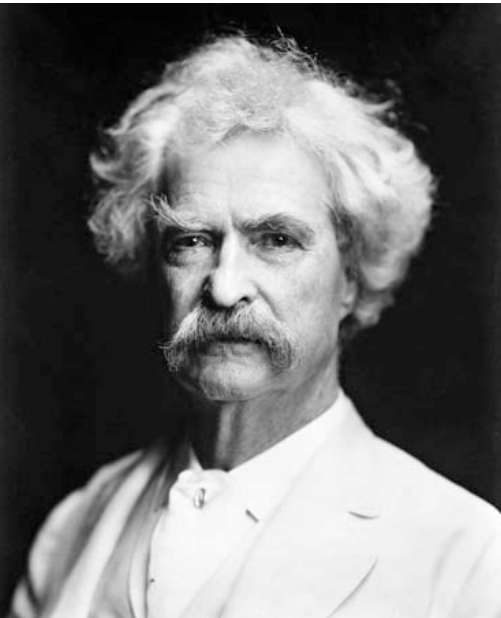




India's
contribution
to the rest of
the world





“India is the cradle of the human race, the birthplace of human speech, the mother of history, the grandmother of legend, and the great grand mother of tradition. Our most valuable and most constructive materials in the history of man are treasured up in India only”

Mark Twain

"India was the motherland of our race

and Sanskrit the mother of Europe's languages.

India was the mother of our philosophy,

of much of our mathematics, of the ideals embodied in christianity... of self-government and democracy.

In many ways, Mother India is the mother of us all."



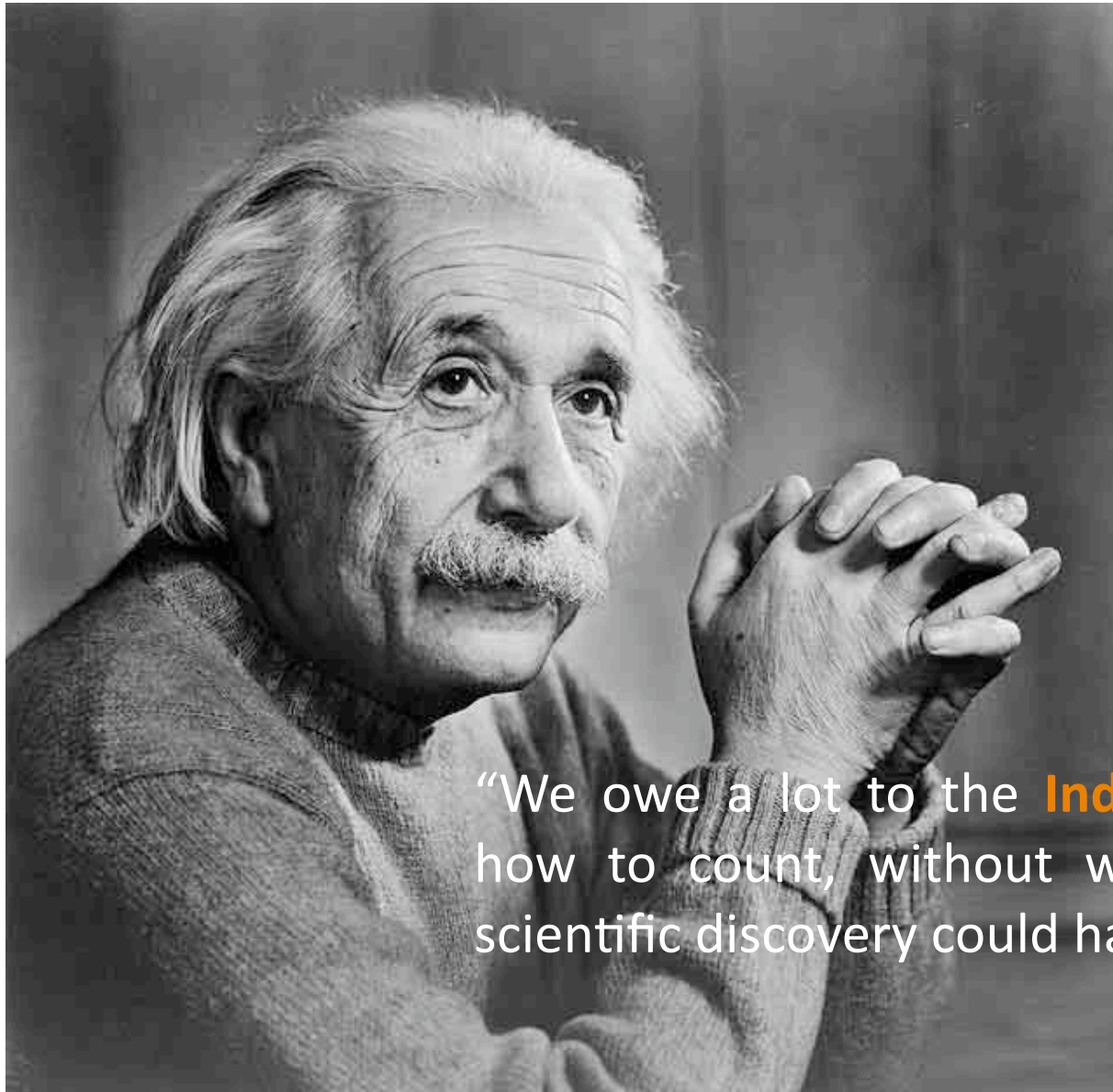
- Will Durant

- American Historian 1885-1981

“If there is one place on the face of this Earth where all the dreams of living men have found a home from the very earliest days when Man began the dream of existence, it is **India.**”

Romain Rolland - French Philosopher 1886-1944



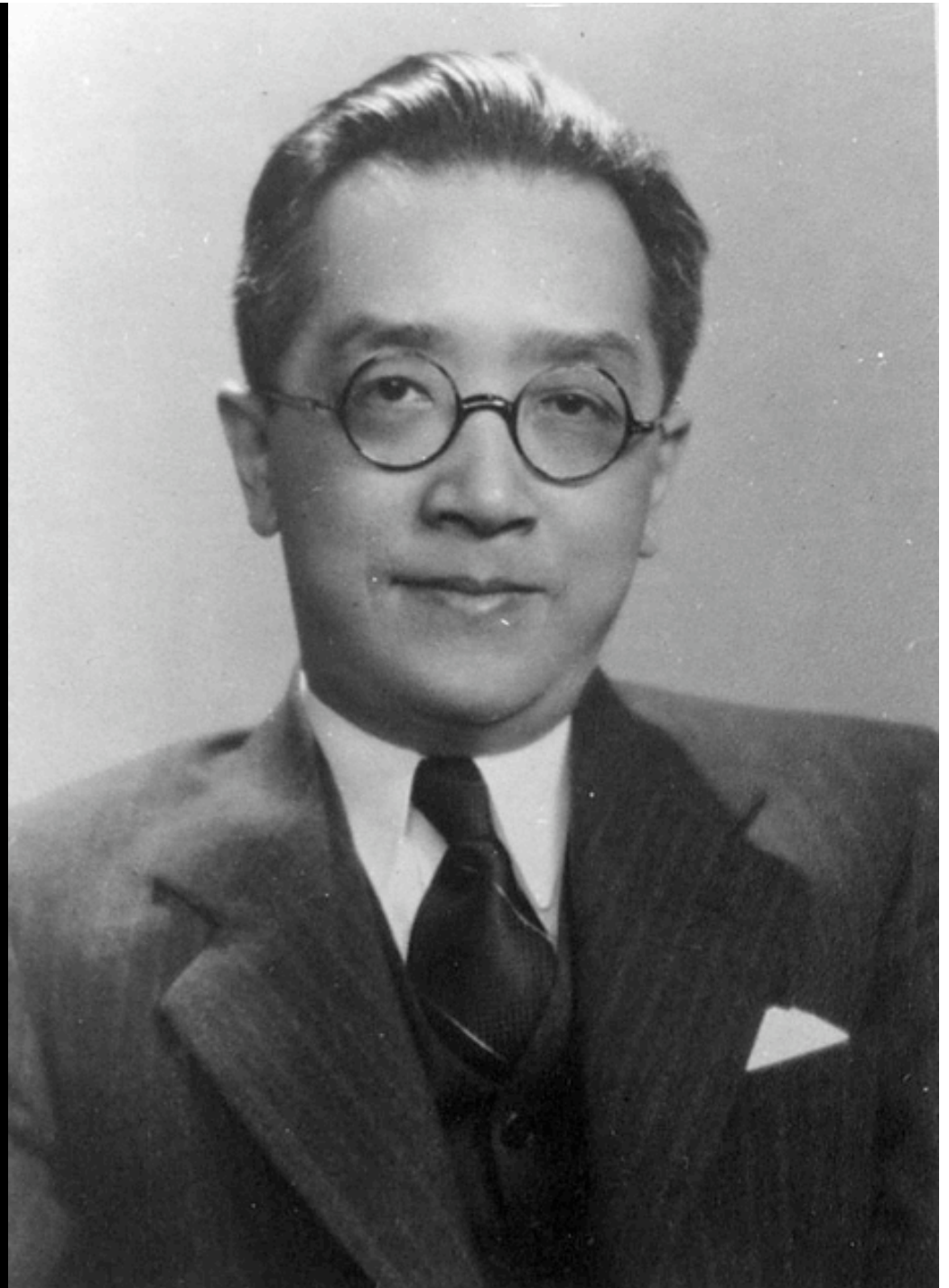


“We owe a lot to the **Indians**, who taught us how to count, without which no worthwhile scientific discovery could have been made”

Albert Einstein

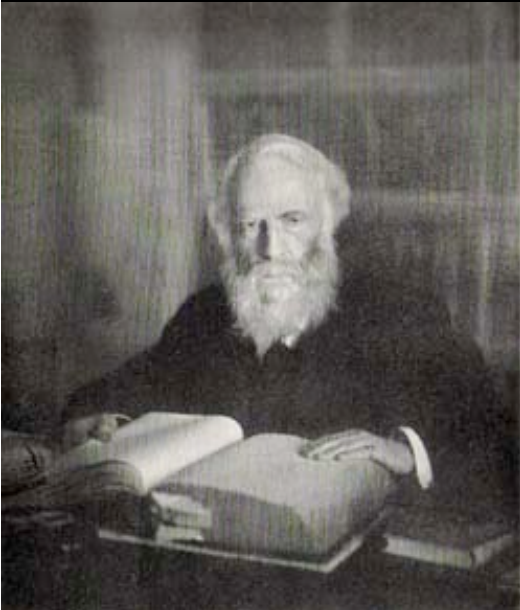
“India conquered and dominated China culturally for 20 centuries without ever having to send a single soldier across her border.”

*Hu Shih, former Ambassador of
China to USA*



“Many of the advances in the sciences that we consider today to have been made in Europe were in fact **made in India centuries ago**”

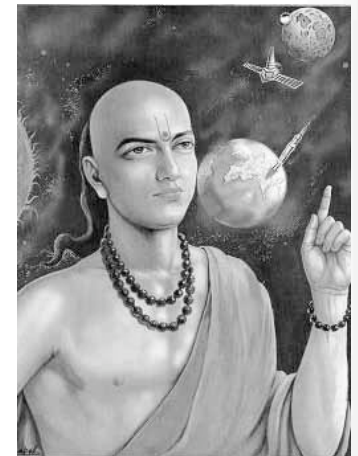
Grant Duff British Historian of India





The background of the slide features two vertical stripes of color. The left stripe is orange and has a slightly wavy, torn-edge appearance. The right stripe is green and is a solid, uniform color. The two stripes meet at a white vertical gap in the center.

India never invaded any country in her
last 10,000 years of history.



India invented the Number System. Zero was invented by Aryabhata.

The place value system, the decimal system was developed in India in 100 BC.

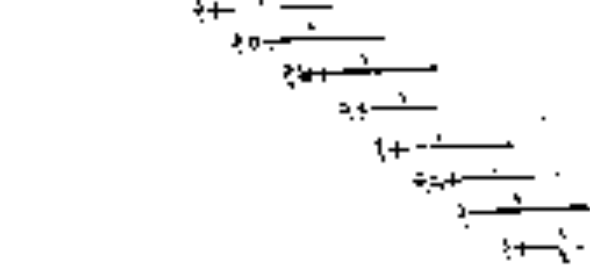
śūnya = void
kha = sky
ākāśa = space
bindu = dot

सप्तमं क्रमिकं सीरुवर्षे अधिवासमासम् ।



सप्तमं क्रमिकं सीरुवर्षे अधिवासमासम् ।

$1 \times 1 = 1$
 $2 \times 2 = 4$
 $3 \times 3 = 9$
 $4 \times 4 = 16$
 $5 \times 5 = 25$
 $6 \times 6 = 36$
 $7 \times 7 = 49$
 $8 \times 8 = 64$
 $9 \times 9 = 81$
 $10 \times 10 = 100$
 $11 \times 11 = 121$
 $12 \times 12 = 144$
 $13 \times 13 = 169$
 $14 \times 14 = 196$
 $15 \times 15 = 225$
 $16 \times 16 = 256$
 $17 \times 17 = 289$
 $18 \times 18 = 324$
 $19 \times 19 = 361$
 $20 \times 20 = 400$
 $21 \times 21 = 441$
 $22 \times 22 = 484$
 $23 \times 23 = 529$
 $24 \times 24 = 576$
 $25 \times 25 = 625$
 $26 \times 26 = 676$
 $27 \times 27 = 729$
 $28 \times 28 = 784$
 $29 \times 29 = 841$
 $30 \times 30 = 900$
 $31 \times 31 = 961$
 $32 \times 32 = 1024$
 $33 \times 33 = 1089$
 $34 \times 34 = 1156$
 $35 \times 35 = 1225$
 $36 \times 36 = 1296$
 $37 \times 37 = 1369$
 $38 \times 38 = 1444$
 $39 \times 39 = 1521$
 $40 \times 40 = 1600$
 $41 \times 41 = 1681$
 $42 \times 42 = 1764$
 $43 \times 43 = 1849$
 $44 \times 44 = 1936$
 $45 \times 45 = 2025$
 $46 \times 46 = 2116$
 $47 \times 47 = 2209$
 $48 \times 48 = 2304$
 $49 \times 49 = 2401$
 $50 \times 50 = 2500$
 $51 \times 51 = 2601$
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 $53 \times 53 = 2809$
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 $56 \times 56 = 3136$
 $57 \times 57 = 3249$
 $58 \times 58 = 3364$
 $59 \times 59 = 3481$
 $60 \times 60 = 3600$
 $61 \times 61 = 3721$
 $62 \times 62 = 3844$
 $63 \times 63 = 3969$
 $64 \times 64 = 4096$
 $65 \times 65 = 4225$
 $66 \times 66 = 4356$
 $67 \times 67 = 4489$
 $68 \times 68 = 4624$
 $69 \times 69 = 4761$
 $70 \times 70 = 4900$
 $71 \times 71 = 5041$
 $72 \times 72 = 5184$
 $73 \times 73 = 5329$
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 $76 \times 76 = 5776$
 $77 \times 77 = 5929$
 $78 \times 78 = 6084$
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 $80 \times 80 = 6400$
 $81 \times 81 = 6561$
 $82 \times 82 = 6724$
 $83 \times 83 = 6889$
 $84 \times 84 = 7056$
 $85 \times 85 = 7225$
 $86 \times 86 = 7396$
 $87 \times 87 = 7569$
 $88 \times 88 = 7744$
 $89 \times 89 = 7921$
 $90 \times 90 = 8100$
 $91 \times 91 = 8281$
 $92 \times 92 = 8464$
 $93 \times 93 = 8649$
 $94 \times 94 = 8836$
 $95 \times 95 = 9025$
 $96 \times 96 = 9216$
 $97 \times 97 = 9409$
 $98 \times 98 = 9604$
 $99 \times 99 = 9801$
 $100 \times 100 = 10000$



सप्तमं क्रमिकं सीरुवर्षे अधिवासमासम् ।

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 $96 \times 96 = 9216$
 $97 \times 97 = 9409$
 $98 \times 98 = 9604$
 $99 \times 99 = 9801$
 $100 \times 100 = 10000$

This method of graduated calculation was documented in the Pancha-Siddhantika (Five Principles) in the 5th Century But the technique is said to be dating from Vedic times circa 2000 B.C.

The value of pi was first calculated by Budhayana, & he explained the concept of what is now known as the Pythagorean Theorem



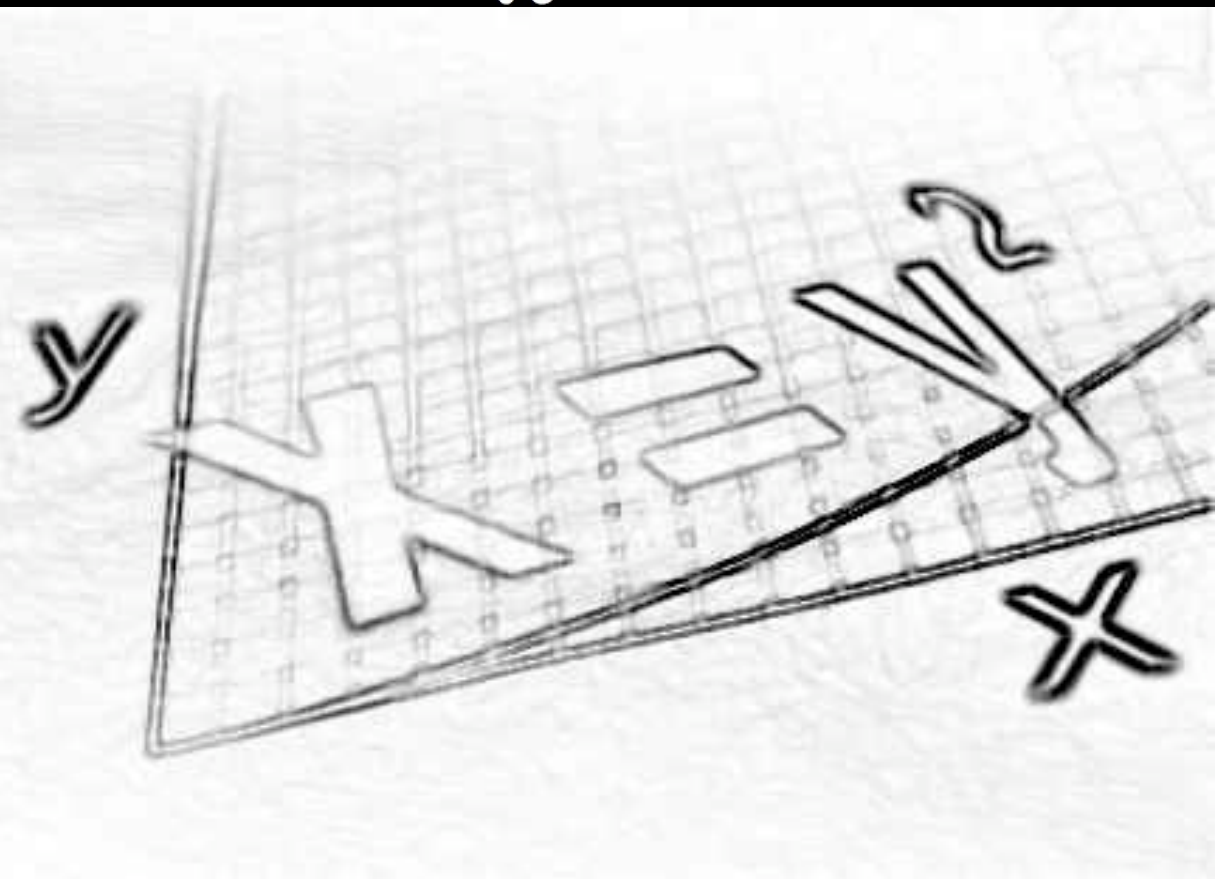
British scholars have last year (1999) officially published that Budhayan's works date back to the 6th Century, which is long before the European mathematicians

3.14159265263124534235679534235453

4666578012030506923969306949396843828574389389342809809076534532453542
2858286858919431923014029712865014382857438938934280980907653453245354
2285828685891943192301402971286501604372461123448237437238299194848392
9412383434143245645774945505943534534949494871470789531123123456767890
9886556745352352343414324564560437246112344823743723829919484839294123
8494550594353453494949487147078953112312345676789098865567453523525654
9243946835857838967115111742834249234044960983409283409183401948457345
2903481093841094825079218934019850958031294734258093480948233409283409
6729073409284230984820394809123849031248490238409234820981093481209381
2353457898097989856745674563411213434454647787007867846342346474791943

Algebra,
Trigonometry &
Calculus
came from India.

$$\frac{d}{d \text{☁}} \int_{\pi}^{\text{☁}} \text{☀} d \text{☀}$$



$$ax^2 + bx + c = 0$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Quadratic equations were by Sridharacharya
in the 11th Century

The largest numbers the Greeks and the Romans used were 10^{**6} (10 to the power of 6) whereas Hindus used numbers as big as 10^{**53} (10 to the power of 53) with specific names as early as 5000 BCE during the Vedic period

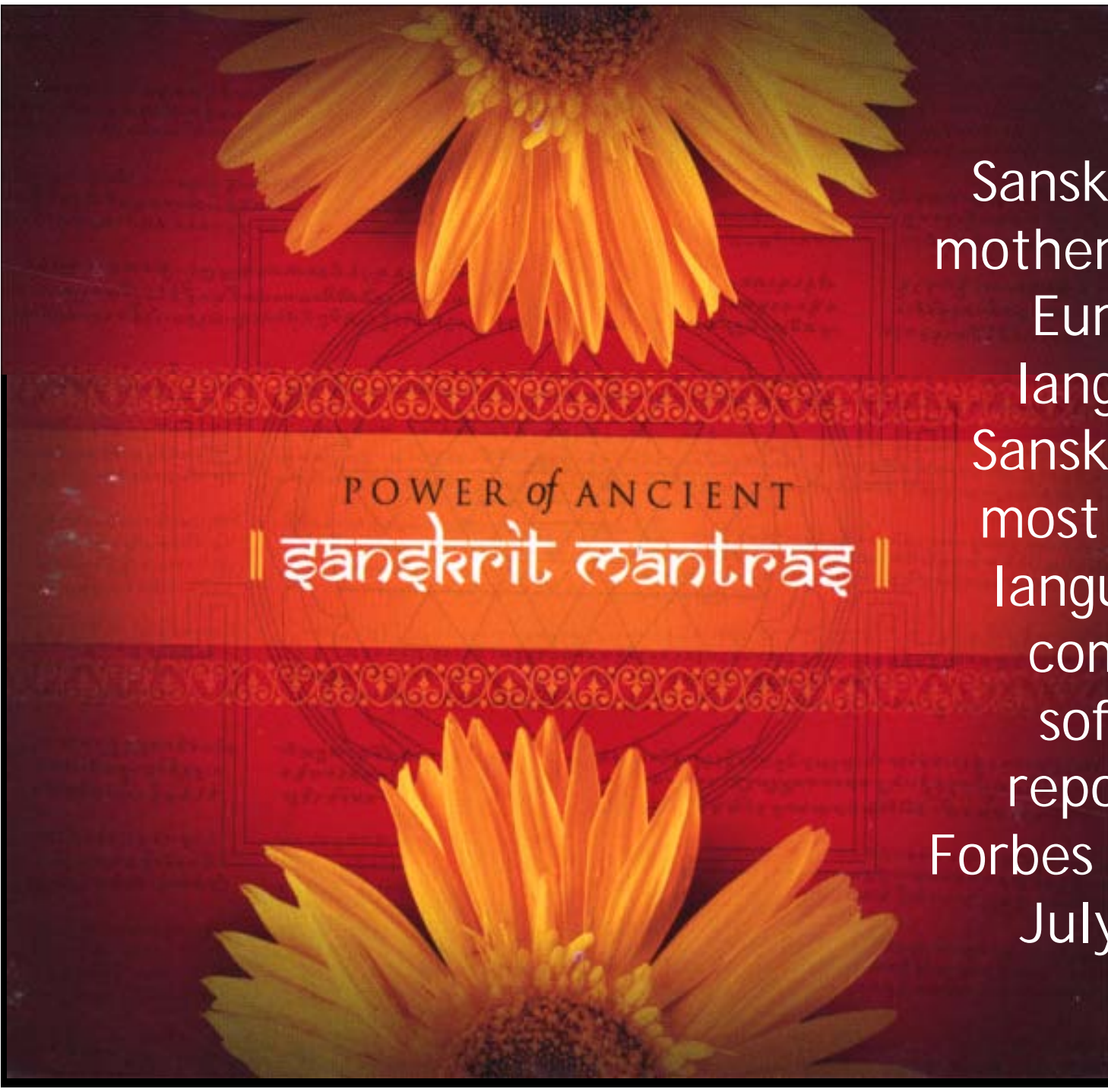
Even today, the largest used number is Tera 10^{**12} (10 to the power of 12)



The World's first university was established in Takshila in 700BC.

More than 10,500 students from all over the world studied more than 60 subjects.

The University of Nalanda built in the 4th century BC was one of the greatest achievements of ancient India in the field of education.



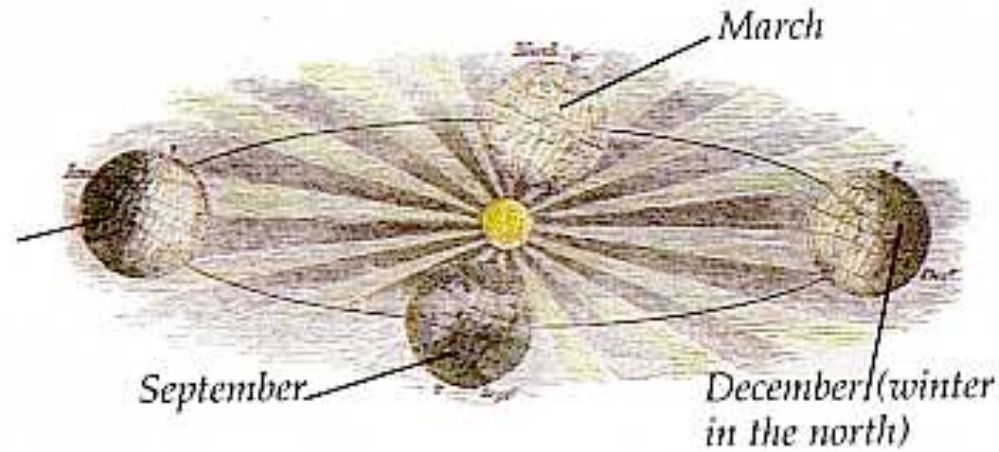
POWER of ANCIENT

॥ इति संस्कृत मंत्राः ॥

Sanskrit is the mother of all the European languages. Sanskrit is the most suitable language for computer software reported in Forbes magazine, July 1987.

According to the Forbes magazine, Sanskrit is the most suitable language for computer software

गुगलियाTM
संस्कृते



Bhaskaracharya calculated the time taken by the earth to orbit the sun hundreds of years before the astronomer Smart.

Time taken by earth to orbit the sun: (5th century)
365.258756484 days



Ayurveda is the earliest school of medicine known to humans. Charaka, the father of medicine consolidated Ayurveda 2500 years ago.

Today Ayurveda is fast regaining its rightful place in our civilization.

The art of Navigation was born in the river Sindh
6000 years ago.

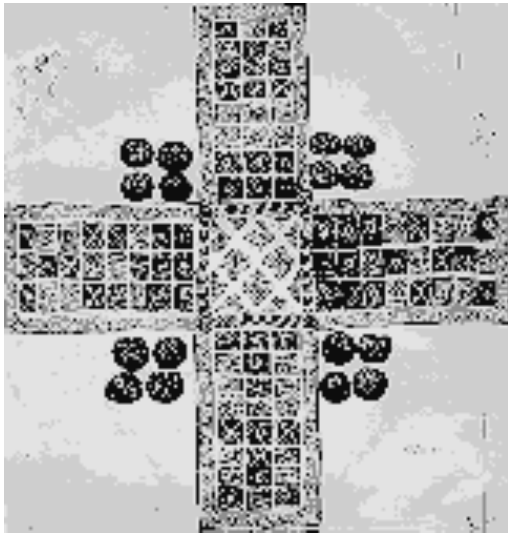
The very word Navigation is derived from the
Sanskrit word NAVGATIH.

The word navy is also derived from Sanskrit 'Nou'.





According to the Gemological Institute of America, up until 1896, India was the only source for diamonds to the world.



Chess (Shataranja or AshtaPada) was invented
in India

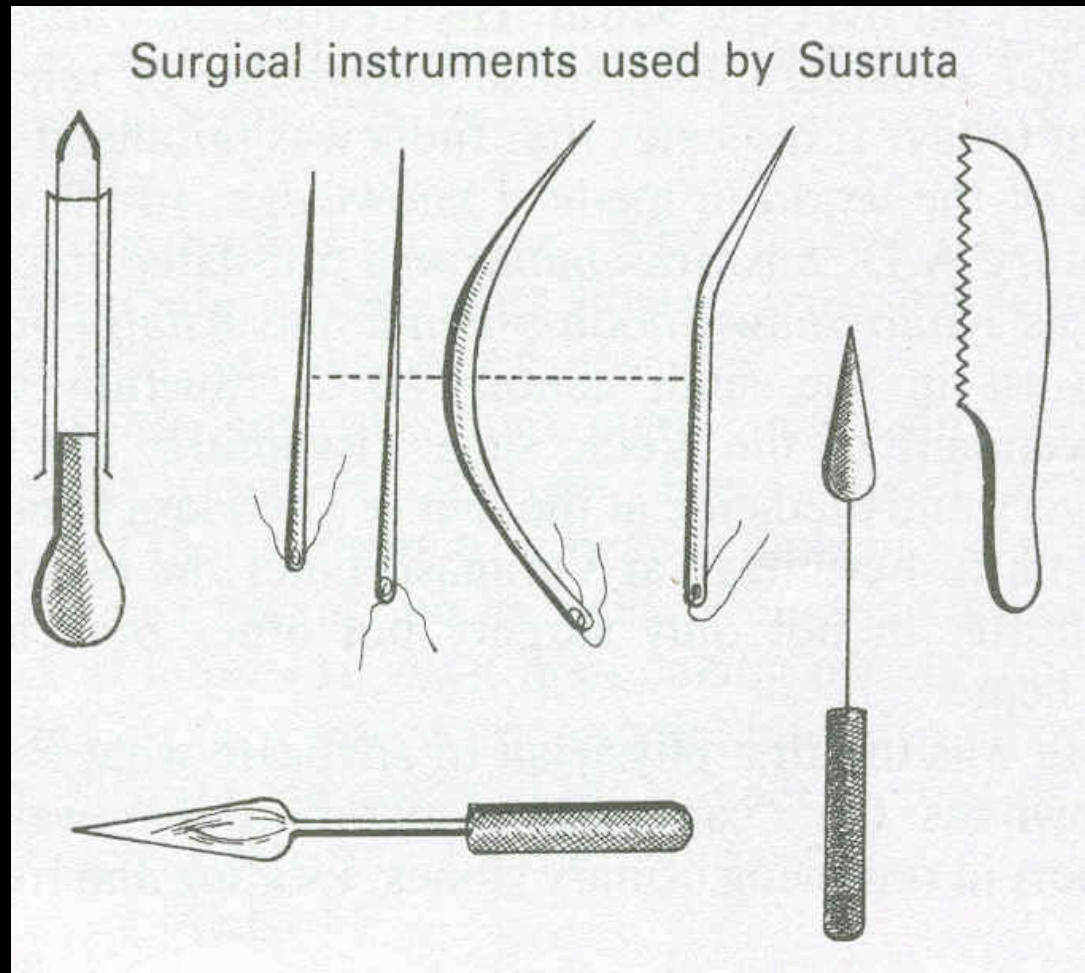




Sushruta is the father of surgery.

2600 years ago he and health scientists of his time conducted complicated surgeries like cesareans, cataract, artificial limbs, fractures, urinary stones and even plastic surgery and brain surgery. Usage of anesthesia was well known in ancient India

Over 125 surgical equipment were used



Deep knowledge of anatomy, physiology, etiology, embryology, digestion, metabolism, genetics and immunity is also found in many texts

The earliest reservoir and dam for irrigation was built
in Saurashtra



Ancient Indus Civilization

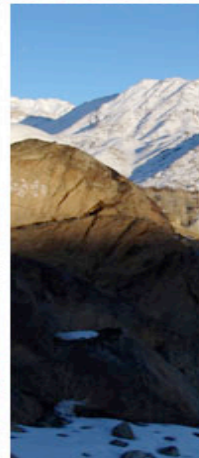
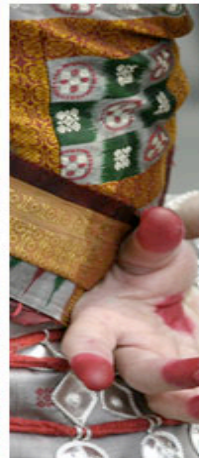
When many cultures were only nomadic forest dwellers over 5000 years ago, Indians established Harappan culture in Sindhu Valley (Indus Valley Civilization)



*Sare Jaha Se Accha
Hindusitaan Hamara*

Want to know more???

India



India's Contribution to
Production Technology and Mechanical
Engineering



In ancient times, commodities like sugar, palm oil, coconut oil, cotton cloth, clarified butter, cast iron, tin sheets, copper vessels, dyes and pigments like cinnabar (ochre), indigo and lac, perfumes like sandalwood oil, musk tamarind, costus, macir, camphor, and even crude glass crockery were being exported from India

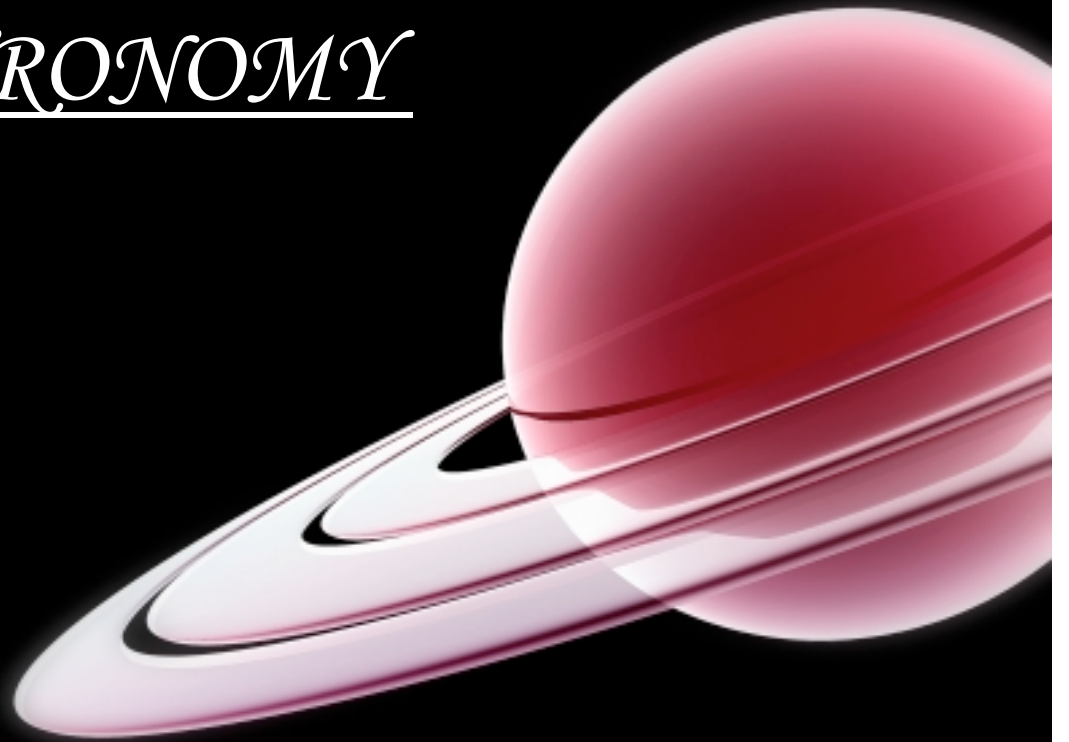


The earliest recorded use of copperware in India has been around 3000 B.C.

The findings at Mohen-jo-daro and Harappa, bear this out The earliest documented observation of smelting of metals in India is by Greek Historians in the 4th Century B.C



India's Contribution to -
ASTRONOMY





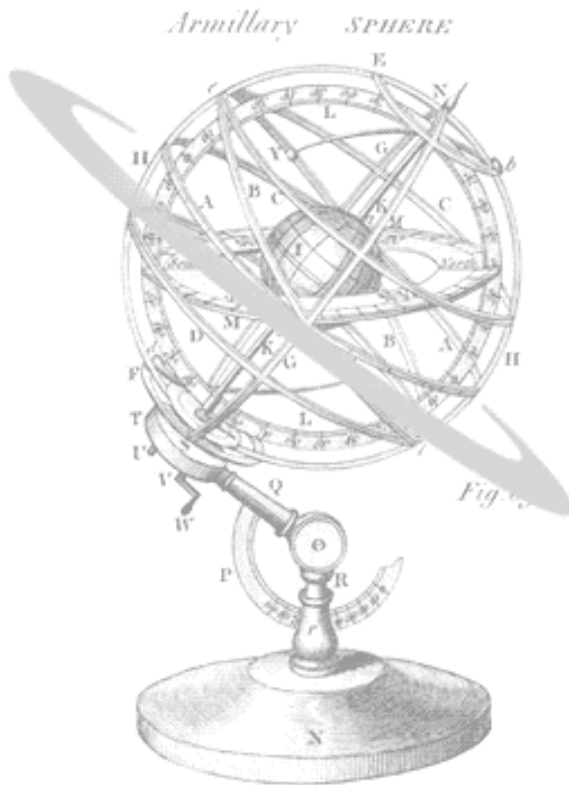
"**In India** I found a race of mortals living upon the Earth. but not adhering to it. Inhabiting cities, but not being fixed to them, possessing everything but possessed by nothing". - Apollonius Tyanaeus

Greek Thinker and Traveller 1st Century AD

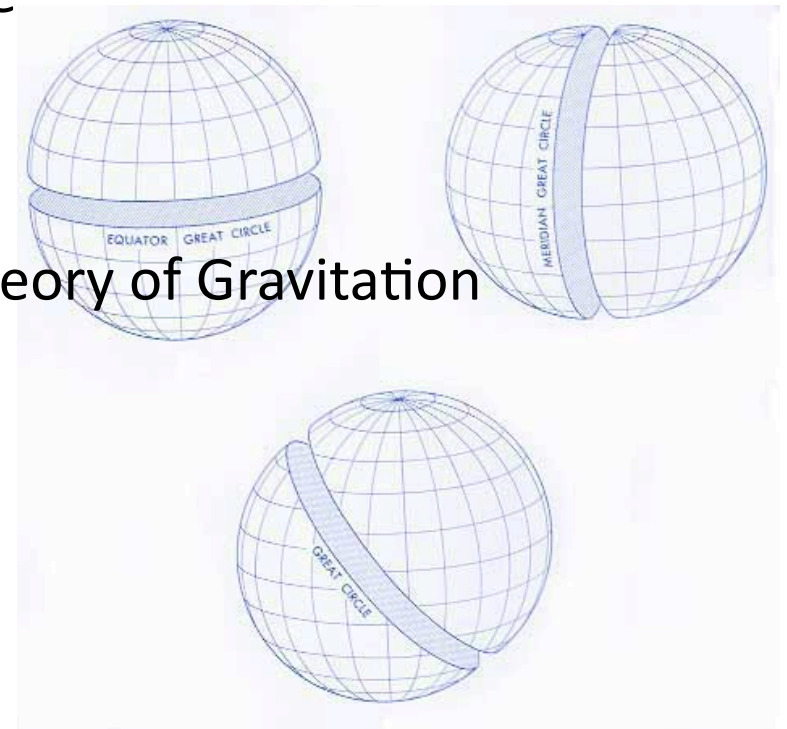


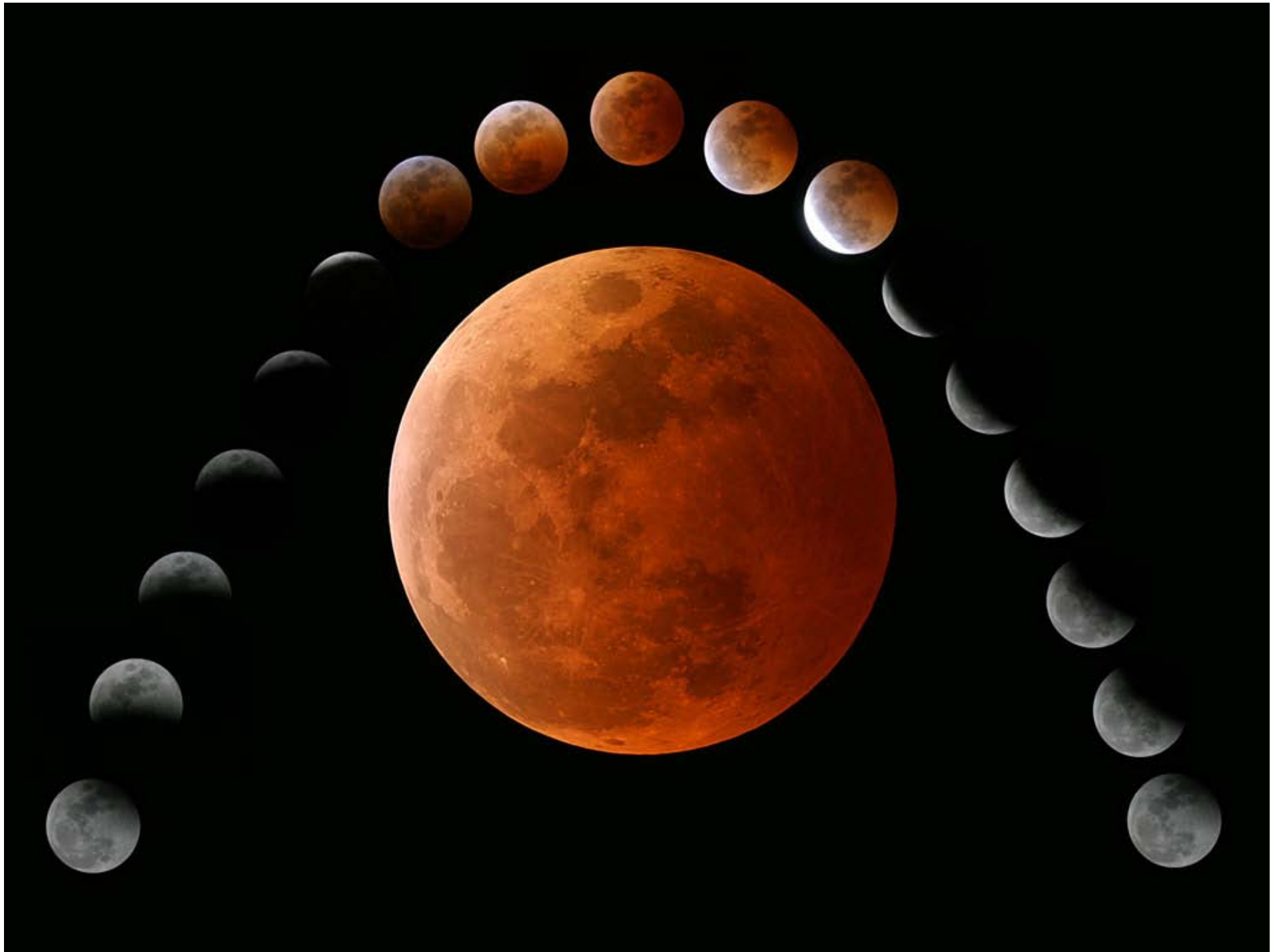
In India the first references to astronomy are to be found in the Rig Veda which is dated around 2000 B.C

The Calculation of Eclipses And The Earth's Circumference



The Heliocentric Theory of Gravitation





पञ्चसिद्धान्तिकाद्यकलिका।

व्यास पञ्चसिद्धान्तिकाद्यकलिकायाः ।

१-२ तत्र त्रयस्त्रिंशत्प्रश्नाः । एतत्सिद्धान्तिकाद्यकलिकायाः ।
 एतत्सिद्धान्तिकाद्यकलिकायाः । एतत्सिद्धान्तिकाद्यकलिकायाः ।
 एतत्सिद्धान्तिकाद्यकलिकायाः । एतत्सिद्धान्तिकाद्यकलिकायाः ।
 एतत्सिद्धान्तिकाद्यकलिकायाः । एतत्सिद्धान्तिकाद्यकलिकायाः ।
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 एतत्सिद्धान्तिकाद्यकलिकायाः । एतत्सिद्धान्तिकाद्यकलिकायाः ।

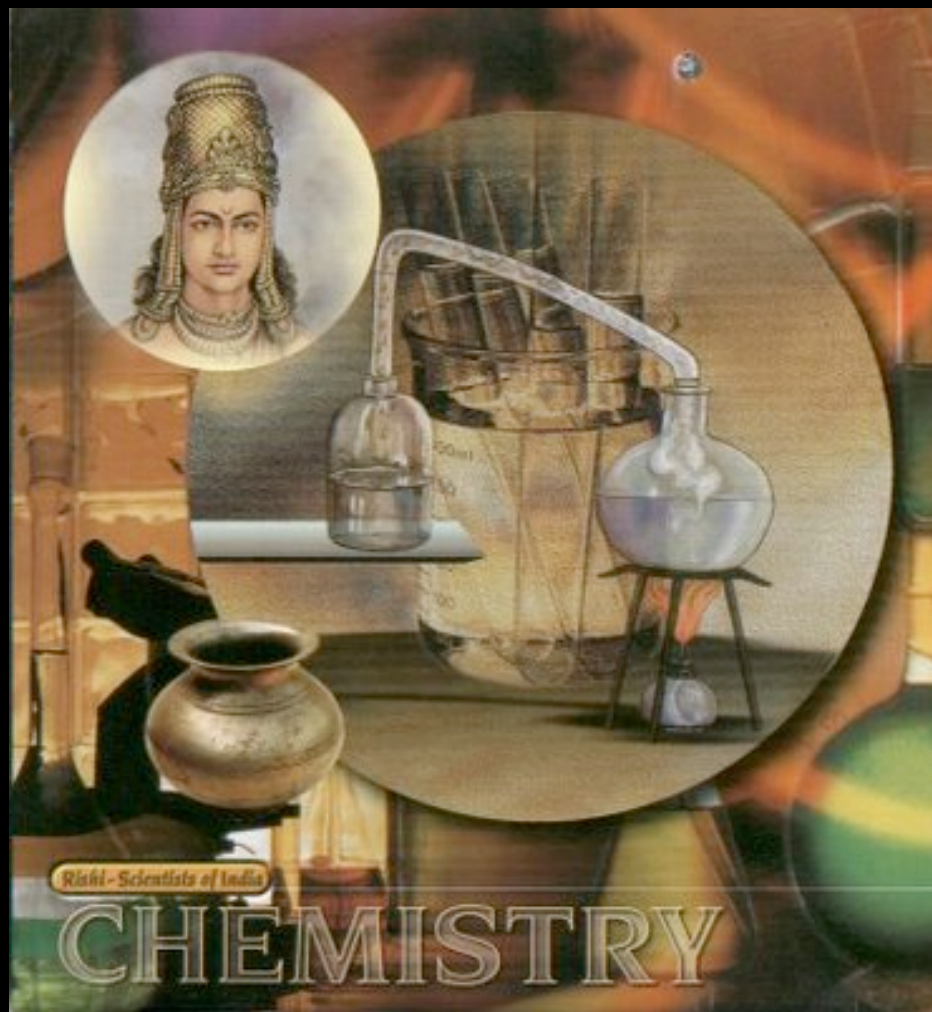


वैश्वदेव्याः सूर्यस्य त्रयोविंशत्याः शतैः । एतत्सिद्धान्तिकाद्यकलिकायाः ।
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 एतत्सिद्धान्तिकाद्यकलिकायाः । एतत्सिद्धान्तिकाद्यकलिकायाः ।

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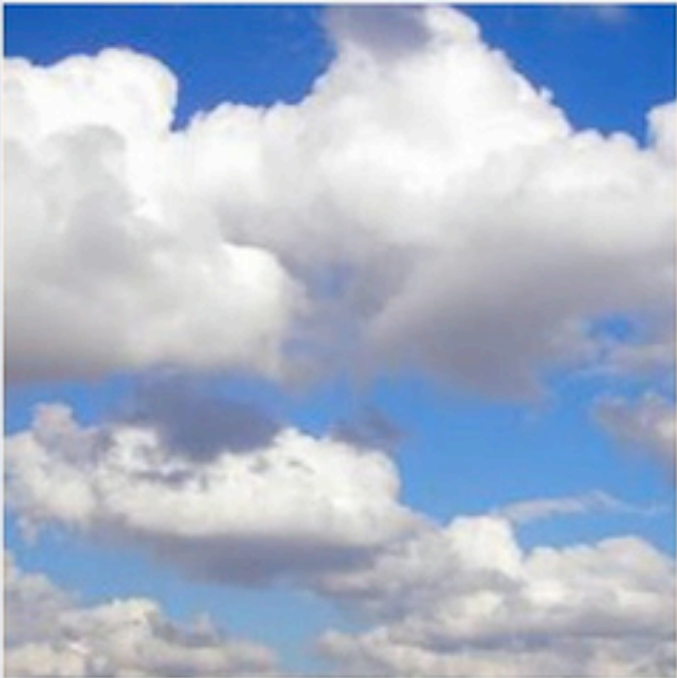
This fascmile is from the Pancha-siddhantika (Five Principles) dated around the 5th century. This text graphically shows how eclipses are to be calculated. Thus this text foreshadows what Western Astronomers propounded nearly one thousand years later

India's Contribution to –
PHYSICS & CHEMISTRY



“Ancient Indian theories lacked an empirical base, but they were brilliant imaginative explanations of the physical structure of the world, and in a large measure, agreed with the discoveries of modern physics”

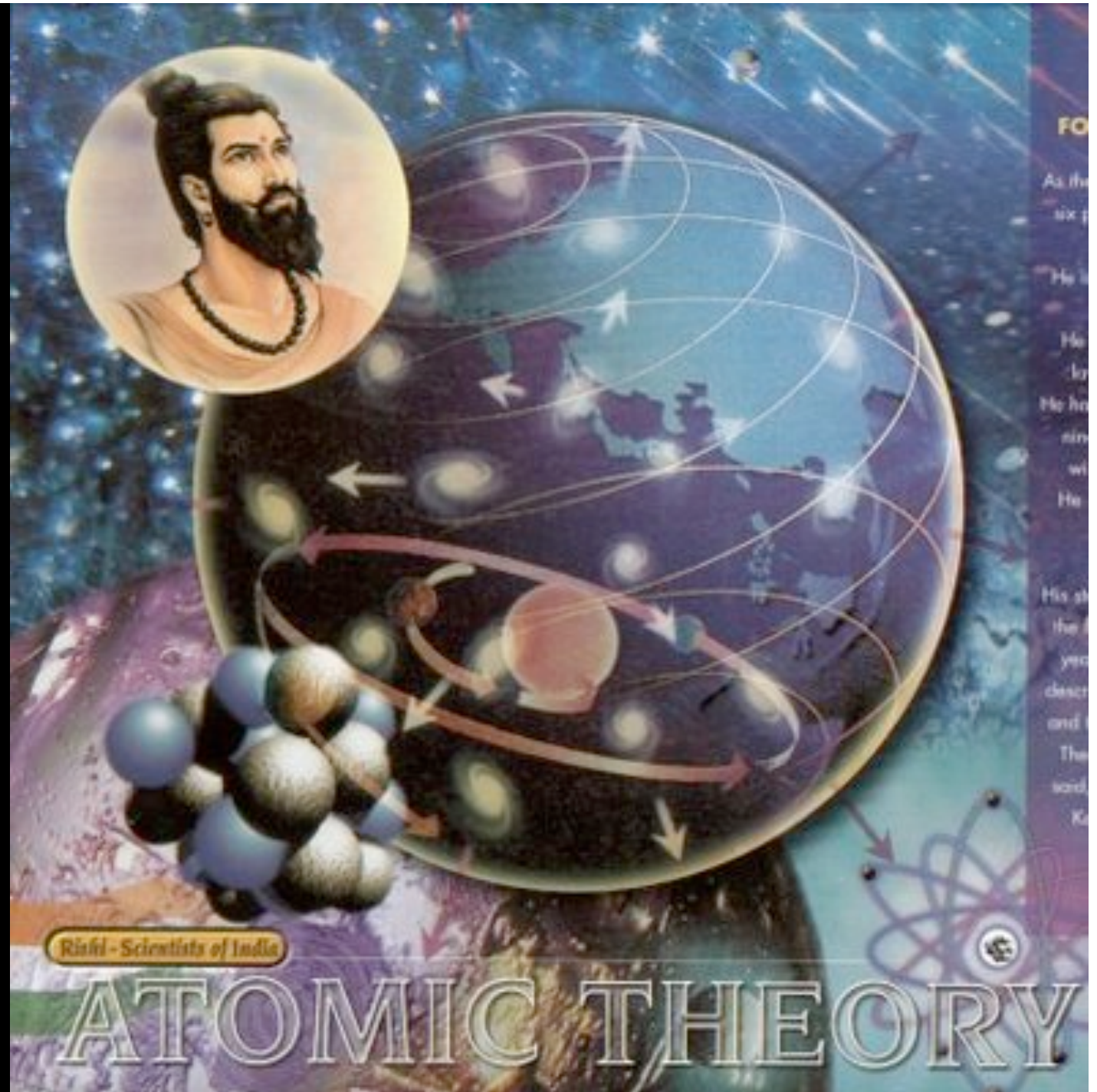
A.L. Basham, Australian Indologist



The Five Basic
Physical Elements

Anu & Parmanu

Indian Ideas
on Atomic Physics

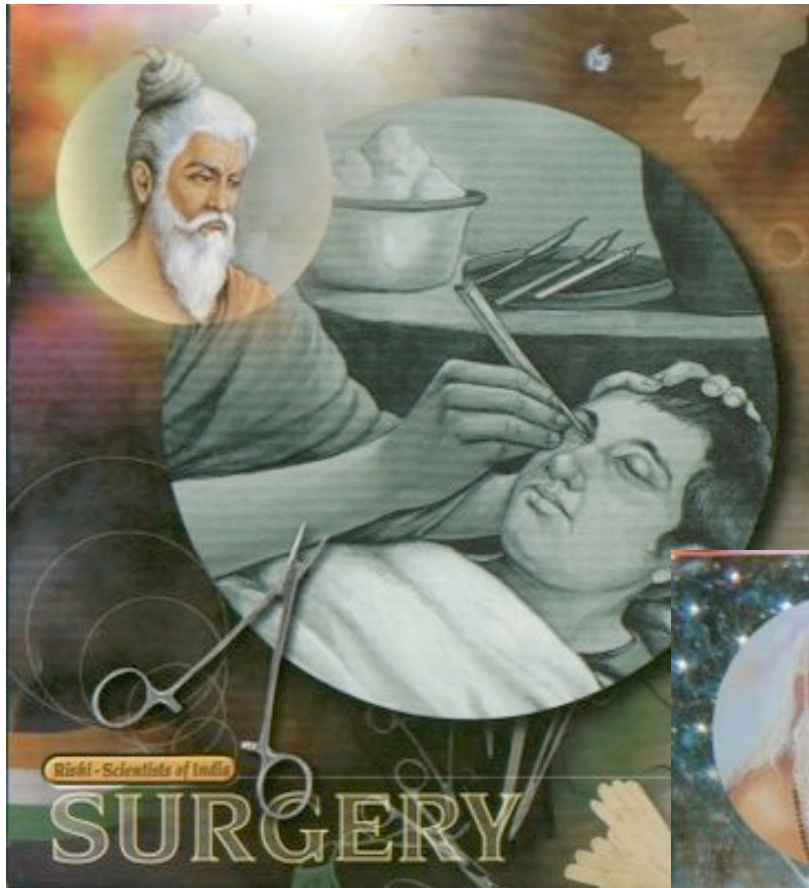


India's Contribution to
MEDICAL SCIENCE

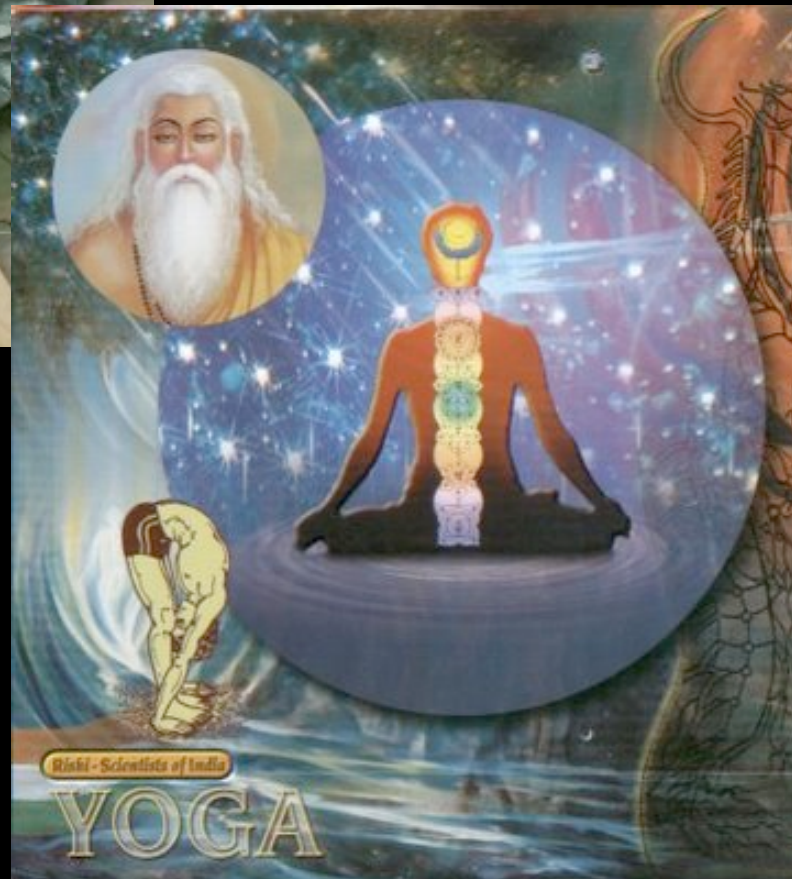


"In the great teaching of the Vedas, there is no touch of sectarianism. It is of all ages, climes and nationalities and is the royal road for the attainment of the Great Knowledge"

Thoreau, American Thinker



SHASTRAKARMA
THE ART OF SURGERY



AYURVEDA
THE SCIENCE OF
LONGEVITY



YOG - HEALTH OF THE BODY AND MIND

India's Contribution to
THE FINE ARTS

"If I am asked which nation had been advanced in the ancient world in respect of education and culture then I would say it was – **India**"

Max Muller German Indologist



MUSIC

PAINTING

LINGUISTICS

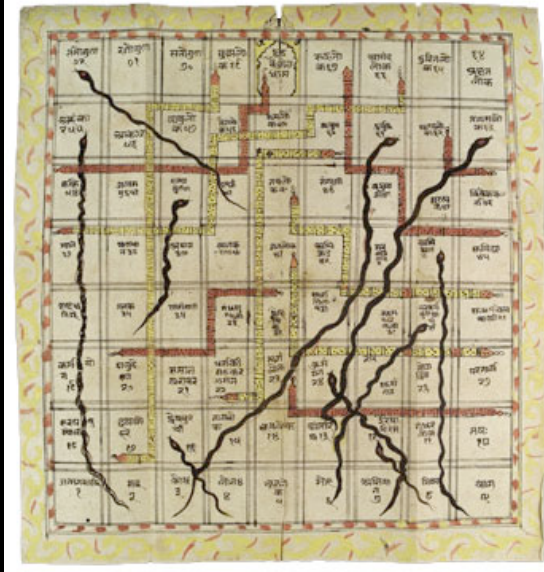
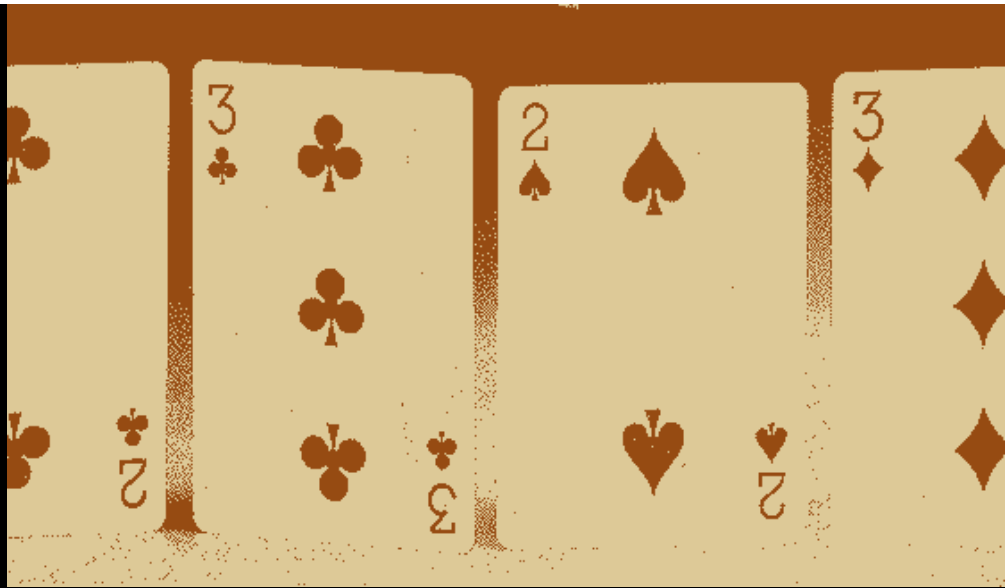


DANCE

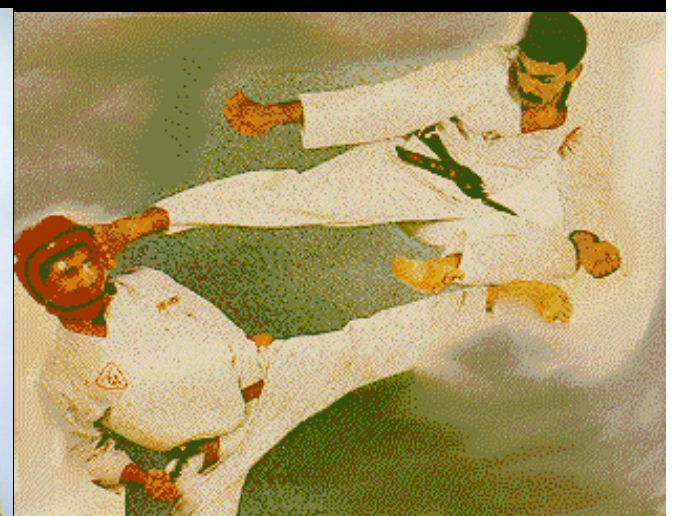
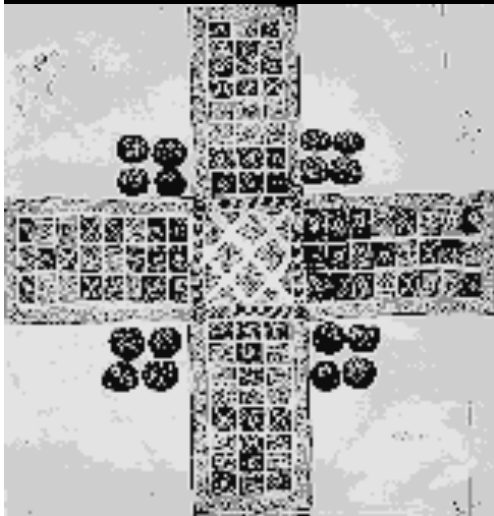
THEATRE



SPORTS AND GAMES
- In Ancient India



Chess, Snakes and Ladders, Playing Cards, Polo, the martial arts of Judo and Karate



India's Contribution to –
PHILOSOPHY



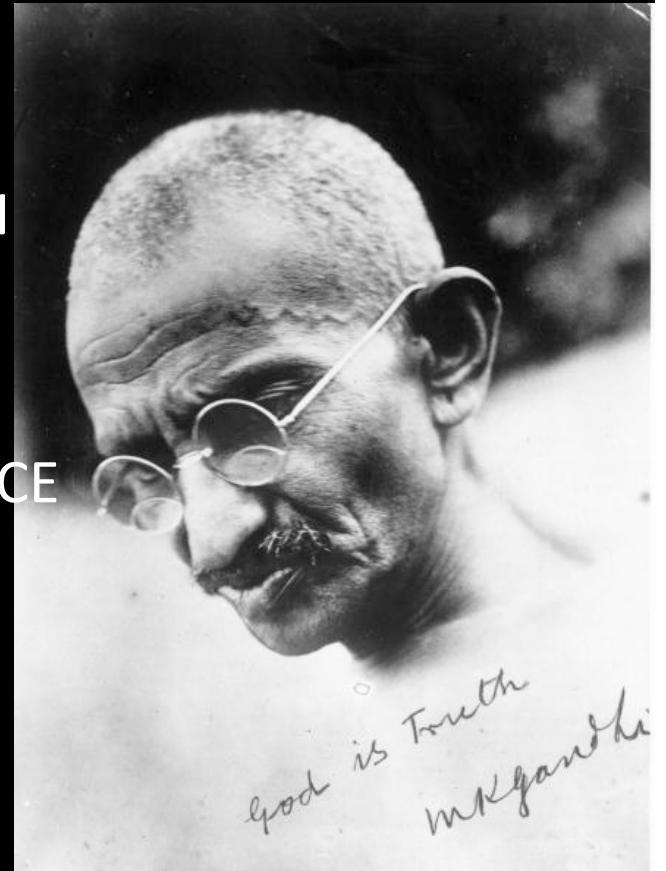
"In religion, India is the only millionaire The One land that all men desire to see and having seen once, by even a glimpse, would not give that glimpse for all the shows of all the rest of the globe combined".

Mark Twain, American Author 1835-1910



MEDITATION AND RENUNCIATION

AHIMSA - NON VIOLENCE



RELIGIOUS TOLERANCE

CURRENT INFORMATION:

There are 3.22 Million Indians in America.
38% of Doctors in America are Indians.
12% of Scientists in America are Indians.
36% of NASA employees are Indians.
34% of MICROSOFT employees are Indians
28% of IBM employees are Indians
17% of INTEL employees are Indians
13% of XEROX employees are Indians

- ❖ First democracy to elect a woman Prime Minister.
- ❖ India is the 7th nuclear power in the world
- ❖ India is the 5th largest economy in the world
- ❖ India is the largest democracy in the world
- ❖ India has the 2nd largest population in the world (could be a bad point)
- ❖ India is the 4th nation in the world to have developed/or developing a nuclear submarine
- ❖ India is the 5th nation in the world to be in the multi billion dollar space commerce business.
- ❖ India is the 4th nation in the world to develop (or nearly to) ICBM's (can travel up to 14,000km)
- ❖ India is the 3rd nation in the world, to be able to develop land based and sea based cruise missiles

The background is a dark, almost black, space filled with numerous light rays. These rays originate from the corners and edges, creating a sense of depth and perspective. The colors of the rays transition from cool blues and greens at the top to warm oranges and reds at the bottom. A small, horizontal, multi-colored light streak is visible near the bottom center. The overall effect is that of a futuristic or high-tech environment.

SUMMING UP

Human excellence depends on development of culture

World's first culture (Yajurveda 7/14: Sa Prathama Sanskriti Vishwara)

Many small civilizations were formed but were confined to small regions.

Only Indian culture can be called as first world culture.

Indian Culture = Human Culture

Culture that focuses on inculcating human values in a man

ॐ नमो भगवते वासुदेवाय
One infinite - mind body - beyond thought
beyond qualities - I know damn little



Shri Vivekananda



Unique features of Indian Culture

1. Freedom of thought

- Every thought is allowed to develop freely.
- Theist & Atheist
- Vedanta speaks of soul as image of the Supreme
- Everyone is free to imagine and accept God's form according to one's beliefs.
- Every thought school is part & parcel of Indian Culture.
- A garden has variety of flowers and plants. These differences increase the beauty of the garden





2. Theory of Karmaphal
- Rebirth

3. Idealistic families

4. Abundance of saints & reformers.

5. Division of society order (based on personal choice,
interest, capabilities) & personal life
for personal development,
for development of society



It is already becoming clearer that a chapter which has a western beginning will have to have an **Indian ending** if it is not to end in the self-destruction of the human race... At this supremely dangerous moment in history the only way of salvation for mankind is the Indian Way“

Dr. Arnold Toynbee British Historian 1889-1975



Mera Bharat Mahan



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“Vishwa ko Bharat ke ajastra anudaan”

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