking. We endured the musque-/toes [sic] until we had eaten our simple/ supper of turtle and farinha and then/ crawled under our musqueteiras [sic; mosquito] we/ went to sleep, but about about [sic] mid-/night I was awakened by the water/ dropping through upon me, and found/ that it was raining, but by lying on/ the sand and getting the mat over me/ I slept until morning. While I was/ getting the sand out of my eyes and/ ears the Pamanys [Pau-maris] told me that there/ were (Americanos) on the same/ praia a little way beyond. I took my/ gun and started and found a great canoe dawn up to the shore, it was/ covered with matting and upon the/ sides were some curious paddle/ wheels, which were turned by a/ crank inside of the boat. Upon the/ sand, stooping over some sticks, were/ a man and woman to build a/ fire, they were using a little hand bel-/lows and had burned a great many/ matches, but had not yet suc-ceed/ in getting the wet wood to burn./ They were dressed in coarse blue/ drilling and their faces and hands/ were bound up with cloth, from the/ bites of the insects, and I had of/ course difficulty in recognizing in/ them Mr. Piper the head of the Bo-/livian expedition, and his wife, whom/ I had seen nine months before at/ Para, fresh from the States with a/ company of thirty young men, all full/ of hope and ambition and expecting/ before this to have reached the gold/ mines of Bolivia. They are now scat-/tered all along the Purus and Ama-/zon. Mr. Piper was furnish [sic] by Sen-/hor Urbana [sic; Urbano] with boatmen and guides/ after the Americans all left him, and/ went on with his wife for several/ weeks until they had almost reached/ Bolivia when his guides became frigh-/tened and refused to go farther among/ the wild tribes and he was compelled/ to return. He is now going to Para/ [Belém]/ to await the steamer, and still talks/ of setting in Bolivia, and if pluck and/ perseverance will suffice he may yet/ succeed.

We made the rest of the trip with-/out incident, sleeping upon the sand/ at night and living upon tur-}

'tle and/ farinha with what game I killed/ along the banks, the Indians now and/ then replenishing our
stores also with/ turtles’ eggs which they found by fol-
lowing the broad tracks the turtles’ make when they come out at night/ upon the sand to deposit them./

This place is terribly infested with/ musquitoes [sic] and piums76 which are if/possible worse than the musquitoes [sic], though they do not bite at night while/ the musquitoes [sic] cite [sic; bite] all the time. The/ piums are of the shape of a honey/ bee, but no larger than a gnat and/ wherever they bite the blood settles/ beneath the skin, making a little black/ spot, and one can not stop here long/ without having the face and hands/ completely blackened with them./

J. B. STEERE

Letter XXXII
[Peninsular Courier and Family Visitant, 11(9),
March 1, 1872]

FOREIGN CORRESPONDENCE

Number XXXII

MANAHAN [sic] [Fortaleza do Ituxi],
RIO PURUS, Nov. 16th, 1871.

Senhor Baptista, besides his trade/ with the In-
dians, has quite a number/ of people making rubber for him un-/der the system of pernage or patron-/age so common in this part of Brazil,/ and the woods about here are crossed/ here and there with their paths, so/ that I can follow them when I go/ hunting with no danger of getting/ lost. The trees of India rubber seem/ to be little if any thicker than below/ on the Amazon, and I should think/ they would not average more than four/ or five trees to the acre, not one-tenth/ of the whole number of trees./

To reach these trees in the easiest/ way the rubber-gatherer starts into the/ forest, following a straight course as/ nearly as possible turning a little to/ one side here and there to reach a/ tree, until he has about half the num-/ber he wishes, when he turns and cuts/ another path back to the barracks./ The number of trees generally reached/ in this way is from one hun-
dred to a/ hundred and thirty, and the path as/ nearly as I can judge is generally/ two or three miles long, and perhaps/ more in some cases. From this num-/ber of trees it is said that twelve to/ sixteen pounds of rubber can be made/ in a day; but they seldom tap all the/ trees, and think that six or seven/ pounds per day of labor is a large av-/erage. During the rainy season rub-
ber is not made, – because the water/ mixing with the rubber injures its/ quality, and when the trees are wet/ the clay with which the cups are fas-/tions surface will not stick. Rain is/ already so frequent that they cannot/ work more than half of the time. On/ account of high freights and duties/ paid at Thames as well as at Para [Belém],/ rubber is worth here but ten to twelve/ mil reis, the aroba [sic; arroba] of thirty-
two/ pounds, or sixteen to twenty cents per/ pound. The poor rubber gatherers/ must pay from this fam-
price for/ the cachaca [sic; cachaça] and farinha that he uses/ and the coarse cloth that covers him./ so that he runs deeper and deeper/ into debt and looses all hope. These/ men are bought and sold as regularly/ as if they were slaves, and are com-/pelled to sell their rubber and to buy/ their provisions of their patron and/ at his own prices./

There is much Balsam Copaiva [sic; copaiba] sent/ from here, but the collecting is almost/ entirely done by the Indians. The/ trees are much larger and finer than/ the trees of India rubber. The bal-/sam, or oil, as it is called here, does/ not exist in the bark as the milk of/ the rubber, but is diffused through the/ wood like the resin of pine and other/ coniferous trees. Those trees only/ are tapped that from peculiar knots/ are known to have the oil stowed up/ in large rifts, and from one of these/ several gallons is often procured; but the Indian may hunt several days/ before he finds another proper tree./

I also find the salsaparilla growing/ here. The plant is a green vine/ thickly covered with short curved/ thorns. This vine runs trailing over/ low trees and bushes, and sends out/ just at the level of the ground straight/ roots that often run to a distance of/ fifteen to twenty feet. If these roots/ are properly gathered, leaving enough/ to supply the plant, it will give anoth-/ [sic] crop at the end of two years, but the/ gathering is left to the Indians, and/ they were never known to be pro-/vident. To the Indians is also left/ another article of trade called man-/teiga, or turtle butter, which is much/ used in this country for cook-
ing and/ burning. I saw it in the process of/ manufacture on my way up from/ Ituchy. We saw some Pamarys [Paumaris] one/ morning hard at work on a praia,/ and as I wished to see this people un-/der all phases, Senhor Baptiste [sic; Baptista] or-/dered the men to land. As we walked/ along the beach to-
wards the Indians/ we came up upon two or three unfortu-/nate turtles that had been taken while/ in the act of laying their eggs and/ turned upon their backs. Further on/ was a pile of mats that when put/ up/ formed Pamary [Paumari] houses, and besides it/
several chickens, a few of which the/ Pamarys [Pau-
maris] invariably have with them/ in all their wander-
ings. The cick-/ens seem to rather enjoy this traveled/
life, and an old hen and chickens/ were peeking at
some turtle eggs that/ had been thrown there for their
break-/fast, as contentendly as if they had/ always
lived on that same praiia. Higher upon the beach we
came upon/ the results of the morning's work. —/ sev-
egreat heaps of butter and/ eggs, and the ground
for quite a dis-/tance all dug up with paddles, which/
the Indians had used for spades, and/ beyond these
the Indians themselves/ still hard at work. A couple
of men/ seemed to be playing the part of the/ lord's
[sic] of creation and were superin-/tending the busi-
ness. They had dug/ over the thicker bed, and a cou-
ple of/ boys were at work about his edges/ with sharp
sticks, which they would/ press into the sand here
and there./ When the stick, to their practiced/ senses,
told of treasures hidden be-/low, they scraped away
the sand and/ pulled out the eggs, generally about/
a hundred in a place, but sometimes/ as many as a
hundred and thirty or/ forty – about a peck measure
fall./ Those that are found together are all/ laid by one
turtle. The turtle digs a/ small hole with the hind foot
to a/ depth of a foot, and then enlarges it/ below like a
cistern it until [sic] will hold/ her eggs, which she
packs in very/ closely. There were fifteen or twenty/
bushels already in heaps like pota-/toes, on the sand,
and three or four/ wretched, dirty looking women,
each/ dressed with a scanty piece of dirty/ cloth over
the shoulders and the/ tanga about their loins, were
still/ gathering them together in baskets,/ one of them
carrying a child on her/ hip supported by a strap over
her/ shoulder. The eggs are not all de-/posited at the
same time, and while/ some were just laid others were
just/ ready to break the shell and run, and/ in some
cases the boys would break/ through upon a whole
nest of the/ little turtles hatched, and only await-/ing
a favorable opportunity to dig out/ and make their
way to the water./ When we dropped these upon the/
sand they invariably made their way/ directly toward
the river, though the/ ground was quite irregular, and
they could not have found the direction/ by the de-
cent. I afterwards often/ saw where families of them
had brok-/en out of the sand, and I noticed/ that
there would often be several/ tracks in a circle about
the place of/ exit, before they had started off to/ the
river, as if they had found the/ way in the same man-
ner that the bee/ does that flies in a circle about the/
flower from which it has procured its/ honey, before
it darts off home./

The Pamarys [Pauurmaris] carefully secured/ these
hall (?) little fellows in baskets for/ future eating. They
are generally/ roasted, fifteen or twenty being strung/
like beads upon a stick and stuck up/ before the fire.
They might not be/ considered very good at home
tables,/ but they are considered quite a lux-/ury here.

After the women had gathered the/ eggs to-
tgether, they carried them to/ the canoes which had
been previously/ emptied of chickens, dogs, &c., and
I/ saw the process of making manteiga./ though I hope
it may never trouble my/ memory while I am eating
in this/ country. The women filled the canoes/ half
or two thirds full of eggs, and/ and [sic] after cut-
ting away awhile at/ them to break the shells, they
all got/ in and tramped them. After they/ are suffi-
ciently pressed or mixed in/ this way they are allowed
to stand in/ the sun, when the oil rises to the top/ and
is dipped off and bottled to free it/ from what water
there is in it, when/ it is put into earthen jars or large/
glass flasks, when it is ready for ship-/ment.

J. B. STEERE

Letter XXXIII
[Peninsular Courier and Family Visitant, 11(10),
March 8, 1872]

FOREIGN CORRESPONDENCE

Number XXXIII

MANAHAN [sic] [Fortaleza do Ituxi],
RIO PURUS, Nov. 17th, 1871.

After my host, Senhor Baptiste [sic; Baptista],/ had arranged his business at home/ to his satisfaction,
he signified his/ readiness to accompany me to the/
malocca [maloca] of a tribe of Indians called/ Jamam-
agy [sic; Jamamadi or Yamamadi], – a wild and almost
un-/known tribe with whom he had opened/ a com-
munication and a small trade,/ through the Pamarys
[Pauurmaris], some of whom/ speak their language and
sometimes/ visit them. It was necessary to first visit
the malocca [maloca] of the Pamarys [Pauurmaris] so/ as
to relieve our boatman, and to get/ an interpreter to
speak with the/ Jamagmys [Jamamadis or Yamama-
dis]. We paddled up a long/ lake which seems to have
once/ been the bed of the Purus, having/ the same
praias and windings, while/ the river itself now takes
a much more/ direct course at this point. The Cip-
atiny [Sepatini], a small river with dark water,/ has its
mouth at this lake and this/ likely keeps it open to the
main/ stream. We followed up this lake for/ several
miles, the shores being cov-/ered with water fowl and
the water/ often broken by fish rising to catch/ the in-
sects flying and floating about/ them, or chasing each other just be-/neath it. Paths frequently led into/ the woods where the Indians had/ been hunting or had rubber camps,/ and just before night we drew up at/ a praia which the Pamary [Paumari] vil-/lage of twenty-/five or thirty huts was/ placed. Just before their doors a/ little fleet of canoes was moored, and several stake pens in the edge of the/ water to preserve spare turtles, showed/ that this was a more permanent resi-/dence than the other I had visited./ A great raft or jangadi/ [sic; jangada] was also an-/choired near by, the ark to which they/ would flee when the winter floods/ should drive them from the narrow/ sand beach. It was formed of two large logs, covered with thin strips of/ palm wood lashed fast with vines./

As we landed, a great crowd of the/ men and boys came down to the/ boat to get the drink of caça- ca [sic; caçacha],/ which they always expect when their/ patron visits them, and among the/ rest the old chief moved slowly along/ clothed as he supposed, in a most/ dignified garb – a very brief shirt and/ a pair of cotton socks. Our crew/ was from this village, and I was/ anxious to see how they would be/ received by their families and friends;/ but I was disappointed in seeing no/ hearty greetings, such as civilized/ people give their returning friends,/ our boatmen receiving and giving/ only a few intranslatable grunts, either/ from the stoicism natural to the/ race, or because they did not choose/ to show any feelings before us; but/ the chief finally entered the boat, and/ going to where one of the boatmen/ was still sitting with a paddle in his/ hand, he took his face between his/ hands and gave it a good smart rub-/bing, apparently to the sat-
fired/ several times at them, as I wished a/ skin; but if
we killed any they sunk/ to the bottom. About noon
we/ came to the post of the Jamamagy [Jamamadi or
Yamamadi]/ village; but the canoes were all gone,/ and
our Pamarys [Paumaris] said they had gone/ up
the river to dig salsaparilla. We/ went on until nearly
night, but with/little hope of finding them, and then/
turned back and ran down the dis-/tance it had taken
us all day to make,/ in two hours, the stream is so
rapid./

I revenged myself for not finding/ the Jamamagy
[Jamamadi or Yamamadi], by impressing an old/
Pamary [Paumari] who spoke their language/ and
getting as much of it from him as/ I could. It seems to
be closely re-/lated to the Pamary [Paumari], and they
may/ be a part of that tribe that have been/ driven
back to the woods and kept/ there until their customs
have been/ changed. My main object in coming/ here
was to see the Indians in their/ natural state, and as I
have been/ changed. My main object in coming/ here
back to the woods and kept/ there until their customs
may/ be a part of that tribe that have been/ driven
be closely re-/lated to the Pamary [Paumari], and they
getting as much of it from him as/ I could. It seems to
Pamary [Paumari] who spoke their language,/ and
agys [Jamamadi or Yamamadi], by impressing an old/

Letter XXXIV
[Peninsular Courier and Family Visitant, 11(11),
March 15, 1872]

FOREIGN CORRESPONDENCE

Number XXXIV

MANAOS [Manaus], Nov. 30th, 1871.

After my trip up the Marmorea [sic; Mamori-
azinho], as/ the time for the steamer was drawing/ near,
Senhor Baptiste [sic; Baptista] gave me a/ couple
of Pamarys [Paumaris], and I started/ down the river
again, stopping on the/ way at Utary [Utari] where the
high land/ comes to the river, to examine the/ rock.
I also stopped at the house of/ Mr. Berger, a French-
man, who has/ crowded up the river with the rest in/
the search after Indian rubber. He/ has thirty men un-
der his patronage,/ and is making large amounts of
rubber./ The pests, mosquitoes and piuns, are/ still
worse here than at Marrahan [Fortaleza do Ituxi]/ above,
and it is impossible to eat un-/less under a mosqui
to net. A few/ days before, one of his men had
died/ from their bites and nothing else./ Nearly every
one is covered with/ wounds, and if they did not go
down/ the river during the rainy season to/ recruit, it
is likely many more would/ die. The bite of the piuns
seems to/ be very poisonous, producing an in-/toler-
able itching, and leaving little/ black blood blisters
under the skin./

Mr. Berger seemed to take much/ interest in my
business and gave me/ some skins he had preserved,
and, or/-dering a good supper which I relished/ after
my fare of turtle’s eggs and/ farinha, he sent me on
my way./

My next stopping place was at/ Labria [sic;
Lábrea], settled by Colonel Labria [sic; Labrê?77] off/
Maranham [sic; Maranhão]. He spoke English, and
I/ found that he had traveled extensive-ly in Europe
and the United States./ He has opened quite a large
planta-/tion, though here but eight or nine/ months,
and has corn and mandioca/ and sugar cane almost
ready to har-vest. His improvements over the/ slow
shiftless ways so common with/ the Brazilians is gen-
eral, show the/ advantage of travel and I could almost
imagine myself in/ a backwoods clearing at home.
He/ has seventy persons with him – quite/ a little vil-
lage, and among them an/ American, Mr. Ellis, from
Cambridge/ Massachusetts, who was another of/ the
Piper expedition. He was badly/ treated by the insects
but seemed to/ keep good courage, and expects to/

77 Colonel Antônio Rodrigues Pereira Labre was born in the then Province of Maranhão. When 20 years old he went to Rio de
Janeiro to study Law, becoming influenced by liberal ideas and the anti-slavery campaigns. Back to Maranha?, he worked as
a lawyer, having defended 480 slaves and winning the causes.
By that time Western Amazonia in Brazil was being conquered
and new perspectives of easy and rapid riches were opened,
especially with the discovery of rubber trees (“seringueiras”) along the affluents of the right margin of the Amazon river.
Labre decided therefore to go to Belém. There he met a son of
Manuel Urbano da Encarnação, who told him about the Purus
River. Labre decided to try his luck in that region. He went to
Manaus and from Manaus to the mouth of the Purus, going
up the river in 1869, on board the steamer Madeira, in search of
a suitable place to establish himself. In 1871, returning from
a trip to northeastern Brazil, whence he brought several men
from the province of Ceará to colonize the Purus, he chose,
by advice of Major Carlos da Fonseca, a place called Terra Firme
de Amaciari, below the mouth of the Ituxi river, where Manuel
Urbano da Encarnação had tried unsuccessfully to establish
a plantation and a chapel, and there founded a village that he
called Lábrea (after his family name). He became the owner
of several farms and cattle and horse herds, opened several
roads and promoted the development of the region. In 1872
he published a booklet about the Purus (Labre, 1990). From
1870-1872 he made several explorations overland with the
engineer Alexandre Haag, to try to build a road linking the
port of Lábrea with that of Florida, in the Beni River in Bolivia
(Labre, 1887). In 1888 Labre published a work about the
rio Ituxi. He was also a Deputy of the Province of Amazonas
and on May 7, 1881 proposed a project abolishing slavery in
that Province of the Empire. He never married and left no
descendants. (Bittencourt, 1918; Ferrarini, 1981: 55-82).
make some money with the rubber/ before he goes home. He was tem-/porarily crippled by the bursting of a/ powder horn, and spent his time in/ assisting me in my collections. I/ found here beds of rocks much like/ those below at Ariman [Arimã] and filled/ with fossil wood, of which I made a/ good collection. Living near Col./ Labria [sic; Labre] I found an Indian who ap-/pears to be a half breed Hypurina [Apurinã]/ and Pamary [Paumari], speaking both language/es well, and having many of both/ tribes about him, and I now spent/ several days of my time in complet-/ing lists of words in these languages, and/ my friend, Mr. Ellis, helped me to/ write down their music. The Pam-/arys [Paumaris], who never think of fighting,/ sing of the turtle and the toucanbo [sic; tucano] and/ other objects that are familiar to/ them. The following are translations/ of some of their songs: “My moth-/er when I was young, carried me/ we [sic] with a strap on her back – with a/ strap she carried me on her back, but/ now I am a man and don't need my/ mother any more.” “The toucano [sic; tucano] eats fruits in the/ edge of my garden./ and after he eats he sings.” “The onca [sic; onça] fought with me and I am weary./ I am weary.” Another song of the/ the [sic] turtle evidently alludes to the/ wondering habits of the animal. “I/ wander, always wander, and when I/ arrive where I wish to go I shall not/ stop but still go on.” One of these/ little songs, with music just as simple,/ they will chant by the hour, as they/ are at work paddling or towing the/ canoe./

The songs of the Hypurinas [Apurinã], who/ are a warlike race, always treat of/ war or love, though they are as sim-/ple as those of the Pamarys [Paumaris]. The/ following is the translation of a little/ […] .

“The leaf! The leaf that calls my/ lover when stuck in my girdle.” She went into the woods and brought us/ the leaf which is said to have much power. The music ìs quite similar to/ the music of a bird of this/ country, and may have been taken from it. /The war songs are sung to strange/ guttural music, and the singers draw/ deep breaths and make hard work of/ it. The following are translations/ from some of them: “Bring your/ arrows; I am a warrior and have my/ arrows ready and wish to kill you.” “I have returned victorious from the/ battle, and no one can say any/ more/ that I am not a warrior.” “I am a serpent, and/ when I bite my enemy/ dies.” “I go to die: my enemy shall/ eat me.”

These Hypurinas [Apurinã] are accused of/ eating human flesh, and there does/ not seem to be much reason for/ doubting, though their feasts are/ generally made upon their enemies of/ other tribes and their own. They/ generally treat the whites and Tapuios/ or Christian Indians with great kind-/ness. Mr. Piper and his wife were/ among them several weeks entirely/ unprotected, and never received any-/thing but kindness from them./

On the twenty-third of the month be-/fore I was well through with my work/ with the Indians, the boat came up --/ this time an American boat just from/ the shop in Wilmington, Delaware./ It was much more pleasant than the/ dark, low Eng-/lish boats that navi-/gate the river, and I almost felt at/ home when I got on board. The/ English boats are nearly all made in/ Liverpool, and one sees here and/ there upon the engines and other/ works, “Laird Bros., Birkenhead Works” – an inscription that Ameri-/cans can not read yet with pleasur-/able emotions. On board the boat/ was an American engineer, in/ charge, and the chief engineer of the/ line, a Bra-/zilian, who was educated/ in England, so that after a pleasant/ passage without incident, I arrived/ here yesterday. After packing and/ shipping my specimens I shall take/ the steamer, on the eleventh of next/ month, for Peru.

J. B. STEERE

Letter XXXV
[Peninsular Courier and Family Visitant, 11(13), March 29, 1872]

FOREIGN CORRESPONDENCE

Number XXXV

PEBAS, PERU, December 25th, 1871.

After my return from Manaos from the/ river Purus I had more than I could/ well do during the ten days before the/ sailing of the steamer, in pack-/ ing and/ forwarding the collections I had made,/ and in preparing for the journey to/ Peru, but my troubles were increased/ by the sickness and death of a young/ Englishman who had been one of the/ ill-fated Bolivian expedition under/ Mr. Piper. He had been several/ months on the Puma [sic; Purus] with poor food,/ and exposed to the sun and rains in/ an open boat, and had then returned/ to Manaos in poor health, but had/ gone to work hoping to earn money/ to pay his passage back to the United/ States, but was soon taken with a fev-/er of which he died three days after/ the attack. The few of us who spoke/ English did what we could to make/ him comfortable, but this was little/ enough as we were all very busy, and/ every one else seemed perfectly
indiff-ferent in regard to him. In examin-ing his pa-
pers after his death, we/ found that he was a native of
London,/ England, where he has parents still/ living.
He had gone to the United/ States where he was do-
ing well, and/ had a small piece of land somewhere/
in Massachusetts, but the hopes of/ sudden riches
were to be made in the mines/ of Bolivia brought him to
his death./

He was, fortunately, a Roman Cath-olic, so that
we could procure the rite/ of burial for him. We hired
bearers/ and a rude bier, and of four, of us, two/ Ameri-
cans, an English speaking/ Brazilian and a French Jew,
followed/ it, a long walk in the hot sun through/ the
city and out into the country be-/yond, to the ceme-
tery, passing on the/ way the grave of one of his coun-
try-/men who had not been so fortunate as/ to be
Catholic, and had conse-/quently been buried like a
dog, in the/ bushes by the sides of the road, with-
/out a mark to show his resting place./ The bearers
deposited the body in the/ little chapel belonging to the
cemetery, where a priest hurriedly mutter-/ed the
burial service over it, and we/ were told that we could
go, as we had every thing according to/ the common
practice, but we chose to/ stay and see him carefully
and de-/cently put in his grave according to/ the cus-
toms of our own land. The/ only funerals here are
at the death of/ distinguished persons. It is not cus-
tomary for the family of the deceased/ to follow the
corps to the grave, a/ friend or two generally attend-
ting to/ the burial. Another curious custom/ which
seems to be quite general/ among the lower classes, is
that of/ hiring coffins, several of which we/ saw in the
chapel for that purpose./ When a person dies a coffin
is taken/ to the house, and the body carried to/ the
chapel for that purpose./ When a person dies a coffin
is taken/ to the house, and the body carried to/ the
cemetery in it, and then taken out/ and buried, while
the coffin is reserv-/ed for fresh occupants. The Bra-
zil-/ian cemeteries are square enclosures/ surrounded
by mud or stone walls and/ the grass is carefully dug
from them/ so that the bare red clay is left to/ bake in
the sun and wash in the rain./ A flower or tree is rarely
planted, and/ black wooden crosses are generally/ the
only thing to break the blank/ monotony. The lot of
the poor Eng-/lishman buried in the shade of the/ bu-
shes by the road side seemed al-/most preferable
though it did not add/ to our peace of mind to think
that if/ we should die in this far off land we/ should
also be cast out like beasts./ At Santarem [Santarém]
there are several graves/ of Americans and English just
out-/side the wall of the cemetery as if the/ friends
of the dead had tried to get/ them as near within the
sacred soil as/ possible instead of making a pleasant/
burial place of their own. The ceme-/teries of the
country belong to the nation and not to the Roman/
Catholic Church, and as the govern-/ment claims to
protect and allow all/ religions it seems as if it should
set/ off a place of internment for those who/ are not
Catholics./

On the eleventh of this month I/ finally went on
board the steamer/ Icamiaba, Commandante Nuno,
and we/ were soon steaming down out of the/ coffee
colored water of the Negro into/ the Amazon. Manaos
is the capital/ of the Province of Amazonas, which/ ex-
tends from near Obidos [Óbidos] to the/ frontiers of Peru. The city is built/ on high broken land, near
the mouth/ of the Negro and has the most claims/
for beauty of situation of any Brazil-/ian town I have
seen, and with the/ trade of the Madeira, Purus and
the/ Rio Negro, united to that of the upper Amazon,
which has to all come into its/ port and pay duties, it
must keep its/ place as only second to Para [Belém]
on the Amazon./

My recollections of Manaos are not/ of the most
pleasant kind, and its/ name will always be associated
with/ memories of scorching hot days, (the/ hottest I
have experienced on the/ Amazon) spent in running
from one/ official to another, and finally to the/ city
council, for a petty permission to/ examine some In-
dian remains, which/ had hardly required to be asked
for/ below. More vexations than this was/ my frequent
contrast and contact with/ the Portuguese cartmen
and boatmen,/ the latter especially. There is not a/
wharf on the Amazon or its branches,/ and the steam-
boats lie at anchor/ while the baggage and passengers
are/ landed by small boats that are always/ owned by
Portuguese. These men/ show real Irish blarney and
impu-/dence, and are given to charging/ strangers
several prices, but they/ seemed to be especially un-
reasonable/ in Manaos./

Commandante Nuno has the repu-/tation of being
the best officer on the/ Amazon, and his boat
was a model of/ neatness and order, but it seemed to/
keep him a great deal of exertion to/ keep his crew in
the proper state of/ discipline. Our passengers were a/
gentleman ofTefé [Tefé] returning with his/ children,
a captain of engineers busy/ with his maps and charts,
going with/ his wife to Tabatinga to take charge/ of
the fortifications, and a couple of/ young men on
their way to Iquitos./ At the bow of the boat were a
couple of/ English machinists also on their way/ to
Iquitos to work in the shops of the/ Peruvian gov-
ernment there. They/ were surrounded by cattle, and
sheep,/ and turtles, and the usual crowd of/ Indians
and Negroes that make up the/ second and third class
passengers, on/ the Amazon steamers. They had no/
cabin but swung their hammocks un-/der the aw-
nings, just out of reach of/ the live stock below. They
were/ fresh from English homes and looked/ rather blue over such treatment./

We generally stopped once a day/ at some little village on the bank to/ wood up, and on the eighth day from/ Manaos we came to anchor in front of/ Tabatinga, the frontier port of Bra-/zil, having passed Tefé [Tefê], Fonte Boa, and San Paulo [São Paulo de Olivença] far below, where Bates/ and other naturalists have spent much/ time collecting. Tabatinga is a lit-/tle village of *palha* huts, with an im-/mense bar-/rack of the same material/ and a couple of mud houses for the/ officers. A few cannon along the/ bank were the only signs of fortifica-/tions I saw, the rest being on paper,/ a hundred and fifty soldiers are quar-/tered here./

Our captain of engineers now left/ us and a lieu-/tenant came on board to/ examine our passports, the Brazilian/ law requiring these to be (vised) by/ the po-/lice, in European style, on en-/tering and leaving each town, though/ from my experience I should say the/ law is not very thoroughly enforced./ We arrived at Loreto, a Peruvian/ town, the next day and drew up be-/side the Peruvian steamer, the Moro-/na while the crews transferred the/ cargo. While the vessels were ly-/ing/ thus the Morona broke loose from her/ cable and went drifting past us down/ stream, tearing of guards and rail-/ing/ from both boats, and was sixty rods/ be-/low before they could get out an/ anchor. At the same time a large/ canoe landed with wood upset, and/ the wood, paddles, men and all went/ floating down stream, but they right-/ed their boat and got to shore a mile/ below. The rest of the cargo was/ transferred in the native canoes/ while we passengers and our bag-/gage/ were taken in the steamer's boats, rather a dan-/gerous undertaking as/ the current is very strong./

I had now at one step, exchanged/ the Brazilians for the Peruvians and/ the Portuguese language for the Span-/ish. There is so much similarity be-/tween the two languages that no one/ who speaks one thinks of/ learning the/ other, and I saw Brazilians and Peru-/vi-/ans talking together each in their/ own language, but understanding/ each other well enough to keep up a/ brisk conversation./

After two days steam in the Moro-/na, we ar-/rived at this place where I/ was received kindly by Mr. John/ Hawxwell78, an English naturalist and/ collector, and I shall likely stop here/ a month and then go on to Iquitos./

J. B. STEERE

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78 John Hauxwell – Resided 30 years in the Amazon. Cope (1869, 1885) described fishes, amphibians and reptiles collected by him.

79 James Orton was born on April 21, 1830, in Seneca Falls, New York. When 13 years old one of his teachers introduced him to the world of natural sciences, inspiring in him a deep love of chemistry and later mineralogy. James and his brother took to the woods surrounding their home, collecting living specimens of plants, insects and minerals, which they studied in the laboratory they built for themselves in the basement of his home. At age 16 James began writing poems and scientific articles based on his experiments, and at 17 he and two of his brothers were sent to school in Oxford, New York. Also that year Orton submitted the idea for his first invention, a device that would improve the functioning of the Leyden jar, to *Scientific American*. Later in the same year, Orton submitted a scheme for adapting for use in lighthouses of the “Drummond light”, the high intensity light of incandescent lime or “limelight” developed by the Scottish engineer, surveyor and statesman Thomas Drummond. *Scientific American* published a sketch and brief explanation of the invention, calling it an “ingenious method”. James’s relationship with *Scientific American* continued to blossom, and the journal published twenty-one of his articles on mineralogy and entomology between 1849 and 1855. The following year, undaunted by his failure to secure publication of his first comprehensive work, a dictionary of scientific terms, Orton set out on a personal excursion, walking from Oxford, New York, to Syracuse, in order to see a locomotive for the first time. Rejuvenated, he...
returned to his work, and at 19 published his first book, *The Miner’s Guide and Metallurgist Dictionary*. Coinciding with the California gold rush, the book was a surprising success, later appearing in five revised editions as the widely read *Underground Treasures: How and where to find them*. Orton entered Williams College in 1851. Graduating from it with honors in 1855, he decided to steer away from his scientific career and to enter into the Andover Theological Seminary. Between 1855 and 1866 he dedicated his life to religion and family, graduating from Andover in 1858, and shortly thereafter marrying Ellen Mary Foote. On July 11, 1860 he was ordained pastor of the Congregational church in Greene, New York. In 1861 he headed a church in Thomaston, Maine, where he remained until 1864, when he became the pastor of a church in Brighton, New York. In 1866 he reentered the world of science, when the University of Rochester offered him a temporary appointment as substitute for his former classmate and closest friend, Professor Henry Ward, who was taking a leave of absence to study in Europe. Orton, who had been profoundly affected by Charles Darwin’s *On the Origin of Species*, was happy to return to his first love. Orton started a correspondence and friendship with Darwin, who encouraged and inspired Orton to explore South America, which was to be the defining experience of his later life. In 1867 Orton was selected by the Lyceum of Natural History at Williams to lead an expedition to South America. The expedition was co-founded by Williams and Orton himself, and the Smithsonian Institution donated the scientific instruments needed and arranged to have the specimens returned to the United States. With this project Orton began the series of detailed journals of his expeditions. On July 19, 1867, Orton and his group completed the crossing of the Isthmus of Panama and reached Guayaquil, Ecuador. This first expedition, in which he crossed South America from west to east, by way of Quito, the Napo, Guayaquil, Ecuador, he discovered the first fossils ever found in South America from west to east, by way of Quito, the Napo, Guayaquil, Ecuador. This first expedition, from Belém to Lima and Lake Titicaca (an account of this is given in the third edition of his *The Andes and the Amazon* (1766)). Upon his return to the United States he immediately returned to his teaching at Vassar and began planning his third expedition to South America. In 1876 Williams College awarded Orton a doctoral degree, on the basis of his work in South America as well as the research he conducted while teaching at Vassar. In mid-October of 1876 he embarked on his third expedition to South America. Little is known exactly what occurred during this final expedition. What is known is that traveling from Trinidad, twenty miles from the Beni, Orton’s escorts mutinied, taking with them one of the boats and most of the supplies. Attempting to suppress the uprising, Orton was struck on the head and suffered severe hemorrhaging. Knowing that he would not be able to in blue clay and are many of them per-/fectly in form and even color. This clay is divided into several horizontal beds by thin seams of earthy coal. These fossils first appear near Toba-/tinga [sic; Tabatinga], and are seen in the river bank upon one side or the other to this/ place and how much further up I do/ not know. I have been fortunate/ enough to find several species of shells/ that are yet undescribed, as well as a few fish bones, corals, crustaceans, etc., that have not been noticed be-/fore. After I was well settled and/ ready for work, Mr. Hawxwell took/ me to visit the Governor of the village/ who furnished me with two boys to/ hunt for me with the blow gun. I/ paid them a dollar apiece, and for this/ they were to hunt for me ten days each,/ finding their own food. I thought/ this very cheap, but before the ten/ days were up, I concluded that I had/ paid them enough, though they/ brought me a few good birds. Pebas is/ most horribly plagued with musquitos [sic]/. There has not been an hour or minute/ that one could rest quietly outside of/ musquito [sic] bars since I have been/ here, and no thin betting like/ that used/ at home will do for the musquitos [sic] off/ the Amazon, nothing thinner than/ sheeting or calico will answer, and/ this keeps out the air as well as the/ pests, so that one must choose be-/tween being suffo- cated and being eat-/en alive. While eating, or preserv- ing/ my collections or writing, I am con-/tinually re- minded of them, for I must/ work with one hand and /fight them with/ the other. The amount of suff-/ering caused by these seemingly little/ insignificant creatures in this world/ in which they are even more cosmop-/olitan than man himself, must be enor-/mous, accord- ing to my present judg-/ment, more in this country at least/ than all kinds of disease added to/ death itself. Sickness and death come/ and their pain has an end, but these lit-/tle creatures are continually at work,/ giving neither the tired nor sick rest,/ onemust [sic] be continually in motion, or/ they will settle upon him in a cloud./ They do not disappear where the tim-/ber iscut [sic] away from about the house, as/ they do in the States, but are even/ worse in the open places, than in the/ dense woods./
The Peruvians here are generally natives of Lima, or of the towns within the mountains, Chachopoyas [sic; Chachapoyas], Moyobamba, etc., and are on that ac-count likely much larger, fiercer looking than the Brazilians of the Amazon, and they appear to be more en-ergetic also, but from what I have seen of them during the last month I should judge that their energy was hardly ex-pended. Their only business here is buying a few hammocks of the judge that their energy was hardly ex-pended. Their appearance to be more en-ergetic also, but from what I have seen of them during the last month I should judge that their energy was hardly expended. Their only business here is buying a few hammocks of the judge that their energy was hardly expended.

For the Indian tribes mentioned by Steere in the ensuing letters see Raimondt & Bollaert, 1863.

mandicola [sic; mandioca] which lacks the poison-ing juice of that made into farinha [sic; farinha], is much used here boiled, and makes a good substitute for bread and potatoes. A few days ago a priest who serves several villages down the the [sic] river near here, came up in a canoe and there were several christenings, for though marriage is considered su-perfluous, christening is one of the ne-cessities. Most of the children chris-tened were those of the Indians, and here was a great gathering of them, and much bell ringing and a few can-dles burned at the ceremo-ny, but there was a white child to be christened, and this was an affair of greater mo-ment.

A god father and god mother had been chosen for it and it was given over to their hands and carried by them to the church. Most of the white people of Pebas went and I fol-lowed. The friends all stood around with wax candles in their hands while the child in the arms of its god moth-er was salted and oiled by the priest who blessed its eyes, and ears, and nose and mouth in Latin, a boy stand-ing by with the boxes of oil and salt, and making the responses. At the conclu-sion the god father threw a handful of silver coins among the In-dian boys at the door of the church for a scramble, and those witnessing the ceremony were each presented with a coin with a hole in it, in which was fastened a tie of ribbon and all were invited to the house of the pa-rents, where wine and sweet cake (made of corn) were put upon the table. Those acting as god father and god mother to a child enter into a sort of relationship with the real pa-rents, that is expressed by the terms compadre and comadre words that are used as commonly in this country and Brazil, as mister and mistress in the United States. If a man is blessed with a large family, he can call half the village compadre and comadre, as a new couple are generally chosen for each child. This custom or ceremony seems to have a great influence in making and cementing friendship be-tween families and it might be well if we had some such practice among us.

Since I came here I have seen for the first time the “Victoria regia,” growing through it is also found upon the lower Amazon. It is found here in a lagoon near the mouth of the Am-bacu where half an acre is so closely covered by the great leaves that they crowd upon one another. The full grown leaves are from four to five feet in diameter, the size of a large umbrella. They are light green above but dark purple below with large deep leaf veins that are thickly covered with long sharp spines. Each leaf is

Victoria amazonica (Nymphaeaceae).
turned up at the edges to a height of three or four inches so that it looks like a great shallow disk. The plant is called by the Brazilians 'furno' (forno) from the resemblance of the leaves to the great earthen dishes they use in roasting faminha (farinha). There are but a few of the flowers in blossom at this season but enough to show their size and color. They are nearly a foot in diameter when fully open, but like our pond lilies close during the middle of the day. The first time they open they are pure white and look like overgrown pond lilies, but the second day they show a rosy or purplish tinge which deepens until the flower decays. The sepals and the flower stalk are covered like the leaves with spines and the whole plant is difficult to handle. I cut one of the leaves into pieces twelve by sixteen inches the size of the whole plant is difficult to handle. I cut one of the leaves into pieces twelve by sixteen inches the size of my drying papers and tried to press it, but the damp weather and the spongy nature of the leaf have been too much to overcome.

Since I have been here the village has been visited almost nightly by a large tiger or ounce who is in the habit of dashing into the yard of one of the villagers and catching a dog by the neck, perhaps from the very door steps, and making off with it to suit his taste or his pocket. A library and liter-of-business is a liquor store, where one can get drunk, rooms and in all the towns of the Amazon every place of business is flourishing and has among its members nearly all the Peruvian officials, in spite of the Catholicism. There are two or three billiard lodges of free masons is flourishing and has among its members nearly all the Peruvian officials, in spite of the presence of the foreign workmen could give it. A place wears an air of business that only Spanish Americans can be believed, has been encroaching on all her neighbors. The place is regularly laid out, and the streets have lamps and some of them sidewalks, luxuries that I have not seen since I left Manaos. Some of the houses are covered and floored with tiles and a small brick block of one story is building for the government officers. There are perhaps sixty English workmen, with Peruvian officials, tradesmen and Indians that bring the population up to about two thousand. The government factories were built to keep in repair the steamers required to navigate the Peruvian Amazon and its branches. They comprised a foundry, steam saw mill, blacksmith and carpenter shops, and a tile and brick factory. They are all supplied with English workmen, who are assisted by Peruvian apprentices and Indians, ad libitum. These Indians are supplied from the towns about, by a species of draft, and serve two months, and are then supplied by others before they have learned to be of much use. I saw a dozen of them trying to move a saw-log that could have been easily put in place by three or four Michigan lumbermen, and it took them an hour to move it three feet. The machinery and saws are are all English and did not seem to be as well fitted for the business as our own. There has been great complaint of insufficiency in some departments there, but they have certainly built up a stirring place, where a few years ago there was a dull Indian village. In the foundry they have cast bells and even a brass cannon. There were four steamers lying there beside the Morona upon which I came up but all, or nearly all, under repairs. The place wears an air of business that only the presence of the foreign workmen could give it. A lodge of free masons is flourishing and has among its members nearly all the Peruvian officials, in spite of the Catholicism. There are two or three billiard rooms and in all the towns of the Amazon every place of business is a liquor store, where one can get drunk to suit his taste [sic], or his pocket. A library and liter-

Letter XXXVIII
[Peninsular Courier and Family Visitant, 11(20), May 17, 1872]

FOREIGN CORRESPONDENCE

Number XXXVIII

YURIMAGUAS, PERU,
February 25 [sic, 15th], 1872.

The steamer makes but monthly trips, and I concluded to come on to this place instead of stopping a month at Yquitos [Iquitos], contenting myself with the four days that the steamer lies there on its way up. Our trip to Yquitos [sic; Iquitos] was without incident. The first night we ran into the mouth of the Napo and anchored there, and next day, just at night, arrived at Yquitos [sic; Iquitos]. It is built upon a bank of red clay that rises forty or fifty feet above the river, below this red clay the coal and fossils of Pebas again cropping out. This place, ten years ago, was an Indian village of two or three hundred inhabitants, but in 1864 the Peruvian government established its factories here, and a line of steamers, perhaps the better to confirm its right to these territories, which is disputed by Equator [Ecuador], while there is also some dispute yet with Brazil, who, if the Spanish Americans can be believed, has been encroaching on all her neighbors. The place is regularly laid out, and the streets have lamps and some of them sidewalks, luxuries that I have not seen since I left Manaos. Some of the houses are covered and floored with tiles and a small brick block of one story is building for the government officers. There are perhaps sixty English workmen, with Peruvian officials, tradesmen and Indians that bring the population up to about two thousand. The government factories were built to keep in repair the steamers required to navigate the Peruvian Amazon and its branches. They comprised a foundry, steam saw mill, blacksmith and carpenter shops, and a tile and brick factory. They are all supplied with English workmen, who are assisted by Peruvian apprentices and Indians, ad libitum. These Indians are supplied from the towns about, by a species of draft, and serve two months, and are then supplied by others before they have learned to be of much use. I saw a dozen of them trying to move a saw-log that could have been easily put in place by three or four Michigan lumbermen, and it took them an hour to move it three feet. The machinery and saws are all English and did not seem to be as well fitted for the business as our own. There has been great complaint of insufficiency in some departments there, but they have certainly built up a stirring place, where a few years ago there was a dull Indian village. In the foundry they have cast bells and even a brass cannon. There were four steamers lying there beside the Morona upon which I came up: but all, or nearly all, under repairs. The place wears an air of business that only the presence of the foreign workmen could give it. A lodge of free masons is flourishing and has among its members nearly all the Peruvian officials, in spite of the Catholicism. There are two or three billiard rooms and in all the towns of the Amazon every place of business is a liquor store, where one can get drunk to suit his taste [sic], or his pocket. A library and liter-
ary society was est-/tablished, but did not thrive in the/ atmosphere of the place and has been/ abandoned. The influence of the/ place upon the English workman is/ acknowledged by all to be bad, but/ there are various reasons given, some/ blaming the climate and others the/ lack of society and the restraining in-/fluences of home, but whatever the reason they seem to go to the bad/ pretty fast, the most of them going/ home broken down physically and/ morally, and without means, or dying/ here of delirium tremens or other di-/seases brought on by drink. They get from fifty to one hundred dollars/ per month with passage paid, and many/ short hours of work, but as in Eng-/land, with poor pay and long days off/ labor they spend their spare money/ and time in drinking and lounging/ about the beer shops; so they do here/ but with more money they are able to buy wines and brandy. At home/ with beer they seem able to live on to/ a pretty good old age and die in the/ poor house, but the stronger drink/ here kills them sooner, and with less/ cost to the State. Many of them also/ follow the custom of the country off/ living without marriage with the In-/dian and half breed women, claiming/ that it is the only way they can get/ their washing and cooking done, and/ that it thus becomes necessary./

It seems as if this would be a good/ place for missionary work – not by an/ English missionary, that has been ac-/customed to moderate drinking at/ home and does not know where to/ draw the line, but for a real Ameri-/can missionary and tetotaler [sic]. Many/ of the Peruvian officers speak Eng-/lish, and would listen to Protestant/ preaching, while the priests of/ the country, by their immoral/ lives, have lost what influence/ they might have against such a work,/ and a good counsel and example of/ a Christian minister would have more/ influence, from the comparison with/ their’s [sic]. There are certainly a few/ there who would welcome a Protes-/tant minister, and would do what they/ could to assist him./

I found there three three [sic] American en-/gaged under the Peruvian Hydro-/graphic Commis-82, in surveying the/ upper branches of the Ama-

82 Peruvian Hydrographic Commission – In 1866 Peru and Chile were at war with Spain. To contract a foreign official to command the allied fleet was an option foreseen in the Peruvian-Chilian alliance, and the government of Peru instructed its ambassador in Washington, Federico Barreda, to seek a very competent naval officer for the task. No officer of the United States Navy accepted the offer, and Barreda’s alternative was to contact Confederate officers. Two candidates were selected, John Randolph Tucker (Werlich, 1990) and Robert B. Pergram. Tucker was chosen. He would receive the degree of Rear Admiral of the Peru naval, with an annual salary of US$5,000, the same amount paid by the United States navy. Tucker was undoubtedly a celebrity. Born in Alexandria, Virginia, on January 31, 1812, after attending private schools in Alexandria, he entered the United States Naval Academy on June 1, 1826 and had service afloat in the Mediterranean and Brazil squadrons prior to his promotion to Lieutenant on December 20, 1837. He married Virginia Webb on June 7, 1838 (she died in 1858). During the Mexican-American war he served as a Lieutenant Commander in the Gulf of Mexico, commanding the USS Stromboli until illness forced him to return north. From 1849 until 1855 he was assigned to the Home and Mediterranean Squadrons’ flagship. Tucker received his commission as Commander on September 14, 1855, when he became commanding officer of the USS Pennsylvania. He later served as Ordnance Officer at the Norfolk Navy Yard. Tucker resigned from the U. S. Navy when Virginia seceded from the Union in April, 1861, becoming a Commander in the Virginia Navy, and, in June, the Confederate States Navy. He was commanding officer of the CSS Patrick Henry during 1861-1861, participating with her in several combat actions. During the Federal Navy’s attack on the Drewry Bluff fortifications in May, he commanded one of the defending batteries. In July, 1862, Tucker was ordered to Charleston, South Carolina, where he took command of the ironclad CSS Chicora. The following January 31, he led his ship in a successful attack on Union warships off that port. He became commander of the Confederate warships at Charleston in March, 1863, remaining in that post until the city fell in February, 1865. During that time, he was promoted to Captain and aggressively pursued spar-torpedo warfare against U. S. warships. During the U. S. Civil’s War last weeks he served in the defenses of Richmond, Virginia, and with the Confederate States Army withdrew to its final destiny at Appomattox, Virginia. He surrendered in the field on April 6, 1865, at the Battle of Sayler’s Creek, and remained a prisoner of war until July 24. After his release, he returned to the South to work as an agent of the Southern Express Company of Raleigh, North Carolina. In 1866, having accepted the Peruvian Government invitation, he went to Peru with Captain David Porter McCorckle and Commander Raleigh Butt. Although some Peruvian Naval Officers objected to a foreigner in command of their fleet, Tucker distinguished himself in battle with Spain, Tucker resigned from the Peruvian Navy in 1871. He was then appointed president of the Peruvian Hydrographical Commission of the Amazon, which surveyed the upper Amazon River and its tributaries. This expedition discovered two new rivers, the Trinidad and the Herrera-Yacu. Tucker traveled to New York upon completion of the expedition to have maps and atlasses made from the Commission’s findings. He died at Petersburg, Virginia, on June 12, 1883. His collected papers are in the library of Old Dominion University, Norfolk, Virginia. In 1871, as senior member of the Hydrographical Commission of the Amazon was named Lieutenant James Henry Rochelle. He was born in Jerusalem (now Courtland), Virginia, on November 1, 1826. He graduated from the Naval Academy in Annapolis in 1848, and then served with Commodore Perry in Japan. Following the outbreak of the Civil War, he resigned his commission in the U. S. Navy, serving first as lieutenant and eventually as a commander. Following the Civil War, Rochelle joined his long-time commander and friend Admiral John Randolph Tucker in surveying the upper reaches of the Amazon river for the Peruvian Navy. Before his death, Rochelle wrote a biography of Admiral Tucker (published in 1903). He died at his home on March 3, 1889. In Rochelle & Tucker’s 1875 paper (“Report of the Hydrographic Commission of Peru on the Amazon River”), we find some of the names mentioned
zon, one of their principal objects being to find a navigable route to some point from which a wagon road or a rail-road can be built to the coast; the only communication now being by foot paths across the mountains—baggage and freight being carried on men's shoulders.

They were all formerly officers of the Confederate navy. Captain Butt was a lieutenant of the Merrimac. Dr. Galt the surgeon of the Alabama, while Captain Rochelle held some command in the harbor of Charles-town; but for all this, I found them rejoicing over the defeat of Tammany, the news of which had just reached them, and otherwise conducting themselves like good loyal Americans. One of them remarked that at such a distance from home political differences fade out, so that all can see how great and good our country is compared with such an abomination as this. If the leading politicians of our country, of all sects and sections, could be shipped to this country and kept here for six months, and then sent home, there would be a new departure all round, and that for the better.

Dr. Galt has been making very close observations with the barometer and thermometer for the last year, and has also observed the winds, storms, rain fall, etc., and he was kind enough to present me with an abstract of the results, while Captain Rochelle copied for me the observations of latitude and longitude made by the commission at many places, before undetermined. Captain Butt consented himself with running about town to find me a room, and to procure letters of introduction to aid me on my trip across the mountains. Colonel Sepeda, a Brazilian merchant, to whom I had letters from Para, and Captain Smith, a Peruvian, and owner of a little trading steamer—the "Cecilia," also treated me with great kindness. After four days busily spent in packing my collections made at Pebas, I bade farewell to him and continued my journey up the river.

On our trip to Turimaquas [sic; Yurimaguas] we had the Commandant-General [sic], the chief officer of this harbor of Peru, on board, and he brought with him his military band and most of the officials, as the steamer was expected to go to Borja, upon the upper Maranon [Marañón], during the trip. We always had music at dinner and supper, and among the pieces frequently played were "Shoo Fly," and "Johnny Fill Up the Bowl." We had a priest on board, and the second day of the voyage we all went on shore at one of the little cane and palm leaf villages, to consecrate or christen a little palm church. The Peruvian officers held the wax tapers during the ceremony and had considerable sport in dropping the melted wax on each other's coats, and others were conducting themselves unceremoniously.

The towns from Iquitos to this place are a succession of Indian villages. Nanta [sic; Nauta], at the mouth of the Ucayali is the largest, and has considerable trade.

The Amazon, that has kept a breadth of nearly a mile from Tabatinga, loudly narrows above the mouth of the Ucayali, which is a larger stream than the one honored with the name of Maranon [Marañón] or Amazon. The country is all very low, and about the mouth of the Huallaga there are the same low swamps of asai [sic; açai] and miriti palms, found about the island of Marajo [Marajo], and at the mouth of the ten counties, two thousand miles below. We ran around at the mouth of the Huallaga and lay there a day, and then steamed up to this place, where we arrived after a voyage of six days, the steamer running only during the day. The weather is much cooler here and the water seems cold, and the mountains are said to be in sight in clear weather, though I have not yet seen them. I shall go to Borja in the steamer, and then come down in canoe, and wait for the steamer to again bring me to this place next month.

J. B. STEERE

Letter XXXIX
[Peninsular Courier and Family Visitant, 11(22), May 31, 1872]

FOREIGN CORRESPONDENCE

Number XXXIX

BORJA, PERU, February 20, 1872.
The Commandent-General [sic], and/ nearly all the company that came/ with him from Yquitos [Iquitos], kept on to/ Borja, and we had music as before as/ we steamed down the Hualloaga [sic; Huala- laga], and/ again turned up stream in the Mara-/non [Marañón] or Amazon, now hardly deserving/ the name, having dwindled from its/ sea-like appearance, in its lower/ course, to a river of fifty or sixty/ yards in width. We now saw proofs/ of the vicinity of rocks and moun-/tains, in the beaches of coarse gravel/ and the swift current, that almost de-/served the name of rapids in some/ places. On the second day the cap-/tains pointed out what appeared to be/ a low bank of blue clouds in the west,/ and told me it was the moun-/tains. After so many months voyage-/ing in the lower country, where the/ river had seemed almost su- preme,/ flowing between low jungly banks/ formed by its sediment and covered/ by it during high water, it was pleas-/ant enough to see these peaks that/ had never submitted to its power./ They were foot-hills of the great/ Andes range, apparently fifteen hun-/dred or two thousand feet above the level of the river, and running from/ north-east to south-west. All day, as/ the wind would drive the clouds from/ before them, we could see them ris-/ing higher and higher, and just after/ dark we came to anchor before Borja,/ lying just at their feet. The current/ was so strong that the steamet/ dragged her anchor, and we had to/ run up again; but the second time/ we were more fortunate, and lay se-/cure till morning. Daylight showed/ us the Pongo [de] Manseriche84, as/ the gap is called with the vessels/ and passengers, and had gone up the/ river as quickly as possible. The/ place is commanded by a lieuten- ant-/colonel, a captain, and two lieuten-/ants, one of whom to my satisfaction,/ spoke English. Comman- dante Ray-/gado, of the steamer Morona, pro-/cured me quarters with the officers,/ and with the help of Lieutenant/ Viera, the English speaking one, I/ soon had my baggage on shore, as/ the steamer was to leave directly./ Then the plank was drawn in and the/ sailors tried to heave up the anchor,/ when they found that both vessel and/ anchor were fast on the rocks, the/ river having fallen during the night./ After watching until I was tired,/ while the paddles pounded the wa- ter/ into foam and the men heaved at the/ windlass without stirring the vessel/ an inch, I took my gun and went to/ the woods. Two or three hours after-/wards, when I returned, everything/ was in confusion, and three boats/ were being manned and sent up the/ river as quickly as possible. The/ captain, finding the steamer fast, had/ taken a boat and most of the of- ficers/ and passengers, and had gone up the/ river to see the Pongo [de] Manseriche84, as/ the gap is called where the river/ breaks through the hills. A few min- utes before, three Indians of the crew/ were picked up while floating in the/ middle of the river upon a piece of/ timber. They reported that the boat/ had been wrecked and some of the/ people had been drowned. The three/ boats seemed an age in pulling the/ half mile to the bend in the river,/ just behind which were the rapids,/ and then we watched another hour/ before we saw the boats one after/ another, shoot around the point and/ come down with the current. When/ they came alongside, the wrecked/ men climbed to the deck so exhausted/ that they could hardly stand, and/ with clothes dripping and torn in/ shreds, show- ing how hard had been/ their battle for life. They

83 Huambises – Huambisa, Jíbaro linguistic family, self- denominated Huampis or Shuar, a tribe from Peru (departaments of Loreto and Amazonas, at the rivers Morona and Santiago).

84 Pongo de Manseriche (Quichua: Manuirichi (“the one who frightens”), punku (“door”)); located at 4°27′30″S, 77°34′51″W, just below the mouth of Río Santiago, and between it and the old missionary station of Borja. See Carvaja & Portillo, 1904.
were all safe but two – the chief engineer and his mate had gone down with the boat. They had just reached the narrowest point, where the river is said to rush between high walls of rock, less than a hundred feet apart, when the boat filled and sank in an eddy. They were but a few rods from shore and were all struck strong, some of those who were saved were drawn under several times. Mr. Tylle, the chief engineer, was English, and had a wife and several children at Yquitos, who are left in this far off place without a friend. The other engineer was Peruvian, and also leaves a family.

The Pongo is passed safely in canoes during the summer when the water is low, but this must forever be the head of navigation for steamers upon the Maranon [Marañón], though some one has suggested that the rocks in the bed of the river may be blasted so as to make it passable. After another day's stay the water rose, and the steamer went down the river, leaving me here to try a soldier's life for a few days.

I have found a few fossils in the limestone that lies in great blocks along the river, and fills the ground where the village stands, and have spent several days in climbing over the hills in search of game, but one can pass hours in the woods without seeing a bird; perhaps they have gone across the mountains to a drier climate. The climate here, but for the frequent rains, is delightful, being so cool that the soldiers and officers wear woolen clothing, and sleep under blankets. There are very few musquitos [sic], but their quality of their food may be the cause of this strange appetite. They might be the better, both by the work and the fare, if they were set to cultivate gardens. For the first time, in South America, I find here the common potato growing, run as large as eggs, but of good quality. The whole country below is supplied with potatoes from Portugal, that sell in Yquitos for twenty cents a pound.

Life here is a round of mounting guard, roll call, and lying around the barracks, and mine is fast getting to be as monotonous as that of the rest. As soon as I can get a canoe I shall go down the river.

J. B. STEERE

Letter XLI

[Peninsular Courier and Family Visitant, 11(14), June 14, 1872]

FOREIGN CORRESPONDENCE

Number XLI

LAGUNAS, PERU, March 1st, 1872.

86 This refers to ancylostomiasis, an infection of one of two different, 7 to 13 mm roundworms called hookworms (Ancylostoma duodenale or Necator americanus). Hookworm eggs are passed in stool and infection results when a person comes in contact with the eggs from the contaminated soil or stool. The larvae enter through the skin and travel to the lungs through the blood. They climb the lungs through the bronchi and trachea and then are swallowed. As the larvae pass into the digestive tract they attach themselves to the wall of the small intestine. The mouth of the hookworms present cutting plates (Necator) or curved teeth (Ancylostoma) which perforate the intestine, causing blood and iron losses, leaving the individual anemic. Here they mature into adult worms, mate and feed on the blood of the host. Adult hookworms may live up to ten years. Individuals infected by hookworms present the typical phenomenon of geophagy, the practice of eating earthy substances (such as clay), often to augment the mineral-deficient diet.

85 Jigger – Tunga penetrans (Linnseus, 1858) (Siphonaptera, Pulicidae).

Arquivos de Zoologia, 39(2), 2008
Barrancas is a village of twenty/ Pabu [sic; palm] thatched huts, built on the bank/ of the Marañon [Marañón], and upon a bluff of/ prettily colored red sand and clay/ that gives it its name. This bluff is/ eighty or a hundred feet high, and is/ continually cut away at the base by/ the river so that great pieces are fall-/ing in, leaving the banks nearly per-/pendicular. The Commandante of/ Borja, who arrived a few days before/ me, took me into the house he was/ occupying, where I hung my ham-/mock and was at home. The Com-/mandante had been to a village be-/occupying, where I hung my ham-/mock and was at home. The Commandante of/ Borja, who arrived a few days before/ me, took me into the house he was/ occupying, where I hung my ham-/mock and was at home. The Commandante of/ Borja, who arrived a few days before/ me, took me into the house he was/ occupying, where I hung my ham-/mock and was at home. The Commandante of/ Borja, who arrived a few days before/ me, took me into the house he was/ occupying, where I hung my ham-/mock and was at home. The Commandante of/ Borja, who arrived a few days before/ me, took me into the house he was/ occupying, where I hung my ham-/mock and was at home. The Commandante of/ Borja, who arrived a few days before/ me, took me into the house he was/ occupying, where I hung my ham-/mock and was at home.

The next day I spent in hunting/ with little success, and prepared for/ an early start down the river the next/ morning. I hired men for Aripari,/ a village two hours distance below,/ but found on starting that I had an/ old man, and two boys [sic] ten years of/ age, but the little fellows pulled like/ men and we were soon there. At/ Aripari I hired men for Cedro Isla,/ near the mouth of the Huallaga, and/ passed on after an hour’s delay./ About noon we passed San Antonio,/ near the mouth of the Pastassa [sic; Pastaza],/ which has been quite a town, and has/ perhaps thirty-five or forty houses,/ but the inhabitants have left for fear/ of the Ayorunas [Aguarunas], of the Pastassa [sic; Pastaza],/ who have proved troublesome lately,/ and are said to have sacked and/ burned one town of Christian Indi-/ans on that river.

Just at night we saw a canoe drawn/ up to the beach and a couple of men/ stooping over a fire, and paddled/ towards them, but as we approached/ they began to grow uneasy, and one/ ran and got his spear which was near/ the boat, and the other drew his knife./ They were a wild looking couple, and/ I did not know but they were/ Ayorunas [Aguarunas] and we should have a fight,/ but they proved to be Christian Indi-/ans with the same suspicions of us./ I bought the man’s spear, and after/ roasting some fish and plantains at/ their fire we pushed out and went on./ After night the men began to get/ sleepy, and would paddle a few min-/utes and then doze, while the canoe/ would swing round with the current/ and go down stream stern foremost./ My position was too cramped to/ sleep, if the mosquitoes had allowed,/ and thus we drifted on till about mid-/night, when the men pointed to the shore and said Cherui, and I made/ them understand that I wished to go/ ashore there. We found a feast in/ progress, and all who could speak/ Spanish drunk or asleep. For lack/ of a better place, I hung my ham-/mock and mosquito bar in an open/ tambo orchard among several sick/ puppies, and slept as well as the/ barking of the dogs and the noise of/ the feast would allow./

In the morning the governor/ or lieutenant, a half-breed, and more/ than half drunk, made many apol-/ogies for not receiving me the night/ before, claiming to have been asleep/ rather than drunk. He wished to go/ with me to Cedro Isla, and we/ started in a rain storm as I was in a/ hurry for fear of missing the steamer./ A large wooden shield of the Huam-/bises [Huambisa], that I had bought above, served/ a good protection. We/ arrived at Cedro Isla be-/fore night, where I was glad to get rid of my/ friend, the Governor of Cherui, who/ had made himself very familiar during/ the trip on the strength of his being/ a “Castillano.” Upon my arrival at/ Cedro Isla, I immediately engaged/ men for trip to Lagunas, paying into/ the hands of the Governor forty/ cents each for three men, and as/ much more for a canoe. The Gov-//\nor paid this over to the koraka [sic; curaca],/ who went about among the young/ men offering them the money much/ like a constable summoning witness-//\es,/ the ones accepting being bound to/ go. After this was arranged, and my/ baggage safely in the house of the/ Governor, a quiet young Peruvian,/ I went out to examine the place,/ which consists of four or five houses/ scattered along the beach and backed/ by large plantations of plantains./ Under a large shed near the house of/ the Governor, was a primitive dis-///\illery for making aquardente [sic; aguardiente] from/ plantains. The ripe plantains were/ boiled in a great
earthen pot until they made a sort of syrup, which was stored in a canoe and covered with plaintain leaves until it fermented sufficiently, when it was dipped into another very deep pot. Near the top of this a hole was made for a hollow cane, and in the top a kettle of cold water set. All the crevices were then stopped with a paste made from the boiled plantains, and a fire built up below, and there was soon a little stream of the precious spirits trickling down the cane. It was very weak, not having more than ten or twelve per cent of spirit, but it served to get drunk upon. The Indians were all half drunk, and likely kept so as long as the distilling lasted. I could hear them about the pier nearly all night, and had some trouble in getting them together in the morning. But we finally got off, and after a couple of hours floating down the Maranon we turned a sharp corner, and began pulling up against the strong current of the Huallaga, crossing the river now and then to escape those places where the current ran strongest. Those who descend can take the strong current in the center, but those who go up stream must keep near shore where the force of the current is broken. The Brazilian Indians have a saying that “Embacho tudos os Santos ajudam, mais ersema ne/um. [sic; Para baixo todos os santos ajudam, mas para cima nenhum]” – going down stream all the saints assist but going up not one. – / A large monkey that I had bought on the Maranon was tied in the bow of the canoe and was continually catching at the limbs of the trees overhanging, or was bowing and posturing to the motion of the boat, greatly to the amusement of the Indians.

Lagunas is a town of ten or twelve hundred inhabitants of the tribe of Cocamillas, who speak the same language as the Cocamas of Nauta. There is said to have been a mission of several thousand Indians of four different tribes here formerly, but when the Jesuits were expelled, the tribes separated leaving only the Co-/camillas here. The country about here is level, with many small prairies or campos. It is but a few feet above the leve of high water, but seems to be rich and well suited for settlement, much better than any place I saw in Brazil, from being cooler and freer from mosquitoes [sic] and other pests, though there are plenty seen here, and better than the lands about Pebas, Nauta and Yquitos, which are too much broken and cut up with ravines, to make farming with the plow pleasant./ Here are the first good cattle I have seen since I left the United States; great fat cows as large as two or three of the Marajo [Marajó] cattle. They are worth one hundred dollars apiece though their raising costs nothing./ The governor reports a large body of this level land, and it will likely some day be the seat of thriving colonies from Europe./

J. B. STEERE.

Letter XXXX
[Peninsular Courier and Family Visitant, 11(23), June 7, 1872]

FOREIGN CORRESPONDENCE

Number XXXX

BARRAUCAS [sic; Barrancas], PERU, February 25, 1872.

The commandante of the station had gone below in one canoe, and the other had been lost in the rapids, so that when I got ready to go down the river the soldiers were sent to the monte to cut timber for a raft, a means of conveyance much in use on the upper rivers. The wood used is called – pál da balsa [sic] – raft wood, and is almost as light as cork, for which it is often used. They cut fine sticks fifty feet long, and about six inches in diameter and lashed them together with vines, and then made a little raised platform for me and my goods in the center. They then braided together four palm leaves

88 Cocamas, Cocamillas – Tupi-Guarani linguistic family. Department of Loreto, rivers Huallaga, lower Marañón, lower and higher Ucayali, Amazonas, lower Nanay.
for a shelter, and, all embarked, two soldiers with me to direct the raft. When we pushed off from the shore the raft sunk under the water, all but the left tire perch, and altogether it had a very insecure look and feeling, but we worked our way into the middle of the river and went floating down with the current, the soldiers being seated in front upon a box, with their bare feet in the water. The raft was so deep in the water, and so unwieldy that the men could not manage it; no very pleasant situation with the river full of sunken timber, that stuck up in “snags” and “sawyers,” over which the water was often dashing to a height of five or six feet. We could hear the water roaring as it dashed over the sunken timber, be-fore we could see it and then the sol-diers would watch, and, as soon as they saw the snags they would try to pull the raft away from them, but we were almost as apt to pass on the wrong as the right side. If we had struck fairly upon one of them the consequences might have been serious but after passing many of them with but a few grazes I began to breathe freer, and could spend some time in examining the country we were passing through.

The river here, so near its sources in the mountains, has lost that gradual rise and fall that is so marked in Brazil, where for six months it rises, and then falls during the rest of the year; it rising here for a few hours or days, and then falling again, the only difference between the rainy and dry season being the frequency and extent of its changes, as this season even, there are generally broad beaches or playas [sic; playas] in sight, and the gradual and regular decrease in the size of the stones that cover them is very curious. At Borja these are great irregular blocks or boulders of limestone, just torn from their bed, a few miles below they are worn and rounded stones, as large as bushel measures, then as large as one’s head, and before one reaches Simon [sic; Limón], the first settlement below Borja, the lime-stone is all worn to mud, leaving nothing but the few granite pebbles. This change in size is so uniform that the stones on the different playas [sic; playas] appear to have been assorted and sized.

As night came, we floated on by moon light, now being close to shore, so that if we should get wrecked we could make our way to land. Soon after night the woods are echoing to the notes of a strange bird that I have heard at night the whole length of the river, first noticing them at the island of Cavicana [sic; Caviana]. It seemed to answer to the description given by travelers of the “spirit bird,” but I have been unable to find a name given it in Brazil. Upon inquiring its name of the soldiers they said it was called Yaya, mama! Which means in the Indian lan-guage, father, mother! And upon asking why it had this strange name, they gave me this little story. A young hunter married a beautiful girl, and soon after went a great distance into the mountains to hunt. During his long absence, she was false to him and bore a child, of which he was not the father. Upon his return, to conceal her guilt, she carried the child into the forest, and left it there, and it is this lost child that wanders through the woods calling Yaya, mama! The cry of this bird is very human, but rather a cry of utter loneliness and despair than a cry for help, being well represented by the syllables, Oh-ho-ho-ho. The first al-most a shriek, and running down to a sigh with the last.

We had intended to drift on all night, but the soldiers were afraid to go father, so we drew up about nine o’clock, at a smooth beach, where the men went on shore to sleep, while I tried the raft; but the mosquitoes [sic] were in clouds, and I soon followed to the shore, where the palm leaves that had served from the sun during the day, with my mosquito [sic] net hung over them made a good bed. When I listened to the singing of the spirit birds and mosquitoes [sic] until I fell asleep and dreamed of more pleasant music. In the morning we ate our rations of cold boiled yuccas and fish, and were floating on by the sun rise. As we passed the mouth of a lagune, a tapir that was drinking at the bank became frightened at us and plunged in and swam across, and went into the bushes. If we had a canoe we might have followed him, the men thinking of the many pounds of good beef he was running off with, and what a treasure his skin would be for the mu-seum.

About noon it began to rain with cold wind that made the drops feel like hail stones. They took off their shirts and sat shaking as if with the auge, while I was crouched under the little shelter which was too small to cover both me and the baggage. We drifted on in this way until about four o’clock, when we reached the little island of Limon [Limón], the first settlement below Borja [sic; Borja], and for many years the highest point inhabited by Chris-tians – if these can be called such – on the Maranon [Marañón]. It is and has been in-habited for many years by an old man with his four sons and their families. They preferring this advanced and dangerous post to a safer life, where they would be subject to the inso-lence and selfishness of white gov-ernors. Every one of them can boast of several infeiles the unfaithful – the name given by the Spanish to the Indians that have been killed by them, either by fair means or foul. Their houses are full of spears, blow guns, shields,
beads, and other trophies of victory. They, with the In-dians of Barrancas and other vil-lages along the upper Maranca, have/ lost their language, and only speak/ the Inca or Quichua – the lingua-geral of Peru. One of the old man's/ sons, himself already well in years,/ received us, and did all he could to/ make us comfortable, offering me his/ own cot for my bed. After the/ baggage was well out of the rain,/ and I had put on dry clothes, I went/ to the other houses of the village,/ where they invited me to enter, and/ offered me the inevitable bowl of/ masato90. I was very much/ pleased to/ be able to examine their habits of/ life, and they seemed to be as much/ interested in me, especially/ in my/ beard, which must have been the first/ they ever saw, as they stroked it,/ smelt of it, and examined/ to see it/ really grew fast or was only stuck on./ I bought several pacunas90, with beads/ and head dresses captured from the/ Huambises [Huambisa], and after/ considerable/ trouble prevailed on them to sell me a/ shield and spear, the latter of chunta91. I was very much pleased to/ be able to examine their habits of/ life, and they seemed to be as much/ interested in me, especially/ in my/ beard, which must have been the first/ they ever saw, as they stroked it,/ smelt of it, and examined/ to see it/ really grew fast or was only stuck on./ I bought several pacunas90, with beads/ and head dresses captured from the/ Huambises [Huambisa], and after/ considerable/ trouble prevailed on them to sell me a/ shield and spear, the latter of chunta91 – a hard kind of palm wood, the for-/mer of some soft white wood and/ three feet in diameter, both the same/ in use and shape with those used by/ the ancient races of Europe. One of/ the men took one of the shields on/ his arm and showed me all the feints/ and passes of a real bat- tle with the/ Huambises [Huambisa]. Finding myself/ in such/ good quarters, I concluded to pass/ the next day in hunting and buying/ more curiosities. My host brought/ me my supper of three small fish and/ some ripe plantains boiled, and while/ eating them I saw/ for the first time/ the process of making masato. A/ large earthen kettle of boiled yucca/ stood by the fire, and my host's wife,/ an old woman who looked as if/ she/ had lived to make many pots of mas-/ato, filled

her mouth from the pot with/ her fingers, and then/ went about her/ household duties, chewing as she/ worked. When the mass in her/ mouth had reached the proper fine-ness, she emptied it into the pot and/ filled again, working at this as steady-/ly as more civi- lized old ladies do at/ their knitting. When the yucca is re-/duced by boiling and chewing to a/ pulpy mass, it is put away in large/ pots that hold several gallons each,/ and allowed to ferment. When drank/ by [sic; it] is dipped out in mocowas [sic; moccaus] – curious/ painted earthen bowls, and mixed/ with water, when it tastes and looks/ like sour buttermilk./

The next morning, while the women/ were at the river bank after water, they/ became very quiet a few moments,/ and then they began running back/ and forth, half with excitement,/ shouting “Waugana, Waugana,” – the name in the Yuca [sic; Inca] language for/ the white lipped peccary92./

The men listened until they were/ sure the good news was true, and/ then ran to their huts, and re-turning/ with the lances they had captured/ from the Huambises, they jumped in/to the canoes and paddled across the/ river, one having taken time to seize/ his paint pot and draw several great/ red lines across his cheeks, and to put/ on in place of his pants a short petti-/coat that reached half way to his/ knees. My host for lack of a lance/ took his pecuna [pacuna] and paddled across/ with the rest. The barking of the/ dogs and the harsh sound made by/ the peccaries, by snapping their teeth/ together, soon became audible to/ my/ less practiced ear, and after a couple/ of hours three of the boats returned/ with seven of the pec-caries, most of/ them young and with the great lance/ wounds in their sides. The women/ now hurried down to the canoes and/ were soon busy cutting up the pork,/ the men showing how each one was/ killed, as it was taken from the canoe/ showing how there was a tree in the/ way, and after the game had passed/ into sight, how they threw the lance./ The women car- ried the meat to the/ house, and singing the hair off, put it/ under a slow process of roasting and/ smoking, with which it will keep sev-eral days. After an hour more my/ old friend returned, not having ar-/rived in time to share with the rest,/ while the dogs kept the pec-caries at/ bay. He had followed on and killed/ a large one with a little poisoned ar-/row from his blow gun. I saw here/ all parts of the operation of cloth/ making. The spinning is done by/ twirling a spindle with one hand,/ while the other regulates the supply/ of cotton. The spindle is made of/ chunta, and has a little disc of turtle/ shell to give it weight, the whole/
looking much like the spindle of our/ old fashioned spinning wheel. The/ rolls are little fellows five or six inch-/es long./

The piece in the loom was about/ two feet in width and perhaps two/ yards in length. They were weaving/ in stripes of four colors, those being/ made of native barks and fruits. This/ piece was destined for one of those/ curious garments that supplemented the/ women's short petticoats, serving for/ mantle and hood, being drawn over/ the upper part of the person when/ they enter the churches, where they/ are not allowed to go in their usual/ scanty garment, thus making it neces-/sary for every maiden of the tribe to/ possess one before she can be mar-/ried./

This was probably destined for the/ bridal mantle of the girl who was/ weaving it, under the supervi-/sion of/ all the old women in the village./ They are coarse,/ and must be very/ durable, and after they have faded,/ they are colored the common dull/ brownish black, and do duty for pet-/ticoats for most of the time. The/ loom was put up in a shed, and was/ as rude as the rest of their imple-/ments. I noticed here also curious/ combs made of splints of cane, woven/ together with thread. I tried to ex-/change my comb for one of them, but/ the old lady preferred her own make/ to the new fangled notions of the/ whites./

The next morning I hired a canoe/ to take me to this place, and my/ friends the Indians put on board a/ plentiful supply of peccary pork and/ plantains, and we bade them Adios,/ my host embracing me and kissing/ my beard at parting. I had paid/ them well for what I had taken,/ and this was so different from the/ grasping habits of their white mas-/ters that I had made great reputa-/tion among them./

The little island of Limon [Limón], contain-/ing perhaps fifteen acres, is about/ half under cultivation, but it supports/ these four families in plenty, and as I/ passed through the large orchards of/ plantains I saw dozens of great/ bunches ready to gather, and some of/ them falling and going to waste/ with ripeness. Many of these bunch-/es contain over a hundred plantains,/ and one would supply a person with/ vegetable food for ten days. There/ were also large patches of fine yucca,/ and the spots of freshly worked land/ here and there showed the industri-ous habits of these people who, living/ in the greatest plenty, still provide/ for the distant future; for if they/ should stop work entirely they would/ not want for food for several years./

For what few things they need/ from the whites, they wash gold from/ the sand of plaias [sic; playas], using their canoes/ for cradles and fathering the gold,/ which is in very small particles with/ quicksilver. They are said to wash/ out a castillano [sic; castel-}

The next day after my arrival at/ Lagunas, while busy writing, I heard/ the church bells ringing and a great/ rush outside, and got to the door just/ in time to see forty women old and/ young, most of them wearing only/ the short petticoat, tearing past on/ the run and dragging after them a/ great stick of timber by a wild vine/ sixty or seventy feet long. The/ church doors were opened, and the/ head of the team ran in-/side until the/ log was drawn to its place. It would/ have made the fortune of a photo-/grapher to have taken a picture of the scene. The long string of wom-/en/ with hair flying loose running along,/ with five or six men behind throwing/ rollers under the log to make it run/ easier. The old mud church was/ falling down, and this stick was des-/tined for a post to help uphold the/ roof of a new one, and daily the/ women of the town were called to-/gether by the church bell to draw up/ [sic] a stick of timber, until there were/ enough for the work. After the stick/ was in place the women separated to/ their different houses, seeming/ pleased/ to have done this much in God's ser-/vice. We often hear it said that/ women are more devoted to religion/ than men, and perhaps the same cause/ that makes women of civilized coun-/tries so con-}

I soon found in my walks about the/ town, that for some reason the people/ were very much afraid of me, they/ generally clearing the street as far/ ahead as they could see me, and/ when I passed a house I would hear/ a shout and the scampering of feet in/ every di-

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a rush for the/ back door by all, unless some old man/ or woman too decrepid [sic]. After a few/ days of this, finding that I was not/ progressing in the good graces of the/ people, I asked the Governor what was the matter, and he told me that/ the Cocamillas believe that a man/ with a beard is the evil one himself./ The pottery of these Indians is all/ painted with curious chair-shaped/ figures, identical with that upon the/ pottery dug up on the island of Mar-/ajo [Marajó], and I had hoped to make a large/ collection; but my evil reputation among them prevented business./

The daughter of the Governor,/ who had lived among them nearly all her life, fortunately spoke their lan/-guage perfectly, and I procured a/ large vocabulary of words with a/ couple of words given in the different/ persons and numbers. The language/ is much more perfect than any others/ I have tried to write, and as there are/ some words similar to words of the/ same meaning in the “lingua geral,”/ the Co- 
camillas may be part of the/ great Tupi nation that inhabited so/ much of Brazil. It is reported in this/ part of the country that the men and/ women of this tribe speak two differ/-ent languages; but the only ground/ for such an opinion that I could find/ was in the personal pronouns, the/ men saying “ta” – I and “tana” – we, while the women say “isti” – I and “peno” – we. This difference is car/-ried out in the pronominal ad- 
jectives, and really makes the language as/ spoken by the men and women sound/ quite differently. The verbs are con/-jugated regularly – “a” being the/ sign of the present tense, “tsure” of/ past, and “utso” of the future./

I had become acquainted with the/ school teacher of the town, a young/ man from Chachapoyas, and one day/ visited the school. The school house/ is a little mud hut on one side of the/ plaza, with/ out windows and a dirt/ floor, and serving to shelter the/ padre’s sheep as well for a seminary/ of learning. As I entered the recita/-tions stopped for a moment, while/ the little fellows saluted me with a/ storm of “Buenos dias, senhor [sic; señor]!”. Upon one side of the/ room were per/-haps twenty Indian boys seated on a/ wide bench with wooden tablets in/ their hands, upon which was written/ the alphabet, and they were very/ busily engaged in reciting it at the/ top of their voices. They were/ dressed in jacket and trousers, col/-ored the usual dull brownish black,/ which seems to have been happily/ to show neither dirt nor cleanliness,/ and both were lamentably deficient in/ material, being short at both ends and/ failing to meet by a long distance in/ the middle; but they served the pur/-pose of the law, as custom required/ the scholars to be clothed./

On the other side of the room were/ ten or twelve white children and half/ breeds from eight to sixteen years/ old, and some of them had reached/ to the dignity of spelling out senten/-ces, a pitch of language that is likely/ never surpassed in Lagunas. They,/ like the Indian boys, were reciting at/ the top of their voices, this seeming/ to be the universal cus- 
tom in the/ Portuguese and Spanish schools, and/ good for the lungs if it has no other/ advantage./

Five Indian boys who did not have/ tablets, were standing with a stick/ before a large board on the wall with/ the alphabet written in it. Three/ or four white girls were seated behind/ the house, and this comprised the/ whole, the Indian girls not being re/-quired to have any book learning./ The schoolmaster was seated on a/ bench smoking a paper cigar when I/ entered, but in honor of my visit set/ one of his pupils to clean up the floor,/ and another for a fire brand to re-light/ his cigar./

While the master was talking with/ me the fire of recitation gradually/ slackened to the irregular rattle of a/ skirmish, and the teacher judging of/ the amount of study by the noise,/ took his cigar from his mouth to shout/ “ler! ler! [sic; leer]” – read!/ read! and at it/ they went again “ah, bay, say, day, ay, affy,” but some soon began to fall/ out, and by the time they reached the/ middle of the alphabet there seemed/ to be danger of a dead stop, but now/ some happy genius struck in again at/ the beginning, so that the din was/ kept up. The master now went out/ to visit the girls back of the house,/ and the little fel-
loows stopped reciting/ about as soon as he passed the/ door, and I was pleased to see the real/ school boy spirit showing itself among/ them. One little fellow got into the/ middle of the room and cut a rough/ jigg, keeping a sharp look out for the/ master meanwhile. Another was/ throwing nut shells at the head of a/ nother little fellow sitting on the other/ end of the seat, and a third, a minia/-ture merchant, for the lack of slate/ pencils and pins was trading wild/ fruits, with which his jacket was/ stuffed, for a piece of dirty writing/ paper, with one of the white boys./

The voice of the master was now/ heard shouting “ler! ler! [sic]” and at it/ they went again as if they/ would tear/ the alphabet all to pieces. After a/ couple of hours spent in this way, five/little Indians were called up as an ex/-ample for the rest, as I could not see/ how they had transgressed, and the/ master gave each a good blow with/ the palmatory, for which they said/ “gracias senhor [sic; gracias, señor]” – thank you! –/ nearly all the Spanish they knew be/-side their prayers. They all then/ knelt down before the master, and/ repeated after him the creed, and then/ forming
in line marched around him and out at the door; when away they ran like young deer to strip off the jackets and pants that must have made them feel as if in the stocks. I begged one of the tablets and the palmary of the teacher, and for a few days the little fellows will go without punishment. The teacher told me that the Indians never go beyond the alphabet. Their principal learning is the prayers of the church and the catechism which they must know before they can be married. Saturdays they recite only prayers, and every morning while the priest is in town the older boys and girls were gathered together in the open front of the church. The girls with mantles down over their heads kneeling on one side, and the boys on the other, while the priest walked back and forth before them teaching them the prayers and catechism. As soon as they have learned the necessary prayers, they get married, the girls at twelve and fourteen, the boys at fourteen and sixteen years of age. The woman then undertakes all the drudgery of Indian housekeeping, carrying wood and water, and working the chacra that supplies them with yuca and plantains, while the man spends his time in fishing and drinking the masato his wife prepares for him. They are a short but stoutly built race, the men not averaging more than five feet two or three inches and the women less than five feet.

When one of the tribe dies they break to pieces and burn up his property, and cut out a piece from the middle of his canoe in which they bury him. Widows and widowers, if they marry the second time must do so with those who have been married before, a regulation that some would rejoice to see adopted among civilized people. They generally seem to have large families, the Governor saying that some have eight or nine children, and the tribe should be rapidly increasing, but the rapacity of the whites keep them hiding in their chacras which are scattered here and there along the river and smaller streams, where they are most hidden from sight. On feast days they gather into town, led by the music and show, then the Governors catch them and put them to work.

On the 6th of the month the steam-er came up bringing six or seven of the Cocamillas who had been drafted to work at Yquitos [Iquitos], and were now returning having served their time. Their wives were on the bank watching for them, having rigged out in all the finery they possessed; several of them having the peculiar chair shaped figures painted upon their under lips and chins, and one had them painted upon her arms.

After a few days spent most pleasantly with the Governor, Don Cas-tillo, with good beef and chocolate such as was never drank in the States, I got my baggage and collect-ions on board safely, and was happy to find my mail of December on board. The first I had received in four months. We arrived here yesterday, and to-day the steamer goes back, leaving me to make my way to the Pacific in canoe, on foot, and on horseback.

J. B. STEERE

Letter XLIII
[Peninsular Courier and Family Visitant, 11(26), June 28, 1872]

FOREIGN CORRESPONDENCE

Number XLIII

CHANUCI [sic; Shanusi], PERU, March 8th, 1872.

Yurimagus [sic; Yurimaguas] is a squalid little town of four or five hundred inhabitants, built upon a bluff of red clay, and gets its only importance from the fact that it is the present head of navigation where passengers, mails, etc., for Lima and the Coast, leave the steamer and take the slower and more uncertain methods of transportation by canoe, on foot, and on horse-back. Its people are a mixture of the many tribes around, with a few per-sons of Spanish blood.

I met here a strange personage in the Baron Turonne, a French noble-man, who has brought a few French-men here, and is trying to found a colony. He is a tall, thin, stooping man, with hair that reaches to his shoulders, and dressed in a long, loose coat and pants, he reminds me much of the traditional Yankee. He has a curious theory in regard to this country, believing it to be the site of all the ancient cities mentioned in the Bible. He pointed out Borja as the site of ancient Tyre and Sidon, and placed the Garden of Eden on the river Ucayali. In the names of rivers and towns now in existence here, he discovered great similarity to those of ancient times, and considers the Yuca [sic; Inca] language as the parent of the Greek and Latin and Hebrew. He seems to be fully convinced of the truth of his theories, and told me that he had a great work in contemplation, and had already published several articles in Geneva, and a map of this country, showing the site of the ancient towns. He kindly invited me to go
with him to his place called Limon, on the little river Paranapura; but my business would not allow.

As soon as I was settled, I set about buying some of the curious painted pottery made by the Indians here. I found none for sale, but an old Indian woman was making some, and promised to have them done in a couple of days, which I found to extend to nearer two weeks. I took an interpreter at first, as I could not speak a work of Inca and she as little Spanish; but after the first visit I used to go alone to the door of the hut, when the old women would say “shamwe” – come in, and I would go in, and seated on a stool would watch the different parts of the business of making and painting the pots. The pots are made as in Brazil, of clay tempered with the ashes of a certain tree. This clay is then worked out into little rolls about the thickness and length of the finger, and the women seated on the ground builds up the pot with these, laying them on one at a time and smoothing them and bringing them to shape with the fingers and a small bit of wood or shell. The Brazilian Indians would call the pot finished now, and after allowing it to dry for a few days would burn it and put it to use; but a Coca-milla would be ashamed to be seen going to the river to get water with such a pot as that upon her head, and after it has been worked into shape it is carefully rubbed all over with white clay, and then allowed to dry for a few days, when the arduous task of painting on the figures is undertaken. Beside the white clay which gives the white ground color to the pots, I have seen them use two other colors, both made from stone, one dark brick red, and the other yellow. These are likely red and yellow ochre. They are rubbed with water upon another stone until the paint is of the required thickness, and then the woman seated on the ground in the middle of her hut with the pot between her knees, lays on the colors with different sized brushes made of grass. As soon as the paint is dry the pot is burned, when the dark red color is changed to almost black, and the yellow to bright red.

The old woman would paint and burn but one pot a day, but finally set her daughter, a woman of family, to painting too, though she was only allowed to paint suns and flowers, the old woman only undertaking the peculiar chair like figures in which I was interested. After a few little presents to smooth the way, I got from her the following account of the origin and significance of this curious figure. It was to represent the Yacomama [Yacumama]93, or mother of the water – an immense serpent of most beautiful colors. She said that there had been a time when there were women of the tribe who could print the Yacomama [Yacumama] in all its colors; but they were long ago dead – the old story of modern degeneracy.

While waiting for my pottery I spent my time in collecting the lan- guages of several tribes of the vicin- 94

ity, among them the Chamicuros [Chamicaro], Muniches, and the Hiberos [Jíbaro]. The language of the Chamicuros [Chamicaro] is full of those German sounds that the beginner finds in such words as “ich” and “auch.” The men from whom I procured this language seemed to act as journeymen [sic] plasterers and painters for the mud walls of the town. They did nearly all their work with their hands, using them for trowels and brushes, and the walls of all the houses of the town show their finger marks. When I saw them they were working on the next house, two plastering on the mud with their fingers, while two others below were mixing it in the same way and hand it up in earthen bowls. As I heard their strange speech and found the name of their tribe, I prevailed upon the young Peruvian trader, for whom they were working to call the most intelligent looking one in, so as to procure some of his language. He seemed much pleased with the prom ise of a drink of cachaca [sic; cachaca], and stood with the mud dripping from him, while through the medium of the Inca – a language used by all tribes and colors – we went on glibly enough until I had a fine list of names and adjectives, and tried to get some verbs; but this was too much for the poor fellow. He grew uneasy, the sweat poured off him, and he finally broke down altogether, and we could only get a few gurgles and gasps from him. We gave him his drink of cachaca [sic; cachaca] and he went out of the door with a curious little whoop of relief, and was soon happy again with his arms in the mud, while he gave his mates a most animated description of the horrors he had ex perienced in his brief trial of literary life. We called in another, but he trembled, and the sweat poured down his clayey cheeks before we had asked him a question, and we got for ward but little with him. We met with the


94 Chamicaro – Arahuaca linguistic family. Department of Loreto, at Huallaga river.

95 Muniches – Unclassified language. Other denominations of the tribe: Otanava, Otanaba, Munichina, Munichi. Nowadays restricted to the city of Muniches, Paranapura river.

same success with a third, and I left the Chamicuros language, somewhat in doubt whether it had more than one mood and tense or not.

With the Muniches Language I fared better, there being a young fellow in town of that tribe who would pronounce and repeat the words for me until I could repeat them after him but with the language of the Hibisos [Jibaros], a curious tribe who live to the north of Yurimaguás [sic; Yurimagua], between the Maranon [Marañón] and Huallaga, but who are almost gipsseys in their wandering habits, I again had trouble. The only one of the tribe in town was a great strapping girl who served as cook at the Governor's, where I was stopping. It was only after much persuasion and, as I expect, commands on the part of the Governor that she consented to give me her language and address them by the title of Don and then before I was ready to write it she had hidden and had to be dragged from a corner by the Governor's daughter, when she came up to the table with her hands over her face and giggling through her figures. Then she stood like a stock until she was urged to desperation by repeated questions, when she suddenly stooped down and opening her fingers whispered the word in my ear, and then again had to bear an assault of perseverance before I could get another. Finding I was not likely to get what I wished of her I consented to give, he took one step inside the room and looked about, and then another, until he had planted himself fairly inside, when he began the following fire of questions. What is your name? Jose [sic; José]. What is your business? Collecting. What salary do you get? my board and clothes, — pointing down to the old pants I wore while at work. Where are you going to from here? To Tarapato [sic; Tarapoto]. And where do you intend to go to from there? To Moyobamba. What is there in that flask? aquardente [sic; aguardiente]. Will you take that with you? yes. What is there in the that box? bird skins. In that other? bamba. What is there in that flask? aquardente. Where do you intend to go to from there? To Moyobamba. What is there in the that flask? aquardente. What is your name? Jose. With his questions he slowly turned and went out, saluting me respectfully as he passed the door.

All of these questions were asked in that delicate, polite way, of which the Spanish language is so susceptible, and with that air of deference that these people always use in the presence of their superiors, so that I could not take offense and could not refrain from giving an answer without real rudeness. After each of my answers my visitor would draw one of those double nasals, that seem to serve for affirmations the world over, through his nose, and appear to deeply ponder my words for a few moments before asking another question.

After the old Indian woman had finished my pottery, and I had been fortunate enough to find and purchase several earthen vessels of the tribe of the Conibos of the river Ucayali who make much finer pottery than the Cocamillas, I packed my collections and was ready to start on toward the coast. When I applied to the governor for men he declared there were none to be had and would not likely be any for three or four days. He had already done much to delay me and as I was paying him for my poor fare of fish and plantains the price of living at a first class hotel, I began to suspect he was in want of money, and he, finding I was getting angry, hurried about and in a couple of hours had procured me three men. They were all old fellows, one who acted as steersman having a hump back; another grizzled old fellow was drunk and staggered ed into the boat, vowing by word and look that if I would give him another drink he would follow me to the ends of the earth. The third had his hair cut close to the scalp on all the back part of his head, leaving a lock
in front, that hung down to his eyes. His ears stuck up level with the top of his head and altogether he cut a most comical figure. His mate was fortunately not too drunk to pull at the paddle and we were soon leaving Yurimaguas behind, with little regret on my part.

After paddling a few miles we turned in the Chaunci [Shanusi] river, a rapid shallow little stream, filled with fallen timber. The men now cut long smooth canes with which the banks were covered, and poled the boat the rest of the way, the water seldom being over three or four feet deep. At a plantation of plantains, and a little tambo when we passed the bight, there was a fellow in whom the Indian and Spanish blood was so intimately mixed that I could not tell which to call him. He came to me cringing like a dog and begged permission to go up the river with me. During the rest of the trip he served me like a slave, bringing me at night my supper of boiled plantains and fish in a plantain leaf for a plate, and then a gourd of water from the river. After we reached Chanuci [sic; Shanusi] he wished to follow me farther as my servant, but I did not feel able to support so much style. The rule of men of money over the poor whites and Indians in this country is one of iron yet, with Republican government, it must have been terrible indeed in the time of Spanish rule.

The second night of the voyage, as we were sleeping in a tambo (a shed without enclosure that is put up in the plantains [sic] to shelter the laborers during the rain, or along the roads for the accommodation of travelers,) we were all suddenly awakened by a tiger roaring near us. He likely wished to make a supper of the dog that was with us, but the next time he roared he was farther off and we lay down and went to sleep again. The next day, the third of the voyage, as the river was very winding, often returning upon itself, I stopped to hunt at one of these places while the men were poling the boat around the bend. I had with me a flask containing several gallons of strong aquardente [sic; aguardiente] for preserving specimens in which I had put carbolic acid. I knew the Indians would drink it if they could, and I had stop-ped it very securely, but when the men came around and I got into the boat again, they were suspiciously happy, and upon examining the cork I found they had pried it out with the points of their knives, and had care-fully replaced it after drinking what they wished. I did not know but the carbolic acid would kill them, but it only seemed to make them the more happy. The two old fellows in the bow of the boat got especially funny crying like babies and mewing like cats and then shaking with laughter at their wit. They soon began to sway from side to side of the boat and I expected to have to stop, but we came opportunely to the improvement of Mr. Arevallo [Arévalo], a young Peruvian who was educated in England and Germany, and now returns with the expectation of making an im-mense farm here that will surpass any-thing on the upper river. He set my men to loading their canoe with fish, and sent them on nearly sobered by the hard work and I waited a day at his place, and then came on here with him, making the trip in two days more.

J. B. STEERE.

**Letter XLIV**

*Peninsular Courier and Family Visitant, 11(27), July 5, 1872*

**FOREIGN CORRESPONDENCE**

**Number XLIV**

CHANUCI [sic; Shanusi], PERU, April 5th, 1872.

This village contains perhaps one hundred and fifty inhabitants of the tribe of Cowapanas [sic; Capana]98, who formerly lived at Balsa Puersto [sic; Balsapuerto], on the main route from Lima to the Amazon, driven from there by the heavy burdens they were compelled to carry; they fled to this place only to be followed by the whites and compelled to carry burdens from here across the mountains to Tarapota [sic; Tarapoto]. We arrived in the midst of processions and feasts that celebrate the “Santa Semana” [sic; semana santa] – sacred week – of the suffering, death and resurrection of the Savior. In the evening the old koraka [curaca], or chief of the tribe, with his alcaldes or lieutenants, came solemnly in, each carry-ing his staff of office, to conduct my friend, who had lately been appointed Governor of the villages, to the procession. We found the little mud church nearly filled with people. The Indian women kneeling on the ground, while the men and boys waited around the doors for the procession to form. The images of the church, consisting of a cross, and a life size image of St. John, which had been badly singed by his drapery catching fire at

98 Cowapanas – Capana, Pano linguistic family, self-denominated Nuquencabo. Nowadays restricted to Loreto, rivers Tapiche and Buncuya.
some/ former feast, and a doll like image of/ St. Joseph, that had been fitted out/ by one of his hat mak-
ing admirers/ with a funny little Panama hat, were/ all arranged on hand barrows that/ were covered with leaves and flowers/ and wax candles, and as we en-
tered/ the candles were lighted, and the/ barrows containing the cross and St./ John were each shouldered by four/ young Indians, while four Indian wo-/men, two of them with habits slung/ to their backs, picked up the barrow/ containing St. Joseph and the Pana-/ma hat and carried it in the same/ way. The alcaldes now handed each/ of us wax candles and the process-
A/ started, being led by Indians carry-/ing a little red banner surmounted by/ a cross, and accompanied by others/ carrying wax candles pasted to long/ poles. The images followed, with/ the people, men, women and children./ Indian and white, clustered irregu-
larly about them, almost all with/ lights, some with can-
dles of white or/ black wax, and others with smoking/ torches, made of gum copal wrapped/ in reeds. The sacristan, a half breed,/ chanted a hymn to the Savior as we/ walked down the little street, and/ the few women of white and mixed/ blood who followed repre-
sponded at the/ end of each stanza with the follow-
ning words, “Por tu passion Jesus/ meo a bracadme vuestra mor [sic];” “By/ thy suffering, my Jesus, thy love embraced me,” sung to sad but sweet and/ simple music. After thus passing the/ length of the little vil-
lage, the proces-
A/ sion returned to the church, the ima-
ges were replaced, the people all/ knelt while the sac-
rastean repeated a/ prayer, and we returned to our lodg-/ing. Early the next day, that of Good/ Friday, the rattle of sticks, which a/ couple of boys carried about town, in/ place of the ringing of bells, now in-
terdicted, and the general stir and/ hustle among the Indians showed this/ day to be the culmination of all. At/ an early hour six or eight Indians/ marched to the church, one armed/ with an old musket, the rest with/ lances of chunta and with pucunas [pacunas]./ They were to represent the Roman/ soldiers who guarded the tomb, and/ when I visited the church they were/ standing at the doors, while inside,/ arranged on one of the barrows for a/ bier, was a little image of Christ/ dressed as for burial. All day the/ koraka [curaca] and his alcaldes were busy/ superintending the construction of/ little arbors along the street, and all day/ the boys with the rattles went up and/ down calling the people to the work./ . The arbors were made of palm leaves/ twelve or fifteen feet long. Those in/ which the smaller pinnate leaves had/ not yet unclosed from the stalk were/ chosen, and these young delicate/ leaves were opened by hand, leaving/ the whole length of the stalk covered/ with delicate streamers of a light/ yel-
low color. These were planted in/ the ground and tied together at the/ tops, and then hung with flowers and/ wax candles. Besides these, others/ smaller were made of saplings bent/ and stuck in the ground at both ends/ and then covered with leaves and/ flowers, which were tied on with/ twine dipped in wax. In the even-/ing the koraka [curaca] came as before to con-
duct us to the procession. When/ we arrived at the church the images/ were arranged as before, with the ad-/dition of that of the Savior at the/ bier. Indian women again carried/ the image of St. Joseph, but young/ men with faces daubed with white/ clay and with pointed caps of white/ canvass carried the bier and the im-/age of St. John. The koraka [curaca] had/ considerable difficulty in getting the/ procession formed, but we finally/ started, the alcaldes handing us can-
dles as before. As we came out of the/ church the tapers upon the arbors had/ been lighted and the street was filled/ with lights. The procession was/ again led by the red banner and the/ lights on poles, and as the procession/ passed under the arbors these had to/ be lowered each time. The bier/ with the image of the Savior brought/ up the rear followed by the sacris-
tan,/ the koraka [curaca], and the other potates [sic; potentates] of/ the place, when it reached the first/ arbor the bearers lowered it to/ the ground and the sacristan chant-/ed an account of the sufferings of the/ Savior on his way to calvary, and the/ women again responded, chanting/ mournfully the words “misericordia,/ Senhor, [sic; Señor]” – mercy Lord. The bier/ was then taken up and the process-
A/ sion moved on until it had reached an/ other arbor, when the sacristan/ chanted an account of some other/ suf-
fering of Christ on the way to cru-
A/ cifixed and the women responded as/ before. The arbors seemed to repre-
sent those places where the Savior/ underwent some special suffering or/ indignity, and at each the same cere-
A/ sion was performed. After thus/ passing the length of the street the/ procession returned to the church and/ another prayer was recited by the/ sacris-
tan. The people remained and/ seemed to expect something more,/ and I heard that these were to be/ “penitents.” After waiting nearly/ an hour I walked down the street to/ ward home, but hearing a noise in/ the half darkness, for the lights had/ mostly burned out, I went near and/ found two Indians kneeling un-
der one of the arbors. Each held in one/ hand a whip made of bark and in the/ other a cord a couple of feet in length/ to the end of which was fastened a/ ball of wax weighing several ounces,/ in which were inserted pieces of glass/ that stuck out in sharp points on all/ sides like rays so that nothing but/ the points could touch the flesh./ These instruments of torture they/
were slowly swinging first over one shoulder and then the other like the swaying of a pendulum. The blood was already gushing in streams from their backs and flowing down over their pants, their only article of clothing. After several minutes of this dull thud, thud of the instrument as it struck their bare back, they got up and walked slowly by side by side to the next arbor diligently lashing their backs with the whips meanwhile: when they came to the next arbor they knelt as before, and thus they made their slow way to the church door, here they knelt again, and again the waxen balls slowly but surely swung. Then they got up and walked a few steps toward the altar and again knelt. The blood had now saturated their canvas pants and was actually running off of their heels behind. After they had reached the steps to the altar they rose and a couple of young women stepped out of the crowd that were looking on, and gave them each an egg. They then knelt and kissed the foot of a little cross that had been placed on the steps and put the eggs, stained by their bloody fingers, in a plate beside it, and then rising went a few steps toward the altar and again scourged their backs. By this time several other couples who had followed on in the same bloody way had entered the church and were slowly moving toward the altar. All were presented with some little offering by the Indian women to put in the plate, a ball of cotton yarn, and egg, or a piece of wax. After each couple had deposited their gifts they slowly made their way out of the church kneeling and scourging their backs as they went, and then back through the arbors to the house from which they started, at the other end of the village.

An hour later they all passed, on their way up the river to bathe, each accompanied by his wife or sweetheart, carrying a clean pair of pants, and a torch to light the way, for fear, weakened as they were by the loss of blood, they would stagger in and drown. But the stoicism that had led them to endure all this pain without a groan or a quiver of the muscles had left them. They had stood the test like men, and now, as they walked over the uneven ground, many were the exclamations of pain that they uttered.

This institution is said to come from the Jesuits, and from the name “penitents,” but probably it was in-tended for the remission of sins, and it has likely long ago lost any such signification among the Indians, and is only kept up as one of the cere-monies of the feast, because it affords an opportunity for displaying that stoicism, under the infliction of pain, that is a universal trait of the In-dian character, and which leads one of the wild tribes of this country to subject its young men to the stings of the terrible ‘tocandeiras’ – the great stinging ant – before they will admit them into the tribe as warriors, and among some of the North American/Indians compelling the young men to fast for many days, to prove their en-durance and rights to tribiship. I noticed that all who underwent the infliction were young, strong men, prevented from making war. This is the only way the young braves of the tribe have of showing their courage, and I imagined the Indian maidens as they presented their lovers with the little offerings to be put in the plate, were as proud of them with their bloody backs as their grandmothers were of them, when they brought back from the war the heads of their enemies. I thought that one young fellow, who had laid on the scourge with rather a light hand, so that the blood hardly reached to his heels, was not going to get an offering at all, but a young girl finally stepped out and handed him an egg, with an air that said I am ashamed of you.

This scourging is said to be common among the Hiberas [sic; Jíbaros], Cocamas, Cocamillas, and other tribes of this region during this festival, so that in the larger towns one or two hundred may be seen engaged in it. The effects are said to last but a short time, and I saw some of them dance the next day.

J. B. STEERE

Peninsular Courier and Family Visitant, 11(28), July 12, 1872

FOREIGN CORRESPONDENCE

Number XIV

CHANUCI [sic; Shanusi], PERU, April 5th, 1872.

About ten o’clock, the next morning after the scourging, the old gun that served for a cannon was fired, and the bells were set ringing and the little drums beating and fifes playing, while two or three cows’ horns added their doleful music to the general din. Five young men, with coronets made of the long red and blue plumes of macaws, and with other plumes of the same in their hands, and with strings of rattles made of nut shells upon their legs, began at the same instant a dance before the open church door. They danced in line, one behind the other, posturing and waving their plumes. The dance was
very rapid, and the/ rattles were so arranged that they/ shook at every movement. All at/ once the dancers took of [sic: off] their coro-/nets, bowed almost to the ground/ toward the church, and the music and/ dancing ceased. The procession was/ now formed again, but this time the/ image of the Saviour was carried/ upright, with a little red banner in/ its hand – a risen Lord, while the/ dancers passed before it as the pro-/cession passed around the village./ When the images were again replaced/ in the church, the real feast be-/

A large house seventy or eighty feet/ long, nearly opposite where we were/ stopping, had been chosen as the/ house for the feast. This, like all the/ houses of the village, was a great/ shell, with roof of palm leaves and/ enclosure of canes stuck upright in/ the earth. Benches were arranged/ inside, about the upper end of this,/ and a long narrow table made of/ cane, reached along the side. At the/ farther end, twelve or fifteen large/ monkeys – howlers and maca sapas [?]/ hung back and grinning against the/ wall, showing the diligence the owner/ of the house had used in preparing/ food for the feast; for they repre-/sented many long days of hunting/ in the forest. They had been cured/ by singing the hair off, and then/ smoking over a slow fire."

Upon one side of the home, near the/ centre, were ranged five or six large/ earthen pots, that would hold ten or/ twelve gallons each, and these were/ filled with masato and covered with/ banana leaves, while besides them was/ a heap of mocowas [mac-/

Another huge earthen pot holding/ more than half a barrel, filled with/ monkey, was boiling at the/ farther end of the room, and before them were danc-/ing the five men in macaws feathers/ and rattles, while in the centre of the/ room were several other musicians,/ moving about in a circle, playing an/ independent tune, and making all the/ noise they could. The men of the/ village were seated on the benches/ about the upper end of the room, and the women on the floor/ at the/ farther end. Several women were/ engaged in dipping heads and arms/ and hands of monkey from the pot,/ with large wooden spoons, and filling/ bowls with them and with boiled/ plantains."

The maker of the feast and his as-/sistants were/ seating the guests at the the/ table, which was so high that/ their/ eyes could just reach to its level. The/ Koraka was placed at the head of the/ table, and the others were seated ac-/cording to their importance, with all/ the formality of an English dinner./ We were invited to a seat next the/ Koraka [curaca], but the Governor did/ wish to stop, and the women with the/ bowls of masato had nearly reached/ us again; so we beat a hasty retreat./ After the dinner was over we heard a/ great shout, and soon the women/ came pouring out of the back way/ each with a bowl of food, the re-/cords of the feast, each going to her/ own dwelling. It seems that the/ feast maker is expected to feed the/ whole village as long as the feast/ lasts. We now sat/ down. We tried to swallow our re-/membrances of how it was made, or/ at least to hope that it was made by/ the pretty young women who handed/ it to us, each of whom had her lips/ stained violet and lines of the same/ color reaching from the ears to the/ eyes and mouth. Besides this, the/ little hands that stirred the masato/ for us and picked out the stems of/ yuca, in place of gloves, were stained/ violet to the wrists,
the Pebas/ Indians in couples facing each other, but each capering here and there as best suited her fancy, her/ violet feet flying as the spun about, oblivious of all but the dance. We/ had already tasted of a dozen cups/ of masato in as many minutes, and/ beginning to feel as if we should go/ to capering ourselves if we drank/ much more, we again hurriedly made/ our salute to the host and went out./ The dance was kept up all night, and/ the next morning all classes and sexes/ had become hilarious. The dancing/ had been done in a solemn and reli-/ gious way, but now, several men,/ each supported by two women, around/ whose necks his arms were thrown,/ the women clinging to him the same/ way, came out of the feast house fol-/lowed by the music, and went danc-/ing here and there and all over the vil-/lage, two or three women whose hus-/bands were perhaps too drunk to/ dance, dancing alone among the others./

The women were dressed for the/ occasion in bright red, and yellow/ petticoats or kilts, which, with the/ violet arms and ankles, produced a/ novel effect. The men seemed to be/ too drunk or stupid to take much/ care for the dance, only to keep their/ feet moving, while the women would/ swing them about by main force at/ the proper part of the music. There/ were collisions and falls in plenty, at/ which the crowd following would/ burst into a roar. The whole jolly/ scene reminded me of descriptions of/ English May Day festivals. The/ two or three women who were danc-/ing singly, generally led the way, en-/tering this and that house and cutting/ a few capers and then out and off to/ another, always returning to the feast/ house as a collecting point. That/ night there was little dancing, and I/ thought the feast was over, but they/ were only resting a little for the/ grand final day, and early in the/ morning were at it again madder/ than ever. After the dinner with all/ its ceremonies was over, I again/ visited the feast house. There were/ signs of breaking up, and the new/ feast-maker, with two assistants, was/ going around inviting all, according/ to custom, to come to his house to in-/augurate the feast for the coming/ year. His invitation to all was/ "chamwe," pointing in the direction/ of his house. His assistants followed/ immediately behind him, repeat- ing/ the same and even taking the invited/ guest by the shoulder and poiting/ in the direction of the new feast/ house./

These men passed around the sec-/ond and/ third time, so that each one/ there must have received at least nine/ invitations. I wished to see the cer-/emonies at the inauguration of the/ new feast, and having so many invita-/tions, the Governor and I felt free to/ go at an early hour. The house had/ been swept and prepared, and was/ arranged in all respects like the first,/ even to the pot of boiling monkeys./ The new feast-maker received us and/ seated us, and then came round and/ welcomed us to his house./

As before, the guests were seated/ according to their consequence. We/ were pressed to take seats at the/ head of the table with the Koraka,/ and our refusals interfered somewhat/ with the order of things; but now/ great bowls of monkey and plantains/ were placed before each guest by the/ feast-maker and his assistants, and/ the heaping dishes were not simply/ put down before them on the table,/ but each guest was addressed per-/sonally, and the dish put into his/ hands with words of welcome and in-/vitation. After they were all served/ in this way, the host went around/ with a dish of meat and piled another/ piece upon each one's dish. The/ Koraka's plate was piled as high as/ the food would lay on, and among the/ rest were several boiled eggs. The/ Koraka now addressed a few words/ in their own language to those at the/ the [sic] table, when the alcalde got up/ and asked all to stand up for a bless-/ing. The sacristan then swaid/ "Pa-/dre Hijoy [sic] Espirito [sic] Santo" – Father,/ Son, and Holy Spirit – and all set at/ it to eat./

But now a great noise was heard/ outside and the door being burst/ open a young Indian came running/ in on his hands and feet, having his/ face painted and a piece of monkeys [sic; monkeys]/ skin tied over his chin to represent/ the protuberance in the throat of the/ howlers, while a boy was clinging to/ his back as the young monkeys do to/ the backs of their mothers. He tried/ to climb up the low posts that sup-/ported the cross beams of the roof/ but with the immense amount of mas-/sato he had drank he made but a/ clumsy monkey and had to drop his/ young one, before he could succeed./ He was followed by several others/ also on their hands and feet, and who/ also made their way to the cross/ beams over head. Now came in a/ young fellow carrying in his/ hands a blow gun./ while at his side was hanging the/ curious quiver and gourd of cotton/ that go with it. He was followed by/ another, also masked who repre-/sented/ his wife, wearing the petticoat and/ having an immense carrying basket/ on her back in which cooking/ utensils and all the paraphernalia that/ an Indian woman carries when she/ follows her husband to the woods on/ a hunting expedition, and among the/ rest were some fire brands. The man/ now began shooting at the monkeys/ above, his wife pointing out where/ they were. He directed his arrows/ at those parts of their bodies left un-/covered by their scanty/ jackets and/ trousers, and though they were with-/out points they must have hurt. The/ pretended monkeys
rubbed the spots/hit, caught at the arrows and made/all the gesture and grimaces of mon-/keys when shot by poisoned arrows,/ and finally all came rolling down and/ lay on the ground as if dead. The/ woman now took the things from the/ basket and began to make/ all the gesture and grimaces of mon-/keys when shot by poisoned arrows,/ and finally all came rolling down and/ lay on the ground as if dead. The/ woman now took the things from the/ basket and began to make/a fire with/ the brands, scattering the coals plen-/tifully over the dead monkeys who/ slowly crawled out of the way. She/ now seemed to be undertaking the/ business of singing off their hair and/ preparing them to take home, while/ the man sauntered off with his blow/ gun in search of more game; but/ while she was trying to pull one great/ strapping fellow into her basket he/ came to life and caught her, and at/ that all the rest jumped up, when the/ man came running in, and, liberating/ his wife all rushed out altogether./

The play seemed quite appropriate/ in a feast in which monkeys [sic] flesh was/ the great delicacy, and procured in/ the way represented, but whether the/ monkeys seizing upon the woman has/ some foundation in tradition or his-/tory, I could not find out./

After the play the feast went on, /those at table picking some tid-/bit from their bowls with their fin-/gers, their only knives and forks, and/ going to some particular friend they/ would put it in his mouth. Some-/times this was enough to choke one/ but it must be received in the mouth,/ to offer to take it in the fingers being/ a great breach of politeness. The/ old koraka seemed to be especially/ favored in this way and before one/ bit was swallowed some one else was/ crowding another between his teeth./ But though the bit must be received/ in the mouth there seemed to be no/ objection to taking it out afterward,/ and after the koraka had eaten all he/ wished he would take the bits from/ his mouth and going to some less/ favored individual would transfer them/ to his mouth in the same way or/ would beckon to the boys about the/ door to give to them. After all were/ satisfied they set up a shout of thanks/ to the host and praise of his dinner,/ and at this signal the women seated/ in the back part of [sic] came hurrying up,/ and each taking a bowl of the re-/mains from the table went out to the/ back door and ran home and I saw/ one or two took a bowl in each/ hand, in the same spirit as those old/ladies at home, who, at picnics and/ Sunday school celebrations fill their/ work basket, as well as their stomachs/ from the nicest cakes, in return for/ the one sour gooseberry pie they/ brought. In a few minutes the wo-/men were retuning with the empty/ bowls and again seat themselves on/ the ground. The men still remained at/ table and after water had been passed/to rinse their mouths and fingers, the/ sacristan recited a prayer, when the/ women brought each one a huge/ bowl of masato, containing at least/ two or three quarts, and they were/ expected to soon return the bowls/ empty. Some, in spite of the amount/ they had eaten and drank, swallowed/ the whole almost at one draught/ while others taking their bowls left/ the table and seating themselves upon/ the benches, placed the bowls on the/ ground between their feet and gazed/ long and sadly at them as if they/ could dry them up in that way. Two/ or three took their bowls and went/ out doors where they caught every/ boy they could find and made him/ swallow some of their allowance, and/ in this way were soon able to show/ their bowls bottom side up. Those/ who were not accommodated at the/ first table were now seated at the sec-/ond, and the same formality as at/ the first was gone through with./ The table was not filled this time by/ men, and the women were allowed/ to fill the vacancy, though as if con-/scious of their inferiority, they stood/ up. Toward the end of the dinner/ when the picking out of nice morsels/ and putting them in friends [sic] mouths/ became in order the women were not/ al all backward in this part of the/ ceremony, and many a young fellow/ was made happy by having a nice bit/ stuffed into his mouth by the violet/ fingers of his sweet-heart, and while/ seeing the performance I almost/ wished the same custom prevailed in/ the United States. After the dinner/ the men and women danced together/ again about town and at night we had/ another procession, and the feast was/ at an end.

J. B. STEERE

Letter XLVI

[Peninsular Courier and Family Visitant, 11(35),
August 3, 1872]

FOREIGN CORRESPONDENCE

Number XLVI

TARAPOTO, PERU, April 12th, 1872.

On the seventh of this month the/ feast being over, I procured In-/dians to carry my baggage, and set out/ for this place. My peons were boys,/ from fourteen to sixteen years of age,/ the men of the vil-/lage all being em-/ployed to carry cargoes of fish. They/ were expected to carry fifty pounds/ each, half a load, and arranged by baggage in regular peon style in bun-/dles which were supported upon their/ heads by a broad band about the/ forehead; the head being thrown for-/ward to lessen the strain upon the mus-/cles of the neck so that the eyes were/ directed
upon the ground, between the feet, bringing the weight between the shoulders. Besides my baggage each had his own, consisting of a piece of pounded bark, to sleep upon, and a bit of coarse sheeting for a blanket, and with these a few plantains, and a mass of masato wrapped up in a plantain leaf. It is the custom of these Indians to always travel with masato, some in addition to their regulär load carrying and earthen pot of it, others wrapping it up in this way. At every little stream the load is dropped and a handful of this is mixed with a gourd of water and drank and then they go on again. The Yuca, a species of the mandiocia, is only used by the Indians for masato, they rarely eating as a vegetable, though it is only second to good potatoes. The path led for the first part of the way along the Channel [sic; Shanusi] River, though low clayey bottom lands, and was knee deep in mud and water, which with the roots made a terrible road, but the boys trudged on, their pants their only clothing, being rolled up above their knees and their loads resting upon their backs. In the afternoon we left the river and reached a higher country, which was intersected by sluggish streams and swamps now overlapping with water. I saw here for the first time the Brazilian cedar growing in any quantity, but though the trees were large and fine they were scarce, being scattered here and there among the other timber. The Indi-ans cut these for canoes, which when made they haul by hand miles through the forest to the water./

The tree though called cedar has no relation with the cedar of the United States, not even belonging to the cone bearing trees. It seems to be the same as that used in cigar boxes and has a strong odor, which prevents the insects from eating it, and with its lightness makes it almost the only timber on the Amazons. The two or three saw mills on the Amazon us-ing little else, and picking up their supply from the river where they find it floating. I have not yet seen upon the main river or any of its branches timbered lands that would compare with our forests of oak, maple and pine, in size and height of the trees or in quantity per acre. There is once in a while an immense tree that cov ers half an acre with its shade, but the timber is generally small and standing close together. Those that have value for their beauty, such as the tortoise shell wood or “mara pin-nimi”[sic] and the wood of the cross “palo de cruz,” are taken from the centres of large trees, an immense amount of sap wood being hewed off to procure a stick a few inches in diameter; then there is such an endless number of species growing together that there is great difficulty in getting a quantity of any one kind. The quantity and value of the timber of the Amazon seems to have been immensely over estimated. After we reached the higher country and came to a large open tanbo, where I supposed they would arrive in good season, and waited for them until it was too late to go back to find them, so I passed the night alone without fire or supper or blanket. Other travelers had cut palm leaves to sleep upon and these were fortune ately under shelter and dry, and made a bed of them I lay down and slept as well as I could for the cold. In the morning, as I started back after my boys, I saw the track of a large panther in the mud in the path. He had apparently been examining my quar ters but had concluded not to molest me. The boys had passed the night beside the path a couple of miles back where they had built them a little shelter of palm leaves. They were eating their breakfast of roasted plantains and fish and seemed to expect a good beating for not coming to find me, but as I could not speak their language and they could not understand Spanish, I sat down and ate breakfast with them, after which one of them who had fortunately brought along masato made from boiled ripe plantains instead of that made from yuca, brought me a gourd full of it as a peace offering. It had fermented sufficiently to make a pleasant acid drink, and was without the unpleasant memories connected with masato of yuca. After their breakfast, as a dessert they went along the path and dug out with their knives some large ants which they ate alive with great gusto. The [sic] were apparently the same as the sambas [sic; saúvas] eaten by the Brazilians and seemed to be females just entering the earth to found new colonies. We arrived that day at the village of San Juan Loma, where we passed the [sic] night. There was no person who could speak Spanish, but the Koraka [curaca] furnished me an empty hut, and by signs I made out to buy something to eat. I had been stung by one of the great stinging ants or “tocandeiras”[100] and was using Sal Amoniae, and, as he seemed very curious, I let him smell of it. It was very strong and after catching his breath he ran away in a great fright, thinking I had the evil spirit in the bottle sure, but after he found he was unharmed and that used it with safety, he brought a small shell for lack

99 Marapinima or mariapinima, name applied to several different genera and families, but especially to the genus Brosimum (Moraceae).

100 Paraponera clavata (Fabricius, 1775) (Hymenoptera, Formicidae, Ponerinae).
of a bottle and begged a few drops, and then went around putting it under the noses of all his tribe he could meet, and laughing all the harder at their astonishment because he had been so frightened him-self. We were just at the foot of the mountains here and the next morning after fording a rapid but shallow river of sixty or eighty feet in breadth that comes dashing and roaring out of a mountain George [sic; gorge] we began ascend-ling. After climbing until nearly night we halted at a little tambo perched on a ridge of neck just wide enough for it and the path. We were above the region of the palms, and the tambo was covered with fern leaves, of which the boys gathered more for our beds and after our frugal supper, we went to sleep, but almost midnight were awakened by myriads of ants that were at work eating to pieces [sic] and carrying off the fern leaves of our beds. The boys tried to stop them with fire, but they marched on over the dead bodies of their comrades, each with a piece of leaf in his mouth. When morning came, the branches about the edges of our beds were trimmed clean.

The next day we reached the top of the first mountain, from which there is a grand view of the low lands to-wards the east and north, an immense level forest as far as the eye can reach and I could imagine it reaching with hardly a break to Para [Belém], over two thousand and miles below. Just at our feet was the Yano Yaco [sic; Yanayacu] river, meaning the Inca tongue, white [sic; means "black"] water, so named from its being dashed into foam in its rapid course over the rocks [sic]. To pass this mountain we had to climb up the steep faces of the rock, hanging on by the roots of trees. In many places there were steps worn into the rock by the bare feet of those who passed. Near the top, engraved upon a large block of sandstone near the path were some curious characters that appeared to be ancient among them, a human foot with a sandal. This had been rudely copied by more modern artists, and some pions [sic; pious] traveler in gratitude for having reached the top in safety had cut a rude cross. From this we de-scended into a valley and after traveling several hours in a rain storm, built us a rude shelter by the road site and passed the night there. The next day we began to climb mountains steeper than before, and at one difficult pass climbing along the face of the rocks like monkeys, each had his blow gun and a large basket on his back, and they were even carrying their dogs. They proved to be an old man and his four sons from Lamas who had been across the mountains on a hunting ex-pedition, and were returning with baskets loaded with smoked monkey flesh and whatever else they could find of use.

This path seems to always follow over the very peaks of the mountains ins-ead of seeking a more level but lon-ger way in the valleys below. After passing three peaks one after another we came out upon the last one, and the country about Tarapoto lay like a great map far below us, no longer a country of deep level forest, but a broad valley with several streams just from the mountains dashing through it, and beyond low rounded hills, in some places stretching away in great open plains, while still beyond rose up another lofty range of mountains. I breathed freer as I thought I had left the realms of rain and shade behind me and had reached a country where the light of the sun could reach the earth.

Though these mountains cannot be more than five or six thousand feet high, I noticed a marked difference in the vegetation. The trees were small and dwarfed and among them were some of the family of our whortle-berries. They were clothed in mosses and curious delicate species of ferns while the ground was carpeted with the deep moss or Sphagnum that grows in bogs at home while here and there were delicate little selaginellas and some delicate flowering plants that the Amazon with its Victoria regias and giant palms cannot produce. These peaks seem[sic] to be the very home of the winds, and they blow as if they would pick us up and hurl us into the valley below. Every few moments great masses of cloud would be driven about, covering everything below from view. The trees were dropping with moisture though it was not raining we being in the very midst of the cloud. The path on this side of the mountain was dry and there did not appear to have been rain for many days, though we had passed out of a heavy and continuous rain storm but a few miles on the other side. At the foot was the little village of Cambassa [sic; Cumbasa] on a river of the same name. The valley is very narrow and filled with immense boulders and the houses are built here and there among them as though they had been left by the river in the same way. The governor whom I found swing-ing in his hammock hurried his dep-art to trade needles for some eggs, giving him special orders to trade two needles for one egg, and it was only after repeated explanations that he could be certain that it was one needle for two eggs, or one egg for two needles. After hunting all about the village he found five of the desired article and we soon had supper of them and baked platanas eating it with wooden spoons from rude Indian pottery, but with all an improve-
ment upon the style of eat-ing during the trip across
the moun-tains. After supper while waiting/ for my
peons, who were far behind, I had time to look about
the town/ a little. The houses are mostly of/ mud and
looked remarkably small af-ter having seen the large
cane bar-/racks of the Indians in Chanaci [Shanusi]./
Several large fruit trees were grow-/ing here and there,
and the ground/ was covered by a turf of grass, which/
was kep closely cropped by several/ horses and cattle
that were feeding/ about the houses. When the peons/
came up, I put a part of my bag-/gage upon the one
who appeared to/ be least tired, leaving the other two/
there and come to this place where we arrived after
dark./

J. B. STEERE

Letter XLVII
[Peninsular Courier and Family Visitant, 11(36),
September 6, 1872]

FOREIGN CORRESPONDENCE

Number XLVII

TARAPOTO, PERU, April 26th, 1872.

Tarapoto is a mud-built town of/ two or three
thousand inhabi-/tants, situated near the junction of
the/ river Mayo with the Huallaga. It is is/ spread out
over a broad plain, formed/ by the valleys of several
clear, swift/ mountain streams. On every side/ rise
mountain ranges, covered in some/ places with grassy
plains, in others/ with forests, and in others too steep/
for vegetation to hold fast, the bare/ gray rock crops
out./

The houses are scattered here and/ there, as if
they had fallen into their/ places, and are generally
unfenced. Near the banks of one of the streams/ they
struggle into two or three/ nar-/row, irregular streets,
just wide/ enough for two loaded donkeys to/ pass.
The houses are low and small/ in comparison with the
great bar-racks of cane built by the Indians/ across the
mountains. They are gen-/erally without windows or
window-/openings – the doors admitting light/ and
air. The walls are two feet thick/ and are built up like
concrete walls/ at home, by putting up boards and/
filling it with mud, which is allowed/ to dry before
another layer is put on. The town is full of these old
walls/ still standing, though the palm leaf/ roofing
has long fallen. These/ walls are sometimes whitened
with/ gypsum, but they are more generally/ left their
original dirt color, and with/ their brown palha roofs
the appear-/ance of the town is somber enough. The
town is far from navigable waters/ or other circum-
stances that would/ give it commercial importance,
and/ the site was likely chosen by the In-/dians, its
original inhabitants, on ac-/count of the good soil
and climate./ But the Indian is fast fading out, and/
the whites have taken up with their/ custom and live
in the same aimless/ way. The idea of improvement,/n
which is such a part of our nature as/ a nation, has no
place in their imag-/inations. To plant little “chacras”/ of
plantains – as their fathers did; to/ cover their mud
hove with a new/ roof of palm leaves, no better than
than [sic] the one that has decayed; to/ dance at the
feats, and to enjoy the/ present with no thought for
the future./ is their life, and it seems as if they/ must
give way to a stronger, more/ energetic race, before
this beautiful/ land is inhabited by a people that/ be-
fits it./n

At a distance of two day’s [sic] journey/ is the
post of Chasuta [sic; Chazuta], on the Hual-/laga, to
which canoes ascend with/ cargoes from Yurimaquas
[sic; Yurimaguas], which are/ then brought here on
the backs of/ peons. The only articles of exporta-
tion are hats and cotton cloth, which/ are sent to
other towns of the interior./ The hats are palm leaf
or panama, but inferior to those made in Moyo-/bama [sic; Moyobamba]. The making of coarse cot-
ton/ cloth seems to be the principal busi-/ness, and
the first sound one hears in/ the morning is the clatter
made by/ the women in beating the cotton./ The seed
is picked out by hand, and/ the cotton then spread
upon a cow/ skin upon the ground and a couple of/of
women squatted on opposite sides,/ with a stick in
each hand, beat it/ until it is full and sufficient to
form/ into rolls. The spinning wheel is a/ rude ma-
chine like a low grind-stone,/ and one of these may
be seen before/ almost every door – a little boy or/ girl
not yet old enough to run away/ from its mother in
the streets, being/ seated on the ground beside it to
turn/ the crank. There is no arrangement/ for wind-
ing up the thread, and the/ woman with a bundle of
the curious/ little rolls in her belt starts out across/
the streets, putting the thread/ time to straighten his legs, when she/ begins
again. As one passes along/ the streets in the morn-
ing or evening/ he is continually bowing down to/
pass under these lines. This thread/ is afterward wo-
en upon rude looms,/ into coarse but strong cloth,
that/ holds its place in the market here in/ spite of the
cheap English goods./
The climate on this side of the mountains is much cooler and drier than in the valley of the Amazon, and the vegetation is not so rampant. Among the plants cacti and agaves are already conspicuous, and there is no longer need that the peons should cut away all the vegetation from the public squares and from about the houses every month, to keep the town from growing up to forest. Along the streams and about the town are many spots covered with grass that is kept closely eaten by the cattle, forming a smooth sod that is pleasant to walk upon. There is not a grass plot upon the whole Amazon. The system of cultivation is the same as in Brazil, a little piece of the forest being cut down and burned, and then planted to yucas and plantains. After two or three years, during which the only cultivation is cutting up the woods now and then with a knife, the timber is allowed to grow up again, and a new piece of forest is cut down; so that there is now no more land in cultivation than there was forty years ago. The soil is well fitted for cultivation with the plow, and the place might be abundantly supplied with food; but beef is dearer than in New York city, and butter and cheese, what little is used, is imported. Plantains are the principal, and with most of the people, almost the only food, being varied now and then with a little fish or a few beans. Dried fish, the principal animal food, comes from Yurimaguas by canoe and on the backs of peons. Those who are too poor to buy this, now and then go fishing with barbascum, the white roots of shrub they cultivate in their chacras. Forty or fifty of them often unite to fish some lake or bayou, those connecting with the river being generally chosen. The small streams and bayous connecting with this are first beaten, to drive the fish into the lake, when the barbascum is pounded with water in the canoe, forming a milky liquid which is then dipped out into the lake. The small fish first rise to the top of the water, and after several hours the larger ones. The fishing is a great day for the birds as well as for the men, and gulls and divers, and other sorts of birds, are busy getting their share. There is a feast for a few days after the fishing, and then they fall back to plantains again until their hunger for animal food drives them off again. This town in spite of its fine climate is terribly plagued with skin diseases. There seem to be of two classes, one that appears in open ulcers, and often upon children. The other is a scaly eruption that discolors the skin so that one can not tell what the original color was. For this latter, the women who wish to preserve their good looks, wash in the juice of a fruit which colors the skin a curious blue black, and these can be met every day passing along the streets, the effect being much as if they were masked. After this stain wears off, the skin is said to regain something of its original color. There are various theories for this disease, some imputing it to food, others to the water. It seems to trouble those of mixed blood more than the pure whites or the Indians; and perhaps it is the judgment of God or nature upon this “crossing of the races.”

Several “trapiches” or cane mills scattered along the streams near the town, supply the aquardente needed. These can easily be found, for the groaning and creaking of the wooden cylinders, between which the cane is pressed, can be heard as far as the noise made by the howling monkeys, to which it bears a striking resemblance. A large open shed is built, which covers the cane mill, the still, and gives plenty of room beside for the peons who are at work, to eat and sleep. In one of these that I visited the motive power was a diminutive pair of oxen that were followed by a lean bearded fellow from the mounds, tamed to his waist, and carrying a stalk of cane, which he used to encourage them on, as well as a man of Spanish expletives shouted at the top of his voice. Three others were putting cane through the rollers, after it had gone through, seizing it and twisting two or three canes together and then passing them through again, and so four or five times before the cane was sufficiently pressed. Several Indian girls were at work dipping the juice from the trough, into which it ran, with gourds, and carrying it to a canoe which served for storage, while several more men were busy roasting and eating plantains and tending several babies that were crawling about or swinging in hammocks from the rafters. At the other end of the shed several others were busy making aquardente for storage, while several more men were busy roasting and eating plantains and tending several babies that were crawling about or swinging in hammocks from the rafters. At the other end of the shed several others were busy making aquardente at a rude still made of a large kettle with a wooden top, in which was set a copper dish with cold water. A wild cane conducted the spirit into a bottle below. Indi-ans were now and then coming in with back loads of cane from the little patches on the hillsides about, each taking his dram before going back to his work. As I came up, one of the Indian girls was sent to bring me a gourd of the cane juice to drink, and one of the men who seemed to serve as overseer, brought a bottle with some of the spirit they were making. It is pretty weak, but by continual drinking they make out to get drunk upon it. There were likely fifteen or twenty persons engaged in making aquardente with that little yoke of oxen, when within a few rods ran a good mill stream that would have ground twenty times the cane and...
with less work. This region is filled with fine mill sites, but lumber sells at forty cents a foot, being all hewed out by hand; and the rock salt of the country and the corn, what little is eaten, is mashed with stones by the women.

After several days spent here in looking about the town, and in rest-ing from the hard trip across the mountain, I hired a peon of the Governor and set out for the little village of Juan Guerra, at the junction of the rivers, and a couple of leagues distant, where I had heard of fossil bones. The peon was one of the mixed race, and his original color had long ago gone out under a cloud of "Sarna," as the disease is called here. He was a faithful fellow, his only failing being his love for aguardiente, which he was continually begging of me—a "realito," just one little real.

We passed through a fine country, the woods not being as dense as below and consisting in part of cactus, which grows here to the size of trees, the trunks losing their angular shape and appearing, but for the leafless branches above, like any other trees. Along the road were great groves of lemons that have run wild, the ground being covered with fine fruit that lay rotting, being too sour for anything but man to eat. The fossils are found in a high bank of the river, and out of reach, the only ones procured being such as fall as the river under-mines the bed of gravel in which they are found. By falling they are generally badly broken, and I could get nothing of much value.

I met here an old Dane, whose light hair and beard and English face, made it seem strange that we should be compelled to use the Span-ish language as a means of communication. I visited him in his cabin, which is a couple of miles from the village, and went over his little plantations with him. He was cultivating the soil with a hoe instead of the knife which is so universally used here, and his crops already show the superiority of European ideas of farming. He had a strange story to tell of his hardships since he had settled here. About four years ago he came here, and putting up an open shed covered it upon one side, and then went to work clearing his "chacras," but was soon after taken with rheumatism in both knees, so that he could not get from his cabin to the little stream that ran a few rods off after water, and here he lay for two years in a hammock under his little roof in an open shed. He was fortunately near the path that led from the river to the village, and depended upon the passers by to bring him a gourd of water or a bunch of plantains, and for that long two years his only food was roasted plantains. He could sleep but little, and he said used to think and think until he became almost crazy. One night as he lay awake, a large animal came into his cabin and stood near his hammock. It was too dark to see what it was, but he supposed it might be a large dog. After waiting over an hour, until the moon rose, he saw a large tiger crouched beside him with its head within a couple of feet of his face. After thinking for a few moments what to do, he suddenly sprang up in his hammock and shouted, struck the tiger with his fist. The tiger, frightened by this sudden movement, jumped out of the cabin and ran off. At the end of two years he began to crawl out again, but found his plantation all grown up to timber, and once more he began to clear a chacra, little by little at first, sitting down every few minutes, so that it cost him three months to clear a patch that would ordinarily be done by him in two weeks. He is now strong, and says that he can do more with his hoe than four men with knives, and he has already begun to gather crops and fruits of his own raising after this long suffering and waiting.
worn by the feet of its people,/ and the soil has been carried off by/ the rains leaving the town upon the/ bare rock. The ruins of a large mud/ church upon one side of the plaza/ shows that the town has seen better/ times. The river Mayo runs near the/ town, but sever- al hundred feet below/ it. Lamas must be a thousand feet/ above Tarapoto and the climate is/ delicious. The nights are cool, and/ the bare rocks breed no in- sects. A/ few potatoes are raised in the little/ chacras along the hill sides. After a/ day at Lamas I passed on to Tabalosas [sic; Tabalosas] crossing the Mayo on the way./ here a rushing, roaring river of twen-/ty or thirty rods in width. They fer-/ried me and my baggage across in a/ large canoe the mule swimming be-/hind./

Tobalosas [sic; Tabalosas] is a squalid place of few/ hundred inhabitants, but the govern-/or in- formed me that it was very rich/ in gold and silver, though no one has/ been able to find it as yet. He point-/ed to a high peak of the mountains/ as the locality of all this riches, but/ he said that all who had attempted to/ visit it were driven by the tem-pests of/ wind and rain. I had to send back my/ mule from here and hire another, and/ to add to my troubles, the peon whom/ I had hired to carry my baggage to/ Mayobamba [sic; Moyobamba] deserted me during the/ night and I had another to hunt up in/ the morning. After paying an enor-mous price for a mule I was rather ta-/ken abank when they led out an old,/ poor fellow, covered by a saddle still/ older, but as I could do no better, af-/ter a breakfast upon a cup of choco-/late and a couple of roasted plantains,/ I mounted and followed my new peon/ who had gone with the baggage. We/ passed all day through a rough but/ rich country, seemingly as damp as/ the Amazon, and with cacao growing/ plentifully wild. Toward night we/ began to ascend again and stopped/ for the night at a tambo near a large/ elevated plain covered with coarse/ grass. The next morning began with/ rain and all day we went on the path/ running with water and the bushes at/ the side dripping. About noon the/ advance guard of the soldiers limping along with/ their guns or musical instruments/ hung over their shoulders. They were/ all barefooted, but they had been/ dressed in white pants, which were/ now the color of the clay of the/ path. We soon came to a tambo and/ the first arriving of the peons, caring/ little for the storm, built a fire and/ were roasting and eating plantains/ according to their custom, while the/ soldiers huddled around and wrung/ their clothes, though they looked as/ it if would take a month to dry them/ into soldiers again. The little Indian/ with the turkeys held them over the/ fire to try to warm them into life again/ and one of the women plucked the/ one already dead and pre-pared it for/ cooking. A lieutenant now came/ riding up and ordered the poor fel-/lows on. Soon after the prefect a/ large heavy bald headed man of fifty/ years came up, muffled up to the chin/ in ponchos, and closely followed by his secretary, slight young fellow/ eighteene or twenty. I kept on with/ them passing the peons and soldiers,/ and stopping for the night with them/ in another tambo further on where we/ picketed the mules and prepared to/ pass the night. Those behind grad-/ually straggled in until fifty of us were/ under the little shed, thirty of them/ being soldiers with the band of music./

Fires were built all about us at/ which the sol-diers and peons dried/ their clothes and roasted plantains,/ and then the roll was called and a/ sentinel placed,/ and I slept for once/ under the immediate protection of the/ Peruvian flag. The next morning af-/ter roll call the soldiers and peons/ were hurried off and then we follow-/ed over roads horrible from the recent/ rains. My mule spite of his age/ seemed to love good company and/ did his best to keep up with the rest,/ but as we were going down a steep/ hill the girth broke and threw me,/ gun, saddle and all over his head into/ the mud below. After mending the/ saddle I kept on alone, passing now/ and then a straggler, and crossing/ the mountain came out upon another/ open plain or prairie, crossed a swift/ stream that came up to the saddle/ and passed the night at a tambo on/ its banks with several who had been/ usable to keep up with the prefect's/ forced march./

Yesterday I arrived at this place/ passing through an open and beauty-/ful country. This seems to be a fine/ place for collecting birds and insects/ and I shall stay here a few days to/ take advantage of it./

J. B. STEERE
FOREIGN CORRESPONDENCE

MOYOBAMBA, May 10, 1872.

A large part of the populations of Yurimaguas, Yquitos [sic; Iquitos], Pebas, and the other towns on the Amazon, are from this place, and as they tell you that they are sons of Moyobamba, their eyes glisten and they forget for a while the heat, and mosquitoes, and poor food, as they describe the spleen/did climate, the rich plantains and yu/-ca, the chica [sic; chicha] and bread and the dance in this place. It is to them the land to which they all intend to return when they have saved a little money./

Many gravely assured me that I would not pass there/ that no strang/er ever passed Moyobamba, all be/-came captivated by the pretty girls, the climate, and the nightly balls and like lotos and aters [lots of foreigners] forgot their homes and families, and were content to die there./

There is certainly for them reasons for all this enthusiasm. It would likely be difficult to find a better cli/-mate in the world; there are no ex/-tremes in heat or cold; the heavy/ rains of the Amazon are moderated,/ and much lessened in their passage of/ the mountains; the lands are rich and/ wherever trees are planted they are/ loaded with the finest of oranges and/ lemons and plantains. A little culti-/vation furnishes sufficient food and/ what now and then pays for the nec/-essary clothing, the rest of the time being given up to enjoyment./

Marriage is a thing hardly worth notice, and only a few old flogers/ trouble themselves about it, but the/ town is filled with young women, con/-sidered pretty who are not at all back/-ward in singing and dancing, and ren/-dering themselves agreeable, consid/-ering in their right and duty to choose/ their partners for the dance from the young men assembled./

As if to prove the proverb of the country twelve or fifteen Europeans, French, German, and Italians have stranded here and the most of them will likely die here. But with all, there is little that would lead a think/-ing man to stop here unless to make/ money to spend elsewhere. It is/ months either way before news of the world reaches it. A newspaper is/ almost unknown and there is not like/-ly a library of a hundred books in the/ whole place. Even the refined sen-
num-ber of the lower trash by acting as/ godfather at the baptism of their child/-ren. Then when they wish labor/ done they call upon their new made/ relations to assist. Señor Da Soussâ/ house has been full for several days of/ compadres and comadres, of all shades/ of color, with the consequent small/ fry. The men working lustily though/ clumsily at the building while the wo-/men assist the Señôra [sic] in cooking and/ making chicha. They would scorn/ the offer of regular wages, but the em-/ployer is expected to make presents/ and do favors, and he may consider/ himself fortunate if he gets off with/ what would have been fair pay./

There are very few pure Indians,/ and as from the inevitable laws that/ govern in such matters the white/ blood must always predominate, a few/ generations more will likely leave few/ traces of Indian blood in Moyobamba. The Indian race of South Amer-/ica is as fated as that at the North./ This wholesale system of whitewash/-ing is as sure destruction here as war/ and disease is at home, though it may/ be a few years longer in doing its/ work./

There are no boot-stores nor shoe-/makers in Moyobamba. Women with/ silk dresses and gold or-/naments go to/ church and shopping about the streets/ barefooted, and young men with smart/ broadcloth jackets and pants, and of/-ten with a cane strut about in the/ same primitive style./

The principal business is hat mak/-ing. These are made from the young/ leaves of a fan palm that are pulled/ into strips with the fingers, and after/-wards boiled and dried, when they are/ ready for braiding. The braiding/ is done by both sexes, and in the/ morning and evening one can see/ persons seated at almost any door, on/ the ground or on low stools, engaged/ in it. The ordinary hats are now/ worth a dollar apiece here and/ take four or five days in the braiding./ A few of extra fineness are made that/ take much more labor and bring ex-/traordinary prices. The hats are sold/ at night, perhaps because they think/ that by the dim lights in use any de-/fects will be more likely to be/ over/-looked. Several hundred are sold/ every night, each person bringing his/ own manufacture and passing/ up and/ down the street until he has disposed/ of it. The hats are put up in bundles/ by the buyers, and sent on men's backs/ to Balsa, Puerto [sic; Balsapuer- to], and from there by/ canoe to Yurimaguas where they take/ the steamer to Brazil, their place of/ sale./

I had heard much of the balls of/ Moyobamba, and finally prevailed up/-on Señor Da Soussá [sic] to accompany me/ to one. They had already been danc/-ing for a day and a night, and several of/ the guests were sleeping upon a couple/ of cow skins, at one end of the room./ The ball was in honor of a young/ couple entering their new house, and/ the damp walls lighted by one sickly/ candle, and the mouldy smell of the/ room promised anything but a pleas/-ant time, but with plenty of chicha/ and aquardente [sic; aguardiente], they made the best of/ it and the band, composed of a fiddle/ and banjo, and a large dry goods box./ struck up, while the women sang in a/ high shrill key some love song, and/ two barefooted couples made the dust/ fly. Toward the latter end of the/ stanza the women and boys sung/ louder and shriller, the fiddler did his/ best, the two boys at the dry-goods/ box pounded themselves red in the/ face, while the dancers “quick and/ quicker flew,” and just as all had/ reached the very acme of their pow-/ers the song ceased, the dancers stood/ still, while the boys at the dry-goods/ box kept up a tattoo as a re-/frain./ After a change of partners the music/ and singing commenced again, going/ on as before increasing the noise and/ enthusiasm until it seemed to have/ almost reached the splitting point and/ then as sud-/denly subsiding. As in all/ the dancing I have seen in Peru, the/ handkerchief is a most necessary ar-/ticle with both parties, and upon its/ proper use depends much of the/ grace of the dancer. With it the/ young man beckons on his partner and/ now floats it around her head as they/ whirl about each other and/ now stoops as if he would sweep [sic] the/ dust from her bare feet, she sometimes/ using her handkerchief as a shield to/ keep off his advances, and sometimes/ urging him on to greater endeavors./ The songs sung/ are generally love dit-/ties [sic], often of mixed Spanish/ and In-/ca, with frequent extempore allusions/ to the parties present. After with-/standing several most pressing invita-/tions from some of the young ladies/ present to dance we made our way/ into the fresh air, leaving them at their dusty sport./

With the general lack of marriage/ and morality, as we are accustomed/ to look upon it, there is at large at-/tendance at mass, the church being/ nearly filled with kneeling women/ while a hundred or two boys and men/ stand near the door, kneeling and/ crossing themselves at the more sol-/emn parts of the service. The priest/ is accompanied as he chants the serv-/ice by the brass band and the heavy/ clang of the drums, and cymbals tells/ all over the town that the service is/ going on./

I was astonished and shock-/ed a few days ago when pass/-ing along the street by meeting a rude/ litter made of a piece of cloth stretch/-ed between two sticks, with the half/ covered corpse of a small boy upon it,/ the feet and head protruding from the/ dirty cloths in which the body was/ wrapped. The bearers
were two ragged boys who had probably been play-mates of him they were bearing, while a third with a rude spade to dig the grave followed. As they came near they dropped the litter in the street to rest apparently with no more feeling than if they were carrying a dead pig, and the people passing seem to look upon the matter in the same light. This heartlessness in regard to the dead results in a great measure likely from the lack of marriage, and with it the fam-ily ties that makes death so terrible among all classes with us.

The mother has no legal right to compel the father to support his child, and the result is that the poor women have all the supporting to do, and looking upon the children at so much cost and trouble they wish they were dead, as I have heard some women frankly confess. The children are brought up with insufficient food, and in complete ignorance, and when they get old enough to help their mothers, instead of doing so they call them hard names, and make them drudge harder than ever. I often saw women carrying heavy loads of plan-tains upon their heads from the cha-cras about the town and heavy jars of water from the river, nearly a mile off. Woman's life is none of the happiest even in Moyobamba where free love is as settled a fact as the most enthu-siastic could wish.

J. B. STEERE.

Letter L

[Peninsular Courier and Family Visitant, 11(42), October 18, 1872]

FOREIGN CORRESPONDENCE

Number L

CHACHAPOYAS, June 26, 1872.

I spent three weeks very pleasantly at Moyobamba; the most of the time in the woods, following the paths made by the wood cutters, and shooting many bright-colored birds that never make their way to the moister and more heavily timbered lands upon the Amazon. I also visited the warm springs, the water of which is about blood heat, and large quantities of gas are continually bubbling up, showing that those forces that show themselves in volcanoes and earthquakes farther west are but sleeping here. I was also fortunate enough to see an elec-tion.

The President and Vice Presidents of the Republic, as also members of Congress, are chosen by boards of electors who are supposed to get their election from the people. The board of electors for the province of which Moyobamba is the capital, comprising some twenty or thirty members, had assembled to cast their vote for Pre-sident and Vice Presidents. The election was held in the plaza or public square, but in place of one board of electors and one polling box there were as many as three full boards, each with its corner of the plaza, and each claiming the be the genuine board, and perhaps with equal justice. Each can-cidate for the presidency had his dele-gation of electors, and each was elected unanimously from the province of Moyobamba. The returns go to Lima, and the candidate who is successful in the revolution that invariably takes place with a change of rulers here, will recognize the boards that elected him as the legitimate ones. The mem-bers of the Peruvian Assembly or Con-gress are elected by these same boards of electors, and their claim to a seat is likely founded on pretty much the same grounds as that of the President, and the Assembly cannot be expected to have much independence, they hold-ing their seats by little more than the appointment of the President. As near as I can discover, the PEOPLE, who are supposed to have something to say in regard to how they shall be governed in republics, have very little to do with it in Peru.

Just before I came away there was a procession in honor of St. [word missing, San Isidro Labrador], the patron saint of farmers. The saint himself was carried at the head of the shoulders of four men. He was repre-sented as a pleasant looking old farmer with a broad-brimmed, palm-leaf hat, and holding a plow the only one in the department that was drawn by a yoke of oxen. The people told me that unless they held this feast their planting would not grow; but it seemed to me that if they should fol-low their saint's example and hold the plow over their fields, it would be a better security for good crops than the procession.

When I was ready to go on, the alcalde with whom I got acquainted procured me a mule and a peon to carry my luggage, and we set out for Rioja, where we arrived in the evening of the same day, having to be ferried across a branch of the river Mayo in a large canoe. Much of the way the road, which led through a low, rich country covered with miriti palm, was made of logs, laid down in the same way as in the corduroy roads for which our own State is so famous.

I wished to pass on from Rioja im mediately, but there was a great feast in progress, and the governor, a weak, easy fellow, never had transportation/
ready though always promising. Find-/-ing it almost impossible to move under/ the circumstance, I settled down/ quietly at the house of Senor Arana [sic;] for whom I had a letter of introduc-/-tion, and went to hunting until such/ time as the feast should be over. Rioja/ is a town of five or six thousand in-/habitants, but is dependent upon Mo-/yobamba for its trade, sending its hats/ there for sale, or receiving goods that/ have come by way of the Amazon./ The people, like the Moyobambinos,/ are a badly mixed race, given to danc-/-ing and feasting./.

After twelve or fifteen days of wait-/-ing for transportation I got tired and/ sending on my heaviest baggage, hired a peon to carry my bed and pro-/visions, and started on foot, intending/ to hunt upon the way. The first day's/ tramp was through the valley, and we/ passed the night at a tambo, just at/ the foot of the mountains. The next/ morning we begun climbing up the/ steep but heavily timbered mount-/-ain/ side through what the peons call the/ cahones [sic; cajones] or boxes. Those seem to have/ been formed from the common mule/ and foot paths, the grass and roots/ being worn away in this manner, and/ then every rain storm making the hol-/low path the track for a little torrent/ that continually cuts it deeper, so that/ one travels now much of the time in a/ deep, narrow trench from eight to/ twelve feet below the general surface./ In many places trees have fallen across/ and vines grown from side to side, so/ that one is traveling in a sort of tun-/nel and in everlast-/-ing twilight. I soon/ left my peon far behind, and by the/ middle of the afternoon had reached/ the top of the first range of hills. Here/ there was a little open spot of ground/ called the ventana or window, from/ which there is a splendid prospect of/ the great valley below. Rioja was in/ sight, and I could see the location of/ Moyobamba. Outside a narrow belt/ of chacras consisting solely/ of six posts set in the ground and sup-/porting a roof of palm leaves./

I had killed two or three birds in/ coming up, and having everything/ ready in my pockets, I made a table/ of a large rock, and skinned and pre-/served them while enjoying the pros-/pect and waiting for my peon. He/ finally came panting up, and we walked/ on two or three miles father, and/ camped beside a mountain brook in/ the shelter of a tree, for lack of a/ tambo. I shot a beautiful, spotted/ heron from the brook and skinned/ him, while the peon was building a/ fire and cooking our supper. We for-/tunately passed the night without/ rain, and the next morning, after a/ breakfast of the heron roasted, we/ tramped on, soon coming out to a/ small but rapid stream, up which the/ path followed. I here found two or/ three species of fuchsias, the trees and/ bushes being in full bloom and often/ hanging directly over the path. There/ were also great quantities of that cur-/-ious, yellow, slipper-shaped flower/ common in the hot houses under the/ name of calceolaria. In addition to/ these old friends I found a small flow-/ered but sweet scented geranium, and/ many other flowers that I did not/ know. These flowers do not grow/ upon the plains below, but find their/ home upon these cool, moist hills, above/ the heat and below the frost./

The valley of the creek was too/ narrow in some places to allow of the/ path which then wound along the/ mountain side above, there being/ often a sheer precipice down to the/ creek on one side, of several hundred/ feet. Seeing the weeds torn a little/ at the side of the path in one of these/ places, I looked down and saw the/ skin of an ox spread upon the/ rocks in the bed of the stream below./ The poor fellow had made a misstep/ and gone down over a hundred feet./ We met here a small drove of cattle/ from Chachapoyas bound to Moyo-/bamba, a trip of eight or nine days./

The beef cattle of Moyobamba and/ Rioja, as well as the cattle that turn/ the cane mills, are all brought over/ this road, there being a lack of cleared/ ground in those places for pastureage,/ and too many insect enemies to allow/ of raising cattle./

Toward night we made our way/ down to a little open valley upon the/ stream. The mountains shut it in on/ every side, and it well deserved its/ name of Udj Ho [sic; Uscho ou Uschco], or the hole. Here/ stood a tambo, like the others as plain/ as a Greek temple, consisting solely/ of six posts set in the ground and sup-/porting a roof of palm leaves./

I had heard of some rare and beau-/tiful birds that were found near here,/ and concluded to stop a few days to/ hunt them. The evening was warm/ enough to be pleasant, and there were/ a few mos-quitoes, though not of the/ rabid Brazilian kind, but similar to/ those in the States. But toward morn-/-ing I was awakened with the cold, and/ though I piled on all my blankets and/ clothing I could not sleep again, though/ my peon slept beside me on his sheep/ skin, covered only with his poncho./ It seemed to grow colder until morn-/-ing broke, and then I was glad enough/ to be able to take my gun and go into/ the woods hunting to warm my blood./ I followed up the rocky bed of the/ stream that was nearly dry at this/ season, and soon heard the hoarse/ screaming of the bird I was in search of. Taking off my shoes and creeping/ over the rocks in my stockings, I soon/ had him in range and fired. Though/ surely hit, he flew off and fell in the/ thick woods where I could not find/
him; but I had better luck next time, and putting a shot through one's neck, he fell upon the rocks in the bed of the stream. I do not know what to call them in English; perhaps cock of the rocks would do for a name. The Brazilians who have them in the mountains upon the rio Negro call them "Gallo da Sierra [sic: galo-da-serra]," or cock of the mountain, but the Indians here call them "Cocho pishko," or pig birds. They are nearly as large as our pheasant, and likely belong to the same family of birds. The male is a bright orange color, with wings and tail mottled and black. The legs, beak and eyes are yellow, and there is a crest of feathers upon the head, in which he can conceal the beak at his pleasure. Their note is a hoarse squeal, much like that of a pig, and from this they get their name. The female is reddish brown, and has little of the beauty of her lordly mate.

As I went up the stream the mountains came in on both sides, and on there was a sheer perpendicular cliff of several hundred feet in height. I soon came to a fall of twenty or thirty feet, but hearing another bird screaming above, I crawled up it and went on. In one place where the cliff jutted over, many humming birds were building their nests against the rock. An agouti was drinking from a pool, and several Brazilian turkeys were leading their young about. These animals showed little fear, the place being seldom or never visited, the people never leaving the beaten track. After killing two of the pig birds, and a turkey for our supper, I returned to the tambo and spent the rest of the day in skinning and preserving my treasures. After another cold night I again followed up the bed of the stream, and again brought back some of the orange colored birds and a hawk that I shot while he was picking a pigeon. I added his skin to my collection, and his body and his game we added to our larder. Several droves of dogs passed along the path that day on their way to Lamas and Tarapoto. This seems to be a regular business. Indians of Tarapoto going to Chachapoyas and even farther, and buying and stealing a large number of dogs; and tying them two and two, with a stick between them to keep them from fighting, they drive them home, often being months on the trip. From lack of meat or for some other reason, it is very difficult to rear dogs there, and these dogs of the mountains sell at a profit. After they had passed, my peon accused them of stealing a part of our provisions; but whether they had done so, or whether he had sold to them, I shall never know. Though I strongly suspect the latter, for though he carried a most lugubri-ous face, I found he was a rascal.

After the third night at Udjko [Uscho or Uschco], we moved on up the valley again, and stopped the next night in another open tambo with several dog herds as companions. They had picked up dogs of every size and breed. There were the lean, rough Indian dogs that had always fared with kicks, and others whose mild eyes showed that they had been accustomed to gentler treatment. They were unyoked and fed, their supper consisting of a few grains of green corn, and their breakfast was of the same. After another cold night we left our friends and their dogs to make their way down the valley, while we kept on always ascending.

The woods were now made up in a great measure of feathery-crowned tree ferns, while the ground beneath was one mass of smaller species. At night we had nearly passed the range of trees, the vegetation being puna grass and bushes. We arrived, in a cold, soaking rain, at the stone tambo of Almirante, just at the foot of a high range of grass-covered mountains. The tambo had been thatched with puna grass, but this had been broken through in several places, and the water was leaking through and soaking the ground inside so that we had trouble to find dry places for our beds. Just at night some herdsmen came down the mountains with cattle for Moyobamba, and we had to share the dry places with them. With a few dead bushes we made a fire and cooked a little supper, and then went to sleep. The next morning it was still raining, and my peon did not wish to stir, while the herdsmen advised me to attempt the crossing that day; but I thought we could not well pass a more uncomfortable time than in the leaky tambo, so I started, telling my peon to follow.

The path, down which a little torrent was now pouring, led right up for several miles through hills covered with grass and bushy ferns, and finally reached a ridge of bare rock, the summit of the range. A high wind was blowing directly across this, bringing with it sleet and snow. Wet as I was, it seemed as if the wind would cut through me, and I don't think I ever suffered more at home with the thermometer ten and twelve degrees below zero than I did here with it hardly down to the freezing point. This place is called by the Indians "Pishko wainuna," the place where the birds die, and they fear it very much, as they well may, for several die here every year. They come up from Moyobamba and Tarapoto with their light

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101 Genus *Rupicola* (Aves, Passeriformes, Cotingidae). *Rupicola rupicola* (Linnaeus, 1776), the "galo-da-serra" occurs in extreme southeastern Colombia, southern Venezuela, the Guianas and the mountainous regions of northern Brazil. *Rupicola peruviana* (Latham, 1796), the "gallo de las rocas, tunki or tunqui" is the Peruvian species and national bird.
clothing, and getting chilled/ in crossing, sit down and die. I ran/ to keep warm over the worst part, and/ hurrying down the other side of the/ mountain, in a couple of hours I reached/ a valley and a stream, and crossing/ this on a rude bridge, I came to a well/ made tambo, which was full of people/ who were waiting for a more favorable/ day before attempting to cross the/ summit. Borrowing a machete of one/ of them, I cut a lot of dead limbs, and/ making a large fire, dried my clothes/ while anxiously waiting for my请教./ I waited until dusk, and had just con-/cluded to pass the night without my supper or bed when he came up. In a niche in the stone wall was a little/ cross, covered with flowers, the offer-/ings of this simple people; and I think/ if I had been of their faith, I should/ have offered flowers along the path./

J. B. STEERE

Letter LI

[Peninsular Courier and Family Visitant, 11(43), October 25, 1872]

FOREIGN CORRESPONDENCE

Number LI

CHACHAPOYAS102, June 26, 1872.

Upon examining our haversack of/ provisions in the morning before start-/ing for Taulia, I found we had but one/ small cake of bread and about half a/ pound of meat left, and we had already/ been on short allowance for two days/ but giving the larger share of what/ was left to the peon, as he had the/ load to carry, I set out ahead to reach the village. The distance is ten or/ twelve miles, and lame as I was it/ seemed much farther; but about the/ middle of the afternoon I arrived at/ the first few houses. Feeling ready/ to eat almost anything, I entered the/ first house and asked an old woman/ for something to eat; but my expecta-/tions were somewhat dampened by/ the brief reply: “No hay,” – there is/ nothing. I thought that perhaps she/ was afraid I had no money, and offer-/ed her silver and again asked if there/ was no green corn, potatoes, eggs –/ anything to stay hun-/ger; but the an-/swer to all was the same – “no hay.”/ Entering another house, I met with/ the same success, and also in the third./ Despairing of getting anything to eat/ in this way, I then inquired for the/ governor, who I knew was compelled/ to furnish strangers with something to/ eat; but found that he was in the oth-/er/ village, a mile distant, and all the way/ up a steep hill. With rather harsh/ opinion of the hospitality of the Tau-/lians, I began to climb to the other/ village, stopping to rest from faintness/ every few rods. Upon finally reach-/ing the top, I found the people dressed/ in their holiday best and marching/ around with their saints, the process-/sion being led by a man who scatter-/

102 Chachapoyas – Department of Amazonas. The name derives from chachapuyacuno – “cloud forest.” Elevation 2335 meters above sea level.
The next morning the governor had/ provided me a mule for my baggage/ and a horse for myself, with a short/ dumpy boy of sixteen or eighteen for/ a guide, and I set out for Chachapoyas. The road, or path rather, led down/ the stream, and for the first few miles/ through a pass that the stream had cut/ through between the mountains, on/ each side rose

up perpendicular cliffs/ of limestone for more than a thousand feet. After descending rapidly for two/ or three hours, the valley began to/ widen and to be cultivated, and I was/ soon again in the land of the orange/ and plantain. But the little thread of green/ and cultivated lands along the stream was lost among the great mountains that rose on each side, bar-ren/ and desolate not from cold as those/ that I had passed, but from heat and/ drouth [sic], for here and there a gigantic/ organ cactus lifted its bare arms, or a/ century plant sent its flower stalk/ twenty or thirty feet in the air./

Taulia is the boundary between the/ rainy and the dry belts; on the one/ side are palms and tree ferns and deep/ thick forests; on the other barren/ plains and mountains at most covered/ here and there with a few bushes./

After riding several miles down the/ valley through magnificent scenery, the road often cut out of the/ almost perpendicular side of the mountain, with the stream – now a river – roaring below, we turned to the left/ and crossed the stream on a rude/ stone bridge, and after following the valley a few miles farther, now again/ too narrow and rough for cultivation, we began climbing the mountains/ again, and after three hours/ hard work we had reached the great bar-ren/ broken plain upon which Chacha-poyas is built, and a few minutes afterward rode into the city./

I was very kindly received by Mr./ Wurthemann, a Californian, who re-ceived his education as civil engineer/ in France, and was employed by the government upon its public works in/ this place, grading the streets, build-ing a college, etc. He took me with/ him the morning after my arrival to/ visit his works. In the grading of the street upon which he was at work, some of the houses had been hurled/ two or three feet, while others had/ been left in the air. I was considerably amused at the philosophical aspect of/ some of the people who sat in their doorways, and looked down four or five feet into the street, as if they did/ not know what modern improvements/ would lead to next. The implements/ used by the workmen were also well/ worth notice. A short, heavy/ accordion bar, sharpened at one end, serves for/ a pick axe, while the fingers are in-/ variably used for shovels. Three men/ in one place were dragging dirt in a/ cow skin that served for a sledge,/ while several others were carrying/ litters made of the same by swinging/ them between two poles; but the ordi-nary method of carrying dirt and/ stones was in baskets or sacks of raw-hide carried upon the back by a strap. Mr. Wurthemann brought spades and/ shovels and wheel barrows from Lima,/ but they did not like them, and
soon broke them to pieces and returned to their bars and cow-skin sacks.

The workmen are Indians drafted from the neighboring villages. They serve two weeks and get two reals — twenty cents — per day. When their two weeks are passed they return home, and a new squad is sent on. They were a strange looking set, dressed in ragged blue pants and ponchos, and all shod with cowhide sandals, called Lyanques [sic; llanque], pronounced almost exactly as our national appellation. Each had his bag of coca and a little box of cane or horn for holding quick lime, with which they seasoned each mouthful.

Chachapoyas has perhaps eight thousand inhabitants, and as it is near the capital than the other towns I have visited, it has a few paved streets and some little appearance of taste and refinement. Why it was ever built upon this cold, barren plain, it is hard to imagine. It is almost entirely supplied with provisions from the low-er and warmer valleys about it. The site of the city is about nine thousand feet above the sea, and the nights are uncomfortably cool, and accustomed as I am to the climate of the Amazon, the air does not get warmed up until nearly noon so as to feel comfortable. The air is so thin that with the least exercise one gets out of breath and feels as if about to suffocate. The lungs of the natives are enormously enlarged to provide for this.

I am beginning to learn something of the government of Peru. Not only are the prefects sub-prefects and governors appointed from Lima, but the salaries of all the officers, of the priests and the school masters, and all the money for building churches, school houses and even for paving streets, comes from the same place. These interior towns are literally deprived of the animation of the scene is the custom of marrying their merchandise, as they name it. If some article is scarce in the market and some other in abundance, if one wishes to buy the scarce article, he is told that it is married with the other and he must buy both to get the one. Then having an article he does not want, he must find some one else and make another trade. Eggs are always married, and to get a dozen one must buy as many cakes of chocolate or the same value of sugar.

There is little mixture between the Whites and Indians here, there likely having been some tribal law against it at first, the feeling against it certainly coming from the Indians and not the Whites. The Indians are short in stature and ugly, often with goitres and other deformities found in cool and shaded mountain valleys.
Letter LII
[Peninsular Courier and Family Visitant, 11(44), November 1, 1872]

FOREIGN CORRESPONDENCE

Number LII.

CHACHAPOYAS, July 6, 1872.

After I had been here a few days, Mr. Wurthemann proposed a trip to Quillip [sic; Kuélap], two days’ ride up the river Utcubamba. We had as a companion/ a little, boyish-looking Peruvian doctor, who, like all the rest, draws his/ salary from Lima. He speaks a little English, and thought to practice it –/ not his medicine – upon me; but I came to the conclusion that I spoke/ his language better than [sic] he did mine,/ so he generally addressed me in poor/ English and I answered in bad Span-/ish. He was mounted on an old sorrel/ mare that was little but skin and bones,/ and he had an immense pair of saddle/ bags, in which he carried his bed and/ candles and provisions for the journey,/ and these stood out like wings on each/ side, so that altogether he cut a most/ comical figure. I was not much bet-/ter mounted, my horse being such as/ the soldiers could find in the streets,/ they unhorsing the first mounted man/ they found, and sending me his horse/ by the order of the prefect. A soldier/ followed us, driving a mule upon which/ was the rest of our baggage and some/ iron bars to dig with, should we con-/clude to make any excavations./

We descended from Chachapoyas/ to the river Utcubamba, and then fol-/lowed up this stream, sometimes in/ the valley among patches of sugar/ cane and plantains, and sometimes/ along the moun-/tain side above. We/ arrived after night at the house of an/ old man with whom Mr. Wurthemann/ was acquainted, using one of the doc-/tor’s candles for the/ last half mile to/ keep to road. We found the old man/ – one hundred and four years of age/ – in a little shed besides his house that/ served for a kitchen, patting a couple/ of days that lay at his feet. His half-/ breed wife hurried about to make us a/ bowl of hot soup, while the old man/ talked of the good old times of Span-/ish rule. He had lived for the last/ sixty years where we found him, and/ was still able to cultivate/ his little/ chacra. The woman found places for/ us to spread our beds, and we slept/ until morning, with no greater novelty/ than plenty of fleas./

After another bowl of soup and/ some green corn, we again set out up/ the river, and soon saw re-/ mains of/ ancient towers on the almost inacces-/sible mountainsides above us, these generally consisting of half circular/ walls of stone that seem to be the/ foundations of superstructures of mud/ or straw that have long ago been de-/stroyed. These walls generally rise/ in tiers on [sic; one] above another, and though/ seemingly better fitted for eagle’s nests/ than for human dwellings, they must/ have contained a numer-/ous population. /To these aeries [sic] the farmers of the/ plain must have climbed every night/ after their toll to rest secure from their/ enemies. The necessity for building/ in such places shows a state of war/ and insecurity of life, compared with/ which the present state of the country/ is happy. Upon the other side of the/ river we could now see long parallel/ ridges running along the face of the/ mountain, and evidently the remains/ of ancient cultivation, either boundary/ lines between fields, or made to facili-/tate irrigation./

As we now reached a higher and/ cooler climate, the sides of the moun-/tain began to be cultivated, and we/ saw many patches of wheat and bar-/ley, the former nearly ripe. These/ crops are sown during the rainy sea-/son, which is generally sufficient to/ bring them to perfection./

We arrived that afternoon at a/ hacienda, at the foot of the mountain/ upon which was the fortress we wished/ to visit. The owner was expecting us,/ and had everything prepared for visit-/ing it next morn-/ing. That night I/ first experienced the garapatos [sic; garrapatas], though/ I had often heard of them. They ap-/pear much like wood ticks, though/ they not ad-/here to the body. One/ hardly feels when they bite, but/ the wounds inflame and often do not/ heal for several weeks. In the morn-/ing we found ourselves well bitten,/ and several garapatos in our beds too/ full of blood to move. After breakfast/ we rode up the mountain toward the/ fortress. I could not imagine when/ in the valley below for what purpose/ the fortress had been build [sic] at such an/ elevation and apparently inaccessible/ place; but upon reaching the top we/ found large extents of country not too/ rough for cultivation, there now being/ many patches of barley and wheat. /I/ here saw plowing going on, the plow/ being a crooked stick sharpened at/ one end, and with another fastened to/ it that served as a beam, and was/ fastened at the other end to a yoke/ that was bound to the horns of the/ cattle. The plowman caught the end/ of the stick that served for a handle,/ while the other goaded on the oxen,/ and they went scratching across the/ field, making but little more impress-/sion than the tooth of a harrow; but/ by continually going over the ground,/ plowing it six or eight times, they get/ the top soil in pretty good order,/ though the ground is likely never/ stirred to more than a depth of two/
inches. Further on we found quite a village of Indians, belonging to the estates and perhaps descendants of the fortress builders. Still going on and up, we came in sight of the fortress, covered at the top with low trees and bushes, which are also covering the hill side about its base. The fortress appeared to be in shape a parallel-ogram, much longer than broad, and apparently, inclosing the ridge that formed the mountain top. Upon going nearer, we calculated the wall to be about half a mile in length and from thirty to sixty feet in height. In some places it had partly fallen, but most of the way it was standing as firmly as when made. It was built of limestone held up in regular layers, the stones being from a foot to two feet in thickness, and from two to four feet in length, and some of the larger must have taken six or eight men to lift them into place. The stones had all been carefully worked into shape, but apparently rather by pounding than by cutting with a sharp instrument, the faces and angles being all a little rounded, though the points were very close. They had been laid up without mortar, and were backed by smaller and broken stone, and then the whole enclosed had been filled in with earth to the height of the walls. The port or gate way at which we entered was five or six feet wide at the bottom, but gradually grew narrower toward the top until the walls nearly touched, and they had likely done so where the wall was entire, making a curious, long-pointed arch, if it could be called by that name. As we went in, we found ourselves in a walled passage open above. This passage led on and up toward the level of the walls above, growing wider at first and then narrowing again until, when one stepped out upon the plane above, there was just enough for one person to pass at a time. From the other side of the fortress, which is not more than twenty or thirty rods across at this point, another just such gateway and passage leads us and opens upon the plane above within a few feet of the other, so that a few men placed here could guard both ports. When we reached this upper level, we turned to the left, and went toward the west end of the fortress, passing among the ruins of many round houses, generally made of small stones laid up irregularly with mud. They appeared to me to be more recent than the great walls. Beyond these and near the west end of the fortress we found the remains of a curious round tower, made of the same large worked stone as the walls themselves. It is about twenty feet high and thirty in diameter, and is in the shape of a truncated cone inverted, it being smaller at the base than above. That the walls were purposely built so is known by what appears to be the remains of the gateway, the walls of with are perpendicular. Upon each side of this doorway a rude human face is cut into one of the stones of the wall, the only signs of sculpture that I saw. About this tower, upon digging a little, we found great quan-tities of human bones, many of them broken, and perhaps the result of some great struggle for possession of the tower itself. Among the bones we found pieces of figured pottery, and below what appeared to have been a pavement of large stones. Below the tower and nearer the edge of the fortress were other walls, that appeared to be remains of large buildings, and in these we found many openings in which were skeletons, the position of the bones showing that the bodies had been doubled up, so that the knees touched the shoulders, and in this shape five or six bodies had been crowded into spaces in which a person would have trouble to sit comfortably. The remains of the awathes [sic] clothes in which they were wrapped still existed; but I hunted in vain for some cap or vase or implement – all those that had been cast away or destroyed, probably by the Spaniards soon after the conquest, as they likely left few stones unturned in their search for gold.

Passing back between the two gateways, we went on towards the east to examine that part of the fortress which is much the largest. After passing through many more remains of round houses, we came to the foot of another great wall of the same construction as the first and from thirty to fifty feet high, and this had been built up and filled with earth like the first, so that here was another great fortress within and above the other.

We followed along this wall for some distance, and found many openings where the stones had been pried out and bodies put in. These were all open like the first; but in some cases they had not been opened entirely, and we could see that they had been closed with smaller, irregular stones and mud, lending one to suppose that the race burying here were not the same as those building the walls, for those who built the wall would have hardly wished to weaken it in this way, and would certainly have replaced the large stones taken out. We estimated that second fortress was about half the length of the first, though less than half the width. Near the middle of the wall we came to a passage way that was probably originally like those of the main fortress, though much broken, and passing up to the top we found ourselves again among remains of round houses, and several of them were made of the worked stone. Toward the east end we found that the perpendicular cliff formed the wall on the back side.
We went out of the fortress at the farthest point east, where the wall had been broken down, and following around the base of the fortress in front, we came again to the gateway where our horses were tied.

The fortress has likely been used by more than one race of people, and even now with a little work it could be made almost impregnable to the attack of men armed with such weaps as were used here before the conquest. Mr. Wurthermann calculates that it must at least have taken twenty thousand men laboring twenty years to have built it.

Some years ago the prefect of this place sent men to cut down the trees, many of which were of considerable size, and to clear the ground, but the work was never finished and the trees falling broke down some of the standing wall, and the place has been allowed to grow up to thorns and bushes since, so that it is worse than ever. It is so covered with brush that all accounts of it must be very imperfect, and it is to be hoped that some one will clear it carefully and thoroughly explore it. I had not seen half as much as I wished, but it was nearly night, and putting a skull in each end of my haversack, and then the whole over my shoulder to keep them from breaking, we mounted and rode down to the hacienda.

The next morning we set out to visit another side of the mountain, where there were said to be remains of buildings and a curious vareta, or bar, sticking out of the cliff. After an hour’s ride we found ourselves at the foot of the mountain we had come to visit; for seven or eight hundred feet it rose as steep as one ever thinks of climbing, and then there was a perpendicular cliff, and upon a projecting ledge of this were two walls, one quadrangular and the other in the shape of a crescent. They appeared to be ten or twelve feet high, and had openings at regular distances near the top that looked suspiciously like loop holes. Above these some thirty feet was the vareta we had heard of in Chachapoyas, and which is believed all through the country about to be gold. It looked to us much like a pole ten or twelve feet long and standing horizontally out of the bare rock. Though we did not doubt much that it was wood, it certainly was strange how it came there, for it certainly never grew there, there being hardly soil enough to raise lichens.

Mr. Wurthermann and the doctor contented themselves with a view from where we stood, but pulling off my coat and shoes and stockings, and telling the peons to follow with the gun, I was soon climbing as fast as the use of both hands and feet would allow me. Arriving at the foot of the cliff, I found myself immediately under the buildings which were some fifty feet almost perpendicular above. The Indians declared there was no passage to them, but after following along the cliff both ways, I saw a narrow ledge that seemed to lead up to their vicinity, and climbing a tree and scrambling from this upon the ledge, after creeping along this for some distance, I found myself at the foot of the first wall. It was built of limestone, cut like those of the great fortress, but much smaller and laid up in mud. The openings that appeared like port holes did not in reality pierce the wall, but were stones that had been drawn back from the general face of the wall, apparently for ornament. The base of the wall was built upon the ledge upon which I was standing, which was not more than three feet in width and was then carried up perpendicularly to the level of the ledge some twelve or fifteen feet above, where it probably formed a part of the foundation of a large building that was built upon the second ledge. That the wall before me was the foundation and not the real building was very apparent, because the passage between the wall and cliff would but barely allow a person to pass, and it was crossed in several places by pieces of wood that tied the wall to the rock, they being secured in the cliff itself and then built into the masonry, and the golden bar which was now in plain sight was nothing but one of these same ties that had been used to support the superstructure, and had remained in the rock when the building had fallen.

The siege of the place must have been dangerous work. It could only be approached by one or two of these narrow ledges, and a grapple here would have been fatal to both besieged and besiegers, for both must have rolled off and struck sixty feet below on the rocks.

After satisfying my curiosity, I crawled back, and had just got down from the ledge and found the Indians who were waiting for me, when I saw a condor come flying in toward the cliff, and snatching the gun from one of the Indians, I fired and had the satisfaction of seeing him wheel and fall a thousand feet below in the plain, where the rest of the party were waiting. It was a female, but weighed thirty-five or forty pounds and measured about ten feet when its wings were spread. Loading it upon the back of one of the Indians, we went back again to the hacienda and passed the third night among the garapatos. Mr. Wurthermann and I looking much as if we had the small pox next morning.

Though we had made such a hurried visit, we were glad enough to get started back, and arrived that evening at the old man’s again. We found him drunk...
and shouting, “Somos perdido! Somos perdido!” [sic; estamos perdidos] “We are lost! We/ are lost!” Upon inquiring the reason, he told us the corn crop was cut with/ the frost, it was too dry for the sugar/ cane, and the ecclesiastics are med-dling with politics. We are lost! we/ are ruined! Oh for the times of the/ Vicerecy [sic], when ecclesiastics attented/ to spiritual matters and left politics/ alone! His wife finally quieted him/ and got him off to sleep, and we fol-/lowed his example./

The next day we heard of a large/ cave near our route to Chachapoyas, and as we were out upon an exploring/ trip, we determined to enter it. We/ had much difficult climbing to do be-/fore we reached the mouth of it and/ lost the doctor, but we had his candles/ and pushed on. The cave was wet/ and full of bats, and after going in/ several hundred yards, we gave up/ further exploration, Mr. Wurthemann/ declaring he would never go into an-/other cave in Peru, and covered with/ mud we scrambled back to our horses,/ sending a peon to find the doctor, and/ then rode back to town, getting here/ after night and well used up with the/ trip./

J. B. STEERE

Letter LIII

[Peninsular Courier and Family Visitant, 11(45),
November 3, 1872]

FOREIGN CORRESPONDENCE

Number LIII

CHACHAPOYAS, July 20, 1872.

After our return from Quillip [sic; Kuélap],
I was/ in haste to go toward the coast, and/ finding muleteers, or arreiros [sic; arrieros], here/ from Celendín [Celendin], a town near Cojamar-/ca [sic; Caja-marca], who were about returning, I hired/ a mule for my baggage and a saddle/ horse for myself, and started with/ them. I had supposed that we should/ stop at the villages upon the road, but/ was mistaken, as we did not sleep/ under a roof from the time we left/ Chachapoyas until our arrival in Cel-/endin [Celendin]. The first evening they began/ unloading and preparing to pass the/ night on the bare hill side, while there/ was a tambo but a short distance off/ but when I asked them why they did not stop at the tam-bo, they answered/ “garapatos” [sic; garapatas], and I was then willing/ to sleep where they were, though it was/ rainy and looked as if we should pass/ the night any way but with comfort./ As they unloaded the mules, they ar-/ranged the baggage in line, heaping/ it up three or four feet high, and then/ tying blankets from the top of this,/ they secured them below with takes,/ and made a little low tent under which/ they spread their sheep skins and/ ponchos for a bed. Following their/ example, I took a large horse cloth,/ and spreading it in the same way, was/ soon as comfortable for the night as/ could be expected, and I slept thus/ for the eight days of our journey. As/ soon as the mules were unloaded, the/ boys drove them off to the hills to/ pasture, while the men filled little/ earthen kettles, one of which each/ arreiro [sic; arriero] car-/ried in a leather case strap-/ped upon his lead mule, with water/ from the brook, and building fires,/ were soon preparing supper. This/ was a corn pudding with plenty of red/ pepper, the arreiro [sic; arriero] sitting/ and stirring the mess with his wooden spoon, and/ tasting until he had got it to suit, for/ I found there was excellence to be at-/tained even in making this pudding./ The boys were now back from the/ hills, and each supplying himself with/ his wooden spoon and his matte – a/ platter made from the shell of a/ squash/ – they gathered round while each had/ his share poured out, and then a little/ sack of roasted wheat flour was open-/ed which served for bread, and/ they/ had their supper “this and nothing/ more,” and thus they fared during the/ trip, and I was often glad to/ exchange some of the provisions for some of/ their hot pudding after a ride through/ the cold rain./

The next morning, after a breakfast/ the same in all its particulars, as the/ supper, they loaded the mules, strap-/ping on the loads as if they would cut/ the poor brutes in two, first covering/ the mule’s head with water/ from the brook, and building fires,/ were soon preparing supper. This/ was a corn pudding with/ water/ from the brook, and building fires,/ were then one/ person on each side bracing with his/ foot against the mule’s side, and pull-/ing the rawhide thongs with all their/ force./

We kept on up the little river Utcu-/bamba for three days, the arreiros [sic; arrieros] going slowly to/ allow their mules to/ recruit in the good pastures. We pass-/ed a couple of villages during the/ time, with/ fiels of wheat and barley,/ but most of the time the valley/ was/ too narrow for cultivation, and on/ both sides were dreary, barren looking/ mountains. The fourth day we crossed/ the river, and following up one of its/ branches, camped in a deep, shaded/ valley, where I found a great many/ beautified ferns. The next day we/ arrived at a place the valley/ widened, and there/ were here remains/ of large stone buildings, perhaps of/ the fortresses the Incas were accus-/tomed to build upon their great roads./ We were now at the/ foot of the second/ great range of the Andes, and the/
next morning the ground was white/ with frost. After half a day’s climbing, the first part of the way through/ a forest of bushy alders [sic], we came to/ the summit called Calle Cálle [sic; Callacalla]. I think/ this is called fourteen thousand feet/ above sea level, and off to the south/ the peak of the Cajamarquilla is cov-ered with everlasting snow. As we/ passed, a high wind was blowing that/ benumbed us with cold, but there was/ fortunately no rain nor sleet. We now/ descended rapidly, and when we stop-/ped for the night, were in sight of the/ Balsas and the Maranon [sic; Marañón]. The view/ from here cannot be surpassed. Moun-tains of dark red feldspar and sand-/stone are piled up on every side, while/ the great bed of lime-stone that covers/ all of this country, broken to pieces/ here is tilted up upon the tops of the/ mountains. The river shows for a few/ miles a little ribbon of azure far below. And then is lost in the mountains./ The land-scape with its chaos of rocks/ and mountains, with no green thing/ nor level spot upon which to rest the/ eye, made me think of those times/ when the world was new and the riv-ers and the sea had not yet lev-eled/ and pulverized the earth for vegeta-tion./

The next day we moved down with-/in a few miles of Balsas, and stopped/ again so as to reach the crossing early/ in the morning, and get the first raft/ across the river. The climate was/ already much warmer, and for the first/ time I did not need all my blankets/ for cover. By midnight the arreiros [sic; ar-rieros] were moving, as there was no pastur-age, and they were in haste to cross./ It seemed dangerous to descend in the/ darkness, but giving the horse the/ reins, I let him find his own way, often/ down places as steep as a common/ stairway. In some places he could/ not reach to step down to the next/ foothold, but would crouch down and/ drop with both fore feet. After we/ had gone on thus an hour or more, we/ reached a climate that felt warm and/ comfortable, and as there was yet no/ appearance of morning, I stopped my/ horse until the others had gone by./ and then spreading my pillow upon/ the ground and with the bridle over/ my arm, I slept until daylight, and/ then followed on down the little stream/ and through the village of Balsas, a/ cluster of poverty-stricken mud houses/ standing on the bare sand. It is said/ to hardly ever rain here, the rain all/ falling upon the mountain peaks above,/ while the valley, except where irrigat-ed, is as bare as the rocks about it./ The climate is as hot apparently as/ that of Yqui-tos [sic; Iquitos], though if of course is/ higher than Borja two hundred miles/ below, where I found it quite cool in/ comparison to the ordinary climate of/ the Amazon./

The people look sickly, and there is/ said to be much chills and fever/ though why there should be, with no/ vegetation and no water, but the pure/ river water running down from the/ mountains, I cannot tell. The people/ make their living, such as it is, in fer-rying passangers and merchandise up-/on rafts or balsas, from which the/ place takes its name. Two of these,/ some thirty feet long and twelve/ broad, rough-ly made by lashing trunks/ of the light balsa wood to-gether, lay/ hauled out upon the beach. The ar-/reiros had already unloaded their car-goes upon the beach, and as I went/ down the single street towards where/ they were, I tried to buy some bread/ or something else to eat, but there/ was nothing for sale but oranges, and/ girls and women with their sacks full/ were upon the beach, trying to trade/ oranges with the arreiros [sic; arrieros] for flour/ and corn meal./ The oranges were/ brought down from more fertile val-/leys above. After waiting for a couple/ of hours for the raftsmen to get ready/ to take us across, they finally came,/ and drawing a raft along the shore to/ where our baggage was, they put it/ on, and telling us to climb upon top of/ it, they pushed out, and by dint of/ hard paddling reached the other/ shore, some thirty rods below. The/ river was then about a hundred feet/ wide, but running with a very strong/ current. During the winter months/ it is broader, and often impossible,/ and many lives and much property/ have been lost, in trying/ to cross it at/ that season. Mr. Wurthemms has/ planned a bridge to cross it at this/ place, which, if built, will prove a real/ improvement upon the present mode/ of crossing. After we were landed,/ the mules were driven in and forced/ to swim across, and were then reload-/ed, and in a few minutes we were/ again climbing the steep mountain/ side. Just at night we stopped again/ in the cool climate of the highlands./

We were now near Celendin [Celendín], and a/ couple of hours’ ride the next morning/ brought us to the top of the mountain/ and in sight of the pretty valley and/ town of Celendin [Celendín], and at end of my/ journey with the arreiros [sic; arrieros]. The town/ is built of adobes, but regularly laid/ out, and about it were many dark-/green patches of alfalfa and yellow/ fields of wheat and barley. As we/ entered the town, we passed through/ stubble fields in which barefooted/ girls were tending flocks of sheep and/ spinning. We had met the governor/ of the place at our last camping/ ground, and I now went to his/ house and then to that of the subprefect to engage/ beasts for the morrow./

The town of Celendin [Celendín] probably con-tains four thousand people, and is sit-/uated in a beautiful valley that is warm/ enough so that corn
ripen, but the ground must be irrigated, and much of it lies uncultivated, though the remains of large ditches show that the Incas used much more of it.

The next morning, the sub-prefect sent me horses, but in place of the good ones he had provided and I had paid for he sent the first two his soldiers picked up, belonging likely to some poor Indian who had given them little to eat and more work, but I had no friends in the place, and so swallowed my wrath and started on toward Cajamarca. Passing down the valley of Celendín, we came in sight of another fine valley below, also belonging to the valley of Celendín, we came in wrath and started on toward Cajamarca. Passing had no friends in the place, and so swallowed my wrath and started on toward Cajamarca. Passing

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We passed for several miles through a valley devoted to wheat raising, but with many fine appearing fields en-tirely destroyed with the frost. We finally turned off from the valley, and crossing another mountain, came in sight of the great valley of Cajamarca, once one of the principals towns of the Incas. The valley is five or six miles broad, being formed by the junction of two small streams. Just at the foot of the hills on the other side lay the city, with its many domes and steeples, with green fields of alfalfa surrounding it, while in the valley here and there were haciendas with their cultivated fields, and great tracts of common upon which droves of horses and cattle were feeding, while here and there were the low, cave-like houses of the Indians, thatched with straw or with agave leaves. After winding about through a maze of azequias and agave hedges, we finally came out to the hacienda of Tar-tar, where I am now enjoying the hospital-ity of Mr. Morton, an Irishman of some twelve or fifteen years' residence in this country.

Letter LIV

[Peninsular Courier and Family Visitant, 11(46), November 15, 1872]

FOREIGN CORRESPONDENCE

Number LIV

CAJAMARCA, August 14, 1872.

104 Acequia – A commonly operated waterway used in Spain and former Spanish colonies in the Americas for irrigation. Particularly in the Andes, northern Mexico and the modern-day American Southwest, acequias are usually historically engineered canals that carry snow runoff or river water to distant fields. The Spanish word *acequia* comes from the Arabic *‘al saqiyia* and means water conduct. The Arabs brought the technology to Spain during their occupation of the Iberian peninsula. The technology was adopted by the Spanish and utilized throughout their conquered lands.

103 Now Sucre, Provincia de Celendín, department of Cajamarca.
I had intended to spend but little time in Cojamarca [sic; Cajamarca], but finding some friends, I concluded to stop until the political troubles that were expected about the first of August, in Lima and elsewhere on the coast, were over and the country in quiet.

Mr. Morton was about to make a trip to Celendín [Celendín] to sell some horses at the fair, and as he put a horse at my disposal and promised me the sight of a bull fight, I went along. We rode back much quicker than I had come, being but little over a day; but upon our arrival we found the place in a great turmoil, the people having juststoned their sub-prefect to death.

Recruiting in the country, as in all others, should be done by voluntary enlistment, or by regular drafts; but law and practice are widely separated here as yet, the common method being to send out a few soldiers as a regular press gang, to seize upon every poor fellow they can lay their hands on. Those who have patrons to reclaim them are liberated, but the others have a suit of regimentals and little pay forced upon them, and then if they run away, they are chased as deserters and punished accordingly.

The sub-prefect had been in the habit of beating the alcaldes of the place and the other officials, when they did not please him, and now to crown all, on the first day of the feast the day upon which we arrived the town being full of people from the surrounding country, he began to recruit, and had had already seized and locked up five poor fellows, when the town rose against him and stoned him to death.

The next morning the band and soldiers were again out in the streets and in the procession were then led horses, each having on his back a bright colored cloth, heavy with tinsel, and looking much like the mantles worn by the priests when they celebrated mass. After parading the streets, the procession entered the great pen erected in the plaza for the bull fight and having marched around it, and the soldiers having fired a volley, they presented the bright colored mantles to those having charge of the bulls and marched out, leaving the pen clear for the games. The pen was made by planting tall posts in the ground, and lashing long poles to these with rawhide thongs, to a height of seven or eight feet, making a rough but strong fence. The pen occupied the center of the plaza, and enclosed perhaps half an acre. Under the foot of the fence were many women seated, with oranges and dulces for sale, while looking through the fence, or perched upon top of it, were the lords of creation, a rough set of arrieros [sic; arrieros], Indians and half breeds, with here and there a man of the town with shoes on, and sometimes carrying a cane. A couple of young men, with white pants and shirts and red sashes, and looking much like base ball players but for the red ponchos they carried now entered the pen and walked about, that the people might have a good look at them, a friend handling them a bottle of aguardente [sic; aguardiente] from the fence. One of the bulls, which were huddled together in a small enclosure beside the other, was now lassoed and drawn into a narrow passage between the two pens, where he was firmly se-cured, while a man reached down and putting a horse at my disposal and promised me the sight of a bull fight, I went along. We rode back much quicker than I had come, being but little over a day; but upon our arrival we found the place in a great turmoil, the people having just stoned their sub-prefect to death.

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The next day, which should have begun the bull fighting, the town was nearly deserted, and at night many fled up the hill sides and passed the night in the huts of the Indians, as it was time for soldiers to arrive from Cojamarca [sic; Cajamarca] to avenge the death of the sub-prefect. The second day the streets were again deserted; but to-ward night a messenger arrived from Cojamarca [sic; Cajamarca], bringing word that there had been a revolution there, and that those now in power were not friends of the sub-prefect that had been killed, so that there was no danger from Cojamarca [sic; Cajamarca]. At this news they must-ered their band of music and paraded the streets, with twelve or fifteen boys armed with shot guns and dint lock muskets, and news was sent into the country round that there would be a bull fight on the morrow.
drop/ the poncho, and the bull halted and/ gave him time to reach the fence./ After a few minutes of this sport long, straight swords were handed the men/ from the fence, and as the bull would/ dash by them, they would make a/thrust with the sword. The intention/ seemed to be to strike down between/ the shoulders to the vitals; but many/ were the failures, the sword generally/ striking the shoulder blade, and flying/ several feet into the air as the bull/ wheeled. Several times the blow was/ struck too far forward, and the sword/ piercing the heavy muscles, stood out/ on both sides of the neck. These/ wounds did not seem to do much but/ madden the bull; but finally a more/ lucky blow pierced down between the/ shoulders, and the poor bull, after try-/ing to again charge upon his enemies,/ tottered and fell, with the blood pour-/ing from his mouth. The people shout-/ed viva, and congratulated each other/ with “Que buen tora [sic; toro],” – what a good/ bull, – while the torreiro [sic; torero] cut off the/ trappings from the bull’s back, and/ the gate being opened, the band/ marched in and played a deaf march.,/ while four men held the Peruvian/ colors over the bull until they had/ dragged him outside the gate. An/-other bull was now lassoed and com-/parisioned, and met his fate in much/ the same way as the first, though his/ body was not honored by being cov-/ered with the Peruvian colors and/ dragged out to a death march. When/ the hacked bodies of three bulls lay/ outside the pen, the popular thirst for/ blood seemed to be slackened a little,/ and they went to their homes with the/ promise of four bulls to-morrow./

The next morning the trappings of/ the bulls that were to be killed that/ day were also paraded in procession,/ they being carried each by two horse-/men between them upon a pole. The/ crowd was greater than the day be-/fore, and the balconies over-/looking the plaza were crowded with the/ beauties of the place, while in the/ streets below were the young bloods,/ mounted to the best of their means,/ and showing off their horses and/ horsemanship [sic]. The first bull turned/ into the pen could not be made to/ fight, though the torreiros [sic; toreros] shook their/ ponchos in his face, and called him/ “Chollo [sic; cholo],” – Indian, – and “vacca [sic; vaca],” –/ cow; it was of no use, and he was/ turned back into the other/ pen and/ his trappings cut off, and another took/ his place. This was a large bull, with/ straight sharp horns, and a wicked/ look that plainly had its influence with/ the torreiros [sic; toreros], for they fought shy of/ him for quite a while; but finally,/ when he was well tired, they brought/ out the swords. After two or three/ wounds, the bull became wary and/ would turn to one side and avoid the/ thrusts. After trying for some time/ to get a fair stroke at him, they be-/came impatient, and as he would/ wheel, they began cutting/ at him be-/hind. They soon cut his tail off, and/ then cut off another piece, the people/ laughing and shouting with delight./ Finally, to their great pleasure, a blow out the cords of one leg, and the bull/ limped about the pen; but the excite-/ment reached its height when the final blow cut the cords of the other leg,/ and the bull went creeping about on/ his haunches, women and men shout-/ing viva and swinging their hanker-/chief. One of the toreiros [sic; toreros] now mount-/ed on the bull’s back, and struck the/ spine just behind the bull’s head, and he fell dead./

Sick of the bloody show, I now re-/turned to the house where we were/ stopping. I had found myself uncon-/sciously sympathizing with the poor/ bull, and almost wished that by a/ lucky dash he might kill tor-/men-tors. As I heard women and men/ shouting and cheering on the bloody/ sport, I could almost imagine myself/ in ancient Rome, witnessing the con-/tests of the gladiators; but as I glanced/ at the heavy sensual faces of the wo-/men and the cruel, cowardly faces of/ the men, I was undeceived, though/ the shouting rabble that attended the/ Roman games were likely far different/ in appearance from the stately, intel-/ligent looking men whose features/ have descended to us. Perhaps these/ obsequious fellows who take off their/ hats when they meet you, and answer/ your “How to you do?” with a “Para/ servir vusted [sic],” – to serve your grace/ – and who ask leave to pass on before/ they dare to leave your presence, may/ be much nearer like the clients who/ gathered about the great Romans than/ we might at first imagine./

The next day we returned to Coja-/marca [sic; Cajamarca], where we found a revolution/ had taken place peacefully, and a few days afterwards we heard of the revo-/lution in Lima, in which the president/ Balta105 was killed, and the brothers Gutierrez hanged

105 José Balta y Montero (Lima, 1814 – Lima, July 22, 1872). At the beginning of his public career he took part in the military operations consequent on the invasion of Peru by President Santo Cruz, of Bolivia, in 1836. He was an actor in the various Peruvian revolutions, was distinguished in the defeat of the Spaniards on 2 May 1866, and in 1867 led a revolt against the dictator-president Prado, and drove him into temporary exile in Chile. Colonel Balta was elected president for four years by a large majority in April 1868. His administration was on the whole prosperous and popular, but he burdened the country with immense loans for the purpose of building railroads. In the presidential contest of 1872 the vote was so close that the election was thrown into the congress, and when it became evident that Dr. Arenas, the administration candidate, would be defeated, Balta was strongly urged by general Gutiérrez, his minister of war, to declare himself dictator. But the president refused to do this, and made public his intention of resigning.
naked, and after-wards burned in the plaza, by the people of Lima.

The government of Peru, acting up-on the plan of Napoleon III that the/ people must be occupied and pleased/ with shows and games, encourages/ bull fights, and then when there is a/ revolution, the people show their/ bloody training by stoning and hang-/-ing and burning their former leaders./ Though some of the sets of the suc-c/essful party in this revolution are/ barbarous, the success of the move-ment is con-sidered by most thinking/ men to be the success of the liberal/ and enlightened party of Peru./

Cojamarca [sic; Cajamarca] has many more signs of/ taste and refinement than any other/ town that I have visited in Peru./ There are several stone churches, and/ their fronts are covered with carved/ work; but none of them are finished./ the work having stopped with the/ revolution that made Peru indepen-dent, and the country does not likely/ now contain men who could finish the/ work as it was begun. The houses/ are built of adobes and whitewashed,/ and are low without pretensions/ to beauty; but the court yard, which/ forms almost invariably the center/ around which these houses are built,/ often have flowers and ornamental/ plants that show there is some refine-ment somewhere./

I was shown a wall here which, ac-cording to tradition, is part of the/ wall of the Incas palace. It is cer-tainly of ancient construction. The/ wall is not perpendicular, but drawn in/ at the top as if to form the base of/ a pyramid. The stones are laid up/ without mortar, and the points are/ very close, the stones being rubbed/ together apparently until they fitted./ The stones are not reduced to parallel-ogams as they are in modern mason-ry; but a large stone often has five or/ six faces, to which smaller stones are/ fitted. The wall is now about ten/ feet high, and forms part of a house,/ being completed with adobes./

There are in existence here many/ cups and vases of curious form, that/ are dug up from the ancient burying/ grounds, and often in such good pre-serva-tion that they are used to hold/ water, and some of the larger are put/ to their ancient use — that of holding/ Chicha. Mr. Morton has interested/ himself in this, and with his help I/ have made quite a collection of these/ curiosities. I found on old priest here/ who had formed quite a museum when/ younger, not only of these ancient/ “huacos106,” as they are called, but off/ birds and skulls and paintings; but in/ his old age he has lost his antiquarium/ taste, and now devotes himself/ to card/ playing, which invariably means/ gambling in this country. I found the/ old white-headed, trembling man glad/ to sell a part of his collection to me/ for a few dollars, which he likely lost/ at play that same night./

One of the most remarkable things/ here is the hot baths107. I found the/ water bubbling over half an acre/ of ground, with the same sound as/ water boiling in a pot. There were/ several springs in this extent, the/ ground among them being a hot mud/ that is not comfortable to step into./ From these springs the water runs off/ in a stream eight or ten feet broad, of/ water too hot to bear the hand in./ though it is already mixed with water/ from cold springs near by. At one/ of the springs several Indians were/ scalding a hog, and the piles of bristles/ and of feathers laying about showed/ that the springs were frequently used/ to save fuel. In the tepid water about/ the borders I found some curious little/ fresh water shells, and in a cold spring/ near by were little lobsters. The wa- ters, a part of them, are conducted/ into some low buildings, where they/ are used for bathing, being reported/ to have medicinal virtues, though it/ may be nothing more than the cleanly-ness of person that regular bathing/ ensures, this people lacking the clean-fly habits of the inhabitants of the/ Amazon, to whom the daily bath is an/ essential of life./

The Indians here have many of/ them kept themselves pure from inter-mixture with the whites, and they are/ likely the lineal descendants of the/ subjects of Inca Atahualpa. They/ live in little low tents, scattered over/ the plain, half above and half below/
ground, and covered with straw. They love chicha, and live upon meal/ made of roasted barley. They are/ short and ugly, but appear to be very strong. 

Barley and alfalfa are the principal/ crops raised upon the plain of Coja-marca [sic; Cajamarca], it being too frosty for corn and/ potatoes to some extent. The barley is generally raised on shores by the In- dians, they doing the work and giving/ half to the owner of the soil for the/ seed and use of the land. They plow/ the ground with the wooden plows I/ have described, and even with such/ implements they raise good crops. The greater part of the valley is under/ irrigation, so that do not depend/ upon the rainy season. Mr. Norton/ had much barley sown in this way,/ and it was now the time of harvest/ and threshing, we went to see the/ grain measured up. The Indians were/ cleaning it from the straw and chaff/ by throwing it into the air with wood-en shovels. As soon as they had/ heaped up the grain, they made a/ little cross by tying two pieces of a/ weed together, and put it in the top/ of the heap, to make the heap increase/ in quantity, as they said. While/ threshing their grain, the Indians keep/ up a continual feast, drinking chicha/ and blowing upon a horn or trum- pet/ made of a large hollow cane some ten/ or twelve feet long, with a mouth/ piece of gourd fitted to it. All day/ and all night we could hear this instru-/ ment, it sounding much like a French/ horn, but much louder. It takes an/ immense amount of wind to blow it,/ and after blowing a chord or two, the/ Indian must stop for breath.

J. B. STEERE

Letter LV

[Peninsular Courier and Family Visitant, 11(48), November 29, 1872]

FOREIGN CORRESPONDENCE

Number LV

CALLAO, August[ sic; September] 14, 1872.

After the revolution at Lima and/ along the coast had subsided, Mr./ Morton concluded to make a trip to/ Ascope, a town within a day's ride of/ the coast, for a cargo of sugar, and/ we started together. The day before/ we began our journey was nearly all/ spent in breaking the fifteen wild/ mules that were to form our train,/ and in fitting them with great pack/ saddles to support the loads on their/ return. About the middle of the after-/noon the arreiros [sic; arrieros] got them in motion,/ though a first there were many stops,/ as some refractory one would balk/ and kick until all was blue about him./ One succeeded in breaking away en- /tirely and making his way back to the/ pampa; but they got the rest through/ the town and up the mountain side,/ where they passed the night, we fol-/lowing the next morning. Before it/ was fairly light, we were leaving the roughly paved streets and the beauty-/ful churches of Cajamarca behind, and/ were making our way up the steep/ and barren mountains that rise on the/ southwest. After two or three hours'/ ride, we came out upon an elevated/ and rough plateau, with here and there/ great masses of rock that had been/ worn by time into fanciful shapes of/ ruined castles and towers. We were/ now upon the dividing line between/ the Atlantic and the Pacific, the waters of/ Cojamara [sic; Cajamarca] running to the Maranon [sic; Marañón]/ and the Atlantic, and those of the/ deep valley of Magdalena that now/ showed far below, running west to/ the Pacific. As we began to descend,/ we took off the ponchos that were/ hardly sufficient to keep us warm on/ the mountains, and we soon found/ ourselves again in the torrid zone/ among orange trees and little patches/ of sugar cane./

The valley that is capable of irriga-tion and cul- tivation, is nearly a mile/ wide here; but the little grass thatch-ed village showed few signs of life, its only business appearing to be to sell/ a few fruits to the arreiros [sic; arrieros] who pass/ through, and as the fruits are out of/ season, business is dull. A Peruvian/ who accompanied us had a friend/ here, who gave us a plate of soup/ made of eggs and yuca, and this fur- nished our companion a subject of/ conversation all/ the rest of the day,/ he descanting on the good soup, and/ always finishing by saying that but for/ him we should have gone without it,/ Magdalena is to be the terminus of the/ railroad that is already building from/ the port of Pacasmayo, and the scream/ of the steam whistle may some day/ wake it up./

Passing on and crossing the stream/ – now a small creek, but at times a/ torrent that keeps travelers waiting on/ its banks – we passed up again out of/ the tropics into a temperate climate,./ where we passed the night at a tambo./ Another rough day's ride brought us/ to Contumaca, a town of several hun-/dred inhabitants, sur- rounded by wheat/ fields on the hill side, in which the/ harvesters were still at work. The/ cultivable ground in all this region is/ in very small quantity, and the ground/ now cultivated is often too rough to/ allow of anything but the rude imple-/ments the natives use./

Another day of climbing up and/ down moun-tains brought us to Cascas,/ where plantains again take the place/ of wheat. There is rain enough here/
at some times to make roofs necessary, though everything was so dried up at the time we passed that the poor beasts could get nothing to eat. We started from here at midnight, and succeeded in getting lost in an immense dry river bed, in which we wandered about among green clumps of organ cactus and a few thorny bushes until morning, when we found the road and kept on, passing out of the river bed at a few huts without roofs, a few branches serving to keep off the dew. The people cultivate some small patches of rice when the mountain rains fill the river so that they can irrigate.

The mountains here lose all signs of vegetation, even the dead grass and weeds that we had seen before, and look as if they had just risen from the bed of the ocean, and had not existed long enough to be provided with soil and plants. Leaving the river upon the left, we followed up a narrow ravine, passing a large flat rock that nearly closes the passage, upon which passers by have erected a large number of little crosses made by tying two pieces of weed together and supported by little heaps of pebbles at the base. This rock is said to have been a noted resort for highway robbers, and the crosses may have been erected from mixed motives of thankfulness for their own safety and as offerings for the rest of the souls of those murdered here. We followed this ravine until we came to the summit of the last low range of mountains, and looked down upon a great plain extending thirty or forty miles to the coast, and apparently as level as the sea itself, with here and there hills like islands running up from the common level. Green fields and belts of willows showed us that there was water and with it life.

An hour’s ride brought us to the first hacienda, which consists of several hundred acres fenced with mud walls, and being planted with sugar cane. A gang of Chinese were digging for the foundations of the sugar mill, and as they lifted their hoes and let them fall with their own weight, they seemed to be the very personification of despair. They have to serve eight years for their passage, and are considered and called slaves in the meanwhile, being bought and sold as it conduces to the interest of the owner. I saw several American plows and other implements, and farming seems to be carried on in a better manner than in the mountains.

A ride of an hour brought us to the town of Ascope, which, likely, contains a thousand people. It has grown rapidly since the large sugar estates have been opened about it. Its principal street has several fine stores, and the display of goods in the windows and the number of new buildings remind one of the new towns in the West. Ascope boasts of a hotel and a couple of eating houses managed by Chinese, and it seemed a luxury to be once more in a town where one could get something to eat and a bed, with being dependent upon the hospitality of strangers.

After a day’s stay here, I found arreiros[1] passing to the coast, and engaging beasts of them, and was soon upon the last stage of my journey. A few miles from Ascope is the estate of Tascala. It is devoted to sugar raising and we entered the large sugar mill and passed through the various departments. The machinery is from Philadelphia, and the whole establishment is likely very similar to many upon the Mississippi, though Chinese take the place of the Negros as laborers. Railroads reach to the cane fields, and horse cars were bringing in the cane, which was being thrown by three or four Chinese upon an endless belt that carried it under the crushers. The sugar made is an inferior quality of loaf sugar, which sells for about seven cents per pound by wholesale. The refuse is made into rum.

I here left Mr. Norton, who had treated me with the greatest kindness, doing all in his power to assist me in my calling.

Passing through fields of sugar cane and by large sugar mills, and then through barren plains, only waiting for water to make them as fertile as the other, we reached Paihan, a small town also built up by the surrounding estates, but much poorer than Ascope. The houses, like those of Ascope and all this country, have no roofs, the covering being flat and made of canes and mud, like the walls.

The next day we passed through remains of ancient towns, the mud walls still standing, and the old azequias showing that its ancient inhabitants had much more ground under cultivation than the present.

Upon the top of a hill near Paihan a mud pyramid still stands, nearly as perfect as when made. It appeared to be thirty or forty feet broad, and about the same in height.

The dust which never is laid by a shower was very deep, and the mule just in front of me was often invisible, and I was glad enough when I heard the roar of the breakers, and soon after saw across the plain the masts of a ship rising up, as if out of the sand. About noon, the ocean came in sight, and soon afterward we rode into the little town of Malabrigo[Puerto Chicama], built of rushes and covered with coffee sacking, and stringing along the beach just out of reach of the breakers.

After nearly two years of traveling, I had at length passed the South American continent at its
broad-est part. I was certainly glad enough/ to be through with it; but whatever/ of the poetic or heroic the occasion/ may have suggested, was extinguished/ by the sight of the great breakers, six/ or eight feet high, rolling in all along/ the shore. The one who named this/ the Pacific Ocean could not have re-/ceived his first impressions of it at/ this place. 

The town was full of mule trains,/ loading with boxes and bales from/ Lima for the towns of the mountains./ Several large heavy launches lay along/ the beach, which are used for the/ transportation of freight and passengers/ to and from the ships outside. A/ large number of bundles of rushes,/ would with cord and running to a/ point at one end, where they are also/ curved up like the bow of a boat, lay/ along the shore, and are used for fish-ing and for carry-ing the mail out to/ the steamers, when the sea is too high/ for the launches to go out. Those/ curious boats or floats are six to eight/ feet long. They are called coballitos [sic; caballitos], or little horses, and the fish-herman sits/ astride of it and uses a double-ended/ paddle or stick, with which he strikes/ the water, first on one side and then/ the other, to propel the boat and to/ keep it from upsetting. I saw them/ passing out and in through the heavy-/test breakers on these little bundles of/ rushes. 

I was one day in advance of the/ steamboat, and while wandering about/ the sand hills and along the beach,/ found several acres covered with hu-man bones that had been dug out in/ the search after valu-ables. Nearly/ all the skulls seem to have been flat-tened artificially from behind, throw-ing the brain out over the ears in/ curious bumps that would puzzle a/ phenologist to classify. Filling my/ haverstock with a couple of these, and/ an assortment of sea shells, etc., I/ went back to town, and by making/ common cause with a merchant from/ Chachapoyas, I got a shelter under/ which to sleep for the night. The/ next day, about noon, the steam-er/ came in sight, and the Indian boatmen// pulled one of the launches into the/ edge of the surf, with several large,/ fairly-formed Indians, who seem to/ make a business of carrying pas-sen-gers and freight through the surf, and/ are clothed in woolen shirts that reach/to the thigh, shouldered and carried/ us to the lauch, when the lauchmen,/ ten in number, began to pull at the/ oars. Several of the breakers, as they/ passed from under the boat, let it/ down upon the sand with a thump,/ and one of them came on board so as/ to wet us a little; but we soon made/ our way through them, and reached/ the side of the steamer. This was the/ Chili, one of the boats of the Pacific/ Steam Navigation Company. She was/ rolling and pitching, so that it was/ very dangerous getting on board, we/ being at one moment at her side, and/ then twenty feet away. 

We were three days in making our/ way to Callao, stopping at many little/ ports or places that are called such,/ though they are generally open to the/ sea, and with no wharves nor mole-s, so that it is neces-sary to receive and/ land everything by means of the/ launches. The Peruvian coast is a/ desert; plains, covered with shifting/ hills of sand, reach back to ranges of/ mountains a few miles in the interior,/ that are as bleak as they are, being/ guiltless of a bunch of grass or a tree./ It is only in the few places where/ streams come down from the mound-/tains further in the interior, where/ rain falls, that there is irrigation and/ cultivation. 

All along the coast are rocky islands/ that appear to be the tops of buried/ mountains. These are as bare of ver-/dure as the main land; but some of/ them have attained celebrity from the/ deposits of guano that are found upon/ them. The supply at the Chin-cha islands has run out, and the Peruvian govern-ment now sends vessels to the/ islands of Huanape [sic; Guañape] and Macabi [Macabi], which/ are to the north of Callao and oppo-site the city of Trujillio [sic; Trujillo]. 

The next morning after embarking/ I was awak-ened by a most curious/ pungent odor, and going on/ dock, we found we were anchored at the island/ of Huanape [sic; Guañape], among a fleet of between/ thirty and forty ships. The island is/ not more than three or four acres in/ extent, and the guano seems to be/ pretty near ground, a mound perhaps/ one hundred and fifty feet in thickness/ and an acre in extent still remaining./ Chinamen were at work with pick/ axes loosening this and wheeling it/ down to the mouths of shoots made of/ canvass. These reached down nearly a hundred feet to the water, and the/ sailors were busy loading launches at/ these and towing them to the ships’/ sides, where the guano was drawn on/ board in tubs and emptied in the hold./ A dust was rising continually from the/ guano while they were working it, and/ this seems to impregnate the air for/ quite a distance about the island. 

Callao is a hurrying, bustling town,/ filled with foreigners. It is the port/ of Lima and Peru, and about a hun-dred vessels of all nations are lying/ here. 

Lima is seven miles off toward the/ foot of the mountains, and a railroad/ with several trains each day runs up to it. 

J. B. STEERE

108 For a brief history of guano in Peru, see Teixeira (2002: 5-8).
109 Cf. fig. 1 (p. 6) of Teixeira, 2002.
CALLAO, PERU, September 20th, 1872.

Callao has about thirty thousand inhabitants and is the port of Lima and through it of Peru. It is a busy bustling town and the streets are full of Italians, French, English, and Americans.

The town is built partly on the site of the old city which was destroyed by an earthquake, or the sea wave caused by one, some hundred and thirty years ago. The debris of the old town is now being dug away and its level as shown by the old pavements was very near that of the mod-ern town, and the old story of the sink-ing of Callao, whose walls and church steeples could still be seen under the water of the bay is decidedly fishy. When Callao was rebuilt its inhabitants superstitiously abstained from building upon the site of the old town, and that part is still unoccupied or covered with the stone houses, factories, etc., of foreigners who do not have so many fears. The town is but a few feet above the level of the sea and the inhabitants still dread a re-petition [sic] of the disaster, and generally desert the town in a body when the sea is troubled during times of earthquakes, as it often is rising and falling mysteriously. At these times an image of Christ, that is kept at a little church built upon the spot where the great wave reached and stopped, is brought into requisition. The In-dians and negroes refusing to return to the town until the image is carried in solemn procession to the bay and its feet dipped in the water when they return to their houses in security. This image is called "El Señor del Mar – the Lord of the Sea."

Callao seems to be a noted place for fighting or at least for shooting as some of the houses still show the marks of grape shot fired from the Spanish fleet when it attacked this town in 1866, and many of the houses along the streets are scarred by the bullets of soldiers and citizens, fired during the recent revolution. The glass front and the cases inside the store of Messrs. Colville & Anderson, American booksellers, are shattered with bullets fired from the quartel, or head-quarters of police, opposite where one of the brothers of the late Dictator shut him-self in with his troops, and the door of the quartel, from the top hole in which the soldiers fired, is scarred and and [sic] torn with many balls fired by the citizens; some show pretty good marksmanship, but many are ten or twelve feet to one side.

The soldiers were armed with Win-chester's repeating rifles, and it is a wonder that there were not more hurt. The American and English Consulates were fired upon, and there seems to have been a reckless waste of ammuni-tion by both parties.

The harbor of Callao has a hun-dred and fifty or two hundred vessels of all nations lying at anchor. The most of them are in the guano trade, all vessels being required to come here for orders to load, after which they come here again for orders to sail.

There is lying here a curious old vessel that is said to have been one of Nelson's fleet at the battle of Tra-falgar. Near this are lying two Amer-ican-built monitors, sold by our goven-ment [sic] to the Peruvians at the close of the rebellion, and beside these an iron clad built by the Peruvians, that looks like a huge turtle. Several open bat-teries along the beach are said to have done good service against the Spanish, together with a couple of iron clad revolving towers, one at each side of the town. These each mount heavy Blakesly guns, and look as if they would be dangerous in good hands. The old Spanish fortress, an immense work and apparently of great strength, is no longer a part of the defences [sic] of the town, being used as a custom-house and filled with foreign goods.

Decks are now being constructed here, at which ships can lie to load and discharge, instead of using laun-ches as at present.

Twenty minutes ride in the cars through half cultivated fields of corn and potatoes, with mud walls and weedy ditches, and then, through lands still without irrigation and desert, – with still here and there immense mud-walls and mounds, the remains of old Inca cities, and we are in Lima.

The Peruvians delight in calling Lima the Paris of America, and in comparison with the cities of mud and cave [sic; cane] and palm-leaves of the interior, it is a paradise, but it would not stand comparison with any second-class city at home. The streets are narrow and dirty, and badly paved with small round stones that are worn into ruts by the heavy carts. The houses are generally of one story and hardly over more than two, and are not particu-larly remarkable for beauty, most of them being built of mud. The sub-urbs fade into narrow lanes heaped with filth, – and even the little stream that runs through the town is piled with filth, – waiting the good offices of the buzzards or a freshet. There are some fine old churches, and some beautiful plazas with fountains and flowers,
and these people will point out the mamp-posts to which the late Dictator and his brother were hung, and the church towers to which they were drawn up and then their bodies allowed to drop upon the stone pavement below, and then they will show you the spot in the plaza where the bodies were burned after being cut to pieces.

In Lima extremes meet, here are Indians from the interior dressed in coarse ponchos, and leather sandals, sauntering about with that dull stare with which the Indian invariably view modern improvement, and here are ladies, and gentlemen in the latest Paris fashions. The ladies of Lima are noted for their beauty and per-haps truthfully. They still wear the mantilla, a black scarf that serves for a bonnet and covers the face all but one eye and the point of the nose, or discloses more as the wearer may wish. There are enough foreign ladies with little hats and bonnets and the other paraphernalia [sic] that go to make up a fashionable head dress to lend variety to the scene. The Peruvian ladies paint or power or both to an immense extent, and this gives them all a curious and unnatural pink and white complexion that only allows one to guess at their original color. Here and there are priests in long black gowns and hats, and nuns, or sisters, of mercy, with great white bonnets that nearly cover them up. Ponchoed horsemen gallop through the streets and great two-wheeled carts drawn by three mules abreast transport heavy freight, while long lines of mules and donkeys with sacks of raw hide across their backs, carry bricks and dirt and often take posses-sion of the sidewalk.

Beggars with their doleful whine are at every corner and in strings along the church walls, begging you in the name of God and the Holy Virgin and all the saints, to give; showing disgusting rags or sightless eyes, or some other of the numerous ills, flesh is heir to.

Upon the church walls or in some other conspicuous place are announce-ments printed and painted upon can-vass, of bull flights, for the relief of some charitable institution or in honor of some prominent man, a picture of a bull tossing the torero sword and all into the air, lending interest to the announcement, and a boy with a similar advertisement of a cock-flight, parades the streets.

High above the noise of business you hear the cry “diez mil soles pot/manana [sic; diez mil soles para mañana],” ten thousand dollars for to-morrow, as the seller of lottery tickets passes, with his roll of tickets and his book in which to record your name and residence, in case you draw the lucky number. He finds many customers, black and white and In-

dian, and all subscribe to his loan, no matter whether the number of tickets sold amounts to three times the prizes, or no, rich and poor foreigner and native all take a chance. There must be several hundred itinerant ticket peddlers in Lima alone, but they do not monopolize the business. The streets are full of cake sellers with trays upon their heads, and bread merchants perched upon the hips of their donkeys, all the rest of their backs being occupied by the great raw hide panniers that hold the bread. Milk women come in from the country perched astride among their milk-cans that are hung to the saddle. Water-carriers use the same method and no one will go on foot here if they can help it.

Lima is more really Peru than Paris; it is the political, comer-cial and social center. From it go the monthly supplies of money that keep the interior in existence, and to it come the merchants from all points of the country to buy their supplies. Politicians come here for appoint-ments as prefects or to other money making offices in the interior.

Lima has two short railroads completed, one from Lima to Callao the other from Lima to Chonillos [sic; Chorrillos]. These roads are both less than ten miles in length, two more are in process of construction, while several other roads are being built from the coast at various points into the interior. Mr. Henry Meiggs, a Californian, seems to have monopolized this business.

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110 Henry Meiggs was born in Catskill, New York, on July 7, 1811. He came to New York City in 1835 and began a lumber business, but was ruined by the Panic of 1837. He restored his business, this time in Brooklyn, but again met with failure. Finding success in sending lumber to the Pacific Coast, he finally relocated to San Francisco after the discovery of gold by taking a cargo of lumber wood there in the Albany, a cargo which he sold for twenty times its cost. When Meiggs arrived in San Francisco in 1849, he, like many others, got into real estate speculations. In Meiggs’ case, he promoted the possibility of piers along the north shore area, on the ground that it was closer to the Golden Gate than the usual harbor, located just south of what is today downtown San Francisco. Today, the site of Meiggs’ Wharf, in its day a marvel extending two thousand feet into the Bay, is occupied by part of Fisherman’s Wharf, Pier 30 and Pier 45. To that end, he built warehouses, streets and piers in the area. He constructed sawmills and schooners. Meiggs became extended financially in trying to do this. In order to make ends meet, he illicitly obtained a book full of warrants on the Street Fund (which had little money in it), which the city’s controller and mayor had fallen in the habit of signing by the book in advance. Meiggs forged the remaining information and raised money. He left San Francisco before the fraud was discovered, on October 6, 1854, in the brig Americar, heading for South America. According to his own statement, he landed with only $8,000 (his fraud raised, by some accounts, half a million), lost it immediately, and had to pawn his watch. Meiggs became a successful railroad builder, building the first
The weather here is remarkably cool and much of the time an overcoat would be comfortable. There is a good deal of fog and dampness, and the water of the sea is now too cold to bathe in. This coolness of the climate seems to be caused by the cold current in the ocean, that sets this way from Cape Horn and the South Pole. It is now winter here. The cool months here corresponding to the warm ones at one, this being south of the equator.

J. B. STEERE

Letter LVII
[Peninsular Courier and Family Visitant, 11(51), December 20, 1872]

FOREIGN CORRESPONDENCE

Number LVII

CALLAO, PERU, October 1st, 1872.

All the nations of the earth have had their world’s fair and monster exhibitions, and Peru, following the example of the rest, has just been holding hers\textsuperscript{111}. Other nations have generally interested themselves in the management and arrangement of her exhibitions, but the Peruvian government knowing but little about such matters, has followed the plan of the shoddy constructor who, being informed by his daughter’s teachers that she lacked capacity, told them to buy her some, he would foot the bill; and so, for a million of dollars, Peru has purchased her exhibition, and the result is better than could have been expected./

A walk of twenty minutes from the depot of the Lima & Callao Railroad, though narrow, dirty streets, brings us to the suburbs of the city, and passing the penitentiary – a well constructed brick building – we come to the entrance of the exhibition grounds. A sol – about a dollar of our money – pays for entrance, and passing through a narrow gate, we find ourselves in an enclosure of forty or fifty acres, perfectly covered with beds of flowers intersected with ditches for irrigation, and with drives and walks. Near the center stands a large beautiful building, and scattered about are others, smaller, one occupied by an American as a refreshment hall. We turn to the left and enter a long, low shed, where the agricultural implements are on exhibition. These are mostly English, our manufacturers not seeming to care to extend their business in this country, a few American plows, cotton gins, etc., forming the exception, and these being far from excel lent of their kind. Perhaps the English also, send their poorer implements abroad for exhibition; if so, they must have a poor lot at home. Two or three threshing machines without separators, and about the size of a fanning mill, would have looked small beside a Tornado thresher, or say other patent; but for the lack of better they were marked with the card “Premiado,” – awarded the premium. A little steam engine, built by the boys by the Chilian school of arts, attracted considerable attention. There was no show of corn plows or cultivators, though these would be of the greatest use in this country; neither were there scythes and grain cradles, though a horse mower, apparently an English counterfeit of an American patent, would lead those interested to suppose there was no step between it and the sickle, the implement still in general use in this country. An English steam plow was also on exhibition, and independence. The planification of the Parque was in charge of Manuel Atanasio Fuentes and the Italian architect Antonio Leonardi, who was also responsible for the construction of the Palace, of neo-renaissance design. The completion of the works lasted two years (1870-1871). In July 1872 both the park and the palace were inaugurated, with the above mentioned exposition. Nowadays the Palace is the Lima Art Museum.
I hear that several of them are in use here, though I have yet to see a decent furrow in Peru, trenched by any plow. The rude wooden plows are still used in one field, and the steam plow in the next. Several turnip and potato cutters, bean shellers, etc., finished the collection.

Passing out and through plots of flowers, rather lacking in variety, but making up in quantity, we came to cages of birds and animals, scattered here and there among the flowers and trees. The first were hawks and eagles, and then we came to a cage with three great condors; one a large male, with the back and upper part of the wings white, and with a fleshy crest, was using the might that certainly makes right among the lower animals, and was beating a smaller male with his wings so that the poor fellow had to take refuge in a little den under the rock upon which they were perched.

Then there was a cage of Brazilian turkeys, and others of bright-colored pheasants, and then a couple of foxes of the country, much like the gray fox of the North by smaller. Then there were some deer, and an enclosure with a miniature mountain of rocks, and three or four llamas and huanacos, long-necked, shapen creatures of a dirty yellow color.

Then there were other cages of birds, and an attempt at a poultry show, which consisted of a bantam rooster, six or eight young fowls, and a couple of dejected looking brahmas, and nothing more that I remember.

There was a pen of sheep and goats, among them a few good coarse-wooled English sheep, and near these a cage of Andean black bears, too small to be terrible, and hence ridiculous from their ungainly motions as they limbed about their cage, and pout their noses against the bars to beg for something to eat.

A cage of English rabbits stood near another of guinea pigs that are of much more value in this country, increasing rapidly and soon coming to maturity, and adding many a good dish to the Peruvian's none-too-plentyful table.

We passed a couple of horrid African hyenas, and beyond were two cages, each with a pair of the tragi-tional, mangy, skinny lions of all ex-hibitions, always interesting from their great size and reputed courage, but likely poor representations of those in their native deserts.

Then there were tigers, and a little elephant penned up with a camel that was continually harassing his bulkier companion. Beyond these there was a row of cages of dogs of all degrees mastiffs, bulldogs, Newfoundlands, terriers and poodles, sprang to the bars as we passed, each asking in his own way to be let out of that miser-able place the bull-dog with a howl that threatened us in case we did not, and the poodle with a melancholy whine that begged for his mistress's arms, instead of that great den large enough for the elephant.

Beyond these were half a dozen Durham and Devon cattle, and as many hump-backed cattle from Asia, with a few horses, and then some cages of beautiful cockatoos and parrots, and paroquets from Australia finished this heterogeneous show of animals.

We now passed across the intervening field of flowers, and entered the central building. There is first a hall with broad stairways leading up to the second floor; but we pass on through another door, and enter the main room and find ourselves among saddles, bridles, cutlery, bolts, nails, perfumery, and many other things — all mixed together. A smaller room beyond has been fitted up by one of the upholsterers of the city as a parlor, with a splendid carpet and fine furniture. Here and there among the articles, as if dropped by accident, are the cards with the word “Premiado” Then we go up the stairs through a real gallery of paintings. Here are works of Peruvian artists, and copies of works of the old masters, and here are works of the old masters themselves owned by some of the old rich families of Lima and lent for exhibition. Among the pictures, the blue cards of estimation are also seen; but as we reach the upper floor, and turn to enter the main room, we find our selves among great shelves covered with hundreds upon hundreds of different qualities of wines, brandies, gins, whiskies, beers, ales, and if there is any other species of strong drink, of that also, each with its appropriate bright-colored labels, and as showing the all-embracing taste of the Peruvian and the zealous labor of the tasing committee, almost every different brand and mark bore the magic word “Premiado”, and the shelves looked as if they had gone through a smart shower of blue tickets.

We pass on, into a collection of preserved meats and pickles, and then we are among shelves and cases of dry goods, when a guard comes to tell us that it is time to close the doors, and we pass out through the blue tickets, and give a farewell look at the paintings, and we have seen the Peruvian World’s Fair.

I do not remember of seeing a single thing of Peruvian manufacture in the place, not even a wooden comb from Cojamarca [sic; Cajamarca], nor a hat from Moyobamba [sic; Tarapoto], nor a bale of cotton from Tárapo- ta [sic; Tarapoto]. There is said to be a good collection of ancient Peruvian pottery, but we overlooked it.
The exhibition should certainly be useful to the people of Lima, if for no other reason, by its giving them a means of useful and innocent enjoyment. It will likely be a profitable investment for exhibitors as an advertisement of their merchandise, and perhaps the man who got up the exhibition to order may make some money.

Since I have been here I have made several short trips to places near by. The first was to Ancon [Ancón], a village perhaps twenty miles to the north of Lima on the coast. There is a railroad to it, and taking the train at nine o’clock at Lima, we arrived there only half-past ten. The road runs at first through a valley, but little of it yet under cultivation, much being covered with marsh that has grown up to reeds and rushes. Then we came to a cutting and crossing a high bridge of pine timber that swayed and croaked under the train, we came into the plain of Ancon [Ancón], that was covered with sand hills, drifting here and there. The road is rough, and one is often nearly thrown from his seat by the jolts. Ancon stands on the sea shore in the midst of the sand. It is used as a bathing place, and the number of snug little houses, brought, as it is said, ready made from the United States, shows that during the bathing season the population must be considerable. The streets are now deserted, except by a few Italian fishermen, whose boats lie along the sand.

The landlord of the little hotel where we stopped took us back into a little yard, where he had a wind mill at work raising water from a well, which was used to irrigate a little garden of shrubs and flowers he had planted in the sand. They were growing luxuriantly, and all of these sand plains seem to be rich enough when irrigated. The water found here is too brackish to drink, and that must be brought from Lima to supply the village.

After dinner we set out across the hills to the huacas, or ancient burial grounds, passing on the way what appears to be the site of quite a town, there being dozens of large flat stones of porphyry that has been worn into hollows, and polished smooth by use in crushing the corn of the ancient inhabitants. Several walls or cellars still appeared, that had been walled up with adobes or with stone. From one of these a large quantity of cotton in the seed had been taken, and now lay about over the sand. In the valley beyond we began to come to graves, and soon for many acres the ground presented a most horrible sight.

Around the pits that nearly covered the ground were large quantities of cloth, the wrappings of the dead, and among them were arms and legs, and almost entire bodies with the flesh shriveled, and dried to the bones, and the limbs twisted and distorted in every shape; heads, still covered with hair, and still so natural as to make one shudder, lay all about us, grinning from the little hillocks where they had been placed by the ressurrectionists, or kicked about among the other parts of bodies below. The air was full of a strange, sickening smell from these centuries-buried bodies, that had been so carefully wrapped up and buried by friends and relatives, now uncovered and kicked about as if they had been dogs. I found myself wishing to die in some other land than this, where my body would sooner go to decay and ran no risk of being dug up by the barbarians that another thousand year may bring, for the ring that might be found on a finger, or the buttons from the clothes.

The digging “huacas,” as it is called, well agrees with the temper of this people, when they can get over their superstitions. They will work twice as long and as hard, in the hope of finding some objects of gold or silver that would buy the thing after it is found. It is of a piece with their buying lottery tickets. They prefer the hope of uncertain gain to the certainty of moderate reward for their labors.

The graves are often ten or twelve feet in depth, and are either round or square, and were covered with a large mat of rushes upon canes, to keep the sand from caving in. Generally a number of bodies are found together in a sitting posture, with boxes of cane and jars to hold the chicha and corn, and other necessaries for the journey to the other world. Each grave, likely, holds a family, and it was probably opened at the death of each member, and then the severing carefully put back again. The bodies were wrapped in many folds of cloth, some of it off considerable fineness, with embroidery, etc., of the wool of the vicuna and other animals of that family. The faces of the dead appear to have generally been painted with red paint and then covered carefully with cotton. I saw the dried bodies of several animals – apparently of the family of dogs; and these had been as carefully wrapped and buried as the human bodies. They had been tried friends, and at death were buried with their masters. I also found the body of a llama.

Pieces of fishing nets, slings for throwing stones, and spindles for spinning, were lying about, and in one place I found all the implements for weaving, and a girdle in process of making. It had probably belonged to a little girl who had died before its completion, and her work had been buried with her to be completed in another world.
It seems as if the Peruvian government should but [sic; put] a stop to this wholesale violation of graves, or at least should compel the husca [sic; huaca] diggers to bury the bodies again, as this treatment of the human body can not help hardening the hearts of those engaged, and making them more careless of human life. The Peruvians prefer to trace their descent from the Incas rather than from the Spaniards, and it looks rather out of character for them to allow the bones and bodies of their ancestors to be kicked about over all the sand hills of the coast.

Upon my return to Callao I found a sail-boat going over to the little island of San Lorenzo, that by its shelter forms the bay of Callao. It is from three to five miles distant, and appears to be nearly two thousand feet in height. It is only used as a stone quarry; but I had heard that the original wild potato was found upon it, and set out to find it. The island appears to be perfectly barren; but passing up a valley between two of the mountains, and then climbing up the side of the western one, after half an hour's work, I found myself near the top and in a little valley, where the fog settled in quantities sufficient to support several species of plants that were now in blossom, and among these the potato. There was no doubt of it; the little plant, with stalks often but five or six inches long, was a potato; but whether the progenitor of the one that now forms such an important article of food, must be ascertained by experiment. It is growing in a soil that is not more than an inch and a half in depth; and it multiplies aparently from the seed only. But one eye sends up stalks, and the others produce genuine roots. It appears to go on growing large for several years, the stalls dying in the season when there is no fog, and growing again when the damp weather commences. Some of the potatoes were as large as walnuts. Though they are not troubled with Colorado bugs, they seem to have some enemies even here, for many of the tubers were filled with holes made by some burrowing insect. They are said to be bitter when cooked, but to become good after two or three years' cultivation. There are two or three distinct species of potatoes cultivated in this country, though we have but one in the States. They had likely been cultivated and improved by the Incas and other Indians, many years before the whites discovered the country.

On the way down I saw many pieces of round shells, now nearly rusted away, and below a modern conical shell that had failed to explode. Below near the sea was a burial ground that had formerly been used for interring foreigners and seamen. It was now part of it buried forty feet deep by one of those curious, moving sand hills. Here were head-boards lettered in all civilized languages, among them one of pine that bore the year 1840, and was placed above the body of a ship boy from an English ship-of-war. It bore some stanza apparently original, and by the chaplain of the ship. The board was still sound and bright but had been used as a target for musket firing.

J. B. STEERE.

Letter LVIII
[Peninsular Courier and Family Visitant, 11(52), December 27, 1872]

FOREIGN CORRESPONDENCE

Number LVIII

CALLAO, PERU, November 1st, 1872.

After providing myself with letters to some of the Americans living at Pacasmayo, I set out, on the first of October, on the little steamer Taloa, for that port, with the intention of making a collection of the curious pottery that is dug from the ancient graves along the coast. There were several ship captains on board, who were going from Callao down to the guano islands of Macabi and Guanape, where their vessels were loading, and as I was considerably interested in guano and its method of shipment, I accepted the invitation of Captain Lazard, of the English ship Mogul, to pass a few days with him while examining the islands. Upon our arrival at Macabi, the steamer laid up to one of the ships at anchor, and I was soon domiciled on board the Mogul. Upon stepping into her cabin, the smell of ammonia was so strong as to make me catch breath, and for several hours after my eyes felt as if over the fumes of a smelling bottle. The smell of guano is not that of pure ammonia exactly, but it is not very disagreeable, and one soon becomes accustomed to it, and those who have been upon the island for many months are healthy.

When we arrived, the sea was quite rough, and the spray was dashing almost over the island, and most of the ships had called off their men and quit work. Within little more than stone's-throw were fifteen large ships, only the largest being profitable in the guano trade. These were mostly Eng./lish, but there were four Americans, a Swede and a Frenchman.

The next morning we took the ship's boat and went on shore. The island is perpendicular from the
water to a/ height of thirty or forty feet, on nearly/ all sides, and the only way to land/ was a stair case sus-
pended from above/ and fastened to the rocks, while below/ this hung a ladder and ropes. The/ surf was rolling in heavily and cover-ed/ the ladder every few moments,/ and the whole affair looked rather/ serious for a landsman; but the boat/ was backed in under the ladder, and/ while the men held to the oars to keep/ from being dashed against the rocks,/ we waited a favorable chance, and/ caught upon the ladder and climbed/ up, one captain getting drenched by/ a wave that covered the ladder before/ he could climb up./

We now found ourselves in a little/ village of board huts, of the Chinese/ laborers, there being two or three of a/ little more finish where the man-
gers/ lived. The part of the island upon/ which we landed had already been/ cleared of guano, there only remain-ing/ a heap of inferior quality, with/ piles of many hundreds of mummified/ seals and birds that had been sorted/ from the guano shipped. There was/ also a great heap of what appeared to/ be canvass, coarse, heavy cotton cloth/ that was also said to have been found/ below the guano./

The island appears to have been/ inhabited by some ancient race; per-haps hunters or birds, eggs and seals./ Below eighty or a hundred feet of/ guano a hut was found still standing,/ and with it many human bodies, and/ several of those curious dishes found/ in the graves upon the main land./ There were also found several canes,/ or staffs of office, cur-i-ously curved. I/ saw one of the posts of the hut that/ now served as a support/ to a little/ grog shop. It was carved with sev-er-al rude human faces. The shanties/ of the Chinese were dirty and not fit/ for decent dogs, while the outside of/ everything was covered with the red-dish-brown color./ The Guano was perched along/ the base of this hill of guano, loos-ing/ it up with long-handled pickaxes, and/ throwing it down to those with wheel-barrows below, while and old negro/ overseer sat on a lump of guano and/ watched them. The air was filled/ with the peculiar odor of ammonia,/ and climbing up to the perch of the/ Chinaman who was picking up the/ fresh guano, it was so strong as to/ start the dears./

The guano at any considerable depth/ is of a dark blue color and almost as/ tenacious as clay; but upon exposure/ to the air it soon turns to the com-
mon/ reddish-brown color and crumbles to/ dust. At a depth of a hundred and/ fifty feet from the top I/ saw them dig-ing out mummified seals, and birds/ and bird eggs; nothing seems to have/ decayed. When these are found in/ too great quantity, they injure the/ quality of the guano and must be/ picked out. They seem to be little/ but leathery skins, enclosing the bones,/ and all crushed flat by the weight/ above them. The Chinamen slowly/ worked away, with their look of/ mingled indifference and despair. I/ was told by one of the managers that/ there were over twenty murderers/ about us. An Indian or a white man/ of this country may get punished if/ he commits a crime, that is, if he has/ no money to bribe the judges and no/ influential friends to help him; but a/ Chinaman is worth too much to be/ hung, or to waste his time in prison;/ so the Chinese murderer is sold to the/ guano islands, and there serves the/ balance of his time, and if/ he has murder-led a Chinaman, the unexpired term/ of service of his victim also. The/ Peruvian farmer pays four hundred/ dollars apiece for the Chinamen as/ they arrive, and is entitled to eight/ years' work,
and this is too much to lose for a mere question of crime.

Here we are at the shots. These are long canvas bags, reaching nearly a hundred feet to the water below, and there are the launches from the different ships waiting their turn to load. One has just loaded and is pulling away to the ship, while the manager above puts up a large figure, indicating the launch that will be al-lowed to load next, and this is pulled under the shoot, which is within thirty feet of the rocks over which the waves are breaking. The sailors catch at the chains hanging from the shoot and fasten them to the launch, and then, perching themselves in the ends of the boat, a signal is given, and the Chinamen, one after another, empty their loads above, and they come rattling down into the launch which is thrown by the waves almost on end. The sailors are enveloped by a cloud of guano dust, and then a wave breaks over them and wets it down. A few minutes, and the launch is loaded, the wheelbarrows stop, the chains are unhooked, and the men in the launch and those in the small boat, sent with a line to assist them, pull away; but it is some moments before we can tell whether it will go forward the ship or upon the rock, but finally it moves off, and another comes in to go over the same thing. While I was there, one launch, spite of the exertions of the men, was carried in against the rocks and stove to pieces, as it was filling with water, and the men already up to their waists, the small boat picked them off, one poor fellow, who could not swim, crying. As the launch went to pieces, the sea for a considerable distance round was colored a dark yellow with the guano from it, and a number of seals rose to the top, and the waves were rushing into this and striking with a noise like thunder, and then a great cloud of foam and spray would come puffing out, and dampened us a hundred feet above. We had now passed around the island and seen it above ground, leaving the rest for another day.

The next day, providing myself with a gun, I set out with Mr. Stapley, a young German engaged in the business of the loading company, to visit the caves under the island. I had procured permission of the Peru-vian governor of the island to kill one seal, as they were said to be plentiful under the island. We descended a stairway, and found ourselves in a large cave open to the sea, that is used for a shop in which to repair the launches used in transporting guano. From this we entered a low, dark, muddy passage, and after groping along it for a few rods, came out to the sea again in another large cave, into which the sea reached so as to give us little standing room. The roof of this cave was supported by several pillars, the bases of which were washed by the sea, and in ledges upon these pillars many sea birds were nesting, in the perpetual twilight. A lucky shot killed two of these, and the waves brought them almost to our feet. Another dark passage, and we came out into another cave, just in time to see a couple of seals
waddle/ into the water, but too late to shoot at/ them. A large heap of seal dung,/ with the fresh marks of their flippers/ still upon it, showed to my satisfaction/ the true origin of the vast deposits of/ guano upon this tract. Birds may,/ and undoubtedly have, assisted to/ some extent; but in comparison to the/ whole, but an insignificant fraction/ can be placed to their credit. The/ guano has been deposited so rapidly/ by the immense number of these large/ animals, that it has not had time to/ oxidize until buried below the reach/ of the atmosphere, and with rains to/ dissolve it, it has gone on increasing/ to the present amount./

There are some reasons for thinking/ that there has been a change in the/ level of the land since the principal/ deposits have been made, since the/ islands are now almost perpendicular/ and inaccessible to a height of thirty/ or forty feet, while the level, washed/ plains and sea shells, that are found/ many miles in the interior, show that/ at no very ancient date, geologically/ speaking, the land was much lower./ A difference of thirty or forty feet/ would make the Macabi/ [Macabí] and Guanape [Guañape]/ islands low and sloping from the sea/ up. In the different conditions of the/ sea at such a time, there may have/ been much more of the fish upon/ which the seals feed./

At whatever time formed the origin/ of the gua- /no deposits, must be plain/ to any one who examines the subject./ There is now supposed to be three/ quarters of a million tons of guano on/ the Macabí [Macabí] island, and half a million/ tons on the Guanapes [sic; Guañape]. The supply/ at Chinchas islands, the first beds/ worked, is exhausted. There are still/ supplies at the Lobos islands, still/ farther north, but their amount seems/ to be unknown, and there are some/ smaller deposits./

I found at the Macabi [Macabí] islands an/ American doctor from Texas. He of/ course had been a secessionist, but,/ what was worse, he is one still. It is/ certainly a gloomy life to lead, thus/ wandering over the earth, as some of/ these men are still doing, with no/ country they can call their own. The/ doctor, spite of his proclivities, seemed/ glad to see me, and came on board/ the “Mogul” to visit me several/ times, and did all in his power to assist/ me. He has built himself a little room/ upon one of the launches, and has/ christened it “Uncle Tom’s Cabin.”/ During the rough weather while I was/ there, it was pitching about enough/ to upset even a sea-going stomach;/ but the doctor seemed to thrive under/ it, though he must have had to tie/ himself into his bunk when he wished/ to sleep./

I had now seen all there was of/ Macabi [Macabí] Islands, and whiled away the/ remaining days, until the coming of/ the steamer, in shooting the sea/ birds/ that were flying about the ship. The/ steamer Bogota came along about/ noon, and after an hour’s/ run we came/ to anchor off Malabrigo, my first port/ on the Pacific, and here we waited/ two hours for launches, and for an in-/terchange of visits between/ our cap-/tain and that of the other steamer on/ her way back to Callao./

When we steamed on again toward/ Pacasmayo, and it became evident/ that we should not get there in time/ to land by daylight, the faces of the/ passengers for that port began to/ lengthen as they told of the heavy/ surf we would have to encounter in/ land- ing. We finally came to anchor/ just at dusk, about a mile off shore at/ Pacasmayo, and we could plainly/ see/ the long, white breakers rolling in/ between us and shore. There was but/ one launch, and this came along the/ bows of the steamer and made fast,/ and seemed likely to be filled up with/ steerage passengers and Chinese; but/ we carried or baggage forward, and/ getting it lowered by a windlass, and/ choosing each a lucky movement when/ the launch was alongside,/ we jumped/ in, the rope was cast off, and the men/ set at the oars, it now being too dark/ to see the shore. As we drew near/ the line of breakers that we could see/ rising up between us and the twinkling/ lights on shore, more than one of us/ thought of the fate of a boat-load of/ passengers at Eten, a port a few/ miles/ below, only a month before./

The guiding oar broke, and the/ oarsmen, who are all Indians, became/ frightened, jumped into the sea, and/ made their way to land, leaving the/ passengers to their fate. The boat/ turned side-wise to the waves and was/ swamped, eleven passengers – men,/ women and children – being drowned,/ only two escaping, and they with the/ greatest difficulty./

As we neared the line, the steers-/man began encouraging the men by/ shouting, “a dientro valien- teres,” “in-/to it, my hearty,” – and then a great,/ white capped wave passed under us,/ and dropped us nearly upon end, and/ then another that broke over us/ enough/ to wet us a little; and we had passed/ through the heaviest and were soon/ striking upon the sand/ bottom. A/ rope was now carried on shore, and/ several of the long-shirted waders,/ with pads of sheepskin upon their/ shoulders, were soon alongside to/ carry us to land. A couple of boys/ carried my baggage and conducted/ me to a hotel, at least that was what/ it was called. It was kept by a Swede/ and his wife, and they spoke a mix-/ture of all the languages known. I/ soon got to bed and tried to sleep,/ but the fleas were swarming in such/ quantities that this was rather a/ seri-/ous matter; but I finally fell asleep./ listening to
the drunken talk in the bar rooms, only separated by a canvass partition. I was soon rescued by Messrs. Backus and Maynadier from this place, and went to work collecting the “huacos,” or ancient Peruvian pottery I was in search of.

I found that hiring men and digging them from the graves was too slow and uncertain a business; but as there were many scattered about among the people of the town, I bought these up, getting in all nearly a hundred and forty different dishes. Among this collection, bought at ran-dom at Pacasmayo and the town of Chepen and San Jose, there were hardly two alike. They are made to represent fruits, roots, birds, serpents, turtles, fish and monkeys, while the human form is tortured into all sorts of shapes to give variety to them. Quite a common form is a double jar with a connection between the two; upon one there is a human figure, or a bird, and upon the other a mouth into which water is poured which drives the air out at the whistle which is placed inside the figure upon the other. The noise thus produced in some cases imitates the cry of the animal represented.

The material of which most of these are made is black, and some of them are well polished. The art of making this black pottery is not now known among the Indians of the coast. There are many coarse, yellow and red cups and plates and pots that served for everyday use for cooking, etc., and many of these are still marked with fire. It seems probable, from examining a collection of these dishes, that they are of several different ages, and perhaps there are remains here much older than the time of the Incas, as bodies and pottery once buried in this soil and climate preserve for an indefinite period with little change. The careful study of some person may bring to light more of the history of ancient Peru than we yet dream of.

I made several trips along the railroad already running, after birds and “huacos,” and finally went with Mr. Maynadier, the Superintendent of the line, to Pai Pai, the present terminus, about thirty miles up the valley to Ward Cojamarca [sic; Cajamarca]. The company who are all Americans, as well as most of their engineers, paymasters, etc., are building the road rapidly, and intend to reach Magdalena, with all the huacos I could buy, and all that my new made friends had to give, to the town of Pai Pai. A little beyond, track laying was going on, this heavy work being mostly done by “Chilenos,” [sic] inhabitants of Chili. Work is the great desideratum here. Eng-lrish and Americans wish to do the over-seeing and the bossing, and there are plenty of them; but the lack is in somebody to be bossed. Irishmen would be a godsend, if rum was not so cheap; as it is, they would be drunk all the time, and break each other’s heads and those of all the Chinamen and Chil-enos [sic].

The river valley be-comes narrower near Pai Pai, and the road goes winding about through cuttings in the rock. We took horses and rode up the line about twenty miles farther, most of the way being over a torrid plain, already for the track.

At Galliaretas [?] we examined some curiously marked rocks. The valley here is nearly cut across by a spur of the mountain that runs down nearly to the river, the other bank of which is a precipice, forming part of the mountain side. Some ancient military engineer seeing the value of this point in a strategical view, built a large stone wall from the spur to the river, thus completely cutting off the valley. The remains of this wall still exist, and a great ridge of stone. The rocks that form this spur are completely covered with inscriptions, or rather engravings. They are figures of men, and of tigers and birds, and among the rest curious figures that seem to represent scepters of staffs of office, with a bird or animal perched upon top. The curious fortification lines that so often form the ornament upon the earthen ware, is also seen fre-quently. Some of these engravings appear to be very old, and others fresher, are cut over them. In one of the rocks are three holes, a foot and a half in depth and six inches in diam-eter at the top. Those are polished and worn by use, and some claim they were used for pounding quartz to separate it from the gold, though there are no mines now known here. The stone upon which these engraving-ings are made is a hard quartzite, and the marks seem to have been made by a sharp-pointed instrument, in some cases the figures being only marked in outline, in others with much more pains.

After a very pleasant stay of three weeks, and with all the huacos I could buy, and all that my new friends had to give, I went on board the steamer Peruano, and after four days uncomfortably spent in steaming along this naked coast of bare mountains and drifting sand hills and rough surf, and in lying about the cases imitates the cry of the animal represented.

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at anchor waiting for the/ little freight that came on
board from/ the dozen little ports, we finally ar-/rived
here, two days ago, all safe./

J. B. STEERE

Letter LIx

[Peninsular Courier and Family Visitant, 12(8),
February 21, 1873]

FOREIGN CORRESPONDENCE

Number LIx

TUMBES, PERU, December 10th, 1872.

On the fifteenth of November I set/ out from
Callao on another trip to the/ North, intending to
go to Equador [sic]/ before my return. When we ar-
rived/ at Casma, several of us went on shore/ to pass
the time while the steamer was/ unloading freight.
The harbor is ex-ceptionally good for the Peruvian/
coast, an island breaking the heavy/ seas that come
from the west. There/ is a railroad being built from
here into/ the interior by Mr. Meiggs, and we/ found
a clean little village of wooden/ houses, built and fur-
nished in Ameri-/can style, and the American flag,/floating from a little flagstaff, would/ have made us
think ourselves in Yan-/kee land but for the bleak hills
and/ barren sand plains about us. The/ company have
not yet laid any track,/ but have a number of miles
graded/ and ready. The Peruvian government/ seems
to be building little railroads at/ random, all along the
coast, without/ any settled plan for connecting the/
cities and towns of the coast with each/ other, or of
connecting the coast with/ the interior, but this may
be accounted/ for likely from the peculiar formation/
of the coast country, which is made/ up of narrow
valleys made culticable/ by irrigation, and of bare,
rocky hills/ and mountains that separate one valley/
from another. From Casma we could/ look back upon
range after range of/ these mountains, the tops of sev-
eral/ being covered with snow./

The valley of Casma is now barren,/ but an im-
mense azequia [sic; acequia] that used to/ tap the river
of Santos, and bring part/ of the waters to fertilize this
valley,/ with many old walls and mounds and/ burial
grounds112, show that at some day/ this was a great
center of life and in-/dustry. Mr. Meiggs has bought
a/ large tract of land here, and has en-/gineers examin-
ing the old Indian wa-/ter course, with the intention
of re-/pairing it, so as to again irrigate the/ valley./

Trujillo is one of the oldest cities in/ Peru113, and
I determined to visit it and/ the remains of the old In-
dian city near/ it, though the roughness of the sea at/
Huanchaco, its port, is famed and/ dreaded all along
the coast, hardly a/ year passing that passengers are
not/ downed in landing from the steam-/ers. When
we arrived off the port./ the surf was breaking almost
out to/ the anchoring ground; but after a/ couple of
hours's waiting, a launch was/ seen making its way out
to us, and/ getting ourselves and our baggage/ into it
as well as possible, we turned/ toward the shore. We
were soon/ among the breakers, and I could tell/ by
the white and trembling lips of the/ passengers and
their hasty prayers, that we were in the most danger-
ous/ part. A wave came over us, pretty/ thoroughly
drenching us, and half/ drowning a few women and
children/ who were crouched under the thwarts;/ but after we got to land all safe,/ and found ourselves
in the little town/ of Huanchaco. It has perhaps six/
hundred inhabitants, crooked streets paved with/
rough stones. There is no cultivable/ land near, and
the people live by fish-/ing and by landing passengers
and/ freight from the steamers./

A number of the rush floats, or ca-/ballitos, upon
which they pass through/ the breakers, lay along the
shore, and/ haf a-dozen naked little Indian boys/ were
flundering in the wash of the/ surf, trying to keep
their balance up-/on miniature caballitos, and thus
un-/consciously learning the business of/ their fathers.
A rough cross between/ a cart and a hack, drawn by
two gaunt/ horses, was ready to take passengers/ to
Trujillo, and four of ur crowding/ into the narrow
box, we were soon on/ our way. For several miles we
passed/ over a level but barren plain, and then/ we en-
tered among old walls, built of/ sun-dried brick. Some
of the walls/ are eight or ten feet in thickness, and/
twelve or fifteen in height, and there/ are several large
mounds from sixty/ to eighty feet in height./

This is said to be the remains of a/ city called
Chimu [sic]114, governed by a king/ of the same name,
who was conquered/ by the Incas. The ruins extend
to the/ sea coast on one side, and to the foot/ of the
mountains on the other, and I/ should think they cov-
ered nearly as/ much ground as New York City./ Pass-
ing for perhaps two miles through/ these ruins, we
came to a part of Tru-/jillo that is outside the walls, a

112 Possibly a reference to the archeological site of Sechín (about
1600 BC), about 5 km southeast of Casma.
113 Founded in 1536 by Pizarro.
114 The ancient Chimu capital of Chan Chan, about 5 km west
of Trujillo. Built by the Chimus around 1300 AD, it covered
about 28 sq km, and at the height of the Chimu Empire it
oused an estimated 50,000 people.
long/ street of mud houses, now nearly des-/erted and
going to decay, and then/ we came to the walls of the
city, also/ made of mud, and eight or nine feet/ high.
We passed through a large/ wooden gate, over which
were the/ Peruvian arms, and an inscription to/ the
effect that Trujillo was the first/ capital town of Peru
that declared for/ the Constitution and the Repub-
lic,/ which was done in the year 1820./ The gate is
covered with sheet iron/ that is scarred with musket
balls, the/ marks of some of the revolutions/ it has
passed through, or perhaps of/ some raid of English
pirates.//

Trujillo has about ten thousand in-/habitants,
and is likely decreasing in/ population. It has fifteen
or twenty/ large churches, built of adobe, but some of
them finely ornamented with/ plaster. The streets are
paved with/ rough round boulders, and a walk is/ no
pleasant thing. I stopped at the/ hotel Nacional, kept
by an Italian./ The walls were plentifully painted/
with battle scenes, and with Greek/ and Roman gods
and goddesses, all/ painted by the proprietor; but the/
principal attractions of the house were/ a couple of
billiard tables, at which/ several young Englishmen,
overseers/ of estates in the country, and the/ young
bloods of the town were play-/ing. Trujillo is said
to be the home/ of the oldest and most aristocratic/
families of Peru; but everything seems/ to be going
to decay. A railroad that/ is projected to a port fur-
south,/ where the landing is said to be safer than
at Huanchaco, may allow it to/ regain something of
its former im-/portance, though the effect of these/
comparatively peaceful times must be/ to build up the
town immediately/ upon the sea, at the expense of
those/ which are a little distance from the/ coast./

Trujillo, like Lima and several other/ cities of
Spanish America, seems to/ have been built of at a
little distance in-/land for no other reason than to be/
out of reach of the cannon of English/ buccaneers
who used to sweep along/ these coasts every few years,
taking/ everything clean as they went, gath-/ering up
rum, tobacco, silver, and/ everything else of value,
and then/ sailing home, when the successful were/
knighted for their services to the/ crown. This people
have no reason/ for loving the Gringos, as they call all/
people of Anglo Saxon blood./

The valley to the south of Trujillo/ is cultivated,
though there is a great/ complaint of scarcity of wa-
ter. There/ must have been much more water in/ the
time of the Incas, as the Indians/ appear to have had
many times the/ present amount under cultivation,
or/ perhaps it was used with more care/ and rule. I
found nothing here for/ sale from the Indian ruins,
such things/ being gathered up, and sent to Lima/ as
fast as found. I passed a day in/ wandering among the
ruins of the In-/-dian city, and was invited by a Peru-
vian, upon whose property I found I/ was trespass-
ing, to visit his house,/ which was built beside one of
the/ great mounds. He had several of the/ squares of
the old city under cultiva-/tion, the ancient walls now
serving for/ a mere peaceful pupose./

During the time of the American/ rebellion he
had planted cotton, and/ the dying trees, some of them
eight/ and ten feet high, were still giving a/ few bales
of cotton. He is troubled/ for water, and has planted
several/ acres of the cactus upon which the/ cochineal
insect feeds, as this needs/ but little moisture. In one
field he/ had two or three acres of red peppers,/ an
article that is most extensively used/ in the food of all
these South Ameri-/can people. A dozen Chinamen
were/ hopelessly hoeing away at the few/ weeds that
the drought would allow to/ grow, but their weak ef-
forts at/ cultivation seemed puny enough be-/side the
great ruins around them, of/ a former civilization./

Large sums of money have been/ spent in dig-
gging for treasure among/ these ruins, and everywhere
I found/ great heaps of earth and mud-bricks/ thrown
out. Considerable quantities/ of gold and silver have
been found,/ but likely not enough to pay for the/
labor expended, though many jars,/ vases and emple-
ments have been found/ that would have been of im-
mense/ value, if carefully preserved, in the/ museums
of the world. The vessels,/ and images of gold and sil-
ver which/ were generally very light, were pound-/ed
up and melted down for the metal/ they contained./

There is a tradition that this city/ had been over-
thrown by an earth-/quake before the coming of the
Incas,/ and there appears to be some ground/ for the
story./

In passing out toward Huanchaco,/ I found an
ancient road, but more mo-/ dern than the ruins, as
some of them/ had been pulled down to be make way/
for it. It was about twenty feet wide./ and walled with
low mud walls about/ two feet in height, and followed
along/ parallel with the sea. It was likely/ one of the
military roads of the Incas./

The plain all the way to Huanchaco/ was cov-
ered with pieces of pottery/ and signs of former culti-
vation, but/ without walls or remains of houses,/ the
people likely returning from the/ fields to the walled
town every night./

Returning to Huanchaco, I took the/ next
steamer to Pacasmayo, and find-/ing the barque El-
vira ready to sail for/ Tumbes, I went on board the
next/ morning, and after a pleasant sail of/ four days
along the coast of Peru, we/ arrived at the mouth of the
Tumbes/ river, finding already at anchor two/
American whalers, and two vessels loading wood for Callao./

Tumbes is in the extreme north-west point of Peru, a little tongue of land here jutting into the territory of Equador. It is very near the point where the rain belt reaches the coast, and though it rains but seldom, this is sufficient to give a green appearance to the country that is not found to the north. Among the trees thinly scat-tered over the hills are several species of cactus, and several of thorny, scrubby accacias, among these the algarroba that is of considerable use, the trunk, though crooked, growing to such a size as to serve for fire wood, and for posts for the houses, its fruit being contained in small pods that are full of a bitter sweet substance that fattens all kinds of stock, the pods being gathered and sold like corn by the sack full./

Tumbes is a mud-built, rush-thatch/ed town of five or six hundred inhabitants, and remarkable for its cleanliness. It has little visible means of support, there being no exports but a little wood sent to Callao and very/ few charcas, so that the people must go into the moister country farther north of Equador, to buy the plantains/ that serve them as the staff of life. It has been quite a resort for whalers to/ wood and water, whaling seems to be on the decrease in this part of the Pacific. I found here several American whaling captains that had settled and married here, and almost every one can speak a few words of English./

I had a letter of introduction to Captain Smith, an Indianian, who has charge of the petroleum wells and re/-finery, and I was soon comfortably settled with him at the refinery, which is a couple of miles from the village. The works comprise a distillery and/ carpenter and tin shops. Everything about the whole place has the unmistakable odor and color of crude petro/-leum. The crude oil is brought in a small schooner, provided with tanks, from the wells that are fifteen or/ twenty miles down the coast. The/ process of distillation is much the same as that used for producing alcohol. The first oil coming over is very light/ and inflammable, and is the benzine/ of commerce. It is likely from allowing too much of this to be mixed with the kerosene that the latter becomes dangerous. When the oil gets down/ to a certain weight it is called kero/-sene, though no one can say just where the line between benzine and kerosene is. The oil still grows heavier, and in/ time becomes too heavy to be incor/-porated with the kerosene, and is then called heavy oil. The refuse left in/ the still is coal tar. After distillation/ the kerosene is treated with acids and/ alkalies, and then washed several times/ over in water, when it becomes ready/ for market. As seen in bulk in the/ treating tanks, it has a light indigo/-blue color. The kerosene is all sold/ in Peru and Equador, and is put up in/ the cans for market. The tinsmiths/ find considerable trouble in getting it/ fairly fast, it being so volatile that the/ cans often leak upon handling or ex/-posure to the sun. Curiously enough/, the crude oil, fresh from the well with/ all its impurities, is more volatile than/ the refined oils, and it is almost impos/-sible to confine it with solder in this/ climate. The crude petroleum is used/ in running the steam engine of the/ works. A jet of stream is thrown/ against the petroleum as it drops from/ a supply tube, blowing it into fine spray that is ignited as it passes under/ the boilers. It keeps up a steady,/ strong heat, and it looks as if petro/-um might be more generally used for fuel./

After a few days spent in hunting/ among the algarroba groves about the/ refinery, and along the sea beach at/ the mouth of the river, I went with/ Captain Smith to Torritos, down the/ coast where the oil wells are situated. Crossing the river at the village of/ Tumbes in a canoe, and swimming the/ horses, we passed through four or five/ miles of plains and algarroba groves, with no cultivation except a few/ patches of cotton that were planted/ during the war of secession in the/ United States, and are still giving a/ few blossoms and bales of cotton. We/ finally came out to the village of Coralles [sic; Corrales] that is said to be on the site of the Inca city found here by Pizarro/ on his first landing. The village is inhabited only by Indians, and is scat-/tered over a large space, the houses/ being perched here and there on the/ little hills, without regard to streets. The people have few charcas, but con/-siderable droves of donkeys and goats. The remains of a large azequia [sic; acequia] pass/ through the village, and the large/ level plains between the village and/ the sea was likely once all under cul/-tivation; but the present population/ is too shiftless to irrigate. We could/ see remains of stone and mud walls in/ the hill sides, and one of these was/ said to be the site of the great temple/ of the sun; but the few rains of this/ part of the country have nearly washed/ away the mud bricks that form the/ lasting ruins of the rainless region/ further south. We passed down into/ the plain from the village, the path/ passing among low trees. These plains/ are covered every year, at the time of/ the rains, with grass that dies as the/ dry season sets in, forming a sort of hay. This, though now a year old and/ very brown, was being eaten by droves/ of donkeys, goats, and a few cattle/ that seemed to thrive upon it. We/ started up a few long-legged bustards,
and I shot at them, a fox that was/ lying in the shade of a bush, ran off./

As we passed towards the south, the/ hills gradually approached the sea,/ until we arrived at a point where they/ came down to the water’s edge, it/ only being possible to pass at low tide./ Beyond this the hills kept close to the/ sea until we reached the oil wells,/ they and the buildings standing upon a narrow strip of six or eight rods/ wide, between the sea and the hills./ We first came to a derrick, where/ several men were at work sinking a/ new well. They had already struck/ oil that would pay seventy barrels per/ day; but it was too heavy to give a/ good percentage of kerosene, and they/ were going deeper. Beyond were the/ wells now being pumped. They now/ yield from eight to twenty barrels/ each, though when first dug they/ yielded from fifty to seventy. The/ wells are about two hundred feet deep,/ though oil is found in considerable/ quantities within a short distance of/ the surface. The country for a long/ distance inland is covered with rough/ hills of two or three hundred feet in/ height, with a few scrubby trees grow-/ing upon them. After a couple of/ days spent in hunting over the hills/ and along the coast, I returned to this place.

J. B. STEERE

Letter LX

[Peninsular Courier and Family Visitant, 12(9),
February 28, 1873]

FOREIGN CORRESPONDENCE

Number LX

GUAYAQUIL, EQUADOR, Jan. 17th, 1873.

I spent nearly three weeks at Tum-/-bes during
the time hiring a whale/ boat and going up the bay to
point/ Hambali [Jambali], in search of sea shells. We/ passed two nights camped on the/ beach, and in reach of beds of oysters/ that are left dry at low tide, so that/ we had plenty of them, eating them/ from the shell or roasting them over/ the fire. I made a pretty good collect-/tion of birds, shells, fish, snakes, etc.,/ and then hiring a horse to ride and a/ couple of donkeys – one for the bag/-gage and the other for the boy who/ acted as guide – I set out for Equador./ We start-/ed at daylight, the boy taking/ the head to point out the way, followed/ by the donkey with the baggage, I/ bringing up the rear, and riding tilts/ at the bag-/gage donkey with a sharp/ stick, he being determined
without/ such attentions to stray from the right/ way. We passed for several hours/ among low hills, sparsely covered with/ cacti and scrubby trees of Palo Santo,/ the weed of which is sweet scented/ and is burned in the churches and be-/fore the images of the saints. As we/ went on the timber gradually increase-/-ed in size, and all at once the trees/ that were nearly leafless, on account/ of the long drought, were covered/ with long gray moss that made quite/ a shade, it covered them so thickly./ We now crossed the dry bed of a/ river that is the boundary between the/ Republics of Peru and Equador, and/ about the middle of the afternoon/ came to the little village of Arenillas,/ in the territory of Equador./

Arenillas is said to be twelve leagues/ from Tumbes, though I could hardly/ believe it so far. The houses of the/ village are all set upon posts eight or/ ten feet from the ground, giving them/ a curious appearance. This country/ is not subject to floods like the lower/ Amazon, where they follow the same/ custom, and the ancient Indians of this country likely
built so for security/ against snakes and tigers, and the/ people now build so because their/ fathers did./

The next day we passed on through/ a low country covered with vines and/ brush, with many little fields of tobac/-ico and plantains that seemed to be/ cultivated with considerable care./ The country appeared much like that/ of the Amazon, low and rich, but now/ suffering from lack of rain. On the/ way we found and shot a couple of/ large, howling monkeys that were in/ a tree immediately over the path./

About noon we arrived at Santa/ Rosa, a town of six or eight hundred/ inhabitants, with the houses all perch-/-ed on stilts like those of Arenillas. I/ here found Dr. Hatch, a Massachusetts/ Yankee, who came here and married/ over twenty years ago. He has been/ here so long that he has almost for-/gotten his native language, he address-/-ed me in mingled Spanish and
Eng/-lish. I arrived on the day before/ Christmas, just in time to see a curious/ ceremony of the church that took/ place on Christmas eve. The night/ was as warm as a Fourth of July eve/-ning at home, and it hardly
seemed/ possible that the people at house were/ busied with Christmas trees, and per-/haps with all out doors buried in snow/ and sleet. A little arbor of palm leaves/ was built before the church door, and/ a number/ of images, representing the/ birth of Christ in the
manger at Beth-/-lehem, were arranged upon a table/ under it. After waiting here a few/ minutes, a proces-/sion came down the/ street, led by the priest in his robes/ and lighted by torches. It consisted/ of twelve or fifteen girls and boys off/ from six to twelve years of age, dress-/-ed up in fanciful costumes with crowns/
scepters and shepherds crooks, one/ boy, having wings upon his shoulders/ and a blackened face, seeming to re-/present the evil one. They were called/ pastores or shepherds, and were come/ to celebrate the birth of the Savior./ A little platform was made before the/ arbor, and the boys, one after another,/ were helped upon it, when they made/ little speeches, recounting the glories/ of the coming kingdom of Christ and/ the defeat of Satan, whereupon that/ individual, as represented by the black/ faced boy, set up an outrageous how-/ring, and was finally driven from the/ scene with blows of the scepters and/ crooks. The boys went through their/ parts in much the same style, but with/ rather more confidence than American/ boys show at Sunday school and com-/mon school exhibitions, and it was/ now the little girl's turn. The lights/ of the procession had now turned low, and I could see in the/ crowns of the/ boys and in great strings about the/ girl's neck, the large fire beetles of/ the country that each give light/ enough to read by. As the little girls/ lisped their praise to the little child/ and his mother, these living diamonds/ shone and glistened as little real prec-/ious stone ever did, and finally one/ large one getting free, hovered for a/ while like a star of the East/ above the manger, and then wheeling higher/ and higher, until it reached the top of/ the church tower/ above the manger, and then wheeling higher/ and getting free, hovered for a/ while like a star of the East/ precious stone ever did, and finally one/ large one lisped their praise to the little child/ and his mother, each give light/ enough to read by. As the little girls/ that are almost identical with that of the Uni-/ted States, differing only in the names/ of the coins; but Equador still uses the/ old peso of eighty cents val-
[234], passing through large plantations of cacao and plan-tains on the way. Biron is just at the foot of the mountains, and cooler than Santa Rosa. Its proprie-tor, Señor Silva, had been a sailor and spoke some English. I spent three or four days in making a col-lection of the birds there, and one day went into the woods a long distance with a peon as a guide, coming back at night tired out and loaded down with monkeys of a large black species, and with a species of wild turkey. Señor Silva had barbasco — fish poison prepared and the stream poisoned in my honor, and I made a good collection of fishes remarkably like those of the Amazon in appearance. The barbasco used here is different from that used in Brazil, being a leguminous shrub, the root of which possesses the peculiar properties. Soon after this was put in the pool, the fish began to rise to the top of the water, and men, women, and children were soon busy in catch-ing and throwing them upon shore. One or two small species did not seem to be affected by the poison at all.

I first saw here the rubber tree of this side of the mountains, and find it to be different from the Brazilian rub-ber, though perhaps of the same bot-anical family. The method of gath-ering and curing is entirely different, and it does not appear that the Equa- torian rubber can be tapped with ad-antage like that of Brazil. The milk of this tree is quite bitter to the taste, and instead of running from the wound for several hours in a limpid state coagulates into the consistence of clot-ted milk as fast as it runs out, thus seen closing up the wound entirely if small. The method adopted here, and apparently only one practicable with this species, is to cut the tree down and then cut rings around the trunk a foot or so apart, when the rubber flows out and adheres to the tree in great masses. These are scrap-ed off and put into a hole dug into the ground, and ashes and the juices of certain plants put in to complete the coagulation. The rubber is very black and full of impurities, and sells in the market for about one-half the price of Brazilian rubber. A large tree will produce a hundred pounds, but the rubber gatherer must go a long distance into the woods to find such tree, and the distance is every year increasing. Señor Silva has a plantation of young rubber trees, and though they grow very fast, it will be many years before they will yield much rubber.

Going back to Santa Rosa, I found one of the small vessels of the country about to start for Guaya-quil, and took passage in her. We were three days on the way, and the weather so warm that we almost roasted. The river with its low islands and mangrove swamps, the vessel and the people on board — all reminded me of navigating about the island of Marajó, in the mouth of the Amazon.

J. B. STEERE

Letter LX [bis]
[Peninsular Courier and Family Visitant, 12(18), May 2, 1873]

FOREIGN CORRESPONDENCE

Number LX [bis]

QUITO, Febr. 1st, 1873.

Guayaquil, like Pará [Belém], lies nearly at the level of high tide, and it has many other points of resemblance to the metropolis of the Amazon. A low wall runs along the front to keep the tide in check, and behind this a long street, parallel with the river, of business houses of two stories, the upper of which projects ten or twelve feet the lower, and are supported by pil-lars, making the sidedwalks long, covered galleries that are very pleasant in this land of heavy rains and fierce suns. Along the river wall are drawn up several foreign ships, unloading the multifarious things that a country with our manufactures of its own has to import, or loading with cacao — the chocolate bean — or with India rubber. Great numbers of chatus [sic; chatas], the vessels of the country, with one mast and square sail, are tied to the bank, and a brisk trade is carried on in them in the products of the country — plan-tains, sweet potatoes, aquardento [sic], etc. Toward the upper end of the town a number of rafts of large logs lie at anchor, each with its hut and family that, like the Chinense, pass their lives upon the water, drifting with the tide when they wish to change location. Back of the first street pavements be-come rarer, and finally cease altogether. The streets are piled with heaps of dirt, the front street only being cleaned, and the sweepings, with much else not to be mentioned, thrown over the well, where the tide gener-ally fails to take it away. The houses, as one leaves the river, degenerate fast, being built of mud and cane and without white-wash, and in less than half a mile one reaches the low level pampa, at this season nearly covered with water. A low line of earthworks cross this pampa, probably built to defend the town at some time from the raids of English buccaneers and pirates. Guayaquil has suffered from many such, as the Spaniards refused for a long time to allow the inhabitants to fortify the
place, and the English had but to sail in and burn and plunder at their pleasure. The people still reckoned time from the most remarkable of these, giving their dates a conspicuous place in their calendars of feast days and other remarkable events. Guayaquil is the dirtiest place I have yet seen in South America, and with its climate the wonder is that its people do not all die off.

I was reminded every day of my stay that I was not in a free country and a republic, by seeing three or four companies of soldiers marching up and down the streets, with a band of music. This is a practice that seems to be general in the cities of South America, and it may be from two reasons: one, the old idea of tyrants, that the people must be kept amused to keep them from revolution; the second, to keep them in awe of the government by showing them its strength. The people of Guayaquil can be but little edified by the display of these soldiers, as they are a most villainous-looking set of Negros, Indians and half whites, dressed in portions of cast-off English uniforms, but all alike in great leather hats or helmets with brass fronts, that seemed enough to bake the brains of an ostrich in that climate.

The climate of Guayaquil seems worse than that of the Amazon, the variations of temperature being much greater likely from the fact that the atmosphere is drier, the everlasting humidity of the air upon the Amazon, like a wet blanket, keeping the temperature at almost the same degree, night and day and the year round. The rainy season had just fairly commenced as I left, and there was a succession of drenching rains and scorching suns.

Several small streamers, much in appearance like the old fashioned ferry beats of our western rivers, lay in front of the city, and are used to navigate the river and its branches; but I could find no one who know their time of sailing, this seeming to depend upon some natural law too intricate for human wisdom to fathom; but finally, after a week's waiting, I found one that was to go to Bodegas, and get my baggage on board at nine o'clock at night, we started. The first day we passed through a low flat country, much of it covered with coarse grass, to hire to the arreiros, who undertake the journey. The river was rising rapidly, and the country becoming flooded so that the arreiros had almost stopped coming down so far as Bodegas, and I expected to be compelled to hire a canoe to Savaneta, some twelve or fifteen miles above; but next morning we found a man with some mules which he was already loading for the return trip, and hastily making a bargain with him, we started. The first day we passed through a low, flat country, much of it covered with water, in some places so deep that it came up to the saddle. The country back of the road seemed to be a wilderness; but immediately upon the road there were many people, many of them having small pastures of coarse grass, to hire to the arreiros for the moun-"tains. Plantains and sugar cane grew in abundance, and before almost every house were several bunches of plantains, for sale, each of the value of a medio—five cents. The second day we began to climb the valley of the small river, and that night we were high enough to sleep cold, though we were not yet out of the region of plantains and sugar cane. The third day we were continually climbing, the roads never good, having been cut out by the rains, and made so slippery that the mules were continually falling with their loads, and then the arreiros would lift and shout until they got them on their feet, only to go over the same performance a little farther on. We passed several dead mules and horses that had been recently killed by those falls, and after being thrown into the mud once or twice, I climbed the rest of the way on foot.

Morning found us slowly making our way up between low banks, cultivated at frequent intervals in plan-tains, sugar cane and cacao; but for the greater amount of cultivation I would have believed myself passing through among the low islands somewhere in the lower Amazon, there being the same low, dreary landscape of jungle, the same trees and floating plants, and even the same yellow water.

At noon we arrived at Bodegas, or Babahoya [sic; Babahoyo], the port of Quito during the dry season, and a place of five or six hundred inhabitants, most of whom live in houses of bamboo, or cane, covered with palm leaves, and all stuck up eight or ten feet above ground on posts, so as to be out of reach of the annual flood.

I found here an American, Mr. McKenzie, who immediately bestirred himself to find transportation for me toward Quito, as he had done before for Professor Orton, and innumerable other Americans who have undertaken the journey. The river was rising fast, and the country becoming flooded so that the arreiros had almost stopped coming down so far as Bodegas, and I expected to be compelled to hire a canoe to Savaneta, some twelve or fifteen miles above; but next morning we found a man with some mules which he was already loading for the return trip, and hastily making a bargain with him, we started. The first day we passed through a low, flat country, much of it covered with water, in some places so deep that it came up to the saddle. The country back of the road seemed to be a wilderness; but immediately upon the road there were many people, many of them having small pastures of coarse grass, to hire to the arreiros for the mountains. Plantains and sugar cane grew in abundance, and before almost every house were several bunches of plantains, for sale, each of the value of a medio—five cents. The second day we began to climb the valley of the small river, and that night we were high enough to sleep cold, though we were not yet out of the region of plantains and sugar cane. The third day we were continually climbing, the roads never good, having been cut out by the rains, and made so slippery that the mules were continually falling with their loads, and then the arreiros would lift and shout until they got them on their feet, only to go over the same performance a little farther on. We passed several dead mules and horses that had been recently killed by those falls, and after being thrown into the mud once or twice, I climbed the rest of the way on foot.

Just before night we arrived at the table lands above and the little village called Camino [sic; camino] real, consisting of eight or ten grass-covered huts. It was raining, and the clouds and mist were driving right along the ground, and hiding anything that might
have made the scene a little more pleasant, and leaving nothing but the dripping little mud cabins with the black mud a foot deep all about them and almost in them. I rode up to the first one of them, and inquiring for something to eat, the woman promised to make me some locro, or potato soup, and invited me to dismount. The one little room was not large enough to hold me with the rest of the occupants; so I sat down under the eaves upon a stick of wood and waited for my supper. The roof was supported by posts made of trunks of two ferns that gave quite an artistic effect with their curious lines of scars where the leaves had fallen off. After half an hour’s waiting a pleasant looking girl of ten or twelve years of age, and nearly white, though dressed in the coarse blue woolen cloth of the Indians, brought out a little box and placed it on the ground before me, and then my potato soup. After supper I could look upon the scene of mud and clouds and misery with a little more complaisance, and set about finding a dry place for my bed. The most of the cabins had no floor but the earth, and this now recking with moisture; but I finally found the house of the principal man of the village that possessed two rooms, one of which was floored with puncheons. They were holding a feast here, and were already well gone in drunkenness; but they vacated this apartment for me, though they seemed yet strong with them, and whenever it is possible they will get together when they have labor to perform.

After passing for fifteen or twenty miles through this thickly settled southerly, we came to Guaranda, a paved town of two or three thousand inhabitants, near the foot of Chimborazo, and the end of the first stage, it being necessary to hire a new set of mules from here to Quito.

The climate of this cultivated country seemed to me about like that of the first of May at home. Frosts are rare, and there is enough rain so that there is no need of irrigation. The weather is so cool that the crops are very long in maturing; but they seem to be of good quality, especially the potatoes.

J. B. STEERE

Letter LXI
[Peninsular Courier and Family Visitant, 12(19), May 9, 1873]

FOREIGN CORRESPONDENCE

Number LXI

QUITO, Febr. 1st, 1873.

After two days’ waiting in Guaranda for mules, I finally engaged a couple, and sending my baggage on with one, I followed alone the next morning leaving Guaranda at daylight. I followed a new mule road
that wound/ around the mountains gradually rising,/ and leaving the inhabited country far/ below. After passing through a belt/ of country covered with low, bushy/ timber, I came out above upon the/ paramo, or cold, grassy plain that are/ found above the timber level. The/ grass is a coarse, long bunch grass,/ that is used by the people for thatch-/ing their houses, as well as for pastur-/age for their animals. The scenery/ grew rougher and wilder, masses of/ rock standing out here and there in/ curious shapes, and finally, about noon./ I passed the range of foot hills, and/ stood upon the Arenal, a great plain/ of sand, made by the decomposi-/tion of pumice stone, and reaching far up/ the side of Chimborazo that now stood/ just before me, its snowy dome glit-tering in the sun. Far up the side I/ could see the valley where Humboldt [sic; Humboldt]/ tried tro reach the top and failed. The/ road here pass-es at an altitude of, I/ think, about sixteen thousand feet,/ nearly up to snow level. It passes/ around upon the east or left side of/ the mountain, and I could soon see,/ far below, cultivated valleys, and in/ the distance the town of Riobamba./ After crossing the Arenal, the road/ again leads through the grassy para-/mo, and in one place several llamas/ were being tended with bundles of the/ long grass. I was very much inter-ested in these miniature camels; with/ their long necks stretched far in ad-vice, they examined everything with/ their large, innocent, intelligent eyes./ They were generally a sort of brown-/ish buff color; but several were spot-ted with white and black, and they/ seem to vary in color and size like all/ other animals that have long been/ domesticated./

As I followed on, I could not keep/ my eyes from the great mountain, and/ I longed for an op-portunity to try to/ climb it; but without companions and/ with other unfavorable circumstances./ I had to content myself with wishing./ Upon the side toward Riobamba it/ seems to be much steeper than upon/ the others, and from many of the pre-/cipices were hanging icicles, and in/ one place among the fields of snow I/ could see a genuine little glacier./ though, perhaps, if it could be once/ reached, it would not be found so small./

The storms are said to be frightful/ along this road at some times, when/ sleet and snow come down the moun-/tain side, covering the paths and blind-/ing and benumbing the lost traveler/ who is so unfortu-nate as to be pass-/ing. Two or three skeleton-116 and skulls/ beside the road, with a rude wooden/ cross, told of such accidents to some/ who had no friends to bury them./

Passing one or two tambos built of/ mud and stone, where potato soup is/ sold, and a corner upon

the earth floot/ given to the travelers who can get no/ farther, and crossing several deep/ ravines leading down from the moun-tain, I came out upon a great plain/ still too high for cultivation and cov-ered with the bunch grass of the para-/mo. Soon after striking this plain, I/ came upon the great Carretera [sic; car-retera], or wagon road, that the present president/ is building to connect the capital/ Quito with Guaya-quil. The road bed/ is over twenty feet wide, and paved/ with stone in bad pieces, with great/ ditches on each side to keep off the/ surface water. Over the streams and/ ravines are solid stone bridges of the/ most durable construction./

I had not traveled many miles over/ this road before I began to review my/ hasty opinion of the President of/ Equador, and to think that a man who/ is making works of such value to his/ country, and who spends all his time/ and money in carrying them, must/ certainly mean well, and may be ex-/cused for his harsh measures on the/ plea that this people are not fit to/ govern themselves. The more I see of these South American Republics,/ the more I am convinced that it is not/ all people that are prepared to govern/ themselves. Few do it, except in/ name, and among the rulers who have/ grasped the supreme power by cor-/ruption, bribery, and revolution./ President Garcia Moreno116 stands the/ highest./

After eight or ten miles’ ride along/ this great road, and over a pampa/ without inhabitants, I began to see a/ few cattle and horses, and then here/ and there the huts of the herdsmen/ and the corrals near them, formed by/ digging deep ditches disclosing small/ plots of ground, into which the ani-/mals are driven at night and watched./ as thieves are abundant./

I expected to reach the village of/ Mocha before night; but dark came/ and found me still on the cold paramo./ The road began to descend, and I/ crossed a bridge over a stream that it/ was too dark to see. I thought that/ I had gone far enough to have reached/ the town, and I was too tired to go/ much farther, and

116 García Moreno – Gabriel Gregorio García Moreno y Morán de Buitrón was born in Guayaquil on December 24, 1821. He served twice as president of Ecuador (1859-1865 and 1868-1875). In 1869 he founded the Conservative Party. He was noted for his conservatism, Roman Catholic religious perspective, and rivalry with the Liberal Party. During his administration Ecuador became the leader in the fields of science and higher education in Latin America. Part of the animosity García Moreno generated was because of his friendship toward the Jesuits. This and many similar acts encouraged the anti-Catholic parties of Ecuador, especially the Masons, to see in him an inveterate enemy. He was killed in office by a machete-wielding ecuadorianized Colombian citizen called Faustino Rayo, on August 6, 1875 (see Berthe, 1889; Loyola, 1945; Maxwell-Scott, 1914; Smith, 1965).
the horse entirely/ used up, so that I had driven him/ ahead of me for the last few miles/ so seeing a light near the road, I went/ up to the wall and called for entrance./ At this the light was put out, and all/ quiet; but I was tired enough to be/ desperate, and going to the high/ wooden gate, battered at it with the/ butt of mu gun as if I would knock it/ down. This soon brought two or three/ women and after they the man of the/ house, who apologized for not admit-/ting me sooner, and gave my horse/ some alfalfa, and me a place to spread/ my blankets, and I was soon asleep,/ without supper, having ridden nearly/ fifty miles that day, and passing the/ whose paramo of Chimborazo without/ stopping, and much of the way under/ such roads as those who have experi-/enced them can imagine./

The next morning showed me that/ I had again got down to a country of/ potatoes, corn and barley; but it/ seemed to be autumn here, as the peo-/ple were still harvesting their barley./ I rode back to Mocha that/ had passed in the night, as it was at one/ side, and got my breakfast, and then/ after three hours' ride ar-/rived at Am-/bato, a town of three or four thousand/ people, and with paved streets./

Coaches already run from this place/ to Quito, and it has a couple of hotels,/ where one can get some of the com-/forts of life. The next morning I met/ many of the Indians of the country/ coming in with their produce on their/ backs or upon donkeys, and in one/ place a beautiful llama with a load of fine brush, which is used here for fuel./

From Ambato to Latacunga – seven/ leagues – the soil is light sand, the/ product, apparently, of the disintegra-/tion of lava and pumice stone. It is/ all under cultivation, and has been/ cropped so much and without manure/ that it has become very poor, the corn/ tosseling within two feet of the ground./ and it was too poor in some places to/ raise corn at all, and was planted to/ lupines, peas and quinoa. The lupines/ are very bitter until they have been/ well soaked, when they are perfectly/ tasteless, but are eaten in large quan-/tities. There were often gangs of/ twenty and thirty Indians, men and/ women, hoeing corn together in the/ corn fields, and these were often using/ great wooden hoes as broad as the/ blade of a shovel./

The road passes along the high/ land, the river cutting through to a/ depth of several hundred feet be-/low,/ and I could look over a large extent/ of cultivated country on all sides. The/ hills here are so smooth and so free/ from timber that they look artificial,/ and appear to have been cropped with/ the scythe. The only trees were low,/ thick-topped, black cherry trees, scat-/tered here and there over the fields,/ and apparently of the same species as/ that at home. At the huts along the/ road women offered for sale chicha,/ bread, little sweet pears, and large/ strawberries that seemed to be rather/ wanting in flavor./

Latacunga, which stands near the/ foot of Cotopaxi, is about the same in/ size and appearance as Ambato; but/ a fair was in progress when I arrived,/ and the streets and plazas were full of/ Indians in their bright-colored ponchos, and all chattering Quichua as/ fast as they could. In one place were/ the sellers of native pottery, in another/ potatoes and the course flour of the/ country; upon one side were the sell-/ers of salt, a government monopoly,/ and very dear and of poor quality,/ being found along the coast and used/ without purifying; and on another the/ ponchos and coarse woolen cloths/ made by the Indians, and near these/ the merchant of dyes, with baskets of indigo and cochineal and his little/ scales. Passing among the crowd/ were persons selling girdles worked/ in bright colors, and woolen hats made/ in the country, and oil cloth covers,/ for them a very useful article during/ the rainy season./

Upon one side of the principal plaza/ was a large stone church or cathedral/ that had been partly thrown down by/ an earthquake. Upon this several/ persons in ponchos were at work, leis-/urely laying stone, while others below/ were cutting a light species of lava or/ pumice stone into cornice and orna-/ments./

About noon a band of music, fol-/lowed by four strapping Indian girls,/ who carried on their shoulders a cov-/ered litter with a life-size image of the/ virgin, and by four men who carried/ an image of the Savior, drew up in/ front of this church, and amid the/ ringing of all the bells of the town,/ set off through one of the narrow/ streets toward the country, followed/ by the greater part of the people who/ covered up their wares, or left them/ in charge of their friends, to join in/ this peaceful crusade./

Outside the town there is a quarry/ of pumice stone, and here the process-/sion marched, when all loaded them-/selves with stone, carrying it in sacks,/ or on their shoulders, or even in their/ arms. I saw several/ women with chil-/dren in their arms and a load of stone/ upon their backs, and old men with/ canes, but all carrying stone to rebuild/ the cathedral. They were marshaled/ by the alcaldes of the town and of the/ different villages from which the [sic, they] came,/ each with his cane, the staff of office,/ and they marched back in double file./ I calculated that there were at least/ three thousand in the procession, it/ reaching from the cathedral to the/ quarry outside of town. As they came/ near the wall of the cathedral, they/
threw the stones down in a great heap, where others were standing to toss them over the wall, and then returned to their trafficking, each likely with the comforting feeling that he had done a meritorious act, and deserved success in trade for the remainder of the day.

I particularly noticed a man with a cheap picture of the holy family, covered with glass and framed in tin. He was passing about from one group to another, zealously presenting the picture to each person, it being generally received with the greatest reverence and with bared head, and devoutly kissed, and then passed around over the merchandise, perhaps to ward off the "evil eye," or to call purchasers. After this the poor potato seller who had thus blessed her potatoes, would drop one in the picture man's basket, the flour seller would give him a little handful, and he would pass on to others. He seemed to me to be particularly zealous in visiting the salt sellers, perhaps from the great value of this article, and I don't think he left one basket unblessed and untolled. He also visited the sellers of alfalfa, the clover of the country, and they pulled little locks from the bunches that were to be sold at a medio each, the consequence of the pious act thus falling upon the buyers, they being, like some greater and wiser men, very generous with the property of others.

Just as night came the clouds cleared away from the southern sky, and I had a view of a beautiful, conical-shaped mountain, that I supposed was Cotopaxi; but upon inquiry found it was Tungurahua, that is famed as being even more symmetrical than Cotopaxi.

Between Latacunga and Machacha, the next town, the country became wilder, the mountains being more broken in their outlines, and covered here and there with timber. I was passing between Cotopaxi and Illinisi, but I could only now and then get a glimpse of their snow-covered summits, they being continuously covered with clouds, and lightning flashing from Cotopaxi every few moments. Toward Machacha the road rises up again to the bleak paramo, and here I was overtaken by the wind and rain, and rode into the town thoroughly wet and chilled, and with my baggage far behind.

The next day I had but seven leagues to ride to reach Quito; but my horse was about used up, and at the end of the fifth league gave out entirely, and I led him into the city, carrying my gun upon my shoulder.

The people of Quito seem to have seen very few strangers, especially bearded ones, as they were very much astonished to see me passing through their streets, and perhaps I did present a rather comical appearance; but I pretended they were as curious as I was, and stared at them in return.

J. B. STEERE

Letter LXII

[Peninsular Courier and Family Visitant, 12(22), May 30, 1873]

FOREIGN CORRESPONDENCE

Number LXII

QUITO, Febr. 15th, 1873.

I was much disappointed in the size and appearance of Quito. The eighty and one hundred thousand inhabitants as given by the geographers should at least be diminished by one-half. It is situated in an irregular valley, at the foot of the mountain, or cluster of mountains, called Pichincha. The streets are narrow and crooked, and the houses generally bare, bleak edifices of brick or adobe, often of several stories, but without pretensions to regularity or beauty. Most of the public squares or plazas are bare plates of earth or stone pavement, and covered with the tents and stalls of the sellers of fruits and vegetables. They generally have a fountain in the center, and a characteristic scene of Quito is the Indian water carrier filling his huge earthen jar from one of these fountains, and carrying it off on his back, with a band passing over the forehead to support it. The plaza in front of the palace is planted to flowers and trees, there being roses and pinks, and most of the other ordinary flowers of the temperate zone, while the only tree are willows, and their effect is rather monotonous.

I made very pleasant acquaintance with the American Minister, Colonel Rumsey Wing, of Kentucky, and in company with his secretary, Mr. De Forrest, visited the Jesuit College and church, as well as some of the other old churches of the city. There are a large number of German Jesuits here, who have found what they were denied in Germany, — a house and protection, — and they seem to be taking thorough measures for the future education of the young men of Equador. The museum of natural history is already well begun with a collection of birds, fishes, etc., etc., brought ready mounted from Paris, and a young German is busily at work mounting the large number of birds and mammals found in these regions. He has already mounted a couple
of tapirs, al llama, some deer, and a most beauti-/ful collection of the humming birds/ that are found in such variety and/ beauty in Equador, and they are so/ arranged that the light is reflected/ from them, giving them the appear-/ance of a collection of precious stones/ of all hues./

The professor of chemistry, a young/ blue-eyed German “padre,” showed us through the laboratory, which was/ filled with the most delicate chemical/ apparatus that had lately come from/ Germany, and, strangely enough, had/ passed the mountains upon the backs/ of mules in almost entire safety. The/ young professor was an enthusiast in/ his study, and as described to us/ in broken Spanish the work he intended/ed to do in analyzing the minerals and/ gases of the volcanoes, and in exam-/ining the essential properties of the/ many strange plants that this country/ affords, it seemed hardly possible that/ such as he could be dangerous mem-/bers of any well-arranged and well-/governed community. He gave the/ youth of Equador credit for aptness/ in learning, but complained that they/ lacked in ambition and application./ He had one student who had nearly/ reached a point in his studies at which/ he could have made them useful in/ gaining a public position; but all al/ ease, without other reason than whim/ or caprice, stopped his studies and/aimless life followed by nearly all the youth/ of this country, who have means/ enough to keep themselves from the/ pangs of hunger./ His pupils are now/ all studying the most elementary parts/ of the science./

As we went from the part of the/ building devoted to teaching into the/ chapel or church, we found ourselves/ in an immense room, with walls cov-/ered with paintings, most of them/ likely copies made in Quito of the old/ Spanish masters; but some of them/ undoubtedly genuine. They are gen-/erally in a bad state of preservation,/ and mostly of such ghastly sub-/jects as “The Last Judgment,” and “The/ Ressurection of the Dead,” and one/ immense painting represented the suf-/ferings of the wicked in torment after/ death. As it seemed to me, almost a/ pictorial representation of Dante’s/ “Inferno.”/

As we passed out, we found at the/ door a crowd of twenty or thirty beg-/gars, waiting for the daily alms/ given by the Jesuit fathers. Beggars are/ one of the pecu-/lar institutions of/ Quito. Several leagues outside of the/ city I found old men and women kneel-/ing by the roadside, and with clasped/ hands begging alms in the name of all/ the saints, and in the city they are/ met at every turn. Several make the/ daily round of the hotel at which I/ stop, calling at every door, and beg-/ging in all the shades of voices, from/ humble trembling and prayer to impu/dent command. As I entered one of/ the old churches, and was standing, hat in hand, looking at the old paint-/ings, I saw a woman come in who,/ after crossing herself with holy water/ and bowing before the image of Christ/ before the door way, came up to me,/ and putting her hand upon my arm,/ begged of me, in the name of the holy/ Sacrament and the sacred house in/ which we were, to give her alms./ And all this misery with the necessi-/ties of life at less than half their price,/ upon the coast/.

After a few days here I arranged a/ trip to the crater of Pichincha with/ Colonel Wing’s secretary. At a dis-/tance, Pichincha appears to be several/ mountain peaks, all situated upon one/ base, and it may well be what some/ scientific men have supposed the re-/mains of a great volcano, much larger/ than Cotopaxi, that has been burned/ out and fallen in, giving it the irregu-/lar appearance it now has. Several/ of the peaks and points reach above/ snow level, and in one place a long ridge reaches up far into the snow,/ and in this the crater is situated. After/ hiring horses and providing ourselves/ with a good supply of eatables, we/ rode around the base of the mountain/ until we struck a valley that reached up toward the crater, and stopped/ here for the night at a little cluster of/ houses, the highest point inhabited./ The cold and the fleas did not allow/ us to oversleep, and early next morn-/ing we set out with three of the half/ Indian race that lived there, to act as/ guides./

A couple of miles’ ride up through/ cool moun-/tain pastures brought us to/ a belt of low timber or brush wood,/ among which were many brilliant/ fuchsias, with bright-colored hum-/ming birds flashing/ about them. The/ path through this was steep and slip-/pery with rain; but a half an hour’s/ riding brought us through and above/ to the bleak paramo covered with long/ bunch grass, and reaching up/ nearly/ to the snow line above. It was so/ steep that we could not go directly/ up, but turned from side to side in a/ zig-zag course, so as to overcome the/ ascent. An hour’s hard work brought/ us to the limit of vegetation, and al-/most to snow level. We left the horses/ here, in charge of one of the arreiros [sic; ar-/reros]/ and in the shelter of a huge mass of/ volcanic rock, and made the rest of/ the way to the crater on foot, passing/ over pieces of pumice stone and then/ through the snow, in all, perhaps/ nearly half a mile. We now found/ ourselves upon a sharp edge run-/ning down toward the interior of the crater/ as steep as snow would lie. The crater/ below was filled with cloud and steam,/ and at first we could only hear the/ roaring of the escaping steam, and/ smell a sulphure-/ous smell very suggest-/ive of the infernal regions; but
the cloud soon lifted a little and gave us a glimpse of a chaos of rocks, snow and clouds of steam rising out of the midst.

We now made our way down some-what to the risk of our necks, as we were continually slipping in the snow, the descent being so rapid that we followed away off to the right, and then the guides brought us to the edge of precipices several times, from which we had to draw carefully back and seek a new route. We finally, after descending five or six thousand feet, reached the first valley, which is per-haps three thousand feet below the summit, perpendicularly. This valley is likely a part of the crater, and at times of eruptions has openings for the escape of lava; but we could see nothing but sand and rock as we were again below snow level, while we could hear the escape of steam still beyond and below us. Climbing a little ridge, upon which some one of the scientific expeditions that have visited the crater had erected a wooden cross, we could see through the braking clouds another immense precipice below us, and then a valley, from which the steam and noise were coming. Our guides now denied all knowledge of the way to reach this; but finally one of them pointed out a narrow valley that led directly toward the point from which the great volume of steam was escaping, and said he thought that was the way. As he seemed to know nothing about it, I followed down alone, and descended over a quarter of a mile over ground so steep that the stones I loosened with my feet never stopped, but went bounding on, ever increasing in force until, with leaps of sixty or eighty feet, they sprang into the valley below. Then I found myself upon the edge of an almost perpendicular precipice of six or eight hundred feet in height. The stone and sand was sliding from under my feet and falling over the precipice, and it was with considerable trouble that I retreated, and just as I was slowly making my way out, I heard a shout of warning from above, and looking up, saw several large stones bounding and flying along down the very path I was following, and I had just time to crawl behind a large rock that for a tunnately stood near, as they went by, and a moment afterwards leaped for into the valley below.

After reaching the rest of the company at the cross above, I found them all decided upon returning, the Indians claiming that there was no way to reach the crater below. My nerves were trembling a little from the pre-curious position I had just found myself in; but to leave the volcano with-out seeing the most interesting part of the mouths of the crater themselves seemed to be out of the question.

So I ordered one of the Indians that seemed to have more courage than his fellows to follow me, which he did re-luctantly, and following off to the right, after toward an hour's work, we found ourselves in the real crater. This valley was filled with great boulders, and in one place there was a little lake, a few rods in length, of beautiful blue water. Passing this, we came to many small openings among the rocks, from which hot sulphurous steam was escaping. The rocks about these open-ings were covered with crystals of sulphur; but these were too delicate to preserve. The steam came up hot in our faces as we climbed over the rocks, and in one place the Indian guide who was following like a dog behind me, gave rather an unsatirical bowl of hot water. I found that he had scalded his feet that were only protected by sandals of agave fibre, and the next day he could hardly walk.

Beyond these small openings we came to the foot of the largest one, where the steam comes out from under the perpendicular precipice through a vent some forty feet in length and six or eight feet in width. It escapes with the force and noise of twenty locomotives blowing off steam. Small stones were blown out, and were continually striking upon the rocky sides of the gap. The steam rose in an immense column to a height of several hundred feet, and then spread out like a flat cloud and dispersed.

From here we could see an immense path that seems to have been broken out of the side of the crater at some eruption, and through this, which is on the opposite side from Quito, the later eruptions have likely expended themselves, though Quito has been damaged more than once since it has been inhabited by the Spaniards.

The guide was begging me to re-turn, and after a few minutes' obser-vation we began to climb, and I found that though the descent had been difficult, the ascent was to be much more so. Before we reached the cross where we had left the others, I was ready to drop with fatigue, and then we had another long, steep ascent, slippery with snow and so steep, that in many places we climbed with both feet and hands. Every twenty or thirty feet I would drop flat in the snow, and the guide seemed ever ready to follow me example. The air seemed so thin that it would not support the lungs, and after ten steps I would be panting as if I had run half a mile. It seemed as if that ascent was never ending; but finally, after over two hours of continual ascent, we reached the top, without waiting to sing the Doxology, as Prof Orton is said to have done; and after a few minutes' descent, that now seemed easy from the contrast, we arrived
at the big rock, where/ were the horses and the rest of
the/ company, who had built a fire and/ made coffee,
and were now ready to/ return down the mountain. I
had/ brought out with me a few specimens/ of rock,
and we now collected a few/ more from the maseca
[meseta] about us, and/ then mounted and started
down, ar-/riving at the village about dusk./

J. B. STEERE

Letter LXIII

[Peninsular Courier and Family Visitant, 12(23),
June 6, 1873]

FOREIGN CORRESPONDENCE

Number LXIII

CALLAO, March 12th, 1873.

Humboldt [sic; Humboldt] rambled, botanized,
and/ observed, when a young man, through/ the val-
leys and among the mountains/ about Quito, and I
had much of that/ satisfaction that small minds take
in/ going over the same places and doing/ the same
acts that great men have/ done, although the feeling
may not be/ peculiar to small minds alone. Quito/ is
noted for the number and beauty of/ the humming
birds that are found in/ the vicinity, every mountain
and even/ valleys on different sides of the same/ moun-
tain seeming to have special/ species. Encouraged by
the number/ of naturalists and collectors that have/ visited Quito, there are several natives/ who have un-
dertaken the killing and/ preserving of these birds as
a business,/ shooting them with balls of mud from/
blow guns, so that the plumage is not/ at all injured./

I found in the churches in the in-/terior of Peru,
and even in Brazil,/ copies of the saints that were
painted/ in Quito, and Mr. Colonel Wing and/ oth-
ers have made quite collections [sic] of/ paintings of
native artists. Some of/ them appear to be of consider-
able/ merit and originality, though they are/ generally
only copies; and there seems/ to be no reason as yet in
this part of/ the world to proclaim a renaissance/ of the
art. I visited the house of one/ family that have been
painters for/ several generations. The grandfather/ still
paints, and his son was engaged/ on a landscape show-
ing some of the/ volcanic and snow-covered peaks of/
Equador, which was already sold to/ Colonel Wing,
and the grandsons,/ boys of twelve and fourteen years
of/ age, seemed to be grounding them-/selves in the
rudiments of the art by/ grinding paint, as near as I
could/ judge by heir painty faces./

After two weeks pleasantly spent at/ Quito, I
engaged mules and set ou on/ my return to the coast.
We took a/ road that led us by the very foot of/ the
volcano of Cotopaxi, and I had a/ splendid view of
this conical snow-/covered peak for several hours,
when/ thunder clouds again covered it, and/ we rode
the rest of the distance to/ Latacunga in a drenching
shower./

Dr. Reiss117, a German scientist, has/ just suc-
cceeded in reaching the summit/ of Cotopaxi, the first
time it has been/ accomplished. It seems much more/
difficult of ascent than Chimborazo,/ though not quite
as high. The road-/way where it ends through
slight in-/equalities of the ground, brings to light/
much of the past work of this volcano./ The earth is
made up, as deep as the/ cuttings go, of strata of pum-
ice stone/ and ashes, separated by their layers/ of black
soil, showing that there have/ been many eruptions
with periods of/ rest, in which the ashes and pumice/became decomposed on the surface,/ and supported a
feeble growth of/ grass and bushes, as at present, and/
then all was again covered out of/ sight. At the foot
of Cotopaxi these/ layers of ashes and pumice were
from/ a foot to seven feet in thickness; but/ gradually
thinned out as we left the/ mountain behind, though
I thought I/ could still distinguish them forty miles/
away near Ambato./

I was not so fortunate this time as/ to pass
Chimborazo in one day, but/ was compelled to sleep
one night upon/ its side, at the tambo of Chuquipo-
qui./ This is a grass-covered hut of mud/ and stones,
that had been covered in-/side and out with white
wash; but/ this has been nearly all cut off to the/ mud
below by the passers by in in-/scribing their names
with dates, etc./ a species of notoriety much culti-
vated/ by this people. One poor fellow had/ written
with trembling fingers, “Paso [sic, pasó]/ 10 de Se-
tiembre, 1861, Francisco Da-/vila, bien muerto con
rio [sic, frío].” A literal/ translation of which would be
something like this: “I, Francis Davila,/ passed here
on the 10th of September, 1861, well dead with cold.”
A couple/ of stupid herdsmen were sitting on/ some
rocks beside the tambo, catching/ the last rays of the
sun as we rode up,/ and they pointed to a grass hut
near/ by, in the shelter of a great rock, and/ the exact
picture of a low hay stack/ on the outside, as the place
where/ travelers could get something to eat;/ driving
through a hole that served for/ doorway and window,

117 The German scientist Wilhelm Reiss and the Colombian Ángel
Escobar reached the summit of the Cotopaxi for the first time
on November 28, 1872. Alphons Stübel did the same in May,
1873.
and as soon as I could see for the smoke. I saw a woman and a couple of children hovering over a fire which they were feeding with long grass of the pampa; that seemed to give much more smoke than fire. An earthen pot held the potatoes and red pepper that was to be their supper and mine, and fifteen cents procured me a couple of plates of this “locro,” or potato soup, and a couple of boiled eggs; but I had to retreat with the tears running, from the smoke to the cold outside. After supper we set ourselves to prepare for the night in the old tambo; but with all the blankets and ponchos I carried I thought I could begin to feel before morning something of the sensation that caused poor Francis Davila to write himself, “well dead with cold.”

The next morning a thick fog was sweeping down close along the side of the mountain, hiding everything from view and accompanied by a piercing wind that made us shiver under our thick ponchos and with our faces wrapped up, though I had passed before with perfect comfort.

Upon my arrival at Guaranda I found that the Carnival was commencing, and the arreiros [sic; arrieros] could not be prevailed upon to begin a journey at such a period; so I had nothing to do but to wait until it was over. The festival opened with a bull fight at the little village of Huanuco, just above Guaranda; but this was a tame affair, the bull being held with two long lassos, while the young men rode around him and threw other lassos until the poor bull was so entangled that he could not stand up. I think the laws of Ecuador forbid killing the bulls; but the people must have bull fights, even if such weak affairs as this. The second and third days the streets were filled with men and women with pockets full of eggs and flour, and I think I was the only one in town, at the end of the feast, who had not had half a dozen eggs broken upon his head, and then a plentiful supply of flour and bran rubbed in. The door and window were spattered with eggs, and the coats and dresses of the feasters were covered. The drinking of Chicha and of aguardiente kept pace with the egg breaking, and at the end of the third day the streets were filled after dark with a shouting fighting crowd, and something harder than eggs were thrown, as a few got broken heads. The whites and Indians seemed to take sides in the quarrel, the Indians losing their humility under the influence of drink, and re-paying the abusive epithets heaped upon them by the whites with blows and stones. I could frequently distinguish such epithets as ‘pobre Indio,” “Indio bajo,” “Indio triste,” in the melee.

At one side of Guaranda there is a little cluster of Indian huts among little corn fields, and upon the hill side above several llamas were feeding. I went regularly every day of the feast to try to buy one of these llamas for the museum; but, though they would sell those I did not want, I could not get a good one. So the last day of the feast, when I was just ready to start for Guayaquil, I took my gun and went into the flock, and before the Indians knew what I intended to do, shot the llama I wanted. There were soon twenty women and girls about me on the hill side, screaming at the top of their voices, and several men who looked rather threatening; but by paying them twice what the llama was worth, I pacified them, and carried off the skin and head in triumph.

The Indians have been treated harshly and unjustly in this way by the whites until they know no other way, and it is almost impossible to deal with them otherwise.

The roads from Guaranda down were worse, if possible, than when I came up; but after four days, of which I have only a confused recollection of rain, mud, water, rocks and steep slippery passes, we finally arrived at Savaneta, and taking a canoe, I came down the same night to Bodegas, now under water, the people using canoes to pass about their streets. I got to Guayaquil just in time to take the steamer Trujillo, of the English Company for navigating the Pacific. The commander, Capt. Hall, is an American, and with several Americans on board, fresh from New York with the latest news, I had a pleasant trip to this place, where I am again settled in my old room, surrounded with shells from Tumbes, fish and monkeys from Santa Rosa, birds and plants from Quito, and geological specimens from Chimborazo and Cotopaxi.

J. B. STEERE

Letter LXIV

[Peninsular Courier and Family Visitant, 12(39), September 26, 1873]

FOREIGN CORRESPONDENCE

Number LXIV

CALLAO, April 11th, 1873

After packing and shipping the collections made in Equador [sic], as there was no ship ready for China, I concluded to make a trip up the Oroya Rail-
road\textsuperscript{118}, a road being/ built by Mr. Meiggs, that runs nearly east/ from Lima, following up the valley of the river Rimac [Rímac], and intended, when comple- ed, to connect Lima with the rich lands on/ the east side of the Andes and with the rivers Ucayali and Am- azon.\textsuperscript{[}Mr. [William H.] Cilley, the Superintendent of the/ road, was just going up the line, and through/ his kindness I passed very pleasantly and/ safely through a wild, rough and unsafe/ country.\textsuperscript{]/} 

The depot in Lima is near the bank of/ the river, where we found waiting a train/ of nice, clean American cars, with all the/ officials from conductor to brakesmen Amer-ican also. The road through Lima runs/ close along the banks of the river, and un-der the bridges by which it is crossed. The/ Rimac [Rí- mac] was now a rouring, rapid but shallow/ stream of over a hundred feet in width, and/ much more worthy the name of a river than/ a few months ago, when it hardly furnished/ water for the washer women seated along its/ bed. This is the rain of the moun- tains, and it now brings down immense/ amounts of mud and gravel.\textsuperscript{]/} 

We were soon outside of the city proper,/ and among the miserable huts of mud and/ cane, covered with oil canvas, where live/ innumerable negroes, mulattoes, Indians,/ and half breeds in almost as primitive a/ state as the savages of the woods. Great/ heaps of filth, the accumulations of some/ hundreds of years of scrapings of the streets/ and gutters of Lima, lay here and there,/ having settled down into that dry preserv-ed state that everything reaches here, and/ as we passed they gave out that same old/ indescribable smell that one notices at the/ guano islands, and in the ancient burial/ places of the Indians. After a mile or two/ of this, we entered a broad marsh of reeds/ and grass formed by the overflow of the/ Rimac [Rímac], and only waiting a little enterprise/ in draining it to become valuable in this/ country, where potatoes are worth a dime/ apiece, and a pound of meat costs 50 cents./ On the other side of the marsh we came/ into fields of badly cultivated sugar-cane/ and cotton, where gangs of Chinese were/ lazily cutting up the weeds with spades, or/ were picking the ripening bolls of cotton./ 

We could not see the bleak brown hills/ with sued [?] plains at their feet, closing in/ toward the river as we went on, and the/ cultivation became poorer, the cotton and/ cane giving way to corn and alfalfa. Among/ the hills on both sides of the river we began/ to see ruins of ancient towns and fortresses/ of sundried brick, and the remains of stone azequias [sic; acequias] on the hill sides showed that where/ there was now nothing but sloth and pov-erty, there had been plenty and counten-ment./ 

About thirty miles above Lima we sto-ped at the little station of Chosica. There/ is a nice hotel here kept by an American,/ and I stopped there several days, while ex-a mining the ancient ruins near.\textsuperscript{]/} 

Just above the station, in a rough valley/ filled with large rocks that have been/ brought down from the mountain above at/ some time when there were torrents of wa-ter, where now there is not a drop, there is/ an ancient village or cemetery, or both in one. At first sight it appears to be a mass/ of walls and stones, without form of any/ kind, and upon closer examination it re-minds one in its arrangement of the mud/ nests of some species of wasps, there ap-erating to have been first pits excavated in/ the earth among the rocks, those being of/ such forms and chance and the position of the/ rocks might give them. These were walled/ and covered, and over them built others/ of smaller stone, and still above these oth-ers, all keeping more or less the form of/ the original pit, and those buildings were/ scattered thickly over the rough ground,/ leaving no room for streets, there being/ now and then narrow winding passages be-tween the walls of the houses, while for the/ rest the roofs must have served for approach./ Those buildings were generally very small,/ often being not more than four by six feet/ in their dimensions inside the walls – mere/ closets. Those had been in almost all cases/ broken open, and appear generally to have/ contained bodies of the dead. From their/ small size and the human remains found in/ so many of them, I was almost led to be-lieve they were nothing more than tumbs:/ but from finding so much of the refuse of/ habitation, shells of nuts and fruits, corn/ cobs, charcoal, broken pottery, etc., and by/ afterwards noticing that all of the buildings/ and ruins in the neighborhood were filled/ in the same way with bodies, I concluded/ that the original inhabitants had been ac-customed to bury in their houses, after-/wards sealing up the rooms and building/ new habitations above./ 

There were twenty or thirty notes [?] of/ ground covered in this way with remains/ of walls and vaults, in which we could often/ see human bones with pieces/ of cloth and/ rope; the vaults seeming to have been/ broken open purposely, likely by the dis-/coverers of the country in search of treas-/ure. After wandering for a while among/ the ruins and noticing in what way they/ were constructed and situated, I found a/ favorable looking spot that had not been/ disturbed, and after removing a few shovels/ [illegible line]/ […] down into a vault some ten feet/ square, and literally

\textsuperscript{118} Oroya railroad. See Montgomery, 1877.
full of what appeared to be bundles of old cloth, from two to four feet in length, and nearly all standing on end, leaning against the walls or each other. These were dead bodies that had been doubled up, with the knees to the breast, and then wrapped in several thicknesses of cotton cloth, which were then secured by a rope knotted about them to keep all snug. Some of the bundles had been wrapped in an extra cotton cloth of great length, that had been knotted at each end of the bundle. We lifted those bodies out, and placed them about the mouth of the vault, until we had over twenty-five of all sizes, though the most of them were of small children. The coverings of some had decayed and dropped to pieces as we lifted them out, while others were better preserved, the dry, parchment-like skin still clinging to the bones, while the heads were covered with hair.

We looked in vain in this and other vaults for pottery, which is so generally buried with the Indians of Peru; but nearly every body had wrapped up with it some little article, and we could generally tell the sex by the quality of them. Many of the bodies had buried with them and wrapped around their hands or their heads, slings, and this was the only instrument of war found, while several of the skulls examined had been broken, apparently by stones thrown from slings. Many of the bodies of infants that we concluded must be these of boys, had little slings buried with them, those of little girls had little sacks and sticks for weaving or knitting, and little balls of thread, everything in miniature that was found buried with their mothers. I was ashamed of myself to disturb bodies that had so evidently been buried by loving mothers and friends, even though I claimed to be doing it in the cause of science.

One little girl had a small bag of peanuts upon her arm, while an infant had been wrapped in a swathe of fine cotton, and then buried in the arms of its mother, both being wrapped in the same cloth.

The men in nearly all cases had sacks of cotton cloth filled with coca leaves, with little calabashes and lime for eating with the coca, exactly the same articles the Indi-ans a little further up the valley still use. In one or two cases the wrappings about the women were fastened with course, rough, copper pins, in the rest with the long, hard, spines of the American aloe. In several cases these latter had been pierced as to be used as needles, the thread still remaining in some of them. About the bones of the arm of one woman I found a rude silver armlet, and this, with the pins and a couple of pairs of rude copper tweezers, were the only article of metal that we found. Two or three of the women had strings of rude bone beads, colored red with cinnabar or annateo [sic; annato], and we found a pair of curious shells, covered with spines and protuberances that appear to have been considered of great value, for the corpse had been buried with them in the hands. There are sea shells, though I have not yet seen them upon this coast. The cloth was cotton, and in most cases coarse and without figure, though we found remains of belts or girdles that had been worked and colored with much care. I found, as I thought in several cases, unmistakable evidence that some of the bodies had been re-wrapped after the original burial, and it is possible that, as the vault was re-opened from time for fresh burials, sons or descendants may have honored the bodies of their ancestors by re-wrapping them and giving them new honors, the inside wrapping being old and decaying, while those on the outside were still bright and strong.

After thoroughly examining the first vault, we covered the remains again, and searched for more; but though we found several, none were in so good a state of preservation as the first, though all were buried after the same form. In one place I struck into a room or cistern very deep in the ground, which was some eight feet in depth, and six inches in diameter and round, the stone walls being carefully plastered with mud, while it was covered with flat stones and perfectly empty. We could not imagine why it had been left in that state, unless some chief had made it for a tomb against the time of his death, and had then died in battle in some strange land.

Following up the valley and through the town, we came to a building much larger and higher than the rest, that had possibly served for a fortress. Behind this were stone steps leading up to a large space nearly free from stones. Here a space of some hundred feet in length and fifty or sixty feet in breadth, had been curiously divided off into larger and smaller oblong divisions by lines of large stones, those of a longer shape having been chosen, and these firmly planted in the ground and standing up two or three feet, while they were about the same distance apart, mak-ing a sort of miniature stone binge. The wide stone steps leading up to this, with the large space enclosed, showed that this must have been a place of public use: but for what, whether for worship, or games, we could not tell. Beyond this there was nothing more to be seen but the rough, barren hill side, with no sign that it had ever been troubled by the hand of man.

After exploring this locality, we rode down the valley a few miles, where we found another village of the same sort, except that there were not so many
stone, and the houses were somewhat larger and more symmetrical. Behind and above was the same enclosed space of stones standing on and, as if all the ancient population of the village below had here their seats in time of council.

The vaults of this town seemed to have been more carefully examined than those of the first, and we spent little time in digging. Above and about these villages were but few signs of cultivation, but upon the other side of the river we could see low rows of terraces upon the hill sides, extending for miles.

Crossing the river upon a suspension bridge, built after the same plans as the ancient raw hide bridges of this country, but supported by wire ropes, we passed several hours wandering over these terraced lands. There seemed to be several hundred acres in this one plat, the water for irrigating it having apparently been brought from the river far above in a stone azequia or ditch, that was carried around the hill sides and down the river until the proper height had been attained. The highest of these terraced lands seemed to me to be nearly or quite two hundred feet above the river, and the water had been led down by a series of small ditches, until it had irrigated the whole.

The walls of the terraces were from five to eight feet in height, and still stand firm and strong. Every now and then stones project from the walls, by which to climb to the terrace above. The terraces were from eighty to thirty feet wide, and the wider ones were crossed here and there by low walls or rows of stone, as if to divide individual property, though to form the principal acequia or ditch, that was carried around the hill sides and down the river until the proper height had been attained. The highest of these terraced lands seemed to me to be nearly or quite two hundred feet above the river, and the water had been led down by a series of small ditches, until it had irrigated the whole.

We could not but contrast the patience and the industry that had brought these rugged hill sides under cultivation, after every corner of the valleys and low lands below had been brought to their limit of productiveness, with the scene before us — the terraces as barren as Sahara, while even the valley of the river itself was left almost desert. There were but two miserable haciendas in sight, with two or three gangs of Chinese cultivating the few cultivable acres, while the rest was left to grow up to woods, and this within thirty miles of Lima and food at famine prices. It may well be said of Peru that in her riches is her poverty. As long as her islands and coasts produce guano and saltpeter that foreigners will dig out and pay for, so long will the Peruvians leave their farms and crowd to Lima, where they will quarrel and start revolutions that they may get their hands in the public treasure, leaving the real development of the country until these accidental causes are exhausted. The good old way of gaining money by the increase of the earth is too slow for Peruvians, and speculation and speculation are even more rampant than in the United States, since the stealing from the public money will come much nearer supporting the whole population than at home.

J. B. STEERE

Letter LXV

[Peninsular Courier and Family Visitant, 12(40), October 3, 1873]

FOREIGN CORRESPONDENCE

Number LXV

CALLAO, April 13th, 1873

From Chosica we again take the train, the railroad still following up the valley of the Rimac, that has already narrowed to twenty or thirty feet in width, and is beaten into foam in its rapid course. The bare gray mountains of granite now shut in on both sides nearly to the river, the scenery growing wilder as we go up. The grade becomes steeper, and the engine puffs and pants slowly along, its wheels grinding upon the track, and reminding one much of some huge overloaded animal. Fifteen or twenty miles more brings us to the station of San Bartolome.

The mountain sides, wherever the ingenuity of man could invent a way to get water for irrigation, are still covered with terraces; but we now notice a decided greenish cast upon the hill sides, caused by vegetation, for we have now reached a point where it rains, though the showers are slight and of short duration. The plants are generally small annuals that seem to be in haste to blossom, and bear fruit before the showers shall cease. There were heliotropes and convolvuli, and a few pretty ferns in the cliffs of the
rocks, with asters/ and a little marigold, while the peren-

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nial [sic; perennial]/ plants were represented by sev-
eral small/ species of cactus. But with all there was/ not
enough to cover the ground with green,/ the plants
appearing to be only incidental,/ while the natural
state of the earth was the/ same dry, barren desert that
we had but/ just passed out of from below./

San Bartolome [Bartolomé] had been for a long
time/ the headquarters from which men and ma-
terial were forwarded farther along the/ line, and the
old corral, with wrecks of dead/ mules and old shan-
ties, are the principal/ sights. The road here makes its
first de-/velopment, that term signifying the doubl-
ing of the road upon itself to gain in height./ We ran
back a mile or so in nearly the/ direction from which
we came, and after/ winding about a while upon the
mountain/ side, we locked down, and there, almost/

120 See previous note.

beneath us, and six or eight hundred feet/ below, was
the station of San Bartolome [Bartolomé]./ We pass
through several cuttings made in/ the solid granite
of the mountain side, and/ then through a couple of
small tunnels, and/ we come out in sight of the famous
Verru-/gas bridge. This is something more than/ two
small tunnels, and/ we come out in sight of the famous
Verruga bridge. This is something more than/ two
hundred feet in length, and it is said/ to be the highest
bridge in the world. In/ comparison to its height the
wrought iron/ columns and braces look like mere spi-
ders’/ webs. In the bottom of the valley runs a/ small
stream called “Agha [sic, Agua] de Verrugas,”/ or Ver-
ruaga water, and this is the seat and/ center of a curious
disease, that some have/ thought was caused by drink-
ing this water,/ called Verrugas119, which is Spanish
for warts./ The first symptoms of this disease are/ se-
vere pains in the back and limbs, and/ after weeks and
even months of these pains/ hard lumps are felt in
the flesh of the face/ and other parts of the body, that
soon come/ to the surface in large red warts. These/
seem to be more plentiful upon the face/ and neck
than elsewhere, and the patient,/ though generally
able to be about and often/ even at work, presents a
terrible appearance/ with these great red warts, often
the size/ of the thumb and even reaching that of an/
egg, over his face. These warts are almost/ or entirely
without sensation, though they/ bleed at the slightest
touch. After awhile/ they drop off, and the patient
is considered/ well, though I have seen no one who
had/ had the verrugas that had regained good/ health,
and these excrescences seem to be/ rather the sign of
some disorder of deeper/ root than the disease itself.
The disease/ seems to have been known to the origi-
nal/ inhabitants here; but upon the arrival of/ large
numbers of employees of the railroad/ it broke out
with great violence, attacking/ nearly every one who
came, and often those/ who only remained for a few
days or hours. Many think that the use of the wa-
ter causes/ the disease; but some who were attacked/
had never drunk of the water, and they/ think that
there may have been something/ poisonous in the soil
and rock thrown out/ by the workmen. But whatever
the orig-/inal cause of the disease, the habits of the/
gangs of workmen who were gathered to-/gether here
likely had something to do with/ its virulence, es-
pecially since from their/ fear of the water they used
much more/ drink of the stronger kind. At the same/
time a severe form of intermittent fever/ broke out
among the employees, and this/ was not confined to
a distance of a few miles/ as were the verrugas, but
extended all/ along the line, and received the specific/
name of Oroya fever120. It often proves fatal/ within
two or three days. Thousands of/ Chilians, who were
led to come here by the/ high wages paid, now lie
in the little grave/ yards along the line, and these are
not all,/ for many young Americans who have come/
here, hoping to make a competence and return in a few years to enjoy it with the friends at home, now lie along the rugged and barren mountains, while every train brings down a few pale, hopeless-looking fellows on their way to the hospital at Lima.

From the bridge of Verrugas, a few miles through more cuttings and tunnels brings us to Surco, the present terminus of the road. Here were great heaps of ties and rails, with the various materials needed along the line beyond. Carpenters were busy putting up rude board houses and covering them with sheets of corrugated iron, and a little below there was a great corral with several hundred large fine mules, the motive power used along the rest of the line.

Being provided with mules and horses here for the trip, we intended to make further along the line, we set out the same day, and following up the road a mile or so, we came to the end of the track, where the workmen were busy putting an iron bridge across the river. We crossed lower down upon one of those narrow bridges of wire rope that we afterward found so plenty along the line. They are put up by the Railroad Company, who have laid out many ward found so plenty along the line. They are put up of those narrow bridges of wire rope that we afterward found so plenty along the line. They are put up by the Railroad Company, who have laid out many narrow terraeplains, where the workmen were busy putting an iron bridge across the river.

We stopped for the night at Matucana, an old Indian town, now galvanized into something like life by the railroad, and the bustle it has brought with it. The narrow muddy streets were filled with half-drunkened Chilenos, with here and there one of the natives bundled in his coarse, dark woolen pants and jacket, with long stockings drawn up to the knee, and shoes or moccasins of hairy raw hide. Two or three Chinese had established their never failing "fondas," or eating houses, where they were dispensing "chow-chaw" to the hungry. We had now reached a rainy country, as we could tell from the dripping eaves of the low grass covered houses of mud and stone that formed the village, while on the hill sides, upon the same terrace made by their ancestors long, long before the coming of the Spaniards, the inhabitants were cultivating little patches of potatoes and corn, the rainy season being sufficient to mature these crops here without irrigation. I saw here for the first time a method of cultivating the soil which is likely the one used before the conquest, handed down, like the ter-replains cultivated by it, from generation to generation. The instrument in general use now among the Indians in cultivating their little patches, as well as the fields of their masters, is the rude wooden plow with the point shod with iron. This is drawn by oxen that are yoked by the horns; but as the Indians had no domestic animals larger than the llama, and this is too weak for this use, it must be concluded that the plow has been borrowed from the Spaniards who still use the same rude instrument at home. But here upon these narrow ter-replains where oxen cannot be used, we may look for the original implement of the Incas. This is a long wooden spade, if it can be called such, looking much like a long plow handle, having the same curved nib at the upper end. This runs to a long, narrow, flattened point at the lower end, which is now frequently shod with steel or iron. A couple of feet above the point a rest for the foot is made by lashing on a piece of wood cross-wise with thongs. The Indians generally work side by side with these implements, and with all the regular-ity of movement of soldiers at drill, they raise their spades at the same moment, and making a step sideways along their furrow, they place them, and springing upon them twice with their weight, they bear back together and loosen a sod somewhat larger than that raised by a common spade. A woman follows, turning the sods and pulverising them with her hands.

The next day’s journey was through a country covered with vegetation and nearly all in flower. The steep hill sides were all in flower. The steep hill sides were covered with heliotropes and with a beauti-ful geranium, much like the wild ones so common at home, but with much larger blossoms. With these there were beautiful tufts of little, sweet-scented verbenas, and wild potatoes, with large clusters of blue and white flowers, were abundant. A few low bushes were the only thing like timber we saw upon the trip.

A ride of ten or twelve miles brought us up to San Mateo, another Indian town much like Matucana, and here we found ourselves among large gangs of Chilenos and Chinese who were busy on the mountain side above shoveling and blasting. The sound of the blasts toward evening was almost continuous, and the pieces of rock that rolled down the mountain side, after crossing the road, made traveling exciting if not pleasant. Just below San Mateo we visited the corral of the Chinese, where several hundred of them are kept prisoners when not...
at work. The corral was much such a pen as our volunteer soldiers were kept at Jackson during the war. The Chinese were just at dinner, and the immense plates of rice and meat served out to them put all thoughts of hunger out of the question. Dr. Ward, the surgeon of this camp, took us through the hospital, where a couple of dozen Chinese were lying upon cots, and apparently receiving all the care they were capable of appreciating. The sheet iron roof of the hospital was riddled in a dozen places by rocks from the blast; but, fortunately, none of them had fallen upon the poor fellows in the bunks below. As at Matucana, we found here several American engineers, surgeons, etc., generally young men who have been drawn here by the high salaries paid. Several engineers from the University of Michigan are employed upon the railroad of Peru, but I have not yet encountered them.

Above San Mateo we soon passed the last gangs of laborers, the only sign of the railroad that is to be now the blottches of white paint upon the rocks here and there, where tunnels and cuttings are to be made. A few miles further brought us to the narrow gorge known by the musical but questionable name of “Infernillas,” where the river rushes down between the mountains that now shut down to it on both sides. Here we ride along the river bank under sheer precipices of several hundred feet in height. We can see no place for a railroad here, but are shown marks on the precipices above where the road is to run, now coming out of a tunnel and passing the river upon a bridge only to plunge into a tunnel again on the other side, and thus for many miles. When finished it will likely be the wildest piece of railroading in the world.

We still went on and up, passing toward night Indian arreiros [sic; arrieros] with little trains of donkeys or llamas, which they were unload-ing, packing their loads together so as to make a little shelter for the night, one of the company meanwhile gathering the coarse grass for a fire with which to boil the little pot of potato soup for their sup-per. We finally reached, just at night, a frame house up under the edge of the snow on the mountain side, and entering found ourselves among several American engi-neers, etc., in a room well warmed, by a glowing stove in one corner, and we were soon seated at the table loaded with warm biscuit, ham and eggs, and all the articles that go to make up a genuine American home dinner, for the cook was an Illinoisan and all the camp were western men. We sat and talked until far into the night, with hardly a thought that we were fourteen thousand feet up in the clouds and snow among the Andes, and with a broad continent and ocean between us and home and friends.

J. B. STEERE

Letter LXVI

[Peninsular Courier and Family Visitant, 12(41), October 10, 1873]

FOREIGN CORRESPONDENCE

Number LXVI

CALLAO, April 13th, 1873

The next morning after our arrival at the summit, we found the ground covered with snow that had fallen during the night, and a half-tamed vicuna that was tied to a stake near the house was busily scraping away the snow to find a few blades of grass. The vicuna is but a little larger than the red deer of the United States, but its neck is even longer and thinner than that of the llama. It is of a straw color and nearly white underneath. Its fur or wool is of exceeding fineness, and if it could be procured in any quantity, it would become of great commercial value. The vicuna is not now found domesticated, though it is said to have been in the time of the Incas, and the little of the wool procured is taken from skins of those killed by hunters. Of this are made ponchos that are like no other material in their softness and warmth. There seems to be no reason why the vicunas are not domesticated, except that the grazing farms upon the mountains are without fences or enclosures, and the young ones captured...
cannot be kept/ enclosed for two or three generations, as/ would be necessary to thoroughly overcome/ their wilderness. If domesticated, they would/ not likely yield more than six or eight/ ounces of wool per year; but this should/ be of great value. Perhaps they could be/ acclimatized in the higher and cooler parts/ of the United States./

Upon counting our forces at breakfast/ we found that most of our company were/ suffering with a curious affection common/ in these altitudes, called “soroche.” This/ is something more than the oppression and/ shortness of breath so common upon high/ mountains, for it is accompanied with vio/-lent headache with nausea and vomiting. I supposed that I was safe, as I had passed/ several mountains higher than this; but/ before we had proceeded far, I was as badly/ off as any of the rest, the sensation being/ much that of seasickness, but producing, if/ possible, a still greater feeling of helplessness/ and hopelessness. There was no one/ of the party that would have continued the/ trip but for the ridiculousness of giving up/ to an attack of that sort. As it was, three/ of us kept on. A ride of a mile and a half/ brought us to the mouth of the summit/ tunnel, where the railroad is to pass the/ first and greatest range of the Andes. The/ mouth of the tunnel is over fifteen thou/-sand feet above the level of the sea, and/ only just below the level of perpetual snow./ the ridges and peaks all about being thickly/ covered. Quite a village has sprung up/ around the mouth of the tunnel, the huts/ being low and made of sods, half cave and/ half above ground. In the valley, a few/ hundred feet below, a little grass is growing/ upon which llamas were feeding, and a little/ brook of snow water that we could step across, and which/ was formed from the/ snow drifts about us, was the Rimac [Rímac], which we had now followed up from its mouth to/ its source./

The tunnel is to be over a mile in length,/ and the workmen are now some three hun/-dred feet in on the west side, and one hun/-dred and fifty on the east. The tunnel was/ dripping with ice cold water, the product/ of the snow drifts above, and a strong/ stream runs from the mouth. The com/-pany are now arranging diamond drills, the/ machinery being nearly/ all in place, and/ many kegs of petroleum for runnings the/ engines lay about, having been transported/ on mules’ backs from Surco, as also large/ quantities of timber for supporting the/ walls of the tunnel, the rock being so shat/-tered that it is unsafe without it. We here/ saw for the first time the action of a form/ of nitro-glycerine, called “giant powder.” A cartridge/ of this, the size of a finger, was/ laid upon a rock of a hard quartzite and ex-/ploded by a fuse, when it blew/ the rock/ into small pieces, while one could have ex/-ploded any quantity of ordinary power in/ the same way without effect. One of the/ workman afterwards fired a cartridge of the/ same, and burned it in his fingers like a/ candle, the difference seeming to be that in/ one case the explosive particles are all fired/ at once by the shock, while in the other/ they are burned more gradually. There/ were many things worthy of note at the/ tunnel; but everything seemed to be/ changed by the dull, miserable sickness we/ were suffered from into cold and ice and/ mud./

The summit tunnel is about a hundred/ miles from Lima, and to reach it the rail/-road makes eight developments, and passes/ innumerable cuttings, tunnels and bridges./ The descent upon the other side to/ ward the/ branches of the Ucayali is much easier, and/ Oroya, the prospective terminus, is reached/ with only one development, the terreplein/ being already made to that point from the/ summit./

As we rode and crossed the pass com/-ing out on the other side, a grand panora/-ma of snow-do/-vered mountains glittering/ in the sun, with great el/-evated valleys and/ paramos covered with grass, came in sight; but we were in no position to enjoy beauty/ or grandeur and rode gloomily on, all of us/ wishing that we had never been tempted/ to come into the country of the “soroche.”/ There was no wind, and the/ very stillness/ that reigned in those elevated regions/ startled us as if we had gotten beyond the/ reach of noise and speech. As we descend/-ed, we passed sever-/al clear cold lakes in the/ valley, fed from the snow/ above, but with/-out a bush upon their banks. A few/ llamas/ were feeding upon the coarse grass; but/ the/ soft pads of their feet made no noise/ to break the ter/-rible stillness that seemed/ to have settled down over the earth. Fur/-ther along the valley we saw here and there/ upon the banks of the lakes clusters of/ buildings, with the tall chimneys that/ showed them to be works for smelting the/ silver; but nearly all were quiet/ and de/-serted. We could now see the heaps of/ debris upon the mountain sides that had/ been thrown from the silver mines, and we/ could frequently see in the rock along the/ road veins of galena and iron pyrites, show/-ing that we were in the mineral country./

The Peruvians have a saying that though/ silver was given to mankind by the Giver/ of all good, the locating of the mines was/ left to the evil one, who put them on the/ tops of the mountains, and covered them/ with snow drifts and guarded them with/ the “soroche,” [sic; soroche] that mankind might not/ be too happy in their possession, and it/ seems to be a fact that all the Peruvian/ silver mines of any value are at these great/ altitudes./
About the middle of the afternoon we reached the estate of Pocura, the limit of our trip. The overseers of the estate had gone to meet us, but had taken another road and missed us, so that we found the house locked up; but we got into a sort of hall where there was a small stove, and after trying for half an hour to make a fire of dry sods, we gave it up and spread our ponchos on the floor, and tried to forget our troubles and headache in sleep. At dark the men came back and unlocked the doors, and prepared a great supper which we felt like eating, but after doing our bet to receive politely the many kind offers and sets of kindness of those men, we finally got to bed, a business of more importance to us just then than anything else in the world; for that one day of sickness seemed to have crushed all the enterprise and endurance out of us.

The next morning found us too unwell still to think of examining mines, if they had been those of Golconda; but I prevailed upon an Indian hunter, by paying him pretty heavily, to kill me a vicuna, as I had heard there were many near there. He came back after a couple of hours with a fine one, which he had shot from a flock of twenty or thirty, and I had all I wished to do for the rest of the day to preserve the skin. We tried some of the meat for supper, and found it not unlike venison.

The third day, though we were still far from well, we undertook to visit some of the mines belonging to the estate. We passed many old mines that had been long deserted, having fallen in or filled with water. The old method of mining seems to have been to require so much mineral of each Indian, and leave the management of the mines to them, the Indians entering the rock and following the veins of metal in holes but little larger than those of foxes. The mines we entered were but little better, being low and dripping with ice cold water. We crawled for hours up and down slippery ladders and through these rat holes, hardly ever being able to stand up right in them. Now and then we met an Indian miser crawling out, covered with mud and with his sack of dripping mineral on his back. Those miners are the most stupid looking set that I have yet seen, the dull, vacant stare with which they looked at us being but little less than idiotic. This may be accounted for by the coca that they use in such quantities, every miner having his sack of leaves at his side, with the little calabash of lime for seasoning them, while their distended cheeks and colored lips showed that they were nothing abstemious in its use. It very likely dulls all sense of pain and trouble, for unless it does I cannot see how men could be prevailed upon to work in these mines. The men work by reliefs, so that the work is carried on day and night. When the ore is brought to the surface, it is broken into small bits and then put into small sacks, and transported on the backs of llamas to the works; or, if it is of high enough grade, it is sent down to the coast and exported.

The most ordinary form of the ore seems to be in galena, lead and silver, with minerales of copper. The ore is reduced in the haciendas is first ground in a curious mill, – an upright shaft generally turned by a water wheel, dragging around at each revolution great stones tied by thongs to arms that are secured to the shaft. These stones, as they are dragged round, crush the small pieces of ore upon the stone bed below, and finally reduce them to powder, when it is roasted in rude ovens, that are heated by the dry dung of llamas, an Indian girl sitting at the mouth of the oven, and throwing this in by handfuls all day long. After the ore is thus roasted, it is put into small stone pens carefully paved, where it is trated with quicksilver, and then mixed by turning in llamas and driving them over it. More modern method of reducing the ore are now in use in some places, but the fuel used is the same. The quality of the ore in this region seems to be rather poor, but it is likely to be found in any quantity, and perhaps when the railroad reaches Yauli, which is in the midst of the mines, they may be made of more profit.

The next morning we set out on our return, and were soon down below the level of Sorroche, three days’ trip finding us again at Lima safe and sound.

J. B. STEERE

Letter LXII

[Peninsular Courier and Family Visitant, 12(42), October 17, 1873]

FOREIGN CORRESPONDENCE

Number LXVII

CALLAO, May 10th, 1873

Upon our return from our trip to the interior, as there was no immediate prospect of a ship for China, I spent my time in examining, with Dr. Hutchison – the English consul – some of those curious mounds that are found in the large valley or plain in which Lima, Callao, Chorillos, etc., are situated. The mounds are in plain sight from the cars as one
goes from/ Callao to Lima and from Lima to Chorillos, though but few who see them imagine/ their true character, they having been so/ rounded by the length of time they have/ been exposed to the weather, that at a dis-/tance no one would suppose them to be/ other than those produced by natural/ causes. They stand up bare and yellow out/ of the plain, and without/ the least particle of vegetation, as they cannot be/ irrigated, and their number and extent make them a/ real hindrance to the cultivation of the soil./ As one approaches them he finds that they/ are constructed of sun-dried bricks, or/ adobes, some mounds, like that of Pando, being made of small ones, six inches in/ length by four in breadth and three in/ thickness, with the finger marks still upon/ them, while others are made of large ones,/ six or eight feet in length and four in height/ and thickness, that must have been made/ in their place like those with which the/ walls about the fields are made at the pres-/ent time by the Peruvians. Upon closer/ examination one finds that these mounds/ are made up of terraces of different/ heights, and they are still surrounded in some cases/ by the remains of high strong walls of the same ma-/terial. I measured several of the/ largest, and though rather roughly done, the result cannot be far from/ the truth. None of them were over eighty or ninety/ feet in height, but they were from four to/ seven hundred feet in length, and from/ three to five hundred in breadth, giving sev-/eral of them a mass of twenty-/ two to/ twenty-five million cubic feet, second only/ to that of the great pyramids of Egypt./ There seems/ to be some doubt concerning the purpose for which/ they were made, and some of them may have been/ built for tombs; but it seems more likely that they/ were built for defense. The advantage of/ those who possessed an elevation of this/ kind must have been great when the arms/ used were spears and stones. This great/ valley, easily irrigated from the Rimac [Ri-/mac], must have been thickly populated, and/ those mounds were likely built by its in-/habitants for ref-/uge and defense in time of war. They have apparently/ been made at/ different times and by different pos-/sessors, as their material differs, and in many cases/ they had lost their original use before the conquest, as some of them are buried by/ hundreds of tons of stones that have been/ picked from the plains about to clear them for cultivation. This work must have been/ done before the conquest, as it hardly seems/ probable that those of Spanish descent/ would have taken the trouble to pick such/ vast quantities of stone, judging from those/ at present here. Some of the mounds have/ also been used as burial places by people/ more modern than their makers, and we/ found one that was perfectly full of human/ remains, that had been put in without or-/der all over the top. They had buried with/ them slings and coarse pottery, and the/ skulls were not flattened like the most of/ those found along the coast./

After we had visited the most of the/ mounds and ruins near Lima, Dr. Hutch-/inson formed a party to go to visit the ruins/ of the Temple of the Sun at Pachamac [Pachacámac], some thirty miles down the coast to the/ south. We took the train early in the/ morning at Lima for Chorillos, the New-/port of Lima, and situated upon the coast/ nine or ten miles to the south. Chorillos is a town of perhaps twenty thousand in-/habitants in its own right; but during the/ summer nearly all Lima, or at least the/ moneyed part of it, come here where they/ have nice houses, and pass the season/ much as it is passed in other bathing places./ We found horses waiting for us here, and/ we set out down the coast, passing one/ estate and then coming into the bare des-/ert, that comes down to the sea in that/ direction, the only break being a great salt/ marsh in one place filled with rushes. We/ were much interested in watching the curi-/rous effects produced by mirage along the/ coast, the whole plain in front of us appear-/ing to be a sea that retired as we advanced./ The road is not consid-/ered safe from rob-/bery, as we were waiting for some of/ the party who were behind to come up,/ and were looking back along the route we/ had come, the first we saw of them, they/ appeared to be mounted on horses twenty/ feet in height that were walking in the air,/ but as they approached they gradually re-/sumed their proper proportions, and came/ down to the earth again. After a ride of/ three or four hours, we came to a valley/ showing some signs of cultiva-/tion, with several small rocky islands lying in the sea/ opposite, and we were told that this was the valley of Pachamac [Pachacámac]. On the other/ side of the valley there was a hill of three/ or four hundred feet in height, and upon/ this we could see the ruins of the great/ temple, while behind the hill, extending/ back for a mile or more, were the ruins of the an-/cient town. The temple was built of/ stone and adobe mixed, the hill upon/ which it is placed being appar-/ently composed of a shattered rock that was gener-/ally broken into blocks eight or ten inches/ square, and the adobes were made of the/ same size, so that they could be laid up/ together. They were laid up in soft mud,/ and then the walls were covered with a/ coat of red plaster or paint, the coloring/ matter of which appears to have been red/ ochre, and this is still adhering to the walls/ where they are least exposed to the weather./ The temple fronts to the sea, and in the/
something that looked like a human head, wrapped breast. In the top of one of the sacks was sticking sitting posture, with the knees drawn up to the bodies having been buried in the sacks in the usual, the baskets being kept upright by sticks, the one end of this stood two of the before mentioned four or five. We could get but little idea of its construction from the mass of ruins in which it is at present; but it did not likely bear any proportion in height to modern buildings, being probably a great wall twenty or thirty feet in height, nearly equal in length on every side, and enclosing a space that was divided up into many small rooms and divisions, for the various uses to which it was designated. We found in some places pieces of very fine and beauty fully painted pottery, much finer than we afterwards dug up; but the probability of finding anything by digging in the ruins seemed small.

Between the hill and temple and the ruins of the town behind them, was a valley which was covered with bones and skulls and baskets or sacks of rushes, in which the bodies had been buried, that had been dug out in the search after treasure, and here we concluded to spend some time in digging. We procured several Chinese from a neighboring hacienda, and began work where there seemed to be the greatest promise of graves still undisturbed. We found no lack of bodies, the greatest trouble being with the sand that was so dry and fine that it covered us filled our mouths and throats, and covered upon everything as fast as we could dig it out. The ground seemed to be perfectly full of bodies, — at first a layer a foot or so beneath the surface, buried without much care and wrapped in coarse cotton cloths, while be-low there were vaults in which the dead had been buried with more care. The sand generally ran into them and covered every thing, so that we could get but little idea of the method of burial; but with the greatest pains we uncovered one, and found it as follows: At first there was a fine mat woven of rushes; this covered a layer of small canes that were laid thickly over the mouth of the vault below. Carefully re-moving these, we looked down into a vault four or five feet in depth and as many in breadth. In one end of this stood two of the before mentioned sacks or baskets of rushes, each with a human skeleton, the baskets being kept upright by sticks, the bodies having been buried in the sacks in the usual sitting posture, with the knees drawn up to the breast. In the top of one of the sacks was sticking something that looked like a human head, wrapped in a cotton cloth. Unwrapping this, we found it to be rude human face cut out of wood, with sea shells for eyes, and an old fishing net fastened on behind like a chignon, to give it the shape of the head, while it was covered with hair made from the fibre of some plant or the bark of a tree. This curious figure thus perched on the top of the sack containing the body was the high est object in the vault, overlooking the rest, and likely the family god buried with its owners. We found several of these wooden faces lying around among the skeletons and other remains that had been dug out, and they seem to have been buried in most or all of the vaults. The bodies found here had very little cloth buried with them, dif-fering in this, as well as in many other respects, from those found at Chosica, Ancon [Ancón], etc.; but we found several curious aprons, much like those I found in use among the Indians in the interior of Brazil, though larger, these being six or eight inches square, and with a fringe along the lower edge. These were likely the principal or only clothing of the ancient inhabitants of Pachacamac [Pachacámac]. In front and at the feet of the two bodies we found in the vault, were a number of pots of different sizes of coarse earthen-ware, and these were all carefully covered with the plates of dishes made of the shell of a very hard gourd, that is still in use in Peru for the same purpose among the Indians. Taking out these pots and opening them, we found them to contain different kinds of provisions, one or two having a curious black corn in the ear, another beans, another pea nuts, and another the dry roots of yucca, while a large flat calabash held the skel eton and hair of a couple of small animals that seemed to be Guinea pigs. Beneath these were several larger jars, in which there was a sediment that was without doubt the remains of chicha. There were fishing nets with the bodies, and in one place we found a small paddle of a curious shape, and this people, like those of Ancon [Ancón], must have subsisted in great part upon fish.

A ride of a couple of miles from the ruins brought us to a fine stream crossed by an iron bridge, and crossing this we entered the beautiful valley of Lurin [Lurín], passing along a road shaded by large willows, with fields of sugar cane on each side. After visiting the little mud town of Lurin, we rode back to a hacienda where we passed the night. As we were taking our supper upon the veranda, the Chinese of the hacienda, several hundred in number, came up from their work, and among them thirty or forty chained together two and two holding up their chains with one hand to keep them from
galling their legs, and with the other carrying their spades, their ordinary implement. These had been refractory or rebellious, and this was their punishment. We could hear the clanking of their chains long after we had gone to bed, as they moved about their quarters, washing themselves and cooking their supper, and were waked by the same sound in the morning as they moved off to the field. The lot of the Chinese in Peru is likely full as bad as was that of the slaves in the Southern States; at least for their eight years of service. They are flogged by brutal overseers, put in irons, badly fed and clothed, and generally look poor and sickly, though those employed on the railroads being constructed by Mr. Meiggs are an exception, as they appear to be well fed and satisfied. Suicide is common, and this often by hanging, the most frequent cause of death. Sick-ness is very prevalent among them, and this often by hang-ing, the method of suicide. The treatment of the Chinese in Peru is likely as bad as was that of the Filipinos, where the little mounds are thick, each one covering a poor Chinaman buried without coffin or shroud, and with no sign to tell his name or to show that the living care for him, except, perhaps, a few pieces of rice paper containing prayers, likely, in Chinese characters, and held down by little stones to keep them from blowing away. The treatment of the Chinese in Peru is only another proof that mankind are not civilized enough so that individuals can be allowed the right of property in their fellow men without abusing it.

J. B. STEERE

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APPENDIX I

List of the fishes collected by Steere in the Amazon River in 1901 (Eigenmann & Bean, 1907)

Ageneiosus ucayalensis Castelnau, 1855, Siluriformes, fam. Ageneiosidae
Anableps tetrophthalmus Bloch, 1794 – Cyprinodontiformes, fam. Anablepidae
Ancistrus dolichocephalus Kner, 1854 – Siluriformes, fam. Loricariidae
Astyanax bimaculatus (Linnaeus, 1758) – Characiformes, fam. Characidae
Brachyplatystoma goeldii Steindachner & Bean, 1907 [Fig. 2] – Siluriformes, fam. Pimelodidae
Brachyplatystoma rousseauxii (Castelnau, 1855) – Siluriformes, fam. Pimelodidae
Callophysus macropterus (Lichtenstein, 1819) – Siluriformes, fam. Pimelodidae
Chalcinus elongatus Günther, 1864 – now Triportheus elongatus (Günther, 1864), Characiformes, fam. Characidae
Curimatus knerii Steindachner, 1876 – now Curimata knerii (Steindachner, 1976), Characiformes, fam. Curimatidae
Doras dorsalis Valenciennes in Cuvier & Valenciennes, 1840 – Siluriformes, fam. Doradidae
Eigenmannia troscheli (Kaup, 1856) – now Rhabdoli-chops troscheli (Kaup, 1856), Gymnotiformes, fam. Sternopygidae
Elopomorphus elongatus (Spix & Agassiz, 1829) – now Anodus elongatus Spix & Agassiz, 1829, Characiformes, fam. Hemiodontidae

FIGURE 1: Brachyplatystoma goeldii (Eigenmann & Bean, 1907: 661).

FIGURE 2: Paracetopsis occidentalis (Eigenmann & Bean, 1907: 661).
Engraulis atherinoides (Linnaeus, 1766) – now Pterengraulis atherinoides (Linnaeus, 1766), Clupeiformes, fam. Engraulidae
Gymnotus carapo Linnaeus, 1758 – Gymnotiformes, fam. Gymnotidae
Hemiancistrus vittatus (Steindachner, 1881) – now Peckoltia vittata (Steindachner, 1881), Siluriformes, fam. Loricariidae
Hemicetopsis candiru (Spix & Agassiz, 1829) – Siluriformes, fam. Cetopsidae
Hemiodus immaculatus Kner, 1858 – Characiformes, fam. Hemiodontidae
Hoplerythrinus unitaeniatus (Spix & Agassiz, 1829) – Characiformes, fam. Erythrinidae
Hoplosternum thoracatum (Valenciennes in Cuvier & Valenciennes, 1840) – now Megalechis thoracata (Valenciennes in Cuvier & Valenciennes, 1840), Siluriformes, fam. Callichthyidae
Hypophthalmus edentatus Spix & Agassiz, 1829 – Siluriformes, fam. Hypophthalmidae
Hypopomus artedi (Kaup, 1856) – Gymnotiformes, fam. Hypopomidae
Loricaria cataphracta Linnaeus, 1758 – Siluriformes, fam. Loricariidae
Luciopimelodus agassizii (Steindachner, 1876) – now Pinirampus prnampu (Spix & Agassiz, 1829), Siluriformes, fam. Pimelodidae
Macronda trahira (Spix in Spix & Agassiz, 1829) – now Erythrinus macrodon (Spix & Agassiz, 1829), Characiformes, fam. Erythrinidae
Mylossoma albiglomerum (Cope, 1872) – now Mylossoma duriventre (Cuvier, 1817), Characiformes, fam. Characidae
Mylossoma albiscopum (Cope, 1872) – now Mylossoma duriventre (Cuvier, 1817), Characiformes, fam. Characidae
Osteoglossum bicirrhosum Spix & Agassiz, 1829 – now Osteoglossum bicirrhosum (Cuvier, 1829), Osteoglossiformes, fam. Osteoglossidae
Pimelodella cristata (Müller & Troschel, 1848) – Siluriformes, fam. Pimelodidae
Pimelodus altipinnis Steindachner, 1866 – Siluriformes, fam. Pimelodidae

**FIGURE 3:** Steatogenys elegans (Eigenmann & Bean, 1907: 666).

**FIGURA 4:** Taenionema steerei (Eigenmann & Bean, 1907: 662).
Pinirampus pirinampu (Spix & Agassiz, 1829) – Siluriformes, fam. Pimelodidae

Platystomatichthys sturio (Kner, 1858) – Siluriformes, fam. Pimelodidae

Plecostomus plecostomus (Linnaeus, 1758) – now Hypostomus plecostomus (Linnaeus, 1758), Siluriformes, fam. Loricariidae

Potamotrygon humboltii (Roulin) – ?

Prochilodus taeniurus Valenciennes – ?

Pseudacanthicus spinosus (Castelnau, 1855) – Siluriformes, fam. Loricariidae

Pseudacanthicus nodosus (Bloch, 1794) – Siluriformes, fam. Auchenipteridae

Pterygoplichthys multiradiatus (Hancock, 1828) – now Liposarcus multiradiatus (Hancock, 1828), Siluriformes, fam. Loricariidae

Pygopristis serrulatus Cuvier & Valenciennes, 1850 – now Serrasalmus serrulatus (Cuvier & Valenciennes, 1850), Characiformes, fam. Characidae

Rhamdia quelen (Quoy & Gaimard, 1824) – Siluriformes, fam. Pimelodidae

Rhamphichthys marmoratus Castelnau, 1855 – Gymnotiformes, fam. Gymnotiformes, fam. Rhamphichthyidae

Rhamphichthys reinhardtii Kaup, 1856 – Gymnotiformes, fam. Rhamphichthyidae

Rhaphiodon vulpinus Spix & Agassiz, 1829 – Characiformes, fam. Cynodontidae

Selenaspi herzbergii (Bloch, 1794) – now Arius herzbergii (Bloch, 1794), Siluriformes, fam. Ariidae

Steatogenys elegans (Steindachner, 1880) [Fig. 4] – now Brachyoponimus elegans (Steindachner, 1880), Gymnotiformes, fam. Hypopomidae

Sternarchella sbotti (Steindachner, 1868) – Gymnotiformes, fam. Apterontidae

Sternarchorhynchus mormyrus (Steindachner, 1868) – Gymnotiformes, fam. Apterontidae

Taenionema steerei Steindachner & Bean, 1907 [Fig. 5] – now Goslinea platynema (Boulenger, 1888), Siluriformes, fam. Pimelodidae

Trachycorystes galeatus (Linnaeus) – now Trachelyopterus galeatus (Linnaeus, 1766), Siluriformes, fam. Auchenipteridae
APPENDIX II


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“At the request of Prof. J. B. Steere, of the University of Michi/-gan, U. S. A., we have had great pleasure in examining the collection/ of birds which he made during his recent transit across South America, from Para to Callao, and in determining and naming the speci/-mens.//

In Oct. 1870, Prof. Steere went from Para first to Vigia, on the south bank of the Amazons, near the mouth, about fifty miles below/ Para. Returning to Para he next visited Arare [Arari], on the south side/ of the island of Marajo [Marajó]. On finally leaving Para to the interior,/ in June 1871, he ascended the river to Santarem [Santarém], and from Santarem/ visited Obidos on the north bank. From Santarem he continued/ upwards to Manaos, or Barra, as it was formerly called, and thence/ made an excursion up the Purus river to Ituchy and Marrahana./ Leaving Manaos in Oct. 1871, he ascended the main stream to/ Pebas, in Peru, where several skins, having the well-known “make” of/ Mr. Hauxwell (amongst which is a skin of *Porzana hauxwelli*, nobis)/ were procured. From Pebas Prof. Steere continued the ascent of/ the river to Barrancas and Pongo Manseriche, at the foot of the/ Andes, but returned downwards to the mouth of the Huallaga, and/ then ascended that stream to Yurimaguas, where he arrived in/ March 1872.//

Here the voyage by steam came to an end, and Prof. Steere pro/-ceeded across country, via Tarapota, Moyobamba, Rioja, Chacha/-poyas, and Caxamarca, to the Pacific coast at Truxillo. From/ Truxillo Prof. Steere kept along the coast, via Pacasmayo t/ Sorritos1 and Tumbez, where, as will be seen by our notes, many/ of the local and interesting species of Western Peru were met with./ From Tumbez Prof. Steere went to Guayaquil, and thence up to/ Quito and back. Next he proceeded to Lima by Callao, and made/ an excursion from the Peruvian capital up the Rimac and over the/ Andes, to the vicinity of Cerro de pasco, returning finally to/ Callao./ From Callao Prof. Steere sailed, in May 1873, for China and the/ Philippines, where he made those great discoveries in ornithology which have already ren/-dered his name well known to ornitholo/-gists2.//

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During his journey across South America Prof. Steere made a/ collection of 911 skins of birds, belonging to about 362 species of/ the following groups:

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<thead>
<tr>
<th>Group</th>
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<td>1. Passeres</td>
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<td>2. Cypseli</td>
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<td>52</td>
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<td>3. Pici</td>
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<td>4. Coccycges</td>
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<td>45</td>
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<td>5. Psittaci</td>
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<td>16</td>
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<td>6. Striges</td>
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<td>7. Accipitres</td>
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<td>8. Steganopodes</td>
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<td>9. Herodiones</td>
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<td>10. Anseres</td>
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<td>11. Columbae</td>
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<td>12. Gallinae</td>
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<td>13. Grues</td>
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<td>14. Linnicolae</td>
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<td>18</td>
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<td>15. Gaviae</td>
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<td>5</td>
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<td>16. Crypturi</td>
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As might have been expected from the fact of Prof. Steere not/ having made a lengthened stay at any of the localities visited, the/ greater number of the specimens which he collected belong to/ well-known species, which we have named according to our “No/-menclator Avium Neotropicalium”. But there are ex/-amples of/ twenty-two species amongst them, either unknown to us or other/-wise of interest, concerning which we have the following notes to/ offer.//

1 Sorritos I do not find marked in the maps; but Professor Steere tells us it/ is on the coast, about 20 miles south of Tumbez.//
2 See Mr. Sharpes's memoir in Trans. Linn. Soc. n. s. Zool. Vol. 1 p. 307 et seq. (1877).//
1. ORYZOBORUS ATRIROSTRIS, sp. n.

Ater aeneo-nitens unicolor; remigibus primaris ad basin albis, speculum parvum tectricibus absconditum efficiens; rostro crasso, nigro; cauda paulum rotundata; long. tota 6.0, alae 2.9, cauda 2.7, tarsi 0.75.

Hab. Moyobamba, Peru (Steere).

Obs. Ab O. crassirostris et affinis rostro robustiore et nigro/ diversus.

This Oryzoborus, of which Prof. Steere only obtained a single/ example, now in the Museum of the University of Michigan, is/ quite new to us3. It is readily distinguished from O. crassirostris/ P. 137

tris and its representative forms (O. maximilianii, O. occidentalis, and O. melas) by its black bill, which, as will be seen by the outline given, is also more robust than in O. crassirostris.

There is a small white speculum, which does not extend unto the outer web of the three other primaries, and is concealed by the great coverts when in their natural position. On the under sur-/face of the wing the white extends barely half an inch beyonf the black under wing-coverts, and then passes into grey, and at the/ extremities of the feathers into black.//

2. PIEZORHINA CINEREA, Lafr.


Guiraca cinerea, Lafr. Mag. de Zool. 1843, pl. 20 (subg./ Piezorhina).


MM. Jelski and Stolzmann first discovered the truu habitat of/ this curious finch, which, through an error of the Naturalists of the/ Voyage of the 'Venus', had been assigned to the Galapagos.//

Prof. Steere’s series contains a single skin ob/-tained in Dec. 1872, at Sorritos, in Western Peru. It is marked “male; eyes hazel.” The discovery of a typical/ Haemopilia (of which the six previously known species are entirely/ confined to Central America) in Western Peru is a fact of the highest interest.//

3. HAEMOPHILA STOLZMANNI, Tacz.

Haemopilia stolzmanni, Tacz. P. Z. S. 1877, p. 322, pl. xxxvi./ fig. 2.

Of this recently described Finch, of the same district, Prof./ Steere likewise obtained a single example at Sorritos. In Dec. 1872./ It is marked “male; eyes hazel.” The discovery of a typical/ Haemopilia (of which the six previously known species are entirely/ confined to Central America) in Western Peru is a fact of the highest interest.//

4. GNATHOSPIZA RAIMONDII, Tacz.

Gnathospiza raimondii, Tacz. P. Z. S. 1877, pl. 320, pl.xxxvi,/ fig. 1.

Of this peculiar Fringilline form Prof. Steere obtainede four exem/-ples during his sojourn at Sorritos.//

5. ICTERUS GRACE-ANNAE, Cassin.

Icterus grace-annae, Tacz. P. Z. S. 1877, p. 323.

Prof. Steere’s series contains two skins of this well-marked Icterus/ described in 1867 by the late Mr. Cassin, from a single specimen in/ the museum of the Academy of Philadelphia, of which the exact/ locality was uncertain. The western sea-board of Ecu/-ador and Peru,/ however, is its undoubtful habitat, as the late Prof. James Orton//

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obtained specimens at Machala, near Guayaquil, as recorded by/ Salvin (Ibis, 1874, p. 323). Jelski and Stolzmann also found it at/ Tumbez, as recorded by Taczanowski, l. s. c.; and Prof. Steere col/-lected two examples – one at Pacasmayo on the coast north of/ Truxillo, and the other at Tumbez.//

6. CYANOCORAX MYSTACALIS.

Pica mystacalis, Geoffr. Mag. de Zool. 1835, pl. 34.


3 Sporophila othello, Bp. Consip. I p. 498, ex Am. Centr. (Mus. Berol.) is/ unknown to us and indeterminable, unless type is exisitant.//
Of this fine species Prof. Steere obtained one example at Tumbez, where NN. Jelski and Stolzmann also procured it. Having now, through Mr. Lawrence’s courtesy, had the opportunity of examining the type of his _C. ortoni_, we are able to state that our anticipation as to its identity with _C. mystacalis_ was quite correct. Prof. Orton’s skin is labeled as having been obtained at “Zicapa, Peru, Oct. 22, 1874.” It may be remarked, that, whereas in Prof. Steere’s specimen the five outer pairs of rectrices are wholly white, in Prof. Orton’s the pair next to the middle pair have the basal half blue and indications of like colour in the centers of the adjoining pairs. It is probably on some such specimen as this that _C. bellus_ of Schlegel was established. //

7. **EUSCARTHUS ZOSTEROPS?**

A skin of a Tyrant, obtained by Prof. Steere at Moyobamba, so nearly agrees with _E. zosterops_, Pelzeln, Orn. Bras., p. 173, that we are unwilling to separate it on the faith of a single specimen. But it is certainly larger in its dimensions, has a rather shorter bill, and the edgings of the wing-coverts and secondaries are paler and more distinct. //

8. **ORCHILUS ECAUDATUS Lafr. et d’Orb.).**

A skin of this species from Rioja, Peru, seems to agree well with Sclater’s example from San Esteban (P. Z. S. 1868, p. 631). D’Orbigny’s original type was from Yuracares, Bolivia. //

9. **MYIARCHUS SEMIRUFUS, sp. nov. (Plate XI.)**

_Suprâ fuscescenti-cinereus; uropygio et alarum caudaeque mar-tiginibus castaneis, remigium omnium et rectricum mediaram partem mediâ nigricante; subitis ochraceo-rufus unicolor; rostro et pedibus nigris: long. Tota. 7.5, alae 3.4, caudae 3.4, tarsi 1.0._

_Hab. Pacasmayo, Peru (Steere)._  
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Although so abnormal in colour, we cannot arrange this bird, of which Prof. Steere unfortunately obtained but a single specimen, as otherwise than a typical _Myiarchus_. The wings are rather short, the third, fourth, and fifth primaries being nearly equal and longest. The wing-end, embracing the first five or six primaries, is black, as are the centre portions of the other remiges; but the latter are bor-dered above and below with rufous. In the tail the black colour is confined to the inner webs of the three middle pairs of rectrices, the two outer pairs being wholly rufous, and the next pair only a slight trace of the black patch. //

10. **MACHAEROPTERUS PYROCEPHALUS,** Sclater.

_Machaeropterus pyrocephalus_, Sclater, Ibis, 1862, p. 176.

Of this beautiful Manikin two examples were procured by Prof. Steere – one at Rioja, and the other at Moyobamba. //

11. **ATTILA TORRIDUS,** Sclater.

_Atila torridus_, Sclater, P. Z. S. 1860, p. 280.

A single skin from Santa Rosa agrees with Sclater’s types of his _A. torridus_, except in being rather brighter below and in being rather shorter in the wing. We do not think it distinguishable. //

12. **FURNARIUS PILEATUS,** sp. n.

_Suprâ castaneus, supercilii albis; pileo obscure brunnneo; subtils albus, lateritier ochraceo perfusus; remigibus nigris rufol bifasciatis; rectricibus castaneis, maculâ in pogonio interiore nigrâ praeditis; rostro corneo, mandibulâ inferiori ad basin albicante; pedibus nigris; long. Tota 6.8, alae 3.5, caudae 2.4, tarsi 1.1._

_Hab. Santarem, Amazons (Steere)._  
_Obs. F. figulo affinis, sed pileo brunneo et pedibus majoribus diversus._

A single skin of a Furnarius obtained at Santarem, on the south bank of the Amazons, seems to be referable to a representative form of _F. figulus_, of S. E. Brazil, distinguishable by its dark brown cap. In _F. figulus_ the head is of exactly the same colour as the back. //
13. THAMNOPHILUS SIMPLEX, Sclater.

*Thamnophilus simplex*, Sclater, Ibis, 1873, p. 387.

A single skin obtained at Vigia exactly agrees with Sclater's type of this little-known species, now in his collection. It is marked "male: eyes red."

14. STHEATORNIS CARIPENSI.

A skin of this bird in Prof. Steere's collection is labelled as having being obtained at Caxamarca, in the Peruvian Andes. This, so far as we know, is much farther south than any previously recorded locality.

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for this wonderful bird. Since we examined this skin, Mr. C. Buckley has sent an example of *Steatornis* from Sarayacu on the Rio Bobo-naza, a confluent of the Pastaza, in Ecuador, thus connecting Prof./ Steere's Peruvian locality with those hitherto known for *Steatornis* in Columbia and Venezuela.

15. PICUMNUS SCLATERI, Tacz. P. Z. S. 1877, p. 327.

We are inclined to refer a skin of a *Picumnus* obtained at Tumbez in December 1872, to this recently described species, although in this difficult group an actual comparison of specimens is necessary to establish identity.

Prof. Steere's specimen is marked "male," but agrees with a bird described as a female by M. Taczanowski, in having the head spotted with white. If, therefore, the sexes are rightly determined in both cases, it would seem that this species differs from most of its con-/generis in not having the head spotted with red or yellow in the male sex.

16. CHLORONERPES SEDULUS.


A "male" of this little known species was obtained by Prof./ Steere at Obidos, on the Amazons. Sclater's collection contains a single female from Guiana; and the type described by Cabanis and/ He-

ine was of the same sex. The male, which is hitherto undescribed, differs from the female in having the feathers of the cap terminated with red instead of yellow.

The species is easily recognizable by the large well-defined pale yellow spots on the wing-coverts. Prof. Steere notes the eyes as "blood-red."

17. COLAPTES RUPICOLA (Lafr. et D’Orb.).


A "female" skin from Cajamarca, which we refer to this species, differs slightly from skins obtained in Southern Peru by Mr. Whitey (see P. Z. S. 1869, p. 154) in having the spots on the chest produced/ laterally into narrow transverse bands. The rump and lower surface/ are likewise rather deeper in colour.

The label states that the bird is found "in the Upper Andes, among the rocks; nests in mud walls; eyes sulphur yellow."

18. CAPITO STEERII, sp. nov. (Plate XII)

*Suprà laetè viridis, píleo vividè coccíneo, nuchâ caeruleâ; subtùs pallidiore viridi, nuchâ cyaneâ, et pectore limonaceo-flavo variegato; ventre viridi flavo; rostro plumbe-scente, tomiis et ápice flavis; pedibus obscurè plumbeis: long. tota 5.8, alae 2.8, cau-
dae 1.8, tarsi 0.8.

Hab. Moyobamba, Peru (Steere).


Of this beautiful new Capito. Which we have the pleasure of dedicating to its discoverer, there is, unfortunately, but one specimen in the collection, now in the Museum of the University of Michigan. The/ species is closely allied in form and disposition of colour to *C. richrdsoini*, but may be distinguished by the differences pointed out/ above.

Among some birds lately sent by Mr. G. N. Lawrence of New/ York to Sclater for determination, we find an imperfect skin, evi-/dently of the same species. It was obtained by Walter S. Church/ at the “head-waters of the Huallaga,” during his journey up that/ river, and belongs to the collection of the Smithsonian Institution.
19. COLUMBULA CAMPESTRIS (Spix).

Five specimens of this species are in Prof. Steere’s collection, all of them obtained at Arare, in the island of Marajo. The species, though long ago described by Spix, has seldom been met with by more recent collectors. Natterer, however, secured several examples, mostly in the Brazilian provinces of Goiaz and Cuyaba.

20. LIMOSA FEDOA (Linn.).


One of two specimens of this Godwit was obtained at Santa Rosa, Ecuador; the other is without precise locality. Though the allied L. hudsonica ranges throughout South America, this species, so far as we know, has not hitherto been noticed south of Central America.

21. XEMA SABINII, J. Sab.

Xema sabinii, Coues, Birds of the North-west, p. 660.

Prof. Steere’s collection contains a single example of the Fork-tailed Gull, shot at Tumbez, Western Peru. This is the first instance of the occurrence of the species in any thing like so southern a locality, the limit of its southern range having hitherto supposed to be the Great Salt Lake, Utah. The specimen is in adult winter plumage, the head being white, the nape and back of the neck ashy black, each feather with a very narrow white margin; the mantle is pure grey, and the primaries coloured as in the adult bird.

22. CRYPTURUS TRANSFASCIATUS, sp. n. (Plate XIII.)

Suprà ochraceus, dorso et alis extùs nigro transfasciatis; cérvice postiça murino-brunneâ; píleo Nigro, ochraceo brunneo transfasciato; superciliis, gula et abdomenie médio albis; cérvice imâ et pectoire griseis; hypochondriis et tectricibus caudae inféro-ribus cervinis nigro transfasciatis; rostro corneo, mandibulae/ basi flavicante, pedibus flavis: long. tota 12, alae 6.2, caudae 2.1, tarsi 2.9, rostri a rictu 1.5.

Hab. Santa Rosa, Ecuador (Steere).

Obs. C. variegato et C. bartletti forsan affinis, sed staturâ majore/ et pectore griseo distinguendus./

This apparently undescribed Tinamou has the back conspicuously transversely barred as in C. variegatus, but is much larger than that species and has the whole of the lower part of the neck bownish grey instead of cinnamon. C. bartletti, described by us from specimens obtained by Mr. E. Bartlett in Eastern Peru (P. Z. S. 1873, p. 311), is also a smaller bird, and has the whole under surface except the throat fawn-colour; it also wants the light supercilium and the transverse marks on the occiput. In size the new species approaches C. sallaei; but the totally different colour of the under surface of this species renders further comparison unnecessary.

Prof. Steere’s collection contains two specimens of this species, exactly resembling one another in colour, but differing slightly in size, the bird described above being the larger of the two.
A SMALL COLLECTION FROM CAVIANA

Apparently the only published reference to the bird life of Caviana Island at the mouth of the Amazon is a record of the flamingo (Phoenicopterus ruber Linnaeus) included by the late Dr. Snethlage in her “Catalogo das Aves Amazonicas” [1 Bol. Mus. Goeldi, 8, 1914: 112-113]. In 1871 Professor Joseph Steere of Ann Arbor spent a month on Caviana collecting the birds listed below. His headquarters were at the fazenda of Senhor Lionel, where he ar-rived on January 20. According to Steere’s notes, nearly the entire island is level campo covered with coarse grass and rushes and with a few low scrubby trees. There are many sluggish streams, and narrow strips of woodland extend along some of them from the wooded coast. In contrast to the sand of the mainland the soil is clay deposited by the annual overflow of the Amazon, which covers much of the island during the west season.

Four of the birds of Caviana have not yet been recorded from either of the neighboring islands of Marajó or Mexiana. They are Phoenicopterus ruber, Pyrocephalus rubinus rubinus, Ostinops viridis, and Hemithraupis guira guira.

1. Dendrocygna autumnalis discolor Sclater and Salvin. 1 ♀ juvenile. “Eyes hazel; beak and legs red; beak above nos-/trils yellow”.
2. Cathartes urubitinga Pelzeln. 1 ♂. Wing 484 mm.
3. Buteo magnirostris magnirostris (Gmelin). 1 ♂, 1 not/sexed.
4. Herpetotheres chachinnans queribundus Bangs and Pen-/nard. 1 [♂] adult. I fail to see any significant difference/ between this bird and others from Maranhão and Paraguay.
5. Polyborus plancus brasiliensis (Gmelin). 1 [♀]♀ adult./Wing 398 mm.
7. Belonopterus chilensis cayennensis (Gmelin). 1 ♂, 1 not/sexed. Typical pof the race of northern South America.
8. Capella paragiaiae paraguaiae (Vieillot). 1 ♀./
9. Himantopus himantopus mexicanus (Müller). 2 adults./
10. Columba rufina rufina Temminck. 1 ♂./
11. Leptotila rufaxilla (Richard and Bernard). 2 ♂♂, 1/ not sexed. “Eyes yellow; feet and line through the eyes/brick red.”
12. Aratinga aura aura (Gmelin). 1 ♂, 2 ♀♀. “Eyes red-/dish yellow.”
13. Crotophaga major (Gmelin). 2 ♂♂. “Eyes sea green./changing to yellow about the pupil. Food fruits and beetles.”

All five of these skins are strikingly different from 22 speci-/mens of Trogon strigilatus strigilatus Linnaeus from British/and Dutch Guiana, Amazonas (Rio Branco), Pará district/ (Murutucú), and eastern Peru (Rioja). The belly and crissum/ are buffy white mixed with light orange-yellow, instead of be-/ing plain orange. I have not been able to consult Levaillant’s plate, but it seems likely that his Coroucou al-bane is the bird.

15. Guira guira (Gmelin). 2 ♂♂, 1 not sexed. “Eyes white”.
17. Galbula rufo-viridis Cabanis. 5 ♂♂, 1 ♀, 1 not/sexed. “Eyes dark; legs yellowish”.
18. Nystalus maculates maculates (Gmelin). 2 ♂♂, 1 ♂. “Eyes yellow”.
The trinomial is used because, although not generally recog-
für Orn.*, 10, No. 59, September, 1862: 334 (based on Azara, no. 50, Paraguay)] seems a perfectly/
distinct für Orn., 10, No. 59, September, 1862: 334 (based on P
adults from Paraguay the culmen measures (in mm.)
form on account of the constantly smaller bill. In/
Azara, no. 50, Paraguay) seems a perfectly/ distinct
für Orn., 10, No. 59, September, 1862: 334 (based on
P

20. Scapanes melanoleucos melanoleucos (Gmelin),
1 ♂. / Wing 176 mm.

21. Dendroplex picus picus (Gmelin). 1 ♀./

22. Certhixia cinnamomea cinnamomea (Gmelin).
1 ♂, 1 ♀./

23. Thamnophilus doliatus doliatus (Linnaeus).
1 ♀./

24. Thamnophilus nigrocinererus nigrocinererus Sclater.
1 ♀ / juvenile, 1 ♂./

25. Attila cinnamomeus cinnamomeus (Gmelin).
1 ♂./

26. Gymnoderus foetidus (Linnaeus). 1 ♀./

27. Pipra aureola aureola (Linnaeus). 4 ♂♂. One of
these//

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is an albinotic specimen with the red and orange re-
placed by/ pale yellow. Both this and the normal skins
had the eyes/ recorded as white./

28. Xolmis cinerea (Vieillot). 1 adult./

29. Fluvicola pica albiventer (Spix). 1 ♂. “Eyes haze;”./
The bill of this bird is noticeably wider than it is in
skins from/ eastern Brazil and Paraguay./

red.”/

31. Pyrocephalus rubinus rubinus (Boddaert). 1 ♂, 1 ♀./
These two specimens do not agree with any of the
recognized/ races of the vermilion flycatcher. The
male has the crown a / dull spectrum red; back na-
tal brown; throat and breast near/ geranium red; crissum jasper pink. The female has the whole/
top of the head and back deep wood brown;
flanks and crissum/ pink; remaining underparts
whitish, streaked with wood brown/ on the breast.
They measure (in mm.) as follows: wing 74 (♀
70), tail 54.5 (♀ 53.5), culmen 17(♀ 15.5).

Five topotypical specimens of *Pyrocephalus
rubinus satinatus* Berlepsch and Hartert from Ven-
ezuela, loaned by Field/ Museum, have the crown
pure scarlet-red in the male; back fuscous; throat and
breat reddish scarlet; crissum light cotril/ redd. In
the female the crown is largely scarlet-red; back na-
tal/ broen; throat tinged with pink; remaining lower
surfer scar-/let, streaked with bone brown on the
breast. *Saturatus* has the/ following measurements (in
mm.): wing 71.5, 73, 74 (♀♀ 68/. 71.5), tail 50.5,
52, 53(50, 53), culmen 16, 16, 17(15.5, 17).

A long series of vermilion flycatchers from
southern South/ America agree in being more orange
and in having longer/ wings and tails and shorter bills
than the Caviana birds. The/ males have the crown
deep scarlet-red; back (when fresh)/ brownish deep
mouse gray; throat and breat reddish scarlet/ crrissum
peach red. Females have the entire top of head and/
back grayish drab; crissum of various shades of yel-
low or/ orange; flanks lightly tinged with the same;
remaining under-/parts whitish, heavily streaked with
olive-brown or drab. They/ measure as follows: 75,
76, 76, 77, 77, 77, 77, 77, 77, 77./

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78, 79, 79 (♀♀ 72, 75), tail 53, 53, 53.5, 53.5, 54,
54.5, 55, 55, / 55.5, 56, 56.5, 57.5 (♀♀ 52.5, 55),
culmen 14.5, 14.5, 14.5, / 14.5, 15, 15, 15.5, 15.5,
15.5, 15, 15, 15, 16, 16 (♀♀ 15, 15.5)./  
Sine *Musciaca rubinus* Boddaert was described
from the/ Amazon iver, I propose to recognize the
southern birds as a/ separate race, which will bear
the name *Pyrocephalus rubinus* strigilatus (Wied).⁶
No. 2, 1831: 200 (Camamú, Bahia)]. Specimens have
been examined from the/ Province of Buenos Aires,
eastern Bolivia, and the/ State of São Paulo, Brazil. A
single male from Pebas, Peru,/ seems to agree with the
southern birds, but it is so worn and/ faded that its
correct allocation is questionable./

32. Muscivora tyrannus (Linnaeus). 4 ♂♂./
33. Tyrannus melancholicus despotes (Lichtenstein).
1 ♂./
34. Myiodynastes maculatus maculatus (Müller). 1 ♂,
1 not/ sexed.
35. Tyranniscus acer Salvin and Godman. 1 adult./
36. Turdus leucomelas albiventer Spix. 2 ♂♂, 1 ♀ ./
37. Turdus fumigatus fumigatus Lichtenstein. 1 adult.
38. Coereba flaveola minima (Bonaparte). 1 ♂./
39. Geothlypis aequinoctialis aequinoctialis (Gmelin).
1 ♂./
40. Ostinops viridis (Müller), 1 ♂, 2 ♀♀./
41. Archiplanus solitarius (Vieillot). 1 ♂, 1 ♀. “Eyes
dark/ red; bill bluish white”.

43. *Gymnomystax mexicanus* (Linnaeus). 1 ♂, 1 ♀. “Eyes brown”.
44. *Thraupis episcopus episcopus* (Linnaeus). 1 ♂, 1 ♀. “Eyes hazel”.

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49. *Myospiza humeralis humeralis* (Bosc). 1 ♀, 1 not sexed. “Eyes hazel”.

**SOME ADDITIONS TO THE AVIFAUNA OF MARAJÓ**

Professor Steere made several trips to Marajó during the early part of 1871 and revisited the island in 1879. It is thought unnecessary to report all the birds which he collected there, and the following list includes only such species as are heretofore unrecorded from Marajó. I have also added a few species obtained for the first time on the island by Edward M./ Brigham of Battle Creek, Michigan, during April, 1881.

1. *Dendrocygna viduata* (Linnaeus), Ararý, 1 ♀, 1 not sexed, April, 1871. “Eyes hazel; feet and beak black”.
2. *Buteo albicaudatus colonus* Berlepsch. Ararý, 1 ♂ adult, April, 1871. Wing 403 mm, tail 160 mm. Tail:wing index 39.7.

This is apparently the first record of the Guianas race in Brazil.

5. *Culombigallina talpacoti talpacoti* (Temminck). Ararý, 1 juvenile, April, 1871.
6. *Brotoeger tusipara* (Gmelin). Ararý, 1 adult, April, 1871.
7. *Chelidoptera tenebrosa tenebrosa* (Pallas). Ararý, 1 ♀, April, 1871. Wing 111.5 mm., tail 51.5 mm., culmen 22 mm.

This specimen is slightly larger than a series from Dutch Guiana and from mainland Pará (Vigia). Its ncrest is grayer and suffused with ochraceous; the belly is a little paler rufous; and the upper tail coverts, rump, and crissum are tinged with/buffy.


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11. *Colonia colonus colonus* (Vieillot). Ararý, 1 ♀, April/ 1881. Wing 84 mm. (middle rectrices wanting).
13. *Sturnella magna praticola* Chubb. Rio Ararý (Fazenda/ McGee), 1 ♂, April, 1871. “Eyes hazel.” Wing 101 mm., tail/ 66.5 mm., culmen 34 mm., tarsus 40.5 mm., middle toe 28 mm.

This seems to be the first record for the genus south of the Guianas.