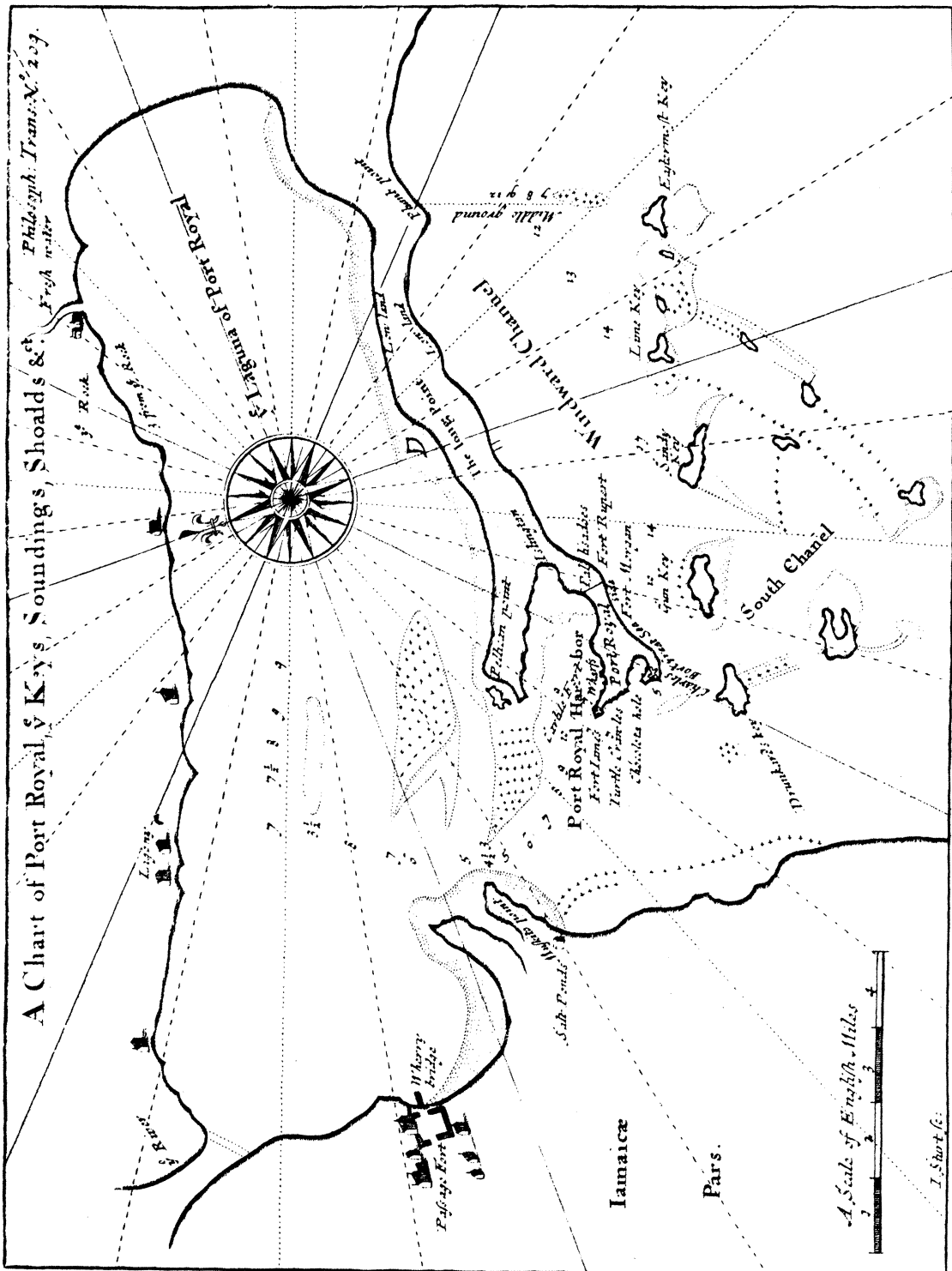


A Chart of Port Royal & Keys, Soundings, Shoals &c.

Philosoph. Trans. N^o 237.



A Scale of English Miles

J. Short sc.



I. *A LETTER* from Hans Sloane,
M. D. and S. R. S. with several
Accounts of the Earthquakes in Peru
October the 20th, 1687. And at
Jamaica, February 19th, 1687.
and June the 7th, 1692.

S I R,

THE Papers enclosed were the Accounts of the Earthquakes that were read at the Meeting of the Society, and considering they give Account of different Earthquakes, or that they contain differing Observations of the same Earthquake; and that we cannot have too many of the *Phænomena*, or Matters of Fact accompanying them recorded, I think it will be best they be all preserved for future use, and I have sent the Papers themselves, as most satisfactory.

N^o. 1. Is the Extract of a *Spanish* Letter from *Lima*, giving an Account of a great Earthquake which happened in *Peru* the 20th. of *October*, 1687.

N^o. 2. Is an Account of an Earthquake which happened in *Jamaica* on Sunday the 19th. of *Febr.* 1687. which I writ my self, being present in it.

N^o. 3.

N^o. 3. Is the Extract of a Letter from one in *Jamaica*, who was in the terrible Earthquake of *June 7th. 1692.* Giving an Account of what he saw and felt himself in the Harbour of *Port-Royal*, and what one of his Servants observed at *Port Royal.*

N^o. 4. Is the Extract of a Letter from thence of the *23d. of September, 1692.* Giving an Account of the Sickness that followed the Earthquake of *Jamaica*, and the Reasons of it.

N^o. 5. Is part of a Letter of the *20th. of September, 1692.* Giving a further Account from another Hand of the same dreadful Earthquake of the *7th. of June, 1692.*

N^o. 6. Is part of a Letter, dated the *6th. of March, 1693.* from another Observing Gentleman there present in the same Earthquake of the *7th. of June, 1692.* Giving an Account of what he saw himself, and heard of others about it.

N^o. 7. Is part of another from the same Hand, giving some more particulars about it.

N^o. 8. Is part of a Letter from a Gentleman in *Jamaica*, to his Friend in *London*, Dated *July 3d. 1693.* which notwithstanding the Gentleman's being not present in the Earthquake, yet considering his Industry and Accuracy in relating what he heard from others is very curious. This was communicated by *Dr. Christopher Love Morley.*

To these if you please to contract the Map of the Harbour of *Port-Royal* and Places adjacent herewith sent, &c. that one may see where the Accidents chiefly happened, it will add much to these Relations. It will not be amiss likewise to take Notice, That that part of *Port-Royal* which sunk was towards the Harbour Sandy, and the Sea adjoining deep; and that Seamen who were then in the Port, assure me their Part and Sufferings in the Earthquake were very considerable. One Captain had one of his Boys roul'd out of one of the Port-holes of his Ship in its motion, by which he was drowned; and most of them lost their Anchors and Cables which were towards the Wharfs or Town, which I suppose came from the Sand and Houses falling on them; and they after the Earthquake rode in fewer Fathoms Water than before, and one may believe that some of the *Phænomena* may be accounted for from that. I am

Your most Obedient Servant,

HANS SLOANE.

An Extract of a Letter of Father Alvarez de Toledo a Franciscan Friar, Dated 29 Oct. 1687. from Lima, giving some Particulars of an Earthquake which happened there the 20th of that Month.

ON Monday, the 20th of Octob. (N. S.) at Four of the Clock in the Morning, came a horrible Earthquake and Noise, with which some Houses fell, and some were killed under their Ruines.

At Five of the Clock in the same Morning was another Shake with the same Noise.

At Six of the Clock in the aforesaid Morning, when we thought we had been all in Safety, came another Shake with great Fury and rushing Noise; the Sea with great Bellows came beyond it's Bounds, the Bells rung of themselves, and the Destruction was so great, that no Building stood: The Noise was such, that those in the Fields assure us, that the Cattle were in great Astonishment. *Callao, Canete, Pisco, Chancay, and Los Chorillos, are all ruined.* There are more than 5000 dead Bodies found, and they find more daily, so that we know not their number.

N^o. II.

The Inhabitants of *Jamaica* expect an Earthquake every Year, &c. Some of them are of Opinion, that they follow their great Rains. One of them happened on *Sunday* the 19th of *February*, 1687. about Eight in the Morning, I found in a Chamber one Story high the Cabinets, and several other Moveables on the Floor to reel, as if People had raised the Foundations of the House. I look'd out at a Window to see what was the matter, and found that the Pigeons and other Birds in an Aviary hard by were on their Wings in a great Astonishment,

nishment, keeping themselves in that Posture, not knowing where to alight. Wherefore concluding what it was, and the Danger in being in an high Brick House, I made what haste I could to get out; but before I had passed through two Rooms, and got to the Stair-case, it was over. It came by Shocks; there were three of them, with a little Pause between. It lasted about a Minute of Time in all; and there was a small Noise accompanied it. A pair of Stairs higher it threw down most things off the Shelves, and had much more visible Effects than below. This was generally felt all over the Island at the same time, or near it; some Houses therein being crack'd and very near ruin'd, others being uncovered of their Tiles, very few escaped some Injury, and the People in them were generally in a great Consternation, seeing them dance. The Ships in the Harbour at *Port-Royal* felt it; and one who was Eastward of the Island coming thither then from *Europe*, met with, as he said, at the same time, an Hurricane. One riding on Horseback was not sensible of it. A Gentleman being at that time abroad in his Plantation, told me, he saw the ground rise like the Sea in a Wave, as the Earthquake passed along, and that it went Northward; for that some small time after he had felt it, he saw by the Motion of the tops of the Trees on Hills some Miles distant, that it had then reach'd no further than that place. The *Spaniards* who inhabited this Island, and those neighbouring, built their Houses very low; and they consisted only of Ground-rooms, their Walls being made of Posts, which were as much buried underground as they stood above, on purpose to avoid the Danger which attended other manner of Building from Earthquakes. And I have seen in the Mountains afar off bare Spots, which the Inhabitants told me, were the Effects of Earthquakes throwing down part of the Hills, which continued bare and steep.

Jamaica,

N^o III.

Jamaica, June 20. 1692.

—The terrible Earthquake which happen'd the 7th instant between Eleven and Twelve of the Clock at Noon, shook down and drowned Nine Tenths of the Town of *Port-Royal* in two Minutes time, and all by the Wharf-side in less than one; very few escap'd there. I lost all my People and Goods, my Wife and two Men, Mrs. *B.* and her Daughter. One white Maid escap'd, who gave me an Account that her Mistress was in her Closet two Pair of Stairs high, and she was sent into the Garret, where was Mrs. *B.* and her Daughter when she felt the Earthquake, and bid her take up her Child and run down; but turning about, met the Water at the top of the Garret Stairs; for the House sunk down right, and is now near 30 Foot under Water. My Son and I went that Morning to *Liguania*, the Earthquake took us in the Mid-way between that and *Port-Royal*, where we were near being overwhelmed by a swift rowling Sea, six Foot above the Surface, without any Wind; but it pleased God to save us, being forced back to *Liguania*, where I found all Houses even with the Ground; not a place to put ones Head in, but in Negro Houses. The Earth continues to shake five or six times in 24 Hours, and often trembling. Great part of the Mountains fell down, and fall daily. I pray God divert those heavy Judgments which still threaten us.

N^o IV.

We have had a very great Mortality since the great Earthquake (for we have little ones daily) almost half the People that escap'd upon *Port-Royal* are since dead of a Malignant Fever, from Change of Air, want of dry Houses, warm Lodging, proper Medicines, and other Conveniencies.

Jamaica, Sept. 20. 1692.

I doubt not but you have heard before this of our great Calamity : but however I will give you the Particulars as near as I can. In the first place, great part of *Port-Royal* is sunk ; that where the Wharfs was, is now some Fathoms of Water : All the Street where the Church stood is overflow'd, that the Water stands so high as the upper Rooms of those which are standing. The Earth when it opened and swallowed up People, they rose in other Streets, some in the middle of the Harbour, and yet saved ; though at the same time I believe there was lost about 2000 Whites and Blacks. At the North about 1000 Acres of Land sunk, and Thirteen People with it ; all our Houses thrown down all over the Island, that we were forced to live in Hutts. The two great Mountains at the entring into *Sixteen Mile Walk* fell and met, and stop't the River, that it was dry from that place to the *Ferry* for a whole Day ; and vast quantities of Fish taken up, which was greatly to the Relief of the Distressed. At *Tellows* a great Mountain split, and fell into the Level Land, and covered several Settlements, and destroy'd nineteen white People. One of the Persons, whose Name was *Hopkins*, had his Plantation remov'd half a Mile from the place it formerly stood ; and now good Provisions growing upon it. Of all Wells from a Fathom to Six or Seven, the Water flew out at the top with the great Motion of the Earth. Since it has continued shaking sometimes two or three times in a day ; so at Night sometimes more, sometimes less ; but God be praised, they are but small. Our People settled a Town at *Leguanea* side, and there is about 500 Graves already, and People every day a dying still. I went about once to see it, and I had like to have tipt off. Poor Capt. *Watson* was drown'd. All this I do assure

sure you is Truth ; and if I had Time, could give an Account of a great many more of the like.

N^o. VI.

What you desire concerning our Earthquake in *Jamaica*, I will answer as near as I can to what I saw and heard ; *Port-Royal* being the place where I lived, I shall begin with what I met with there. On *Tuesday* the 7th of *June*, 1692. betwixt Eleven and Twelve at Noon, I being at a Tavern, we felt the House shake, and saw the Bricks begin to rise in the Floor, and at the same instant heard one in the Street cry, *An Earthquake*. Immediately we run out of the House, where we saw all People with lifted up Hands begging God's Assistance. We continued running up the Street, whilst on either side us, we saw the Houses, some swallowed up, others thrown on Heaps ; the Sand in the Street rise like the Waves of the Sea ; lifting up all Persons that stood upon it, and immediately dropping down into Pits ; and at the same Instant a Flood of Water breaking in, and rowling those poor Souls over and over ; some catching hold of Beams and Rafter's of Houses, others were found in the Sand that appeared when the Water was drain'd away, with their Legs and Arms out ; we beholding this dismal Sight. The small piece of Ground whereon Sixteen or Eighteen of us stood (praised be God) did not sink. As soon as the violent Shake was over, every Man was desirous to know if any part of his Family were left alive. I endeavoured to go towards my House upon the Ruines of the Houses that were floating upon the Water, but could not : At length I got a Canoa, and row'd up the great Sea side towards my House, where I saw several Men and Women floating upon the Wreck out to Sea ; and as many of them as I could I took into the Boat, and still row'd on till I came where I thought my House had stood, but could not hear of neither my Wife nor Family ; so returned again to that little part remaining above Water.

But

But seeing all People endeavouring to get to the Island, I went amongst them, in hopes I might hear of my Wife, or some part of my Family, but could not. Next Morning I went from one Ship to another, till at length it pleased God that I met with my Wife and two of my Negroes. I then asked her, how she escaped. She told me, when she felt the House shake, she run out, and call'd all within to do the same : She was no sooner out, but the Sand lifted up ; and her Negro Woman grasping about her, they both dropt into the Earth together ; and at the same instant the Water coming in, rowl'd them over and over, till at length they catch'd hold of a Beam, where they hung, till a Boat came from a Spanish Vessel and took them up.

The Houses from the *Jews Street end* to the *Breast-work* were all shak'd down, save only Eight or Ten that remained from the Balcony upwards above Water : And as soon as the violent Earthquake was over, the Watermen and Sailers did not stick to plunder those Houses ; and in the time of their Plunder one or two of them fell upon their Heads by a second Earthquake, where they were lost.

As soon as the violent Shake was over, the Minister desired all People to join with him in Prayer ; and amongst them were several *Jews* that Kneeled, and Answered as they did. Nay, I heard one say, they were heard to call upon Jesus Christ : A thing worth Observation.

Several Ships and Sloops were over-set and lost in the Harbour : Amongst the rest the *Swan-Frigat* that lay by the Wharf to Careen, by the violent Motion of the Sea, and sinking of the Wharf, was forced over the tops of many Houses ; and passing by that House where my Lord *Puke* lived, part of it fell upon her, and beat in her Round House : She did not over-set, but helpt some Hundreds, in saving their Lives.

As to the Fire-balls which you heard was seen in the Air, it was a great Falshood : For I neither saw nor heard (during our Months stay after the Earthquake) any such thing ; but a great and hideous rumbling was heard in the Mountains ; infomuch that it frightened many Negroes that had been run away some Months from their Masters, and made them come home, and promise not to run away any more.

The Water that issued from the *Saltpanns Hills* I saw my self, as also Mr. *Ashborne* and one *Pinnock* a Quaker of *Leguane* ; it forced it's passage out from the Hill in (I believe) twenty or thirty several places, some more forcibly than others ; for in eight or ten places it came with that Violence, that had so many Sluces been drawn up at once, they could not have run with greater force ; and most of them six or seven Yards high from the Foot of the Hill ; three or four of the least of them we observed were near ten or twelve yards high in the Mountain. We stood some time in looking on this miraculous sight : At length we tasted the Water in most of the places ; all which we tasted, we found to be brackish, of which we could not imagine the Reason, nor from whence the Water should arise : It continued running that Afternoon, all Night, till next Morning about Sun-rise, at which time the *Salt-panns* were quite overflow'd. Therefore you may judge it's Force in running ; for both *Salt-panns* and *Mountain* you know very well.

The Mountains betwixt *Spanish Town* and *Sixteen-Mile-Walk*, as the Way lies along the River, if you remember, about the mid-way they are almost perpendicular, especially on the other side the River ; those two Mountains in the violent Shake of the Earthquake joined together, which stopt the Passage of the River, and forced it to seek another, which was a great way in and out amongst the Woods and Savana's ; for it was Nine Days before the Town had any Relief from it : Infomuch

much that before it came the People were in thoughts of removing into the Country, concluding it had been sunk as *Port-Royal* was. The Mountains along the River are so thrown on Heaps, that all People are forced to go by *Guanaboa* to *Sixteen-Mile-Walk*.

The time we continued on the Island after the Earthquake was at Mr. *Bosby's*, who had as miraculous an Escape, and his Wife, as my Wife had. He likewise told us, That that Afternoon, coming to his Plantation, he found the Ground opened in several places; and in one two Cows were dropt in and smothered.

The Weather was much hotter after the Earthquake than before; and such an innumerable quantity of *Musketoos*, that the like was never seen since the Inhabiting of the Island.

The Mountains at *Galloes* far'd no better than those of *Sixteen-Mile-Walk*; a great part of one of them falling down, drove all the Trees before it; and at the Foot of the Mountain there was a Plantation that was wholly overthrown and buried in it.

I cannot remember any thing more at present, that may be material.

No. VII.

Deene, March. 22. 1693.

As to the Mountains in *Leguane*, they fell in several places, and in some very steep; but the steepest Mountain that we heard fall, was that at *Gallowes*, which I heard did much Damage by it's rowling down.

The Water in the Streets of *Port-Royal* did not spout up, as you have heard; but in the violent Shake the Sand cracking and opening in several places where People stood, they sinking into it; the Water boiled out of the Sand, that cover'd many, and saved others.

As

As to what I writ concerning the River and Town, I did not see my self; but heard by several hands, that it was eight or nine days before the River came down so far as the Town.

Nº. VIII.

Port-Royal in Jamaica, July 3. 1693.

THE Year 1692. began in *Jamaica* with very dry and hot Weather, which continued till *May*, when there was very blowing Weather, and much Rain to the end of the Month, from which time, till the time the Earthquake happened, 'twas excessive hot, calm and dry; and on *Tuesday* the 7th of *June*, about 40 Minutes past Eleven in the Forenoon, it being then a very hot, clear, Sun-shine Day, scarce a Cloud to be seen in the Sky, or a Breath of Air to be felt, hapned that great Shake, so fatal to this place, and to the whole Island, which for its Violence and strange Effects, may perhaps be compared with the greatest, that ever yet hapned in the World, and may as well deserve the Memory of future Ages.

It began with a small trembling, so as to make People think there was an Earthquake, which Thoughts were immediately confirm'd by a second Shake something stronger, accompanied all the while with a hollow rumbling Noise, almost like that of Thunder, which made them begin to run out of their Houses. But alas! this was but short Warning for them to provide for their Safety; for at the Heels of this Second, came the Third violent Shake, which in less than a Minute's time (it continuing near a Minute) shook the very Foundation of *Port-Royal* in such sort, that at least two parts in three, I believe I may safely say three parts in four, of the Houses, and the Ground whereon they stood, and most part of those who inhabited them, all sunk at once quite under

water; and on the place which was left, and is now

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standing,

standing, shook down and shatter'd the Houses in so violent a manner, that at our landing, it look'd more like a Heap of Rubbish, than any thing else, there being (I believe) scarce one House in ten left standing, and those so crackt and shatter'd, that but few of them were fit, or thought safe to live in, and stand now empty. All those Streets which were next the Water, towards the Harbour-side, where there were excellent Wharfs, close to which Ships of 700 Tunn might lie and deliver their Loading, where were the best Store-houses and Conveniences for Merchants, where were brave stately Buildings, where the Chief Men of the Place liv'd, and which were in all respects the principal parts of *Port-Royal*, now lie in Four, Six, or Eight Fathom Water. That part which is now standing, is part of the end of that Neck of Land which runs into the Sea, and makes this Harbour (at the Extremity of which stands the Fort, not shook down, but much shatter'd by the Earthquake, and is now a perfect Island; the whole Neck of Land from the Port of *Port-Royal* now standing, to the Pallisadoes, or other end of *Port-Royal* towards the Land, (which is above a quarter of a Mile) being quite discontinued and lost in the Earthquake; and is now also, with all the Houses that stood very thick thereon, quite under Water; all which part or Neck of Land is discontinued, (as also all the other parts of this place which sunk) were, for what I can learn, nothing but perfect Sand, and by People driving down Timber and Wharfing, &c. were by little and little gained in time out of the Sea, which now has at once recovered all again; whereby we may see how dangerous it is to contend with a powerful Enemy.

I have talkt with a few Men that came hither with *Venables*, when he Conquered this Place for *Cromwel*, and particularly with one Capt. *Hals*, (for whom I hap-pend to have a Letter from *London*) who all say, that
when

when they came here, the place whereon *Port-Royal* was since built, was like one of the Keys or little Islands that lie off this Harbour, (which by the way are all standing) but continued by a small Ridge of Sand, which then just appeared above Water, with the Land, (I mean the other part of the Neck of Land) and believe there is now as much Ground left standing as then. But this all People know, that the part of Land whereon *Port-Royal* was built, was always encreasing since first inhabited. But Capt. *Hals* goes further, telling me, that one, whom he knew very well, that came here with them under *Venables*, and who had been here some Years before under one *Jackson*, who took and plunder'd *St. Jago*, &c. he very well remembers, at his coming hither, told him, That the Point or Place now standing, when he was here before under the said *Jackson*, was wholly separated from Land by the Sea, (as it is at this time) and pointing to the Ridge of Sand above-mentioned, said, That did not appear when I was here before. And it is commonly said by People here, that Ships have formerly sailed over that part of the Neck of Land, now sunk under Water; tho' what Grounds they have for that Saying (which is common) I could never learn. Indeed 'tis very probable; for already, since the Earthquake, the Sandy Ground at the *Pallisadoes*, or other side, hath gained from the Sea several Acres. On this sandy Neck of Land did People build great heavy Brick Houses, whose Weight, on so sandy a Foundation, may be supposed to contribute much to their Downfall; for the Ground gave way as far as the Houses stood only, and no further; part of the Fort and *Pallisadoes* at the other end of the Houses standing.

This part of *Port-Royal* which is now standing, is said to stand upon a Rock: But alas! the strange Rents and Tearings of the Mountains here, sufficiently evince, that Rocks and Sand are equally able to withstand the Force

of a violent Earthquake. If this place be nothing but Sand (as some would have it, that are it's no Well-wishers) it seems strange that the Force of the Earthquake did not dissipate and dissolve the very Foundation of it, and that it did not fall to pieces and scatter under Water, as the rest of the place did; for the Shake was so violent, that it threw People down on their Knees, and sometimes on their Faces, as they run along the Streets to provide for their Safety; and it was a very difficult matter to keep ones Legs. The Ground heaved and swelled like a rolling swelling Sea; ('tis a strange Comparison; but every body here using it, I venture to do so likewise) by which means several Houses now standing were shuffled and moved some Yards from their places. One whole Street (a great many Houses whereof are now also standing) is said to be twice as broad now as before the Earthquake: and in many places the Ground would crackle and open, and shut quick and fast: Of which small Openings I have heard Major *Kelly* and others say, they have seen two or three hundred at one time, in some whereof many People were swallowed up; some the Earth caught by the middle, and squeezed to Death; the Heads of others only appeared above Ground; some were swallowed quite down, and cast up again by great Quantities of Water; others went down, and were never more seen. These were the smallest Openings: Others that were more large, swallowed up great Houses; and out of some Gaps would issue whole Rivers of Water, spouted up a great height into the Air, which seemed to threaten a Deluge to that part of *Port-Royal*, which the Earthquake seemed to favour, accompanied with ill Stenches and offensive Smells, by means of which Openings, and the Vapours at that time belcht forth from the Earth into the Air; the Sky, which before was clear and blue, was in a Minute's time become dull and reddish, looking (as I have heard it compared

compared often) like a red hot Oven: All these dreadful Circumstances occurring at once, accompanied all the while with prodigious loud Noises from the Mountains, occasioned by their falling, &c. And also a hollow Noise under Ground, and People running from one place to another distracted with Fear, looking like so many Ghosts, and more resembling the Dead than the Living, made the whole so terrible, that People thought the Desolation of the whole Frame of the World was at hand. Indeed 'tis enough to raise melancholy Thoughts in a Man now, to see the Chimneys and Tops of some Houses, and the Masts of Ships and Sloops, which partak'd of the same Fate, appear above Water; and when one first comes ashore, to see so many Heaps of Ruines, many whereof by their largeness shew, that once there had stood a brave House; to see so many Houses shattered, some half fallen down, the rest desolate and without Inhabitants; to see where Houses have been swallowed up, some appearing half above ground, and of others the Chimneys only; but above all, to stand on the Sea-shore, and to look over that part of the Neck of Land, which for above a Quarter of a Mile was quite swallow'd up; there, where once brave Streets of stately Houses stood, appearing now nothing but Water, except here and there a Chimney, and some parts and pieces of Houses, serving only to mind us of their sad Misfortune, now Habitations for Fish, contrary to the Intent of the first Builders.

And tho' *Port-Royal* was so great a Sufferer by the Earthquake, yet it left more Houses standing there, than in all the Island besides, all over which 'tis said to rage more furiously, than at *Port-Royal*; and this seems to be true; for it was so violent in other places, that People could not keep their Legs, but were violently thrown down on the Ground, where they lay on their Faces with their Arms and Legs spread out, to prevent being tumbled

tumbled and thrown about by the almost incredible Motion of the Earth, like that as is the general Comparifon of a Great Sea.

It fcarce left a Planters Houfe or Sugar-work ftanding all over the Ifland : I think it left not a Houfe ftanding at *Passage-Fort*, and but one in all *Ligancee*, and none in *St. Jago*, except a few low Houfes built by the wary *Spaniards*. And 'tis not to be doubted, but that had there been 500, or 5000 Towns in *Jamaica*, the Earth-quake would have ruined every one. In feveral places in the Country the Earth gaped prodigiously : On the North-fide, the Planters Houfes, with greateft part of their Plantations, (and the Planters Houfes lie not very near to one another) were fwallowed, Houfes, People, Trees, all up in one Gape ; inftead of which, appeared for fome time after a great Pool or Lake of Water, covering above a Thoufand Acres, which is fince dried up, and now is nothing but a loofe Sand, or Gravel, without any the leaft Mark or Sign left, whereby one may judge, that there ever had ftood a Tree, Houfe, or any thing elfe. In *Clarendon* Precinct the Earth gaped and fpouted up with a prodigious Force great Quantities of Water into the Air, above Twelve Miles from the Sea ; and all over the Ifland, there were abundance of Gapings, or Openings of the Earth, many thoufands ; Marks of many whercof, which upon their clofing they left behind them, any one cannot chufe but fee, that goes into the Country ; and I have feen feveral. But in the Mountains are faid to be the moft violent Shakes of all ; and 'tis a generally receiv'd Opinion, that the nearer to the Mountains, the greater the Shake ; and that the Caufe thereof, whatever it is, lies there. Indeed, they are ftangely torn and rent ; infomuch that they feem to be of quite different Shapes now from what they were, efpecially the blew, and other higheft Mountains, who feem to be the greateft Sufferers ; as if, for prefuming

ming to make Resistance against so strong an Enemy, they had fared the worse for it ; which during the time of the first great Shake, and as long as the great Shakes continued, which was above two Months after the first Shake (during which time the Shakes came very strong and thick, sometimes two or three in an Hour) bellowed forth prodigious, loud, terrible Noises and Echoings, as if they were sensible of those dreadful Convulsions, which so raged within their Bowels, and in so violent a manner tore and rent them asunder, as if they complained of the Cruelties of that great (I believe I may say greatest) Enemy to Nature ; threatening to cast this Island into it's first Chaos, or at least into a new Model or Shape, different from that which Nature first gave it ; breaking one Mountain, and thereof making two or three ; and joining two Mountains, and making thereof one, closing up the unhappy Valley betwixt. And at *Tallowes* particularly, some Families, who lived betwixt two Mountains, were shut up and buried under them.

Not far from which place part of a Mountain, after having made several Leaps or Moves, overwhelmed a whole Family, and great part of a Plantation, lying a Mile off. And a large high Mountain, near *Port-morant*, near a days Journey over, is said to be quite swallowed up ; and in the place where it stood there is now a great Lake of Four or Five Leagues over. But those things happened in Lower Mountains : But in the blew Mountains, and its nigh Neighbours, from whence came those dreadful Roarings, terrible and amazing to all that heard them, may be reasonably supposed to be many strange Alterations of the like Nature : But those wild Desert places, being very rarely or never visited by any body, not by Negro's themselves, we are yet ignorant of what happened there ; but the Astonishing Noises that came from thence, and their miserable shatter'd Appearance

pearance, appearing half naked, and deprived of their stately Ornaments, large aspiring Trees, and whereas they used to afford a fine green Prospect, now one half part of them at least seeming to be wholly deprived of their natural Verdure and ornamental Coverings in such sort, that they have not a Leaf to cover their Nakedness, appearing bare and ragged, in such poor torn Shapes, that surely it will put any thoughtful Man into a contemplative Posture, who shall look at them. There one may see, where the Tops of great Mountains have fallen, sweeping down all the Trees, and every thing in its way, and making a Path quite from top to bottom; and other places, which seem to be peeled, and bare a Mile together; which vast pieces of Mountains, with all the Trees thereon, falling together in a huddle and confused manner, stopped up most of the Rivers for about 24 hours; which afterwards, having found out new Passages, brought down into the Sea, and this Harbour, several hundred thousand Tunn of Timber, (as I have heard computed from the most knowing People there) which would sometimes float in the Sea in such prodigious Quantities, that they look'd like moving Islands. I have seen several of those large Trees on this Shoar, all deprived of their Bark and Branches, and generally very much torn by the rocky Passages, through which, by the force of a falling Stream, and their own weight, they might be supposed to be driven. One great Trunk of a Tree particularly I have seen amongst the rest, so squeezed as a Sugar-cane after it has pass'd the Mill. Some are of Opinion that the Mountains are sunk a little, and are not so high as they were: Others think the whole Island is sunk something by the Earthquake. *Port Royal* is said to be sunk a Foot; and in many places in *Liganee* I have been told, are Wells, which require not so long a Rope to draw Water out of them now, as before the Earthquake, by two or three Foot; which seems a
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a sort of a demonstration, that either the Land is sunk, or the Sea risen, the former of which seems most probable. Nor are these all the Effects of the Earthquake, no, the Water had in some measure its share as well as the Land. In this Harbour in *Port-Royal* at the time of the great shake (though Seas very calm) was suddenly raised such a strange Emotion in the Water, that immediately it swelled as in a Storm, great large Waves appearing on a sudden rolling with such force that they drave most Ships (if not all) in the Harbour from their Anchors; breaking their Cables, to the great hazard of all of them, and to the loss of some small Ships and Sloops, &c. I heard particularly a Master of a large Ship of about 300 Tun say, that he then rode with two strong Cables, both which this strange Violence of the Water brake in an instant, and that he thought he should have lost his Ship, which mounted as in a great Storm, &c. and so it fared with the rest of the Ships; but this was soon over, and in a little time all smooth again. One Capt. *Phips* told me, That he and another Gentleman happened at the time of the Earthquake, to be in *Ligane* by the Sea-side; and that at the time of the great Shake the Sea retired from the Land in such sort, that for two or three Hundred Yards the bottom of the Sea appeared dry, whereon they saw lye several Fish, some whereof the Gentleman who was with him ran and took up, and in a Minute or two's time the Sea returned again and overflowed great part of the Shoar. At *Tallhouse* the Sea is said to retire above a Mile.

'Tis thought there were lost in all Parts of the Island 2000 People, and had the Shake happened in the Night, very few would have escaped alive; and those that had, would in all probability have been knock'd in the Head by the *Negroes*, and the Island to all intents and purposes quite ruined.

Since my Arrival here I have felt several shakes; the first and greatest whereof was on *Good-Friday*, it lifted me completely off my Chair, and set me on my Legs, and was said to be a small Shake; but did not then hear the Noise (minding something else) which always immediately foreruns, or rather accompanies it, but have since felt several less Shakes, and heard the Noise often, which is very loud, and may be easily taken, by those not used to hear it, for a rustling Wind, or for a hollow rumbling Thunder; but hath some puffing Blasts peculiar to it self, and are most like those of a Match made of Brimstone, when lighted, but in a much greater degree, and such as a large Magazine of Brimstone may be supposed to make when on fire; it is also accompanied with a Noise, which may be pretty well imitated, by putting the Tongue to the Roof of the Mouth, and in a whispering hollow Tone loudly pronouncing *hur' r r r r r*, whereby it is easily distinguished from either Wind or Thunder; and People are generally running out of their Houses before the Shake comes, and then the Noise seems to come from below, and to be just under ones Feet, which makes the Trembling of the Earth more terrible than otherwise it would be. It is observable that every small Shake is felt on Ship-board as sensibly as on Shoar, the Water shaking as well as the Land.

It is likewise observed, that in Windy Weather there never comes a shake, but in very Calm Weather is always expected, and usually comes accordingly (though of late has disappointed us often, so that now we never expect them.) And this Observation hath held true in every shake that hath happened since my being here, and (as is said by the most Curious, and indeed all People here) in every shake that hath happened since the first great one.

'Tis observed, that after Rain they are generally smarter than at other times, which may be from the shutting up of the Pores of the Earth, whereby the force is more pent in, and hath not so free a Passage to perspire and spend it self, &c.

Shakes often happen in the Country, not felt at *Port-Royal*; and sometimes are felt by those that live in and at the foot of the Mountains, and by no body else.

'Tis observed, that since the Earthquake, the Land-breezes often fail us, and instead thereof, the Sea-breezes often blow all Night, a thing rarely known before, but since common.

In *Port-Royal*, and in many Places all over the Island, much Sulphurous, Combustible Matter hath been found, supposed to have been thrown out, upon the opening of the Earth, which upon the first touch of Fire would flame and burn like a Candle.

What may be the Cause of this Earthquake, or how deep the Cause may be in the Earth, &c. from some foregoing Circumstances, a wise Man may give a near guess at: But why the Earth should shake for a quarter of a Minute, and then stand still for six, or seven, or ten Days, then shake again, and so continue to shake now and then by fits; or why shakes should happen in calm still Weather, and rarely or never in Windy or Rainy Weather, which from a strict Observation is a certain truth, seem to be difficult Questions.

St. Christophers, one of the *Caribee* Islands, was heretofore much troubled with Earthquakes, which upon an Eruption of a great Mountain there of Combustible Matter, which still continues, wholly ceas'd, and have never been felt there since; wherefore many expect some such Eruption in some of the Mountains there, though we hope there is no necessity for it; the shakes having been observed to lose their force, and to become weaker and weaker ever since the first Fatal one; and 'tis

now so long since we have heard any, except now and then one so weak as scarce to be felt, that we have great hopes they will soon quite cease.

After the great shake, those People that escaped (as many as could) got on board the Ships in the Harbour, where many continued about two Months after; the shakes all that time being so violent, and coming so thick, sometimes two or three in an hour's time, accompanied with frightful Noises, both from under the Earth, and from the continual falling and breaking of the Mountains, that they dared not come a-shoarc. Others went to the place called *KingsTown* (or by others *Killcown*) where, from the first clearing of the Ground, and from bad Accommodations, then Hutts built with Boughs, and not sufficient to keep out Rain, which in great and an unusual manner followed the Earthquake, lying wet, and wanting Medicines, and all Conveniencies, &c. they dyed miserably in heaps. Indeed there was a general Sickness (supposed to proceed from the hurtful Vapours belch'd from the many openings of the Earth) all over the Island, so general, that few escaped being sick; and 'tis thought it swept away in all Parts of the Island 3000 Souls; the greatest part from *KingsTown* only, yet an unhealthy Place. Besides, the great quantities of dead People floating from one side of the Harbour to the other, as the Sea and Land-breezes blew them, sometimes 100 or 200 in a heap, may be thought to add something to the Unhealthfulness of this Place.

I have now given you the best Account I can of the Earthquake, which I was forced to pick up from several People, wherein, nevertheless, I have been as cautious, that I believe I have not wrote any thing but what is real and true.