

On God and Earthquakes

A Puritan discussion after the Boston earthquakes of 1727 and 1755

In 1727 and 1755, early-morning earthquakes brought serious damage but no fatalities to the Boston area. Why did they happen? Puritan thinkers agreed that God *caused* the earthquakes but differed on his divine motivation and natural mechanism. Did God cause earthquakes only when he wanted to warn man of the consequences of sin? Or had God created the earth in such a way that earthquakes could occur naturally and, in such cases, carry no direct message for man? Might earthquakes bring ultimate good to the earth in ways that man cannot understand? What insights arise from the new science of geology? Is science anti-religion? Three clergymen and one scientist — all Boston Puritans — strive for answers in these selections.

__Rev. COTTON MATHER__ The Terror of the Lord

Some Account of the Earthquake That Shook New-England, in the Night, Between the 29 and the 30 of October, 1727 Sermon, 1727, excerpts

The *Night* that followed the Twenty-ninth of *October* [1727] was a *Night* whereto NEW-ENGLAND had never in the Memory of Man, seen the like before. The *Air* never more *Calm*, the *Sky* never more *Fair*; everything in all imaginable Tranquillity: But about a quarter of an Hour before Eleven there was heard in BOSTON, passing from one end of the Town to

the other, an horrid rumbling like the Noise of many Coaches together, driving on the paved Stones with the utmost Rapidity. But it was attended with a most awful *Trembling of the Earth*, which did heave and shake so as to Rock the Houses, and cause here and there the falling of some smaller Things, both within Doors and without. It cannot be imagined, but that it gave an uncommon Concern unto all the Inhabitants, and even a degree of Consternation, unto very many of them. This *first Shock*, which was the most Violent, was followed with several others, and some Repetition of the Noise at sundry [various] times, pretty distant from one another. The Number of them is not entirely agreed; but at least Four or Five are allow'd for, the last of which was between Five and Six of the Clock in the Morning.

How far this *Earthquake* extended thro' the Country, we are not yet informed, but that it extended Scores of Miles we have already a certain Information. And what added unto the Terrors of it were the

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terrible Flames and Lights in the Atmosphere which accompanied it. The Vessels on the Coast, were also made sensible of it, by a shivering that seized on them.

. . .

The Glorious GOD has *Roared out of Zion*. We have the last Night heard the terrible *Roaring;* with general and uncommon Terror, heard the awful Repetition of it. Who is here of you among them who felt the *Earth trembling* under them, that said not upon it, *When I heard, my Lips quivered at the Voice, and I trembled in myself, that I might find Rest in the Day of Trouble!* Who is there that said not, *Lord, my Flesh trembles for fear of Thee, and I am afraid of thy Judgments!* The *Lion hath roared; Who will not fear?* We are worse than *Beasts*, if we *tremble* not.

Never did the City of BOSTON in the Ninety-seven Years that have rolled over it see such a *Night* as what we saw a few Hours ago. A MIDNIGHT CRY was heard, The Consternation whereof is not this Morning over with us; An *Anguish* like that of a *Trembling Woman* seized upon *Men* as well as *Women*. What *Fear*, from the Apprehension of going to the *Pit*, by a stroke like a *snare* upon us!

We have had the repeated, more than three times repeated, *Shocks* of a Formidable EARTHQUAKE. And GOD knows whether there are any more to come, or what Execution they may do when they come.

. . .

'Tis very sure: In the *Works*, wherein the glorious GOD goes out of the *Ordinary Road*, or His *Extraordinary Dispensations*; In thee, His *Voice* becomes very Notable; and most inexcusable are they who *Regard not the Works of the Lord, nor the Operation of His Hands: He shall destroy them, and not build them up.*

EARTHQUAKES are such *Works*. We read, Psal[m]. XXIX. 8. *The Voice of the Lord shakes the*

Let the Natural Causes of Earthquakes be what the Wise Men of Enquiry please: They and their Causes are still under the Government of HIM that is the GOD of Nature.

Wilderness. There is the Voice of the Lord in it when He shakes our Territories. There may be some Earthquakes more Supernatural than others. We reckon that of Mount Sinai One, and so we reckon that at the Resurrection of our Blessed JESUS, and yet more conspicuously that of His Crucifixion. . . But usually our Earthquakes have Natural Causes assigned for them. What they are, 'tis now and here neither a Time nor Place for Philosophical Disquisitions. Whether Colluctations of Mineral producing Vapours [i.e., toxic intermixtures] that must have an Explosion may cause those direful Convulsions in the Bowels of the Earth, which are felt in our *Earthquakes?* —— Or, whether the huge quantities of *Waters* running in the Bowels of the Earth may not by Degrees waste away the Bottom of the upper Strata here and there, so as to cause their falling? —— Or, whether the Subterraneous Fires, getting head, may not by their Sulphurous and Bituminous Exhalations in the Bowels of the Earth cause a Combustion that may carry all before it? — Or whether —— But it must be something more *Theological* that you are now to be treated with. Let the Natural Causes of Earthquakes be what the Wise Men of Enquiry please: They and their Causes are still under the Government of HIM that is the GOD of Nature. Shall we say, All this is but a Chance that happens to us or the mere unguided Motion of Matter? Ah, profane Philistine! — 'Tis a Language for none but a *Philistine*. A *Christian* cannot speak so. No, He is one that will be sensible of GOD in these things. Verily, In them, Lo, GOD sends forth His Voice, and that a mighty Voice unto us. . .

Indeed there is this Argument for hearkening to the *Voice* of our GOD, that if we do it not, we provoke Him to *Render His Rebukes in Flames of Fire* unto us. We provoke HIM to inflict *great Plagues and of long continuance* upon us. If we do not hearken to His *Voice*, especially in His *Castigatory Dealings* with us —— He says, *If ye will not hearken unto me*, *I will punish you yet seven times more for your Sins*.

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¹ "Wise Men of Enquiry": natural philosophers, i.e., men of science.

And therefore, Be now at length effectually *Alarmed*, O Inhabitants of BOSTON, yea, and of the whole Country whereof this is the *Metropolis*. What a *Trial*, Yea, what a Gradually descending *Trial*, is our glorious GOD making of us, whether we will hearken to his Voice or no? A few Months ago, how fearfully did we see the Heavens blazing over us, with Coruscations that fill'd People with a fearful Expectation of the fiery Indignation which is anon to devour the Adversaries of GOD! And how frequently did loud Thunder-Claps rouse us out of our Lethargies! How frequently did hot Thunderbolts fall where many Objects felt the Force of an Arm which, What can stand before? But, alas, Did we hear Attentively and Obediently the Noise of His Voice, or Mind as we should have done the Sound that went out of His Mouth? After this, The Stormy Wind which fulfils His Word came rushing down upon us. We saw an Horrible Tempest. A Storm came which tore up the Trees of our Fields by the roots; tore down parts of our Houses; Yea, Wounded and Killed some of our People. The great and strong Wind which rent the Mountains had a Voice in it. Indeed, it was not a still small Voice, but was it therefore the less to be hearken'd to? And now, After the Wind an Earthquake! —— Oh! Let it not be said, The Lord was not in the Earthquake. Our GOD says, Now surely, they will fear me, and they will receive Instruction; that I may not proceed unto a more dreadful Extremity and cut off their Dwellings, and them with and in their Dwellings!

__Rev. JAMES ALLIN__

Thunder and Earthquake: A Loud And Awful Call to Reformation

Sermon, 1727, excerpts.

GOD in his just Displeasure has spread over us his thick and black *Cloud*, deeply charged with most awful *Thunders*, the effects whereof were sorrowful. The Earth under us has been horribly *convulsed*. And the *Stormy Wind* fulfilling his Word has shaken our Houses &c.

IN discoursing on this *Text* I shall say

- I. THAT Thunder and Earthquake are the dreadful Visitations of GOD to a People.
- II. THEY are very evident Testimonies of His Displeasure against a People.
- III. THAT a People by persisting in their Sins expose themselves to such awful Visitations from GOD.
- IV. THEY are loud Calls to Repentance; and the Reformation of this People is the only Method of Safety to be taken by us, when we are thus visited.

. .

I. 2. GOD is the Primary Efficient Cause of Earthquakes.

AS *Thunder* is His Voice, and *Lightning* a Flame that goeth out of His Mouth; so *Earthquakes* are caused by His strong Hand: And how much soever it exceeds the Strength of any Creature, or all united, to shake the Earth, the *Omnipotent Author* of it can do it with greater Ease than any of us can move a Finger or wave a Feather. . . .

'TIS absurd and atheistical to assert that Earthquakes are the Effects of a *blind Chance*, or to resolve them into *natural Causes* exclusive

'TIS absurd and atheistical to assert that Earthquakes are the Effects of a blind Chance, or to resolve them into natural Causes exclusive of the Divine Superintendency.

of the *Divine Superintendency* and Efficiency. We may affirm on equal grounds that GOD does nothing in the World in respect to Government, that there is no such thing as Reward and Punishment in any degree administered here; as deny Him this great and most sensible and awful Instance of His Power and Justice. . . .

SOME Earthquakes are from GOD immediately, others by the agency of second Causes, and both are ascribed to Him in Holy Scripture without Distinction. And agreeably I shall here say,

- I. 2. 1. EARTHQUAKES are sometimes the immediate Works of God, that is, they are performed by Him either beyond the Course and above the Power of Nature, or second Causes are by His immediate influence so disposed, and operate so as to product such Effects.
- ... And I suppose none will deny but that the repeated Earthquakes at our Saviour's *Death* and *Resurrection* were *miraculous*; as the *Eclipse* of the Sun was at the time, which according to Nature was impossible; and design'd for Tokens of GOD's Anger at the horrid Fact, and for the Conviction of that stupid Nation that the Person they had so basely treated was more than a Man.
 - I. 2. 2. EARTHQUAKES are produced by the agency of second Causes.

THE great Former of the *Earth* has undoubtedly so made it as to serve His eternal Design in this awful Dispensation; and then he has endowed the Celestial and Elementary World with such Virtues and Powers as to produce such an Effect; and though He has not obliged himself always to act by the establish'd Laws of Nature, yet He ordinarily does. Thus He produces the Fruits of the Earth by the Influences of the Sun and Moon; and thus He brings on the successive Revolutions of the Day and Night in a natural Way, and the quaternial Seasons of the Year, by the Suns passing thro' such and such Signs of the *Zodiack*.

BUT now what are the natural Causes of Earthquakes, Men of the greatest Sagacity and deepest Penetration, can but guess. And hence arises the great Diversity of Thought about them, one fixing upon this thing, another upon that, which seems to them most probable. . . .

THAT Opinion which to me carries in it the greatest Probability of Truth is this: That *Subterraneous Fires* occasion'd by the *Fermentation* of combustible Minerals in the Earth, such as *Sulphur*, *Salt-Petre*, *Vitriol* &c.[etc.] are the cause of this *Prodigy*. These Fires being made of the same Matter with *Lightning*, fly as the Lightning does with an incredible Swiftness, and carry in them an irresistible Force, and give

the Earth those violent Shocks we have lately felt. But whether this solves the Matter, I don't pretend to say. I shall leave it to them whose Business it is more properly to search into it.

BUT let the natural Causes be what they will, this is the most certain —that they are all in the Hand and entirely subject to the Will of GOD.

BUT let the *natural Causes* be what they will, this is the most certain — that they are all in the *Hand* and entirely subject to the *Will of GOD*. We may not think that He has thrown off the Government of them and left them to effect what is in their own Power! What wild Disorder and Confusion would this create in the World? No verily! He guides and directs, restrains and limits them, or gives them a Liberty according to the Design He is to accomplish by them; and from hence it is that we are to attribute all to Him; both the good we enjoy, and the Evils we suffer. . . . So that to resolve all the Events into natural Causes is derogatory to the Honour of GOD, and the direct Course to banish all Religion out of the World, and will prove of fatal Consequence to all who adhere to it.

__Rev. THOMAS PRINCE__

Earthquakes the Works of God and Tokens of His Just Displeasure

Sermon, 1727 [1755 reprint with additional material], excerpts.

... we know that merely *material* Substances can only move in the Circuits of Nature as they are moved by him [God]. We see they always and everywhere move and act in a most curious and regular manner with respect to each other, as if they perfectly knew each other's particular Circumstances, and

were the most intelligent Agents. But they are uncapable of knowing the wonderful Laws by which they are Governed. They are therefore constantly Guided by the Wisdom and Power of him that made them: He must continually hold them in his immediate Hands and both empower and direct them in all their Actions. And what we call the *Laws of Nature* are only the usual Methods in which he is pleased to Work in the World; and from which he sees not cause to depart, but in some extraordinary Cases where his usual manner of working cannot reach his Designs.

And in a particular manner—— To what else can we in Reason assign that admirable Force and Action of those peculiar Substances that are the Causes of Earthquakes in *their violent flying off from each other* but to the immediate Influence and Action of GOD? Those merely material, exceeding small and senseless Atoms that lie entirely dead and unactive are no sooner disengag'd from each other, but such an amazing Force is in a moment inspir'd into them from some other Agent as to set the largest

Countries of the Earth a Trembling with all their Mountains and Cities upon them, and to heave them up and rend them to Pieces.

To what else can we in Reason assign that admirable Force and Action of those peculiar Substances that are the Causes of Earthquakes, in their violent flying off from each other, but to the immediate Influence and Action of GOD?

If you were to see

two *mountainous Rocks* to lie perfectly still while they touched each other; but being by some Means [moved] to a final and particular Distance, then of themselves to fly off from each other with the greatest Violence — would you not ascribe it readily to some mighty and invisible Agent that with such a wonderful Force shou'd beat them away? Why, The smallest Atoms of Matter are of themselves as Dead and unable to fly off from each other as the greatest Rocks in the World.

And what mighty and invisible Agent shou'd this be but GOD?

JOHN WINTHROP

A Lecture on Earthquakes

Lecture, 1755, excerpts.

Winthrop was Professor of Mathematics and Philosophy at Harvard College.

Though these explosions and consequent concussions of the earth have indeed occasioned most terrible desolations, and in this light may justly be regarded as the tokens of an incensed DEITY, yet it can by no means be concluded from hence that they are not of real and standing advantage to the globe *in general*. Multitudes, it is true, have at different times suffered by them. Multitudes have been destroyed by them, but much greater multitudes may have been everyday benefited by them. The all-wise CREATOR could not but foresee all the effects of all the powers he implanted in matter; and, as we find in innumerable instances (and the more we know of his works, the more such instances we discover) that he has established such laws for the government of the world as tend to promote the good of *the whole*, we may reasonably presume that he has done it in this case as well as others.

To me, at least, the argument on this side [of] the question, drawn from the general analogy of nature, appears to have more force than any that I have seen offered on the other. For there is nothing, however useful, however necessary, but what is capable of producing and in fact has produced damage in single instances. It were endless to particularize here. I shall therefore only mention one or two things by way of specimen [example]. The power of gravity — a power of such indispensable importance, that without it the system of nature could not subsist a moment, has yet proved the destruction of multitudes. The wind, so necessary for the purposes of navigation, as well as to purge the air, which would otherwise stagnate and putrefy — how often has it risen to such a pitch as to overthrow houses and wreck vessels? By which means thousands have perished. Even thunder and lightning, which, next to earthquakes, are the most

terrible phænomena of nature, are yet universally allowed to be necessary to free the atmosphere from a certain unwholesome sultriness which often infects it. Other instances of the like sort I leave to your own reflections, and would rather observe that the world is governed by *general* laws, and general laws must, from the nature of them, be liable sometimes to do hurt. However, laws of this sort are sufficiently vindicated not only as *wise*, but as *good*, if upon the whole they produce a *maximum* of good (to borrow an expression from the Mathematicians), and this, it is in the highest degree probably, all the laws of nature do.

. . .

But you will take notice that I speak here only of *physical* or *natural* ends. For though I make no doubt that the laws of nature were established and that the operations of nature are conducted with a view, *ultimately*, to *moral* purposes, and that there is the most perfect coincidence at all times between GOD's government of the *natural* and of the *moral* world; yet it would be improper for me to enter into these disquisitions at this time, since my province limits me to consider this subject, only in the relation which it bears to *natural philosophy* [science] It is in the *physical* sense, alone, that I say the disjoining the parts of the earth and opening its pores, may be the end primarily aimed at in earthquakes, as such mutations in the earth may from time to time become necessary to the production of subterraneous bodies, and perhaps this end could not be effectually answered by less forcible methods.²

. . .

But however these things may be, whether all the foregoing conjectures be well founded or not: If these explosions and concussions be, as it is next to certain that they are, the necessary and inevitable consequences For, it is plain, they [earthquakes] may be beneficial in a thousand other ways than we, short-sighted mortals, may pretend to guess at. . . [T]here may be nothing, perhaps, in the material world, that is simply and absolutely evil—nothing, but what, under the directions of infinite wisdom, power and beneficence, is, in some or other of its consequences, productive of an over-balance of good.

of such laws of nature, and such powers in matter, as our globe could not well subsist without, this ought to silence all the complaints of those who suffer either loss or terror by them, as well as all the objections which men of skeptical minds have been disposed to make upon this head to the order of Providence. It ought, in reason, to do this, though we should never be able to point out all the particular advantages resulting from them. For, it is plain, they may be beneficial in a thousand other ways than we, short-sighted mortals, may pretend to guess at.³

To sum up all in a word. This is a MIX'd state, in which there is such a variety of purposes, *natural* as well as *moral*, in prosecution at the same time, that there may be nothing, perhaps, in the material world, that is simply and absolutely *evil* — nothing, but what, under the directions of infinite wisdom, power and beneficence, is, in some or other of its consequences, productive of an over-balance of *good*.

Upon the whole. How "wonderful in counsel," how "excellent in working" is that BEING who can bring good out of the greatest evils, and can answer intentions, the most widely differing, by one and the same dispensation of His providence!

² In a footnote at this point, Winthrop adds: "It is not impossible that some may think it strange to have anything said that seems at all to abate the horror which many people have of earthquakes, as if *all* of them were *nothing but scourges* in the hand of the ALMIGHTY; and may be fearful lest the cause of religion should be disserved hereby. But of this there is not, in my apprehension, the remotest danger. . . . The idea here exhibited, while it exalts the wisdom and goodness, does not in the least detract from the majesty, or from the justice, of GOD. And the terror, which an earthquake never fails to carry with it, will be sufficient to secure the interests of religion, so far as they are to be secured by the influence of fear; even though such a phænomenon be represented in the most favorable light that truth will admit of."

³ Winthrop adds this note: "Some wells near me have had the quality of their waters much mended since the earthquake."