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The Tangshan earthquake, also known as the Great Tangshan earthquake, was a natural disaster that occurred on July 28, 1976. It is believed to be the largest earthquake of the 20th century by death toll. The epicenter of the earthquake was near Tangshan in Hebei, the People's Republic of China, an industrial city with approximately one million inhabitants. The number of deaths initially reported by the Chinese government was 655,000, but this number has since been stated to be around 240,000 to 255,000. 9, 526 Antioch earthquake The 526 Antioch earthquake hit Syria (region) and Antioch in the Byzantine Empire in 526. It struck during late May, probably between May 20–29, at mid-morning, killing approximately 250,000 people. The earthquake was followed by a fire that destroyed most of the buildings left standing by the earthquake. The maximum intensity in Antioch is estimated to be between VIII (Severe) and IX (Violent) on the Mercalli intensity scale. 8. 1970 Bhola cyclone The 1970 Bhola cyclone was a devastating tropical cyclone that struck East Pakistan (present-day Bangladesh) and India's West Bengal on November 12, 1970. It remains the deadliest tropical cyclone ever recorded and one of the deadliest natural disasters. Death toll estimates go from 250,000 to 500,000 people lost their lives in the storm, primarily as a result of the storm surge that flooded much of the low-lying islands of the Ganges Delta. This cyclone was the sixth cyclonic storm of the 1970 North Indian Ocean cyclone season, and also the season's strongest. 7. 1920 Haiyuan earthquake 1920 Haiyuan earthquake occurred on December 16 in Haiyuan County, Ningxia Province, Republic of China. It was also called the 1920 Gansu earthquake because Ningxia was a part of Gansu Province when the earthquake occurred. The highest death toll estimates are 273,000. 6. 2004 Indian Ocean earthquake The 2004 Indian Ocean earthquake occurred on 26 December with the epicenter off the west coast of Sumatra, Indonesia. The shock had a moment magnitude of 9.1–9.3. The undersea megathrust earthquake was caused when the Indian Plate was subducted by the Burma Plate and triggered a series of devastating tsunamis along the coasts of most landmasses bordering the Indian Ocean. It killed 230,000–280,000 people in 14 countries and inundated coastal communities with waves up to 30 meters (100 ft) high. It was one of the deadliest natural disasters in recorded history. Indonesia was the hardest-hit country, followed by Sri Lanka, India, and Thailand. 5. 1737 Calcutta cyclone On 7 October 1737, a natural disaster struck the city of Calcutta in India. For a long time, this was believed in Europe to have been the result of an earthquake, but it is now believed to have been a tropical cyclone. Thomas Joshua Moore, the duties collector for the British East India Company in Calcutta, wrote in his official report that a storm and flood had destroyed nearly all the thatched buildings and killed 3,000 of the city's inhabitants. Other reports from merchant ships indicated an earthquake and tidal surge were to blame, destroying 20,000 ships in the harbor and killing 300,000 people. It should be noted that the population of Calcutta at the time was around 3,000–20,000. 4. 1839 India cyclone On 25 November 1839, an enormous cyclone caused a 40-foot storm surge that hit Coringa, Andhra Pradesh, wiped out the harbor city, destroyed vessels in its bay, and killed 300,000 people. Survivors never entirely rebuilt the city. 3. 1556 Shaanxi earthquake The 1556 Shaanxi earthquake was catastrophic and is also the deadliest earthquake on record, killing approximately 830,000 people. It occurred on the morning of 23 January 1556 in Shaanxi, during the Ming Dynasty. More than 97 counties were affected. Buildings were damaged slightly in the cities of Beijing, Chengdu, and Shanghai. An 840-kilometre-wide (520 mi) area was destroyed, and in some counties, as much as 60% of the population was killed. Most of the population in the area at the time lived in yardangs, artificial caves in loess cliffs, many of which collapsed with catastrophic loss of life. 2. 1887 Yellow River flood The 1887 Yellow River flood was a devastating flood on the Yellow River (Huang He) in China. This river is prone to flooding due to the elevated nature of the river, running between dikes above the broad plains surrounding it. The flood, that began in September 1887, killed about 900,000 people. It was one of the deadliest natural disasters ever recorded. The highest estimates of the death toll are about 2 million. 1. 1931 China floods The 1931 China floods or the 1931 Yellow River floods were a series of devastating floods that occurred in the Republic of China. The floods are generally considered among the deadliest natural disasters ever recorded, and almost certainly the deadliest of the 20th century (when pandemics and famines are discounted). Estimates of the total death toll range from 145,000 to between 3.7 million and 4 million. Volcanic eruption on Martinique This article needs additional citations for verification. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed.Find sources: "1902 eruption of Mount Pelée" - news - newspapers - books - scholar - JSTOR (January 2020) (Learn how and when to remove this message) 1902 eruption of Mount PeléeEruption column on 27 May 1902VolcanoMount PeléeStart date23 April 1902[]End dates October 1905[1]TypePhreatic, PeléanLocationMartinique, France14°48′27″N 61°10′03″W 14.80750°N 61.16750°W - 61.16750VE[1]ImpactApproximately 29,000 deaths; deadliest eruption of the 20th century.[2] The 1902 eruption of Mount Pelée was a volcanic eruption on the island of Martinique in the Lesser Antilles Volcanic Arc of the eastern Caribbean, which was one of the deadliest eruptions in recorded history. Eruptive activity began on 23 April as a series of phreatic eruptions from the summit of Mount Pelée. Within days, the vigor of these eruptions exceeded anything witnessed since the island was settled by Europeans. The intensity then subsided for a few days until early May, when the phreatic eruptions increased again. Lightning laced the eruption clouds and trade winds dumped ash on villages to the west. Heavy ash fell, sometimes causing total darkness. Some of the afflicted residents panicked and headed for the perceived safety of larger settlements, especially Saint-Pierre, about 10 km (6.2 mi) south of Pelée's summit. Saint-Pierre received its first ash fall on 3 May.[3] Mount Pelée remained relatively quiet until the afternoon of 5 May when a mudflow swept down a river on the southwest flank of the volcano, destroying a sugar mill. The massive flow buried about 150 people and generated a series of three tsunamis as it hit the sea. The tsunamis swept along the coast, damaging buildings and boats. The explosions resumed the night of 5 May. The following morning, parts of the eruption plume became incandescent, signifying that the character of the eruption had changed. The phreatic eruptions had finally given way to magmatic eruptions as magma reached the surface. These eruptions continued through the next day and night.[3] A brief hull was shattered by a tremendous eruption at about 8:00 a.m. on 8 May. A ground-hugging cloud of incandescent lava particles, suspended by searing turbulent gases called a pyroclastic surge, moved at hurricane speed down the southwest flank of the volcano. The surge reached Saint-Pierre at 8:02 a.m. Escape from the city was virtually impossible. Almost everyone within the city proper—about 28,000 people—died, burned or buried by falling masonry. The hot ash ignited a firestorm, fueled by smashed buildings and countless cakes of rum. One survivor within the city was a prisoner (Ludger Sylbaris) who was locked in a windowless underground jail cell, later being discovered by rescue workers.[4] The only other survivors were a few tens of people caught within the margins of the cloud, who were all badly burned.[3] Explosive activity on 20 May resulted in another 2,000 deaths as rescuers, engineers and mariners brought supplies to the island. A powerful eruption on 30 August generated a pyroclastic flow that resulted in over 800 people killed. The eruption continued until 5 October 1905. Before the 1902 eruption, as early as the mid-19th century, signs of increased fumarole activity were present in the Étang Sec (Dry Pond) crater near the summit.[5] Relatively minor phreatic eruptions that occurred in 1792 and 1851 were evidence that the volcano was active and potentially dangerous. The indigenous Carib people were aware of the mountain's volcanic activity from previous eruptions in ancient times. 1902 eruption Eruptions began on 23 April 1902. In early April, excursionists noted the appearance of sulfurous vapors emitting from fumaroles near the mountaintop. This was not regarded as important, as fumaroles had appeared and disappeared in the past. On 23 April there was a light rain of cinders on the mountain's southern and western side, together with seismic activity. On 25 April the mountain emitted a large cloud containing rocks and ashes from its top, where the Étang Sec caldera was located. The ejected ash did not cause a significant amount of damage. On 26 April the soundings were heard from within the depths of the mountain. On Wednesday 7 May at around 04:00, activity increased; the clouds of ash caused numerous bolts of volcanic lightning around the mountain and both craters glowed reddish orange into the night. Through the day, people were leaving the city, but more people from the countryside were attempting to find refuge in the city increasing its population by several thousand. The newspapers still claimed the city was safe. News of the Soufrière volcano erupting on the nearby island of Saint Vincent reassured the people, who believed it was a sign that Mount Pelée's internal pressure was being relieved. However, Captain Marina Lefebvre's barque Orsolina left the harbor with only half of his cargo of sugar loaded, despite shippers' protests and under threat of arrest. Lefebvre, a native Neapolitan, reportedly told the port authorities, "I know nothing about Mt. Pelée, but if Vesuvius were looking the way your volcano looks this morning, I'd get out of Naples!"[6] Many other civilians were refused permission to leave town.[7] Governor Louis Mouttet and his wife stayed in the city, although he planned to make an excursion closer to the volcano in the morning. By the evening, Mount Pelée's tremors seemed to calm down again. Evacuees on Rue du Pavé, Fort-de-France after 1902 eruption, photographed by William H. Rau Relief map of the pyroclastic surges of Mount Peléee Map of St Pierre 1 January 1902 On Thursday morning 8 May, the night shift telegraph operator was sending the reports of the volcano's activity to the operator at Fort-de-France, claiming no significant new developments; his last transmission at 07:52 was "Allez", handing over the line to the remote operator. In the next second, the telegraph line went dead. The upper mountaintops ripped open and a dense black cloud shot out horizontally. A second black cloud rolled upwards, forming a gigantic mushroom cloud and darkening the sky in an 80 km (50 mi) radius. The initial speed of both clouds was later calculated to be over 160 km/h (100 mph).[8] The horizontal pyroclastic surge hugged the ground and sped down towards the city of Saint-Pierre, appearing black and heavy, glowing hot from within. It consisted of superheated steam and volcanic gases and dust, with temperatures exceeding 1,075 °C (1,967 °F). In under a minute it reached and covered the entire city, instantly igniting everything combustible. The cable repair ship, CS Grappler, floating offshore, was set on fire and sunk by the surge, with the loss of all hands.[9] The Canadian cargo liner Roraima was also set afire and reduced to a burning wreck by the pyroclastic flow. The wreck is still present offshore of Saint-Pierre. Twenty-eight of her crew, and all passengers except two (nine-year-old Margaret or Mary Stokes and her creole nurse or nanny), were killed.[7][10] A rush of wind followed, this time towards the mountain. Then came a half-hour downpour of muddy rain mixed with ashes. For the next several hours, all communication with the city was severed. Nobody knew what was happening, nor who had authority over the island, as the governor was unreachable and his status unknown. There are unnamed eyewitnesses to the eruption, probably survivors on the boats at the time of the eruption. One eyewitness said "the mountain was blown to pieces—there was no warning," while another said "it was like a giant oil refinery." One said "the town vanished before our eyes." The area devastated by the pyroclastic cloud covered about 21 km2 (8 sq mi), with the city of Saint-Pierre taking the brunt of the damage. At the time of the eruption, Saint-Pierre had a population of about 28,000, which had swollen with refugees from the minor explosions and mud flows first emitted by the volcano. Legend has previously reported that out of the 30,000 in the city, there were only two survivors: Louis-Auguste Cyparis, a felon held in an underground cell in the town's jail for wounding a friend with a cutlass, and Léon Compère-Léandre, a man who lived at the edge of the city. In reality, there were a number of survivors who made their way out of the fringes of the blast zone. Many of these survivors—whose names and stories were never recorded—were badly burned, and some died later from their injuries. A number made their way to Le Carbet, just south of Saint-Pierre behind a ridge that protected that town from the worst of the pyroclastic flow; survivors were rescued on the beach there by Martinique officials.[11] Remains of Saint-Pierre Compère-Léandre stated the following when asked about his survival: I felt a terrible wind blowing, the earth began to tremble, and the sky suddenly became dark. I turned to go into the house, with great difficulty climbed the three or four steps that separated me from my room, and felt my arms and legs burning, also my body. I dropped upon a table. At this moment four others sought refuge in my room, crying and writhing with pain, although their garments showed no sign of having been touched by flame. At the end of 10 minutes one of these, the young Delavaud girl, aged about 10 years, fell dead; the others left. I got up and went to another room, where I found the father Delavaud, still clothed and lying on the bed, dead. He was purple and inflated, but the clothing was intact. Crazyed and almost overcome, I threw myself on a bed, inert and awaiting death. My senses returned to me in perhaps an hour, when I beheld the roof burning. With sufficient strength left, my legs bleeding and covered with burns, I ran to Fonds-Saint-Denis, six kilometers from Saint-Pierre.[7] One woman, a housemaid, also survived the pyroclastic flow but died soon after.[citation needed] She said that the only thing she remembered from the event was sudden heat. She died very shortly after being discovered. A third reported survivor was Havivra Da Ifrile, a 10-year-old girl who had rowed to shelter in a cave.[12] Included among the victims were the passengers and crews of several ships docked at Saint-Pierre. Remains of the Roraima before it sank At about 12:00, the acting governor of Martinique sent the cruiser Suchet to investigate what had happened and the warship arrived off the burning town at about 12:30. The fierce heat beat back landing parties until nearly 15:00, when the captain came ashore on the Place Bertin, the tree-shaded square with cafés near the center of town. Not a tree was standing; the denuded trunks, scorched and bare, lay prone, torn out by the roots. The ground was littered with dead. Fire and a suffocating stench prevented any deeper exploration of the burning ruins. May 14, 1902 remains of victims Remains of victims of the 1902 disaster Mt. Pelée (View of street next to Caminade's store, St. Pierre, Martinique) (4544943822) Views of St. Pierre, ruins Desolate City of the Dead, St. Pierre, Martinique, F. W. I Main Street, Le Morne-Rouge, after the August 30 eruption Meanwhile, a number of survivors had been plucked from the sea by small boats; they were sailors who had been blown into the water by the impact of the blast, and who had clung to wreckage for hours. All were badly burned. In the village of Le Carbet, shielded from the fiery cloud by a high promontory at the southern end of the city, were more victims, also badly burned; few of these lived longer than a few hours.[citation needed] The area of devastation covered about 20 km2 (10 sq mi). Inside this area, the annihilation of life and property was total; outside was a second, clearly defined zone where there were casualties, but the material damage was less, while beyond this lay a strip in which vegetation was scorched but life was spared. Many victims were in casual attitudes, their features calm and reposeful, indicating that the eruption blast had reached them without warning; others were contorted in anguish.[citation needed] The clothing had been torn from nearly all the victims struck down outdoors. Some houses were almost pulverized; it was impossible even for those familiar with the city to identify the foundations of the city landmarks. The city burned for days. Sanitation parties gradually penetrated the ruins, to dispose of the dead by burning; burial was not possible given the number of dead. Thousands of victims lay under a shroud of ashes, heaped in windrows metres deep, caked by the rains; many of these bodies were not retrieved for weeks, and few were identifiable. The United States quickly offered help to Martinique's authorities. On 12 May, U.S. President Theodore Roosevelt instructed the secretaries of war, navy, and treasury to start relief measures at once.[13] Multiple U.S. ships were dispatched to the island with haste, namely the cruiser Cincinnati, lying at Santo Domingo; the Dixie, a converted freighter which carried Army rations, medical supplies and doctors;[4] and the Navy tug Potomac at San Juan, Puerto Rico. President Roosevelt asked Congress for an immediate appropriation of \$500,000 for emergency assistance to the victims of the calamity. Roosevelt said: "One of the greatest calamities in history has befallen our neighboring island of Martinique ... The city of St. Pierre has ceased to exist ... The government of France ... informs us that Fort-de-France and the entire island of Martinique are still threatened. They therefore request that, for the purpose of rescuing the people who are in such deadly peril and threatened with starvation, the government of the United States may send as soon as possible the means of transporting them from the stricken island." The U.S. Congress voted for \$200,000 of immediate assistance and set hearings to determine what larger sum might be needed when the full nature of the disaster could be learned. In an appeal for public funds, Roosevelt empowered postmasters to receive donations for relief of the victims. A national committee of prominent citizens also took charge of chartering supply ships, Canada, the UK, Germany, France, Italy, Denmark, Japan, Russia and the Vatican also offered help. The volcanic spine of Mount Pelée On May 20, a second eruption similar to the first one in both type and force obliterated what was left of Saint-Pierre, killing 2,000 rescuers, engineers, and mariners bringing supplies to the island.[14] During a powerful eruption on August 30, a pyroclastic flow extended further east than the flows of May 8 and 20. Although not quite as powerful as the previous two eruptions, the August 30 pyroclastic flow struck Morne Rouge, killing at least 800.[15] Ajoupa-Bouillon [16] (250 fatalities),[15] parts of Basse-Pointe (25 fatalities), and Morne-Capot (10 dead). [15] A tsunami caused some damage in Le Carbet.[16] To date, this was the last fatal eruption of Mount Pelée.[15] Beginning in October 1902, a large lava spine grew from the crater floor in the Étang Sec crater, reaching a maximum width of about 100 to 150 m (300 to 500 ft) and a height of about 300 m (1,000 ft). Called the "Needle of Pelée" or "Pelée's Tower", it grew 15 m (50 ft) a day, achieving more or less the same volume as the Great Pyramid of Egypt. After 5 months of growth, the unstable mass collapsed into a pile of rubble in March 1903.[17] The eruption eventually ended on October 5, 1905.[11] Southern face of Mount Pelée's lava spine showing the smoothly extruded eastern side The study of the causes of the disaster marked the beginning of modern volcanology with the definition and the analysis of the deadliest volcanic hazard: pyroclastic flows and surges, also known as nuées ardentes (Fr: burning clouds). Eruptions of a similar type are now known as "Peléan eruptions." Among those who studied Mount Pelée were Antoine Lacroix and Angelo Heilprin. Lacroix was the first to describe the nuée ardente (pyroclastic flow) phenomenon.[18][19] The disaster was quickly published by modern means of communication (citation needed) It brought to the attention of the public and governments the hazards and dangers of an active volcano. The Eruption of Mount Pelée - 1902 French film by Georges Méliès List of volcanic eruptions 1500–1999 List of volcanic eruptions by death toll 1902 eruption of Santa Maria 1951 eruption of Mount Lamington ^ a b c d "Pelée". Global Volcanism Program. Smithsonian Institution. Archived from the original on 4 August 2020. Retrieved 25 January 2020. ^ Tilling, Robert I.; Kauahikaua, James P.; Brantley, Steven R.; Neal, Christina A. (2014). "The Hawaiian Volcano Observatory—A Natural Laboratory for Studying Basaltic Volcanism". Characteristics of Hawaiian Volcanoes. Government Printing Office, p. 2. 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The ancient Mediterranean island of Thera (now Santorini, Greece), for example, experienced a catastrophic volcanic eruption that eradicated the entire Minoan civilization around 1600 B.C., according to a 2020 study published in the journal Proceedings of the National Academies of Sciences. But exactly how many lives were lost? We'll never know. However, thanks to historical records and journals, historians can at least estimate the number of fatalities linked to disasters that occurred in the common era. According to such records, the following natural disasters are some of the deadliest of all time. You may like The A.D. 1138 Aleppo earthquakeThe 13th-century citadel of Aleppo in Syria has been listed since 1986 as a UNESCO World Heritage Site. (Image credit: DEA / C. SAPPA/De Agostini via Getty Images)On Oct. 11, 1138, the ground under the Syrian city of Aleppo began to shake. The city sits on the confluence of the Arabian and African plates, making it prone to tremors, but this one was particularly violent. The magnitude of the quake is lost to time, but contemporary chroniclers reported that the city's citadel collapsed and houses crumbled across Aleppo. The resulting death toll is estimated at around 230,000, but that figure comes from the 15th century, and the historian who reported it may have conflated the Aleppo quake with one that occurred in what is now the modern-day Eurasian country of Georgia. The eruption of Mount Pelée - 1902 French film by Georges Méliès List of volcanic eruptions 1500–1999 List of volcanic eruptions by death toll 1902 eruption of Santa Maria 1951 eruption of Mount Lamington ^ a b c d "Pelée". Global Volcanism Program. Smithsonian Institution. Archived from the original on 4 August 2020. Retrieved 25 January 2020. ^ Tilling, Robert I.; Kauahikaua, James P.; Brantley, Steven R.; Neal, Christina A. (2014). 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