



ARRIDGMENT

V O Y A G E  
V O Y A G E

INLAND PARTS

INLAND PARTS

SOUTH-AMERICA

(Complete the collection)

A SUCCINCT  
ABRIDGMENT  
OF A  
VOYAGE

Made within the  
INLAND PARTS  
OF  
*SOUTH-AMERICA;*

FROM THE  
Coasts of the *South-Sea*, to the Coasts of *Brazil*  
and *Guiana*, down the River of *Amazons*:

As it was read in the Public Assembly of the  
Academy of Sciences at *Paris*, April 28, 1745.

By Monf. *DE LA CONDAMINE*,  
of that *ACADEMY*.

To which is annexed,  
A MAP of the *Maranon*, or River of *Amazons*,  
drawn by the same.

L O N D O N,

Printed for E. WITHERS, at the *Seven Stars*, opposite  
*Chancery-Lane*, in *Fleet-Street*; and G. WOODFALL,  
at the *King's-Arms*, *Charing-Cross*. MDCCXLVII.

*Also in this volume, The Case of Henry Simons, of  
Jacob Marchant*

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T H E

P R E F A C E.

**I**T is well known to every one, that, for these ten years, several astronomers of the academy have been sent, by the king's order, to the *Equator*, and the *Polar Circle*, there to measure exactly the degrees of the Earth; whilst other members of the academy were employed on the same operations in *France*. Under any other reign, all these distant and difficult undertakings, with the number of observators, and implements, necessary for the performance of them, could only have been the product of a long peace; under that of *Lewis XV.* they were formed, and hapily executed, during the continuance of two bloody wars: And whilst his Majesty's armies flew from one end of *Europe* to the other, for the assistance of his allies, his mathematicians, dispersed over the surface of the earth, were at work under the *Torrid* and *Frigid Zones*, for the improvement of the sciences, and the common benefit of all nations.

They have brought back, as the fruit of their labours, the decision of a celebrated question;

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tion ; a decision, whose usefulness, Geography, Astronomy, Natural Philosophy in general, and Navigation in particular, will share in. They have cleared up a doubt, wherein the lives of mankind were concerned. These motives, were well worth their taking all the pains it has cost them, to accomplish this design ; whereof the academy never lost sight, since their first establishment, and which they have now successfully compassed.

Without insisting upon the direct and evident consequences, that may be drawn, from the exact knowledge of the diameters of the earth, towards bringing Geography and Astronomy to the utmost perfection, the diameter of the *Equinoctial*, now proved to be longer than that which traverses the globe from one *Pole* to the other, affords us a new argument, (not to say a new demonstration) of the Earth's revolution upon its own axis ; a revolution, which is common to all the heavenly system. The labours of the members of the academy, both in the mensuration of degrees, and in their experiments made, and brought to perfection, with so great exactness, in different latitudes, diffuses a new light over the theory of gravitation, which, in our days, has begun to emanate out of obscurity. It enriches Natural Philosophy, in general, with new problems, hitherto not to be solved, concerning the quantities and directions of gravity, in the different parts of the Earth ; in short, it leads us into the way of yet more impor-

important discoveries; as that of the nature and true laws of universal gravitation, that power which animates the heavenly bodies, and governs all throughout the universe.

The mistakes, which the knowledge of the earth's true figure may help mariners to avoid, are they the less mistakes, because there remain yet others, which are hitherto without remedy? No certainly. The nearer the art of navigation arrives to perfection, the more sensible men will be, of the usefulness, of having the earth's figure determined. Perhaps the moment is at hand, when its advantage will be evidently discovered by sailors. But, supposing it should not be so, is it less real? At least, this is certain; the more reason there was, to doubt whether the Earth was oblong, or level, towards the *Poles*, of the more importance it was, even for the consequences of practice, to know, what might be depended on, by decisive mensurations.

The first proposed, and the last finished, of the three voyages, which, of late years, were undertaken, to measure the degrees of the earth, was that to the *Equator*, begun in 1735, by Messieurs *Godin*, *Bouguer*, and me. The public have been several years informed, of the success of those members of the academy, who made their observations under the *Polar Circle*, and in our climates; and M. *Bouguer*, who arrived in *France* before me, has given an account to the public assembly, of the academy, on *November 14*, 1744, of

the result of ours, under the *Equinoctial Line*; as also, of the agreement between the latter, that of the *north*, and that of *France*; each of which, being compared with either of the other two, proves the earth's being level towards the *Poles*. A more particular account thereof, is reserved for *The History of our Mensuration of the Earth*; that is, of our astronomical observations, and our trigonometrical operations, in the province of *Quito*, in *South-America*; a work, for which we are responsible to the academy and the public, because it was on that account we were sent.

The question of the earth's figure being decided, and the curiosity of the public abated upon that head, I thought to excite it somewhat more, at the public assembly of the 26th of last *April*, by a succinct account of my voyage, upon the river of the *Amazons*, which I ran down, from the place where it begins to be navigable, to its mouth; and which I surveyed for above a thousand leagues. But the abundance of matter, not having allowed me to confine myself, to the bounds prescribed in my lecture, which likewise were but small, I was obliged to make new retrenchments, as I went on, which necessarily interrupted the order and connection of my first extract; wherefore I now publish it, in the same form, wherein I compiled it originally.

Not

Not to baulk the expectation, of those who only seek for extraordinary occurrences, with agreeable descriptions of foreign manners, and unheard of customs, in a book of travels, I ought to apprise them, that, in this treatise, they will find but little to satisfy them. I was not at liberty, to lead the reader indifferently, to all the objects, that might have been proper to please his curiosity; though an historical journal, which I have kept constantly, for these ten years, might have supplied me with the necessary materials for that purpose; but this was neither the place, nor was it now the time, to make use thereof. My business was, to render an account of a map, which I have drawn, of the course of a river, that traverses vast regions, almost unknown to our geographers; as also, to give some representation and idea thereof, in an abstract, intended to be read to the Academy of Sciences. In a work of this nature therefore, where I was not to aim so much at amusing, as at instructing, all that did not relate to Geography, Astronomy, or Natural Philosophy, must necessarily appear a digression, foreign to my subject; nevertheless, it was not just, to tire out the patience, of the greatest part of those, who composed the public assembly, by a list of barbarous names, of nations and rivers, and by a journal, of the altitudes of the sun and stars, of latitudes and longitudes, of measures, of courses, of distances, of soundings, of variations of the compass, of experiments of the  
Barometer,

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Barometer, &c. And yet these were the best part of the materials of my narrative, and those wherein its greatest merit consisted; at least, this was the only point, that could distinguish it from other ordinary voyages. I have endeavoured, then, to take a middle way, between these two extreams; I have referred all the particulars, relating to the astronomical and geometrical part, to the memoirs of the academy, or to the collection of our observations, which is to follow hereafter. I have here given, only the principal inferences drawn from thence, with the situation of the most remarkable places; keeping always to the order of my narrative. I have discoursed, however, somewhat at large, upon the article of the *American Amazons*, because I thought it might reasonably be expected from me. I have interwoven, with my remarks, relating to Natural Philosophy and History, some occurrences, merely historical, when they have not misled me too far from my subject. I could not, without rambling from it entirely, avoid entering, into some geographical discussions, which were closely connected therewith; such as, the communication of the river of *Amazons* with the *Oroonoko*, formerly allowed, afterwards denied, and at length newly made fully apparent, by decisive evidence. Such also as the searches after the situation of the *Village of Gold*, and the boundary set up by *Texeira*; that after the lake *Parima*, and the city of *Manoa*; as also, that

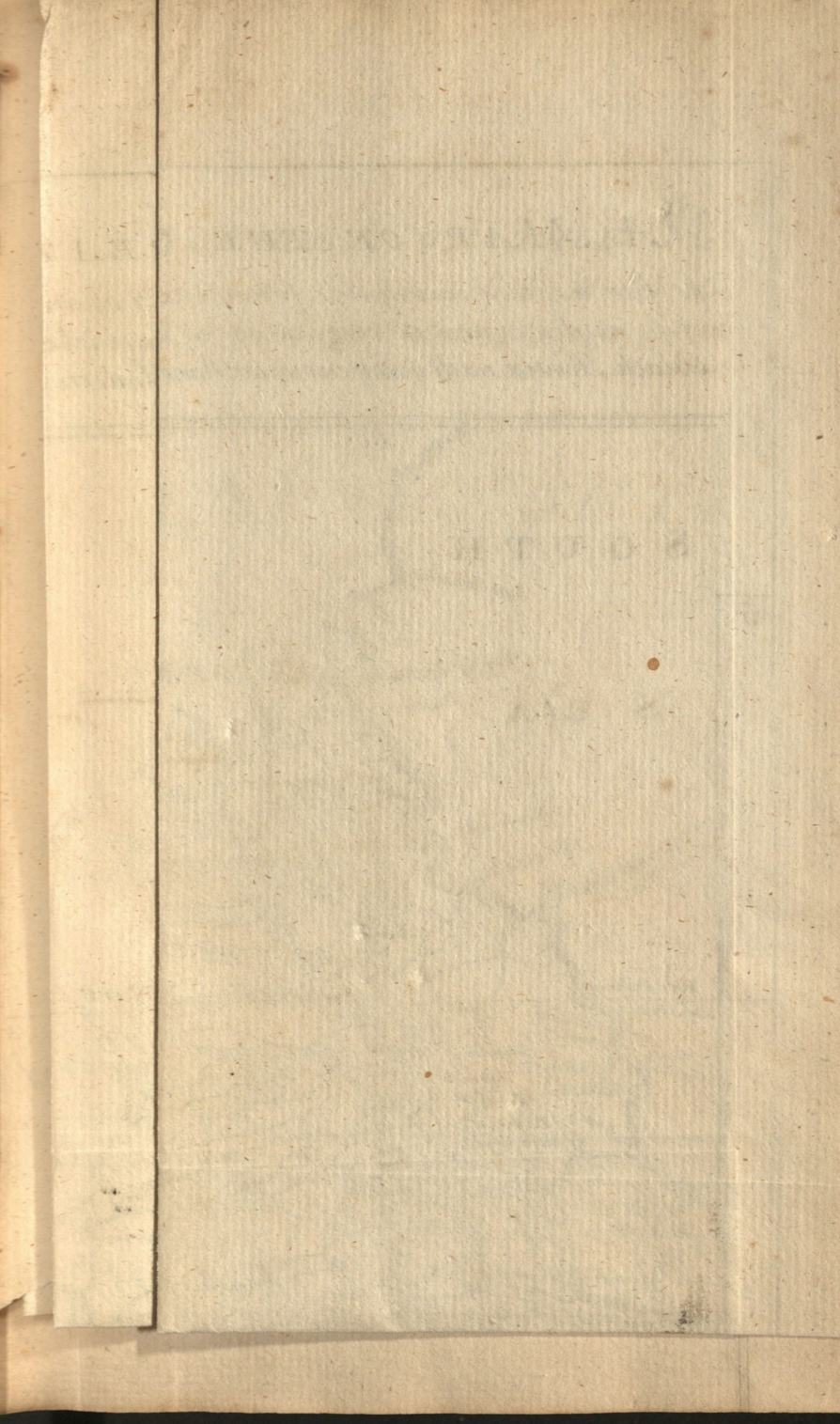
that after the river of *Vincent Pinço, &c.*—Each of these articles, might have furnished me with matter for a dissertation; however, I have treated thereof but cursorily, well knowing, how very indifferent, most readers are about such points, though useful, and even entertaining, to those who like this kind of learning.

The little map, of the course of the river of *Amazons*, annexed to this treatise, will be sufficient to fix the reader's imagination, till I can publish one larger, and more accurate, in our memoirs; but this shall not make its appearance, till I have rendered it as exact, as I possibly can, by digesting into order, all my calculations of courses and distances, and correcting them by my astronomical observations. This could not have been done, but imperfectly at present, as I still wanted observations of longitude, made under some well known meridian, to supply the defect of those, that could not be taken at *Paris*, in correspondence with mine, at diverse places on my way.

I have subjoined, to the course of the river of *Amazons*, the topography of the province of *Quito*, taken from the map of the triangles of our meridian. I have inserted the description of the coasts of the same province, with the road from *Quito* to *Lima*, and that from *Quito* to *Popayan*, from my particular travels, and those of M. *Bouguer*. The rest of the map has been extracted from diverse memoirs, journals,

journals, and notes, which were communicated to me in the country, by several intelligent missionaries and travellers. M. *D'Anville*, geographer to the king, whose ability is well known, was very helpful to me, in reducing into order, and putting together, these scattered materials, to imbellish my map therewith.

I have followed the orthography, of the *Spaniards* and *Portuguese*, with regard to the names in those two tongues, and even to the *Indian* names of places, under the dominion of those crowns; being willing thereby to avoid the inconvenience, of rendering them unintelligible, in the original authors.



*A MAP OF THE COURSE OF THE MARAGNON, OR GREAT RIVER OF AMAZONS, as far as it is navigable, from Jaen de Bracamoros to its Mouth. Comprehending also the province of QUITO, and the Coast of GULIANA, from the North Cape to Essequiba. Drawn in 1743 and 1744, and regulated by Astronomical Observations, by MONS<sup>R</sup>. DE LA CONDAMINE of the Royal Academy of Sciences. Whereto is added the Course of Rio Negro, or the Black River, with other curious Particulars, extracted from divers Memoirs, and Directories in Manuscript of Modern Travellers.*

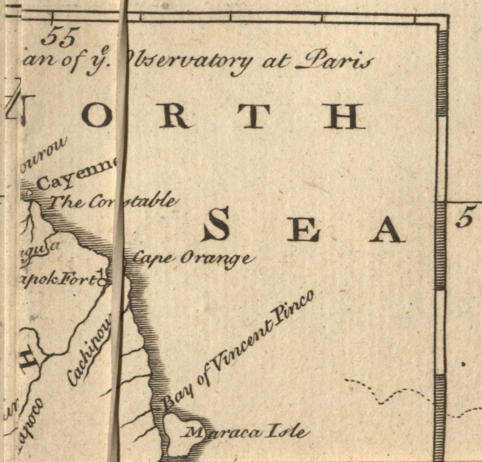


The Oronoko running into y<sup>e</sup> North Sea  
 The Portuguese of Para in 1743 went up from y<sup>e</sup> River of Amazons, into that of Oronoko, by Rio Negro.

The Course of the River according to the Jesuit Father Samuel Fritz, is here mark'd by points, Beginning also from the Meridian of Jaen de Bracamoros, as the most remarkable Town, near the Place where the Description of the River commences.

A O N S ,

into Essequiba. Drawn in  
Surse of Rio Negro, or the





A

# V O Y A G E

T H R O U G H T H E

Inner Parts of *South-America*.

**T**OWARDS the end of *March*, 1743, after having spent six months in a desert, at *Tarqui*, near *Cuença* in *Peru*, being employed night and day, in struggling with a sky very unfavourable to astronomers, I received advice from *M. Bouguer*, that he had made diverse observations, near *Quito*, at the *northern* extremity of our *meridian*, of a star, situated between our two *zeniths*, on many of those very nights, when I had observed the same, for my part, at the *southern* extremity of the same line. By these simultaneous observations, on the importance whereof, I had strongly insisted, we had gained the singular advantage, of being able to conclude directly, and without any hypothesis, what was the real amplitude, of a segment of three

B

degrees

degrees of a meridian, whose length was known to us geometrically; and to draw this conclusion, without having any thing to fear, from its variations, whether optical or real, and even imperceptible, in the motion of the star itself; since it had been seen at the same instant, by both the observators, at the two extremities of the segment. M. Bouguer, having returned to *Europe* some months before me, communicated this our result, to our last public assembly, which agrees with that, of the operations made under the *Polar \* Circle*. Neither does it agree less with the last, that were performed in † *France*, all of them concurring, to prove the earth to be a spheroid, level and flat towards the *Poles*. Having set out in *April*, 1735, a year before the members of the academy, who were sent towards the *north*, we returned seven years too late, to inform *Europe* of any thing new, concerning the figure of the earth. Since that time, this subject has been treated of afresh, by so many able hands, that, I hope, my referring to the memoirs of the academy, the detail of my particular observations upon this head, and renouncing my right, too dearly purchased, which I might otherwise have had, to entertain this assembly thereupon at present, will be taken very kindly.

Neither will I stop, to mention here the other academical labours, independent of the measure of the earth, to which we applied ourselves, both together and separately, either in our way from

\* By Messieurs de *Maupertuis*, *Clairaut*, *Camus*, and *le Monnier*, members of the academy; the *Abbé Outhier*, one of its correspondents, and *M. Celsius*, professor of astronomy at *Upsal*.

† By Messieurs *Cassini de Thury*, and the *Abbé de la Caille*.

*Europe to America*, at the places where we made some stay, or after our arrival in the province of *Quito*, during the frequent intervals, caused by obstacles of every kind, which did but too much delay the course of our operations. It would be necessary, for this end, to make an abstract, of a great number of memoirs, sent to the academy for seven or eight years; some of which are not even arrived in *France*; and most part of the rest whereof, have never yet appeared, even in abstracts, in our collections. I will not therefore mention here, our astronomical or geometrical determinations, of the Latitude and Longitude of a great number of places; of the observation of the two *solstices* of *December 1736*, and *June 1737*, and of the *obliquity of the Ecliptic*, which results from thence: nor our experiments of the *Thermometer* and *Barometer*; the declination and inclination of the *Needle*, and the velocity of *Sound*; the *Newtonian Attraction*, the length of the *Pendulum*, in the province of *Quito*, at various elevations, above the level of the sea; the dilatation and condensation of *Metals*; nor of two voyages I made, one in *1736*, from the coasts of the *South-Sea*, up the *River of Emeralds*, and the other in *1737*, from *Quito* to *Lima*.

In short, I shall avoid giving an account of the two pyramids, which I had erected, to ascertain for ever the two boundaries, of the fundamental basis of all our measures; thereby to prevent the inconveniences, that have been but too much experienced in *France*, for want of the same precaution, when required, to prove the basis of *M. Picard*. “ The inscriptions drawn up, before our departure, at the academy of the *Belles Lettres*, and since put upon those pyramids, “ (with the alterations that the circumstances of

“ time and place required) was informed against,  
 “ by the two lieutenants of the king of *Spain's*  
 “ vessel, our assistants, as injurious to his catholic  
 “ majesty, and the *Spanish* nation. I defended,  
 “ for two years, the law-suit brought against me  
 “ personally, on this account, and gained it at  
 “ last, peremptorily, even at the parliament of  
 “ *Quito.*” What passed on this occasion, with  
 many other entertaining occurrences of our voyage,  
 which the distance of places has greatly disfigured,  
 in the accounts that have come hither, are rather  
 the subject of an historical relation, than of acca-  
 demical memoirs: I shall confine myself, there-  
 fore, in this, to what relates to my return to  
*Europe.*

In order to multiply our opportunities of mak-  
 ing observations, it had been long agreed, between  
 Messieurs *Godin*, *Bouguer*, and myself, to return  
 by different ways. I resolved upon chusing one  
 almost unknown, and which I was sure no one  
 would envy me; namely, that of the river of  
*Amazons*, which traverses the whole continent of  
*South-America*, from *west* to *east*, and is justly  
 reckoned the largest river in the world. I pro-  
 posed to myself, to render this voyage beneficial,  
 by drawing a map of this river, and collecting  
 the observations of every kind, which I might  
 have an opportunity of making, in a country so  
 little known. What relates to the singular man-  
 ners and customs, of the different nations which  
 live upon its sides, would be much more proper, to  
 excite the curiosity of a great number of readers;  
 but I thought, that, in the presence of an au-  
 dience, to whom the language of natural philo-  
 sophy and geometry is familiar, it would hardly be  
 excusable in me, to expatiate upon subjects, fo-  
 reign to the design of the academy. Nevertheless,  
 in

in order to be the better understood, I cannot avoid premising some things, concerning the river in question, and the first persons who sailed thereon.

It is commonly believed that the first *European*, who discovered the river of *Amazons*, was *Francis Orellana*; who embarked in 1539, pretty near *Quito*, on the river *Coca*, which, as it runs lower, takes the name of *Napo*; from thence falling into another larger, and letting the boat go, without any other guide than the stream, he arrived at the *North-Cape*, on the coast of *Guiana*, after a navigation of 1800 leagues, according to his reckoning. The same *Orellana*, was lost ten years afterwards, with three vessels, wherewith he was entrusted in *Spain*, without being able again to find, the real mouth of the river he was seeking. His meeting, as he says, with some women armed, against whom an *Indian Cacique* bid him be upon his guard, caused it to be called the *River of Amazons*. Some have given it the name of *Orellana*, but, before his time, it was already termed *Maranon*, from the name of another *Spanish* captain. The geographers, who have made two different rivers of the *Amazon*, and the *Maranon*, being deceived, like *Laet*, by the authority of *Garcilasso*, and *Herrera*, were, no doubt, ignorant, not only that the greatest part of the \* *Spanish* authors, who wrote first upon this head, called this river *Maranon*, even in 1513, but also that *Orellana* himself says, in his relation, that he met the *Amazons*, in coming down the *Maranon*, which is unanswerable. In effect, it has always retained this name, without interrup-

\* See *Peter Martyr*, *Fernandez de Enciso*, *Fernandez de Oviedo*, *Pedro Cieça*, and *Augustin Zarate*.

tion,

tion, amongst the *Spaniards*, for above two hundred years, throughout its whole extent; and even from its source in upper *Peru*. Nevertheless, the *Portuguese*, who have been settled at *Para*, an episcopal see, situated towards the easternmost mouth of this river, ever since 1616, only know it thereabouts, by the name of the *River of Amazons*; and up higher, by that of *Solimoes*; and they have transferred the name of *Maranon*, or *Maranbaon*, in their idiom, to a city, and a whole province, or captainship, adjoining to that of *Para*. As for my part, I shall call it indifferently by the name of *Maranon*, or the *River of Amazons*.

In 1560, *Pedro de Ursoa*, being sent by the viceroy of *Peru*, in search of the famous golden lake of *Parima*, and the city *del Dorado*, which were thought to be on the banks of the *Amazon*, entered this river, by another, which ran into it, from the *south*, and whereof I shall speak, in its proper place. The end of *Ursoa* was yet more tragical, than that of *Orellana*, his predecessor: he perished by the hand of *Aguirre*, a mutinous foldier, who got himself declared king. Having thus done, he went down the river, and, after a long voyage, the particulars whereof were never yet well known, having carried murder and rapine wherever he came, his career was stopped, by his being seized and quartered in the isle of *Trinity*.

Mean while, such voyages gave no great insight into the course of this river; and some particular governors made, afterwards diverse attempts towards it, with as little success; the *Portuguese*, however, were more fortunate than the *Spaniards*.

In 1638, almost a hundred years after *Orellana*, *Pedro Texeira*, being sent by the governor of  
*Para*,

*Para*, at the head of a numerous detachment of *Portuguese* and *Indians*, went up the *Amazon*, to the mouth of the *Napo*; and afterwards up the *Napo* itself, which carried him pretty near *Quito*, whither he went by land with some of the *Portuguese*; and as both nations were then under the same master, he was well received by the *Spaniards*. He returned a year after to *Para*, by the same way, being accompanied by the fathers *D'Acunba*, and *D'Artieda*, Jesuits, appointed to give an account, to the court of *Madrid*, of the particulars of that voyage. They reckoned the distance from the hamlet of *Napo*, where they embarked, to *Para*, 1356 *Spanish* leagues, which are more than 1500 sea leagues, and above 1900 of our ordinary ones. The relation of this voyage, was published at *Madrid* in 1640; the *French* translation whereof, made in 1682, by *M. Gomberville*, is in every body's hands.

The very faulty map, of the course of this river, drawn by *Sanson*, from this relation, which is merely historical, has since been copied by all geographers, for want of new memoirs; and we never had a better till 1717.

Then appeared, for the first time, in *France*, in the twelfth volume of *Edifying and curious Letters*, &c. a copy of a map engraved at *Quito*, in 1707, and drawn in 1690, by father *Samuel Fritz*, a *German* Jesuit, who was a missionary on the banks of the *Maranon*, which he surveyed throughout its whole length. By this map it was discovered, that the *Napo*, which, even in the time of father *D'Acunba's* voyage, was reckoned the real source of the *Amazon*, was but an inferior stream, which increased that of the *Amazon's* with its waters: and that the latter, under the name of the *Maranon*, issued from a lake near *Guanuco*,  
thirty

thirty leagues from *Lima*. As for the rest, father *Fritz*, without a pendulum or telescope, could not possibly determine any point of longitude; having only a wooden semicircle, of three inches *Radius* for the latitudes, and besides being indisposed, when he went down that river to *Para*. One need only read his journal in manuscript, whereof I have a copy, to see that many obstacles, at that time, and afterwards on his return to his mission, prevented his making the observations, that were necessary for rendering his map correct, especially towards the lower part of the river. This map was only accompanied, with some few notes upon the same sheet, and almost without any historical account; insomuch, that nothing more is known at present in *Europe*, of the countries traversed by the *Amazon*, than what they were informed of, above a century ago, by father *D'Acunha's* relation \*.

The *Maranon*, after issuing from the lake, whence it takes its rise, in about eleven degrees *south* latitude, runs towards the *north*, to *Jaen de Bracamoros*, for the length of six degrees; from whence it directs its course towards the *east*, almost parallel to the *equinoctial line*, as far as the *North-Cape*, where it discharges itself into the ocean, directly under the *equator*; after having run from *Jaen*, where it begins to be navigable, thirty degrees in longitude, or 750 † common leagues, reckoned, by reason of the windings, at 1000, and 1100 leagues. It receives, from the *north* and *south*, a prodigious number of rivers, several of which run five or six hundred leagues, and

\* The work called *El Maranon, o Amazonas*, is but a confused collection, without form, or accuracy.

† Thirty degrees of longitude with us make but 600 leagues.

some whereof are not inferior to the *Danube*, or the *Nile*. The banks of the *Maranon* were peopled, no longer than a century ago, by a great number of nations, who withdrew into the inner parts of the continent, as soon as they saw the *Europeans*. There are now to be seen, but a small number of little towns, inhabited by the natives of the country; who have been newly drawn out of their woods, either themselves, or their fathers, some by the *Spanish* missionaries, towards the upper part of the river, and others by those of *Portugal*, who are settled in the lower part thereof.

There are three ways, which go from the province of *Quito* to that of *Maynas*, which gives its name to the *Spanish* missions on the banks of the *Maranon*: these three ways cross that famous ridge of mountains, always covered with snow, known by the name of the *Cordeliers of Andes*. The first, almost under the *equinoctial line*, on the east of *Quito*, passes by *Archidona*, and leads to *Napo*; this was the road taken by *Texeira*, at his return from *Quito*, in company with father *D'Acunba*. The second, is by a narrow pass, at the foot of the burning mountain *Tonguragua*, lying in one degree and a half *south* latitude. By this way we come to the province of *Canelos*, after crossing several torrents, whose confluence forms the river *Pastaça*, which enters the *Maranon* a hundred and fifty leagues above *Napo*. These two are the roads usually taken by the missionaries of *Quito*, the only *Europeans* who frequent these countries; whose communication, with the neighbouring province of *Quito*, is almost wholly put a stop to by the before-mentioned *Cordeliers*, which are only passable during a few months in the year. The third road, is by *Jaen*

*de Bracamoros*, lying in about five degrees and a half *south* latitude, where the *Maranon* begins to be navigable. This way is the only one of the three, whereby beasts of burden, and saddle-horses, can pass to the place of embarkation; by the other two, one must travel many days on foot, and have every thing carried upon the shoulders of *Indians*; notwithstanding which, this is the least frequented of the three, both on account of its being a great way about, and the continual rains, which render the roads almost unpassable, in the finest season of the year; and also by reason of the difficulty and danger, of a famous narrow and rapid pass, called the *Pongo*, which we meet with on coming out of the *Cordeliers*. It was chiefly to have a view myself, of this passage, whereof they never spoke at *Quito*, but with an admiration mixed with fear, and to comprehend, within my map, the whole navigable extent of this river, that I chose this way.

I set out then from *Tarqui*, the most *southern* boundary of our meridian, and five leagues *south* of *Cuença*, on *May 11, 1743*. In my journey to *Lima*, in 1737, I had followed the common road from *Cuença* to *Loxa*; at this time I took a compass about, and went by *Zaruma*, in order to place it upon my map. I ran some hazard, in fording over the large river of *Los Jubones*, then greatly swelled, and always very rapid; but hereby I escaped a yet greater danger, namely, of being murdered by some villains, who were employed, as I have been since informed, to lie in wait for me, (on account of my prosecuting the assassins of *M. Seniergues*, our surgeon,) on the high road to *Loxa*.

From a mountain, over which I passed, on my way to *Zaruma*, may be seen *Tumbez*, a port on the

the *South-east*, beyond the line, where the *Spaniards* first landed, when they conquered *Peru*: and it was properly from this point, that I began to turn my back on the *South-Sea*, in order to cross the whole continent of *America*, from *east* to *west*.

*Zaruma*, which is situated in three degrees and forty minutes, *South* latitude, gives its name to a small province on the *West* of that of *Loxa*. However, *Laet*, as exact as he is, makes no mention thereof, in his description of *America*. This place was formerly somewhat famous, for its golden mines, now almost forsaken. The gold is of the most indifferent kind, and only of fourteen carats; it is mixed with silver, and, nevertheless, is very soft, and pliable under the hammer.

I found the height of the barometer, at *Zaruma*, to be twenty-four inches and two lines; it is well known, this height does not vary, in the *torrid zone*, as in our climates. We have found at *Quito*, for whole years together, that its greatest difference never exceeded a line and a half. *M. Godin* was the first, who observed that its variations, which are much about a line in twenty-four hours, have pretty regular alternatives; which being once discovered, affords us a rule for judging the height of the quicksilver at a medium, by one single experiment. All those we had made, upon the coasts of the *South-Sea*, with those I had repeated, in my journey to *Lima*, had taught me what the medium of that height was, when on a level with the sea; from whence I can conclude, pretty exactly, that the situation of *Zaruma* is about the height of seven hundred fathoms, which is not half so high as that of *Quito*. In this calculation, I made use of the table, drawn up by *M. Bouguer*, upon a hypothesis, which hitherto corresponds,

better than any other, with our experiments of the barometer, made in different altitudes, geometrically determined. I was come from *Tarqui*, a pretty cold country, and I felt it very hot at *Zaruma*, though I was hardly on any lower ground, than on the top of mount *Peleus* in *Martinico*; where we found it excessive cold, on going from a country that was low and hot. I here suppose, it is already known, that, during our long residence in the province of *Quito*, under the *equinoctial line*, we have almost constantly found, that, according as the height of the ground was more or less, it determined almost wholly, the degree of heat of that place; and that one need not ascend two thousand fathom, to remove from a valley scorched by the sun beams, to the foot of a vast heap of snow, as ancient as the world, wherewith a neighbouring mountain shall be covered.

I met with several rivers in my way, which it was necessary to cross, upon bridges of rope, made of the bark of trees, or of that kind of osier, called *Lianes* in our *American* islands. These *Lianes* being interwoven into net-work, form a sort of gallery in the air, extending from one side to the other, and hanging upon two large cables of the same substance, whose ends are fastened, on each bank, to the branches of trees. The whole resembles pretty much a fishing-net, and yet more an *Indian hamac*, reaching from one shore to the other. As the meshes of this net are very large, and the foot might slip through, they strew some reeds, on the bottom of this harbour, turned topsyturvy, to serve instead of a floor. It is easy to perceive, that the weight, alone, of all this work, and yet more, that of the person, who passes over it, must make this whole machine swag greatly; and if it is considered, that the passenger, when  
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he is in the midway, especially if the wind be any thing high, is exposed to terrible swingings, it may easily be judged, that such a bridge, sometimes above thirty fathoms long, appears somewhat frightful at first sight. Nevertheless, the *Indians*, who are naturally far from intrepid, pass over it running, and laden with all the baggage and pannels of the mules, whom they make swim over; and they laugh to see a traveller boggle at it, which makes him soon ashamed, to shew less resolution than they. Neither is this the most singular, or most dangerous kind of bridge, that is used in this country; but the description of them would cause me to digress too far from my subject.

I repeated, in passing by *Loxa*, the observations of latitude, and the height of the barometer, I had before made in 1737, in my journey to *Lima*; and I found the result the same. *Loxa* is not so high as *Quito*, by about three hundred and fifty fathoms, and the heat is there sensibly greater: the mountains in the neighbourhood are but hillocks, in comparison of those of *Quito*; notwithstanding which, it is from thence the waters of that province have their source; and the same little hill, named *Caxanuma*, where the best *Quinquina* grows, gives rise to some rivers, which take a quite contrary course, the one to the *west*, which run into the *South-Sea*, and the others to the *east*, which enlarge the *Maranon*.

On *June* the 3d, I spent the whole day on one of these hills; yet, with the help of two *Indians* of the neighbourhood, whom I had taken to guide me, I could not, in all that time, pick out above eight or nine plants of *Quinquina*, that were fit to be transported. These I had put, with earth dug upon the spot, into a box of a sufficient size; which

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was carried, with care, upon the shoulders of a man, who kept within my sight, to the place where I embarked. This I did, in hopes of preserving some one of them, which I might leave in trust at *Cayenne*, if it was not in a condition, to be actually carried over to *France*, for the king's garden.

From *Loxa* to *Jaen*, we pass over the last hills of the *Cordeliers*; and all this way, one travels almost wholly through woods, where it rains every day, for eleven, and sometimes twelve months of the year; so that it is impossible there to dry any thing. The baskets, covered with the hides of oxen, which are the trunks of that country, rot, and stink intolerably. I passed by two towns, which have now only the names of such, viz. *Loyola* and *Valadolid*; though both of them were rich, and well peopled by *Spaniards*, within less than a hundred years; but they are at present reduced to two small hamlets of *Indians*, or *Metis*, and removed from their former situation. Even *Jaen* itself, which is still called a town, and ought to be the residence of the governor, is now but a sorry village. The same thing has happened to most of the towns of *Peru*, that are distant from the sea, and much out of the road from *Carthagena* to *Lima*. I met all along this way a great many rivers, which I was obliged to cross, some by fording over; others over bridges, of the sort before-mentioned; and others over floats, or rafts, made upon the spot, with the timber, which nature has provided in all these forests. These rivers, being joined together, form another very large and rapid, called *Chinchipé*, which is bigger than the *Seine* at *Paris*. I went down it upon a float, for five leagues, to *Tompenda*, an *Indian* village, within sight of *Jaen*, agreeably situated at the confluence of three rivers.

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The *Maranon* is the middlemost, and receives the river *Chachapoyas* from the *south*, as it does *Chinchipé* from the *west*, by which I came down.

This junction of three rivers, is in five degrees thirty minutes *south* latitude; and from this place the *Maranon*, notwithstanding its windings, approaches still nearer and nearer to the *equinoctial line*, till it comes to the sea. Even below this place the river grows narrower, and opens itself a passage between two mountains, where the rapidity of its stream, with the rocks that obstruct its way, and several falls, render it unpassable; so that what is called the port of *Jaen*, the place where one is obliged to go to embark, is four days journey from the town, upon the little river *Chubunga*, whereby one goes down into the *Maranon*, below the water-falls. Nevertheless, an express, which I had dispatched from *Tomependa*, with orders from the governor of *Jaen*, to his lieutenant at *St. Yago*, to send me a canoe to the port, had surmounted all these obstacles, upon a small float, made of two or three pieces of timber; which is sufficient for a naked *Indian*, and excellent swimmer, as indeed they are all. From *Jaen* to the port, I crossed the *Maranon*; but found myself, several times, again upon its banks. Within this space, this river receives diverse torrents from the *north*, which, in heavy rains, carry along with them a sand mixed with spangles and grains of gold. The *Indians* go then to gather up exactly the quantity necessary for paying their tribute and capitation; and that only when they are greatly pressed to bring it; at any other time, they would tread it under foot, rather than take the pains requisite to gather, and cleanse it. Throughout this country, both sides of the river  
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are covered with *Cacao*, which is no less excellent than what is cultivated; but the *Indians* value it, as little as the gold.

On the fourth day, after my departure from *Jaen*, I forded twenty-one times over the torrent of *Chubunga*, and crossed it once afterwards in a boat; the mules, on approaching their baiting place, leapt into the river, all loaden as they were, and swam over; so that my instruments, books, and papers were all wet. This was the fourth accident of this nature, I had met with, in my journey over the mountains; and my misfortunes did not cease until I embarked.

I found at *Chubunga* a hamlet of ten *Indian* families, governed by their *cacique*, who understood about as much *Spanish*, as I did of his language. I had been obliged, at *Jaen*, to rid myself of two servants, natives of the country, who might have served me as interpreters; necessity had made me find a way to do without them. The *Indians* of *Chubunga* had but small canoes, fit for their own use; and that I had sent for to *St. Jago*, by an express, could not come thither in less than a fortnight; wherefore, I engaged the *cacique* to cause his people to make me a float or *balse*, which is the name they give it in that country, as well as to the wood whereof it is formed; and I desired it large enough to carry myself, with my instruments and baggage. The time requisite, for preparing the *balse*, afforded me sufficient leisure, to dry my books and papers, leaf by leaf; a precaution as needful as tedious. The sun did not appear till towards noon, but that was enough to take the height; and I found myself in five degrees twenty-one minutes *south* latitude; and I knew by the barometer, which was sixteen lines lower than at the sea-side, that two hundred

hundred and thirty-five fathoms above its level, there are rivers navigable, without interruption: nor will I affirm they cannot be so at a greater height, I only simply relate the consequence I drew from my own experience. Nevertheless, it is very likely, that the place, where a river, (which, to reckon from this hamlet, runs above a thousand leagues, will first bear a boat,) must be somewhat higher than those, where the generality of rivers begin to be navigable.

On July 4th, in the afternoon, I embarked in a little canoe, with two oars, having before me the *balse*, guarded by all the *Indians* of the hamlet. They were in the water up to the middle, to guide it in dangerous places, and to hold it between the rocks, and in the little falls, from being carried away by the violence of the stream. Next morning, after many windings, I entered the *Maranon*, about four leagues to the north of the place where I embarked. There the *Maranon*, properly so called, begins to be navigable; and it became necessary to enlarge and strengthen the float, which had been made proportionable only to the channel of the small river, down which I had come. That night the river swelled ten feet; so that it was necessary to remove, in haste, the arbour, which served me for a shelter, and which the *Indians* make with admirable dexterity and speed. I was detained in this place three days, by the advice, or rather by the order, of my guides, to whom I was obliged to refer myself; accordingly, they had full time to prepare the *balse*, and I to make my observations. I measured geometrically the breadth of the river, and found it to be a hundred and thirty-five fathoms, though already fallen between fifteen and twenty fathom. Diverse rivers, which it re-

ceives above *Jaen*, are broader, which made me judge it to be very deep; and, in effect, with a line of twenty-eight fathom, I could not find any bottom, when hardly above one third from the shore. I could not find it at all, in the middle of the channel, where the way of a canoe, when let go with the stream, was at the rate of a fathom and a quarter in a second. The barometer, which was higher, than when at the port, by four lines, shewed me, that the level of the water was lower above fifty fathoms, than at *Chuchunga*, from whence I had come down in eight hours; I observed also, the latitude at the same place; and found it to be five degrees and one minute south.

On the 8th, I proceeded on my way, and passed through the narrow pass, or straits of *Cumbinama*; which is not above twenty fathom broad, and somewhat dangerous, by reason of the many stones that are therein. Next day I came to that of *Escurrebragas*, which is of another kind; the river being stopped short by a steep rock, against which it runs, in a direct line, is obliged to turn off suddenly, and make a right angle with its former course. Accordingly, the dashing of the stream, with the great rapidity it acquires, by the channel's being narrower, has worked a deep hollow in the rock, where the waters on the shore are kept in, being beaten back by the rapidity of those in the middle: and my float, upon which I then was, being driven by the course of the stream into this hollow, did nothing but whirl round and round, for an hour and some minutes. The whirling waters, indeed, in moving in a circle, brought me often back towards the channel of the river, where meeting with the main stream, they formed such waves, as would infallibly

libly have sunk a canoe; but the largeness and solidity of the float secured it in this respect; however, I was still driven back, by the violence of the current into the bottom of the hollow; from whence I had not got out, but through the dexterity of four *Indians*, whom I had kept with me, and also a small canoe, at all events. These having rowed the length of the reach under the shore, climbed up the rock, from whence they threw me some *lianes*, (which are the ropes of that country) though not without difficulty, wherewith they towed the *balse*, till they had drawn it again into the stream. The same day, I went through another narrow pass, called *Guaracayo*, where the channel of the river, being kept in between two large rocks, is not thirty fathom over; but this is only dangerous in great swells. That same evening, I met the great canoe of *St. Jago*, which was coming up the river, to take me in at the port; but must have been six days, in getting only to the place, from whence I had set out in the morning, and had run down in ten hours.

On the 10th, I arrived at *St. Jago de las Montanas*; now a hamlet, at the mouth of a river of the same name; but formed out of the ruins of a city, which had originally given name to the river. Its banks are inhabited by an *Indian* nation, called *Xibaros*, who were formerly *Christians*; but have revolted about a hundred years from the *Spaniards*, to free themselves from working in the gold mines of their country. Since that time, having retired into inaccessible woods, they keep themselves independent; and prevent the passing up and down that river, whereby one might come conveniently, in less than eight days, from the neighbourhood of *Loxa* and *Cuenca*, whence I set out by land about two months before.

The dread of these *Indians*, has obliged the rest of the inhabitants of *St. Jago*, to change their abode twice; and within about forty years, to come down to the mouth of that river, where it falls into the *Maranon*.

Below *St. Jago*, one meets *Borja*, a city almost of the same kind as the former; notwithstanding its being the capital of the province of *Maynas*, which contains all the missions of the *Spaniards* on the banks of the *Maranon*. *Borja* is only separated from *St. Jago*, by the famous *Pongo de Mansericbé*. *Pongo*, formerly *Puncu*, in the language of *Peru*, signifies a Port; this name is given, in that tongue, to all the narrow passes; but this is called so, in particular, by way of pre-eminence. 'Tis a passage, which the *Maranon*, turning to the east, after running above two hundred leagues to the north, opens for itself in the midst of the *Cordeliers*; having worked itself a channel, between two parallel walls of rock, that are almost perpendicular. 'Tis somewhat more than an age, since some *Spanish* soldiers of *St. Jago* discovered this passage, and run the hazard of venturing through it. Two missionaries, of the province of *Quito*, followed them soon after; and founded, in 1639, the mission of *Maynas*, which extends a great length down the river. Being arrived at *St. Jago*, I was in hopes of going on to *Borja* the same day, and it required no more than an hour to have got thither; but notwithstanding my repeated expresses, and the orders and recommendations wherewith I was always well provided, (but whereof I seldom saw the performance,) the timber of the large float, whereon I was to have passed the *Pongo*, was not yet felled. I contented myself therefore with having mine strengthened by a new border, wherewith I had it incompassed, to stand the first

first strainings of those shocks, that are almost unavoidable in the windings, for want of a rudder; whereof the *Indians* never make use for their floats: as for their canoes, they are so light, they guide them with the same *pagaye*, which serves them for an oar. Next day after my arrival at *St. Jago*, it was impossible for me to overcome the opposition of my conductors, who did not think the river yet low enough, to venture through that pass; all I could prevail on them, was to cross over, and wait for the favourable moment, in a small creek, near the entrance into the *Pongo*; where the rapidity of the current is so great, that though there are no falls properly so called, the waters seem as coming down a precipice, and, by their dashing against the rocks, make a noise altogether dreadful.

The four *Indians* of the port of *Jaen*, who had attended me till then, being less curious than I, of taking a near view of the *Pongo*, were already gone before by land, by a foot-path, or rather by stairs hewed in the rock, to wait for me at *Borja*; having left me that night, as they had done the former, with only a negro slave, upon my float. I was very fortunate in having refused to part with him; since an accident there befel me, whereof, perhaps, there never was an example. The river, which had sunk twenty-five feet, in thirty-six hours, continued to fall visibly; and in the middle of the night, part of a large branch of a tree, that was concealed under the water, having found entrance, between the pieces of my float, where it made its way farther and farther, as fast as that fell, together with the river, had I not had presence of mind, and been quite awake, I was just upon the point of remaining fastened, and suspended in the air, by that branch of the tree; where

where the least, that could have befallen me, must have been the loss of all my journals, and papers of observations, the fruits of eight years labour. By good luck, I found the means, at last, to disengage my *balse*, and set it again afloat.

I took advantage, of my forced stay at *St. Jago*, to measure geometrically the breadth of the two rivers; I took also the angles necessary for forming a topographical map of the *Pongo*.

On the 12th of *July*, at noon, I had the *balse* loosened, and put off from the shore; and was soon drawn, by the current of the water, into a narrow and deep gallery, if I may use that expression, that was cut sloping in the rock, and in some places perpendicular; and, in less than an hour, I found myself at *Borja*, three leagues below *St. Jago*, according to the common way of reckoning. Nevertheless, the *balse*, which did not draw half a foot of water, and, by the bulk of its lading, presented to the resistance of the air, a surface seven or eight times as large as it did to the current, could not take the whole velocity of the stream; and this velocity itself abates considerably, as fast as the channel of the river grows wider, on approaching *Borja*. In the narrowest part I judged, that we made two fathoms a second, by comparing our way then, with what it made in other rapid passes, where it was exactly measured.

The channel of *Pongo*, wrought by the hands of nature, begins a small half league below *St. Jago*, and becomes narrower and narrower, as it runs on; insomuch, that from two hundred and fifty fathoms at least, which is its breadth at the meeting of the two rivers, it is at last but twenty-five fathoms over in its narrowest part. I know, that hitherto they have reckoned the breadth of the *Pongo* at only twenty-five *Spanish vares*, which amount

amount but to ten of our fathoms; and that it is commonly said, they pass from *St. Jago* to *Borja* in a quarter of an hour; but, as for my part, I observed, in the very narrowest place, it was at least three lengths of my float to each shore. I reckoned, by my watch, fifty-seven minutes, from my first entrance into the streights to *Borja*; and all being put together, I find the measures to be as I have said; nay, how much soever I strive to reconcile my calculation with the received opinion, I can hardly find it two leagues, of twenty to a degree, from *St. Jago* to *Borja*, instead of three, which is the general way of reckoning.

I struck twice or thrice, very hard, in the windings, against the rocks; which would be enough to frighten a man, were he not forewarned of it; a canoe would be broken into shatters, a thousand times, and without remedy; (inasmuch, that they shewed me, as I passed by, the place where a governor of *Maynas* was lost;) but the pieces of a float being neither nailed, nor bound together with ropes, the flexibility of the *lianes*, which joined them together, has the same effect as a spring, which should deaden the blow, and they take no precaution, against these shocks. The greatest danger, for the latter, is of being carried away into a whirlpool, out of the current, as it happened to me in the streights of *Escurrebragas*. It was not above a year before, that a missionary, who was thus served, remained there two days, without any provision; and had died with hunger, if a sudden swell of waters had not driven him again into the stream. There is no going down the *Pongo* in a canoe, but when the waters are sufficiently low, so that the canoe may be steered, without being too much commanded by the current; when they are at the lowest, the canoes may  
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also go up again, with abundance of difficulty, but the *balses* never.

Being arrived at *Borja*, I found myself in a new world, far from all human commerce, upon a sea of fresh water; and in the midst of a labyrinth of lakes, rivers, and canals, that penetrate every way into an immense forest, which they alone render passable. I met there with new plants, new animals, and new men. My eyes, that had been accustomed, for seven years, to look at mountains, that lost themselves in the clouds, were never weary of gazing round the *horizon*, without having the view interrupted, by any other obstacle, than the little hills of the *Pongo*; which were about soon to disappear from my sight: in lieu of that variety of different objects, which diversify the cultivated plains of *Quito*, they were presented with a prospect, altogether uniform, of water and verdure, and nothing else. We tread there upon the earth without seeing it; so much is it overspread with thick herbs, plants, and bushes, that it would require a good deal of trouble to clear the space of a foot square. Below *Borja*, even for four or five hundred leagues, a stone, even a single flint, is as great a rarity as a diamond would be. The savages of those countries don't know what a stone is, and have not even any notion of it. It is diversion enough to see some of them, when they come to *Borja*, and first meet with stones, express their admiration of them by signs, and be eager to pick them up; loading themselves therewith, as with a valuable merchandize; and soon after despise and throw them away, when they perceive them to be so common.

But, before I proceed any farther, I think it will be proper to say somewhat of the genius and character

character of the original inhabitants of *South-America*, commonly, though improperly, called *Indians*. We do not here mean the *Creolians*, whether *Spanish* or *Portuguese*; nor yet of those diverse sorts of men, that have sprung from the mutual intercourse between the *White Europeans*, the *Blacks* of *Africa*, and the *Red Americans*, since the former first got footing there, and have introduced likewise the *Negroes* of *Guinea*.

All the ancient natives of the country, are tawny, of a colour somewhat reddish, and more or less clear. This variety of shades in their complexion, is probably owing chiefly, to the different temperature of the air, in the several climates they inhabit, varying from the intense heat, of the *torrid zone*, to the nipping cold, caused by the vicinity of the snow.

This diversity of climes, with that of woody countries, plains, mountains, and rivers, as also the difference of their diet, and the little correspondence the neighbouring nations have with each other, with a thousand other causes, must necessarily have produced great variety, in the several occupations and customs of these people. Besides, it may easily be imagined, that a nation, who have been Christians, and subject to the crowns of *Spain* or *Portugal*, for an age or two, must inevitably have learned some of the manners of their conquerors; and consequently, that an *Indian*, who lives in a town or village of *Peru*, must differ from a savage, in the inner parts of the continent; and even from a new inhabitant of the missions, lately settled upon the banks of the *Maranon*. It would be needful, therefore, in order to give any one an exact idea of the *Americans*, to make almost as many descriptions, as there are nations amongst them. Nevertheless, as all the *European* nations,

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though differing amongst themselves in tongues, manners, and customs, would still have somewhat in common to all of them, in the eyes of an *Asiatic*, who should examine them attentively; so all the *American Indians*, of the several countries, which I had an opportunity of viewing, in the course of my travels, have seemed to me, to have certain touches of resemblance, in common with each other; and, some slight particularities excepted, which it is scarce possible for a traveller, who only has a transient view of things, to observe, methought, I perceived, all of them, at the bottom, to be of one common temper, whereof insensibility is the basis; which, whether it ought to be honoured with the name of apathy, or branded with that of stupidity, I leave to others to decide.

This proceeds, undoubtedly, from the small number of their ideas, which extend no farther than their necessities. Gluttons, even to voracity, when they have wherewith to satisfy themselves; yet moderate, when they needs must, even to shifting without any thing, or seeming to desire aught. Pusillanimous and cowardly to the last degree, if drunkenness does not transport them; enemies to labour; unmoved by any incentive to glory, honour, or gratitude; wholly intent upon the object that is before them; and always determined thereby, without any regard to futurity; incapable of foresight and reflection; giving themselves up, when not under restraint, to a childish joy, which they express, by skipping about, and immoderate flights of laughter, without either meaning or design: thus they pass their lives without thought; and grow old, without having taken leave of infancy; all the failings whereof they retain.

If these reproaches could only be cast upon the *Indians* of some provinces of *Peru*, who are slaves

in all respects but in name, one might imagine this degeneracy, almost to the level of brutes, proceeded from the servile dependence wherein they live; the example of the modern *Greeks* sufficiently proving, how apt slavery is to degrade mankind. But the *Indians* of the missions, and the savages, who enjoy their liberty, being, at least, as much limited in their conceptions, not to say as stupid, as the others, one cannot observe, without being mortified, how little a man, when wholly left to the guidance of mere nature, differs from the brutes.

All the languages of *South-America*, whereof I have had any knowledge, are very barren; many of them are full of energy, and susceptible of elegance, especially the ancient *Peruvian* tongue; but all of them are equally void of terms, to express abstracted and universal ideas; an evident proof, how little progress the understandings of these people have made. *Time, duration, space, being, substance, matter, and body*, all these words, with many others, have no term equivalent to them in their speech: and not only the names of metaphysical essences, but even those of moral ones, cannot be expressed by them, but imperfectly, and by long circumlocutions. They have no words among them, which answer exactly to the terms *virtue, justice, liberty, acknowledgement, ingratitude*, all which seems very hard to be reconciled, with what *Garcilasso* advances, concerning the policy, industry, arts, government, and genius, of the ancient *Peruvians*: if the love of his country has not blinded him, it must be owned the present inhabitants have greatly degenerated from their ancestors. As to the other nations of *South-America*, it is not known, that they have ever been any other than *Barbarians*.

I have drawn up a vocabulary of the words, most in use, in diverse *Indian* tongues; the comparing of which, with those of the same signification, in other tongues of the inland countries, may not only serve to prove the various transmigrations of these people, from one extremity to the other of this vast continent; but also, when the comparison can be made, with several languages of *Europe*, *Africa*, and the *East-Indies*, may be perhaps the only way, to discover the origin of the *Americans*: a conformity of tongue, well evidenced, would, no doubt, decide the question. The words *abba*, *baba*, or *papa*, with that of *mamma*, which seem to be adopted, with little or no variation, from the ancient *eastern* languages, into most part of the *European* tongues, are also common to a great number of *American* nations, whose speech is otherwise very different. Now, should these words be looked upon, as the first sounds children can articulate, and consequently as those, which parents, in all countries, hearing their children pronounce them, must naturally have chosen preferably to others, to express those relative ties of fatherhood and motherhood; it would still remain to be known, why, in all the *American* tongues, wherein these words are used, their mutual signification has been retained, without confounding the one with the other. By what chance, for example, in the dialect of *Omagua*, in the center of the continent, and some others adjacent, where the words *papa* and *mamma* are in use, it has never happened that *papa* signified mother, and *mamma* father; but the contrary is always observed amongst them, as well as in the *eastern* and *European* tongues? It is very probable, that, amongst the native *Americans*, we might meet with other terms, whose conformity

mity well proved, with those in another language of the ancient times, might give some light into a question, hitherto abandoned to mere conjecture.

I was staid for at *Borja*, by the reverend father *Magnin*, of the district of *Friburgb*, a *Jesuit* missionary, from whom I met with all the civilities and kindneses, I could have expected from a countryman and friend. I had no need with him, nor afterwards with the other missionaries of his order, of the recommendations of their friends at *Quito*; and yet less of the passports, and orders of the *Spanish* court, which I carried with me. Besides diverse curiosities, belonging to natural history, this father presented me with a map he had drawn, of the *Spanish* missions of *Maynas*; as also, with a description of the manners and customs of the neighbouring nations. During my stay at *Cayenne*, I assisted *M. Arthur*, physician to the king, and counsellor of the head council of that colony, in translating this treatise from the *Spanish* into *French*, which is well worthy of the public curiosity. I observed the latitude at *Borja*, to be four degrees twenty-eight minutes *south*.

I set out from thence *July* 14th, with the same father, who was willing to keep me company to *Laguna*; and on the 15th, we left, to the north of us, the mouth of the *Morona*, which issues from the burning mountain of *Sangay*, whose embers are projected across the provinces of *Macas* and *Quito*, and fly sometimes beyond *Guayaquil*. Somewhat farther, and on the same side, we came to the three mouths of the river *Pastaza*, which has been already mentioned. It was then so much overflowed, there was no landing in any part; this prevented my measuring the bigness of the largest mouth, which I reckoned to be  
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four hundred fathom, and almost as wide as the *Maranon*. I observed, a little farther, that evening, and next morning, the setting and rising of the sun; and I found, as at *Quito*, eight degrees and a half declension, from the north to the east. From two amplitudes, thus observed successively, one may conclude the declension of the needle, without knowing that of the sun; it being sufficient to mind the change of the sun in declension, within the interval of the two observations, if it be considerable enough, to be observed with the compass.

On the 19th, we arrived at *Laguna*, where *Don Pedro Maldonado*, governor of the province *das Esmeraldas*, had been waiting for me six weeks. To this gentleman, as well as to his two brothers, and all the family, I owe this public testimony, that he distinguished himself, on all occasions, amongst those, from whom our academical detachment received good offices, during our long stay in the province of *Quito*. I had found him, as well as myself, inclined to go down by the river of the *Amazons*, in his passage to *Europe*. He had followed the second of the three roads already mentioned, in coming down the *Pastaça*; and had arrived, much sooner than me, at our rendezvous at *Laguna*, though we had both set out, almost at the same time, the one from *Quito*, and the other from *Cuença*. He had made by the way, with the help of a compass and portative dial, the necessary observations for describing the course of the *Pastaça*; to which I had advised him, and had supplied him also, with the means to perform it.

*Laguna* is a large village, of above a thousand *Indians* bearing arms, and gathered together out of diverse nations; it is the principal mission of all *Maynas*. It is situated in a dry and high soil,  
which

which is hard to be found in those countries; and on the banks of a large lake, five leagues above the mouth of the *Guallaga*, which has its source, like the *Maranon*, in the mountains on the east of *Lima*. It was by this river, that *Pedro d'Ursoa*, whom we have already mentioned, came into the *Maranon*. The memory of his expedition, and of the events that caused his fatal end, is still preserved by the inhabitants of *Lamas*, a small town, adjacent to the port where he embarked. The breadth of the *Guallaga*, at its meeting with the *Maranon*, might then be about two hundred and fifty fathom, or four times as wide as the *Seine* at *Port-Royal*; yet this is but a very middling river, in comparison of most of those that will be spoken of hereafter.

At *Laguna*, I made diverse observations of the latitude, both by the sun, and by the stars; and determined it to be five degrees fourteen minutes. I staid there the longer, by twenty-four hours, to try to observe the longitude; but I lost sight of *Jupiter* in the vapours of the horizon, before I could see the first of his *Sattelites* emerge from the darkness.

On the 23d, *M. Maldonado* and myself, set out from *Laguna*, in two canoes, between forty-two and forty-four feet long, and only three broad; being each made of one single trunk of a tree. The rowers are placed from the head towards the middle, the traveller with his things at the stern; and they are sheltered from the rain, by a long roundish roof, of palm leaves, artfully interwoven together, whereat the *Indians* are very dexterous. This sort of arbour has an interval open in the middle, to give light into the canoe, and enter it commodiously; as also a sliding roof,  
of

of the same sort, which goes over the other, and covers this opening, (when desired,) so it answers, at once, the end of a door and window.

We resolved to go on night and day, in order to overtake, if possible, the brigantines, or large canoes, which the *Portuguese* missionaries dispatch every year to *Para*, to fetch their provision. Our *Indians* rowed all day; but only two kept watch at night, one at the head, and the other at the stern, to keep the canoe in the middle of the stream.

In engaging to draw a map, of the course of the river of *Amazons*, I had taken care of a remedy for the inaction, which a continual easy navigation must have otherwise occasioned; and which the want of a variety of new objects, might have rendered tedious. I was obliged to be always attentive to the compass, with a watch in my hand, to observe the alterations in the direction of the river's course, and the time we took in running from one winding to another: as also to examine into the various breadths of its channel, and of the mouths of those rivers it received; to view the angle they formed in entering therein, with the several islands we met with, and their length; but, above all, to measure the velocity of the stream, with that of the canoe, sometimes by land, and sometimes in the boat itself, by diverse methods, which it would be too much to explain here. In short, every moment was employed; frequently I measured and sounded geometrically the largeness of the river, with that of those that fall into it; I took the meridian altitude of the sun almost every day, and often observed its amplitude at its rising and setting; in all the parts where I made any stay, I likewise set up the barometer. I shall not mention these observations, for the future,  
but

but in the most remarkable places, reserving a more ample account for our particular assemblies.

On the 25th, we left, to the *north* of us, the river *Tigris*, which may very possibly be larger, than that which bears the same name in *Asia*, but which, not being so fortunately situated, is here lost, in a number of others much more considerable. The same day, we stopp'd in pretty good time, and on the same side, at a new mission of savages, called *Yameos*, newly drawn out of their woods. Their language is inexpressibly difficult, and their manner of pronouncing it, yet more extraordinary than that. They suck in their breath when they speak, and hardly sound any vowel. They have words, which we could not write, even imperfectly, without using at least nine or ten syllables; yet, when they pronounce them, they seem only to be three or four. *Poettarrarorincouroac* signifies, in their tongue, the number three; fortunately for those who have to do with them, their arithmetic goes no farther; and how incredible soever it may seem, this is not the only *Indian* nation that is in this case. The language of *Brazil*, spoken by a people not quite so unpolish'd, labours under the same deficiency; so that, in order to reckon, they are forced to have recourse to that of the *Portuguese*.

The *Yameos* are very expert in making long trunks, which are the *Indians* most usual hunting-weapons. They fit thereto small arrows, of the wood of the palm-tree, which they trim, instead of feathers, with a roll of cotton, that exactly fills the hollow of the trunk; and these they project with their breath, thirty or forty paces, scarce ever missing their aim; so that so simple an instrument supplies advantageously, amongst all these nations, the want of fire-arms. They dip the Points of

where they were once situated. All their inhabitants, terrify'd by the incursions of some Buccaneers of *Para*, (who came to carry them away for slaves, even from the midst of their own settlements,) dispersed themselves either up and down the woods, or amongst the *Spanish* and *Portugueze* Missions.

The name of *Omaguas*, in the *Peruvian* tongue, as well as that of *Cambevas*, given to them by the *Portugueze* of *Para*, in the language of *Brazil*, signifies *flat-head*; and, in effect, these people have the odd custom, of squeezing, between two boards, the foreheads of their new-born children, to make them of this strange shape, that they may the more resemble (as they say) the full-moon. The language of the *Omaguas* is as agreeable, and as easy to pronounce, and also to learn, as that of the *Yameos* is harsh and difficult; neither is it at all like either that of *Peru*, or that of *Brazil*; which are spoken, the one above, and the other below, the Country of the *Omaguas*, the whole length of the river of *Amazons*.

The *Omaguas* make great use of two sorts of plants; one of which is called, by the *Spaniards*, *Floripondio*, whose Flower resembling a bell turn'd upside down, has been described by the *father Feuillée*: the other, in the language of *Omagua*, is named *Curupa*, some seeds whereof I have brought with me; both of these are cathartick, or purging. But these people make use of them, to intoxicate themselves therewith, for the space of twenty-four hours, during which time they have strange visions. They take also the *Curupa* reduced to powder, as we do snuff; but with somewhat more formality. They make use of a pipe, form'd out of a reed, and ending in a fork, in short, shaped like a Y; each of the  
branches

branches of this instrument, they put into one of their nostrils; which operation, being followed by a violent drawing in their breath, causes them to scrow up their faces, after a manner, very ridiculous to an *European*, who would have every thing conformable to his own customs.

It may easily be judged, how great the abundance and variety of plants must be, in a country, which moisture and heat contribute equally to render fertile. Those of the province of *Quito* have not, undoubtedly, escaped the observation, of *Monf. Jos. de Fussien*, our fellow-traveller; but I will venture to say, that the multitude, and diversity of plants and trees, to be met with on the banks of the river of *Amazons*, during its whole course, from the *Cordeliers des Andes* to the sea, and on the sides of divers rivers, that lose themselves therein, would find ample employment, for many years, for the most laborious botanist; as it would also for more than one designer. I speak here, only of the labour it would require, to make an exact description of these plants, and to reduce them into classes, and range each under its proper genus and species. What would it be, if we comprehend herewith, an examination into the virtues ascribed to them by the natives of the country? An examination, which is undoubtedly the most attractive of our attention, of any branch of this study. It is not to be questioned, indeed, but ignorance and prepossession have greatly multiplied and exaggerated these virtues; but, are the *Quinquina*, the *Ypucuana*, the *Simaruba*, the *Sarsaparilla*, the *Guaiacum*, the *Cacao*, and the *Banilia*, or *Vanilloes*, the only useful plants that *America* produces? And the singular virtues of these being well known, and sufficiently proved, is not this encouragement

agement enough, to proceed to new enquiries? All I cou'd do, was to gather some seeds, of those I met with in my way, as often as it was possible.

The plants, which seem'd to me, for the generality, to draw most the eyes of new-comers, by their singularity, were those *Lianes*, or sorts of oifers, already mentioned, which serve instead of ropes; and wherewith *America* abounds in all the hot and woody countries. They have this property in common to them all; that they grow up winding round the trees and shrubs they meet, and being arrived at their branches, which are sometimes at a very great height, they shoot out threads, or filaments, which falling down in a perpendicular line, work themselves into the earth, take root afresh, grow up again, ascending, and descending alternately: others again being carried obliquely by the wind, or some chance, fasten frequently upon neighbouring trees, and form a confusion of cordage, hanging down, and extending every way, which yields the eye a prospect, very like that of a ship's tackling. There are hardly any of these *Lianes*, which have not some particular quality ascribed to them; some of which have been very well confirmed, as is that of the *Specaculina*. I have myself seen in several places one kind, which emits a very strong smell, so plainly resembling that of garlick, that it is easily to be known by that alone. There are some as large, and even larger than a man's arm; some choak the tree, round which they cling, and make it actually die away, by winding themselves so hard about it; which has caused the *Spaniards* to call it *Matapalo*, or *wood-killer*. Sometimes it falls out, that the tree withers away, rots, and wastes as it stands; so that there remains only the windings

ings of the *Lianes*, which form a kind of wreathed column, self-supported, and transpierced through and through, which art would find it very difficult to imitate.

The gums, rosins, and balsams; in short, all the juices, which flow, upon incision, from divers sorts of trees, as well as the different oils extracted from thence, are not to be numbered. The oil drawn from the fruit of a palm-tree, called *Unguravt*, is (as they say) as sweet, and reckoned by some as palatable, as *Florence-oil*. Some there are, like that of *Andiroba*, which yield a fine light, without any ill smell. In many parts the *Indians*, instead of oil, light themselves with the *Copal*, bound round with the leaves of the *Banana-tree*; others, for the same end, make use of certain seeds, put within the hollow of a pointed rod, which, being run into the earth, serves at the same time as a candlestick. The rosin, named *Cabout-chou*, in those countries, of the province of *Quito*, adjacent to the sea, is also very common, on the banks of the *Maranon*, and serves for the same uses. When it is fresh, they work it with molds, into what shape they please, and it is impenetrable by the rain; but, what renders it the most remarkable, is its great elasticity. They make bottles thereof, which it is not easy to break; boots, and hollow bowls, which may be squeeze'd flat, and when no longer under restraint, recover their first form. The *Portugueze* of *Para*, have even learnt of the *Omaguas*, to make squirts or syringes thereof, that have no need of a piston, or sucker; they are made hollow, in the form of a pear, when scoop'd, having a little hole at the small end, to which a pipe of the same size is fitted; they are then filled with water, and by squeezing them, they have the same effect, as a common squirt.

squirt. This machine is mightily in vogue amongst the *Omaguas*; when they meet together by themselves, for any merry-making, the master of the house never fails to present one, to each of his guests; and the use of the squirt, with them, is always the prelude, to their most solemn feasts.

We changed both our canoos, and our attendants, at *St. Joachim*; from whence we set out, on the 29th of *July*, ordering our matters so, as to arrive at the mouth of the *Napo*, time enough to observe the *emersion*, of the first of *Jupiter's satellites*, on the night between the 31st of *July*, and the first of *August*. I had not, since my setting out, any determined point of longitude, whereby to correct my distances from *east* to *west*; besides, the voyages of *Orellana*, *Texeira*, and father *D'Acunba*, which have render'd the *Napo* famous; and the pretensions of the *Portugueze*, to the jurisdiction over all the territories on the sides of the river of *Amazons*, as far as *Napo*, caused this to be a point, which it was of great importance to settle. I made my observation very fortunately, notwithstanding divers impediments; and thereby reaped the first fruits, of the trouble it had cost me, to carry a telescope eighteen foot long, through woods, and over mountains, for above a hundred and fifty leagues. My fellow-traveller, full of the same zeal, was both on this occasion, and divers others, wherein he assisted of great service, as well by his understanding, as his activity. I observed, at first the meridian altitude of the sun, in an island, over against the largest mouth of the *Napo*; I found it three degrees, twenty-four minutes *south* latitude; I judged the whole breadth of the *Maranon*, to be nine hundred fathoms, below the island, not being able to measure but one branch geometrically.

As

as for the *Napo*, it seem'd to me to be six hundred fathoms over, above the islands, that there divide it into several branches : and, to conclude, I observ'd also the same night the *emersion* of the first of the *satellites*, and took immediately after the altitude of two stars, in order to determine the time. The intervals of the observations were measured by a good watch, so that I might spare myself the trouble of setting up, and regulating a pendulum, which would scarce have been possible. I found, by my calculation, the difference of the meridians, between *Paris* and the mouth of the *Napo*, to be four hours, and three quarters. This determination will be yet more exact, when we have the actual hour of the observation, in some place, whose longitude is known, and where this *emersion* was visible. Immediately after my having taken the longitude, we set out again on our way ; and next morning, being the first of *August*, we landed, ten or twelve leagues below the mouth of the *Napo*, at *Pevas*, now the last of the *Spanish* missions on the banks of the *Maranon*. Father *Fritz* had extended them above two hundred leagues farther, but the *Portuguese*, in 1710, took possession of the greatest part of these territories. The savage nations, adjacent to the banks of the *Napo*, were never entirely reduced under the dominion of the *Spaniards* ; some of them, from time to time, have massacred the governors, and missionaries who have attempted it ; but, within these fifteen or twenty years, the *Jesuits* of *Quito* have again return'd to some of their former settlements, and have founded on the banks of that river some new missions, at present very flourishing.

The name of *Pevas*, now given to the little town, where we landed, belongs also to an *Indian* nation, who are now part of its inhabitants; but many *Indians*, of various nations, are likewise there gathered together, each of which have a different tongue; and this is frequent throughout all *America*. Sometimes it happens, that a tongue is only understood by two or three families, the miserable remains of one people, destroy'd and devour'd by another! For, although there are no cannibals upon the banks of the *Maranon*, there are still some *Indians* in the inland countries, particularly towards the *north*, and in going up the *Yupura*, who eat their prisoners. Most part of the new inhabitants of *Pevas* are not yet *Christians*; being only savages lately drawn out of their coverts and lurking places: all that has been attempted, therefore, hitherto, has been only to humanize, or make them men, which is no easy task.

I ought not to enlarge at present upon the manners and customs of these nations, and many others I have met with, but as far as they may have any relation to *physicks*, or natural history; wherefore, I shall give no description of their dances, instruments, feasts, arms, or implements for hunting or fishing; nor yet, of their whimsical ornaments, such as the bones of animals, or fish, stuck through their nostrils or lips; or their cheeks, having as many holes in them as a sieve, which serve as a case for feathers of all colours; but anatomists will, perhaps, find occasion, to make some reflections on the monstrous extension of the lobe, of the lower extremity of the ear, in some of these people; notwithstanding which, its thickness is not sensibly diminish'd. In effect, we have been surprized, at seeing the tips of some of their  
ears

ears four or five inches long, and with a hole bored through, of between seventeen and eighteen lines diameter; and yet more, on being assured that we had not beheld any thing remarkable in that kind. They put at first through this hole a little wooden cylinder; in the room of which, they afterwards substitute another larger, in proportion as the hole grows wider; till at last the tip of the ear hangs down upon their shoulders. Their chief finery consists in filling up this hole with a large nosegay, or tuft of herbs and flowers, which serves them instead of a pendant.

It is usually reckoned between six and seven days running from *Pevas*, the last *Spanish* mission, to *St. Paulo*, the first of those of *Portugal*; which is under the care of some fathers of the order of *Mount Carmel*; but we ran it in three days, and as many nights: the whole way, between these two places, one does not meet with any habitation, on either side of the river. Hereabouts begin the large islands, formerly inhabited by the *Omaguas*; and the channel of the river grows there so considerably larger, that one single branch of it is sometimes between eight and nine hundred fathoms wide: and as this great extent gives the wind a mighty power, it sometimes causes actual storms, which have frequently overset the canoos. We ourselves met with two tempests, in our passage from *Pevas* to *St. Paulo*; but, through the singular experience of the *Indians*, they are very rarely surprized in the midst of the river; and there is no imminent danger, but when one has not time, to seek a shelter, at the mouth of some river or brook, which is often to be met with. As soon as the wind ceases, the current of the river, which breaks the waves, soon restores it to its former calmness.

One of the greatest dangers in this voyage, is in meeting with some trunk of a tree rooted up, half buried in the sand or mud, and hid under water; which would endanger the canoos splitting, or whirling round and round: as once happen'd to us, on approaching the shore, to cut some wood, whose virtue, in curing the dropsy, had been highly extoll'd. In order to avoid this inconvenience, they keep off from the sides; and for the trees carried down by the stream, as they that, they are seen at a distance, so that it is easy to avoid them.

I don't here speak of another accident much more uncommon, but always fatal, whereof there is some danger in coasting too near the banks of the river; namely, the sudden fall of some tree, either through decay, or because the earth, which sustain'd it, has been insensibly undermined and worn away by the waters. Divers canoos have been thereby dash'd in pieces, and swallow'd up with all the rowers; were it not for some mischance of this nature, it would be a thing unheard of for an *Indian* to be drowned.

There is not at present any warlike nation at enmity with the *Europeans*, on the banks of the *Maranon*; all having either submitted, or retired farther within their recesses: nevertheless, there are yet places, where it would be dangerous to lie ashore. Some years ago, the son of a *Spanish* governor, whom we knew at *Quito*, having undertaken to go down the river, was surprized, and massacred in the woods, by some savages of the inland parts, whom an unfortunate chance caused him to meet near the river's side, where they never come but by stealth. The story was told us by his fellow-traveller, who narrowly escaped the same

same danger; and is now settled in the *Portuguese* missions.

The missionary of *St. Paulo* having been beforehand apprized that we should soon arrive there, kept in readiness for us a large canoo, pirogue, or brigantine, with fourteen rowers, and a master. He also supplied us with a *Portuguese* guide, in another canoo, and we received from him, and the other monks of his order, such entertainment, as made us forget we were in the centre of *America*, five hundred leagues distant from the countries inhabited by the *Europeans*. Here, instead of houses and churches of reeds, we began to see chapels, and other buildings of stone, brick, and with walls of earth, neatly whiten'd. We were also agreeably surprized to find, in the middle of these deserts, that all the *Indian* women wore shifts of *British* linnen; besides having trunks with iron locks and keys in their families; as also looking-glasses, knives, scissars, needles, combs, and divers other little *European* conveniences; which their husbands provide for them every year at *Para*, in the voyages they make thither, to carry the *cacao* they gather, without cultivating, on the banks of the river. In effect, their commerce with *Para*, gives these *Indians*, and their missionaries, an air of ease, which, at first sight, distinguishes the *Portuguese* missions from those of the *Castilians* towards the source of the *Maranon*. There every thing shews plainly how impossible it is for the missionaries of the crown of *Spain* to supply themselves with any of the conveniences of life; having no correspondence with the *Portuguese*, their neighbours, as they come down the river; but having every thing from *Quito*, whither they hardly send once a year; and from which they are more effectually separated by the *Cordlers*,  
than

than they would be by a sea a thousand leagues over.

The canoos, whereof the *Portugueze* make use, and with which we were furnish'd after our arrival at *St. Paulo*, are abundantly larger, and more commodious than the *Indian* canoos, with which we were forced to content ourselves in the *Spanish* missions. The trunk of a tree, which forms the whole body of the *Indian* canoos, makes only, amongst the *Portugueze*, so far of the bottom and sides as is under water. They first cleave, and hollow it with proper instruments; then they open it, by the help of fire, in order to make it wider; and as it thereby is render'd so much the more shallow, they heighten it by raising it with planks, which they fasten to the body of the vessel with futtocks; and the helm of these canoos is so placed, that its play is no way incommodious to the little cabin, or chamber, that is at the stern. Some of these brigantines are sixty foot long, seven in breadth, and three and a half in depth; and there are some yet larger, that have forty rowers. Most part of them have two masts, and carry sails; which are of great service to go up the river, by the help of the *east* wind, which generally blows there from *October* till towards *May*. About four or five years ago, one of these brigantines, of a middling size, being cover'd with a deck, and rigg'd out by a *French* captain of a merchant-man, he embark'd therein at *Para*, with three sailors of his own country, stood off to sea, to the great astonishment of all the inhabitants, and ran from *Para* to *Cayenne* in six days; a passage, which, as will be seen, took me up two months, in a vessel belonging to the same port: But I was then obliged to let them carry me along the Coast, after the custom of that country; which

which also suited me best, for the compleating my map.

We ran in six days, and as many nights, from *St. Paulo* to *Coari*; not including about two days stay at the intermediate missions of *Yviratoba*, *Traquatoba*, *Paraguay*, and *Tefé*. *Coari* is the last of the six settlements of *Portuguese* missionaries of the order of *Carmelites*. The five first were form'd of the remains of the old mission of father *Samuel Fritz*; and consisted of a great number of different nations, most part of them transplanted. The whole six are situated on the *south* side of the river, where the land is highest, and not subject to inundations. Between *St. Paulo* and *Coari* we met several large and fine rivers, which fall into that of the *Amazons*, and are there lost. The principal, on the *south* side, are *Yutai*, larger than *Yuruca*, which comes next, and whose width, at the mouth, I found, on measuring, to be three hundred sixty-two fathoms: after these follows the river *Tefé*, call'd by father *D'Acunba*, *Tapi*, and that of *Coari*, which some years ago was reckon'd only a lake. All these run from *south* to *north*, and come from the mountains on the *east* of *Lima*, and on the *north* of *Cusco*. All of them are likewise navigable, for several months, on going upwards from their mouths; and divers *Indians* have affirm'd, that they have seen on the banks of the *Coari*, but far up within the land, an open country, with many flies, and abundance of large cattle, some of whose hides they brought with them. These objects, which were quite new to them, prove that these rivers water some countries very different from theirs; and which, undoubtedly, border upon the *Spanish* colonies of upper *Peru*, where, it is well known, the cattle have mul-

multiplied greatly. The *Amazon* likewise receives from the *north*, within the same interval, two large and famous rivers: the first is the *Yça*, which comes down, like the *Napo*, from the neighbourhood of *Pasto*, on the *north* of *Quito*, to the *Franciscan* missions of *Sucumbios*, where it is call'd *Putumayo*; the second is the *Yupura*, whose source is a little more towards the *north* than the *Putumayo*; and which, towards the upper part thereof is term'd *Caqueta*, a name utterly unknown at its mouths, which discharge themselves into the *Maranon*. I say mouths in the plural, because it has actually seven or eight, formed by as many branches, which separate successively from the main stream; and this so far from each other, that there is above a hundred leagues distance between the first and the last. They give the name of *Yupura* to one of the most considerable of these branches; and to conform myself to the custom of the *Portugueze*, who extended this name as they went up that river, I not only call thus, the branch formerly term'd so by the *Indians*, but also the main stream, from whence this branch and the others issue. All the countries which they water are so low, that, at those times when the *Amazon* swells, they are entirely overflow'd; so that they pass in canoos from one branch to the other, and even to lakes within the land. The banks of the *Yupura* are inhabited, in some parts, by those savage nations before mentioned, who mutually destroy each other; and several of whom still eat their prisoners. Neither this river, nor the different branches, that fall lower into the *Amazon*, are hardly ever frequented by any other *Europeans*, than some *Portugueze* of *Para* who come thither, and purchase slaves fraudulently:

lently: we shall return to the *Yupura*, when we treat of the *Rio Negro*.

It was in these parts, an *Indian* village was situated, where *Texeira*, in going up the *Amazon*, in 1637, received in exchange, from the antient inhabitants, some jewels of gold, which were as say'd at *Quito*, and judg'd to be of twenty-three carats. Hereupon, at his return, he gave this village the name of the *village of gold*; he also set up a boundary there, and took possession thereof for the crown of *Portugal*, on the 26th of *August*, 1639, by an instrument, which is still in the archives of *Para*, where I saw it. This instrument, signed by all the officers of his detachment, specifies, *That it was on a rising ground, over against the mouths of the Golden River.*

Father *D'Acunba* assures us, that by divers ways, which he points out, one may go from the *Yupura* to the *Yquiari*, which he calls the *Golden River*; he adds, that the inhabitants of *Yquiari* traded in gold with the *Manaos* their neighbours, who again dealt therein with the *Indians* on the banks of the *Amazon*, from whom he bought himself a pair of gold pendants. Father *Fritz* informs us in his journal, that in 1687, which is fifty years after father *d'Acunba*, he had seen between eight and ten canoos of *Manaos*, whom he falsely calls *Manavos*, who had come from their habitations on the banks of the *Yurubeck*, by the means of an inundation, to trade with *Yurimaguas*, his *Catechumens*, on the north side of the *Amazon*. He likewise says, they used to bring, amongst other things, some little plates of beaten gold, which they themselves received in exchange from the *Indians* of *Yquiari*: all these places and rivers are pointed out in that father's map. Now

so many witnesses agreeing together, and all of them persons of credit, will not allow us to question the truth of these facts; nevertheless, the river, the lake, the gold mine, the boundary, and even the *village of gold*, whose existence has been attested by so many evidences, have all disappear'd, like an enchanted palace, and even upon the spot, the very memory of them is lost.

Even in the time of father *Fritz*, the *Portuguese*, forgetting the title whereon they ground their pretensions, began to maintain, that the boundary set up by *Texeira* was situated above the province of the *Omaguas*; and at the same juncture, father *Fritz*, missionary from the crown of *Spain*, running into another extrem, pretended it was only placed about the river *Cuchivara*, which is above two hundred leagues lower. In effect, it fell out here, as it always does in disputes of this nature; each of them have exaggerated their own pretensions. For, as to the boundary fix'd at the *village of gold*, if we examine well the country, where the fourth *Portuguese* mission, as we come down the river, called *Paraguari*, is situated, *viz.* upon the south side of the *Amazon*, and some leagues above *Tesé*, (where I observed three degrees and twenty minutes south latitude) we shall find it agrees with all the marks of the situation of that famous village, specified in *Texeira's* instrument, and dated from *Guayaris*; as also with those in father *D'A-cunha's* relation. Consequently, the *Yupura*, whose principal mouth is over against *Paraguari*, will be the *Rio de Ouro*; whose mouths, mentioned in the same instrument, were over against that village. It remains to know, what is become of the *Turubech* and the *Yquiari*, to which father *D'A-cunha* gives the name of the *Golden River*; and into which he says one goes by the *Yupura*; but this is

is what I have had somewhat more trouble to discover. I believe, however, I have clear'd up this point, and perhaps, have also found out the foundation of the fable of the *Lake Parima*, and *D'Orado*; but order and perspicuity require us to refer this discussion to the article of *Rio Negro*.

In the course of our navigation, we had examined the *Indians* of divers nations, and made enquiry amongst them, if they ever had any knowledge of those warlike women, whom *Orellana* pretended he had met with, and fought: and whether it was really true, they lived separated from all intercourse with mankind, (unless it was once a year, when they admitted them, for the sake of propagating their species,) as is asserted by father *D'Acunba*, in his account of them, which is well worth reading for its singularity. They all told us, they had been informed the same by their parents, adding thereto a thousand other particulars, too long to be repeated, but which all of them served to confirm, that there has been, in this continent, a commonwealth of females, who lived by themselves, without having any males amongst them; and that they have retired towards the *north*, far up within the inland countries, either by *Rio Negro*, or some other of those rivers, which come down from that quarter into the *Maranon*.

Amongst the rest, an *Indian* of *St. Joachim d'Omaguas* told us, that we might, perhaps, still find an old man at *Coari*, whose father had seen these *Amazons*; and on our arrival afterwards at that place, we were inform'd, that the *Indian* of whom he spoke was dead, but we saw his son, who seem'd to be about seventy, and commanded the other *Indians* of that district. He assured us, that his grandfather had actually seen those fe-

males pass by at the mouth of the river *Cuchivara*, whither they had come from that of the *Cayamé*, which disembogues itself into the *Amazon*, on the south side, between *Tefe* and *Coari*. He added, that his grandfire had spoke with four of them, one of which had a child at her breast, and told us the names of each of them; as also, that, on going from *Cuchivara*, they crossed the great river, meaning the *Maranon*, and directed their course towards *Rio Negro*: I omit certain improbable circumstances, which have no relation to the principal point. Below *Coari* also, the *Indians* every-where gave us the same account, differing only in some few particulars, but all agreeing as to the main article.

The *Topayos*, (especially, of whom we shall treat more at large, in its proper place, as well as of certain green stones, which are call'd by the name of the *Amazons*;) affirm, they had them by inheritance from their fathers; who had them of the *Cougnantainsecouima*, that is, in their tongue, the *women without husbands*, amongst whom they are to be found in great plenty.

An *Indian* also of *Morigura*, a mission adjacent to *Para*, offer'd to shew me a river, which would carry one up to within a little distance of the country, now actually inhabited by these *Amazons*: this river is call'd *Irijo*, and I have since pass'd by its mouth, between *Macapa* and the north cape. By the account of the same *Indian*, at the place where this river ceases to be navigable, by reason of its falls, it was necessary, in order to come at the residence of the *Amazons*, to travel several days through the woods, to the westward, and afterwards to cross a mountainous region.

An old soldier, of the garrison of *Cayenne*, now living near the falls of the *Oyapoc*, assured me, that being of a party which were sent up, in 1726, into the inland country, in order to make discoveries, they penetrated as far as the *Amicouanes*, a nation with long ears, who live beyond the sources of the *Oyapoc*, and near those of another river that falls into the *Amazon*; where he had seen several of those green stones afore-mentioned about the necks of their wives and daughters; and that having ask'd those *Indians* where they got them, they answer'd, they came from the *women without husbands*, whose territories were seven or eight days journey farther, to the *westward*. This nation of the *Amicouanes* live remote from the sea, in a hilly country, and where the rivers are not yet navigable; wherefore, it is not at all likely, they should have received this tradition from the *Indians* of the *Amazon*, with whom they had no manner of intercourse; knowing only the nations contiguous to their own country, from amongst whom the *French* party had taken guides and interpreters.

Now, what is first to be observed, is, that all the proofs I have already mentioned, with others I have here passed over in silence, as also, those related in the enquiries made in 1726, and since by two *Spanish* governours, *Don Diego Portales*, and *Don Francisco de Torralva*, his successor, of the province of *Venezuela*, agree in the whole about the reality of the *Amazons*; but, what is not less worthy our attention, is, that, whilst these several relations fix the present retreat of the *American Amazons*, some on the *east*, some on the *north*, and some on the *west*, all these various directions concur, in placing the common center, where they all meet in a point, namely, at the  
moun-

mountains in the heart of *Guiana*, a region, whither neither the *Portuguese* of *Para*, nor the *French* of *Cayenne*, have ever yet penetrated.

Notwithstanding all this, I must own, I should not easily believe these *Amazons* were now actually settled there, unless we had some more positive account of them, from time to time, from the *Indians* bordering on the *European* colonies, on the coasts of *Guiana*; and yet, this ambulatory nation may again have changed their abode. But, what seems to me more probable than any thing else, is, that they have now laid aside their ancient customs; whether they have been subdued by any other nation, or, whether their daughters, being weary of their solitude, have at last forgot the aversion their mothers had to mankind: wherefore, though, at present, no actual traces of this female republick should remain, this would not be sufficient ground for us to affirm there never was any such.

Besides, it would be enough to prove the reality of the fact, if there ever has been, in *America*, a female settlement, where no men lived in common with the women; their other customs, and particularly that of cutting off their right breasts, which father *D'Acunba* ascribes to them, on the credit of the *Indians*, are additional, and independent circumstances, that probably, have been alter'd, and perhaps added, by the *Europeans*, prepossessed with the manners attributed to the ancient *Amazons* of *Asia*; and the love of relating somewhat wonderful and surprizing, may have induced the *Indians* since to adopt it into their accounts. In effect, it is not said, that the *Cacique*, who forewarn'd *Orellana* to be upon his guard against these *Amazons*, called by him *Comapuyaras*, made any mention of their cutting off one breast;

breast; and our *Indian of Coari*, in what he told us of his grandfather, who saw four *Amazons*, one of whom actually suckled a child, spoke not one word of this particular, so very likely to draw his attention.

To return to the main point; if, in order to deny it, the improbability, and almost moral impossibility of such a female republick's being able to establish itself, and subsist, should be alledg'd, I would neither insist upon the examples of the ancient *Asiatic Amazons*, nor yet of those modern ones of *Africa*, because what we read thereof, either in the ancient or modern historians, is at least intermingled with many fables, and liable to be disputed. I would content myself with only observing, that if ever there could be any *Amazons* in the world, it must be in *America*; where the vagabond lives of the women, who often follow their husbands to the wars, and are not a jot happier when at home in their families, might naturally put it into their minds, and at the same time afford them frequent opportunities to escape from the hard yoke of their tyrants; by endeavouring to provide themselves a settlement, where they might live independent, and, at least, not be reduced to the wretched condition of slaves, and beasts of burthen. Such a resolution, if taken, and executed, would not be at all more extraordinary, or more difficult, than what happens every day in all the *European* colonies of *America*; where it is but too common for slaves, when ill-used, or discontented, to run away in whole droves into the woods, and sometimes alone, when they can't get company, and there to spend many years, sometimes all their lives in solitude.