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第廿二届国际科学史大会

Beijing 24-30 July, 2005

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Book of Abstracts 论文摘要集

General Theme:
Globalization and Diversity:
Diffusion of Science and Technology throughout History

会议主题：
全球化与多样性：
历史上科学和技术的传播

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Who Were the Earliest Scholars of Submarine Volcanoes and their Submerged Hydrothermal Vents?

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Medieval Indian manuscripts dating from the 17th century to the 4th century and possibly as far back as 1500 BCE (similar to BC, Before the Common Era), have been found to contain 16 remarkable descriptions by medieval scholars that pieced together carefully, produce an image of a submarine volcano with an associated hydrothermal vent ("hot spring") system. Moreover, the volcano is described to be precisely in the area of ocean geophysicists would point to today: India's northwestern continental margin. The remarkable texts suggest Indian scholars were aware of a volcanic structure off their shores, and deduced a little, at least, about its submerged physical features and hydrothermal system – its structure, "plumbing" and effects on the composition of the surrounding water. Significantly, *all* the descriptions of the volcano are coherent. The descriptions pertain to its:

a) Volcanic Nature

b)Oceanic Location

c)Hydrothermal Vents

d)Submerged Appearance

e)Location in the Arabian Sea

A single parallel description might be discarded as a fluke coincidence, but 16 parallel descriptions become much harder to ignore. A natural and simple source for their remarkable knowledge about an object normally submerged deep beneath the ocean surface, can be modeled on the basis of a recently witnessed volcanic phenomena. This was the sudden emergence of Surtsey in 1963 – a volcanic island near Iceland – from beneath the ocean. Could medieval people in India have witnessed a similar event? The geophysical evidence is positive. The medieval descriptions run parallel.

Additional References

Also published in: Sanjay C. Patel, *Who Really Discovered Deep-Sea Volcanoes?* IMAREST, Marine Scientist, No. 9, 4Q, December 2004, pp. 27-29; Sanjay C. Patel, *Deep-Sea Volcanoes and Their Associated Hydrothermal Vents,* Historical Notes, Indian National Science Academy (INSA), New Delhi, December 2004, 39.4 (2004), pp. 511-518

IMPORTANT

Please read updates on following page.

Thank you

UPDATES

Timeframe of Volcanic Activity Given by Ancient Scholars

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1. Some scientists say it is "impossible" for volcanic activity to have occurred around India 2500 BC. It could only have happened millions of years ago.[1]

Originally, as you've seen in this paper, I provided a hypothesis which suggests the ancient parallels with modern discoveries have a physical explanation. That is, ancient Indian scholars or mariners from Lothal could have visited a volcano that might have arisen from the deep ocean near India (like Surtsey near Iceland) a few thousand years ago and studied any shallow hydrothermal vents around it that are usually submerged about 1.5 miles beneath the ocean surface and completely inaccessible. However, analysis by some geologists appears to undermine this explanation. They say it is "impossible."

Here's why:

1. Though India and the Indian Ocean had experienced remarkable volcanism millions of years ago, it is problematic to apply those prehistoric conditions – even anomalously – to the sea around India a few thousand years ago.
2. This is because, unlike Surtsey, India hasn't been over a hotspot for millions of years. There is therefore no physical source for the tremendous volume of magma/lava needed to build an island like Surtsey reaching from the seabed to above sea level.
3. You can't get lava from nothing and you can't build the volcano without lava. Even by 'special pleading' or 'anomalous occurrences.'[2]
4. Human beings didn't exist millions of years ago when such volcanoes did climb above sea level in the Indian Ocean. So humans couldn't have studied them back then.
5. Finally, humans 5000 years ago could not build an Alvin to dive to the seabed to study the vents.

So a scientific dilemma has arisen: scientists agree that the similarities between the ancient descriptions and deep-sea hydrothermal vents are rigorous and real. That's why they published them.

Yet some scientists undermine the explanation.

But there is a bigger twist.

2. Ancient scholars *didn't* say the volcanic activity occurred around 2500 BC. They said it occurred previous to 118 million years ago![3]

- The scholars did not say that the huge volcanic structure emerged from the ocean during their own lifetimes, perhaps around 5000 years ago corresponding to when Lothal was built.
- Instead, they said it occurred previous to 118 million years ago, soon after a coastal part of India itself was ablaze with volcanic fire.[4]
- The huge volcano that arose from the ocean was so fiery, they said, it appeared it might end all life. It later submerged and the planet was saved. There are millions of submarine volcanic edifices in the ocean, they said.[5]

Does this accord with modern science?

118 million years ago, say scientists, India was indeed on fire with volcanism.[6]

An area called the Rajmahal-Bengal-Sylhet Igneous Province on the northeastern coast of India began forming 118 million years ago from extensive volcanism associated with the Kerguelen hotspot and continued until about 115 million years ago.[7] There was also massive volcanic activity in the ocean around that time. It was also associated with the Kerguelen hotspot, and additionally, with the separation of India from Antarctica-Australia which began about 130 million years ago.[8] The hotspot created the Kerguelen Plateau and Broken Ridge which became largely 'subaerial' or above sea level.[9] This was probably during times of peak lava flow 119-110 million years ago.[10] The volcanic emissions were so vast and explosive, they seriously affected life in the region and probably globally.[11] The Plateau has now largely submerged.

Science gives a similar description and timeline to that given by the ancient scholars. It is truly remarkable.

SUMMARY

1. There are numerous similarities between ancient discoveries and the modern discovery of deep sea hydrothermal vents.
2. The similarities meet the highest standards of academic rigor – that's why they achieved publication in mainstream, professional, peer-reviewed, scientific journals.
3. Even the timeline of 118 million years ago is similar with science.
4. These agreements appear inexplicable by any physical model.
5. How could ancient scholars know or guess the timeline so precisely? Statistically, through sheer fantasy, they could have given any timeframe whatsoever from 1 year ago to infinite years ago. But they didn't. They stated 118 million. What are the chances of that? 1 in infinity.
6. How could ancient scholars know or guess the 17 descriptions of hydrothermal vents? And what are the chances of just dreaming them up, along with the correct timeline? Zero.

4. There are even more parallels with science.

You may naturally ask: *since the scholars knew about hydrothermal vents, did they also have valid knowledge of other things such as our planet, sun, universe, and their creation?*

Indeed, they did.

My research (reviewed by respected astrophysicists such as a writer for the acclaimed University of Cambridge Monograph Series (Cambridge Monographs on Mathematical Physics), Oxford University Press, and the science journal The Scientific American[12]) reveals the ancient scholars described our Earth, Universe, and its "Big Bang" creation in remarkable harmony with science.

How are such depictions by ancient scholars possible when they should have had no notion even of these modern discoveries?

5. The scholars were yogis. They were spiritual.

They sat meditatively on a mountain, beside a river, or in a forest. They were not mariners or explorers of the physical kind, but the spiritual kind.

They clearly stated that they connected to their deeper Self and the entire universe during their meditation. Knowledge of the universe sprung from *within* them. They proclaimed:

"Knowledge of subtle, obstructed, and far-away things arises from yoga."

Yoga Sutra 3.24

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The disciple asked:
"What you saw then in your consciousness
– was it seen by you while you were staying in one place or while moving about?"

The yogi replied:
"I was neither essentially stationed in one place, nor was I essentially mobile.
Thus I saw this within my own self here."

Yoga Vasishta 6.2.62.1-3

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[I] can see infinite millions
of Cosmic Worlds
as easily as a drop of water in my palm.

The inability of physical models to explain their remarkable wisdom opens the door to a spiritual explanation, the one given by the yogis themselves.

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