MA330
Sathaye

Summary of BBC discussion **For 9/2/16**

Here is a list of points discussed during the interview and my intended points of discussion.

1. List of inventions attributed to Indian mathematics: zero, infinity, Pythagoras Theorem, Geometry for altar constructions, astronomy.

2. Discussion of Harappa civilization. Evidence of accurate weights and precise bricks. Text is not deciphered and not much in volume. **Comment:** Recently, Harappan script has been noted in inscriptions in the middle east.

3. Vedas (scriptures). Shulba sutras or notes on geometric constructions. **Comment:** Why "surveyor's manual"? Reasons for comparing and transforming areas. Verse about the peacock. Incomplete description of the Pythagoras Theorem.

4. Jainism and infinity. **Comment:** Several incorrect references: levels of infinity, recurrent cycles, infinite souls. Ordinal versus cardinal infinity.

5. Invention of numerals. brahmi, kharoshtri. Bakshali manuscript. **Comment:** Did zero arise only in 4th cent.? Why is shūnyatā confused with zero as a number? Grammarian zero. Formal infinity.

6. Discussion of development and transmission of mathematics. **Comment:** Alternate description.

7. Āryabhaṭa and his mathematics. **Comment:** Round earth, heliocentric model(?), longitudes and local time. Dispute with Brahmagupta. kuṭṭaka (Euclidean algorithm).

8. Bhāskara II and his work. **Comment:** Description of Līlāvatī too simplistic. More details. Δx.

9. Kerala Mathematics and its transmission. To be discussed in detail later.