

**Account of the Earthquake which destroyed the Town of Caraccas on the
26th March 1812 by Baron ALEXANDER DE HUMBOLDT (Abridged from his
Personal Narrative, vol. iv. p. 12) ***

Reproducción con Introducción y Comentarios

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PRESENTACIÓN.

El documento que aquí se presenta fue publicado en el *Edinburgh Philosophical Journal*, vol. I, pp. 272-280, año 1819, bajo el título: Account of the Earthquake which destroyed the Town of Caraccas on the 26th March 1812. By M. Humboldt.

El párrafo inicial del trabajo parece haber sido redactado por el editor de esa publicación, pues hace alusión a que la descripción que allí se reproduce (la cual aparece entrecomillada), "...have been only recently described by M. Humboldt", y da como referencia la obra *Personal Narrative*, vol iv, p. 12; también se indica en esa breve introducción, que por razones de extensión no es posible presentar las razones que aduce el autor sobre la influencia que el sistema de volcanes tiene sobre estos fenómenos.

Aun cuando Humboldt no fue testigo presencial del terremoto de 1812, su relación cuenta con gran fidelidad. La certeza de la narración tiene origen en la documentación que el propio Humboldt tuviera en sus manos, no al momento de "escribir" este artículo, sino cuando desarrollaba su obra *Viaje a las regiones equinociales del Nuevo Continente*. En efecto, y tal como se explicara en el trabajo de Altez (1999), Manuel Palacio Fajardo y Luis Delpeche, ambos comisionados por el gobierno de la Primera República

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de Venezuela, lograron reunirse con Humboldt en París, quizás en mayo de 1813. Tanto Palacio como Delpeche habían sido testigos de los fenómenos sísmicos de aquel convulsionado año y, en medio de sus atribuciones políticas, entregarían al sabio alemán un manuscrito distinto narrado por cada quien. Esos documentos fueron citados por Humboldt en su mencionada obra (la cual tuvo su primera edición en 1814, *Relation historique du Voyage aux regions equinoxiales du Nouveau Continent, fait en 1799, 1800, 1801, 1802, 1803 y 1804 par A. De Humboldt et A. Bonpland*. Paris, Chez N. Maze Libraire), bajo los nombres de *Sur le tremblement de terre de Venezuela, en 1812*, por M. Delpeche -Manuscrito-, y *Apuntamientos sobre las principales circunstancias del terremoto de Caracas*, por Don Manuel Palacio Fajardo - Manuscrito.

En honor a la verdad, debe señalarse que el artículo del *Edinburgh Philosophical Journal* resulta ser un extracto de la obra de Humboldt, el cual, en manos del editor de esa revista (y por las ya mencionadas razones de extensión), fue entresacado del capítulo XIV, que (en la edición castellana consultada, editada por el Ministerio de Educación, 1956, en la célebre traducción de Lisandro Alvarado) lleva por nombre *Temblores de tierra en Caracas. Enlace de este fenómeno con las erupciones volcánicas de las islas Antillas*. El *Journal* no sostuvo la fidelidad editorial de Humboldt y no colocó las referencias debidas, confundiendo en un mismo texto lo que el barón había diferenciado respetuosamente en su obra. Puede verificarse esto cuando se comparan los escritos. Puede leerse en la página 273 del *Journal*: "The 26th of March was a remarkably hot day", coincidiendo con:

"El 26 de marzo fue un día cálido en extremo", (en la página 13 de Viaje a las regiones ...); "All the calamities experienced in the great catastrophes of Lisbon, Messina, Lima, and Riobamba,..." página 274 del artículo, coincide con «Las desgracias todas experimentadas en las grandes catástrofes de Lisboa, Mesina, Lima y Riobamba ... », de la página 15 de la edición caraqueña.

Estas descripciones entregadas en París hacia 1813 aportaban detalles de importancia para el estudio de este evento, y Humboldt lo sabía. Se citan varias réplicas en el área de Caracas; entre ellas se alude a una de las más fuertes que sucedió el 4 de abril y no el día 5, error éste que seguramente transcribe de Delpeche. Asimismo, el científico alemán se extiende en la descripción sobre los problemas propios del estado de emergencia que generó el sismo en Caracas, el rescate de heridos y la falta de implementos para poder cavar entre los escombros para salvar vidas, así como la necesidad que hubo de ir a recoger agua al río Guaire, cuyo caudal había crecido. Destaca la mención de Humboldt sobre la pérdida de camas hospitalarias, la necesidad de "linen to dress the wounds", la carencia de instrumentos de cirugía y de otros objetos necesarios para atender los heridos, todo lo cual quedó bajo las ruinas. Los heridos fueron llevados a las riberas del río Guayra, si bien no encontraron refugio, al menos estaban bajo el ramaje de los árboles.

Agudo observador, Humboldt destaca que los movimientos fueron más violentos en las cordilleras de gneis y «micaslate», y en los pie de monte, que en las llanuras. Esta diferencia habría sido muy marcada en las sabanas de Barinas y Casanare, así como en las localidades de Aragua: La Victoria, Maracay y Valencia. Destaca en su descripción la similitud con lo sucedido como consecuencia del terremoto de Quito del año 1797, señalando las actitudes de arrepentimiento y al cumplimiento de los deberes propios de una fuerte devoción religiosa.

Esta valiosa información, no obstante, no fue referida en Grases, Altez y Lugo (1999), última compilación documental sobre sismos históricos publicada por la Academia de Ciencias Físicas, Matemáticas y Naturales, debido a que en dicha obra se hizo un enconado esfuerzo por presentar la mayor cantidad posible de narraciones hechas por testigos directos. Sin embargo, y en descargo de dicho trabajo,

tanto Delpeche como Palacio, fueron citados en los datos sobre 1812 (véanse las páginas 115 y 134); huelga decir que Alexander von Humboldt también cuenta con referencias en el mencionado Catálogo.

Documento de alta estima por la dificultad en su adquisición y por la importante referencia a Venezuela en los aciagos años de la gesta emancipadora, el artículo del *Edinburgh Philosophical Journal* merece un prestigioso lugar en la historiografía venezolana.

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ART. VIII. Account of the Earthquake which destroyed the Town of Caraccas on the 26th March 1812. By M. HUMBOLDT

THERE are few events in the physical world which are calculated to excite so deep and permanent an interest as the earthquake which destroyed the town of Caraccas, and by which more than 20,000 persons perished, almost at the same instant, in the province of Venezuela. The general results of this frightful catastrophe have been long known in this country; but its particular details, so afflicting to human feelings, and the physical phenomena by which it was accompanied, so important in geological speculations, have been only recently described by M. Humboldt †. This distinguished traveller, who had visited the city of Caraccas previous to its destruction, has been at great pains to collect and compare the descriptions of individuals who had witnessed the effects of the earthquake, and

† Personal Narrative, vol. iv, p. 12.

has thus been enabled to draw a faithful picture of this terrible convulsion, marked with that glowing eloquence which characterises all his writings. We regret that our limits will not permit us to present our readers with all his reasonings respecting the influence of a system of volcanoes over a vast extent of circumjacent country; but we may afterwards have another opportunity of resuming this branch of the subject.

“The 26th of March was a remarkably hot day. The air was calm, and the sky unclouded. It was Holy Thursday, and a great part of the population was assembled in the churches. Nothing seemed to presage the calamities of the day. At seven minutes after four in the afternoon the first shock was felt; it was sufficiently powerful, to make the bells of the churches toll; it lasted five or six seconds, during which time, the ground was in a continual undulating movement, and seemed to heave up like a boiling liquid. The danger was thought to be past, when a tremendous subterraneous noise was heard, resembling the rolling of thunder, but louder, and of longer continuance, than that heard within the tropics in time of storms. This noise preceded a perpendicular motion of three or four seconds, followed by an undulatory movement somewhat longer. The shocks were in opposite directions, from north to south, and from east to west. Nothing could resist the movement from beneath upward, and undulations crossing each other. The town of Caraccas was entirely overthrown. Between nine and ten thousand of the inhabitants were buried under the ruins of the houses and churches. The procession had not yet set out; but the crowd was so great in the churches, that nearly three or four thousand persons were crushed by the fall of their vaulted roofs. The explosion was stronger towards the north, in that part of the town situated nearest the mountain of Avila, and the Silla. The churches of la Trinidad and Alta Gracia, which were more than 150 feet high, and the naves of which were supported by pillars of twelve or fifteen feet diameter, left a mass of ruins scarcely exceeding five or six feet in elevation. The sinking of the ruins has been so considerable, that there now scarcely remain any vestiges of pillars or columns. The barracks, called *El Cuartel de San Carlos*, situate farther north of the Church of the Trinity, on the road from the Custom-house de la Pastora, almost entirely disappeared. A regiment of troops of the line, that was assembled under arms, ready to join the procession, was, with the exception of a few men, buried under the ruins of this great edifice.

Nine-tenths of the fine town of Caraccas were entirely destroyed. The walls of the houses that were not thrown down, as those of the street San Juan, near the Capuchin Hospital, were cracked in such a manner, that it was impossible to run the risk of inhabiting them.

“Estimating at nine or ten thousand the number of the dead in the city of Caraccas, we do not include those unhappy persons, who, dangerously wounded, perished several months after, for want of food and proper attention. The night of Holy Thursday presented the most distressing scene of desolation and sorrow. That thick cloud of dust, which, rising above the ruins, darkened the sky like a fog, had settled on the ground. No shock was felt, and never was a night more calm or more serene. The moon, nearly full, illuminated the rounded domes of the Silla, and the aspect of the sky formed a perfect contrast to that of the earth, covered with the dead, and heaped with ruins. Mothers were seen bearing in their arms their children, whom they hoped to recall to life. Desolate families wandered through the city, seeking a brother, a husband, a friend, of whose fate they were ignorant, and whom they believed to be lost in the crowd. The people pressed along the streets, which could no more be recognised but by long lines of ruins.

“All the calamities experienced in the great catastrophes of Lisbon, Messina, Lima, and Riobamba, were renewed on the fatal day of the 26th of March 1812. The wounded, buried under the ruins, implored by their cries the help of the passers by, and nearly 2000 were dug out. Implements for digging, and clearing away the ruins were entirely wanting; and the people were obliged to use their bare hands to disinter the living. The wounded, as well as the sick who had escaped from the hospitals, were laid on the banks of the small river Guayra. They found no shelter but the foliage of trees. Beds, linen to dress the wounds, instruments of surgery, medicines, and objects of the most urgent necessity, were buried under the ruins. Every thing, even food, was wanting during the first days. Water became alike scarce in the interior of the city. The commotion had rent the pipes of the fountains; the falling in of the earth had choked up the springs that supplied them; and it became necessary, in order to have water, to go down to the river Guayra, which was considerably swelled; and then vessels to convey the water were wanting.

“There remained a duty to be fulfilled towards the dead, enjoined at once by piety and the dread of infection. It being impossible to inter so many thousand corpses, half-buried under the ruins, commissaries were appointed to burn the bodies: and for this purpose, funeral piles were erected between the heaps of ruins. This ceremony lasted several days. Amid so many public calamities, the people devoted themselves to those religious duties, which they thought were the most fitted to appease the wrath of Heaven. Some, assembling in procession, sung funeral hymns; others, in a state of distraction, confessed themselves aloud in the streets. In this town was now repeated what had been remarked in the province of Quito, after the tremendous earthquake of 1797; a number of marriages were contracted between persons, who had neglected for many years to sanction their union by the sacerdotal benediction. Children found parents, by whom they had never till then been acknowledged; restitutions were promised by persons, who had never been accused of fraud; and families, who had long been enemies, were drawn together by the tie of common calamity. If this feeling seemed to calm the passions of some, and open the heart to pity, it had a contrary effect on others, rendering them more rigid and inhuman.

“Shocks as violent as those which, in the space of one minute*, overthrew the city of Caraccas, could not be confined to a small portion of the continent. Their fatal effects extended as far as the provinces of Venezuela, Varinas, and Maracaybo, along the coast; and still more to the inland mountains. La Guayra, Mayquetia, Antimano, Baruta, La Vega, San Felipe, and Merida, were almost entirely destroyed. The number of the dead exceeded four or five thousand at La Guayra, and at the town of San Felipe, near the copper-mines of Aroa. It appears, that it was on a line running east north-east, and west south-west, from La Guayra and Caraccas to the lofty mountains of Niquitao and Merida, that the violence of the earthquake was principally directed. It was felt in the kingdom of New Granada from the branches of the high Sierra de Santa Martha as far as Santa Fe de Bogota and Honda, on the banks of the Magdalena, 180 leagues from Caraccas. It was every where more violent in the Cordilleras of gneiss and

* The duration of the earthquake, that is to say the whole of the movements of undulation and rising which occasioned the horrible catastrophe of the 26th of March 1812, was estimated by some at 50”, by others at 1’ 12”.

micaslate, or, immediately at their foot, than in the plains: and this difference was particularly striking in the savannahs of Varinas and Casanara. In the valleys of Aragua, situate between Caraccas and the town of San Felipe, the commotions were very weak: and La Victoria, Maracay, and Valentia, scarcely suffered at all, notwithstanding their proximity to the capital. At Valecillo, a few leagues from Valencia, the earth, opening, threw out such an immense quantity of water, that it formed a new torrent. The same phenomenon took place near Porto-Cabello. On the other hand, the lake of Maracaybo diminished sensibly. At Coro no commotion was felt, though the town is situated upon the coast, between other towns which suffered from the earthquake.

“Fifteen or eighteen hours after the great catastrophe, the ground remained tranquil. The night, as we have already observed, was fine and calm; and the commotions did not recommence till after the 27th. They were then attended with a very loud and long continued subterranean noise. The inhabitants of Caraccas wandered into the country; but the villages and farms having suffered as much as the town, they could find no shelter till they were beyond the mountains of Los Teques, in the valleys of Aragua, and in the Llanos or Savannahs. No less than fifteen oscillations were often felt in one day. On the 5th of April there was almost as violent an earthquake, as that which overthrew the capital. During several hours the ground was in a state of perpetual undulation. Large masses of earth fell in the mountains; and enormous rocks were detached from the Silla of Caraccas. It was even asserted and believed that the two domes of the Silla sunk fifty or sixty toises; but this assertion is founded on no measurement whatever.

“While violent commotions were felt at the same time in the valley of the Mississippi, in the island of St Vincent, and in the province of Venezuela, the inhabitants of Caraccas, of Calabozo, situated in the midst of the steppes, and on the borders of the Rio Apura; in a space of 4000 square leagues, were terrified on the 30th of April 1812, by a subterraneous noise, which resembled frequent discharges of the largest cannon. This noise began at two in the morning. It was accompanied by no shock; and, what is very remarkable, it was as loud on the coast as at eighty leagues distance inland. It was every where believed to be transmitted through the air; and was so far from be-

ing thought a subterraneous noise, that at Carraccas, as well as at Calabozo, preparations were made to put the place into a state of defence against an enemy, who seemed to be advancing with heavy artillery. Mr Palacio, crossing the Rio Apura near the junction of the Rio Nula, was told by the inhabitants that the '*firing of cannon*' had been heard as distinctly at the western extremity of the province of Varinas, as at the port of La Guayra to the north of the chain of the coast.

"The day on which the inhabitants of Terra Firma were alarmed by a subterraneous noise, was that on which happened the eruption of the volcano in the island of St Vincent. This mountain, near five hundred toises high, had not thrown out any lava since the year 1718. Scarcely was any smoke perceived to issue from its top, when, in the month of May 1811, frequent shocks announced, that the volcanic fire was either rekindled, or directed anew toward that part of the West Indies. The first eruption did not take place till the 27th of April 1812, at noon. It was only an ejection of ashes, but attended with a tremendous noise. On the 30th, the lava passed the brink of the crater, and, after a course of four hours, reached the sea. The noise of the explosion 'resembled that of alternate discharges of very large cannon and of musketry; and, what is well worthy of remark, it seemed much louder at sea, at a great distance from the island, than in sight of land, and near the burning volcano'.

"The distance in a straight line from the volcano of St Vincent to the Rio Apura, near the mouth of the Nula, is 210 nautical leagues. The explosions were consequently heard at a distance equal to that between Vesuvius and Paris. This phenomenon, connected with a great number of facts observed in the Cordilleras of the Andes, shows how much more extensive the subterranean sphere of activity of a volcano is, than we are disposed to admit from the small changes effected at the surface of the globe. The detonations heard during whole days together in the New World, 80, 100, or even 200 leagues distant from a crater, do not reach us by the propagation of sound through the air; they are transmitted to us by the ground. The little town of Honda, on the banks of the Magdalena, is not less than 145 leagues from Cotopaxi; and yet in the great explosions of this volcano, in 1744, a subterraneous noise was heard at Honda, and supposed to be discharges of heavy artillery. The monks of St Francis spread the news, that the town of Carthagen was bombarded by

the English; and the intelligence was believed. Now the volcano of Cotopaxi is a cone, more than 1800 toises above the basin of Honda, and rises from a tableland, the elevation of which is more than 1500 toises above the valley of the Magdalena. In all the colossal mountains of Quito, of the provinces of Los Pastos, and of Popayan, crevices and valleys without number are interposed. It cannot be admitted, under these circumstances, that the noise could be transmitted through the air, or by the superior surface of the globe, and that it came from that point, where the cone and crater of Cotopaxi are placed. It appears probable, that the higher part of the kingdom of Quito and the neighbouring Cordilleras, far from being a group of distinct volcanoes, constitute a single swollen mass, an enormous volcanic wall, stretching from south to north, and the crest of which exhibits a surface of more than six hundred square leagues. Cotopaxi, Tunguragua, Antisana, and Pichincha, are placed on this same vault, on this raised ground. The fire issues sometimes from one, sometimes from another of these summits. The obstructed craters appear to be extinguished volcanoes; but we may presume, that, while Cotopaxi or Tunguragua have only one or two eruptions in the course of a century, the fire is not less continually active under the town of Quito, under Pichincha and Imbaburu.

"Advancing toward the north, we find, between the volcano of Cotopaxi and the town of Honda, two other *system of volcanic mountains*, those of Los Pastos and of Popayan. The connection of these systems was manifested in the Andes in an incontestible manner by a phenomenon, which I have already had occasion to notice. Since the month of November 1796, a thick column of smoke had issued from the volcano of Pasto, west of the town of that name, and near the valley of Rio Guaytara. The mouths of the volcano are lateral, and placed on its western declivity, yet during three successive months the column rose so much higher than the ridge of the mountain, that it was constantly visible to the inhabitants of the town of Pasto. They related to us their astonishment, when, on the 4th of February 1797, they observed the smoke disappear in an instant, without feeling any shock whatever. At that very moment, sixty-five leagues to the south, between Chimborazo, Tunguragua, and the Altar (Capac Urcu,) the town of Riobamba was overthrown by the most dreadful earthquake of which tradition has transmitted the history. Is it possible to doubt from this coincidence of phenomena, that the vapours issu-

ing from the small apertures or *ventanillas* of the volcano of Pasto, had an influence on the pressure of those elastic fluids, which shook the ground of the kingdom of Quito, and destroyed in a few minutes thirty or forty thousand inhabitants?

“In order to explain these great effects of *volcanic reactions*, and to prove, that the group or system of the volcanoes of the West India Islands may sometimes shake the continent, it was necessary to cite the Cordillera of the Andes. Geological reasoning can be supported only on the analogy of facts that are recent, and consequently well authenticated: and in what other region of the globe could we find greater, and at the same time more varied volcanic phenomena, than in that double chain of mountains heaved up by fire? in that land, where Nature has covered every summit and every valley with her wonders? If we consider a burning crater only as an insulated phenomenon, if we satisfy ourselves with examining the mass of stony substances which it has thrown up, the volcanic action at the surface of the globe will appear neither very powerful nor very extensive. But the image of this action swells in the mind, when we study the relations that link together volcanoes of the same group; for instance, those of Naples and Sicily, of the Canary Islands, of the Azores, of the Caribbee Islands, of Mexico, of Guatimala, and of the table-land of Quito; when we examine either the reactions of these different systems of volcanoes on one another, or the distance to which, by subterranean communications, they at the same moment shake the Earth*.”

* The following is the series of phenomena which M. Humboldt supposes to have had the same origin:

27th september 1796. Eruption in the West India Islands. Volcano of Guadaloupe. — November 1796. The volcano of Pasto begins to emit smoke. — 14th of December 1796. Destruction of Cumana. — 4th of February 1797. Destruction of Riobamba. — 30th of January 1811. Appearance of Sabrina Island, in the Azores. It increases particularly on the 15th of June 1811. — May 1811, Beginning of the earthquakes in the Island St Vincent, which lasted till May 1812. — 16th of December 1811. Beginning of the commotions in the Valley of the Mississippi and the Ohio, which lasted till 1813. — December 1811. Earthquake at Caraccas. — 26th of March 1812. Destruction of Caraccas. Earthquakes which continued till 1813. — 30th April 1812. Eruption of the volcano at St Vincent's; and the same day subterranean noises at Caraccas, and on the banks of the Apura.