

Plato's Atlantis Allegory and the Sundaland Hypothesis

By Bill Lauritzen

1.0 Background

2.0 The One-Ocean World

3.0 Sundaland

Preface

Most scholars view the Atlantis narrative as a philosophical device or allegorical tale rather than a historical account. However, while acknowledging the truth of these interpretations, this book will explore the possibility that the Atlantis narrative, although serving as a cautionary tale, probably drew some inspiration from various historical sources, including certain narratives recorded on Nile River Valley temple walls. By taking “a hard look” at both Greek and Egyptian source material, in addition to modern geological and geographical evidence, we will explore Sundaland geological changes as one of the possible inspirations for Plato's Atlantis myth.

1.0 Background

One should take a hard look at the possibility that Plato really did use some Egyptian source material with an historical content.

1.1 Plato's Math

I had no special interest in Plato's story until about 1995, a few years after an Hawaiian eclipse adventure. I had been substitute teaching and spending my free time writing several mathematics papers. One of my papers discussed a series of numbers which are called "highly composite numbers." The series begins: 2, 4, 6, 12, 24, 36, 48, 60, 120, 180, 240, 360, 720, 840, 1260, 1680, 2520, 5040, ...

I suggested that these numbers are quite useful socially, as they have so many factors, more factors than any smaller number, which is probably why the Babylonians used them for their time-keeping and calendar systems. I stated that they allowed things to be shared easily, and, as such, could lubricate social interaction.¹

I posted my paper, "The Social Applications of Highly Composite Numbers,"² on an Internet newsgroup, and it received a lot of attention. Doug Hofstadter, a mathematician and writer of popular books on thinking and artificial intelligence, said the paper was "interesting," and he asked me several questions about it. Martin Gardner, a noted scholar, said my paper was "eminently publishable" and we met later at his North Carolina home. Also, about this time, one scholar from Austria, Meyer Rainer, wrote to me and said his Ph.D. dissertation had been concerning these numbers, and did I know that Plato discussed one these numbers (5040) as being the ideal number of citizens for a city-state.

¹ I also found that one famous Indian mathematician, Ramanujan, had also studied these numbers. In addition, I wrote a computer program to find these numbers.

² <https://earth360.com/math-versatile.html>.

1.2 Plato's Ancestor Solon

Plato had said, “The number of our citizens shall be 5040—this will be a convenient number ... Every legislator ought to know so much arithmetic as to be able to tell what number is most likely to be useful to all cities...” I was amazed to find Plato discussing some of the same issues that I had discussed in my paper.³ However, my mathematical interests were derailed when I read Plato's dialogs on Atlantis.⁴

According to Plato's *Timaeus* and *Critias* dialogs,⁵ a famous Athenian statesman, Solon (c. 630-560 BCE) visits Egypt and talks with the priests at Sais, on the Nile delta. This was then the capital of Egypt and where he learned about “Atlantis.”

Solon had a brother named Dropides, who was an ancestor (six generations removed) of Plato. This family connection, spanning about five to six generations, provides a plausible channel through which ancient Egyptian knowledge could have reached Plato.

Solon's travels to Egypt are documented. For example, Laërtius, author of the *The Lives and Opinions of Eminent Philosophers*, quotes a letter from Thales, “... for Solon the Athenian and I ... sailed to Crete to investigate the history of that country, and to Egypt for the purpose of conferring with the priests and astronomers who are to be found there.”

Plato's family connection, combined with Solon's reputation and travels, supports the argument that the Atlantis story may have roots in actual Egyptian sources, rather than being a

³ Plato helped lay the foundation for western philosophical thought. He found these numbers useful for the same reason that the Babylonians did: they have a great number of factors.

⁴ I remembered hearing about Atlantis when I was in middle school, and my history teacher said that it was a lost continent and that nobody had ever found it. I remember thinking that I wanted to find it.

⁵ Plato's dialogs and other works of classical scholars mentioned here are available online for free at Project Gutenberg.

complete fabrication by Plato. While we must approach this critically, it opens up possibilities about an inspiration for the Atlantis allegory.

One of the priests in Sais tells Solon the story of an ancient civilization that was destroyed 9000 years earlier. This story, which he says is documented on temple walls, describes a marvelous civilization, a civilization with a large city that had a royal palace made of ivory, gold and silver, a city with bridges, canals, harbors, ships, fountains, temples, baths and even a track for racing horses. Also, it tells of some “Sea People,” who came into the Mediterranean and battled with the Egyptians. The Athenians then helped defeat the Sea People in battle and drove them from the Mediterranean. However, Plato’s story, as we will see, ends abruptly.

One possible reason it ends so abruptly can be found in the dialog *Critias*. The person Critias says he met an old man of aged 90 who told him, “ ... if Solon had only, like other poets, made poetry the business of his life, and had completed the tale which he brought with him from Egypt, and had not been compelled, by reason of the factions and troubles which he found stirring in his own country when he came home, to attend to other matters, in my opinion he would have been as famous as Homer or Hesiod, or any poet.” This suggests that it was not Plato who ended the Atlantis story abruptly, but rather Solon.

1.3 Sea Peoples

Further supporting and historical inspiration (more support later), Egyptian hieroglyphs provide many records of “Sea Peoples” invasions, including:

Ramesses II (1279-1213 BC): Inscriptions of battles against sea raiders.

Merneptah (1213-1203 BC): *The Great Karnak Inscription* and the *Athribis Stele* describing

battles against the Sea Peoples.

Ramesses III (1186-1155 BC): Detailed accounts in the *Medinet Habu* inscriptions of a significant victory over the Sea Peoples around 1175 BC, along with mentions in the *Papyrus Harris I* and the *Rhetorical Stela*.

An inscription by Ramesses II recorded their raids, "... they came boldly sailing in their warships from the midst of the sea, none being able to withstand them." Later, according to his account, Ramesses II defeats them. He captures some of them and uses some of them as his personal bodyguards, and he uses some of them in battle against the Hittites. However, contrary to Plato's account, none of these hieroglyphs mention the Greeks helping the Egyptians to battle them.

Scholars today think that the Sea Peoples were a confederation of seafaring raiders who attacked regions in the Eastern Mediterranean during the Late Bronze Age collapse (1200-900 BC). Their origins and identity are highly debated, but assumed to be with the area of the Mediterranean, with possible links to the Aegean, Anatolia, Cyprus, Sicily, Sardinia, and the Levant.

Some scholars support a "migration theory" suggesting that the Sea Peoples were displaced from their homelands by factors such as climate change, famine, and political instability, leading to raids and resettlement in new territories.⁶

The priest (via Solon and Plato) continues, "Afterwards there occurred violent earthquakes and floods; and in a single day and night of misfortune ... the island of Atlantis ... disappeared into the depths of the sea." The location of Atlantis is said to be "beyond the straits

⁶ This theory is contested, with some arguing for internal rebellions or economic collapse as contributing factors.

of Gibraltar,” which is commonly assumed to be in the Atlantic Ocean. Yet during the middle of the last century scientists thoroughly mapped the ocean floor between Europe and the New World and found no evidence for a sunken continent.

1.4 Atlantis Time Line

Many people have had some exposure to Atlantis by way of shoddy documentaries. On these shows, there is sometimes mention of ideas such as Alien visitations, atomic power, levitating rocks, genetic engineering and past lives. Since no one seems to know where Atlantis really was, why not just “channel” the information from an extraterrestrial source? Why not go into a “trance state” and contact your past life on Atlantis? Unfortunately, producers use these extraordinary and unsubstantiated claims to receive higher ratings. However, “Extraordinary claims require extraordinary evidence.”

Here are a few highlights from the occult, the scholarly and the scientific, along with my comments.⁷

9500 BC: according to Plato, the date when Atlantis was destroyed by earthquakes and floods.

560 BC: Solon visits Egypt and hears from the priests at Sais, then the capital of Egypt, the story of an ancient civilization.

360 BC: Plato writes Solon’s story and calls the civilization Atlantis.

300 BC-100 AD: Various classical Mediterranean authors such as Crantor, Strabo, Diodorus Siculus, Pliny the Elder and Plutarch mention Atlantis. Belief in the lost continent is divided.

1553: A Spaniard, Francesco Lopez de Gomara, makes the suggestion that Atlantis was in

⁷ I published an earlier version of this timeline on Wikipedia around 1999, and it was there for some time. These days (2024), the Atlantis Wikipedia page has been expanded greatly, and I have drawn from it to include a few things listed here.

America. However, in many ways America does not match the description given by Plato.

1860: Abbe Brasseur de Bourbourg, a French scholar, travels through Middle America for many years. He feels that Mayan glyphs document the volcanic destruction of Atlantis. I think Brasseur was right about the Mayan glyphs documenting destruction: the destruction of local villages and cities in Mayan America by the many volcanoes and earthquakes there.

1879: A famous Mayan archeologist, Edward Herbert Thompson, defends the idea that the Maya were descendants of an Atlantean race.

1880s-1890s: Augustus Le Plongeon publishes *Sacred Mysteries Among the Mayans and Quiches* (1886) and *Queen Moo and the Egyptian Sphinx* (1896) after ten years of study in the Yucatan with his wife. He claims that Egyptian civilization, as well as all other civilizations, came from the Mayan. He states that Queen Moo was originally from Atlantis (which Le Plongeon calls Mu and situates in the Atlantic Ocean), but when Queen Moo seeks refuge there, she finds it gone, and goes on to Egypt where she was known as Isis and founded the Egyptian civilization. Le Plongeon's work is interesting, but he made some fundamental errors. Although there may have been limited contact between Egyptian and Mayan cultures, a point that has yet to be proved, it appears that the two cultures largely evolved separately.

1883: Ignatius Donnelly, a former member of the US Congress writes *Atlantis: the Antediluvian World*, a popular book that went through fifty editions and is still in print after 100 years. He claims Atlantis was the source of all cultures of the world. Many scholars call his approach slanted and find technical errors in his work. Donnelly was a lawyer and took a lawyer's approach to his writing. Instead of presenting the pros and cons, he stated only the pros.

1880s: Madam Blavatsky, sometimes called the Grandmother of the “New Age” movement, includes Atlantis in her occult and bizarre reconstruction of history. For example, because of humanity’s widespread preoccupation with dragons, she believes that humans existed at the time of the dinosaurs. In 1908, Rudolf Steiner, a cohort of Blavatsky, continues with his bizarre version of Atlantis. He eventually breaks away from Blavatsky, and forms Waldorf schools.

1909: In an anonymous letter to the London Times, classical scholar K. T. Frost points out similarities between the Mediterranean culture of Crete (also known as Minoan after King Minos who lived on Crete) and Atlantis. Although there are similarities, we shall see that Plato’s description of the Lost Continent does not match well with that of ancient Crete.

1930s: Edgar Cayce becomes famous in the USA for going into a trance and then prescribing remedies for ill people. During these trance states he sometimes mentions living in Atlantis in a past life. He predicts that a mysterious “Hall of Records” will be found near the Sphinx describing Atlantis. He also predicts Atlantis would rise again from the ocean. He makes mostly bizarre guesses that are often interpreted by followers as somehow correct. For example, when certain symmetrical rocks, natural formations called “beach rocks,” were found near Bihimi Island in the Bahamas, followers claimed that these were evidence of Atlantis “rising again.”

1931: Author James Churchward writes, *The Lost Continent of Mu*. He claims to have seen “sacred” tablets in India, which described the creation of the world and the lost continent, which he calls Mu. He places Mu in the Pacific. His work seems to be largely derived from that of Le Plongeon. No one ever sees these ancient tablets, and many people wonder if they

really ever existed. Although interesting to read, his work remains in the category of very questionable speculation.

1939: A Greek archeologist, Spyridon Marinatos, suggests that the volcanic destruction of the island of Thera, (sometime around 1600-1500 BC⁸), and the resulting tsunami, was what caused the collapse of the Minoan civilization. Then, in 1950, he suggests that Atlantis derives from this event. His paper is not published in English until 1969. Many scholars now accept Thera as a possible location, however, we shall also see that Plato's description is not a good match with Thera.

1954: L. Sprague de Camp first publishes *Lost Continents*, a Dover classic. However, de Camp is better known for his "Conan: The Barbarian" science fiction. De Camp is a firm skeptic when it comes to Atlantis. He flatly states that Plato made up the story. He also says that Wegener's Continental Drift Theory is "very doubtful."⁹

1973: Geologist Dorothy Vitaliano writes *Legends of the Earth* and includes a chapter on Atlantis. She states that there is nowhere in the Atlantic Ocean that Atlantis could have existed. An excellent scientific book, even though the geology is somewhat dated.

1974: James Bramwell writes *Lost Atlantis*, one of the most rational and balanced accounts of the controversy. Though parts of it are dated, his book often amazes one with its insight and depth.

1975: Indiana University hosts a panel discussion "Atlantis: Fact or Fiction," including several notable scholars. While most of them dismiss the Atlantis story as pure fiction, John V. Luce (Associate Professor of Classics, Dublin University) presents the view that Plato's Atlantis is

⁸ <https://www.sciencedaily.com/releases/2022/05/220502142621.htm>

⁹ A 1970 edition, however, corrected this statement.

part fiction, part fact, and inspired by ancient legends.

1960s-1970s: A Greek seismologist, A. G. Galanopoulos, also tries to link Atlantis to the volcano on the island of Thera. He claims that an error in translation of Plato's text multiplied all numbers by 10, and that is why Thera is ten times smaller than Plato described. Scholars (Vitaliano, Luce) have effectively refuted this "ten error." Also, there are many other mismatches between Thera and Atlantis as described by Vitaliano.¹⁰

1995: On the Internet, I propose the hypothesis that geological events in South East Asia (SEA) could have been the inspiration for the Atlantis story. Two years later I travel to Sundaland of South East Asia to investigate this idea. (My visit to the live volcanoes of Krakatoa and Mount Merapi will be included in my next book, currently entitled, "Atoms and Souls: The Prehistoric Origins of Science and Religion." A draft of this book will also be posted on my website for comments and suggestions.)

1998: Arysio Nunes dos Santos posts an article on his website stating that Sundaland was Atlantis. Later, he publishes a book.

1998: Steven Oppenheimer writes *Eden in the East, The Drowned Continent of Southeast Asia*, which presents evidence that civilization began on Sundaland.

1999: I write my first book which suggests Sundaland was Atlantis. (It has been extensively revised and updated here.)

2004: Ulf Erlingsson proposes that the legend of Atlantis matches Ireland's geography, but the director of the National Museum of Ireland states that there is no archaeology supporting this.

¹⁰ Vitaliano, D. B., *Legends of the Earth: Their Geological Origins*, Indiana University Press, Bloomington, 1973.

2011: A team, led by Professor Richard Freund, working on a documentary for the National Geographic Channel, claims to find possible evidence of Atlantis in southern Spain, although Spanish scientists have dismissed this claim.

2015: Dhani Irwanto writes *Atlantis: The Lost City is in Java Sea*. He suggests that Atlantis was in Sundaland, specifically on a submerged island at the southern tip of Borneo near the province of South Kalimantan.

The many suggestions for an Atlantis location include (but are not limited to): an island-continent in the Atlantic, North Africa, America, Crete, Carthage, Southern Spain, South Africa, Malta, Central France, Tunisia, the Arctic, the Netherlands, Palestine, Nigeria, North Sea, Mexico, Greenland, Brazil, West Indies, Sweden, Morocco, Great Britain, Azores Islands, the Richat Structure in Mauritania, Antarctica, Peru, and Sundaland, Indonesia.

In sum, several thousand books on the subject of Atlantis have been written¹¹ and none of them has given a really satisfactory answer to the question of “Where was it?” or “What was it?” or “Did it exist”? In addition, oceanographic and geological research during the last several decades essentially have removed the possibility that a lost continent could have existed beneath what is the current Atlantic Ocean.

¹¹ Martin Gardner (1952) says a conservative estimate is “several thousand.” L. Sprague de Camp (1954) says “two thousand.” Charles Berlitz (1969) says 5,000 “books and pamphlets.” C. W. Ceram (1951) says “twenty thousand volumes.”

2.0 The One-Ocean World

2.1 The Greek Viewpoint

Eratosthenes, Strabo, and Herodotus offer valuable insights into ancient perceptions of the world's oceans. Their perspectives help us understand how the concept of a single, interconnected ocean, often referred to as Oceanus, was prevalent in ancient times. This is significant because it aligns with the idea that the Atlantic Ocean, as understood by the Greeks, might have been this unified body of water encompassing the globe and including Sundaland.

Eratosthenes (276–195/194 BCE), a Greek geographer and astronomer, became the Chief Librarian at Alexandria and is best known for calculating the Earth's circumference with extraordinary accuracy. He also wrote about India and the “Atlantic Sea.” Although Eratosthenes’ account did not come down to us, he is quoted by another Greek historian, Strabo (63–23 BCE) in *Geography*, Book XV, Chapter I:¹²

“The boundaries of India: on the north ... [the] Caucasus; on the west, the river Indus; the southern and eastern sides, which are much larger than the others, project towards the Atlantic Sea.”

¹² https://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0239%3Abook%3D15&utm_source=chatgpt.com

This view, the Atlantic encompassing the modern Indian Ocean—maybe named around 1515 by Europeans—aligns with Herodotus' (c. 484–425 BCE) earlier descriptions in his book, *Histories*, where he referred to Oceanus as a vast river encircling the Earth:

“The ocean flows all round the earth.” (Book II, Euterpe, 21)

“Beyond the Pillars of Hercules lies the ocean, they say ... it flows round the whole earth ...” (Book IV, Melpomene, 8)

“Beyond the Pillars, is what they call the Atlantic.” (Book I, Clio, 202)

These historical accounts indicate that the Greeks and Egyptians likely viewed the Atlantic as the single, vast ocean outside of the Mediterranean Sea. This understanding is crucial for the Sundaland Hypothesis, as it supports the notion that ancient civilizations could have considered Sundaland, now submerged, as part of the greater “Atlantic” world.

Moreover, it is instructive here to remember that the word “Atlantic” derives from the word “Atlas,” the God who held the heavens on his shoulders. When I visited Java in Indonesia, I was struck by the number of twin peaks found there that, when it was cloudy, which it was frequently, looked like shoulders holding up the heavens. (More on this later.)

2.2 Buckminster Fuller and Prehistoric Circumnavigation

Fuller's work provides a unique perspective that supports the Sundaland Hypothesis.¹³ His Dymaxion map, available online, can be arranged to depict the world as a single island in one

¹³ Fuller (1895-1983) was an extraordinary intellect known for his holistic approach to Earth's systems and innovative visualizations. He popularized terms such as "synergetics" and "Spaceship Earth" to foster systems thinking and designed the geodesic dome, hailed by the American Institute of Architects as “the strongest, lightest, and most efficient means of enclosing space yet devised by man.” Fuller was granted 28 United States patents, numerous honorary doctorates, and the Presidential Medal of Freedom. He was also an early advocate of renewable energy, promoting it long before it became widely recognized as important.

ocean. This aligns with the ancient Greek concept of Oceanus, a vast river encircling the Earth. This visualization helps conceptualize how ancient civilizations might have perceived and navigated the oceans as interconnected rather than separate bodies of water.

Ocean currents course through every corner of the globe, allowing any water particle to potentially travel to any part of the world. The 'one ocean' has been segmented into different names, just as we have partitioned the land masses into various nations. Thus, the ocean could be seen as a planetary circulatory system. Just as our bodies circulate blood, the Earth—or Gaia — circulates water.

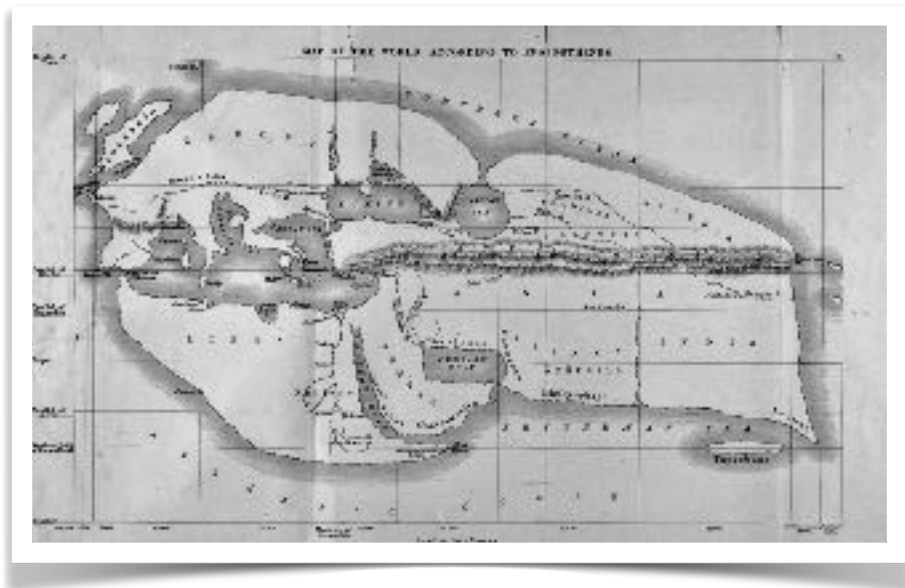
Fuller hypothesized that ancient seafaring civilizations had the capability to circumnavigate the globe. Fuller hypothesized that the Phoenicians, after leaving the Mediterranean, would have sailed south, rounding the African continent and crossing the Indian Ocean. They would then turn northward with the Japan Current and prevailing winds to transit China, Japan, and the Aleutian Islands to Alaska. From there, they could travel southward along the west coasts of both North and South America (following what is today called the “kelp highway”), then around the Horn using the “Roaring 40s” winds into the South Atlantic, and then the northward current would carry them along South America's east coast. The Atlantic Gulf Stream would carry them past Cape Hatteras, Nova Scotia, south of Greenland, Iceland, and Spitzbergen, eventually returning to the familiar lands of Scandinavia and the British Isles before reaching the Mediterranean.¹⁴ A comparison of this description with a NASA video on ocean currents reveals that Fuller's depiction is generally accurate.¹⁵

¹⁴ Fuller, *Critical Path*, p. 34-35.

¹⁵ “What are the Roaring Forties?” NOAA, <https://tinyurl.com/wh4fxkty>

Fuller's map projection is important for the Sundaland Hypothesis, as it supports the idea that the region now submerged in Southeast Asia (Sundaland) could have been considered part of the greater "Atlantic" world by ancient civilizations.

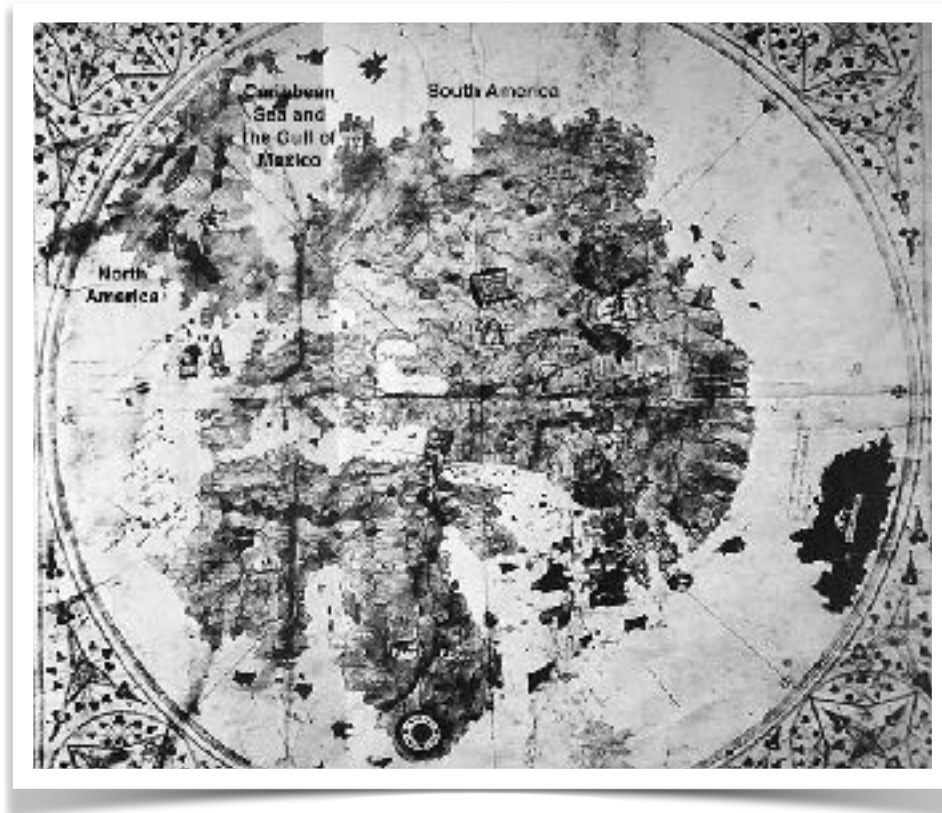
Early seafarers likely navigated close to the coastline, much like a novice swimmer would stick close to the pool edge. As their confidence and navigational skills grew, they would begin to make increasingly lengthy "shore-hugging leaps" and even traverse open ocean.



19th-century reconstruction of Eratosthenes' Map of the World, c. 194 BCE.

The world maps attributed to ancient scholars such as Hecataeus, Herodotus, and Eratosthenes were *reconstructed much later, by Eurocentric illustrators*, based on surviving texts. (See image of Eratosthenes' map.) Fuller thought the ancient seafarers knew the world was round, (after all, ships begin to dip below the horizon as they leave port). Fuller thought these maps depicted the Americas, although to our modern eyes these maps look highly distorted.

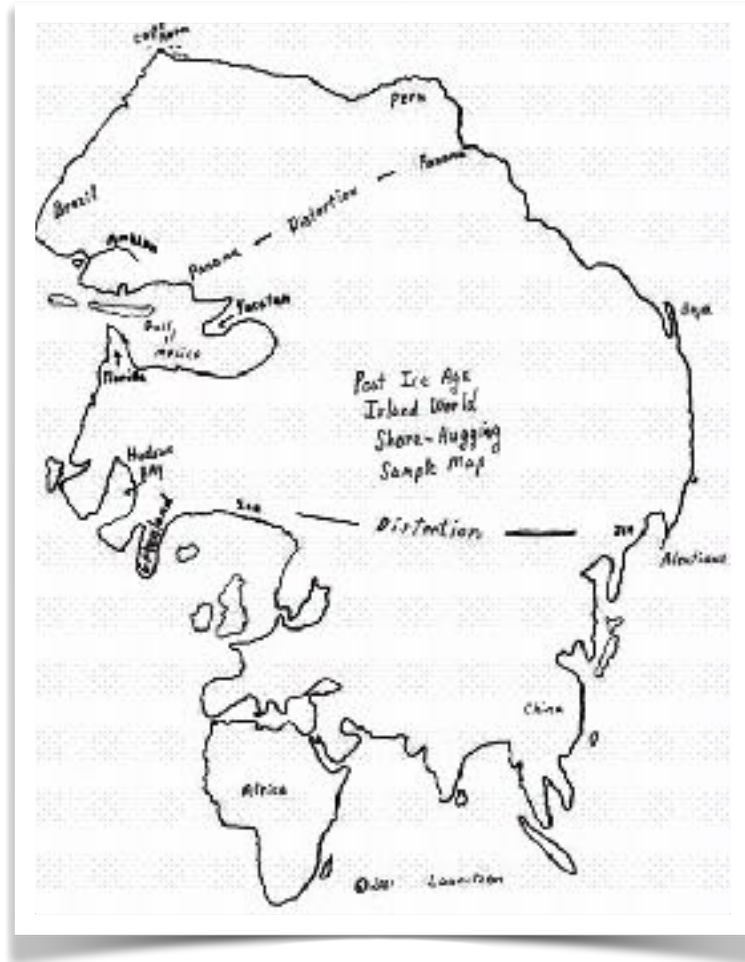
Following Fuller, on the *De Virga World Map* (1411-1415), I have added the Caribbean Sea, the Gulf of Mexico and South America to the map. (See image.)



De Virga World Map (1411-1415) re-interpreted as a world map with the Americas showing.

Even though it may be hard for us to recognize these reconstructions as world maps, envision an ancient vessel tracing the shoreline, marking down rivers, bays, and inlets as they proceeded. Left and right turns on the journey would correspond to the same on the map. Periodically, they would land to forage, hunt, or trade with local populations. After a long enough journey, they would end up back where they started, demonstrating a single continuous coastline encircling the ocean.

To illustrate this, I created my own map showing the continents as one island surrounded



One-world-island map drawn by author.

by one ocean. (See image). Remember, although all maps have inaccuracies—they can still be useful. This one represents land in relation to sea, allowing one to navigate along the coast with a reasonable sense of location. Despite distortions *inside* the land masses, it provides some utility for a sailor.

Fuller hypothesized that “sea-people” constituted a distinct culture identifiable by various related names: the V-Kings (derived from the shape of the ship's bow) or Vikings (pronounced

Weekings in Scandinavia), the Venetians,¹⁶ and the Phoenicians. These sea-people or others like them may have circumnavigated Earth.¹⁷ So Fuller's hypothesis about prehistoric circumnavigation using ocean currents supports a Sundaland hypothesis.

Four key pieces of additional evidence support the theory of early circumnavigation:

1. Archeologists have discovered stone tools on Flores Island, located between Java and Australia, dating back 800,000 years.¹⁸ One recent study even suggests the presence of hominids on Flores by 880,000 years ago.¹⁹ The absence of a land bridge between Java and Flores during the last ice age suggests that *Homo erectus* may have crossed waters using sea craft.²⁰ This finding, if proven, would radically alter our view of *Homo erectus* and his capabilities. If *Homo erectus* were capable of building watercraft 800,000 years ago, then certainly *Homo sapiens* could have built them 50,000 years ago. This theory is supported by the fact that *Homo sapiens* reached Australia around 50,000 years ago.

2. Robert G. Bednarick, an Australian prehistorian, cognitive archeologist (someone who studies how ancient people thought), and experimental archeologist,²¹ champions the theory of *Homo erectus* as a seafarer. Bednarick asserts that the first ocean journeys took place 900,000 to

¹⁶ Colin Thubron, *The Seafarers - Venetians*, 2004. "The greatness, the very existence of Venice, was bound up with the sea."

¹⁷ Fuller, *Critical Path*, Chapters 1-.2.

¹⁸ *Nature*, March 12, 1998 issue.

¹⁹ <https://www.nature.com/articles/nature08844>

²⁰ <https://www.nature.com/articles/nature08844>

²¹ someone who might try to make a stone axe, or who might sail a raft from Peru to Polynesia, or who might try to move a megalith using primitive technology.

800,000 years ago,²² and, to lend support to this theory, he has taken some hazardous voyages in primitive rafts—such as his 2000 AD crossing from Bali to Lombok Island with a dozen men.

3. A paradigm shift has occurred among archeologists regarding the peopling of America. The old paradigm, the Clovis model, states that humans crossed the land bridge from Siberia by following the animals as the glaciers melted around 11,500 years ago. However, newer sites much further south, such as at Monte Verde, Chile, with dates of about 13,000 years ago disputed this paradigm. For it was difficult to believe that these early Americans could have migrated this far south so quickly. Also, ancient foot prints found in White Sands National Park, New Mexico were dated to between 20,000 and 23,000 years ago in 2021, which was quite controversial. The scientists returned in 2023, and with more robust measurements, confirmed the dates. “The results show that the chronologic framework originally established for the White Sands footprints is robust and reaffirm that humans were present in North America during the Last Glacial Maximum.”²³

The best way to explain this, in my opinion and that of several other scientists, is that those early people came to the Americas in canoes, perhaps by following the coast. They may have followed the coastline south by water, fishing and hunting seals as they went. Researchers use these terms: “coastal migration hypothesis”, “southern coastal route”, “rapid coastal settlement”, “coastal migration theory,” and “coastal migration model.”²⁴ Since I used to scuba dive near the islands of Southern California, where I saw the rich marine life available in the

²² Science News, Oct 18, 2003, p. 248-250. Also see <http://www.semioticon.com/people/bednarik.htm>

²³ <https://www.science.org/doi/10.1126/science.adh5007>.

²⁴https://en.wikipedia.org/wiki/Coastal_migration

kelp, a kind of undersea forest, I am fond of the term “kelp highway.”

4. In Europe, there are about 35,000 megaliths. There has been a lot of debate about whether these spread by *diffusion*, and from where, or whether they were *independently* developed and built. One scientist analyzed 2,410 radiocarbon dates of megalithic and megalithic-related sites [my emphasis.]²⁵

...the earliest megaliths originated in northwest France and spread along the sea routes of the Mediterranean and Atlantic coasts... This prompts a radical reassessment of the megalithic horizons and invites the opening of a new scientific debate regarding the *maritime mobility* and organization of Neolithic societies, the nature of these interactions through time, and *the rise of seafaring*.²⁶

As one geologist has said: “The sea does not stand still. Find the right current, and it will take you where you want to go ... To people who understand the sea, the ocean is a waving road that connects one land to the next. And humans have been making use of this transportation route for much longer than we computer-bound landlubbers might imagine.”²⁷

In the next chapter, I will give additional evidence, intriguing, but not entirely convincing, suggesting that at least part of the inspiration for Atlantis came, not from a continent

²⁵ Paulson, B. Schultz, “Radiocarbon dates and Bayesian modeling support maritime diffusion model for megaliths in Europe,” *Proceedings of the National Academy of Sciences*, 2019.

²⁶ <https://www.pnas.org/content/116/9/3460>

²⁷ Schoch, p. 168-169.

in the current Atlantic Ocean, but from an area in the *ancient* Atlantic Ocean, particularly an area of repeating geological catastrophe called Sundaland. Such geological catastrophes include 1) the huge 1006 AD eruption Mt. Merapi, which may have caused the collapse of the Hindu Kingdom of Mataram, 2) the massive explosion-eruption of the volcano Krakatoa in 1883, which killed 36,000, and 3) the 2004 underground earthquake that produced a tsunami that swept across the Indian Ocean, killing 228,000 people.

3.0 Sundaland

3.1 Ships and Canals

Sundaland, once dry land, a vast sub-oceanic plain between Australia and Southeast Asia, extends from Borneo in the East, to Thailand in the North, to Indonesia in the South and West. It was submerged due to glacial melting at the end of the ice ages.

What initially ignited my interest in Sundaland? Fuller, while traveling in Southeast Asia, marveled at the intricate boat-building technology along the Chao Phraya River, home to Bangkok. He claimed that along this river there are examples which demonstrate the evolutionary history of boat building for the past 10,000 years.

He noted that shipbuilders often soaked their logs for up to 100 years before incorporating them into their ships' hulls. This long-term immersion structurally stabilized the teak, and their masterful craftsmanship allowed them to create planks that fit together seamlessly, eliminating the need for caulking. Fuller was "unequivocally convinced that Bangkok represents the cradle of the world's most sophisticated ship technology and design engineering."²⁸

Plato also says that Atlantis had an extensive canal system. Fuller observed similar canal networks penetrating hundreds of miles inland during his aerial travels over Cambodia and

²⁸ Fuller, 1981, p. 21.

Thailand,²⁹ drawing another possible link between the two.

3.2 Lost Cities

About this time, I attended a lecture called “Space Technology and the Discovery of the Lost City of Ubar.” Many scholars doubted Ubar, a center of trade for a rare resin, frankincense, mentioned in both the *Koran* and *A Thousand and One Nights*, and called the “Atlantis of the Sands,” ever existed. However, two amateur archeologists teamed up with NASA scientists and used satellite photography to pinpoint ancient roads in the desert that eventually led them to the remains of a city thought to be Ubar.³⁰

Like Ubar, for many centuries the city of Troy was considered to be a mythical city. As you may remember, according to the legend, during the Trojan War, the Greeks sailed off in a thousand ships to Troy to rescue the beautiful Helen. They couldn’t accomplish the breach of the city walls and so they retreated, leaving a huge horse in their place. When the Trojans wheeled the horse into their city, out came Greek soldiers who massacred all the men and sold many of the woman and children into slavery.

Frank Calvert was an English consul in the Mediterranean who loved Homer’s stories and was convinced that these “myths” were at least part historical. His brother eventually bought some land in Turkey where Calvert thought Troy might be located. He began digging but it was not until he met a wealthy German businessman by the name of Heinrich Schliemann that the site really became “excavated.”

²⁹ Steve Van Beek describes the canal system in Bangkok: *The Chao Phya*, p.39 See also <https://www.youtube.com/watch?v=vGyaOEqmNeg>.

³⁰https://link.springer.com/chapter/10.1007/0-387-44455-6_3

Schliemann had made a fortune from various business deals including selling the raw materials for ammunition to the Russian government during the Crimean war, 1854-1856. He had also began to search for the ancient city based on Homer's writings.

He was about to give up his search when he met Frank Calvert, who convinced him to excavate his site about 1868. Schliemann apparently was a bit overeager and used blasting powder which may have destroyed the walls of Troy. Schliemann found thousands of precious artifacts, and most academic archeologists now believe that the site was indeed the location of ancient Troy.³¹

3.3 Geology

Ubar's discovery inspired me to explore the potential of the Sundaland region as the origin of the Atlantis myth. Therefore, in 1995, drawing on the abundance of canals in Southeast Asia, the historical rise in ocean waters, and the powerful maritime history indicated by Fuller's observations, I looked at an ocean floor map. (See photo.) Despite my prior knowledge, I was struck by the vast area of Sundaland that was submerged when the glaciers melted. Bordering it was Java at the bottom and emptying into it at the top was the Chao Phraya River. I imagined that during the lower sea levels of the last Ice Age the Chao Phraya would have crossed Sundaland, and eventually emptied into the South China Sea. I thought that that might be a good port location for an ancient city.

I decided to do more research, and I discovered that there are more than one hundred active or recently active volcanoes in Indonesia. In fact, Java is one of the most volcanically and

³¹ Historians and archeologists are divided on whether Schliemann was a great discoverer or more of a confidence man and self-promoter. In 1996 Calvert's heirs sued the Schliemann estate for part of the treasure found by Schliemann. https://en.wikipedia.org/wiki/Heinrich_Schliemann.



*Sundaland, on Griffith Observatory
Globe. Photo by author.*

geologically active locations in the world. With an area approximately the size of New York State but with 17 active volcanoes, Java is a geological hotbed due to the collision of the Australian and Eurasian tectonic plates. This geological activity hints at the plausibility of a cataclysmic event capable of eradicating a civilization, as what probably happened to the Hindu Kingdom of Mataram, in 1007 AD.

In 1997, I visited Mount Merapi,³² a dangerous, cone-shaped, stratovolcano—the most active volcano in Indonesia—smolders in the middle of Java near the southern coastal city of Yogyakarta. At 9,550 feet it majestically dominates the surrounding countryside—a Divine King surrounded by human devotees who farm its sides or work in a nearby city of 2.4 million.

A cone collapse in a stratovolcano occurs when the magma chamber empties during an eruption, causing the chamber to collapse creating a dramatic volcanic hazard, such as occurred at Mount St. Helens in 1980. At Merapi, large eruptions due to cone collapse occurred in 1006,

³² A lot my information about Mount Merapi came from the Wikipedia site, https://en.wikipedia.org/wiki/Mount_Merapi#2010_eruption.

1786, 1822, 1872, and 1930. In the 1930 eruption, 1,400 people were killed by the pyroclastic flows—a turbulent mixture of hot gases and ejecta (volcanic fragments, crystals, ash, pumice, and glass shards) that can move at 50 to 100 miles an hour. If a flow engulfs you, it fries your lungs and you die almost instantly.

When I arrived, Merapi was ejecting a constant, pulsating lava flow, which apparently was not dangerous enough to cause an evacuation. I had signed up for a tour of the volcano, but little did I know how close to danger we were going to go. After several hours of driving up the mountain, we came to a base camp which had a cabin where we spent the first part of the night, awakening at 4 am to take a jeep into the “forbidden zone.”



The author standing on a recent ash flow in the forbidden zone of Merapi volcano.

Although I was initially excited about entering the “forbidden zone,” when we arrived there, my mood became more somber. We walked across ash deposits left by prior pyroclastic flows (see photo of author) which, a few inches beneath the surface, were still warm to the touch. We could not see the peak of the volcano due to cloud cover, but every 20-30 minutes, in what is

called “short-term pulsing,” we would hear a distant rumbling noise as lava flowed there.

The guide told us that a pyroclastic flow in 1994 had killed 27 people who were part of a wedding party. When I told him I was concerned about our safety, he told me not to worry. He pointed to his dog and said that the dog could tell if there was a large eruption coming. I certainly wanted to believe this, but I had my doubts. I more certain that if a large pyroclastic flow came our direction we would probably all die.

I don't believe in prayer. However, that day on Merapi, I prayed to the Volcano God—to spare us from a hot ash flow. I like to think that these days, 25 years later, I would have resisted that temptation.

I was not the only one who trembled when the volcano trembled. At the base of the volcano are some of the grandest religious temples in the world. Borobudur, constructed in the 9th century and abandoned when Java converted to Islam in the 14th century, is the world's largest Buddhist temple. It is said to represent a “holy mountain.” The second-largest Hindu temple in the world, Prambanan, is also a 9th-century temple, dedicated to Brahma (the Creator), Vishnu (the Preserver), and Shiva, (the Transformer). At Prambanan, carved monsters flow out of rock stairways, like lava flowing down a mountain.

As I stood looking at Borobudur, in the shape of a huge mound, and Prambanan, in the shape of a mountain peak, with the real, gargantuan Merapi in the distance, (see photo), it was clear to me that we puny humans, with these structures, had merely mimicked the volcano in a vain effort to somehow flatter, appease, understand, or control it. Our efforts did not succeed. In the huge 1006 AD eruption “the old cone of Merapi collapsed in a cataclysmic fissure eruption which spread a thick blanket of ash over central Java, undoubtedly destroying its fertility for

many decades and completely disrupting the drainage pattern.”³³ The landscape around both



*Prambanan Temple with Merapi
Volcano in distance. Photo by
Arabsalam.*

temples is filled with rubble from buildings destroyed. The Hindu Kingdom of Mataram collapsed.

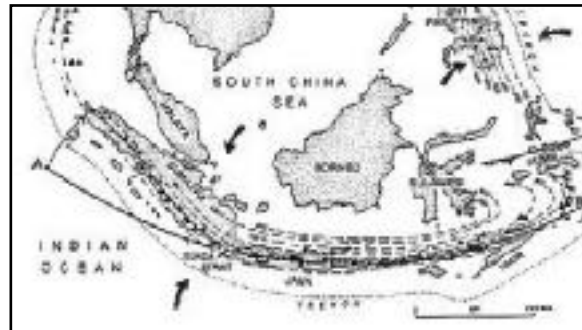
Nowadays, some people in the villages surrounding Merapi believe that a Spirit Kingdom lives in a Palace beneath the mountain—complete with roads, soldiers, princes, cows, etc. The Spirits of those who have lived an honorable life now live in this Palace, and they sometimes visit their descendants in dreams to give them warnings.

Every geologist in the world knows of the Krakatoa volcano which is located between Sumatra and Java, directly in the middle of what is appropriately called the Sunda Strait. Several books have been written, and one Hollywood movie, about its 1883 explosive eruption, which triggered a devastating tsunami, claiming the lives of over 36,000 people. Sound waves from its explosion reverberated across the globe for the next 12 hours, often called “the greatest volume of sound recorded in human history.”

Krakatoa is at the “elbow” of Sumatra and Java, adjacent to Sundaland. This elbow is

³³ <http://www.orientalarchitecture.com/yogyakarta/prambananindex.htm>

slowly bending, which increases the geological activity. (See image.) In 2004, the Sumatra–Andaman earthquake “killed an estimated 227,898 people in 14 countries, making this one of the deadliest natural disasters in recorded history.³⁴



Krakatoa at the elbow of Sumatra and Java.

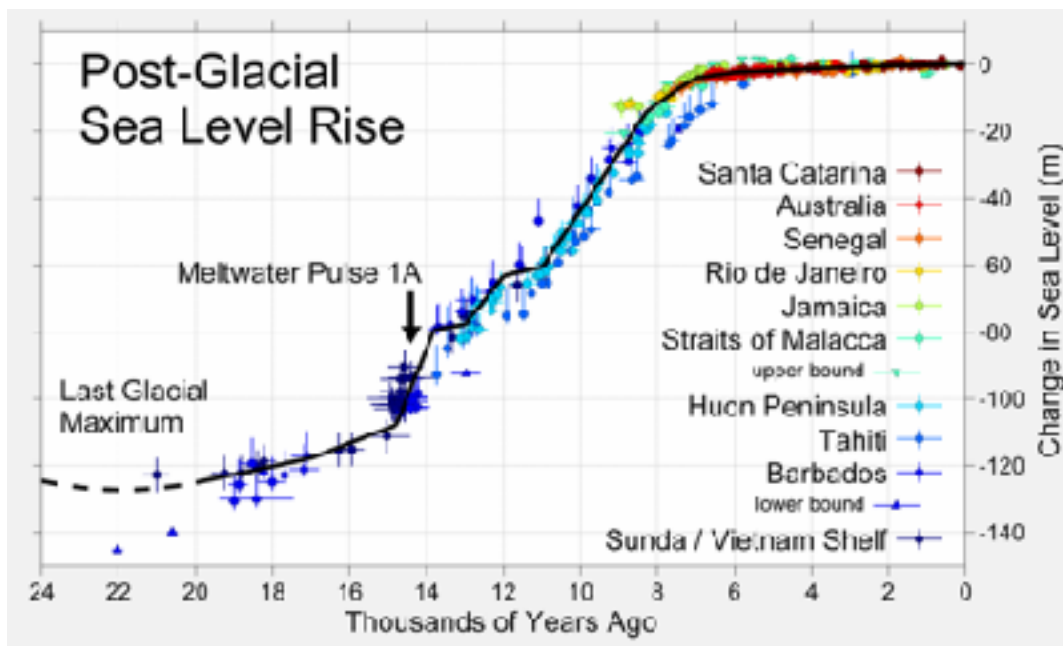
This undersea megathrust earthquake, with its epicenter off the west coast of Sumatra was a geological behemoth that unleashed energy equivalent to 23,000 Hiroshima-type atomic bombs. When the Earth's crust ruptured along the fault line, it didn't just cause localized tremors; it sent shockwaves rippling across the ocean floor, triggering a series of devastating tsunamis that radiated outward like concentric rings in a pond. These massive walls of water, some reaching heights of 100 feet, crashed into coastal areas with merciless force, sweeping away everything in their path.

Unlike the gradual buildup and release of pressure seen in volcanic eruptions, this tectonic titan struck with little warning. The earthquake's magnitude of 9.1-9.3 made it the third-largest ever recorded, and its effects were felt globally. The planet rang like a bell, with the entire Earth vibrating as much as 1 centimeter. Just as shield volcanoes in Hawaii slowly reshape the landscape with their oozing lava, this earthquake dramatically altered the geography of the

³⁴ <https://ehs.unu.edu/news/news/what-to-plan-for-when-rebuilding-after-a-tsunami.html>

affected regions in an instant. It caused the entire planet to wobble on its axis, permanently shifted islands, and even affected the Earth's rotation, shortening the length of a day by 2.68 microseconds.³⁵

In ancient times, as Sundaland slowly filled with water, people might have migrated to various locations around the world. Steven Oppenheimer agrees with this interpretation, and, in the present day, we have seen severe flooding in New York City after a hurricane. There was a dramatic rise and sea levels from about 15,000 years Before Present (BP) until 8000 years BP. (See graph.)



Sea level rise since the Last Glacial Maximum.
(Graph by Robert A. Rohde CC BY-SA 3.0)

The gradual shrinking of Sundaland might explain apparent contradictions in Plato's description, which have puzzled Atlantean scholars. At one point, he says Atlantis is larger than

³⁵ Sources: U.S. Geological Survey, National Oceanic and Atmospheric Administration, NASA, Jet Propulsion Laboratory.

Libya and Asia combined—referring to countries in southwestern Asia.³⁶ At another point he calls it an “island.”

Plato also says that from the islands beyond Atlantis, “... you might pass to the whole of the opposite continent which surrounded the true ocean.” Traditionally, the “true ocean” has been thought to be the Atlantic, and the “opposite continent” the Americas. Compare the Pacific and Atlantic on a globe. The huge difference in size is easily seen. The Pacific encompasses almost half the globe. To a people who may have navigated the Pacific, the Atlantic would hardly seem like an ocean. The distance between Africa and South America at one point is less than the distance from New York to Albuquerque. Plato’s “true ocean” may be what we now call the Pacific. Plato also gives this account:

The whole country was said by him [the Greek, Solon, who went to Egypt where he heard the story of Atlantis] to be very lofty and precipitous on the side of the sea, but the country immediately about and surrounding the city was a level plain, itself surrounded by mountains which descended towards the sea; it was smooth and even, and of an oblong shape, extending in one direction three thousand stadia, but across the centre inland it was two thousand stadia. This part of the island looked towards the south, and was sheltered from the north. The surrounding mountains were celebrated for their number and size and beauty ...

This could be a description of parts of Sundaland before the melting of the ice-age glaciers about 12,000 to 7,000 years ago.

³⁶ Bramwell, *Lost Atlantis*, p.133.

The eruption-explosion of Krakatoa in 1883 was, as I have said, immense. The tidal wave generated was 100 feet high. One book about the volcanic explosion says:

Several of the survivors attempted to describe the great wave. The magnitude of the experience was too great for them. The sight of the gray wall of water appearing from nowhere was an experience which no one could have adequately described. The air was filled with swirling dust and falling pumice. It was blacker than the blackest night. Huge tracts of land were submerged. Towns and houses were in ruin. Corpses lay everywhere.³⁷

Debris from the coast was found seven to ten miles inland. (See photo.) Entire towns and villages disappeared without a trace. Particulate matter from the explosion affected sunsets around the world for the next three years. Of the 36,000 people who died, most were killed by the tidal wave, which could be called a “flood.”

One geologist, suggests that Krakatoa may have had as many as 10 or 12 gigantic eruptions over this time. Also, he documents evidence, mostly from ancient texts, of many



Buoy (on a monument) carried inland 2 km during 1883 tsunami. Photo by author.

³⁷ Furneaux, *Krakatoa*.

major eruptions in the last 2000 years.³⁸ Also, the Egyptian priest tells Solon, Plato's ancestor: "There have been, and will be again, many destructions of mankind arising out of many causes; the greatest have been brought about by the agencies of fire and water ..."³⁹

Another author cites the *Javanese Book of Kings*, which states that there was a major eruption in 416 AD that caused the separation of Java and Sumatra.⁴⁰ He notes that this account could have been based on an *earlier* event. So the Indonesians seem to be aware of some violent catastrophe in the ancient past connected with Krakatoa which may have been worse than the 1883 one. Also, in 1927, the Child of Krakatoa, which had been gradually growing underwater,



The author behind a large lava bomb on the child of Krakatoa, 1997. (Photo by author.)

emerged above the waves. When I visited it in 1997, leading a small expedition, it had become quite large—taking us about 30 minutes to climb about two-thirds of the way of the slope. The Child of Krakatoa was a volcanic resurrection of the kind which had happened many times and in many places throughout the world and which had had a huge influence on mythology and

³⁸ de Neve, G. A., "Earlier eruptive activities of Krakatau in historic time and during the Quaternary." pp. 35–46. In: LIPI: *Proceedings of the Symposium on 100 years development of Krakatau and its surroundings*. Jakarta, 23–27 August, 1983.

³⁹ Plato, *Critias*.

⁴⁰ Judd, 1899, as quoted in Thornton, p. 44-45.

religion.⁴¹ With all this in mind, let's read Plato's descriptions of the destruction of Atlantis:

But afterwards there occurred violent earthquakes and floods; and in a single day and night of misfortune all your warlike men in a body sank into the earth, and the island of Atlantis in like manner disappeared in the depths of the sea. For which reason the sea in those parts is impassable and impenetrable, because there is a shoal of mud in the way; and this was caused by the subsidence of the island ... [It] became an impassable barrier of mud to voyagers sailing from hence to any part of the ocean.

Some geologists say that Krakatoa may have been as high as 6,000 feet in 1882.⁴² After the massive eruption-explosion, parts of Sundaland (which is now mostly underwater) could have been swept by a tidal wave. However, although Plato mentions earthquakes in his narrative, he does not mention volcanoes, so I think the geological event that inspired his story may have been more similar to the underground earthquake and devastating tsunami in 2004. Regardless of the exact geological cause, perhaps, at some time period, part of some plain, somewhere, became an impassable muddy barrier.

I think it possible that the inspiration for the Atlantis fiction was based upon a story, which was based upon a story, etc., or was a mixture of different stories. *Homo erectus*, certainly witnessed the 10 or 12 gigantic eruption-explosions of the last million years. Was *Homo erectus*

⁴¹ See my book, *The Invention of God: The Natural Origins of Mythology and Religion*. https://www.amazon.com/Invention-God-Natural-Mythology-Religion/dp/0978754336/ref=tmm_pap_title_0 Also, my forthcoming book: *Atoms and Souls: The Pre-historic Origins of Science and Religion*.

⁴² Verbeek's classic 1881 study in: Simkin and Fisk, *Krakatoa 1883*.



*Warrior riding a bull in the highlands of Sumatra.
Photo by author.*

able to pass on a description of these events to his children, even if only through hand and arm gestures? Or did the description have to await *Homo sapiens*? Robert Bednarick, whom I mentioned earlier, says the evidence suggests that rock art, decorative beads, engraved stones and hunting spears all originated several hundred thousand years before *Homo sapiens*. He concludes that such accomplishments would require that individuals speak to each other and assign abstract meanings to various objects and symbols.⁴³

3.4 The Cultural Artifacts

According to Plato, the ten Kings of Atlantis participated in an important ritual concerning bulls and a sacrificial “pillar.” Plato gives us this description:

There were bulls who had the range of the temple of Poseidon; and the ten kings, being left alone in the temple, after they had offered prayers to the god that they might capture the victim which was acceptable to him, hunted the bulls, without weapons but with

⁴³ Science News, Oct 18, 2003, p. 248-250

staves and nooses; and the bull which they caught they led up to the pillar and cut its throat over the top of it so that the blood fell upon the sacred inscription.

On an expedition in September 1997, I found ancient stone megalithic monuments in the Pasamah Highlands. The stone monuments are about 150-200 miles northwest of Krakatoa. One of the monuments is of a warrior subduing a bull. (See photo.) They are thought to date from around 0 AD to around 500 AD. This is not very ancient, but I know of no other ancient civilization (with the possible exception of the Minoan) that shows men wrestling bulls.

As we read Plato, we perhaps wonder: what kind of men could sacrifice a bull over a pillar? Were they very tall men? But in one book⁴⁴, I saw a picture of ancient stone chairs in a circle, and in the center of the chairs a cylindrical sacrificial altar, which could easily be described as a “pillar.” In other words, we are used to thinking of pillars as being tall and supporting the roofs of buildings, but an ancient sailor from Egypt or the Mediterranean, in describing this altar to his countrymen, could easily have referred to it as a pillar. I think it is possible that sometime after a mass destruction, the survivors, who would have been in the highlands, could have built this monument in memory of the important ritual.

3.5 The Irrigated Fertile Plain

Plato makes five separate references to the fertile plain of Atlantis:

- [Poseidon] making every variety of food to spring up abundantly from the soil.

⁴⁴ Oey, *Sumatra: Island of Adventure*.

- Looking toward the sea, but in the center of the whole island, there was a plain which is said to have been the fairest of all plains and very fertile.
- [The island brought forth fruits] wondrous and in infinite abundance.
- the excellence of the soil.
- Twice in the year they gathered the fruits of the earth—in winter having the benefit of the rains of heaven, and in summer the water which the land supplied by introducing streams from the canals.

Sundaland was not completely submerged when the ice-glaciers melted. The remains of it exist as the northeastern part of the island of Java. So let us compare the above passages to the following passage about this area:

Java's level of fertility and agricultural productivity is without parallel in any other equatorial land ... because of Java's miraculously rich volcanic soil—with loam so dark it looks like melted chocolate—farmers often harvest two or even three crops a year ... wet rice cultivation is extensive, irrigated by water systems up to 3,000 years old.⁴⁵

Or this from *Java* (Hutton), “rice yields under traditional conditions ... that are by far the highest in the world.”⁴⁶

In *Islands of Fire, Islands of Spice*, we read, “While volcanic ejecta in many parts of the world is acidic, in Java it is chemically basic, rich in soluble plant nutrients such as calcium,

⁴⁵ Dalton, *The Indonesian Handbook*.

⁴⁶ Hutton, *Java*, 1980.

magnesium, nitrogen and phosphorus. For millennia this rich ash deposit has blanketed the island and turned it into a rioting garden.”⁴⁷

Pick up any reference book and look up Java (or, for example, “Indonesia,” or the “Malaysian Archipelago”). They all say that the soil fertility is near miraculous or the best in the world. (Also, Java experiences most of its rain during the “winter” months as Plato says of Atlantis.)

So here we have more parallels between Java and Plato’s fictional Atlantis: 1) soil fertility, 2) harvesting multiple crops a year, 3) a 3,000-year-old irrigation system. If one wanted to find a place somewhere in the world where the soil fertility matched the irrigated soil fertility of our alleged “Atlantis,” one would pick Java.

3.6 The Flora and Fauna

Regarding the flora and fauna, Sundaland fits neatly with Plato’s Atlantis. Here are two of Plato’s descriptions of the biological conditions of Atlantis [my emphasis]:

- There was an abundance of wood for carpenter’s work, and sufficient maintenance for tame and wild animals. Moreover, there were a great number of *elephants* in the island; for as there was provision for all other sorts of animals, both for those which live in lakes and marshes and rivers, and also for those which live in mountains and on plains, so there was for the animal which is the largest and most voracious of all. Also whatever fragrant things there now are in

⁴⁷ Bangs, P.33.

the earth, whether roots, or herbage, or woods, or essences which distill from fruit and flower, grew and thrived in that land; also the fruit which admits of cultivation, both the dry sort, which is given us for nourishment and any other which we use for food—we call them all by the common name pulse, and *the fruits having a hard rind, affording drinks and meats and ointments*, and good store of chestnuts and the like, which furnish pleasure and amusement, and are fruits which spoil with keeping, and the pleasant kinds of dessert, with which we console ourselves after dinner, when we are tired of eating—all these that sacred island which then beheld the light of the sun, brought forth fair and wondrous and in infinite abundance.

- [The mountains] having in them also many wealthy villages of country folk, and rivers, and lakes, and meadows supplying food enough for every animal, wild or tame, and much wood of various sorts, abundant for each and every kind of work.

Fruits “having a hard rind, affording drinks and meats and ointments” was probably the coconut—with its firm rind, its delicious inside drink, its white meat, and the white coconut oil its white meat, which could have been made into coconut oil by simply pressing (with wood or stone) or boiling. According to the *Encyclopedia Britannica*, “... the native home of the coconut palm is unknown, but it probably originated somewhere in Indo-Malaya.” In other words, Sundaland. It is not naturally found in the Mediterranean area. Also, notice that Atlantis contained “elephants ... the animal which is the largest and most voracious of all.” This

eliminates several other possible inspirations for “Atlantis,” as I will discuss later.

Pick up any reference book on Java or Indonesia or the Malay Archipelago (of which Indonesia is a part) and you will find descriptions matching Plato’s. For example:

The flora of the Malay archipelago is probably the most varied in the world. More than 30,000 species of trees, shrubs and grasses belonging to more than 2,500 families have been recorded ... island groups have been joined together, then separated, then rejoined, increasing the almost unimaginable diversity of plant and animal life ... While the fauna of the archipelago is very rich, there are a few large animals. Elephants, tigers, rhinoceros, wild cattle, tapir and orangutan are all part of the Asian fauna.⁴⁸

Also, the *Indonesian Handbook* says that Java has “35 species of fruit—20 found nowhere else.” (I saw many exotic fruit in Indonesia and rode on one of the many elephants there.)

When archeologists first found bone remains of “Java Man” (later to be called *Homo erectus*) in the 1800s, this was thought to be the earliest ancestor of man (before the discovery of *Australopithecus*, etc.), and they therefore thought that Java might have been the Garden of Eden mentioned in the *Book of Genesis*.

3.7 The Mining

In several places throughout the text, Plato mentions a strange metal. No one has ever been able to decipher what this metal was. Here are the three relevant passages:

⁴⁸ *Encyclopedia Britannica*, “Malay Archipelago.”

- In the first place, they dug out of the earth whatever was to be found there, solid as well as fusile, and that which is now only a name and was then something more than a name, orichalcum, was dug out of the earth in many parts of the island, being more precious in those days than anything except gold.
- The entire circuit of the wall, which went round the outermost zone, they covered with a coating of brass, and the circuit of the next wall they coated with tin, and the third, which encompassed the citadel, flashed with the red light of orichalcum.
- In the interior of the temple the roof was of ivory, curiously wrought everywhere with gold and silver and orichalcum; and all the other parts, the walls and pillars and floor, they coated with orichalcum.

These descriptions are very similar to the temples I saw throughout Thailand. The literal translation of orichalcum is “copper-mountain” (Random House Dictionary). All metals have an igneous or magma origin and so we would expect the Indonesian area to have many metals. I discovered that there is, and has been, plenty of mining of precious metals in the large Malaysian arc. Just in the last few decades, a large copper mine was built in Irian Jaya, which is at the far eastern end of Indonesia on what is now called New Guinea. This copper mine is the second largest in the world and produces the largest amount of gold of any mine in the world. It was called “the largest and richest copper deposit ever found above ground ... a mountain of ore.”⁴⁹

⁴⁹ Wilson, *The Conquest of Copper Mountain*, 1981.

The ore, which comes out, is a mixture of copper and gold. The mine sits at 12,000 feet. When discovered it was a large unusual outcropping of copper that had been made visible by the glacial removal of the overlying sedimentary rock. The Dutch called this phenomenon “erzberg” or “ore mountain.”

What could be “more precious in those days than anything except gold” if not gold that has been mixed with another metal? Since orichalcum is reddish, like copper, I would guess that this copper-gold mixture is the ancient and mysterious orichalcum. I found four references that tend to confirm this:

- gold with copper mixed in is called “pink gold.”⁵⁰
- the *Encyclopedia Britannica*, in their articles on “metallurgy” and “metalworking, decorative” notes that the first metals known to man were those occurring frequently in their native state, and that these were probably gold and copper.
- the *Britannica* also mentions that on the island of Crete, a particular gold metalwork was found from ancient times: “The gold was in two colours, a deeper red being obtained by the admixture of copper ...” This tells us that some ancient people did, in fact, combine gold and copper.
- One author reports that a rare, red alloy of copper and gold is found around Lake Poopo in Bolivia.⁵¹

Here we have more interesting parallels: the red flashing metal of Plato’s “Atlantis,” so-called

⁵⁰ Natural History Museum of Los Angeles. A film documentary on gold.

⁵¹ Allen, Jim, *Geographical Magazine*.

“pink gold,” the ancient red gold found on Crete, the red alloy of copper and gold in Bolivia and the very large, naturally protruding copper mine containing gold and copper ore on a mountain top in eastern Indonesia, on the island of Borneo.

3.8 The Mythology

Plato describes some hot springs: “He himself [Poseidon], being a god, found no difficulty in making special arrangements for the centre island, bringing up two springs of water from beneath the earth, one of warm water and the other of cold ... “

Plato never mentions a volcanic destruction, but the hot springs that he mentions suggests that his Atlantis had geological activity. In southern Sumatra, I met an old man who had visited the child of Krakatoa more than 200 times. He told me that his great-grandfather had been killed by the 1883 explosion-eruption. As we walked down to the shore and the boat, which would carry us over to the volcanic island, he pointed out some hot springs. Later, a few kilometers up the hill, I bathed in some hot springs at a small resort that had been built by the Dutch when they colonized this area.

Plato goes on to say that Poseidon,

.... also begat and brought up five pairs of twin male children; and dividing the island of Atlantis into ten portions, he gave to the first-born of the eldest pair his mother’s dwelling and the surrounding allotment, which was the largest and best, and made him

king over the rest; the others he made princes, and gave them rule over many men, and a large territory. And he named them all; the eldest, who was the first king, he named Atlas, and after him the whole island and the ocean were called Atlantic.

It is a common misconception that Atlas held the *world* on his shoulders. He held the *heavens*. Pomponius Mela in his description of the world describes Atlas: "... its summit is higher than the eye can reach: it loses itself in the clouds; also it is fabled not only to touch with its top the sky and the stars but also to support them." It appeared to me at this point in my investigation that Java and Sumatra, with their many tall peaks towering over 10,000 feet, would be good candidates for the real Atlas Mountains. In other words, I imagined that seeing a mountaintop disappear into the clouds could remind one of holding up the heavens. Twin peaks (of which Java has several, see NASA photo) disappearing into the clouds could certainly remind one of two shoulders holding up the heavens. Plato says that beyond the continent of Atlantis were many other islands. This certainly fits when all the islands of the South Pacific are



Mount Sundoro and Mount Sumbing are twin peaks in Central Java. Credit: NASA.

considered.⁵²

Mountains in Indonesia are often cloud covered. The moist, equatorial air of Indonesia produces this condition. Mahameru (10,082 ft), in eastern Java is known as the “abode of the Gods.” The largest mountain of Bali, the island just east of Java, is also known as the “abode of the Gods.” Certainly, mountain peaks that sometimes disappear into the clouds would seem to be a likely place for the Gods to gather. I wondered if these disappearing mountains, besides being the beginnings of the legend of Atlas, were also the beginnings of the legend of Mount Olympus. Perhaps as the legend traveled westward, the mountain was relocated repeatedly so the local populace would have their Gods nearby. If this seems unlikely to you, recall that the largest volcano on Mars, which is also the largest volcano in the solar system, has been named Mount Olympus.

So again, we see a parallel between the local geography of Sundaland and Plato’s Atlantis. More will be said later about mythology and its correlation with Sundaland.

3.9 The Destruction of Mankind Legend

In Egypt “the pyramid texts were carved on the walls and sarcophagi of the pyramids at Saqqara during the 5th and 6th Dynasties of the Old Kingdom. The oldest of the texts have been dated to between ca. 2400–2300 BC.”⁵³ In various locations, there is an interesting story about the “Destruction of Mankind Legend,” also called the “Book of the Heavenly Cow.” I present parts of it here, as they are similar to the tale told to Solon when he

⁵² Some of these islands, just beyond the Sumatra-Java volcanic mountain chain, are the legendary Spice Islands. Europeans including the Dutch, British and Portuguese fought over these islands for many years.

⁵³ https://en.wikipedia.org/wiki/Pyramid_Texts

went to Egypt (from which Plato later wrote his story of Atlantis). Plato's Atlantis story ends like this:

Zeus, the god of gods, who rules with law, and is able to see into such things, perceiving that an honorable race was in a most wretched state, and wanting to inflict punishment on them, that they might be chastened and improved, collected all the gods into his most holy habitation, which being placed in the centre of the world, sees all things that partake of generation. And when he had gathered them together he spake as follows:

Here Plato's story abruptly ends. However, in previous passages we already have found out about the destruction of Atlantis and I also Solon mentioned that Solon may not have been able to finish his narrative, unlike Homer or Hesiod, because of other pressing issues.

Note that Zeus gathers them in the center of the world, where the magma would be thought to be. Compare this with this Nile River Valley hieroglyphic story sometimes known as The Destruction of Mankind. In this story Ra has grown old, "... his bones were like electrum [a pale yellow mixture of gold and silver], his flesh was like gold, and his hair was like lapis lazuli [a deep blue semi-precious rock]:⁵⁴

⁵⁴ "Inscribed on the walls of several key tombs in the Valley of the Kings is the so-called Book of the Heavenly Cow, sometimes known as The Destruction of Mankind. The most famous inscription (but not the complete version) is on the outer golden shrine of Tutankhamun in KV62, more specifically on the interior left and back panels. The book is also inscribed on the walls of a room next to the sarcophagus chamber in the tombs of Sety I, his son Ramesses II, and Ramesses III, but these are more complete versions compared with that in KV62, and fill all four walls of the chambers. Ramesses VI's tomb has a reduced version in a niche on the third corridor. There is a papyrus extract in the Egyptian Museum of Turin, which originates from Deir el-Medina, and part of a wall relief (probably from Sety I's tomb) in the Musée Lapidaire in Avignon." From <https://the-past.com/feature/the-book-of-the-heavenly-cow/>



The Destruction of Mankind myth on a fragment of papyrus from the Turin Museum. Image: Museo Egizio, Turin.

Ra ... when realized that mankind was plotting against him, said to his suite: Go summon me hither my Eye, together with Shu, Tefnut, Geb, Nut, and all the fathers and mothers who were with me in the Primeval Waters ... You shall bring them to the Great Palace that they may give their advice ... Behold mankind, who came from my Eye, have been scheming against me. Tell me what to do about it for I seek [a solution]. I would not kill them until I had heard what you have to say ... ⁵⁵

Ra then slays many of them with the help of his Eye (represented by Hathor), the cow goddess. The description of Ra loosely matches a dormant volcano, with the Eye being the caldera of the volcano (much more on this later). When Ra sees too many people are being slayed, he floods the fields with a type of red “beer,” which fools Hathor into thinking it is human blood. Hathor drinks the beer thinking it is human blood, gets drunk, and returns to Ra. Later in the story, Ra “ascends to heaven,” which fits with the idea of a volcano generating the heavens, as we will see later. Then, “When Ra had made a heaven for himself ... he remembered that at one time when reigning on earth he had been bitten by a serpent, and had nearly lost his

⁵⁵ Quoted by Clark, p. 181-183.

life through the bite.”⁵⁶ So, there are similar geological suggestions in the two stories: the destruction, the flood, and the primeval waters. Also, both stories describe a God wanting to destroy humanity because they have fallen short of good behavior. Besides Plato’s story, this Nile River Valley flood myth was probably also the basis for the later Babylonian and Judeo-Christian flood stories.

This legend suggests that Plato did not merely invent his story of Atlantis. Plato says the Egyptian priests told Solon that the story of Atlantis was recorded in the Egyptian temples in their “sacred registers.” Some scholars, having found no apparent mention of the word Atlantis in the hieroglyphs and no continent between America and Europe, have said that Atlantis never existed. However, if the Atlantic Ocean was the entire ocean round the world, or even just included the Indian Ocean, then these facts support the theory that Plato’s fiction was inspired by actual events.

3.10 The Austronesian Expansion

Jared Diamond states that there is no archeological evidence that any civilization, except hunter-gatherers, existed in southern Sumatra or northwestern Java before 2,000 years ago and that civilization spread to Sumatra and Java about 2,000 BC from Taiwan. This is known as the Out-of-Taiwan hypothesis or the Austronesian Expansion. Jared Diamond’s book, *Guns, Germs, and Steel*, discusses this expansion from mainland China (via Taiwan) to Australia and Polynesia which was one of the “biggest population movements of the last 6,000 years.” Around 3,000 BC

⁵⁶ Budge translation of “The Legend of the Destruction of Mankind,” available here: <https://www.sacred-texts.com/egy/leg/leg05.htm>.

these people already were to the Philippines, by 2000 BC to Java and Sumatra, by 1600 BC to the Solomon Archipelago, by 500 AD to Hawaii. Diamond also says that independent evidence from linguistics supports this idea. In depth studies of language families and sub-families and sub-sub-families all point to Taiwan as the source of this expansion. He also notes that the evidence shows that a people came out of Taiwan with a cultural package including pigs, chickens, dogs, a type of pottery, certain stone tools and language and spread this cultural package to Indonesia, parts of Australia and throughout most of the islands of the Pacific.

However, Wilhelm Solheim suggests a trading network existed in South East Asia around 5000 BCE and may date back to 30,000 BCE. Solheim's theory is that a sea-people spread culture in many different directions.⁵⁷ Supporting this, recent findings from genetics (2008, 2009) suggest that "Asia was populated primarily through a single migration event out of Africa whereby an early population first entered South East Asia before they moved northwards to East Asia."⁵⁸ Also supporting this, Chinese people have a smaller genetic variation than people of Southeast Asia.⁵⁹ Furthermore, a 2018 article gives some support to Solheim.⁶⁰

Regardless, these people somehow established themselves on the island of Madagascar, near Africa, by 800 AD and possibly as early as 300 AD. How they arrived there is not known. Diamond states that the evidence supports the fact that they might have crossed the "Indian" Ocean directly, rather than following the coast (shore-hugging) along India and Africa. This direct trip would have been just a bit farther than Columbus sailed from Europe to the West

⁵⁷ https://en.wikipedia.org/wiki/Nusantao_Maritime_Trading_and_Communication_Network

⁵⁸ see Wikipedia: https://en.wikipedia.org/wiki/Austronesian_peoples

⁵⁹ https://en.wikipedia.org/wiki/Austronesian_peoples

⁶⁰ <https://www.sciencedaily.com/releases/2018/08/180809093427.htm>

Indies. Diamond calls this migration, "... the single most astonishing fact of human geography for the entire world."

Furthermore, the ancestral population of the South American coconut is the Pacific coconut and the coconut genetic evidence suggests that this seafaring people traveled further east of Madagascar, around the Cape, to South America.⁶¹

3.11 Provisional Possibilities

Wherever they may have begun, Taiwan or Southeast Asia, they crossed a large body of water, a body of water that may have been at one time part of the ancient Atlantic Ocean.

To establish a permanent presence somewhere, usually it is first necessary to do exploratory expeditions. For example, the first expeditions to the American continent did not establish a permanent presence. Also, as Oppenheimer suggests, they may have been driven out by rising waters at the end of the Ice Age.

If they continue around Africa to the Mediterranean, these Sea People may have met the Egyptians in a battle that occurred sometime around 1200 BCE and documented on the walls of Egyptian monuments. Scholars have assumed that the Sea People arrived in Egypt and Palestine somewhere from within the Mediterranean, possibly the island of Crete. However, this has never been firmly established.

Oppenheimer comes to these three conclusions:

1) The genetic markers that have spread radially out of Southeast Asia, carried by people speaking Austronesian and Austro-Asiatic Tongues, had both been in this island region back in

⁶¹ From a Wikipedia article on Austronesian Expansion: Gunn, Bee; Luc Baudouin; Kenneth M. Olsen (2011). "Independent Origins of Cultivated Coconut (*Cocos nucifera*L.) in the Old World Tropics". *PLoS ONE*. 6 (6): e21143. Bibcode:2011PLoS...621143G. doi:10.1371/journal.pone.0021143. PMC 3120816. PMID 21731660.

the ice age—if not much longer. This contradicts the conventional view of the *recent* Out-of-Taiwan dispersal through the Philippines, and supports a Sundaland origin.

2) Where genetic trees have been constructed for East Asian genetic markers, including those in aboriginal populations still found in Southeast Asia and speaking either Austro-Asiatic or Austronesian tongues, these markers are placed at the earliest branches.

3) These markers were carried east to the Pacific, west to India, and the Middle East, north to Taiwan, China, Burma and Tibet and south to Australia since the last ice age. All these findings are predicted by the prehistoric models outlined earlier [a Sundaland origin for civilization].⁶²

So the important points are:

1. The original Atlantic Ocean—to the Greeks—probably encompassed what we call today the Indian Ocean, and the Atlantic was probably the Greek “Ocean of the World,” or “Oceanus.”
2. Taiwan, Indonesia, Japan and the Philippines are very active geologically.
3. Ancient people established themselves throughout Indonesia, the Pacific Islands of Polynesia and across the Indian Ocean, on the island of Madagascar (near Africa) by 300 AD. This is known as Out-of-Taiwan or the Austronesian Expansion. However, these people may have originally come from Sundaland, perhaps during the rising ocean waters at the end of the ice age.
4. Plato wrote about a Sea People coming into the Mediterranean in 9500 BC and fighting with the Egyptians. He said these people were from “Atlantis,” in the “Atlantic Ocean.”

⁶² Oppenheimer, p. 217-218.

5. In 1200 BC, Egyptian monuments describe battles with a “Sea People.” Scholars do not know where these people came from, but assume it was from within the Mediterranean.

Regarding the Sea People, assuming the Egyptian monuments do not completely lie, there are several possibilities:

1. 9500 BC: Ancient humans, from Thailand, Taiwan or from Sundaland (maybe due to rising ocean waters), spread throughout Southeast Asia, and then eventually sailed into the Mediterranean Sea and fought with ancient Egyptians. (Some of Plato’s story is correct.)
2. 1200 BC: Same as above but much later. (Plato wrongly ascribed an ancient date of 9000 BC, rather than circa 1200 BC.)
3. 1200 BC: The Thailand, Taiwan or Sundaland people never reached the Mediterranean. The Sea People came from inside the Mediterranean (perhaps Crete). Plato ascribed a wrong date to the event (9000 BC) and a wrong geographical source (outside the Mediterranean) to the people.

3.12 The Azores Plateau

Independent scholar Randall Carlson's general perspectives offer thought-provoking interpretations of geological and historical phenomena and may be correct in regard to the Impact Theory regarding the Younger Dryas Cooling. However, with regard to the Azores and a sunken civilization, his theory extends beyond current scientific evidence and misinterprets data.

Carlson is probably unaware of my “One-Ocean World” hypothesis, mentioned in Chapter 2, which implies that the “Atlantic Ocean” was, to the ancients, “Oceanus,” the one

ocean that circles the world. So he looked in our current “Atlantic Ocean” for an Atlantis location and picked the Azores Plateau. In this section, I will discuss the difficulties with this location and compare it to Sundaland. In the following section, I will discuss difficulties with other locations including Sundaland.

The Azores Plateau, located in the present-day Atlantic Ocean, is a geologic triple junction where three tectonic plates meet: the North American plate, the Eurasian plate and the African plate. It’s a very geologically active area, made from tectonic extension due to plate rifting and from volcanoes and seamounts—a volcano that doesn’t reach the surface—due to hotspots in the thin crust.

Unlike the flat-shaped “shield” volcanoes like in Hawaii, most of the volcanoes are cone-shaped. This is because the Azores islands are primarily composed of stratovolcanoes, which form steep, conical shapes due to the type of volcanic activity and the composition of the magma. If they do reach the surface they may become flat topped due to erosion, but this flat top is only a relatively small slice of the much larger underwater cone.^{63 64}

One Portuguese archaeologist, Nuno Ribeiro, has been researching the Azores. He claims to have found a large number of ancient ruins including 140 primitive pyramid-like structures, an epigraph from Roman times, Carthaginian sanctuaries, cave art, and other megalithic structures.⁶⁵ However, these are described as “pre-Christian,” from about 400 BCE, not from 9,000 years BCE. Also, evidence from the analysis of a core on Pico Island detected possible

⁶³ <https://oceanexplorer.noaa.gov/oceanos/explorations/ex1606/background/guyots-bio/welcome.html>.

⁶⁴ <https://oceanexplorer.noaa.gov/facts/seamounts.html>.

⁶⁵ <https://portuguese-american-journal.com/pico-new-archeological-evidence-reveals-human-presence-before-portuguese-occupation-azores/>

feces of cows and sheep dated fairly recently, between A.D. 700 and 800.⁶⁶ Compare these dates to dates from Java Island in Indonesia, where remains of *Homo erectus* have been found dating back 1.3 million years.

Also, during the Last Glacial Maximum (LGM), which lasted approximately from 26,500 to 19,000 years ago, spanning roughly 7,500 years, and in which coastal areas around the globe expanded significantly, the Azores Plateau was still quite small compared to Sundaland, which has been described as a subcontinent filled with grasslands and wooded areas. There was probably travel between the Occident, a word derived from “the fall” (of the sun) (i.e., Europe and Africa), and the Orient, a word derived from “the rise” (of the sun) (i.e., Asia and Indonesia). The “Old World” was where hominids had been living for millions of years, and one could sail from one part of it to another by way of the Middle East and India. In contrast, the “New World” of the Americas has only begun to be populated about 22,000 years ago, according to recent evidence. My point is that there was probably much more travel between Sundaland and the Mediterranean than between the Mediterranean and the Azores.

Furthermore, evidence from the adjacent undersea plateau suggests that the Azores have been underwater for millions of years and that they have not sunken to any significant degree but have actually risen, with some beach sediments now lying well above current sea level. Also, in the Azores, there were no elephants and no coconuts. Additionally, the Azores were not as fertile as South East Asia, did not have as great a range of flora and fauna, and had no canals.

Also, any geological catastrophe in the Azores would not have killed as many people in the “Orient” of Indonesia, Southeast Asia, India, and East Africa (as were killed in 1006, 1883,

⁶⁶ <https://www.archaeology.org/news/10038-211006-azores-islands-habitation>

and 2004), and it would not be worthy of being called a “catastrophe” and being recorded on Egyptian walls.

In addition, Plato writes, “For which reason the sea in those parts is impassable and impenetrable, because there is a shoal of mud in the way; and this was caused by the subsidence of the island ... [It] became an impassable barrier of mud to voyagers sailing from hence to any part of the ocean.” This implies that there was some significant traffic in the area, which was much more likely in Southeast Asia than in this part of the Atlantic. For example, after the 1883 eruption of Krakatoa, ash, pumice rafts, and other volcanic materials disrupted shipping lanes in the Sunda Strait for months.

Of note, both the Sunda Strait and the Malacca Strait, which are today vital and heavily trafficked sea lanes, connecting Korea, Japan, China, Southeast Asia, and the Philippines to India, the Middle East, Africa, and Europe, were fundamentally reshaped during the last glacial maximum, LGM, and subsequent sea level rise, transitioning from land corridors into crucial maritime gateways beginning about 12,000 years ago. So they could have been navigable for a time, and then there could have been a large geological event, common to this area, making them muddy and impassible for a time.

In his interview with Joe Rogan in 2024,⁶⁷ Carlson seems shocked that they found seafloor core samples from 1948 having fossils of shallow-water fish—usually at about 100 feet—at depths 1 to 1.5 miles. However, in the earthquake prone area of a spreading ridge “slide deposits” are normal, and over thousands of years it would not be unusual to find fossils on the ocean floor from surface level fish. This is not evidence of subsidence of a large land mass.

⁶⁷ See Randall Carlson's on Joe Rogan's podcast. <https://www.youtube.com/watch?v=nJZV0k6LwvQ&t=2729s>.

Then Carlson shows and discusses, respectively, two excerpts from a 1954 Geological Society Bulletin, Bruce C. Heezen, Maurice Ewing, D. B. Ericson, and C. R. Bentley, Lamont Geological Observatory (1954) in Geological Society of America Bulletin, Vol. 65, (Dec.) p. 1261.

1) The first excerpt: *The Atlantis, Cruiser, and Great Meteor seamounts rise from a broad ridge or plateau which extends from the Mid-Atlantic Ridge at 37°N. 32°W southeast to Great Meteor Seamount at 30°N. 28°W. The Atlantis Seamount, briefly explored in 1947 and 1948, was found by echo sounding and submarine photography to have a fairly flat bedrock summit area at about 180 fathoms covered in some cases by cobbles and in other cases by current rippled sand...About a ton of flat pteropod limestone cobbles was dredged from the summit area...*

What the paper actually describes: 1) normal seamount formations along the Mid-Atlantic Ridge (one playfully named “Atlantis seamount” by a scientist), 2) a flat summit area at about 180 fathoms (roughly 330 meters) depth, 3) typical seafloor features like cobbles (a medium sized rock) and rippled sand, limestone cobbles containing pteropods (small marine organisms).

What Carlson omits: 1) these are typical volcanic seamount formations, 2) the flat tops are common features of seamounts (known as guyots), 3) the limestone deposits are normal marine formations, the depth is consistent with the seamount's volcanic origin. Nothing in this paper suggests: Recent subsidence, any connection to human civilization, the dramatic vertical movements Carlson proposes.

2) the second excerpt: *flat-topped atlantis, cruiser, and great meteor seamounts, continued*

...One of the cobbles gave an apparent radiocarbon age of 12,000 years ± 900. The state of

lithification of the limestone suggests that it may have been lithified under subaerial conditions and that the seamount may have been an island within the past 12,000 years...The Cruiser and Great Meteor seamounts studied in 1952 have larger flatter summits at 150 and 165 fathoms depth...These youthful "guyots" may have originated as volcanoes which were later capped by limestone and more recently have sunk beneath the sea.

Once again, these are two typical volcanic seamount formations, flat tops of a cone, that have once been an island and later subsided—to only 274 and 302 meters. The limestone capping is a normal feature of seamounts. The sinking described is normal subsidence for cooling volcanic structures. Note that Carlson has gone from suggesting Atlantis subsistence of 1.5 miles to suggesting Atlantis subsistence of only 274 meters. There is no evidence of civilization, no evidence of sudden catastrophic sinking, no evidence of a large landmass.

Next Carlson presents two abstracts from geology journals in 1968 and 1985 as evidence of the Azores having a sunken civilization.

1) From 1968, "Tectonic implications of glacio-eustatic sea level fluctuations."⁶⁸ This paper discusses ocean basin response to glacial loading/unloading on a broad scale. It's about how entire ocean basins respond to ice age cycles. It's not about localized subsidence or the Azores specifically. It's discussing long-term, gradual processes, not sudden submergence. It is primarily about general isostatic principles, their relationship to ocean floor spreading, the dating of volcanic events, and global sea level changes during glacial periods. Nothing in this paper supports rapid subsidence of large landmasses, the specific timeline Carlson proposes for Atlantis, or the idea that the Azores was a large landmass that sank.

⁶⁸ Matthews, R. K., "Tectonic implications of glacio-eustatic sea level fluctuations." Earth and Planetary Science Letters, Volume 5, p. 459-462, 1968.

2) From 1985, “Late Quaternary slumps and debris flows on the Scotian Slope.”⁶⁹ There are many difficulties with using this paper as evidence for a sunken civilization. a) Carlson uses an ancient earthquake to try to support his theory. The earthquake mentioned was actually on the Scotian Slope, near Nova Scotia, not at the Azores. b) The rock deposits found near the seafloor, did not subside, but were due to slide deposits, which commonly occur on conical seamounts and islands in volcanic areas in the ocean. c) The finding of shallow water fish fossils at depth, which was probably also due to slide deposits and doesn't necessarily indicate the area was once at surface level. d) Carlson says: “A seamount is like a flat-top mountain. The top of the mountain has been sheared off.” Actually, these flat tops are eroded over a very long time period. e) Carlson says, “The major part of the plateau is a mile to a mile and a half underwater.” Plateaus don't suddenly sink 1 or 1.5 miles. f) Carlson says, “A large section of the Azores Plateau was above sea level during the late glacial maximum.” These would have been steep-sided islands, not a large fertile plain.

In summary, Carlson selectively uses geological evidence without providing full context, leading to potentially misleading conclusions. The Azores Plateau 1) is too small, 2) mostly steep-sided volcanic cones, 3) may have risen rather than sunk, 4) has no evidence of ancient humans living in 9,000 BCE, 5) has no evidence of canals, 6) has no evidence of elephants, 6) has no evidence of coconuts.

3.12 Difficulties with Other Theories

Here are some of the difficulties with other locations suggested for Atlantis, including

⁶⁹ David J. W. Piper; J. A. Farre; A. Shor, “Late Quaternary slumps and debris flows on the Scotian Slope,” GSA Bulletin, December, 1985.

Sundaland.

1. An island-continent in the present-day Atlantic Ocean: No evidence, despite extensive sea-floor mapping.
2. Bahama Islands: Too small, no elephants, no canal system.
3. Great Britain: No elephants, not tropical, too small, no canal system.
4. Islands of the Caribbean: No elephants, too small, no canal system.
5. Antarctica: No elephants, not tropical, no evidence for a recent crustal shift.
6. A lake in the Andes highlands: No elephants, no seacoast.
7. Thera (Santorini): Too small, no tropical fruits, no coconuts, poor soil fertility, no elephants, no canal system, not beyond the Pillars of Hercules.
8. Sundaland: Here are three main problems with the Sundaland theory and my suggestions for possibly resolving them:
 - a) Plato mentions horses in Atlantis. This area of the world is now tropical and there are no fossil of horses. However, during the last glacial maximum about 21,000 years ago, Sundaland was much more temperate and may have had grasslands which would have been good for grazing.⁷⁰ As the glaciers melted, Sundaland became covered with water, and the temperature warmed perhaps the horses disappeared and their fossils are buried beneath the sea.
 - b) Plato says there were “mountains to the north.” If this is correct, it would limit the hypothetical destruction site to the Malacca Strait near Kuala Lumpur, the Gulf of Thailand south of Cambodia, or the Java Sea south of Borneo, as suggested in the book *Atlantis: The*

⁷⁰ Enqing Huang, Zijie Yuan, Shihe Wang, Ying Yang, Guodong Jia, Jun Tian, “Expansion of grasslands across glacial Sundaland caused by enhanced precipitation seasonality,” *Quaternary Science Reviews*, Volume 337, 2024.

Lost City is in Java Sea.

c) Plato mentions part of Atlantis as facing Gades, which is the ancient name for the modern-day Spanish city of Cádiz. There is no easy answer to this except to say that the Egyptian priests, or Solon, or Plato might have combined different stories together, or over the centuries the story was corrupted.

3.13 Summary

Although many suggestions have been made regarding the location of “Atlantis” (or an event that *inspired* the story of Atlantis), such as Great Britain, Thera, Peru, Antarctica, the Azores, the Bahamas, North Africa, etc., I believe that none of them make as good a match as Southeast Asia. The Sundaland Sub-Oceanic Plain, or Sundaland, is large enough to match Plato’s Atlantis and suggests that it may have been the basis for the “Destruction of Mankind” story carved on Egyptian stone monuments and Plato’s subsequent retelling. It has an equatorial climate, some volcanic mountains to the North, and a sea to the South. When we add several other factors: the climate, the irrigated-fertile plain, the flora and fauna, the mining, the cultural artifacts, and the mythology, the evidence becomes stronger, although not entirely convincing.⁷¹

3.14 Conclusion

There is no need for us to invoke UFOs, aliens, advanced technology, past lives, “high wisdom” of the ancients, “channeling,” and other such matters. None of these things existed in Plato’s account. They were all invented by people and then perpetuated in various media out of

⁷¹ Additional evidence is presented by Oppenheimer in *Eden in the East*, and more recent genetic studies from humans and coconuts.

ignorance or greed. However, as Professor John V. Luce said in 1975, “Plato in his Atlantis narrative utilized materials not entirely devoid of historical content.”⁷²

Plato’s story, or the Egyptian priests’s story, may have been a fictional attempt to demonstrate the dangers of hubris in a society, but it may also have been inspired by legends carried westward by the Austronesian expansion. These oral legends may have stemmed from the many ancient geological disasters in Indonesia, which are still continuing, as evidenced by the Krakatoa explosion in 1883, which killed 36,000 people, and the Sumatra earthquake in 2004, which killed about 250,000 people.

It is interesting to note that the story of Troy was once considered to be entirely fictional but is now widely believed to have a real historical basis in Turkey: In the late 19th century, archaeologist Heinrich Schliemann excavated a site in northwestern Turkey, near the modern-day city of Hisarlik. His work revealed layers of an ancient city that many scholars now identify as Troy.

Likewise, perhaps someday, underwater explorations—whether in the Gulf of Thailand, in the Malacca Strait (near Singapore, Kuala Lumpur, etc.), near Jakarta, or in the Java Sea south of Borneo—may reveal some ancient structures that suggest that Plato’s allegory was partly based on real events in Sundaland. However, as far as any *single* location that inspired Plato—via Solon, via the Egyptian priests, via the ancient Nile River monuments—I suspect that may never be found.

References:

Bangs, Richard and Kallen, Christian, *Islands of Fire, Islands of Spice: Exploring the Wild Places of*

⁷² Ramage, p. 50.

Indonesia, Random House, 1988.

Barber and Barber, *When They Severed Earth from Sky: How the Human Mind Shapes Myth*, Princeton University Press, 2004.

Berlitz, Charles, *The Mystery of Atlantis*, Avon, NY, 1976.

Blavatsky, H. P., *The Secret Doctrine: The Synthesis of Science, Religion, and Philosophy*, Theosophical Publishing, London, 1888.

Bower, B., "Human Origins Recede in Australia," *Science News*, Vol. 150, Sept. 28, 1996.

Brace, C. Loring, Nelson, Harry, and Korn, Noel, *Atlas of Fossil Man*, Holt, Rinehart and Winston, NY, 1971.

Brander, Bruce, *The River Nile*, National Geographic Society, 1966, 1968.

Browder, Anthony T., *Nile Valley Contributions to Civilization*, The Institute of Karmic Guidance, Washington, 1992.

Budge, E. A. Wallis, *An Egyptian Hieroglyphics Dictionary*, 2 vols., Dover, NY, 1978.

Budge, E. A. Wallis, *Egyptian Language*, Dover, NY, 1983.

Budge, E.A.Wallis, *Osiris and the Egyptian Resurrection*, 2 vols., Dover, NY, 1973 (1911 original).

Budge, E.A.Wallis, translator, *The Book of the Dead*, University Books, NY, 1960 (copy of 1913 Medici Society version).

Cernan, C. W., *Gods, Graves, and Scholars*, Bantam, NY, 1972 (originally published in German in 1949).

Clark, R. T. Rundle, *Myth and Symbol in Ancient Egypt*, Thames and Hudson, NY, 1959.

Cone, Joseph, *Fire Under the Sea*, William Morrow, NY, 1991.

Dalton, Bill, *Indonesian Handbook*, Moon Publications, Chico, California.

Davidovits, Dr. Joseph, and Morris, Margie, *The Pyramids: An Enigma Solved*, Dorset Press, NY, 1988.

De Leeuw, Hendrik, *Crossroads of the Java Sea, Jonathon Cape and Harrison Smith*, NY, 1931.

de Neve, G.A., "Earlier Eruptive Activities of Krakatoa in Historic Time During the Quaternary," in *Symposium on 100 Years Development of Krakatoa and Its Surroundings*, Volume I, LIPA, 1983.

de Santillana, Giorgio, and von Dechend, Hertha, *Hamlet's Mill: An essay on myth and the frame of time*. Gambit, Boston, 1969.

Encyclopedia Britannica, William Benton, Chicago, 1952.

Encyclopedia Britannica, William Benton, Chicago, 1969.

Erman, Adolf, *Life in Ancient Egypt*, Dover Publications, NY, 1894, 1971.

Fagan, Brian, *The Journey from Eden*, Thames and Hudson Ltd., London, 1990.

Fagan, Brian, *Time Detectives*, Simon and Schuster, NY, 1995.

Feder, Kenneth, *Frauds, Myths, and Mysteries*, Mayfield Publishing, Mountain View, CA, 1996.

Feynman, Richard P., *Six Easy Pieces*, Helix Books, 1995.

Francis, Peter, *Volcanoes*, Penguin, 1976.

Freud, Sigmund, *Moses and Monotheism*, Vintage Books, 1939.

Fuhrman, Joel, M.D., *Fasting and Eating for Health*, St. Martin's Press, 1995.

Furneaux, Rupert, *Krakatoa*, Prentice-Hall, Inc. NJ, 1964.

Fuller, R. Buckminster, *Critical Path*, St. Martin's, NY, 1981.

Fuller, R. Buckminster, *Tetrascroll*, St. Martin's, NY, 1975, 1982.

Galileo, *Dialog Concerning the Two New Sciences*, Great Books of the Western World, 1952 (originally 1638).

Gardner, Martin, *Fads and Fallacies in the Name of Science*, Dover, NY, 1954, 1957.

Gaulin, J. C. and McBurney, Donald, *Psychology: An Evolutionary Approach*, Prentice Hall, 2001.

Gaulin, Steven J. C., McBurney, Donald H., *Evolutionary Psychology*, Second Edition, Pearson Prentice Hall, 2004.

Godwin, Malcolm, *Angels: An Endangered Species*, Simon and Schuster, NY, 1990.

Greene, Mott T., *Natural Knowledge in Preclassical Antiquity*, Johns Hopkins, Baltimore, 1992.

Grove, Noel, "Volcanoes: Crucibles of Creation," *National Geographic*, Dec., 1992.

Harris, Stephan L., *Agents of Chaos: Earthquakes, Volcanoes and other Natural Disasters*, Mountain Press, Montana, 1990.

Haught, John F., *Responses to 101 Questions on God and Evolution*, Paulist Press, 2001.

Hawking, Steven, *A Brief History of Time*, Bantam Books, 1988.

Hawkins, Jeff, *On Intelligence*, Times Books, 2004.

Heggie, Douglas, *Megalithic Science*, Thames and Hudson, 1981.

Herodotus, *The Histories*, Penguin Classics, 1972.

Horgan, John, *Rational Mysticism*, Houghton Mifflin, 2003.

Hostetter, Clyde, *Star Trek to Hawa-ii: Mesopotamia to Polonesia*, The Diamond Press, CA, 1991.

Hutton, Peter, *Java*, Apa Productions, Hong Kong, 1980.

Islam: Muhammad and His Religion, Jeffery, ed., LAP, 1958.

Keys, David, *Catastrophe: An Investigation into the Origins of the Modern World*, Ballantine Books, 1999.

Kohler, Pierre, *Volcanoes and Earthquakes*, Barron's, NY, 1986.

Krafft, Maurice and Katia, *Volcanoes: Earth's Awakening*, Hammond, 1980.

Kuhn, Thomas, *The Structure of Scientific Revolutions*, University of Chicago Press, 1962.

LaMoreaux, Dr. Phillip E., and Idris, Col Hussein, *The Exodus: Myth, Legend, History*, Word Way Press, Alabama, 1996.

Larick, Roy, and Ciochon, Russell, "The African Emergence and Early Dispersals of the Genus Homo," *American Scientist*, Vol. 84, No. 6, Nov-Dec 1996.

Le Plongeon, Augustus, *Queen Moo and the Egyptian Sphinx*, Health Research, Mokelumne Hill, CA, 1972.

Leeming, David Adams, *The World of Myth*, Oxford University Press, 1990.

Lehner, Mark, *The Complete Pyramids*, Thames and Hudson, London, 1997.

Luce, J. V., *The End of Atlantis*, Bantam, 1978.

Mackenzie, Donald A., *Pre-Columbian America: Myths and Mysteries*, Senate, NY, 1996.

Malinowski, Bronislaw, *Magic, Science, and Religion*, Doubleday, 1948.

Margulis, Lynn, and Sagan, Dorian, *Acquiring Genomes*, Basic Books, 2003.

Marshall, Andrew and Walker, Zeanne, "Climbing the Tree of Life," *Garuda*, 1997.

Maspero, G., *New Light on Ancient Egypt*, Appleton and Co., NY, 1909.

McBride, L. R., *The Kahuna: Versatile Mystics of Old Hawaii*, Petroglyph Press, Hilo, Hawaii, 1983.

Melville, Leinani, *Children of the Rainbow*, Quest, 1969.

Mercer, Samuel A.B., *The Pyramid Texts*, Longmans, Green and Co., NY, 1952.

Michanowsky, George, *The Once and Future Star*, Barnes and Noble, NY, 1979.

Morgan, Elaine, *The Aquatic Ape*, Stein and Day, NY, 1982.

Morgan, Elaine, *The Scars of Evolution*, Oxford University Press, NY, 1990.

Oey, Eric M., editor, *Sumatra: Island of Adventure*, Passport Books, Lincolnwood, Chicago, 1996.

Oppenheimer, Steven, *Eden in the East: The Drowned Continent of Southeast Asia*, Orion, 1998.

Pauling, Linus, *College Chemistry*, Freeman, 1964.

Pellegrino, Charles, *Unearthing Atlantis*, Vintage Books, NY, 1991.

Pinker, Steven, *The Language Instinct*, Harper Perennial, 1995.

Pinker, Steven, *How the Mind Works*, W. W. Norton, 1999.

Plato, *Timaeus and Critias*, 360 BC, translated by Benjamin Jowett, in *Great Books of the Western World*, Encyclopedia Britannica, William Benton, Chicago, 1952.

Powers, William, *Behavior: The Control of Perception*, 1973.

Pucci, Idanna, *Bhima Swarga: The Balinese Journey of the Soul*, Little, Brown and Company.

Quirke, S. and Spencer, J., ed., *The British Museum Book of Ancient Egypt*, Thames and Hudson, 1992, 1996.

Ramage, Edwin, (ed.), *Atlantis: Fact or Fiction?* Indiana University Press, Bloomington, 1978.

Sagan, Carl, *The Demon-Haunted World*, Ballantine Books, 1996.

Sanders, N.K., *The Epic of Gilgamesh*, Penguin, NY, 1960.

Schneider and Sagan, *Into the Cool: Energy Flow, Thermodynamics, and Life*. The University of Chicago Press, 2005.

Schoch, Robert, *Voyages of the Pyramid Builders: The True Origins of the Pyramids from Lost Egypt to Ancient America*, Putnam, 2003.

Schwartz, Jean-Michel, *The Mysteries of Easter Island*, Avon, NY, 1973.

Sellers, Jane, *The Death of God in Ancient Egypt*, Penguin, London, 1992.

Shermer, Michael, *The Science of Good and Evil*, Times Books, 2004.

Shermer, Michael, *The Moral Arc*, Henry Holt and Company, 2015.

Simpkin, Tom and Fiske, Richard, *Krakatoa 1883: The Volcanic Eruption and its Effects*, Smithsonian Institute Press, Washington DC, 1983.

Smith, Huston, *The Religions of Man*, Harper Collins Publishers, January 1965.

Smith, Huston, *Why Religion Matters*, Harper, SF, 2000.

Sobel, Dava, *Galileo's Daughter*, Penguin, 2000.

Stanford Encyclopedia of Philosophy, "Popper, Karl," Stanford University, (available online).

Steiner, Rudolf, *Egyptian Myths and Mysteries*, Anthroposophic Press, NY, 1971.

The Epic of Gilgamesh, Penguin Classics, 1957.

The Upanishads: Breath of the Eternal, New American Library, 1957.

Thompson, Richard L., *Alien Identities*, Govardhan Hill, Alachua, Florida, 1993.

Thornton, Ian, *Krakatoa: The Destruction and Reassembly of an Island Ecosystem*, Harvard University Press, Cambridge, 1996.

Taylor, Edward B., *Origins of Culture*, Peter Smith, Mass., 1970. (Originally published as Vol.1 of *Primitive Culture*, John Murray, London, sec. ed., 1873.)

Taylor, Edward B., *Primitive Culture*, Vol. I & II, John Murray, London, third ed., 1891.

Taylor, Edward B., *Religion in Primitive Culture*, Peter Smith, Mass., 1970. (Originally published as Vol.2 of *Primitive Culture*, John Murray, London, sec. ed., 1873.)

Vercoutter, Jean, *The Search for Ancient Egypt*, Harry Abrams, NY, 1992.

Vitaliano, D. B., *Legends of the Earth: Their Geological Origins*, Indiana University Press, Bloomington, 1973.

Volcano, Time-Life Editors, Time-Life Books, 1982.

Wasserman, James, *Egyptian Book of the Dead*, Raymond Faulkner, translator, Chronicle Books, San Francisco, 1994.

West, John Anthony, *Serpent in the Sky*, Quest Books, Wheaton, Illinois, USA, 1993 (Harper and Row, 1979)

Wilson, David Sloan, *Darwin's Cathedral*, University of Chicago Press, 2003.

Wilson, E. O., *Sociobiology: The New Synthesis*, Harvard University Press, 1975.

Wilson, Forbes, *The Conquest of Copper Mountain*, Antheneum, NY, 1981.

Wolpoff, Milford and Caspari, Rachel, *Race and Human Evolution*, Simon and Schuster, NY, 1997.

Zauzich, Karl-Theodor, *Hieroglyphs Without Mystery*, (Trans. Ann Macy Roth) University of Texas Press, 1992.

