Mahada excavations

..... Excavations at Mahada have turned up the skeletons of one community of hunter-gatherers; they were almost all around twenty years old, one was around thirty, none was over forty. Their material life, though, is depicted with brilliant vivacity on Late Middle Stone Age paintings in the caves at Bhimbetka, which show the communal animal hunts, the killings and propitiatory ceremonies of these hunter-gatherers.

Of the early gods we know little, but looking at the dancing deity at Bhimbetka with his bangles and trident, one can't help but recall the image of the dancing Shiva seen on pilgrim posters today.

The mother goddess too, with her full figure and 'eyes like fish', represents an ancient and irrepressible current in the Indian imagination, which has never been forsaken in the face of the monotheisms of Islam and Christianity, nor by the Westernization of modern times.

What is certain too is that the symbols of procreative power - the stone lingam and yoni (male and female principles) - that are found in the worship of Shiva come out of the deep past. Not so long ago, when archaeologists excavated a shrine near Allahabad, south of the Ganges valley, a broken yoni stone from around 14,000 years ago was instantly recognized by today's villagers.

These aspects of the indigenous culture of India are part of the givenness of the deep past, which is shared by all Indians, whatever their ancestry, language or religion.

Meghgarh excavations

..... And among the most important archaeological discoveries of the last hundred years was the breakthrough made out in the wilds of Baluchistan.

..... The site spreads along the Bolan river, where the water comes down steel blue and cold across a gravel bed a couple of hundred yards wide. A century ago the river changed course, cutting through the site and exposing a cliff-like cross-section of cultural deposits. The first examination thirty years ago brought mind-boggling results. Charcoal from one of the early levels gave a carbon date of the sixth millennium BC, and there were 30 feet more debris underneath it! To their amazeent, the French team realized they had a site going back to before 7000 BC, not just centuries, but millennia earlier than anything yet known in the subcontinent.

One of the biggest surprises was the scale of the place. The site at Mehrgarh extended 1 mile along the river, nearly 750 acres in all. One place remained where the mud-brick walls, 100 yards long and 10 feet thick, still stood to a height of seventeen courses. One of the precious gifts of archaeology is that from so far back in the human past it can reveal such intimate
details of the life lived. Seldom on Earth can one so closely inspect the dwellings of such
distant ancestors. The packed, rectangular houses were roofed with cut branches, and walled
with wattle reed and mud, just as houses are still made in these hills today.

The people of Mehrgarh made beautiful pottery patterned with geometric lines and given a
lustrous burnished sheen like polished walnut. There were numerous handmade terracotta
figurines, female figures, some holding a child.

The people here domesticated goats, sheep, cattle and water-buffalo, though not the
horse. From the sixth millennium BC cattle were the cornerstone of their economy, but the
river valley also teemed with gazelle, spotted deer, blackbuck and wild sheep, the Indian
elephant and the rhino. Their chief crops were barley and wheat. From the rampart of
mountains on the western horizon, tipped with snow in the spring, the waters of the Bolan
river flowed down into the plain and on to the Indus, providing a secure environment in which
to sustain human life; and, incredibly, human life lasted in this one small place for over 4000
years.

The Mehrgarh excavation proved that there was settled, continuous occupation in the
Indus region dating back to approximately 7000 BC, 4000 years before the flowing of
India’s first cities.

During this same period agricultural communities were forming across the ancient Near East,
from Anatolia through Palestine to Iran.

Looking at it now, it is extraordinary to think that as late as the 1970s there was no evidence
of agriculture in India much before 3000 BC, underlining what a revolution these new finds
have brought about. And this was not only a farming economy; there was craft
specialization, including steatite cutting and long-distance trade in turquoise and lapis.

In the fifth millennium BC builders at Mehrgarh used the long plano-convex brick found
later in Indus cities, and cotton was already cultivated as a mainstay of India, as it is to this
day.

These new discoveries show beyond doubt that the rise of civilization in the Indus was an Indian phenomenon; it did not, as was previously believed,
 arisen from the diffusion of cultural ideas from Iraq.
Indeed, there are recognizable traits in today's culture going back to the Mehrgarh world.

Mehrgarh (and twenty villages like it are now known) was already long lived when changes
arrived around 4500 BC, perhaps with the arrival of new migrants from the Iranian plateau.
These were possibly, as we shall see, speakers of an early form of the Dravidian
languages still spoken widely over southern and eastern India.

During the last period of its life (3500-2500 BC), Mehrgarh was part of a wider cultural zone
extending into Iran, whose people used stamp seals in terracotta, constructed a large, brick-
platform monumental complex, made figurines of the mother goddess with pendulous breasts
and fantastical headdresses, and bore some similarity to the brilliant culture than thriving in
Iraq.
Then, in **2500 BC**, the place was abandoned to be replaced by a new settlement, **Naushero**, 5 miles away, with massive brick fortifications and impressive buildings, including what may be a temple. This settlement would last all the way into what we call the **Harrappan age** - the age of cities and writing.

So at last archaeologists have been able to trace Indian civilization to one of its roots. The root went back to 7000 BC, and it was indigenous. Until then hunter-gatherers had lived all over the subcontinent, as they still do, though now being squeezed out by post-Independence nation states.

In these **villages of Baluchistan** direct continuities can be traced with the world of historical times, when, in the **third millennium BC**, huge cities arose, with writing, architecture and long-distance commerce, heralding the birth of Indian civilization.

(p.20-23)

**The discoveries of Harappa and Mohenjo-Daro**

..... The finds at Harappa, and at Mohenjo-Daro in Sind in late 1923, took place in the same period of eighteen months or so that saw Leonard Woolley excavate the tombs of Ur in Iraq, and, of course, Howard Carter's discovery of the tomb of Tutankhamun. Although the finds at Harappa were less spectacular in terms of artifacts, the significance of the dig went way beyond either.

The discoveries here and at Mohenjo-Daro represented the beginning of the history of the Indian subcontinent, taking its cities back to 3000 BC - before the Pyramids of Gaza.

Until the dig at Harappa, it had been widely believed in Europe that civilization in India was a foreign import, that it was the creation of the classical civilizations of the Mediterranean, and the Judaeo-Christian tradition of the Near East, with a little help from their ancient predecessors in Egypt and Babylon.

**Indian Brahmin priests**, however, had asserted that their own civilization went back thousands of years. Their tradition of the great war in the epic poem the **Mahabharata** took it back 5000 years, while their traditional genealogies, the ancient text known as **Puranas**, contained king lists that, if taken literally, would take Indian chronology back to the Bronze Age. In the eighteenth century some Western thinkers had been prepared to take these ideas at face value and to seek connections (however misguided they might seem now) with ancient Egypt and the Bible. But the colonial orientalist project tended in the main to dismiss Hindu thought as superstition and fetishism, a more 'primitive' stage of culture, which needed to be emancipated by the science, reason and religion of the West. No one believed that an indigenous Indian civilization could go back far before the classical civilizations of the Mediterranean.........

The **joint Pakistani and US team** is currently engaged in a new dig. Rolling back the frontiers of knowledge still further, it is now possible to trace the links with the earlier Baluchi
sites excavated by the French in Mehrgarh, and to put the Indus cities in the context of a 10,000-year history of civilization in the subcontinent.

**Mark Kenoyer**, the American on the team, ..... told me:

'Even in today's Harappa you can see the legacy of the Indus cities reflected in the layout of houses and settlements, and in the traditional arts and crafts, which still use the old techniques. We have even found little clay toys that are identical to the ones made in the Punjab until today. These are the living links between the people of the Indus cities and the later population of Pakistan and India.'

(p. 28-29)

**The Indus civilization**:

**Roots of the idea of non-violence**

..... It was bigger in area than Egypt and Mesopotamia or any other ancient civilization. We now know there were over 2000 major settlements, extending as far as the Oxus river in northern Afghanistan, some of which were big, planned cities on the Near Eastern model. Most of its mounds remain unexplored, including several huge ones near Harappa..... Not only were they vast, they were also populous. The size of the civilization is estimated at anywhere between 2 million and 5 million people, although no one knows for certain.....

..... Mohenjo-Daro bears all the signs of a city that was willed into existence by some powerful person or groups of people; a 'founder city', like, say, Alexandria. The streets were straight, laid out on a north-south and east-west grid. The houses of brick on top of stone foundations seem to have been built to standard designs. Nearly all of them were connected to a city-wide drainage system, and each block had one or more water wells, but there are no great tombs as we find in, say, Egypt, Iraq or China, and no great palatial buildings. Yet although there is no material evidence for rulers, all around is indirect testimony to some kind of powerful, centrally directed organizing influence. Who oversaw foreign commerce by sea and regulated the system of weights? Who established the uniform sign system in the script? How to explain the apparently common religion, uniform pottery and coherent Indus style of artefacts over a period of 700 years, spanning nearly thirty generations?

'We have the strange situation of a complex ancient society without the ostentations of ideology or evidence of a focused leadership, like a king or queen,' says Mark Kenoyer. 'There's no real model in history for a civilization like this one.'

**Strangest of all for the archaeologists is that they found no evidence of war and conflict.** In Egypt and Mesopotamia war was the great occupation of Bronze Age rulers. In inscriptions and images on stelas, art and sculpture, war is the central theme. Here that is not the case. And did the ancient Greeks not say of Indians that they never waged aggressive war beyond India out of their own deep-rooted cultural aversion and 'their respect for justice'? Certainly they had fortified cities, but there were no images of war on the thousands of Indus seals, and no depiction of warfare, captive-taking or killing.

'Is it possible,' asks Mark Kenoyer, 'that in the long, gradual evolution of over 4000 years of local cultures before the age of cities, they worked out how to organize their settlements,
interact with other communities, what to do with surpluses, how to pass on knowledge and
how to resolve conflict? It's an intriguing idea that early India was different from other
civilizations. The answer to that is that we don't know.'

Although the later history of India was often incredibly violent, it is clear that the idea of
non-violence runs very deep in Indian thought ..... and it may not have been new in the
fifth century B.C. [the time of Buddha and Mahavira] Jain culture in particular has very
archaic features, and derives from the zone of the Indus civilization in Gujarat. But if
anything like that were true, it would be unique in the violent history of humanity.
(p. 32-33)

The collapse of Indus civilization

Towards 1800 BC, after 700 years of apparent stability, the Indus civilization collapsed and its
cities were abandoned. Its disappearance, apparently leaving little trace, poses another big
question: what led to its downfall? There have been many suggestions, including, as we shall
see, outside invasion. But experts are now increasingly looking at climate change as a chief
factor ........

...... There were many causes of its decline, but modern archaeology suggests big changes
occurred after some 700 years of stability in the Indus world. Mohenjo-Daro was badly flooded
several times between 1900 and 1700 BC; the grand buildings on the citadel were subdivided
into small houses and workshops; the great bath was build over....... Although a population
remained in the Indus valley, many were leaving the area and farming new lands on the
Jumna and Ganges rivers. It was the end of a great era, but a long, slow decline rather
than a cataclysm.

So the world of the Indus cities collapsed, and a sub-Indus culture emerged, mixing with new
elements. But was the fall of cities accompanied by the arrival of newcomers, migrants or
invaders?

The question of newcomers is one of the biggest issues in Indian history today, massively
controversial in recent years, with heavily politicized debates about Indian identity.

The next phase of the story centres on one plain and incontrovertible fact: the speakers of
the language spoken across northern India to Bengal, languages that are first traceable
after the end of the cities, are closely related to the family of languages across Eurasia known
as Indo-European.
(p.33-37)

The coming of the Aryans

...... This word (Aryan) is used by the early Sanskrit speakers, the Rig-Vedic people, to
describe themselves; it means 'noble ones', and comes from the same linguistic root as the
names Eire and Iran - 'the land of the Aryans'. But the whole question of the Aryans is now
massively controversial in India.....
Many Indian scholars and polemists have gone back to the earlier idea that the Aryans were indigenous to India, that the Indo-European languages spread from India westwards into Europe, and hence that the Indus civilization was Aryan and Sanskritic, and the earliest and most sacred texts of the Aryans, the hymns of the Rig-Veda, describe the world of Mohenjo-Daro and Harappa. It is now claimed by some that the Aryan hypothesis is nothing but a form of orientalism created by the British to justify their rule (even though the theory was actually created by Germans).

The question is very complex, but there is one thing on which all competent linguists agree:

Jones was right - the languages [Sanskrit, Latin, Greek and modern Western languages] are connected;
and the time depth of the 'family tree' of the Indo-European languages precludes the idea of India as the place of origin.

The Sanskrit language must have originated outside India.

But how far back?
And from where?
Was it brought by invaders or travellers, by elites or mass migration?

This is now one of the hottest arguments in modern India, where the battle over history that began under the British in the nineteenth century is now at the heart of politics and education because it bears on central questions of identity. Even DNA evidence has been brought into play....... The answers are likely to involve a combination of textual history, archaeology and linguistics, maybe genetics too. But all the arguments go back to the oldest Indian sacred text [Rig-Veda] - a text composed in the second millennium BC, and, incredibly, transmitted orally from then until the Middle Ages, passed from teacher to pupil, as it still is in the traditional Vedic schools.

(p.37-38)

The Rig-Veda

.... It is a collection of notoriously riddling and difficult texts, full of inscrutable allusions, in very archaic language. The majority are hymns of praise and supplication addressed to the gods; many sing the delight of soma, the sacred drink; there are also battle songs that celebrate the crushing of enemies, and verses giving thanks in response to the gifts of chieftains (a well-known genre in Anglo-Saxon and Old Norse poetry too).

As for the date, it's impossible to be exact, but one very important clue was unearthed in the 1920s. In the text of a treaty from the kingdom of Mitanni in northern Syria, datable to around 1380 BC, the names of the rulers, to scholars' great surprise, could be read perfectly as Sanskrit. The treaty also lists the Vedic gods Indra, Mitra and Varuna, in the very order in which they appear in a formulaic phrase in the Rig-Veda. The text also invokes the Nasatya or Asvins, the heavenly twins who are very important in Vedic poems. Another Mitanni text, on chariots and horse training, written in the Indo-European language used by the rulers of Mitanni, is so close to Sanskrit in its numerals and technical terms that it is hard to imagine the languages of the Mitanni and the Aryans had been separated for very long.
The mysterious Mitanni rulers were probably a warrior elite who came into northern Syria around 1700 BC and ruled what is now the area of Kurdistan. Their texts strongly suggest the early Rig-Vedic hymns came from a similar time, that is, not long before c.1400 BC. Further clues back this up. The Rig-Veda hymns describe a bronze-using world (iron first appears in India around 1200 BC); their authors seem unaware of great cities, such as Mohenjo-Daro, and know only of ruins whose people have fled, 'driven away by Agni, the god of fire'.

All this combines to suggest that the bulk of [Rig-Vedic] hymns were composed after the Indus civilization.

This gives us a triangulation: the composition of the hymns perhaps spreads over a few centuries, beginning around 1500 BC, though possibly a little earlier. (p. 40)

**The home of the Aryans**

..... the snow-capped ridges of the Hindu Kush, its ranges scored with the ancient passes that lead from central Asia down into India. It was from this region, the Rig-Veda says, that the Aryans spread eastwards into India from the fertile lands watered by the Kabul river, the Kharrum, the Gomal and the Swat. From here, as it says in a later text, 'some went east .... but some stayed at home in the west', among them the Gandhari tribe, who gave their name to the whole of what is now known as the Northwest Frontier.

Archaeology, linguistics and genetics - plus common sense - are all consonant with the idea of a progressive migration of early Indo-European speakers taking place over several centuries.

As we have seen, the world portrayed by the Rig-Vedic poets bears no recognizable relation to that of the Indus civilization; it has no memory of vast cities, except as ruins.

While the early poems of the Rig-Veda are set in the Punjab and eastern Afghanistan, the valleys of the Kabul river, the Swat and the Upper Indus, there are strong indications in those verses that this was not the Aryans' original homeland. They were aware that they had migrated from afar: that 'Indra had carried Yadu and Turvasa across the waters, crossing many rivers' going through 'narrow passes'. Remnants of these waves of migration are still traceable by linguists: most famous are the so-called Kaffirs of the Hindu Kush, the pagans of Chitral, descendants of Indo-Aryan peoples who, until the nineteenth century, spread over a much wider area of Afghan Nuristan........ (p. 41-42)

**New discoveries in central Asia**

Gonur Tepe, Turkmenistan...... Under an awning Russian and Turkmen archaeologists are examining dramatic finds from a horse sacrifice buried around 1900BC.
Victor Sarainidi is there to greet us. He can only be described as a living legend. Sarainidi already has many great discoveries to his credit: it was he who dug up the amazing hoard of Bactrian gold at Tila Tepe in northern Afghanistan. Sarainidi had mapped more than 2000 Bronze Age sites in the area of the Murghab oasis, sites that seem to have suffered a dramatic collapse due to climate change in the same period as the decline of the Indus cities. Here, he thought, might be the biggest. Sure enough, out in the open desert, he found a huge defended area, plus a separate enclosed space that he interprets as a temenos (sacred enclosure).

The finds include not only horses and wheeled vehicles, but curved mud-brick fire altars - like elongated horseshoes - of the same shape and design as those still used in Vedic rites in India. Sunken bowls have also been found, containing traces of ingredients used for a sacred drink based on ephedra, a twiggy mountain plant believed to be the base ingredient of the Rig-Vedic soma. When infused in boiling water, ephedra produces quite a powerful sensation of euphoria (as I can testify).

Sarinidi takes me over to a square pit containing a horse burial; the foal's skeleton is still perfect. 'They practised horse sacrifice as a special ritual - like the Aryans in India and other Indo-European peoples, even as far as the ancient Irish.'

Vedic culture

There is no evidence of which people lived on this site: they did not use writing, but the material culture has too many affinities with the texts of the ancient Indo-Iranians and Indo-Aryans not to draw parallels. It is hard to look at the finds - horse burials, spoked chariot wheels, the ephedra-based sacred drink, the fire altars - and not think of the Vedic culture.

Sarinidi thinks he may have found the ancestor of the early Iranian branch of the Indo-European migration into Iran and the subcontinent. But he has also found material links with northern Mesopotamia: he believes that the people who settled Gonur Tepe had previously had contact with the cultural zone of Mesopotamia, and were part of the movement that left the Indo-European-speaking dynasty of the Mitanni in northern Syria around the fifteenth century BC.

The big picture, then, is that the ancestors of Aryans were part of a huge language group who spread out from the area between the Caspian and the Aral seas 4000 years ago, and whose language lies at the root of modern European languages, including English, Welsh, Gaelic, Latin and Greek, but also Persian and the main modern north Indian languages. They were people with new technology (horse-drawn chariots) and a religion that was, in a broad sense, 'Vedic'.

Then, in the second millennium BC, the 'Aryans' were driven by climate change and population pressure to move south in several waves into Iran and India - a momentous event for India and the world.

..... Sarainidi sums it up like this:
'They came into the oasis towards **2000 BC** and left in **1800 BC** or a little later when the Murghab delta dried up.'

So they were caught up in the same big climate change that affected the Indus civilization. From here they followed the water, moving south towards Herat and east towards the Oxus, from where the hindu Kush rises across the plain of northern Afghanistan on the southern horizon. From the Oxus it is only 200 miles to the Khyber, and the first sight of the plains of India. These migrations will have involved many such groups, and they may have taken place over centuries, a slow leakage across the hills of Afghanistan, fighting along the way to carve kingdoms for themselves in the rich plains of northern India.

(p.43-45)

..... Despite the massive academic controversy over these matters in India, the evidence of the Rig-Veda shows that the newcomers saw themselves as conquerors, modelled on **Indra himself**. Entire tribes or groups of tribes entered the subcontinent, conquering whoever stood in their way.

**Later verses in the Rig-Veda** tell something of the battles in northern India as the Aryans expanded their lands eastwards, sometimes fighting against natives with strange, non-Aryan names, sometimes allied to indigenous chiefs, sometimes fighting each other. In places they **coexisted with the local powers**; one verse says that the forts of one enemy of the Aryans, a king called Sambara, were stormed only 'in the fortieth year'.

These all sound like real historical events recorded in the bards' verses.

As they moved east, gaining more land, the mountains always 'on the left' (still the Sanskrit term for 'north'), the **conquest of the sub-Harappan peoples of the Punjab** is a continuing theme in the **Rig-Veda**:

'You put down 50,000 blacks. You beat thin their forts like a threadbare garment.'

Indra himself 'destroyed the ninety-nine forts of Sambara ... Indra destroyed a hundred stone forts ... and put to sleep 30,000 Dasas'.

These figures need not be taken any more seriously than those for the Greek and Trojan heros in Homer, but the drift is clear. This was not a small-scale trickle; nor was it a more or less peaceful migration.

..... Thus they came to control access to the richest lands in India, using horses, chariots and their superior weaponry (made of iron) to spread their powers over the indigenous peoples, the post-Harappan population and the older stratum, many of whom had lived in the adjacent forests since the Stone Age......

(p. 45-46)
Madurai: the first great civilization of the south

...... Marco Polo spent two months here in 1273, and he found it 'the most noble and splendid province in the world'. Approaching Madurai in the early morning before the onset of the heat, you can see why. The sky is clear and the air fresh, and apart from a gentl haze over the city, you can see all the way to the giant brown rock of Tirupparankunram, the home of the god Murugan, whose hill shrine there has been celebrated in Tamil poetry and song since the Roman period....

At the hear of the city is the great temple with its huge gate towers and labyrinthine corridors. In my experience, it's a building hard to beat anywhere in the world for sheer atmosphere. It's a Shiva temple, but is actually dedicated to Shiva's wife, who is still regarded as the real patron of the city. Here she is called Minakshi, 'the fish-eyed goddess', a very archaic name, which probably goes back deep into the cultural and linguistic prehistory of the south. The goddess of the city is mentioned in Tamil poetry as far back as the Roman period, but her name and attributes may point to a more distant connection with the culture of the Bronze Age and before.

The culture here grew over many centuries, and to sketch its background we need to go back for a moment to the aftermath of the Indus cities, the age of the Rig-Veda in the north. Here in the south the first recognizable culture begins in the Pandyan lands on the coast, 50 miles south of Madurai at the mouth of the Tambrapani river.

Adichanallur excavations

Excavations here at Adhichanallur over a century ago found a large, megalithic settlement dating back before 1000 BC, with clear links to later Tamil culture. Particularly striking was evidence for the worship of a male god, whose emblems were a leaf-bladed lance and a peacock - very like the Tamils' favourite god today, Murugan, the 'red one', the lord of the hills. There were even signs of devotees piercing their jaws with mouth-locks, a custom still practised.

The excavation was reopened in 2005 with immediate and fascinating results. Archaeologists uncovered a mud-brick fortification wall faced with stone, a potters' quarter, a smithy, a place for bead manufacture, and numerous high-status burials in a huge burial ground extending over some 150 acres. Among the most remarkable of the new finds were pieces of a burial urn beautifully appliqued with raised motifs depicting a horned deer with raised tail, a crocodile, a crane sitting on a paddy stalk, a sheaf of standing paddy, and the tall, slender figure of a woman with palms spread out - perhaps the earliest examples of art in the south yet known.

The finds at Adichanallur strongly suggest that some living Tamil traditions, such as devotion to Murugan, are very archaic indeed: so too, no doubt, is the bull-running festival, which draws 2 million people every year to Madurai and is mentioned in early Tamil poetry.

The sensational find in 2006 of a votive stone axe head bearing four signs in the Indus script, unearthed on the Cavery river near the ancient town of Mayavaram, has added to these tantalizing hints. Deposited in the Iron Age, but probably an older hierloom, how it got there is a moot point. Did it come after the Indus age? Was it brought by migrants or by trade? Was
Western contacts with early Tamil kingdoms

The Pandyan kingdom was known to the Greeks from the first century BC, and Madurai later appears on Ptolemy's world map. In return, Greeks appear in Tamil poems - as royal mercenaries living in some sort of colony, and walking around the streets gawking like tourists: 'dumb mlechhas' (foreigners). There are even fascinating references to Graeco-Roman sculptors working here, a picture coloured by hoards of Roman coins picked up in the city and across Tamil Nadu - further proof of commercial links with the Roman world, which we saw in Muziris. In 21 BC, during the reign of Augustus, a Pandyan embassy went from Madurai all the way by sea to Rome.

The cultural per-eminence of Madurai dates from this period. Tradition holds that the city was the centre of the **sangam, or academy, of Tamil poets**. In Tamil literature there are, in fact, legends of several **still earlier, antediluvian sangams**, but the one in the Roman period is real enough.

Already in the second century BC this poetic tradition was the subject of linguistic analysis: the **Tolkappiyam**, the earliest Tamil treatise on grammar and poetics, **presupposes older and now lost poetry**. …

(317-325)

Throwing light on a lost classical civilization

Tamil literature is as rich as any in western Europe - only Greek and Latin are older. However, the Tamil literature of the late Roman and early medieval periods was largely lost until the nineteenth century, and some that was written by Jains and Buddhists was lost for good. As print took over, Western forms of education came to the fore and their European Christian canons of literary value deemed the old palm-leaf manuscripts to be no longer of worth, so they were destroyed.

In the mid-nineteenth century the task of recovering those lost writings began when the scholar **Swaminath Aiyar**, a young student at the time, **met a district magistrate who revealed that manuscripts of the ancient classics still survived**. As Aiyar describes in his great autobiography (1941), over the next few decades he laboriously criss-crossed the south by train and bullock cart, gathering up ancient palm-leaf manuscripts before they were thrown out or burnt as rubbish. To his utter amazement, as he delved around temple towns such as Kumbakonum, he even stumbled upon **living chains of tradition**, such as the **annual readings of ancient poems** by the **Tamil Jains**, a tradition of expounding that I was astounded to discover even now (just) survives in some small Jain communities in rural Tamil Nadu.

……

(p. 107-110)
......The tale (of Silapaddikaram) moves between Madurai and the now-vanished city of Kaveripatnam, whose temples and 'tall mansions' stood at the mouth of the Cavery river before they were washed away by the sea or covered in dunes. .......

Combine the Tamil poems with the Greek and Roman gazetteers, contracts and geographies, and together they tell us a big story about India opening up to the world.

But the Periplus [Periplus of the Erythraean Sea, a Greek merchant's guide to the India trade from the 70s or 80s of the first century AD] also offers fascinating clues to the very beginning of Indian commerce with China. According to the Periplus, it was the Tamils who ran the trade up the east coast of India, with big, sea-going catamarans made of split logs..... The port of the Ganges mentioned by the Greek navigator, where goods were transported by land towards China, we now know from recent excavations was Tamluk, which stood, and still stands, on a tributary of the Hooghly river 30 miles south of Calcutta in West Bengal.

(p. 113-115)

**Trade, seafaring & ship-building**

Night is falling off the shore of Cranganore, close enough to the Kerala coast to waft the fresh smell of palm forests after rain. Our boat is a 120-foot ocean-going uru, the same size as the Roman ships that plied between the Red Sea and India 2000 years ago. Ours is a boat of Cuddalore, with a Tamil-speaking crew, trading between the Andamans, Sikkal in Gujarat and the Gulf, carrying a cargo of cement, pepper and spices. After four months at sea the crew are looking forward to the thrills of the old port of Dubai .....

Trade is one of the key factors in civilization. By allowing civilizations to make contact, to share and test ideas, trade also allows them to grow. Our image of India, influenced by colonial writing and historiography, has so often been of a civilization stopped in time, stuck in the past, but in fact Indian civilization has always grown and changed through dialogue with other civilizations. The tidal waves of Indian history have produced great native dynasties, but also great foreign rulers, and receptivity to outside ideas has always been part of the Indian experience. Many of the greatest developments in the story of India have been shaped by dialogue with other civilizations, which began back in the Harappan age, when Indian ships traded with the Gulf. Contacts with the Persian world had grown intensive from 500 BC, but it was only in the last centuries BC that regular sea routes opened up between the Mediterranean and peninsular India. The opening of the Spice Route to the Mediterranean spurred contacts between Rome and the kingdoms of southern India, while the development of the Silk Route established contacts between China, Europe and India. ......

Our boat is heading up to Gujarat via the old port of Mumbai. Indians have sailed this coast up to the Gulf since at least the third millennium BC. .....

They still use the old technology too. The construction yards at Beypore near Calicut almost died in the 1980s, when their manpower and skills passed to the Gulf, where the money lay. But the old shipbuilding arts have been rekindled in recent years - for good economic reasons.
The old boats quite simply are still good value. The builder's boast is that an owner will make his or her money back in four years, when the lifespan of a good boat is over forty. ......

The *mestiry* (master builder) here, though, is a Hindu: named Gokuldas, he is only in his thirties, and his father and ancestors were also *boat carpenters* 'since 500 years'. ....

'We use no plans, even for boats this size,' says Gokuldas. 'There is a lot of secret calculations and mathematics involved in the process of building an *uru*. All the secrets are passed on from father to son. That's how we do it with no technical drawing - how we make such big ships to full perfection. The curve of the ship and the overall shape and structure come from working out in the mind.'

(p. 99-101)