

New Madrid Earthquake

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New Madrid Earthquake

Essential Question: How did the New Madrid Earthquakes affect the land and people of Tennessee?

On December 16, 1811 residents of New Madrid, Missouri were jolted awake when an earthquake with a magnitude of 7.5 or greater ripped through their town. The force of the earthquake was so strong that it caused church bells to ring in Charleston, South Carolina and chimneys to fall in Cincinnati, Ohio. The region was struck with two more major quakes on January 23 and February 7.¹

The quakes caused huge fissures, or cracks in the earth's surface. Coal and sand were ejected into the air. The heaving earth even caused the Mississippi river to reverse its course for a time. The quakes caused the formation of Reelfoot Lake. The lake formed when water rushed in to fill a fissure formed by the earthquake. Residents also reported other natural phenomena including earthquake lights which are caused by pressure on underground quartz crystals.²

Residents of the region were terrified by the earthquakes and aftershocks. The United States was on the verge of war with Britain and many viewed the earthquakes as a sign of troubles to come. According to witness Mary Morriss "some thought the end of the world was come and time would be no more." Eliza Bryan wrote that "the screams of the affrighted inhabitants running to and fro, not knowing where to go or what to do - the cries of the fowls and beasts of every species - the cracking of trees falling, and the

¹ Elizabeth Rusch, "The Great Midwest Earthquake of 1811." Smithsonian Magazine. December 2011. Smithsonian.com.
<http://www.smithsonianmag.com/science-nature/the-great-midwest-earthquake-of-1811-46342/?page=1> accessed 28 June 2014.

² Lucinda Kinsall, "New Madrid Earthquake." Disasters in Tennessee. Tennessee State Library and Archives.<https://sharetn.gov.tnsosfiles.com/tsla/exhibits/disasters/newmadrid.htm> accessed 16 June 2021.

roaring of the Mississippi -formed a scene truly horrible.”³ While the reported death toll was less than 100, the true death toll was likely much higher. Isolation and poor communication made reporting less than accurate. Many residents moved away from the area making once thriving communities ghost towns in a matter of months. ⁴

For years scientists believed that the quakes were a one-time event. However, recent scientific research has shown that the region has experienced significant quakes in the past and could experience more in the future. The U.S. Geological Survey estimates that the risk of a 6.0 magnitude earthquake striking the region in the next 50 years is 25 to 40 percent. Unlike the 1811-1812 earthquakes, a Midwest earthquake today would affect millions of people.⁵

³ Ibid.

⁴ Nancy Henricks. “New Madrid Earthquakes of 1811-1812.” Encyclopedia of Arkansas History & Culture. February, 2016. Encyclopediaofarkansas.net <http://www.encyclopediaofarkansas.net/encyclopedia/entry-detail.aspx?entryID=2218> accessed 16 June 2016.

⁵ Rusch, “The Great Midwest Earthquake of 1811,”

New Madrid Earthquake

Write a short newspaper article on the New Madrid Earthquakes of 1811-1812. Use the graphic organizer below to plan your article.

Who?

What?

Where?

When?

How did the earthquakes affect people?

How did the earthquakes affect the land?

Sample Headline

New Madrid Earthquake Key

Write a three paragraph newspaper article on the New Madrid Earthquakes of 1811-1812. Use the graphic organizer below to plan your article. *Answers will vary.*

Who? Native Americans and white settlers, Mary Morriss and Eliza Bryan- witnesses

What? Series of earthquakes with magnitude of 7.5 or higher

Where? West Tennessee, Arkansas and Missouri along the Mississippi River- felt as far away as Cincinnati and Charleston

When? December 16, 1811, January 23, 1812, February 7, 1812

How did the earthquakes affect people?- They were frightened, thought it was the end of the world. Many moved away.

How did the earthquakes affect the land?- Mississippi River ran backwards; Reelfoot Lake was formed. Fissures formed; gases were released

Sample Headline

Answers will vary

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New Madrid Earthquakes Primary Sources

These accounts of the New Madrid are from the Tennessee State Library and Archives online exhibit Disasters in Tennessee. Please visit the site for related images.

John James Audubon:

...Never had I witnessed anything like this before, though I had heard of earthquakes. I found myself rocking on my horse and I moved to and fro with him like a child in a cradle, expecting the ground to open at any moment and reveal an abyss to engulf me and all around me. The fearful convulsion lasted only minutes, however.

Almost every day or night for weeks shock succeeded shock, but gradually diminished into more vibrations of the earth. The quake ceased, but not until after it had caused serious consequences in other neighboring places, rending the earth and sinking islands.

Eliza Bryan:

...On the 16th December, 1811, about two o'clock, A.M. we were visited by a violent shock of an earthquake, accompanied by a very awful noise resembling loud but distant thunder, but more hoarse and vibrating, which was followed in a few minutes by the complete saturation of the atmosphere, with sulphurous vapor, causing total darkness. The screams of the affrighted inhabitants running to and fro, not knowing where to go or what to do - the cries of the fowls and beasts of every species - the cracking of trees falling, and the roaring of the Mississippi - the current of which was retrograde for a few minutes, owing, it is supposed, to an irruption in its bed - formed a scene truly horrible...

Mary Morriss Smith:

...In 1811 and 12 the people were greatly excited and alarmed. They were just on the eve of a war with England. then the earthquakes. They knew not the cause of those heavy shakes. The houses, The trees, the whole earth shook. Some thought the end of the world was come and time would be no more. Those shakes sometimes occurred in the night and everyone rose up alarmed. There was a story told of an old man who was looked on as one of the best of men. There occurred a very hard shock one night, he sprang up and started to the window no doubt expecting to see the Lord and his angels coming in the clouds and hear Gabriels trumpet blow, when his wife saw his actions she called to him to wait for her.

He replied, "I may be in heaven a thousand years before I think to look for you." That idea don't accord with people ideas of the present day who think their friends will meet them at the "beautiful gate and welcome them in"...