

All Shook Up!

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(Earthquakes - Part 2)

In the *May Day Star*, I provided an overview of the causes for most earthquakes. Earthquakes typically are the result of shifting tectonic plates due to faults that exist below the Earth's surface. The three primary types of faults are called extensional, transform and compression faults. (For a detailed explanation see the *May 1997 Day Star*.)

Each of these faults cause earthquakes, but compression faults typically create the highest intensity earthquakes. However, the type of compression fault that affects the largest part of the Earth and most people is called a "subduction trench." Earthquakes caused by subduction trenches can affect an entire hemisphere.

A subduction trench earthquake as deep as 500 miles below the surface has the potential to start a chain reaction of earthquakes around the world, thereby causing a global earthquake.

With this brief review of the scientific basis for earthquakes, we can consider the practical realities of earthquakes. During my lifetime I have lived in two parts of the United States, the West coast and the Midwest. It is interesting to learn how people consider natural disasters in various locations in the U.S.

On the West coast, the frequency of tornados is much lower than the Midwest, while the potential exposure to earthquakes is much higher. Often, people from the coasts voice their fear about tornados that occur in the Midwest.

In like manner, Mid-westerners express trepidation about the many earthquakes that happen in California. In both locations though, people have grown used to the incidence of a particular type of natural disaster and have more fear about disasters they have not experienced.

While there are similarities between tornadoes and earthquakes, in that they are both natural disasters, much of the similarity ends at that point. Specifically, the number of people directly affected by an earthquake is significantly higher than those affected by a tornado. In fact, I believe that God chose earthquakes as markers for the end-time story for the following reasons:

1. No other natural event can affect more people. Events such as hurricanes can affect large groups of people, but only individuals directly in the path of the hurricane are actually impacted by the storm. Also, hurricanes are most prevalent in the islands of the Caribbean and mainland North America. Storms in other parts of the world are also relatively localized. Changes in weather patterns and political upheaval can cause serious famines throughout the world. However, these events are also localized and have not had a global impact.

2. In comparison with other natural disasters, a larger number of people are directly affected by

the event. This does not minimize the catastrophic effect that events such as hurricanes, cyclones, tornados, monsoons, volcanos or other serious events can have. Rather, serious earthquakes encompass a geographic area significantly larger than areas impacted by other natural events, thereby affecting more people. (Later in this article, we will review some of the fatal earthquakes that have occurred in past centuries.) Some quakes have caused enormous loss of life, but these earthquakes have also touched many more people because of loss of home, possessions and personal injury.

3. God has previously used earthquakes to mark important events. An earthquake marked Christ's death on the cross (Matthew 27:54), as well as His resurrection from the tomb. (Matthew 28:2) God's use of earthquakes as significant markers for the end-time story is consistent with the way He has used earthquakes in the past.

4. Throughout the Bible, God demonstrated how earthquakes attract man's attention. After running in fear from Jezebel, the Lord attracted Elijah's attention by using an earthquake. (1 Kings 19:11,12) God punished the children of Israel for their unfaithfulness with an earthquake during the reign of Uzziah, King of Judah. (Amos 1:1; Zechariah 14:5) In many texts, the inspired Bible writers enumerate and describe God's control of earthquakes. (See Psalm 18:7 and Job 9:6.) Perhaps no other natural event can engender as much fear in the heart of man. Most people on Earth derive their security from their homes and possessions. When God chooses to "shake" them up, He provides a unique situation which prepares them to listen to what God has to say to them.

Historical References to Earthquakes

Throughout recorded history, earthquakes have played a significant role in the development and destruction of civilizations. Before the birth of Christ, a number of earthquakes were significant enough to be recorded in non-biblical writings, although the reliability of these materials is somewhat questionable. An early earthquake was documented about 1380 B.C. in the Eastern Mediterranean and another one in India about 623 B.C. *Strabo's Geography* mentions an earthquake in Helice, Greece about 373 B.C.

This quake was large enough to make the land mass called Euboea an island. Other quakes which were recorded include a quake that destroyed Ephesus in A.D. 17, another one that occurred in Pompeii in A.D. 63 prior to the volcano, and another one that destroyed the city of Rome (A.D. 476). Early earthquakes also occurred in Antioch (located in modern Turkey) in A.D. 526 which caused 250,000 deaths and destroyed the city, Constantinople in A.D. 557 and again in 936.

Earthquakes have been a part of history since the fall of man wreaking death and destruction throughout civilization. The table on the following page (see Figure 1) shows a ranking based on estimated numbers of lives lost due to earthquakes.

Some ancient Greeks thought that earthquakes were caused by winds blowing below the Earth and others blamed them on fires that were burning under the Earth. Later the understanding

developed that earthquakes exhibited themselves by ground waves going through the Earth. The concept for the seismograph was developed in 1870's by English geologist John Milne. However, only in the twentieth century has the relative magnitude of earthquakes been compared through the use of a seismograph. Therefore, to compare the sizes of earthquakes prior to the twentieth century, estimated fatalities must be used.

Large Twentieth Century Earthquakes

As written previously, twentieth century technology has made it possible to compare the magnitude of earthquakes. Although the magnitude of the earthquake can be related to the damage and fatalities that it causes, depending on the location of the earthquake, increased size may not result in increased fatalities. The chart below shows a ranking of the largest earthquakes based on magnitude (see Figure 2).

During the twentieth century, over 20,000 people per year die annually due to earthquakes. The majority of these fatalities were the result of five earthquakes which killed over 1.5 million people. The level of fatalities provide stark evidence of the global impact the end-time earthquakes will have.

Earthquakes of Prophetic Significance?

Certain earthquakes have received a level of notoriety based on their size, number of fatalities, timing and location. Often, after a natural disaster, people attempt to attach prophetic significance to the event. The temptation always exists to attach prophetic meaning to events *after* they have occurred. One earthquake that had a significant impact on eighteenth century European thought was the Lisbon earthquake of 1755. In fact, the famous French writer Voltaire wrote the novel *Candide* that incorporated the Lisbon earthquake as a prominent element of his story. Prophetic expositors in the nineteenth century proclaimed that the Lisbon earthquake was a direct fulfillment of Revelation's sixth seal. (Revelation 6:12-17) However, the passage of time has demonstrated that the Lisbon earthquake was just another attempt to use "current" events to justify prophetic significance.

What About the Lisbon Earthquake?

There are a number of reasons why the Lisbon earthquake cannot be the sixth seal described in Revelation. Here are a few:

1. All the elements of the prophecy were not fulfilled. Revelation 6:12-13 states, **"I watched as he opened the sixth seal. There was a great earthquake. The sun turned black like sackcloth made of goat hair, the whole moon turned blood red, and the stars in the sky fell to earth, as late figs drop from a fig tree when shaken by a strong wind."** In order for a prophecy to be completely fulfilled, all people (around the world) who are open to the Holy Spirit's leading, must be able to agree that the prophecy was fulfilled. After the earthquake, the next element that occurs in this prophecy is that the sun turns black. Some nineteenth century prophetic expositors believed that this element was fulfilled by a solar eclipse that occurred in

the Northeastern United States in 1780. However, there are two problems with this conclusion. First, the moon is only one third the size of the Earth. Because of the relative size and distance between the two bodies, the moon's shadow cannot cover the entire Earth during an eclipse. Therefore, people around the world could never agree that the sun was darkened like sackcloth due to a solar eclipse. Second, it is impossible to see the sun during a complete solar eclipse since the moon is interposed between the sun and the Earth. Using the description that John gave, it seems apparent that he was not describing a solar eclipse.

2. By comparison, when reviewing the number of fatalities caused by the Lisbon earthquake, it is obvious that seven other earthquakes in the Christian era have had more fatalities. Why attach prophetic significance to the Lisbon earthquake versus these larger earthquakes?

3. Simply stated, the passage of time has demonstrated that the Lisbon earthquake of 1755 was not significant to the end-time story – over 240 years have passed since that earthquake. How can a sense of *immediacy* regarding end-time events continue if events supposedly relevant to the end-time story occur over two centuries ago and no one is alive who witnessed it? No, the Lisbon earthquake no longer provides a sense of immediacy and sadly, within some denominations, continued prophetic study is no longer encouraged because of the erroneous conclusion that this 1755 earthquake had end-time relevance.

The End Time Earthquakes

Earthquakes do have a significant role to play in the end-time story. When the earthquake happens that accompanies the throwing down of the censer in Revelation 8:5, there will be no question or dispute that God has begun the final countdown of Earth's history. Recently, there have been earthquakes in Central America, India and Pakistan. God continues to provide us with reminders that He is in control and is preparing to "shake up" the world. Pray that we all will be ready when this "shaking" begins.