

The Origin of Civilization

An Exhibit for the Prabhupada Avenue Museum Complex  
to open in AD 2001

Draft II. Detailed Description

by

Sadaputa dasa

["last modified" date: October 24, 1997]

## **I. Philosophical Objectives.**

The objective of this exhibit is to shed light on the origin of civilization in general and on ancient Indian civilization in particular. The exhibit is multi-cultural in spirit and is not sectarian. It utilizes standard scientific themes, but expands on them by referring to insights from the Puranas and to anomalous scientific evidence.

## **II. Strategic content.**

The main theme is that the Puranas, in agreement with modern science, describe a "stone age" period, followed by the development of agriculture, village life, and the institutions of civilization. However, there is a key difference between the modern view of the past and the Puranic view. The Puranic "stone age" is Satya yuga, a period in which simple dependence on nature was accompanied by advanced spiritual consciousness. Later, with the rise of greed and quarrels over private property, nature withdrew her bounty, and Brahma provided grains and methods of agriculture for human sustenance. This puranic account parallels both modern science and the Biblical story, in which Adam and Eve were expelled from the garden of Eden and forced to live by hard labor as cultivators.

Thus the modern story of human prehistory is supplemented by Puranic information on the spiritual achievements of early human societies and on the development of civilization as a "fall from grace." We will also supplement the modern anthropological story by information that enlarges both the antiquity of the human race and the scope of early human civilization. This information makes a valuable contribution to our understanding of our own status as human beings. It shows that ancient human societies go much further back in time than is currently believed. They exhibited abilities in the distant past that are often believed to be products of modern times, and they had a spiritual dimension that is missing from the modern idea of "primitive man."

## **III. Interpretive content.**

The exhibit is aimed at people in general. It assumes a familiarity with the modern conception of the human race, which everybody absorbs through modern education and media presentations. Experience with the book *Forbidden Archeology* shows that people can be expected to have a high interest in the subject matter of this exhibit.

#### **IV. Tactical objectives and methods of exhibit.**

The central theme of the exhibit is "Puranic Perspective on the Stone Age." This shows that there was, indeed, a "stone age," but it gives new insights into this period of prehistory, based on information from the *Bhagavatam*, the *Markandeya Purana*, the *Vayu Purana*, and other puranic sources. Thus the exhibit shows that the Puranic account is scientifically realistic, even though it also presents aspects of reality that go beyond the modern scientific framework of thought.

The main exhibit consists of several dioramas and accompanying wall texts which are arranged in a circle. These present the Puranic account of the creation of the human race and the origin of agriculture and city life. The successive dioramas represent the passage of time from Satya yuga, when the human race is created by Brahma, to the advanced phase of the Treta yuga, when civilized life based on agriculture becomes fully developed. Before the first diorama, a video kiosk explains the ideas that the dioramas present.

The building is assumed to be (roughly) circular. For the sake of an initial estimate, we assume that the inside radius of the exhibition area is about 8 m (about 26 ft). The outer walls, of course, will have a larger radius. We assume that the ground floor of the building houses the archeology exhibit described in this write-up, and the first floor houses the planetarium and Vedic cosmology exhibit (which are described in a separate write-up). There is an entrance hall with a ticket and information booth and a stairway leading up to the cosmological exhibit. This room is about 6 m by 8 m, and it extends beyond the circular limit of the exhibit area. (Thus the overall ground plan of the building consists of a 16+ m diameter circle, with a 6 m by 8 m rectangle attached along the building's main axis.

The dioramas of the main exhibit are arranged along a circular corridor 3 m wide that goes around the periphery of the main exhibit area. Visitors will move clockwise around this corridor in groups, accompanied by guides. Initially, the visitors turn left from the entrance hall and enter a video room made by partitioning off the first 3.5-4 m of the corridor.

There they see a video explaining the main exhibit. The video begins by describing the Vedic conception of cyclic time, with recurring cycles of 4,320,000 years. It points out that although this system may seem mythological, the Puranic account contains many details that make sense in modern scientific terms. It outlines the Puranic account of the origin of human civilization, starting with human beings who live close to nature in an apparently primitive state.

The period in which these people live is called Satya yuga. It is similar to the stone age of modern anthropology in the sense people in Satya yuga did not strive for technological development and they did not have any of the paraphernalia of modern civilized life. However, Satya yuga differs from the stone age, as commonly conceived, in that people were highly advanced in consciousness and were engaged in advanced forms of spiritual

meditation. These people were products of creation by Brahma, and thus they were not simply products of blind chance and the survival of the fittest, as described in modern evolutionary theory. The people were manifestations of spiritual form projected into the material world, and they were aware of their nature and origin. As such they were interested in spiritual contemplation, and they had no desire to exploit material resources.

The video points out that although there were highly advanced people in Satya yuga, there were also animals. These included apes and beings that we would call ape-men. The ape-men were simply a separate species (or group of species). They were distinct from the humans, and they were not human ancestors. The human population was small, and it tended to remain constant (since typically one human couple produced two children). Thus, humans did not threaten the existence of other species by expanding in numbers and drastically transforming the environment.

After millions of years of peaceful existence in Satya yuga, the race of advanced humans gradually died out. In the beginning of the next yuga, called Treta, another human race was manifested from the ether by higher spiritual action. In the beginning, these people lived in the much same way as their Satya-yuga predecessors. They lived simply and subsisted from the products of trees (including a kind of "honey" produced from certain fruits). They also gathered a variety of wild plants.

After some time, however, the people became more passionate, and conception became more common. (Previously, conception tended to come once towards the end of life, and each couple produced 2 children on the average.) Greed and covetousness sprang up, and people began to fence off the trees and create the idea of private property. They began to quarrel, and they learned to build crude fortifications.

As people fought with each other over possessions, the trees began to die out. Nature withdrew her bounty, and the climate deteriorated. People began to suffer from privation and extremes of heat and cold. (Actually, deforestation could cause climatic change.)

The people prayed to Lord Brahma, and he responded by introducing food grains (by milking the earth). This is the version of *Vayu Purana* and *Markandeya Purana*. The *Bhagavatam* describes similar activities by Maharaja Prithu.

Brahma introduced practices of agriculture and village life. From this point onwards, people had to live by hard labor, ploughing the soil and harvesting crops. Towns were developed, along with laws and other institutions of civilization. When people continued to quarrel and disobey his regulations, Lord Brahma introduced the varnasrama society. In particular, ksatriyas were charged with defense, and they engaged people in their prescribed duties. The *Markandeya* and *Vayu Puranas* describe the layout of towns, streets, etc.

In the later Treta yuga and in Dvapara yuga, civilization became advanced, and there was an extensive development of military technology. Highly populous states and empires grew up, and these were ruled by opulent aristocrats (ksatriyas). It is in this setting that Krsna displayed his manifest pastimes at the end of Dvapara yuga.

In Kali yuga there is an extreme development of materialistic behavior in human society. However, in the beginning of the period, in the yuga sandhya, it is predicted that there will be a great efflorescence of spiritual life based on Harinama.

After this period, the materialism of Kali yuga becomes unrestrained and all spiritual knowledge is extinguished in human society. The environment of the earth is destroyed, and people are reduced to unintelligent midgets, engaged in a bitter struggle for survival.

The events assigned to Satya-yuga through Treta yuga tend to repeat in a yuga-cycle of 4,320,000 years. However, there is a larger cycle of manvantara periods, each of which lasts for 71 yuga-cycles. According to the *Bhagavatam* @.1.168-172, the historical developments described above have occurred only within the current manvantara period, called Vaivasvata, beginning with the advent of Maharaja Prthu. In previous manvantara periods, it is said that the earth was rugged and uneven. There were no cities and villages, no trade routes, no breeding of cows, and no cultivation. The human diet consisted of fruits and roots.

The Puranic account of the origin of civilization agrees quite well with modern anthropological conceptions, and the gloomy predictions for the latter part of Kali-yuga seem to err only in the long time span they assign to the destruction of the environment, which seems to be happening all too quickly today. (Here the golden age of Harinama may give the earth a reprieve.) The Puranic account differs from modern understanding in three ways: (1) The time scale for key developments in human society is, on the whole, much longer than modern theorists propose, and it postulates multi-million year cycles in which developments partially repeat. (2) There were developments of high civilization at times when people are presently regarded as having been primitive. (3) There was a prominent supernatural (or transcendental) element in human history.

We do not wish to enter into controversy regarding all these points. However, we do introduce some evidence suggesting that the past history of the human race may have been quite different from accepted accounts. This empirical evidence indicates that there has been a human presence on the earth for much longer periods than is commonly supposed. There is also evidence that people in the past were capable of unusual technical accomplishments. Finally, there is evidence indicating the existence of widespread cultural ties linking people in different parts of the world in the distant past and also in more recent times.

We illustrate the latter point by showing examples of "Vedic" cultural motifs in widely separated parts of the world. Thus there was a "Vedic" civilization in the past, but this was not Indian. It was global in scope and involved great cultural diversity, as well as intercommunication and common cultural themes.

After watching the video, which presents these points, the people proceed clockwise along the peripheral corridor and view the dioramas illustrating the development of civilization. Each diorama consists of a model landscape, with human figures, and with a background painting. They will probably need to be protected by plexiglass cases. The dioramas are similar to those used in natural history museums to illustrate life in different human societies. They are arranged in such a way that people follow a curving path from one diorama to another, and they view the dioramas from different angles. (This is similar to the curving path used in the history of London exhibit in London, UK.) The visitors listen to a narration as they go from diorama to diorama. We may wish to provide electronic devices, similar to those of the London Tower Bridge exhibition, which give the narration in different languages.

The dioramas are based on the *Markandeya* and *Matsya Puranas*. They are as follows:

- (1) Scene of people meditating in Satya yuga in an idyllic setting.
- (2) People in early Treta yuga gathering fruits from trees.
- (3) People in Treta yuga gathering different types of vegetation. These are typical "hunter-gatherers," as portrayed by modern anthropology. (The Puranic accounts I consulted don't mention hunting, however, so we can omit this aspect. Actually, hunter-gatherers such as the Kalahari Bushmen depend mostly on gathering.)
- (4) Scene of people fencing off trees and building crude forts. Some are brandishing spears.
- (5) Scene of desolation and starvation with desert conditions and more advanced buildings and fortifications. People are becoming desperate.
- (6) Scene of people plowing fields and harvesting crops.
- (7) Scene of town life, with agricultural activity in the background.
- (8) Krsna and the Pandavas with the armies at Kuruksetra in the background
- (9) Scene of Harinama in a modern city setting.
- (10) Dark hellish scene showing fierce midgits struggling senselessly in an environment of squalid shacks clustered in the midst of gigantic ruined structures.

After the last diorama, the visitors are back at the entrance hall. They can either exit from the building, or enter the central area, which is devoted to exhibits presenting supporting empirical evidence.

These exhibits consist mainly of models, dioramas, and pictures on the wall. They are as follows:

### **Sub-exhibit (0) "The Puranic Time Scale"**

Charts and texts are displayed explaining the Puranic chronological system. A video in a video kiosk might also be used.

#### **Panel (0.1). Yugas in the Manu-smṛti.**

The Manu-smṛti describes the lengths of the yugas in years as follows:

Yuga length sandhya main period sandhya

Kṛta-yuga 4,800 400 4,000 400

Treta-yuga 3,600 300 3,000 300

Dvapara-yuga 2,400 200 2,000 200

Kali-yuga 1,200 100 1,000 100

Kṛta-yuga is also called Satya-yuga. The total of the four yugas is a divine (divya) yuga of 12,000 years. Brahma's day is defined to be 1,000 divine yugas, or 12,000,000 years.

#### **Panel (0.2). Yugas in human and divine years.**

Some say that these time units are measured in human years, and that later they were multiplied by 360 to yield the following lengths:

Kṛta-yuga 1,728,000 years

Treta-yuga 1,296,000 years

Dvapara-yuga 864,000 years

Kali-yuga 432,000 years

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divya-yuga 4,320,000 years

day of Brahma 4,320,000,000 years

In this regard, Sankar Balakrishna Dikshit (Bharatiya Jyotish Sastra, p. 65) gives following quote on the divine year from the Taittiriya Samhita of the Vedas:

ekaM vA etaddevAnAmahaH yatsaMvatsaraH  
ã te. bra. 3.6.22

"The year is equivalent to a day of the gods."

Thus the idea of multiplying divine units of time by the days in a year to get human units dates back to the Vedic period. Dikshit argues (p. 104) that the divya yuga of the Manu smrti must already be made of divine years, since otherwise it wouldn't be called divine (divya). Since the Vedic human year is 360 days, we must therefore multiply the Manu smrti yuga lengths by 360 to convert them into human years. Thus the divya yuga of 4,320,000 human years dates back at least to the Manu smrti.

### **Panel (0.3). Manvantara periods.**

There is also a unit of time called the manvantara, which consists of 71 divya yugas. Each manvantara is preceded by a sandhya equal in length to one krta-yuga. There are 14 manvantaras in a day of Brahma and 15 sandhyas (including one at the end of the last manvantara). Thus,  $14 \times 71 + 15 \times 4/10 = 1,000$ .

In this day of Brahma, 6 manvantaras have elapsed, and 27 divya yugas have elapsed in the 7th manvantara, called Vaivasvata. In this divya-yuga, we are in about the 5,000th year of kali-yuga.

### **Panel (0.4). The yugas in geology.**

Generally, the yugas as shown above seem to be too long to properly represent the known periods of human history (but see sub-exhibit 1). Nonetheless, they do seem to show up in the climatic cycles of the earth. According to the Milankovitch theory, climate is regulated by cycles in the eccentricity of the earth's orbit, the tilt of the earth's spin axis (obliquity of the ecliptic), and the precession of the equinoxes. A key variable is eccentricity, which determines the extremes in the distance of the earth from the sun, and thus the extremes in the flux of solar radiation striking the earth.

According to the Milankovitch theory, climate is affected by the following important cycles:

Precession: 24,000 years

19,000 years

Obliquity: 41,000 years

Eccentricity: 96,000 years

413,000 years

The 413,000 year cycle is highly significant. Independent studies of deep sea cores covering a total 2 million year period in the Pleistocene have revealed cycles of 434,000 years, 435,000 years, and 412,000 years (Madeleine Briskin and James Harrell, "Time Series Analysis of the Pleistocene Deep-Sea Paleoclimatic Record," *Marine Geology*, 36, 1980, p. 20).

This agrees well with the Milankovitch theory, and with the basic time unit of 432,000 years that makes up the yugas.

In another report, the Milankovitch eccentricity cycle is cited as 430,000 years. This theoretical 430,000-year cycle is confirmed by the appearance of nearly the same cycle in:

1. sea-level movements in Pleistocene and Miocene marine deposits.
2. sea-level movements in late Cretaceous deposits.
3. cyclic patterns in Mesozoic lacustrine (fresh water) sediments.
4. cyclic patterns in continental deposits in New Mexico.
5. sea level movements in Paleocene deposits of the Gulf of Mexico.

(Reference: M. Briskin and R. Fluegeman, "Paleocene Sea Level Movements with a 430,000 Year Quasi-Periodic Cyclicity," *Palaios*, 1990, vol. 5, pp. 195).

This could be illustrated with diagrams showing sea-level change, and with diagrams comparing Briskin and Fluegeman's sea-level change plot with the yuga cycles.

## **Sub-exhibit (1) "Antiquity of the human race"**

This sub-exhibit presents material from the book *Forbidden Archeology*, indicating that human beings have existed on the earth millions of years longer than is currently believed by archeologists. This information is consistent with a "steady state" picture of human origins, in which the human race has been manifested and annihilated many times over vast spans of geological time. Thus the human condition is a standardized educational situation for souls, rather than a recent evolutionary product of the struggle for existence.

It may be argued that our idyllic account of Satya yuga is not consistent with the archeological evidence for the existence of primitive humans and ape-men in the distant past. Many of these primitive people seem to have been gross meat eaters or even scavengers of carcasses left by predators. They were evidently not pure Satya yuga meditators. The answer to this objection is that sub-human species have co-existed with human beings since time immemorial, and there is even evidence that sub-human "wildmen" may still exist in remote parts of China and Central Asia. This will also be pointed out in this sub-exhibit.

### **Panel (1.1). Overview of evidence for Tertiary man.**

Chart of discoveries of human artifacts and bones dating to the Pliocene period or earlier. This chart can be extracted from the table on pp. 815-828 in *Forbidden Archeology*. The information should be summarized in simplified form and displayed in a column next to a chart of the geological ages. There should also be a map showing the location of various key discoveries.

### **Panel (1.2). Auriferous gravel man.**

During the California gold rush in the late 19th century, many mine shafts were cut into gold bearing river gravels that had been buried by thick layers of lava from volcanic eruptions that occurred 9 to 55 millions of years ago. Remarkably, human artifacts, such as spear points, plates, mortars, and pestles were regularly found in the mines in deposits that seem to be geologically ancient. Either the geologists dating of these deposits is off by millions of years, or human beings were living in California millions of years ago.

We need pictures of the old mining operations, and pictures of the artifacts. (The best ones available are in *Forbidden Archeology*.) There should also be diagrams showing the placement of the gold bearing gravels beneath the lava caps.

### **Panel (1.3). Tertiary man in Argentina.**

Human artifacts and skeletal remains dating to the Pliocene period two million years ago were found in Argentina by geologists Florentino and Carlos Ameghino.

One of these finds was made by Lorenzo Parodi, who discovered in the Pliocene sea-cliff near Miramar in Argentina, a manmade bola stone (a stone marked by an incised groove for attaching a leather thong). Parodi wisely refrained from removing the artifact, which was imbedded in the cliff with a small part showing. A committee of prominent men was summoned to the site to witness the stone's extraction. They affirmed the geological age of the cliff, and watched as the stone was extracted with cutting tools from its hard matrix. At the request of one of the committee members, Parodi dug further into the cliff face, revealing another stone artifact that had been completely hidden from view. Although the prominent witnesses were shown unimpeachable evidence of a human presence dating back millions of years, this evidence did not agree with prevailing views, and it fell quickly into oblivion.

We need pictures of the Miramar site in Argentina, and pictures of the bola stones (see *Forbidden Archeology*, p. 331). It would be good if we could get pictures of Carlos and Florentino Ameghino.

### **Panel (1.4). Bigfoot and Wildmen.**

There are many reports suggesting that, even today, human beings share this planet with other nonhuman but humanlike beings, which are sometimes referred to as "wildmen".

One example is the famous Bigfoot or Sasquatch of the northwestern U.S.A., which is described as a massive apelike creature that walks on two legs like a human being. This creature has been accepted as real by the anthropologist Grover Krantz on the basis of detailed scientific studies, and he suggests that it may descend from the extinct bipedal ape Gigantopithecus. (Reference: Grover Krantz, *Big Footprints: A Scientific Inquiry into the Reality of the Sasquatch.*)

Pictures of Sasquatch, its footprints, and its native environment (the Pacific Northwest of the U.S. and Canada). Picture of a reconstruction of Gigantopithecus.

In addition to Sasquatch, many other types of wildmen are reported around the world, which range widely in reported appearance from apelike to humanlike. It appears that such beings share our world even today, and they may likewise have co-existed with humans in the distant past.

Map showing different types of reported wildmen. These can be represented by pictures of the wildmen with arrows pointing to their reported areas of habitation. These include the Yeti, the Almas, the Chinese wildman, and many others. Ivan Sanderson's book, *Abominable Snowmen*, and Myra Shackley's book, *Wildmen*, can be consulted for details.

## **Sub-exhibit (2). Megalithic structures.**

Around the world there are numerous structures made from large stone blocks. Very little is known about the people who made them, and in some cases we seem to be dealing with highly organized, civilized societies which have vanished from the historical record. However, in many cases the great size of the stone blocks and the fine workmanship involved in fitting them together pose a great challenge even to modern technology.

### **Panel (2.1). The Egyptian Sphinx and Valley Temple.**

The Valley Temple near the sphinx in Egypt, a square structure 130 feet long by 130 feet wide and 40 feet high, is made of stone blocks ranging weight from 50 to 200 tons apiece. Here the challenge is to move the blocks, lift them, and put them in position in a growing structure without interfering with blocks that are already in place.

Picture of the Valley Temple.

Significantly, it has been shown that the blocks used to construct the Valley Temple were quarried from a nearby horseshoe shaped trench, which defines the body of the sphinx. Recent controversial studies by the egyptologist Anthony West and geologist Robert Schoch have indicated that the sphinx and the Valley Temple may be nearly 10,000 years old. Critics have responded to this claim by arguing that no civilization capable of such work existed at that time.

Picture of the sphinx.

### **Panel (2.2). The Temple of Baalbek.**

In Lebanon the temple of Baalbek, or heliopolis, is surrounded by a retaining wall that includes three of the largest stones ever used by builders. One is 64 feet long, another 63.5 feet, and the third is 62.5 feet. All are about 13 feet high and 10 feet thick. A similar stone 70 by 14 by 13 feet and weighing at least 1,000 tons remains in the quarry from which the other stones were obtained. How these gigantic blocks were transported and raised to a height of 26 feet in order to rest on the lower courses is an unsolved problem.

Picture of the Baalbek temple, showing the three monoliths, and picture of the quarry and the remaining monolith.

Reference: Lewis Bayles Paton, "The German Excavations at Baalbek," *Art and Archeology*, 1:121-129, 1914.

**Panel (2.3) A modern example.**

For comparison, in 1585, a 510-ton obelisk was raised into position at the Vatican in Rome by 907 men and 75 horses, using 40 windlasses, steel cables, heavy ropes, and pulley blocks. This gives an idea of what is required to move large stones, using fairly modern technology.

Picture from p. 824 of Robert Heizer, "Ancient Heavy Transport, Methods and Achievements," *Science*, vol. 153, no. 3738, 19 Aug. 1966.

**Panel (2.4). Brihadeswara temple.**

The sikhara (main tower) of the Brihadesvara Temple in Tanjour, consecrated by Raja Raja Chola in 1010 AD, contains a single stone block weighing about 80 tons.

Picture of the Brihadeswara temple, showing the 80-ton block. Investigate to see how high the block was raised (it was a considerable height).

**Panel (2.5). The fortress of Sacsahuaman.**

The Inca fortress of Sacsahuaman near Cuzco, Peru, was built from stone blocks weighing up to 200 tons. Robert Heizer, an expert on ancient stonework, says, "The perfect fitting together by the Incas of irregularly shaped stones with as many as ten joints was done by a process which is not understood today. Since blocks of stone weighing many tons could not have been lifted up and taken down repeatedly to test their fit, it seems probable to me that some sort of template was used, but no evidence or report of such devices is known. ..." (Heizer, p. 822). It should be noted that the Incas were relative newcomers in Peru, and the real builders of Sacsahuaman are unknown.

Picture of Sacsahuaman fortress, showing polygonal stone blocks that precisely fit together.

## **Panel (2.6). The Ancient Hydraulic Civilization of Sri Lanka.**

In Sri Lanka there is a remarkable ancient irrigation system consisting of massive reservoirs and manmade channels, partly built with blocks as massive as 15 tons. For example , "One tank, named Pathariccolorn, is seven miles long, three hundred feet broad and 60 feet high. The tank was faced throughout its entire length with layers of square stones." Historical analysis indicates many of these works predate the conquest of Sri Lanka by the Indian Prince Vijaya in the 6th century B.C., and were built by a mysterious people called the Yakkas (Yaksas in Sanskrit). Here we have another lost civilization.

Note that according to historical records "three tribes called Rakshasa, Yakka, and Naga were living in Sri Lanka when Prince Vijaya, the founder of the Sinhala nation, landed in Sri Lanka in the 6th century B.C." (Fernando, p. 4). Sri Lankan tradition also holds that King Ravana of Lanka was an engineering genius, and there is no reservoir in the hills attributed to him (Fernando, p. 43). Thus there is a tie-in with the Ramayana.

Pictures of ancient hydraulic works in Sri Lanka.

References: A. Denis N. Fernando, "Ancient Hydraulic Civilization of Sri Lanka in Relation to its Natural Resources," The Royal Asiatic Society (Lanka Branch); R. L. Brohier, "Ancient Irrigation works of Ceylon," Parts I, II, and III, 1934/1935 and Sir James Emerson Tennant, "Ceylon," 1860.

## **Sub-exhibit (3) "Unexpected science and technology"**

Today we are greatly proud of our scientific and technological advancement, and we tend to regard early societies as primitive. However, there is evidence indicating that people in ancient times were capable of great technical achievements. Today, the scientific steps that they must have taken to make these achievements are largely unknown, and they constitute another missing chapter of our mysterious past.

## **Panel (3.1) The Antikythera geared computer.**

An advanced astronomical computer, based on an intricate system of gear wheels, was discovered in a shipwreck off the coast of the Greek island of Antikythera. The ship was loaded with statues and other objects of art and it sank in about 65 B.C. The computer was first recovered from the wreck as a shapeless lump that split open to reveal a set of brass plates. However, careful study revealed a mechanism made of at least 20 gear wheels, including differential gears and a crown wheel. It appears to have been a computing machine that could exhibit on a series of dials the motions of the sun, moon, and planets.

The principles behind the computer's design remain unknown. No surviving literature refers to such machines, but surely this example could not have been unique. It must correspond to a well-developed system of astronomy and a well-developed technology for producing geared machines. Both seem to have disappeared without a trace. This shows in a very striking way how little we know about human achievements in the past. (The Hellenistic Greek systems of astronomy apparently cannot account for the computer, and de Solla Price, who investigated it, speculates that it may be based on Babylonian astronomy. But this is just a conjecture.)

Reference: Derek J. de Solla Price, "Unworldly Mechanics," *Natural History*, 71:8-17, March 1962. We need good pictures of the computer.

### **Panel (3.2). Flying Machines in Sanskrit Literature**

The following material (excerpted from *Alien Identities*) could be presented using a video kiosk:

Although there is no known historical documentation of the Antikythera computer, there are many old traditions describing sophisticated machines. In India there are many Sanskrit texts dating back to the medieval period which describe various types of machines, including automata and airplanes (known as vimanas). Although we have no proof that such machines were actually built, it is clear that people were thinking about them long before the modern era.

Thus in Bana's *Harsa-carita* there is the story of a Yavana who manufactured an aerial machine that was used to kidnap a king. Likewise, Dandi's *Avanti-sundari* tells of an architect named Mandhata who used an aerial car for such casual purposes as traveling from a distance to see if his young son was hungry. His son, by the way, was said to have created mechanical men that fought a mock duel and an artificial cloud that produced heavy showers. Both of these works date from about the 7th century A.D.

In the ninth to tenth centuries, Buddhasvamin wrote a version of the *Brhat-katha*, a massive collection of popular stories. Buddhasvamin spoke of aerial vehicles as akasa-yantras, or sky-machines, and he attributed them to the Yavanas a name often used for barbaric foreigners. It was quite common for flying machines and yantras in general to be attributed to the Yavanas in Sanskrit texts.

Some scholars take the Yavanas to be the Greeks, and they attribute Indian stories of machines to a Greek origin. For example, Penzer thought that the Greek philosopher Archytas (c. 428-347 B.C.) may have been the first scientific inventor of devices resembling the Indian yantras, and he pointed out that Archytas constructed a kind of flying machine, consisting of a wooden figure balanced by a weight suspended from a pulley, and set in motion by hidden and enclosed air.

No doubt there was much exchange of ideas in the ancient world, and today it is hard to know for sure where a given idea was invented and how highly developed it became. We do know, however, that fairly detailed ideas concerning airplane like flying machines were known in medieval India.

Bhoja's *Samarangana-sutradhara* states that the main material of a flying machine's body is light wood, or laghu-daru. The craft has the shape of a large bird with a wing on each side. The motive force is provided by a fire-chamber with mercury placed over a flame. The power generated by the heated mercury, helped by the flapping of the wings by a rider inside, causes the machine to fly through the air. Since the craft was equipped with an engine, we can speculate that the flapping of the wings was intended to control the direction of flight rather than provide the motive power.

A heavier (alaghu) daru-vimana is also described. It contains four pitchers of mercury over iron ovens. "The boiling mercury ovens produce a terrific noise which is put to use in battle to scare away elephants. By strengthening the mercury chambers, the roar could be increased so that by it elephants are thrown completely out of control."

There has been a great deal of speculation about just how power generated by heating mercury might be used to drive the vimana through the air. One possibility is that mercury was used to generate rotary motion, which was harnessed to move air in the manner of modern airplanes.

The Sanskrit astronomical text entitled *Surya-siddhanta* mentions a mercury engine used to provide rotary motion for a gola-yantra, a mechanical model of the planetary system. This suggests that at least one kind of mercury engine was used to produce rotary power. The text also says that the design for the mercury engine is to be kept secret. It was standard practice in ancient India for technical knowledge to be passed down only from teacher to trusted disciple. An unfortunate consequence of this is that knowledge tended to be lost whenever oral traditions depending on teachers and disciples were broken. It is thus quite possible that many arts and sciences known in ancient times have been lost to us, practically without a trace.

### **Panel (3.3). The *Vaimanika-sastra***

The *Vaimanika-sastra* is a Sanskrit text describing the construction and operation of vimanas in considerable detail. Although scholars will tend to reject this text out of hand, its authenticity has been supported by the discovery that the text contains genuine formulas for metal alloys, some of which represent valuable contributions to modern metallurgy. The story is summed up in the following excerpt from *Alien Identities*. This could be presented in a short video, along with samples of metal alloys described in the text. The video might include an interview with C. S. R. Prabhu of Hyderabad, who conducted the metallurgical research.

The story behind the *Vaimanika-sastra* is briefly presented in the introduction to G. R. Josyer's translation of this text. There Josyer explained that knowledge in India used to be transmitted orally, but as this tradition died out, writing on palm leaves was used. Unfortunately, palm leaf manuscripts do not last very long in the Indian climate, and large volumes of old written material have been lost due to not being regularly recopied.

Josyer went on to say that the lost texts "remain embedded in the ether of the sky, to be revealed--like television--to gifted mediums of occult perception." The medium in this case was Subbaraya Sastry, a "walking lexicon gifted with occult perception," who began to dictate the *Vaimanika-sastra* to Mr. Venkatachala Sarma on August 1, 1918. The complete work was taken down in 23 exercise books up to August 23, 1923.

According to Subbaraya Sastry, the *Vaimanika-sastra* is a section of a vast treatise by the sage Maharsi Bharadvaja entitled *Yantra-sarvasva* or the *Encyclopedia of Machines*. Maharsi Bharadvaja is an ancient rsi mentioned in the Mahabharata and other Vedic works. The Yantra-sarvasva is no longer extant in physical form, but it is said to be existing in the akashic record, where it was read and recited by Subbaraya Sastry.

Additional information about Subbaraya Sastry has been supplied by C. S. R. Prabhu, a technical director and project coordinator at the National Informatics Center in Hyderabad, India. Prabhu traces Sastry's story back to 1875, when he was a young man of 20 living near the city of Bangalore in South India. Sastry had been abandoned to die of smallpox during a severe smallpox epidemic and had wandered into a forest region. He was about to commit suicide by drowning himself in a lake when he was saved by a yogi from the Himalayas named Bhaskarananda. The yogi reportedly cured him of smallpox and kept him in his cave in the forest for about one year.

The yogi is said to have asked Sastry, "What do you want in life?" Sastry replied that he wanted to be renowned as an expert in sastras (Sanskrit texts), and he specifically mentioned physical sastras, since the standard religious sastras are known by many people. The yogi granted his wish by transmitting to Sastry in an unknown way the texts of some 20 different sastras. According to Prabhu, Sastry had been quite ordinary before meeting Bhaskarananda.

After returning from the cave, Sastry was able to go into a trance state by closing his eyes and performing certain yogic mudras. In that state he would recite elaborate Sanskrit texts on religion, science, or politics continuously, without pausing to think. One of these texts was the *Vaimanika-sastra*.

Although the *Vaimanika-sastra* could be a hoax, there is no reason to suppose that it was not dictated by Subbaraya Sastry in the manner described by Josyer and C. S. R. Prabhu. But is the work authentic? Even if it was existing as a vibrational pattern in

the ether, during the process of psychic transmission and dictation it might have been distorted or adulterated by material from the unconscious mind of the medium.

Although this is possible, there are also good reasons for thinking that the text might contain authentic material. C. S. R. Prabhu has reported on research showing that the text of the *Vaimanika-sastra* contains technological information that Subbaraya Sastry is not likely to have acquired through ordinary means of communication. This information consists of formulas for a number of metal alloys, ceramics, and glasses that are used in the construction of vimanas.

The formulas are expressed in obscure Sanskrit words, many of which cannot be found in standard Sanskrit dictionaries. Prabhu found through extensive research that some of these words can be found in rare dictionaries of Ayurveda, the ancient Indian system of medicine and chemistry. Through extensive consultation with Ayurvedic physicians and chemists, he was able to identify the actual substances referred to by some of these words. It was then possible to synthesize some of the materials mentioned in the *Vaimanika-sastra* in the laboratory, using the instructions for mixing, heating, and cooling given in the text.

The results were remarkable. Several materials were synthesized, such as tamogarbha loha, a lead alloy, arara tamra, a copper alloy, and ravi sakti apakarsana darpana, a glass. These materials turned out to have useful properties matching the description given in the text of the *Vaimanika-sastra*. For example, the text said that tamogarbha loha was a light absorbing material, and laboratory tests showed that the synthesized tamogarbha loha displayed a high level of absorption of laser light. The synthesized materials were found to have unique properties that are new and patentable.

The formulas in the *Vaimanika-sastra* seem to represent a science of chemistry and metallurgy that is expressed in archaic language. From what we know of the life of Subbaraya Sastry, it seems unlikely that he could have generated such formulas from readily available modern information. Perhaps these formulas do come from an ancient source.

#### **Sub-exhibit (4) "The reality of Vedic civilization in the fourth millenium B.C."**

A life-sized metal head was found in India, having a hair-style (oiled and coiled with a tuft to the right) that is unique to the Vedic sage Vasistha. This highly realistic sculpture was carbon- dated to 3700 B.C. (+800 years). This date is corroborated by extensive metallurgical tests. It supports the tradition that Vedic civilization was flourishing in 3102 B.C. and earlier. It also shows an unusual level of artistic and technical sophistication for any civilization in its time period. Since the head was rescued from being melted down, it shows, once again, how fragmentary is our knowledge of the past.

The reference for this sculpture is Harry H. Hicks and Robert N. Anderson, "Analysis of an Indo-European Vedic Aryan Head -- 4th Millenium B.C.", *Journal of Indo-European Studies*, vol. 18, 1990.

We should produce a full size replica of the sculpture. The easiest way to do this without touching the original (which may not be allowed), is to photograph the head from various angles, with lighting from various directions. From this information, a skilled artist should be able to recreate the head accurately.

The replica of the Vedic head will be mounted in a case in the center of the exhibit area. It can be seen from the lobby (at a distance) by people entering the exhibit.

### **Sub-exhibit (5) "Confirmation of Traditions of Ancient Civilizations."**

Many ancient traditions appear to be unsupported by clearcut archeological evidence, and they are therefore generally dismissed as mythological. However, there are significant cases where new evidence arises which shows that a repudiated tradition may contain historical truth.

#### **Panel (5.1). The Sarasvati river civilization**

Recent investigations by S.R. Rao and others have greatly expanded our understanding of the scope of the Indus Valley civilization. This civilization can now be tied in with Vedic traditions involving the vanished river Sarasvati, whose dry course has now been traced in the Thar desert region. Analysis of Landsat satellite photographs has revealed the bed of an ancient river that was six kilometers wide at some places. This river sustained an extensive civilization, and it may have been the Sarasvati river that is celebrated in the Vedas. If so, it stands to reason that the civilization sustained along its banks may have been part of the Vedic civilization.

We need Landsat photos showing the bed of the Sarasvati and a series of maps showing the changes in the river's course. We also need good documentation of the studies showing the course of the Sarasvati and the existence of numerous archeological sites along that course. We need to find documentation of the survey from the Adi Badri to Somnath in Gujarat conducted in 1985 by Dr. V. S. Wakankar. Also see the *MLBD Newsletter* (Delhi, India: Motilal Banarsidass), Nov. 1989. Also see S. R. Rao, *Lothal and the Indus Civilization and Sriram Sathe, Bharatiya Historiography* (Hyderabad, India: Bharatiya Itihasa).

## **Panel (5.2). Excavation of marine ruins of Dvaraka.**

*Sri Krsna-sandarbha* by Srila Jiva Gosvami, states that:

"Although identical with the Dvaraka in the spiritual world, the earthly Dvaraka manifest during Lord Krsna's prakata pastimes became unmanifest after his departure. The parts of Dvaraka that had been especially created by Visvakarma for the Lord's manifest pastimes, and were therefore somewhat tinted with matter, and those parts of Dvaraka that were gifts from the demigods, such as the Sudharma assembly-house, were returned to their original places in the upper material planets, where the demigods reside. The Dvaraka of Lord Krsna's aprakata pastimes in the spiritual world is equipped with assembly houses and other paraphernalia far more opulent and dazzling than the Sudharma assembly house of the demigods."

"... After Lord Krsna abandoned Dvaraka, it was flooded by the ocean, and even today some ruins of what was Dvaraka may be seen in the middle of the ocean. These remains of Dvaraka are famous among the people who live nearby."

Investigations by S. R. Rao have indicated that the town of Dvaraka, which commemorates Krsna's famous city of Dvaraka, can be dated back at least as far as 1500 BC. In all, Rao identifies eight settlements in Dvaraka: The first was made in the 15th century BC and was submerged by the sea. The second was made in the 10th century BC and was also submerged. Both were revealed by undersea archeological investigation off the coast of Dvaraka. After a long gap, a third settlement was made in the 1st century BC/AD and temple I (revealed by archeological excavation on land) was built. This temple was destroyed by the sea, and the second temple was built on its ruins. When this too was destroyed a third temple dedicated to Visnu was built in the 9th century AD. In perhaps the 12th century this was destroyed by the sea and a fourth temple was constructed soon after. The present 13th-15th-century temple of Dwarkadihish in Dvaraka is the fifth in the series. (S. R. Rao, "Progress and Prospects of Marine Archeology in India," National Institute of Oceanography, Dona Paula Goa, India, 1987, pp. 234-25).

These findings indicate that over the centuries, Dvaraka has been gradually pushed inland by ever-rising sea levels. The settlement dating to the 15th century BC is not necessarily the first in the history of Dvaraka, but it does indicate that Dvaraka goes back at least that far.

Rao argues that these findings help establish the historicity of the Mahabharata and the story of Krsna and Dvaraka. Previous archeological research in Dvaraka indicated that Dvaraka dates back, at most, to the beginning of the Christian era (Rao, p. 22). Thus the new findings push back the date of Dvaraka by 1500 years. Further research may indicate even earlier layers of settlement in Dvaraka, perhaps further out to sea.

Rao also ties in Dvaraka with the Indus Valley civilization. He argues that Dvaraka represents a link between this civilization and the so-called second urbanization which gave rise to modern Indian civilization.

The panel will show pictures of modern Dvaraka and of the underwater excavation of walls and artifacts from ancient Dvaraka. A stratigraphic map of the settlement levels at Dvaraka should be included. There is a video of underwater excavations at Dvaraka, and we might show excerpts from it.

### **Panel (5.3). The Tamil Sangam traditions**

The example of Dvaraka shows that cities can be lost under the sea. Since the end of the last ice age, sea levels have progressively risen, and large land areas surrounding the continents have been submerged. The physical remains of many ancient civilized societies may have been covered by the ocean.

Thus there may be some truth to the Tamils' tradition that their ancestors lived in lands to the south of India that were subsequently inundated by the sea. The marine archeologist S. R. Rao remarks that an ancient Tamil grammatical text called *Tolkappiyam* "is said to have been introduced for the first time into the Royal Court of Nilan Tharu Thiruvin Pandiyan who ruled immediately after the great deluge which had submerged Lemuria, an extensive land south of Cape Comerin stretching far out into the Indian Ocean." Rao holds open the possibility that there may be some truth to this story, and he remarks that "it appears that the sea has encroached on land at an enormous rate during the past 3000 years or more." The word "Lemuria" has been used in popular literature to refer to a lost continent in the Pacific, but it originally designated a hypothetical land mass in the Indian Ocean to the south of India.

Reference: S. R. Rao, "Key-note Address," in Natana Kasinathan, ed., *Seminar on Marine Archeology*, Madras: State Department of Archeology, 1992.

Here is the traditional chronology of Sangam periods:

- I. The first Sangam lasted through the reigns of 89 kings, and was centered in southern Madurai, which was submerged by the sea.
- II. The second Sangam lasted 3,700 years through the reigns of 59 kings, and was centered in Kapatapuram. It is said that at this time the sea engulfed the Pandya country.
- III. The third Sangam lasted 1850 years through the reigns of 49 kings, and it included a period of extensive trade with the Roman Empire. It ended in about 300-600 AD.

We need maps indicating where the submerged lands may have existed, both from a traditional point of view and the standpoint of modern geology.

We also need better references for the Sangam periods. Possible references:

K.K. Pilay, *South India and Ceylon*, University of Madras, 1963.

Nainar Subrahmanian, *Sangam Polity*, Bombay: Asia Publishing House, 1966;

M. S. Purnalingam Pillai, *Tamil Literature*, the Bibliotheca Indica, 1929.

Alexander Kondratov, *The Riddle of Three Oceans*, trans. Leonard Stokalitsky, Moscow: Progress Publishers, 1974.

### **Sub-exhibit (6) "Cultural diffusion between India and America"**

There is extensive information indicating ancient contacts between India that the civilizations of Meso-America and South America were extensively influenced by old-world contacts long before the time of Columbus. Most of this material dates to the early medieval period, but it is of interest because (1) it shows how an entire chapter of human history can disappear from sight, and (2) it shows that international communication existed long before Columbus and the expansion of modern European civilization.

This sub-exhibit consists of a number of free-standing wall-panels in one part of the central exhibit area. Each panel contains pictures and brief descriptive text. Specific details are as follows:

#### **Panel (6.1). Temple-pyramids**

Temple-pyramids from 10th-century Cambodia and from the Maya culture of Mexico of about the 6th century.

Pictures showing the great similarity between these two types of temple-pyramid can be found in "Is American Indian Culture Asiatic?" by Gordon Ekholm, in *Natural History*, October, 1950. Other pictures can be found in Stephen Jett, "Precolumbian Transoceanic Contacts," in *Ancient South Americans*, ed. Jesse D. Jennings, 1983, San Francisco: W. H. Freeman and Co., p 378). Full color paintings are required for the panel. The panel text points out that the architectural parallels imply transmission of ideas from India to America. The Cambodian temple designs, of course, are of Indian origin.

**Panel (6.2a). Maize in medieval India.**

Picture of a relief from Halebidu, Mysore, India from Stephen Jett, "Precolumbian Transoceanic Contacts" (see above).

This 12th-century relief from Halebidu, Mysore, shows a figure holding an ear of maize. This plant is native to America, and it indicates pre-Columbian contact between America.

**Panel (6.2b). The American plant tobacco**

The American plant tobacco, under its Hindi name of *tambaku*, was prescribed as a medicinal drug by the court physician of the Delhi Sultanate, 150 years before Columbus. Reference to the plant is made in the *Majmua-e-Ziai*, written by Muhammadbin-Tughlag, the surviving manuscript copy being dated to 737 A.H. (A.D. 1329). This also shows pre-Columbian contact between India and America. This can be illustrated by pictures of relating to the Delhi Sultanate, etc.

Reference: *Indica*, vol. 22, No. 2, 1895, published by the Heras Institute, St. Xavier's College.

**Panel (6.3a). Amaravati Buddhist sculptured panels from South India**

Amaravati Buddhist sculptured panels from South India, compared with similar sculptured panels from Yucatan, Mexico.

Pictures showing the great similarity between these two types of sculptured panel can be found in "Is American Indian Culture Asiatic?" by Gordon Ekholm, in *Natural History*, October, 1950. Full color paintings are required for the panel. The panel text points out that the artistic parallels imply transmission of ideas from India to America.

**Panel (6.3b). Wheeled toys from India**

Wheeled toys from India, compared with similar wheeled toys from Mexico.

Pictures showing the great similarity between these two types of wheeled toys can also be found in "Is American Indian Culture Asiatic?" by Gordon Ekholm, in *Natural History*, October, 1950. Full color pictures are required for the panel. Or we might try to make 3D models which will be exhibited in a case. The panel text points out that the parallels in design imply transmission of ideas from India to America. Note that the American Indians did not use wheeled vehicles for transport, but they nonetheless had wheeled toys.

### **Panel (6.3c). Hindu figurine**

A Hindu figurine of the elephant-headed god Ganesh, excavated at Misa, Champa, Mexico. The figurine comes from the level dated to the 9th century AD. But it is also claimed that Ganesh furnished the prototype of the Mexican-Maya rain god known from the 4th-5th-century AD onward.

The reference is Paul Tesla, "Pre-Columbian Diffusion," in *Occasional Publications of the Epigraphic Society*. He includes a picture of the Ganesh figurine on p. 164, along with a picture of the similar-looking Mayan rain god. A good-quality picture is needed for the display.

### **Panel (6.4). Aztec and Hindu game**

Comparison the Aztec (Mexican) game of Patolli and the Hindu game of Pachisi.

This panel makes the point that similarities between the Hindu and Aztec games imply the existence of pre-Columbian cultural contact between India and Mexico. Details can be found in "On American Lot-Games, As Evidence of Asiatic Intercourse Before the Time of Columbus," by E. B. Tylor. Figures 1 and 2 from this reference show pachisi being played in India and patolli being played by Aztec Indians in Mexico. Full color paintings should be made of these figures, and these will be the main element of the display. Tylor notes the following similarities between the two games, and these will be listed in the panel text: (1) divining by lot, (2) its application to the sportive wager, (3) the combination of several lots with an appreciation of the law of chances, (4) the transfer of the results to a cross-shaped playing board, and (5) similar rules for moving and taking pieces on the board. Diving by lot is done (for example) by throwing down 5 cowrey shells and assigning scores based on the number with mouth up (one Hindu method), or throwing down 5 marked beans with similar scoring (one Aztec method). This could be illustrated with pictures and sample tables of scoring values.

### **Panel (6.5). Four ages in India and Sioux traditions**

The story of decline in the four ages in India and among the Sioux Indians of North America.

The anthropologist Joseph Epes Brown writes, "According to Siouan mythology, it is believed that at the beginning of the cycle a buffalo was placed at the west in order to hold back the waters. Every year this buffalo loses one hair, and every age he loses one leg. When all his hair and all four legs are gone, then the waters rush in once again, and the cycle comes to an end.

A striking parallel to this myth is found in the Hindu tradition, where it is the Bull Dharma (the divine law) who has four legs, each of which represents an age of the total cycle. During the course of these four ages (yugas) true spirituality becomes increasingly obscured, until the cycle ... closes with a catastrophe, after which the primordial spirituality is restored, and the cycle begins once again.

It is believed by both the American Indian and the Hindu that at the present time the buffalo or bull is on his last leg, and he is very nearly bald. Corresponding beliefs could be cited from many other traditions. See Rene Guenon, *The Crisis of the Modern World* (London, 1942)." (From *The Sacred Pipe*, ed. Joseph Epes Brown, Baltimore: Penguin Books, 1971)

The above quote can be summed up briefly in the panel text. Paintings can be made showing the bull of Dharma and the Sioux buffalo. The Rene Guenon reference should not be mentioned but should be checked for further parallels.

### **Panel (6.6). Other examples**

Other examples from Gordon Ekholm's article.

We could also illustrate the following cross-Pacific parallels:

(1) identical tools for bark cloth manufacture from the Celebes and from Mexico, (2) the two-bar back-strap loom, found in the Phillipines and Mexico, (3) continuous-strip, colored bark books from Sumatra and Mexico, (4) identical nose-flutes from the Philippines and South America, and (5) betal-chewing paraphenalia from southeast Asia that is strikingly similar to Coca-chewing paraphenalia in the Andean region. These examples are not directly connected with India, but they imply a level of long-term trans-Pacific cultural contact that is not widely appreciated in modern reconstructions of the past. People in pre- Columbian times were evidently able to travel more widely than we tend to think.

### **Sub-exhibit (7) "Cultural Diffusion between India and Other Parts of the World"**

There are many examples indicating a wide diffusion of Indian cultural motifs in many parts of the old world. Here we give a few examples.

This sub-exhibit consists of a number of free-standing wall- panels in one part of the central exhibit area. Each panel contains pictures and brief descriptive text. Specific details are as follows:

### **Panel (7.1). The Gundestrup Cauldron.**

The Gundestrup cauldron is a 20-lb, 28-inch diameter silver bowl unearthed in Denmark in 1891. It is generally believed to be of Celtic workmanship, and to portray Celtic gods such as Cernunnos, lord of the underworld. However, recent studies reported in *Scientific American* (March 1992) indicate that the figures on the bowl are of Hindu provenance. For example figures on the bowl can be interpreted as Lakshmi, with elephants in attendance, Visnu with Garuda and His wheel (chakra), and the goddess Harati. There is a striking parallelism between the Cernunnos figure and the seated figure figure surrounded by animals found on an Indus Valley seal of 2000 BCE. Both can be interpreted as representing Lord Siva as Pasupati (lord of the beasts), seated in a classical yoga posture. Certain details of the bowl indicate that it was manufactured in Europe (perhaps around AD 100), apparently by someone who had never seen an elephant and was working from descriptions. It indicates a forgotten historical relationship between Europe and India.

The panel will be illustrated with pictures of the Gundestrup cauldron and blowups of the reliefs on the cauldron which correspond to Hindu iconography. In particular, a picture of the Cernunnos figure will be shown alongside a picture of the Indus Valley seal.

### **Panel (7.2). Finds in China.**

One newspaper article states: "More than 300 sculptures and engravings of Vedic origin have been excavated at the temple ruins of Changzhou in south China. During the last half-century, Chinese archeologists have found stone engravings of Krishna, Hanuman, Lakshmi, Shiva, Vishnu, and Garuda. As many as 73 stone engravings of Lord Nrsinghadeva have been found. Archeologists have also reported finding temple remains that depict scenes from *Srimad Bhagavatam* such as Vishnu rescuing Gajendra, and Krishna liberating the sons of Kuvera, killing Kaliya [sic], and sporting with the Gopis. The first artifact was found in 1934, when a 1.15 meter-high Deity of four-armed Vishnu was unearthed at Manjiaochang in Changzhou."

Another article states: "Hinduism enjoyed brief imperial patronage during the Tang dynasty--618-970 BC. It was during this period that the first Hindu monastery was built at Guang. Three monasteries and several Hindu temples were founded in the city of Guangzhou in Fujian Province during the North Song dynasty. The temples were razed during the civil war in the Yuan dynasty."

The articles are accompanied by pictures. Refer to Tamal Krsna Gosvami for more information. We need good pictures and good references for this information.

### **Panel (7.3). Russian Veda**

There is an old book from Russia called "Vlesova Kniga", "Russian Veda", or "Book of Kolyada" which apparently contains many stories related to the stories of Krsna in the *Bhagavatam*. It was written on a set of wooden planks and was found near Orel City in Russia in 1919 by one Ali Izenbek. We need to find more information about this book, and acquire a good picture of the original planks, if possible. We have received a copy of the book in Russian, and we need to have it translated into English. Question: Was the original book written in an archaic form of Russian, and if so, is the book we received a translation into modern Russian?

Here is some information about the book, coming from  
Gena.Kuchergin@com.iskcon.glasnet.ru:

The book was translated [into what language?] by Aleksandr Igorevich Asov in 1996 (address: 109004, Moskow, Tovarisheskiy pereylok, 8). The publisher (with the same address) is "Nauka i religia", Moscow phone number 911-01-26. Yuriy Petrovich Miroylyubov wrote a two-volume work "Sakralnoe Rusi" (Innermost Russia) on this subject matter, which was published in 1997. (He died in 1970.) This book was published by Spiritual Union Association "Golden Age", 125284, Moscow, mailbox number 66, phone/fax 412-42-26 from 20:00 to 22:00 Moscow time. A book "Where are you, Russia, from?" by Sergey Lesnoy was published in Canada in 1961 and deals with this subject matter.

### **Sub-exhibit (8) "Puranic Cosmology in World Traditions"**

Extensive parallels exist between the Puranic cosmology (i.e. the Fifth Canto of the *Bhagavatam*) and archaic cosmologies of many societies around the world. This suggests that there existed a world civilization in the past that had such a cosmology. Since the remnants of Bhagavata cosmology are so widespread, but at the same time so fragmentary, it appears that they spread from their original source in the distant past. The many discordant societies of today's world appear to have common roots in a nearly forgotten period of ancient world civilization. (This is documented in my paper, "Puranic Cosmography in World Traditions.")

Many cosmological themes can be traced through different cultures. The following table shows this for the cosmic axial mountain, called Mount Sumeru in the *Bhagavatam*. This mountain is reported in many lands. It represents the polar axis of the earth, but in many cultures it is referred to a local mountain (such as Mount Olympus in Greece).

The table should be accompanied by authentic illustrations.

### Culture

Cosmic mountain

Comment

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### Puranic

Mount Sumeru

golden pillar in the center of Jambu island,  
with city of Brahma and source of Ganges on top,  
surrounded by four directional mountains

### Ancient Iran

Mount Hera Berezaiti (identified as Mount Alborz)  
with celestial spring on its highest peak  
in the realm of the stars

### China

Mount Khun-Lun

with dwellings of immortals and  
bronze pillar of heaven on its summit

### Turkmen tribes of southern Turkestan

Copper pillar

marks the "navel of the earth"

Altai Tatars

Golden Mountain

seat of Bai Ulgan in the middle of the sky

Mongols

Mount Sumer or Sumer

with Zambu tree on its summit

Buryats

Mount Sumer

with polestar fastened to its summit

Kalmucks

Mount Sumer

used as a stick to stir the ocean and create

the sun, moon, and stars

North Asian, African, and American tribes

World pillar symbolized by central post of dwelling

often with seven divisions and associated with polestar

Navajos

Encircled mountain

surrounded by four directional mountains

### Dogon of Nigeria

Cosmic pillar, spanning fourteen worlds

the roof-post of the high-god Amma

### Finns

Sampo, the cosmic mill

said to be derived from Sanskrit stambha, pillar

### Lapps

Veralden Tshuold (world pillar)

their name for the polestar

### Ancient Greeks

Mount Olympus

home of the gods

### Ancient Germans

Irminsul, the universal column that sustains everything

Charlemagne destroyed an image of this in AD 772

### Norse Edda

Asgard, the burgh of the gods

rising in the center of Midgard, the circular earth

Romania

Coloana Ceriuli

sky pillar

Venerable Bede (English historian, c. AD 800)

Olympus

the third of seven heavens, above Air and Aether

Medieval Europe

Mons Coelius (celestial mountain)

whence the polestar is called Tramontane

Gerhard Mercator, mapmaker, 1595

Mountain called Rupes Nigra et Altissima

at north pole of map, with four rivers or channels

issuing forth at right angles

Mesopotamia

Mount of the lands

symbolized by the seven-tiered ziggurat

Ancient Canaan

Guri 'ili, the mountain of El

dwelling of creator El and place of assembly

of the gods

Phoenician ivory carving, c. 1000 BC

Deity dressed to represent a mountain  
with four streams emerging at right angles

Assyrian seal, c. 1000 BC

Sacred tree on cosmic mountain  
with hands from sky pouring two streams

Isaiah

Mountain where the gods meet in the far recesses of the north

Ezekiel

The mountain of god  
the location of Eden

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In the Puranas, the four sides of Mount Sumeru are associated with four directional colors, white, yellow, black, and red. These are also the colors of the Yuga-avatars and the four varnas. These directional colors also show up, in permuted order, in different cultures, as the following table shows:

Culture

Cosmic Mountain  
East South West North

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Puranas

Mount Sumeru  
white yellow black red

### Kalmucks

Mount Sumer

white blue red yellow

### Navajos

Encircled mountain

white blue yellow-red black

### Aztecs and Mayans

?

red yellow black white

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## **V. Design approach.**

The main exhibit and the 6 sub-exhibits will be presented in separate but interconnected rooms in a large hall. Models and dioramas in glass cases will be used to present the material outlined in part IV. There will be descriptive text on the walls, as well as video-kiosks and small video projection rooms showing short continuous-loop videos. These are all standard methods used in major museums.

Video-taped interviews with scholars will be shown. If possible, we should acquire a life-sized model of the Vedic head mentioned in sub-exhibit (4). (Our sculptors could make one from photos taken from all angles--if the owners give permission.) It will be good if we can acquire artifacts connected with the themes of cultural diffusion mentioned in sub-exhibits (1) and (6). At least, we can acquire photographs. We should also have large blow-ups of aerial photos showing the ancient bed of the Sarasvati river.

## **VI. Story line choreographing.**

One could put the main exhibit and sub-exhibits 1-6 along the sides of one long hall, and people will go through them in order. Or one could have the main exhibit

arranged down a central hall. Sub-exhibits 2, 3, and 6 will branch off in rooms on the right side of this hall, and sub-exhibits 1, 4, and 5 will branch off in rooms on the left.

The main exhibit and some of the sub-exhibits will have several subdivisions. For example, the main exhibit could have dioramas showing the stages of historical development from Satya yuga up to the start of Kali yuga. Across from the Satya yuga display, there could be murals showing, for contrast, scenes of primitive stone-age man, as conceived in popular anthropology books.

There could be displays illustrating the Australian aborigine's Dreamtime, as well as the general shamanistic tradition that ancient shamans had much greater powers than their latter day descendants. This, and other material on traditions of the golden age, reinforces the Puranic concept of Satya yuga as a period of spiritual advancement.

The original Satya yuga race died out, according to Markandeya Purana, and the people of Treta yuga represent a new creation (or simply another one of many manifestations of the human form).

In the Treta yuga, agriculture and city life was introduced after the initial peaceful life was disrupted by quarrel, and dioramas showing this follow the section on Satya yuga. City layouts and fortifications are described, and models of these could be shown. The rise of greed, covetousness, and warfare should be depicted, along with the accompanying loss of foodstuffs provided freely by trees. Different grains introduced by Brahma are also described, and these could be shown. Units of length are mentioned, and this ties in with sub-exhibit 2.

Although the accepted history of civilization barely stretches back to the start of Kali yuga (in 3102 B.C.), it is actually a period in which ancient civilized traditions were lost, followed by various dark ages and our present epoch of one-sided material development. This will be presented with murals and dioramas at the end of the main exhibit.

## **VII. Static and motion media graphics.**

Dioramas, models, and murals will be used extensively in this exhibit. There will be short video loops giving explanations, and some of these will present interviews with various scholars.