

## GOD AND NATURAL DISASTERS: REFLECTION AND DISCUSSION



## WHO AM I?

- ▣ Geologist (someone who studies the earth)
- ▣ Working mainly on mineral resources and groundwater
- ▣ Other interests - Mars research, planetary geology, planetary exploration
- ▣ Previously worked in exploration industry in Australia, South America and elsewhere
- ▣ President Mars Society Australia



### DISASTERS, SUFFERING AND THE QUESTIONS THEY RAISE

- Human disasters – technical failure, injustice, conflict
- Biological suffering – aging, disease, natural selection
- Physical disasters – earthquakes, floods, eruptions
  - Why does God allow them to happen?
    - Judgment on sin?
    - Consequences of the fall?
  - Is this is best of all possible worlds?



### CULTURALLY INFLUENCED QUESTIONS?

- Cartesian separation of humanity from the world?
  - Mastery over nature?
  - Expectations of a perfect world?



Under the Tsunami  
wave off Kanagawa  
by Katsushika Hokusai  
1829-1833

## LISBON EARTHQUAKE AND TSUNAMI

### • The Prophecy

- 1752 a nun told her confessor that there would be a terrible event on All Soul's Day

### • The event

- November 1st 1755.
- Estimated magnitude 9.0
- Felt in Scandinavia, Italy, north Africa,
- Tsunami reached England, W. Indies
- 70-100 thousand dead, 200 thousand homeless



### • Responses

- The wrath of God?
  - The sins of king Jose?
  - The millions of Indians slaughtered in the lust for gold?
  - Requitul for the Inquisition (the Inquisitional Palace destroyed by fire)?
- "Like an accident in the street. God may be the ultimate cause, but that does not mean the earthquake dead had been executed on official Divine instructions" (anon.)
- Rousseau - death toll was due to the un-natural practice of living in cities
- Voltaire - contra Leibniz clearly this was not the "best of all possible worlds"
- Kant developed the philosophy of the sublime (and a theory of seismology)

## LISBON EARTHQUAKE AND TSUNAMI (cont.)

### • Reconstruction

- Martial law
- "Bury the dead and heal the living" (Sebastião José de Carvalho e Melo)
- Debris cleared in a year
- Lisbon rebuilt over 15 years, including first earthquake proof buildings in western world
- Research by Melo into details of earthquake and its consequences (beginning of scientific seismology)
- Input from visiting scholars from the Tokogawa Shogunate (despite cultural isolation of Japan)



<http://www.phenomena.org.uk/lisbon.htm>

[http://en.wikipedia.org/wiki/1755\\_Lisbon\\_earthquake#Relief\\_and\\_reconstruction\\_efforts](http://en.wikipedia.org/wiki/1755_Lisbon_earthquake#Relief_and_reconstruction_efforts)

### WHAT DEFINES A NATURAL DISASTER?

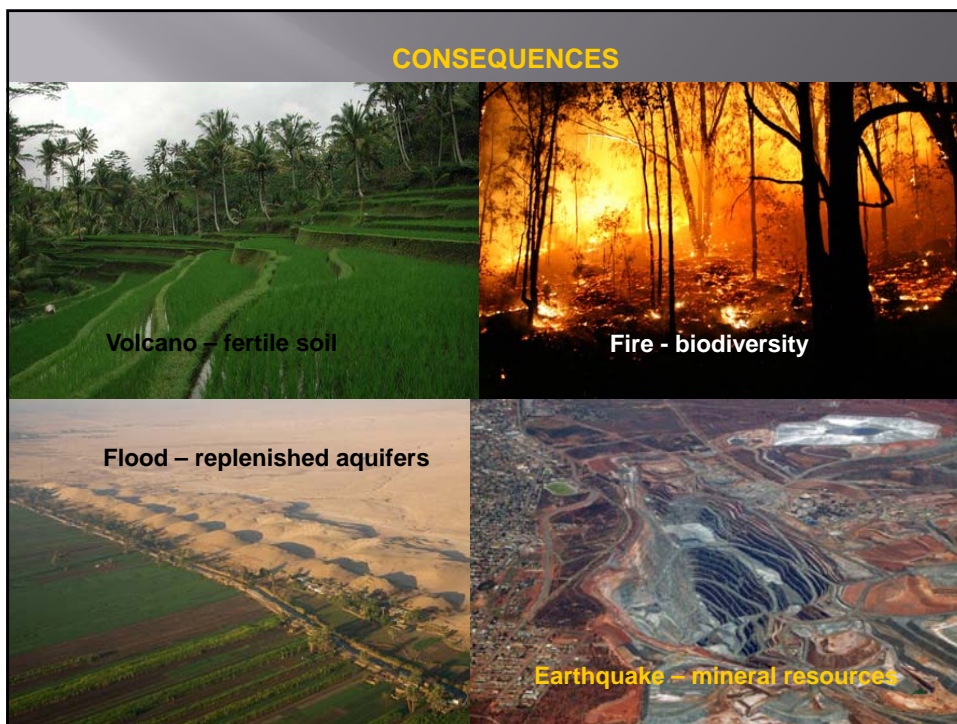
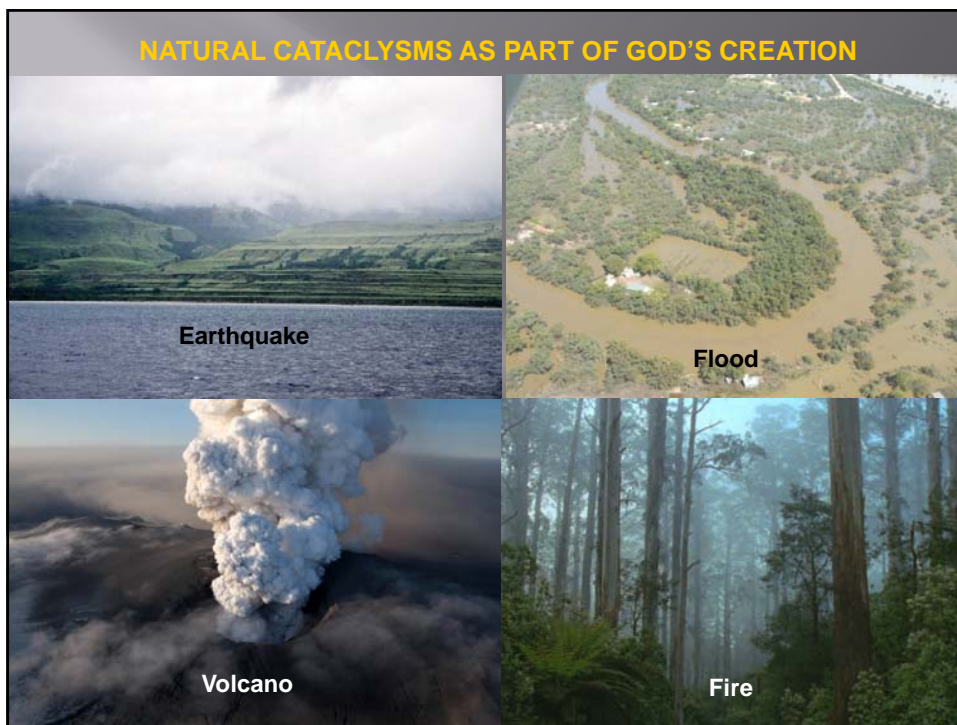
- Is it a natural disaster if people are not involved?
- Tunguska meteor 1908 – 10-15 megatonnes, no deaths or injuries – a phenomenon
- Chelyabinsk meteor 2013 – 0.5 megatonnes, 1200 injuries – a disaster
- Perhaps we need a different terminology
- The events may be cataclysmic but necessarily disastrous



### GEOLOGICAL PERSPECTIVE

- Cataclysms have always been part of the Earth's history
- They are often creative, or have creative aspects
- Good things (i.e. natural resources) come from them, things which are gifts of God's providence
- Civilisation built in active tectonic zones
- People often chose to live in these areas



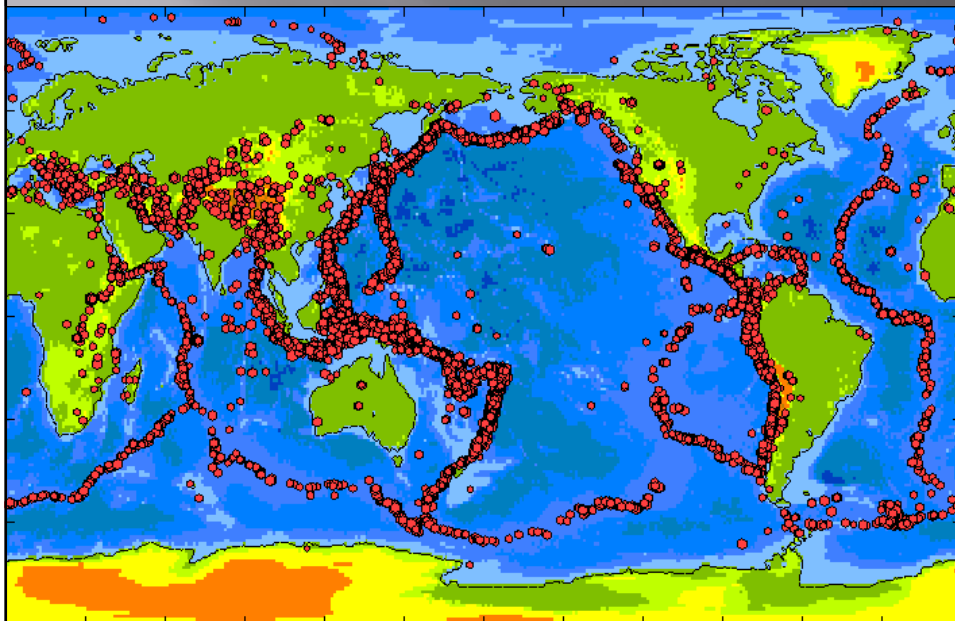


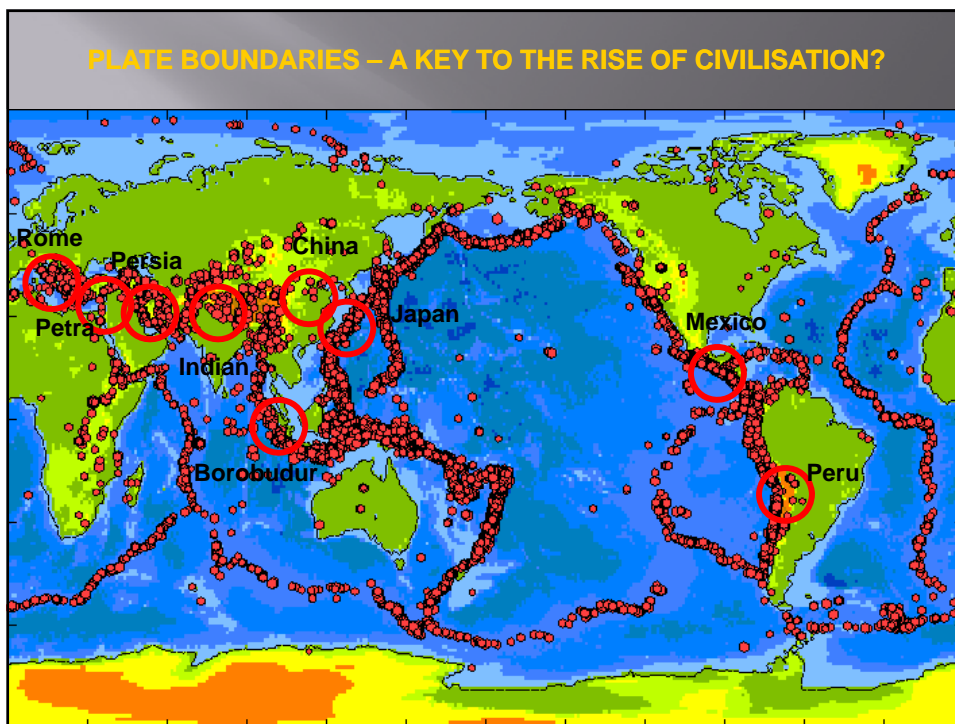
**CREATION BY CATACTYSM**

Earth + Theia = Moon



**PLATE BOUNDARIES**





### CALIFORNIA

- 38 million people (nearly twice Australia)
- 424,000 km<sup>2</sup> (twice Victoria, half NSW)
- Economy US\$2.2 trillion (1.5 times Australia)

### WHY LIVE IN CALIFORNIA?

The collage features several images: a lush green forest, a gold coin inscribed with 'CALIFORNIA GOLD' and the number '14', a map of California titled 'California Natural Wonders' highlighting landmarks like Mt. Shasta, Lake Tahoe, and Death Valley, a suspension bridge with a cargo ship named 'HATSU' in the water, and an oil pumpjack in a desert landscape.

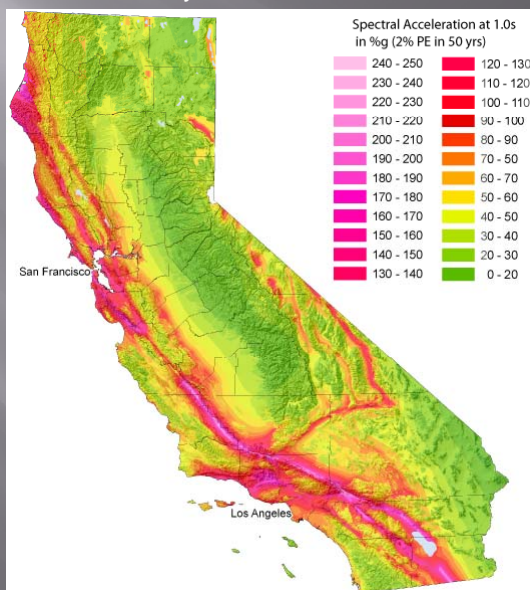


### ONE SLIGHT PROBLEM.....

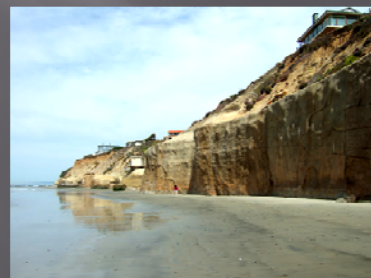


### THE PROBLEM AND THE BLESSING

With tectonic activity California would not be as attractive

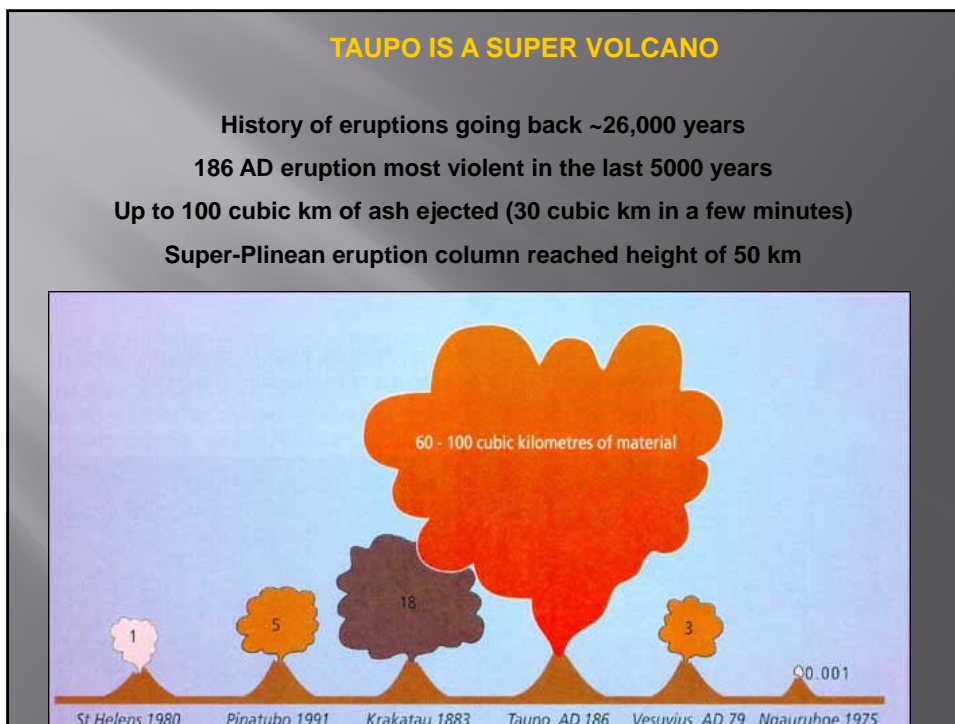
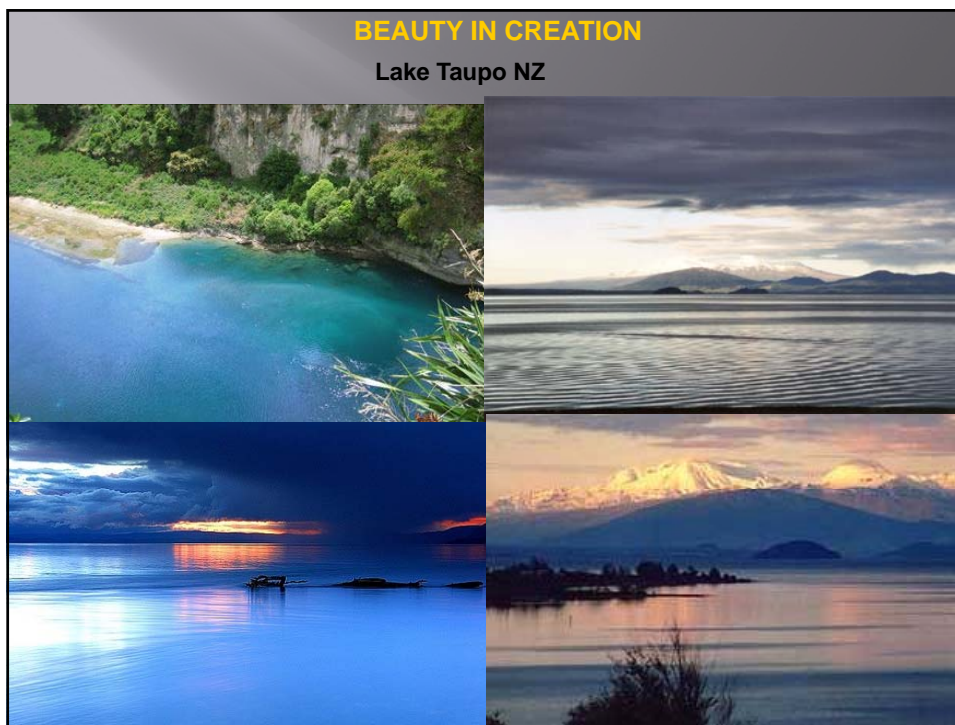


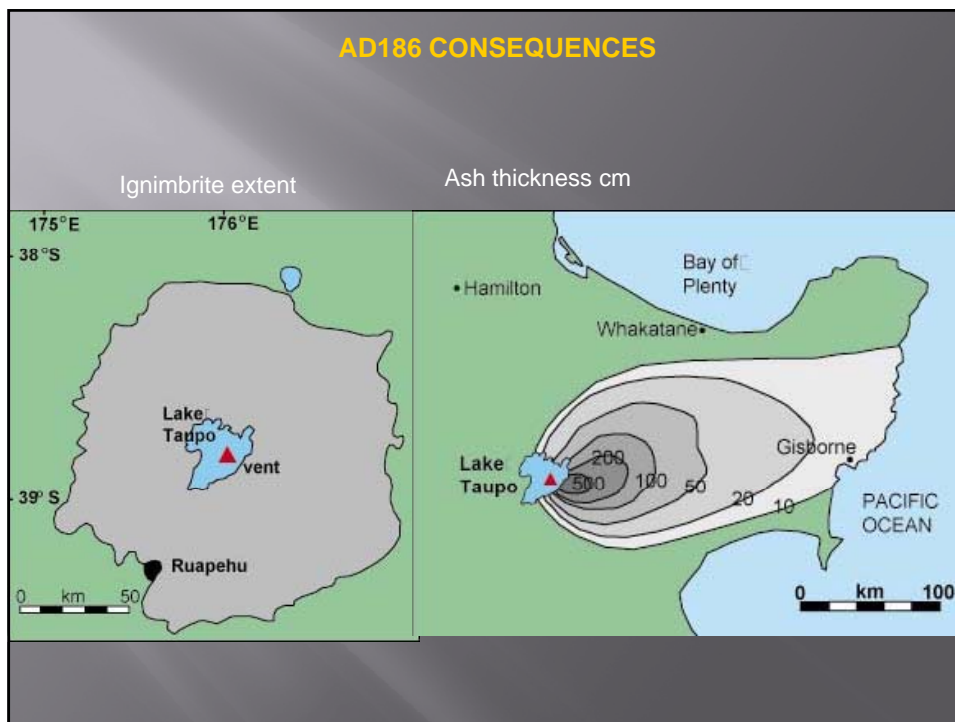
PEOPLE INDIVIDALLY CHOOSE TO LIVE IN CATACTISM – PRONE AREAS



JUSTICE AND LOCATION







### SUMMARY

- Cataclysmic events are an integral part of the created world
- They are creative and beneficial as often as they are destructive
- Cataclysmic events only become disasters when people are caught up in them
- However people chose to live in dangerous places – they find them desirable
- Areas subject to such events appear conducive to the rise of civilisation
- Even though at times the marginalised are pushed to live in dangerous areas



*... it is not a few deaths roving the world around him that make (beings) miserable. It is a bent (being) that would blacken the world... I do not think the forest would be so bright, nor the water so warm, no love so sweet if there were no danger...*

Lewis



*I love a sunburnt country,  
A land of sweeping plains,  
Of ragged mountain ranges,  
Of drought and flooding rains,  
I love her far horizons,  
I love her jewel sea,  
Her beauty and her terror –  
The wide brown land for me.*

McKellar



## DISCUSSION

- What says the Scriptures?
- Issues for discussion



### BIBLE VERSES

- **Genesis 19:23-25** Fire falls on the Cities of the Plain in judgment
- **Exodus 19:16-18** Storm & earthquake point to the presence of God BUT
- **1 Kings 19:11-13** God is absent from the fire and the wind and the earthquake
- **Job 1:19** A storm is sent by Satan to try Job BUT
- **Job 38:1** God speaks to Job out of the storm
- **Job 9:13-19, 26:12** God subdues the sea monster (Rahab) that opposes him during creation (BUT is God worse than the monster he destroys?)
- **Ps. 74:14** The many-headed sea monster (Leviathan) is crushed during creation BUT
- **Job 3:8** Leviathan still lurks at the fringes of the world, possibly causing eclipses
- **Job 41:1-34** Leviathan is one of God's creatures, awesome and sublime
- **Ps. 104:25-26** Leviathan is one of God's creatures at play in the sea, bringing glory to God.
- **Job 40:15-24** Behemoth is one of God's creatures, awesome and sublime
- **Matthew 7:24-27** Building on sand (i.e. in a wadi) rather than on rock is foolishness
- **Luke 13:1-7** Catastrophe may not be judgment but is always a warning

### FOR DISCUSSION

1. **Providence:** if what we call natural disasters are also part of God's providence, providing us with soil, air, water, and mineral resources, how should we regard them?
2. **Creation:** If such events have been part of creation from the beginning, what does Genesis 1 mean when it talks about creation being "good"?
3. **Judgement:** Under what circumstances could we consider a natural disaster to be a judgement of God?
4. **Randomness:** If some tragedies are random what is our response?
5. **Satan:** Under what circumstances could we consider a natural disaster to be a trial sent by Satan?
6. **Human sin as a cause of natural disasters:** In what way can human sin lead to or exacerbate natural disasters?
7. **Human responsibility:** In what way does the command to "subdue the earth" refer to preparing for and managing natural disasters? Will we one day control volcanoes?
8. **Natural cycles:** Churches pray for an end to drought or deliverance from flood. But these in Australia are the result of natural cycles. How then should we pray?
9. **Justice:** What is the just response to people to whose to live in cataclysm – prone areas? What should be the response to those forced by circumstances to do so?