



Was an Aryan Invasion Responsible for the Demise of the Indus Valley Civilization?

YES: Stanley Wolpert, from *India* (University of California Press, 1991)

NO: Romila Thapar, from *Early India: From the Origins to A.D. 1300* (University of California Press, 2004)

ISSUE SUMMARY

YES: Historian Stanley Wolpert states that the Aryan invasion of the Indus Valley did occur and played a role in the demise of the latter's civilization.

NO: Historian Romila Thapar argues that multiple factors were responsible for the demise of the Indus Valley Civilization and asserts that the Aryan penetration into India was migratory rather than belligerent, resulting in a fusion of the two cultures.

Which of the world's ancient civilizations was the oldest? Which was the most advanced? Before the 1920s, three civilizations could stake a claim to those titles—Mesopotamian, Egyptian, and Chinese. Circumstances would soon bring another claimant into the mix.

In the 1920s, archaeologists digging in the Indus River valley (located in present-day Pakistan) discovered the remains of two major cities, which they named Harappa and Mohenjo Daro. These sites had the earmarks of urban environments—a well-planned street system, numerous public facilities, and what may have been the world's first indoor plumbing/drainage system. Further archaeological digs in the area produced evidence of other lesser cities and seemed to point the way to the existence of a fourth major ancient civilization. Work continues as scholars and scientists attempt to draw a picture of this civilization and its place in human history.

Information today remains incomplete. It is certain that the Indus Valley Civilization began to develop in the third millennium B.C.E. and reached its apex in the period from 2500 to 1500 B.C.E. It began to decline and soon disappeared, until rediscovered in twentieth century. What happened to it is the subject of this issue.

Who were the creators of the Indus Valley Civilization? Archaeologists can trace their roots to the Neolithic era, when people in the area began to domesticate

animals, grow crops, and live in communities. As their settlements grew into a civilization, they began to trade with their Mesopotamian neighbors to the north, which brought further sophistication to their cities. Eventually, the Dravidians, a dark-skinned people from what is today south/central India, began to move into the Indus Valley. Although there is little evidence available regarding this migration, there is nothing to indicate that it took the form of an invasion; rather it seems to have occurred as a peaceful synthesis of two peoples' cultures. This situation existed until circa 1500 B.C.E. when the Aryans, a nomadic warlike people, entered the Indus Valley and perhaps changed the course of Indian history. The Aryan migration was part of a larger movement of Indo-European peoples who eventually settled throughout the European and Asian continents, influencing the development of civilizations wherever they settled.

How the Aryan and the Indus/Dravidian cultures mixed is a subject of scholarly dispute. For most of twentieth century, based primarily on linguistic and religious sources, it was assumed that the Aryans entered India as conquerors, applied the final blow to a dying civilization, and adopted much of its more advanced civilization. Hinduism, the caste system, and India's sacro/mythological worldview were all products of what Stanley Wolpert has called "India's first cultural synthesis" ("Multiculturalism in History: India, the Multicultural Paradigm," *Orbis* (Fall 1999)).

This theory has, within the last generation, come under scholarly attack. Based on recent archaeological evidence and written sources, a new generation of scholars argues that there is little solid evidence to support the Aryan invasion theory and that those who espoused it in the past were misinterpreting the linguistic and religious sources they used as proof. Modern scholars counter that the Aryan migration into the area may have been a peaceful one, and assert that the demise of the Indus Valley Civilization was caused by a combination of environmental, political, and social circumstances and conditions.

The importance of the question of Aryan influence on Indus Valley Civilization extends beyond the boundaries of history. If the "Aryan invasion" theory is true, the major roots of India's civilization, including its language, religion, and social system, developed from a non-Indian source. There are some, Hinduism nationalists especially, who see this not only as a falsification of the historical record, but also as depriving India of its true cultural roots (see Issue 18 in Volume 2 of this series).

In the selections below, Stanley Wolpert, a long-time student and scholar of Indian history and culture, argues that the Aryan invasion did take place and it resulted in a blending of Aryan and Indo-Dravidian societies from which Indian civilization sprang. Romila Thapar, the author of many books on India's history, states that a number of factors were responsible for the demise of the Indus Valley Civilization, but an Aryan invasion is not one of them. The Aryan presence in southern India, she argues, occurred as the result of a gradual migration that allowed the two cultures to assimilate and gradually form the roots of Indian civilization.

A final word of caution: Adolf Hitler and Nazi Germany have made the term "Aryan" fraught with controversy through misuse and falsification.

In its Sanskrit origin, the meaning of the word "Aryan" is "highborn" or "noble." No more should be derived from the word than its original meaning.

India

Pre-Aryan Urbanization

More than 4,000 years ago people living along the river Indus and throughout most of what is now Pakistan enjoyed a highly sophisticated, urban, commercial civilization. Thanks to careful excavations at more than fifty sites around the Indus Valley, most important of which were undertaken at the twin "capitals" of Mohenjo-daro and Harappa, we can confidently date this civilization to at least 2300–1700 B.C. The grid patterns of urban planning and the remarkably advanced sewer and septic-tank drainage, as well as hypocaustically regulated baths characteristic of Indus cities attest to the precocity of the builders, rulers, and bureaucrats of Indus Civilization. Its arts were equally advanced, displaying technological as well as creative ingenuity, both of which are embodied in one beautiful bronze "dancing girl" cast by the lost wax process, and in many remarkable seals, whose pictographs remain undeciphered, but whose gods and animals look quite at home in modern India. One seated figure in yogic position appears to be Shiva as "Lord of Beasts," and several humped bulls look alive, or at least as if they were modeled from zebus still walking the streets of any Punjabi town.

Viewed from the air, modern Pakistani homes built close to Harappa, the Northern "capital" of India's first major incarnation, are not only made of bricks burned to much the same hue of salmon, but appear to have been constructed with floorplans similar to those of their most ancient ancestors. Practical-minded Scottish engineers used so many of the bricks they found scattered around ancient Harappa as a bed for their Punjabi railroad in the late nineteenth century that little more than bare floorplans and sewerage drains remain of what must have been solid two-story homes in the ancient city that seems to have supported about 40,000 people. Who exactly those people were, however, remains a mystery—as is the language they wrote and spoke, the precise nature of their polity, and the names of their gods. We assume from various shreds of evidence that they were proto-Dravidians, possibly using a language that was a grandfather of modern Tamil, and that they were ruled by a king, who was worshiped as a god. They also worshiped the male phallus, it appears, symbolizing a fertility god such as Shiva, and the Mother Goddess. They had special reverence of water, which must have played a central role in their ritual. Hindu temples continue to have rectangular tanks, much like the "great bath" found at Mohenjo-daro, and ritual washing is important to

Hindus, especially for purification purposes before approaching the icon of any god.

Certain plants, like the pipal tree, were sacred then and have remained so throughout Indian history. The Buddha attained enlightenment while seated in the shade of that great tree at Sarnath. We also find solar symbols, such as the wheel of light rays that in Sanskrit was called *su-asti* ("well-being"), later corrupted and misused by the Nazis as *Swastika*, their symbol of "Aryan purity." We know almost nothing of the social system of Mohenjo-daro, yet the floorplans of houses in some parts of town are much smaller than those found in other quarters, which were themselves small by comparison to the citadel's Great Bath and "temple" structures, reflecting a hierarchy of class or something perhaps like India's more complex "caste" system that emerged later.

The more we study the bronze and stone tools and remains of these remarkable Indus sites, the more it appears that earliest Indic Civilization contained many of the cells of the later Indian socioreligious organism. The seals themselves were obviously used to identify produce, shipped to Mesopotamia along the Makran coast, since several have been found at Sumerian digs and elsewhere. Indus exports probably included cotton cloth, a fragment of which was found at Mohenjo-daro, which still remains India's premier commercial product and export. Indian cotton cloth is now in demand, however, not only throughout Africa and Southeast Asia but also in some of the finest shops of Rome, Paris, London, New York, and Beverly Hills.

Indus Valley planners obviously understood enough secrets of water control to allow their cities to flourish for almost a thousand years, yet not without periodic rebuilding. Mohenjo-daro seems to have been rebuilt no less than ten times and was probably abandoned after the last great flood forced its surviving inhabitants to flee. We obviously don't know what happened in those dark final hours that caught so many Indus residents off guard, their outstretched skeletal remains alone mutely attesting to the panic that must have suddenly seized them. Perhaps earthquake tremors preceded the flood, or possibly triggered it. Tectonic shock might, in fact, have ruptured a major Indus dam, releasing its trapped waters. The coast has fallen since Indus Valley times, immersing the three lowest layers of Mohenjo-daro totally under water, eluding all attempts to shed historic light on their remains. Whatever cataclysmic events caused the fall of Indus urban Civilization, they appear to have come shortly before tribes of wandering pastoral Aryans reached India's western borders, somewhere between 1600 and 1500 B.C. With mighty Indus walls shattered by earth's rumbling surface and most pre-Aryan defenders drowned or forced to abandon her citadels, fleeing south for their lives, the new arrivals found scant resistance as they moved their flocks of goats and kine over the River and through the rubble that had once been a flourishing civilization.

Aryan Conquests and Emerging Synthesis

Devout Hindus believe the Aryans have always lived in India, at least since before the first Ice Age, when they migrated south from the North Pole. Historical scholarship and comparative linguistic studies of the past century

and a half give us better reason to hypothesize, however, that Indo-Aryans were the easternmost wing of the once cohesive Indo-European-speaking tribes, whose great dispersion from pastureland somewhere between the Caspian and Black Seas probably occurred around 2000 B.C. That monumental Indo-European dispersion impelled some tribes west to England and Ireland, others to Germany, Greece, and Rome, still others east to Iran, from which Iranian wing the Indo-Aryan tribes broke away about 1500 B.C., migrating over snow-capped *Hindu Kush* ("Killers of Indians") mountains, down Khyber and Bolan Passes, into the Indus Valley.

All that we know about the early Aryans was preserved through oral tradition by their priestly bards, Brahmans, whose heirs painstakingly memorized thousands of Sanskrit poetic hymns considered sacred, eventually recording their scripture in "Books of Knowledge" called *Vedas*, most important of which is the *Rig*. Vedic prayers were addressed to no less than thirty-three named gods, to whom Kings (*Rajais*) and Warriors (*Kshatriyas*) as well as *Brahmins* and Commoners (*Vaishyas*) appealed for long life, good fortune, heroic sons, and rain. India's early Aryan tribals were hearty, lusty, life-affirming, drinking, gambling, fighting people, who resembled their Homeric cousins much more than they would their Gangetic Valley descendants. Their most important god, Indra, was a young hero, who wielded his *vajra* ("weapon") much the way his Icelandic cousin Thor hurled thunderbolts, using it daily to "pierce" the dark outer "covering" of the cosmic Demon, thereby releasing the sun, waters, and lowing cows.

The Vedas report nothing about the pre-Indian history of the Aryans, nor do they say anything specific concerning the Aryan conquests of Indus Valley Civilization, except for a few references to "dark" (*dasra*) peoples, who lived in "fortified cities" (*pur*), and had to be "subdued." Indra's daily defeat of demon Vritra may, nonetheless, allegorically reflect the conquest by Aryan forces of light over the demon darkness of pre-Aryan "shells" (fortresses), possibly even King Indra's piercing of pre-Aryan dams, thus releasing their waters. The Vedas, however, were not compiled as histories but as hymnals; hence their disinterest in temporal matters, even such earthshaking events as may have occurred less than a century before those chants were first "heard" by the Rishis. For Rishis and Mahatmas, however, and those Hindus who revere them, this world of rebirth (*samsara*) and pain is, after all, more "illusion" than real. Why bother with names, dates, or even the most dramatic of historic events? The difficulty of firmly establishing dates throughout Indian history is in part attributable to at least such widespread belief in their insignificance by many of India's best and brightest philosophic minds.

What seems clear, however, is that between about 1500 and 1000 B.C., Aryan tribes conquered the remaining pre-Aryan *dasas* throughout the Indus Valley and Punjab, moving as far east as the plains of Delhi. When they first reached India, the Aryans were still pastoral nomads; hence no trace has been found of their villages or huts. By the end of this half millennium, however, no doubt because of much they learned about urban civilization from the *dasas* they enslaved, Aryan cities began to rise on those plains around Delhi, whose first capital was named for Lord Indra (*Indraprastha*).

The Aryans brought the horse as well as cows to India. Aryan Rajas rode to war in horse-drawn chariots, which helped them defeat all who confronted them, as did their well-aimed arrows and hafted axes. Nomadic wandering across the Iranian plateau had toughened them into fierce warriors, and like Indra himself, they must have taken heart from draughts of "divine" Soma, swallowed before doing battle. That nectar of the gods apparently grew wild in the hills of northwestern India, and whether narcotic or psychedelic in nature, the effects of its "juice" [were] such that it "settled in every joint" and was worshiped in Vedic hymns as a deity second only to Indra in power. The most important ritual of Vedic Aryan faith was, in fact, building the annual Soma altar, whose fires were lit just before the monsoon started. Soma libations were deemed essential prerequisites to rain. Cows were used as early Aryan currency, paid to Brahmans who chanted mantras as they poured out Soma juice and clarified butter (*ghee*). Agni, the god of fire, smacked his hot lips and soared toward the sky as he tasted the divine offerings, passing them up to many solar divinities, whose presiding judge-on-high was Varuna.

By about 1000 B.C., iron was discovered in such accessible profusion on the Barabar hills near the Ganga around modern Patna that it could be "peeled" off for use in weapons as well as for axes and ploughs. An era of rapid change was thus launched, as the Aryan expansion eastward accelerated, owing to the conquest of hitherto impenetrable Gangetic Sal forests with iron tools and weapons. As pastoral nomadism was replaced by iron plough agriculture, tribal villages were incorporated into territorial kingdoms. India's two great Epics reflect the courtly life and martial conflicts of this era of rapid change and cultural syncretism evolving from the early integration of Aryan and pre-Aryan cultures.

The longer Epic, *Mahabharata* ("Great Bharata") is the story of a monumental struggle for territorial power around the plains of Delhi among rival Aryan cousins. The five "good" Pandava brothers are pitted in long, often treacherous battle against their 100 "evil" cousins, who initially conspire to oust them from their rightful capital by winning a game with loaded dice. Aryans loved to gamble almost as much as they enjoyed Soma. Even noble Yuddhistira, incarnate "King of Religion or Law" (*Dharma*), eldest of the Pandavas, could never resist a challenge at craps, and kept losing roll after roll, until his kingdom and entire fortune were gone, finally sacrificing even the lovely polyandrous wife of all five brothers, Draupadi. Several times the length of *Iliad* and *Odyssey* combined, *Mahabharata* is uniquely rich in ancient Indian legend, lore, character, and custom. Its heroes are all Kshatriyas, but they wander for years in North India's jungles after losing their court, prior to returning home to fight and win the epic eighteen-day battle that ends the fabulous tale. Shortly before the battle is joined, however, a brief religiophilosophic dialogue was inserted in the earlier epic. Called *Bhagavad Gita* ("Song of the Blessed Lord"), it has since become more important to Hinduism than the rest of the rambling work. Reflecting as it does post-Christian era concepts rather than ideas current in 1000 B.C., the message of the *Gita* will be considered later.

The setting of the shorter Epic, *Ramayana* ("The Story of Rama"), is about 300 miles east of Delhi at Ayodhya, and probably reflects Aryan court

life several centuries later than that depicted in the *Mahabharata*. As they advanced to the east and south, Aryans came into contact with and conquered many different peoples, some quite primitive jungle folk. The *Ramayana* may be read as an allegory of what Aryans see as the conquest of “uncivilized demons” who inhabited Southern forests and disturbed the meditations of sadhus seeking enlightenment through yogic concentration. Prince Rama and his perfect wife Sita were also obliged to leave their capital and palace to wander in treacherous jungles for many years, and while so doing beautiful Sita was abducted to the island of Lanka by its demon-king Ravana, darkly as villainous as Rama was virtuous. Subsequent additions to the Epic core turn Prince Rama into an earthly emanation (*avatara*) of solar god Vishnu, sent down to save the world from Ravana’s terror and torture. The original story might, however, truly indicate how perilous life in North India was from the tenth to the eighth century B.C., when respectable people could hardly venture beyond their palace walls without risking abduction, robbery, or rape. Earlier episodes of courtly intrigue at Ayodhya among the dotting old king’s three wives also reflect the sordid politics of harem rule, so common to subsequent eras of Indian history.

Enlisting the aid of jungle birds and beasts, especially monkeys, whose General, Hanuman, is still worshiped as a Hindu deity, Rama finally finds his poor bride and saves her after defeating Ravana in prolonged single combat. The traditionally low and suspect status of Indian women was then made painfully clear, however, since even all-virtuous Rama refused to take his bride back until she first proved her chastity through ordeal by fire. Agni himself emerges golden from the flames as Sita approaches and escorts her to Rama. They fly home together in Rama’s “private plane” to inaugurate the era of Ram Rajiya. Many years later, nonetheless, courtly tongues started wagging and male chauvinist questions were asked about how it was possible for Sita to live so long in Ravana’s palace without once allowing that tall, dark, and handsome demon-king to lay a finger on her beautiful body. King Rama not only listened to such scurrilous gossip, but believed it, once again calling on Sita to “prove” herself. This time, in despair, she cried out to her Mother, Earth’s Goddess, for “Sita” means “furrow.” At her supplication, the earth opened, and up came Mother Goddess on her throne of gold, taking her lovely daughter up onto her lap, away from such foolishly doubting men.

While Aryan Epics reflect an exalted status of Kshatriyas in this era from about 1000 until 700 B.C., duller “commentaries” on the Vedas were composed by Brahman priests, who exalted themselves and their rituals in prose *Brahmanas*. Every detail of each ritual sacrifice was elaborated in these handbooks of priestly lore, which helped inflate Brahmanic pretensions as well as the cost of ceremonies that soon required as many as sixteen or seventeen Brahmins to carry them out. Rajas and Vaishyas paid the lavish price in cows, Soma, ghee, and other nectar consumed by the flames. Brahmins prospered and emerged by the end of this era as nothing less than “gods on earth,” whose sacred feet supposedly never touched common dirt, thanks to Brahmanic powers of levitation. Perhaps because of their status as currency, cows were now also worshipped, as were the mantras chanted by Brahmins; sacred utterances such as “Om”

came to symbolize the universe, for example. “Sound” itself, *Vach*, was deified, as was demiurge *Brahma*, and a new specially mighty impersonal absolute called *Brahman*.

Rama’s defeat of Ravana, however, symbolizing the Aryan conquest of non-Aryan demons in Gangetic forests and farther south, permitted patient sadhus to continue silent yogic meditation in those jungles. Soma sacrifices in the Gangetic valley were more often than not ill-timed to “bring” monsoon rains, and the pretensions as well as inflated costs of Brahmanic ritual started seeming more and more hollow to kings and commoners alike. For where was the Raja who never lost a war, despite all the cows he paid his Brahmins? Or the wealthy merchant who never died? Or the pious prince who never fell ill? Why waste so many valued creatures and resources on “magic” that didn’t work? Some Kshatriya princes started asking radically different questions, seeking inner paths to salvation that had nothing to do with ritual sacrifices or the costly and elaborate Brahmanic establishment.

Pre-Aryan wisdom distilled from the “heat” of silent yogic meditation provided Aryan conquerors with new mystic keys to understanding and salvation. After some seven centuries of Aryan and pre-Aryan intercourse, a synthesis of what seems to have been the finest fruit of both systems emerged in scripture called *Vedanta* (“End of the Vedas”), starting by about 800 B.C. The texts of this last stage in Vedic intellectual evolution were compiled in the woods around eastern U.P. and Bihar, mostly by Kshatriyas, and are known as *Upanishads*, meaning “to sit down in front of” in Sanskrit, since that was how these ideas were conveyed, esoterically, by a single guru to his student in forest clearings. Upanishadic dialogues, often brilliant, introduced new concepts that were to become axiomatic to the subsequently emerging Hindu synthesis. The “laws of action” (*karma*) and pessimistic ideas of “reincarnation” (*samsara*) and the material world as “illusion” (*maya*) bubbled up to Vedantic light from pre-Aryan antiquity, or so it would seem, for ideologically Upanishadic thought was as far removed from robust Aryan optimism and nature-worship as Bihar is from the North-West Frontier. The ultimate goal was now “release” (*moksha*) of one’s “Soul” (*Atman*) from this veil of material sorrow and pain, and from any imperative of rebirth. Historically, Aryan conquerors by this time appear to have fallen under the spell of deeper pre-Aryan profundity and quiet wisdom. Upanishadic texts, however, continued to pay lip service to Brahmins and their rituals, hence were accepted as Vedic scripture, despite their radical doctrines. Brahmins have long been ingenious assimilators and synthesizers. . . .

Early India: From the Origins to A.D. 1300

The First Urbanization—the Cities of the Indus Civilization

The earliest excavations of the cities of the Indus civilization were at Harappa (Punjab) and Mohenjo-daro (Sind) and these remain the most important urban complexes, larger than the other towns. Many of the latter—large or small—have been excavated, some only partially, such as Kot Diji (Sind), Kalibangan (Rajasthan), Ruar (Punjab), Rakhigarhi, Banawali, Mitathal (Haryana) and the ports of Lothal and Dholavira, and Surkotada (Gujarat). Ganweriwala (Bahawalpur) awaits excavation. The larger cities are approximately a hundred hectares in size and the lesser towns come close to half that size. It has been suggested that if the extensions of the city are included Mohenjo-daro could cover an area of 200 hectares.

The time period of the civilization has in the past been divided into the pre-Harappan (starting in the late fourth millennium and continuing to 2600 B.C.), the Mature Harappan (from c. 2600 to 1900 B.C.) and the Late Harappan (to c. 1750 B.C.). There is sometimes a preference for the term Early Harappan rather than pre-Harappan, since it suggests continuity into the Mature Harappan. Other labels have also been used in recent studies but there is no final consensus. The cluster of sites in the Bolan area—Mehrgarh, Pirak and Nowshehra—as well as the settlement at Harappa, show an impressive continuity from the pre-urban to the mature urban, and finally the declining phase of the civilization.

The Indus civilization was the most extensive of the ancient riverine civilizations, with sites as far north as Shortughai in the Pamirs, and some activity across the sea southwards in Oman in the Arabian peninsula. It incorporated the north-western mountains and came as far east as the upper *doab*, although the actual area of control is likely to have been more limited. Southwards there was much activity in present-day Gujarat, and some settlements going further into northern Maharashtra. In the first two instances the Harappans, as entrepreneurs in trade, were doubtless searching for valuable raw materials. Lapis lazuli from the Pamirs and the Chagai Hills of eastern Iran was much valued in the trade with Mesopotamia. Copper deposits in Oman were perhaps what attracted the Harappans, given that copper was much in demand further west. Trade with Mesopotamia is evident from the recovery of a few Harappan seals,

beads and weights at Mesopotamian sites, and some, which are thought to be Harappan, at sites in the Persian Gulf. The Mesopotamian references to the land of Meluhha and its people might have been intended for the Indus civilization, the products of this land being listed as ivory, carnelian, wood, lapis and gold, all familiar to the Indus cities. Other areas to the east mentioned in Mesopotamian sources were Dilmun and Makan. Coastal shipping from western India along the Gulf to the Tigris-Euphrates delta has been continuously involved in the exchange between India and the Gulf. Contacts with Afghanistan and Iran were maintained through the passes in the north-west mountains, and particularly the Bolan Valley. Other contemporaries were the people of the Sothi-Siswal cultures in Rajasthan and Haryana, as well as the Kayatha culture in central India. The locations of the cities appear to have been chosen with an eye to the availability of resources and the transportation of goods by river or by sea.

Harappan artefacts, or artefacts influenced by Harappan forms, designs and functions, have been found over an extensive area. But this is not an indication that the area had a uniform culture and identical observances. It seems evident from the variations discovered that local cultures functioned and took shape beneath the Harappan system. This interface between the local culture and a wider ranging one is an aspect of the subcontinental cultural life throughout its history.

The cities were maintained from the surplus produced in the countryside, together with other resources gathered or mined in various regions. This process seems to have resulted from co-ordination in obtaining raw materials, working them into commodities and trading them in a systematic manner. Closer to home, copper would be mined in Rajasthan and Baluchistan. Semi-precious stones were available in large quantities from western India, lapis from the Chagai Hills or the Pamirs and were crafted into beads, some perhaps being traded as raw material. Timber such as teak was available in Gujarat, and other wood elsewhere; shell and chank came from the coast and were cut to make ornaments; and there was a range of other items. Harappan pottery is distinctive, with designs in black, of plants, birds and abstract forms, frequently painted on a red surface. Pottery is a clue to locating Harappan sites, but it is likely to have been made, after a fashion, in many local areas.

The cities were centres for the production of crafted items that were traded both overland and across the seas. This was not the work of casual craftsmen and required considerable skill and organization. Bead-making was an extensive industry, using gold, copper, shell, semi-precious stones, steatite, faience and ivory. Bronze and stone tools were largely functional but some were useful for exchange. Workshops for the production of beads and similar objects were located in Harappan cities and the etched carnelian bead was to become a characteristic Harappan object. Such workshops are often identified by the presence of a quantity of unfinished items. Carefully graded weights made of chert occur at Harappan sites, as well as rods for measurement, again suggesting functions linked to exchange and a sophisticated system of weights and measures. Lothal has evidence of a structure that has been described as a dockyard, although this description remains controversial. In its vicinity was a

warehouse which was probably a hub of exchange and a place where the finished products of the craft workshops were gathered, stored and transported. Doubtless the profits from trade both within the northern and western areas of the subcontinent, and between the people of this culture and those of the Persian Gulf and Mesopotamia, kept the cities economically viable.

The cities demonstrate a sophisticated sense of civic planning and organization. In most cases the city was divided into the smaller citadel area, frequently to the west, where the essential institutions of civic life were located, possibly together with some places used for public rituals, and the larger residential area to the east. This bifurcation was not continued in the planning of cities of the later historical periods, although the tendency in civic planning to concentrate professions in particular areas remained characteristic. The impression given by the Harappan cities is one of a concern with maintaining urban order and an efficient economic system managing land, labour and water.

Huge man-made brick platforms formed the foundation for the buildings of the citadel, possibly to make them secure against floods and other damage since most of the cities were on the banks of rivers, probably to facilitate the transportation of goods. These structures may also have given direction to the plan of the cities. City-planning roughly followed a grid pattern, with roads oriented approximately to the cardinal directions, which assisted civic facilities, particularly the carefully articulated drainage system where house drains were linked to those of the street. House-plans generally had a courtyard as the focus, with rooms opening on to it. Most houses had individual wells, bathing places and drains. Drains and structures of importance were largely constructed of kiln-fired brick, whereas the houses were of mud-brick. The brickwork shows experience and expertise. Stone was used more extensively in Dholavira. The quarrying, dressing and transporting of stone was more labour-intensive and would have required considerable management. The city-plan of Dholavira differed from that of the other cities. Elaborate arrangements were made, but less for the storage of food and more for the storage of water. Large water reservoirs were built within the fortified part of the city. Architectural requirements for the building of the Harappan cities would have included a knowledge of surveying and geometry. The making of a calendar was necessary for agriculture and this in turn incorporated some knowledge of astronomy.

The citadel area of the city generally had defence walls and bastions, with elaborate entrances that were no doubt appropriately guarded. Sometimes the city was also fortified. Was this demarcation from the surrounding countryside expected in early cities? As a new phenomenon, the city was the focus of wealth that was different in quantity from that of the village, and its management also differed. It required a distinctive way of life unfamiliar to non-urban societies. In comparison with other contemporary cities, the Harappan cities do not display any spectacular wealth in either the houses or the graves. A few impressive gold objects have recently been excavated from a Harappan site, but the totality of jewellery remains small when compared, for instance, to the volume from Mesopotamian cities. The demarcation between

town and countryside may also reflect the management of the cities. Did the control over agricultural production, labour and raw materials require that those exercising this authority be protected? Such control would have been more extensive than that based on kinship connections and clan loyalties. This is not to suggest that those inhabiting the cities were aliens, but rather that they gave expression to the kind of authority that had not existed before, and that it was the concept of this authority that may have seemed alien to rural life.

Clearing the surrounding tropical savanna forest around each city may have been necessary in order to extend cultivation sufficiently to support the urban population. This may have resulted in fairly large-scale deforestation. A ploughed field of the period just prior to Harappan urbanization was excavated at the site of Kalibangan, with the field coming up to the edge of the city. Wheat and barley were the staple crops, although rice and millet were also grown where possible. Water conduits, some of which were underground in certain areas, and small-scale inundation canals leading off rivers directed water to where it was needed. These would have required constant maintenance and supervision.

The monumental buildings of the citadel areas have been variously interpreted: granaries, warehouses, collegiate buildings and possibly a ritual centre at Mohenjo-daro, including a tank and its surroundings. The construction of the platforms and the buildings would have required a large deployment of organized labour with an equally effective system of obtaining and controlling labour. Possibly this was done through regular labour services rather than a tax or tribute. The form that this may have taken remains uncertain, although some attempts have been made to reconstruct the foci of authority. Supervision and control involved many aspects of administration: agriculture to ensure food for the city population; the production of items for trade, such as copper ingots and beads, and seals for stamping goods; labour for the building and maintaining of cities; and above all the organization of the trade itself.

In describing the governing authority it was earlier suggested that it consisted of a single imperial system, with twin capitals at Mohenjo-daro and Harappa, a suggestion that has been superseded by others. The recent idea that the Indus cities were city-states and were the prototypes for the 'autonomous' cities of historical times carries little conviction, given the essential differences in the concept and planning of the early and later cities. It might be more plausible to consider flexible relationships between the cities, given their differentiated size and their authority systems that are apparent, for instance, in the city-plan of Kalibangan is compared with that of Dholavira or Harappa. Governed by chiefs of clans in the early phase, this system would have given way to a more complex one by the Mature period, when representatives of city authorities probably coalesced to ruling jointly in assembly to control a sophisticated system of obtaining labour and co-ordinating urban activities. The structures at Mohenjo-daro point to complex authority systems. Possibly a more centralized administration was adopted and adapted in various regions, interacting with city centres.

The kind of evidence that is associated with the archaic states of west Asia is hardly recognizable in the Harappan state or states. Distinctive buildings cluster in one area in most cities, and there is a striking absence of monumental graves or well-demarcated sacred centres. Even a palace is difficult to discern. The availability of weapons appears to have been limited, with little evidence of disturbed strata to indicate physical destruction arising from warfare. The usual supporting evidence for an organized administration in the form of designations, codes and accounting is unavailable, unless some of the pictograms when deciphered contain information on titles and formal functionaries. The seals may well be tokens of identity of such authorities.

Among the many remains of the Harappan culture, the most puzzling are the seals. They are generally small, flat, square or rectangular, often made of steatite, with a pictorial motif that depicts humans and/or animals or composite figures, and an inscription which remains undeciphered. If the script is pictographic or logographic and not alphabetic, as has been suggested, it could point to the use of more than one language. The possible languages that have been considered include Proto-Dravidian, Indo-Sumerian, Elamo-Dravidian, Indo-Aryan and Austro-Asiatic. Some systematic work in linguistic patterns suggested by the script has attempted to use Proto-Dravidian, but so far without success in decipherment. Attempts to read it as Indo-Aryan are as yet far from systematic. The one certainty is that the signs should be read from right to left. A perforated boss at the back of the seal helps in its handling. Seal impressions on clay indicate that among other uses seals were used to stamp packages. They could therefore have been tokens identifying civic authorities, supervisory managers of long-distance trade, merchants or those bringing raw materials to the cities, or clan affiliations. Signs of identification could relate to professions, religious associations or social organizations. The script also occurs on objects thought to be copper amulets, apart from occasionally being scratched on pots, bangles and suchlike. A short inscription in large-sized letters was unearthed at Dholavira and has been described as a signboard.

Equally puzzling are some of the animals and the scenes depicted on the seals. The most common animal is one that is thought to be a mythical unicorn, although a more mundane identification describes it as a stylized rhinoceros. It is often depicted together with an object that has been variously interpreted, often described as an altar or even a brazier. Among single animals the bull and the elephant were popular. Tigers occur less frequently and more often as part of a scene. The depiction of the horse is absent on the seals. A few bones, said to be of the horse, and small terracotta forms occur in late levels at Pirak (Baluchistan) dating to the early second millennium B.C. The claim that horse bones occur at Surkotada, and at a few other sites at earlier levels, has met with doubt, the bones being identified as those of the ass and the onager. The late arrival of the horse in India is not surprising since the horse is not an animal indigenous to India. Even on the west Asian scene, its presence is not registered until the second millennium B.C. The horse was unimportant, ritually and functionally, to the Indus civilization.

A noticeable difference between the Harappan cities and those of other ancient civilizations is the absence of recognizable religious buildings and of

elaborate burials. If there were temples they are difficult to identify, for there is neither the presence of magnificent icons nor specially decorated structures. Temples therefore were not the focus of social bonding. Traditions of ancestral rituals are also not apparent, for people tended to migrate away from the cities when they declined. The cities may not therefore have been the focus of religious worship. Female figurines from the more westerly sites have been viewed as icons for worship with a prevalence of a goddess cult. This possibility is based in part on the continuing worship of various goddesses later in Indian history. Some emphasis on fertility rituals seems evident, but whether these were elaborate ceremonies remains uncertain. Fertility rituals would not be unusual given the prevalence of these in other Chalcolithic cultures of the sub-continent. Some small oval structures containing ash have been interpreted as fire altars, but they could equally well be hearths. A shamanistic religion has also been suggested, but the urban character of the civilization is unlikely to have been conducive to shamanism.

A few motifs continue from Harappan times into later history, such as the *pipal*—as a leaf decoration on pottery and as a tree on seals—which was revered by some later religious sects. Much speculation focuses on whether a seated figure on a seal represents a proto-Shiva. The identification of the figure is uncertain and the evidence for the link with Shiva is tenuous. It would perhaps be more apposite to regard these representations as contributing to the evolution of a later religious mythology and iconography, rather than insisting that a later icon be imposed on an earlier period. To explore the meaning of such an icon in its own context would perhaps be more meaningful than to give it an instant label derived from an icon of a much later period. The figure could equally well be identified as depicting a yogic position, as indeed female figures in trees on some seals could be linked to the evolving of the idea of *apsaras*, celestial maidens associated with trees.

Sculptures in stone and bronze have been found, but in sporadic locations not indicating an assembly of images in a temple. Such sculpture shows a refinement of technique and concept that is striking. A small bronze figurine, probably not a ritual object, has the pleasing stance of a young and spirited woman. One among the portrait heads sculpted in stone is evidently of a person of consequence, given the band around his head and the trefoil design on his shawl, together with his curiously semi-closed eyes. Popular interpretation describes him as a priest, but this remains unproven. Terracotta forms range from children's toys to larger representations of animals. There is a noticeable absence of figures reflecting grandiose self-representations, in common with many other civilizations of this period.

Another striking contrast is the simplicity of the burials compared to the tombs of rulers further west. Grave goods are mainly the pottery of daily use with a scatter of other small items. Clearly, they did not expect huge demands on the dead in the after-life, nor were burials occasions for demonstrating status.

Post-Harappan burials of the late second millennium B.C. in what has been called the Cemetery H culture, largely confined to Harappa and the Punjab plains, were accompanied by pottery that was different from the Harappan.

The ritual of burial continued even if the culture of these later people was not identical. These burials may point to new arrivals or the emergence of some new traits in the cultures of the region. Such suggestive links through a few items reflect similar hints from earlier times, although the artefacts differed. For instance, connections have been suggested between artefacts found in the Bolan Valley and in the Indo-Iranian borderlands, and still further in Afghanistan and Iran, in the area now being referred to as the Bactria Margiana Archaeological Complex.

The decline of the cities was once ascribed to invading Aryans. However, there is little archaeological evidence for the type of massive invasion that would have led to the collapse of a well-established political and economic system, resulting in a displacement of culture, although the denial of an invasion does not preclude the possibility of migrants bringing the Indo-Aryan language into India. The argument supporting an invasion was based on the subsequent culture of the Vedic corpus, using a language—Indo-Aryan that had affinities with central Asian Indo-European, particularly with Old Iranian. That this language gained currency in northern India was thought to be the result of a conquest of the local population by Indo-Aryan speakers, the evidence being drawn from the hostility of the *arya* towards the *dasas* in the *Rig-Veda*. The reference to Indra attacking the *puir*, enclosed settlements of the *dasas*, was erroneously read as referring to the cities of the Indus civilization. However, there are alternative explanations for the introduction of Indo-Aryan into India and its gradual spread across northern India. These explanations have more to do with the historical context of urban decline, the coexistence of differing cultures or languages, and the filtering of Indo-Aryan speakers into north India through small-scale migrations, than with the overly simplistic theory of an invasion as a historical explanation; or for that matter with the current attempts being made by some enthusiasts to prove the indigenous origin of the Indo-Aryan speakers even though, as we shall see, the evidence points to the contrary.

The skeletons in habitation areas at Mohenjo-daro were earlier interpreted as demonstrating the massacre of citizens, which endorsed the theory of an invasion. But analyses of the skeletons revealed that most of these people had died of diseases such as severe anaemia, indicating a different set of reasons for urban decline. Violent deaths in a limited area do not necessarily mean widespread invasion and could be evidence of local disturbances. Diseases or severe environmental changes as factors in weakening a population have not been sufficiently examined in the context of early Indian history.

Other explanations generally advanced are that the cities declined largely because of environmental changes, such as the long duration of the severe flooding of the Indus in the vicinity of Mohenjo-daro, and climatic change leading to greater desiccation, deforestation and a more generalized deurbanization with the dying out of trade requirements and a consequent political collapse. The extent to which the degradation of the environment caused the decline of the cities remains unclear. Urban decline can only be properly explained by multiple causes, and these were not uniformly applicable to each region. This is also evident from the variant patterns that followed urban

decline. Squatters from the countryside occupied some cities in the lower Indus Plain, bringing about a ruralization of the erstwhile urban system. Elsewhere there were migrations away from Harappan centres, as in the migration from the Hakra Plain towards the Ganges-Yamuna *doab*, or from Gujarat to northern Maharashtra. Some settlements in the northwest and Punjab might have been subjected to raids and skirmishes, such as are described in the *Rig-Veda*, or for which there appears to be occasional evidence at some sites, for example Kot Diji.

The decline of the cities did not mean that the Harappan pattern of culture disappeared. Although many urban functions would have ceased, people in rural areas would have continued their activities with marginal changes. The Harappan system was a network linking the urban to the rural and some features could have been maintained in the rural areas, even if these areas suffered administratively and economically from the removal of this protective system. Some archaeological cultures were contiguous in time and space with the Harappan; at other places there were overlaps between the Late Harappan and subsequent cultures. Continuities would therefore not be unexpected, but it is more likely that these were restricted to mythologies, rituals and concepts of tradition, since the material culture does not show continuities.

The second millennium also saw activity along the Indo-Iranian borderlands, including the arrival in north-western India of the horse and the chariot with a spoked wheel, both of which were new to the subcontinent. Occasional comings and goings across these borderlands were gradually to accelerate, a pattern that remained effective until recent times. . . .

The Vedic Corpus

Had these been the only sources available, the reconstruction of the beginnings of Indian history would have been relatively simple. But two other kinds of evidence have contributed to our understanding of historical beginnings, both predating the sources discussed above. In the nineteenth century the reading of the Vedic corpus and subsequent philological studies led to a different reconstruction of the past, at variance with the traditional story. European scholars of Sanskrit had recognized that it was related in structure and sound to Greek and Latin. This led to the theory of a common ancestral language, Indo-European, used by the ancestors of people speaking these languages.

The focus of this research was on the Vedic corpus, the composition of which was earlier than that of the epics and *Puranas*, and the language was a more archaic form of Sanskrit that is now called Old Indo-Aryan. This differentiated it from the later form of Sanskrit referred to as Classical Sanskrit. The *Vedas* were primarily manuals of rituals and commentaries on these, the narrative being incidental. Epic literature was the narrative of the society of heroes and the *Puranas* were sectarian literature of later times. Therefore the purpose of the epics, the *Puranas* and the *Vedas*, was different. Since the last were the earliest in time, Indian history was said to begin with the information that they contained. Unlike the *Puranas* and the epics, which have some

explanation of the past, the Vedic corpus has little of this, but is a collection of compositions contemporary with the period from the mid-second millennium to the mid-first millennium B.C. The reconstruction was therefore based on the readings made by modern scholars of the evidence in the corpus.

Indo-European and Indo-Aryan are language labels, but in the nineteenth century these were also incorrectly used as racial labels and this confusion persists. The correct usage should be 'Indo-European-speaking people' and 'Indo-Aryan-speaking people', but the shortened labels, Indo-European and Indo-Aryan or Aryan, are commonly used. Language is a cultural label and should not be confused with race, which, although also a social construct, claims that it has to do with biological descent. Indo-European is a reconstructed language, working back from cognate languages, and its speakers had central Asia as their original habitat. Gradually, over many centuries, they branched out and as pastoralists spread far afield in search of fresh pastures. They also worked as carriers of goods intended for exchange. Some migrated to Anatolia, others to Iran, and some among the latter, it is thought, migrated to India. In the texts composed by them, such as the *Avesta* in Iran and the *Rig-Veda* in India, they refer to themselves as *airya* and *arya*, hence the European term, Aryan. Vedic literature in the Indo-Aryan language has been studied intensively, as an early textual source of an Indo-European language which was concerned with rituals and their explanation, and was regarded as the most sacred. The beginnings of Indian history were associated with the coming of the 'Aryans', some time in the second millennium B.C.

But this picture of the past was again to be disturbed in the twentieth century. In the 1920s archaeology revealed the existence of an urban civilization, dating to a period prior to the *Rig-Veda*, in the north-west of India: the Indus civilization or the Harappa culture. This discovery took the formative period of civilization back to the third millennium B.C. Archaeology has provided evidence on the evolution of cultures from pre-Harappan societies, and this goes back still further in time. The Harappa culture provides no clues to the rule of Manus, nor does the Vedic corpus.

There are clearly many sources of information on the beginnings of Indian history. Archaeological evidence is chronologically more precise, but cannot be used to identify any culture as 'Aryan' since archaeology, in the absence of a script, cannot supply information on a language. Unfortunately, the Harappan script remains undeciphered. The theory of an Aryan invasion no longer has credence. The *Rig-Veda* refers to skirmishes between groups, some among those who identify themselves as *aryas* and some between the *aryas* and *dasas*. The more acceptable theory is that groups of Indo-Aryan speakers gradually migrated from the Indo-Iranian borderlands and Afghanistan to northern India, where they introduced the language. The impetus to migrate was a search for better pastures, for arable land and some advantage from an exchange of goods. The migrations were generally not disruptive of settlements and cultures. There is also the argument that these were dissident groups that had broken away from the speakers of Old Iranian, whose language and ideas came to be encapsulated in the *Avesta*. There is a significant reversal of meaning in concepts common to both the *Avesta* and the *Rig-Veda*.

There is a tendency among those who oppose the idea of Aryan speakers coming from outside India to equate invasion with migration. Historically the two are distinctly different processes in terms of what would have been the preconditions of either, such as the activities and organization involved, or the pattern of social and historical change that ensued. The migrant groups would have remained small as there is little evidence of the substantial cultural replacements associated with massive migrations. Migration raises different questions from those of invasion, relating to cultural interactions, linguistic changes and the defining of social status among both the host groups and those arriving.

The linguistic evidence remains firm. Indo-Aryan is of the Indo-European family of languages and there is a linguistic relationship with some ancient languages of west Asia and Iran, as well as some that took shape in Europe. Indo-Aryan is a cognate of Old Iranian, dating to the second millennium B.C., with which it has a close relationship. Indo-Aryan also incorporated elements of Dravidian and Munda, languages known only to the Indian subcontinent. The incorporation increases in the texts composed in locations eastwards into the Ganges Plain. This points to a considerable intermixing of the speakers of these languages.

The sequence of events seems to have been as follows. The cities of the Indus civilization had declined by the mid-second millennium B.C. and the economic and administrative system slowly petered out, the emphasis shifting to rural settlements. It was probably around this period that the Indo-Aryan speakers entered the north-west of India from the Indo-Iranian borderlands, migrating in small numbers through the passes in the north-western mountains to settle in northern India. Small-scale migrations have the advantage of not being dramatically disruptive and these could have started even earlier, although the cultural differences would have been registered only after the decline of the Harappan cities. Although archaeological confirmation of textual information is not possible, there are no strikingly large settlements in the area during this period. Textual sources suggest that initial settlements were in the valleys of the north-west and the plains of the Punjab, later followed by some groups moving to the Indo-Gangetic watershed. Such continuous small-scale migrations may have followed earlier pastoral circuits. The search was for pastures and some arable land, as they were mainly a cattle-keeping people. Myths in the *Avesta* refer to repeated migrations from lands in Iran to the Indus area, explaining these migrations as arising from a pressure on the land through an increase in human and animal numbers. The *Rig-Veda* suggests the close proximity of other peoples inhabiting the area.

During this period of the early first millennium the hymns of the *Rig-Veda*, composed in the previous centuries, were compiled in the form known to us today. The compilation is thought to be later than the composition, which adds to the problems of dating the hymns. Central to this compilation are what have been called the 'family books', said to have been among the earliest hymns, attributed to those belonging to the more respected families. They were claimed as inheritance by those who also claimed descent from the eponymous ancestor said to be the author of the book. Among the later

commentaries on the *Rig-Veda*, the best known is that of Sayana, written in the fourteenth century A.D. and illuminating as a late perspective, but prior to modern analyses.

The Context of the *Rig-Veda*

The aim of this brief summary is to indicate the nature of the evidence from a variety of sources and organize it in a historical order. The diverse textual sources make it difficult to provide a neat reconstruction and there are inevitably loose ends. These are complicated further when attempts are made to correlate this evidence with non-textual sources.

The earliest dated evidence of a form of Indo-Aryan, which, although not identical to Rig-Vedic Sanskrit is nevertheless close to it, comes not from India but from northern Syria. The evidence is brief and scattered and consists of names and words that are in a form of Indo-Aryan. A treaty between the Hittites and the Mitannis dating to the fourteenth century B.C. calls upon certain gods as witnesses and among these are Indara/Indra, Mitras(īl)/Mitra, Nasatianna/Nasatya, and Uruvanass(īl)/Varuna, known to the *Rig-Veda* and the *Avesta*. Curiously, there is no reference to the dominant deities of the *Rig-Veda*—Agni and Soma. A text of a similar date on the training of horses includes some words that are a close variant of Indo-Aryan. The horse and chariot, introduced from central Asia, became common in west Asia in the second millennium B.C., suggesting a correlation between the arrival of horses and of Indo-Aryan speakers. The Kassite rulers of Babylon, who seem to have come from the Iranian plateau in the middle of the millennium, also mention gods, a few of whom have close parallels in Sanskrit, such as Surias and Maruttas. The Kassite language was not Indo-European despite some names sounding Indo-Aryan. The Indo-Aryan of west Asia is referred to as Proto-Indo-Aryan to differentiate it from Vedic Sanskrit and to indicate that it appears to be more archaic.

It would seem that sometime in the second millennium there were people in northern Syria who spoke a language that was Indo-Aryan in form, judging by what is referred to as the Hittite–Mitanni treaty of the fourteenth century B.C. It is not clear how this language reached the western end of west Asia when there is no archaeological or linguistic evidence of contact between north India and these areas in this period. One possibility is that the language originated in a region from where Indo-Aryan speakers could have travelled either westwards or to the south-east. This could have been 'north-eastern Iran, which would explain how people speaking an Indo-European language and using horses and chariots arrived in lands to the west. What is of historical interest is that, although the treaty suggests the military success of these people, Indo-Aryan nevertheless had a precarious presence in Syria and disappeared from this region after a while. Yet in India, where it arrived through migration, its presence came to be firmly established. Conquest, therefore, is not necessarily always the mechanism for the spread of a language. A more advanced technology, control over nodes of power and claims to ritual authority can be far more effective.

The connections between Iran and north India on the other hand are close. The language[s] of the *Avesta* and Indo-Aryan were cognates, descended from the same ancestral language. The date of the *Avesta*—the text of Zoroastrianism—has been controversial, but a mid-second millennium date is now being accepted. The linguistic relationship between the two includes not just words but also concepts. The interchangeability between 'h' and 's' is one of the differences, but there is a consistency in this change such as *haoma*, *dahā*, *hepta hindu*, *Ahura* in Avestan, and *soma*, *dasa*, *sapta sindhu*, *asura* in Rig-Vedic Sanskrit. In terms of religious concepts the attributes of gods are often reversed. Thus Indra is demonic in the *Avesta*, as are the *daevas* (*devas* or gods in Sanskrit) and Ahura/*asura* emerges as the highest deity. This has led to the theory that originally the Old Iranian and Indo-Aryan speakers were a single group but dissensions led to their splitting up. It was then that the Indo-Aryan speakers living in the Indo-Iranian borderlands and the Haraxvati (Saraxvati) area of Afghanistan gradually migrated to the Indus plain, bringing with them their language, rituals and social customs, to settle as agro-pastoralists in the *sapta-sindhu* area, as described in the *Rig-Veda*, later merging with the local population.

This reconstruction tallies up to a point with the archaeological evidence. If the presence of Indo-Aryan speakers is indicated by the presence of the horse—which was central to both action and ritual in the *Rig-Veda*—then it dates to the early second millennium in the subcontinent, having been virtually absent in the Mature Harappan period. Some horse bones and terracotta representations of the later period have been found at sites adjoining the borderlands. The paucity of bones and representations points to its being an unfamiliar animal. Other items, small in number, turn up in excavations along the Indo-Iranian borderlands at sites that were entry-points to the Indus plains, which parallel those found in southern Afghanistan and north-eastern Iran. Among these areas is that of the Bactria Margiana Archaeological Complex (BMAC). Terracotta models of horses carrying riders sometimes with beaked faces, pottery recalling that of central Asia and Iran, compartmented seals, bronze dirks and axe-adzes hint at connections. These could be items of gift exchange limited to high-status families, but they suggest more than just accidental coming and going. The trickle of migration may have had its beginnings at this point but gained momentum later.

Evidence of Proto-Indo-Aryan in Syria has a bearing on the date of the *Rig-Veda*. If the Indo-Aryan of the Hittite–Mitanni treaty was more archaic than the Sanskrit of the *Rig-Veda*, the compositions of the latter would date to a period subsequent to the fourteenth century B.C. Even if they were of the same date, the language of the *Rig-Veda* would not be earlier than the second millennium B.C. Such a date would also corroborate its closeness to the language and concepts of the *Avesta*. The closeness gradually decreases as the location of Vedic Sanskrit shifts into the north Indian Plain. This date would also suit the composition of the *Brahmanas* as texts interpreting the ritual. The *Brahmanas* were post-Rig-Vedic, generally dated to the first millennium B.C., and revealed familiarity with the western and middle Ganges Plain, referring to migrations into this area.

Recently, it has been argued that the date of the *Rig-Veda* should be taken back to Harappan or even pre-Harappan times, and its authors equated with the creators of the Indus civilization. This would support the 'Aryan' authors of the *Rig-Veda* being indigenous to northern India, and also the Indo-Aryan language. By calling it the Indus-Sarasvati or Sarasvati civilization, the Vedic contribution is evoked—even if it is in fact absent.

This view overlooks the data from linguistics, and does not present an analytical understanding of the archaeological evidence. There are two aspects to this evidence: one is whether the artefacts and monuments of the Harappa culture are described in the *Rig-Veda*; the other is whether the concepts implicit in organizing the Harappan system of urban settlements find their counterpart in the *Rig-Veda*. Many scholars have described what they regard as the essential characteristics of Harappan urbanism, which they have found to be absent in the *Rig-Veda*. Among these may be listed cities with a grid pattern in their town plan, extensive mud-brick platforms as a base for large structures, monumental buildings, complex fortifications, elaborate drainage systems, the use of mud bricks and fired bricks in buildings, granaries or warehouses, a tank for rituals, and remains associated with extensive craft activity related to the manufacturing of copper ingots, etched carnelian beads, the cutting of steatite seals, terracotta female figurines thought to be goddesses, and suchlike.

The second aspect calls for a conceptual familiarity with the use of these objects and structures. The *Rig-Veda* lacks a sense of the civic life founded on the functioning of planned and fortified cities. It does not refer to non-kin labour, or even slave labour, or to such labour being organized for building urban structures. There are no references to different facets or items of an exchange system, such as centres of craft production, complex and graded weights and measures, forms of packaging and transportation, or priorities associated with categories of exchange. Rituals are not performed at permanent ritual locations such as water tanks or buildings. Terracotta figurines are alien and the fertility cult meets with strong disapproval. Fire altars as described in the corpus are of a shape and size not easily identifiable at Harappan sites as altars. There is no familiarity from mythology with the notion of an animal such as the unicorn, mythical as it was, nor even its supposed approximation in the rhinoceros, the most frequently depicted animal on the Harappan seals. The animal central to the *Rig-Veda*, the horse, is absent on Harappan seals. There is no mention of seals or a script in the *Rig-Veda*. Sculptured representations of the human body seem unknown. The geography of the *Rig-Veda* is limited to the northerly Indus Plain—the *sapta-sindhu* area—and is unfamiliar with lower Sind, Kutch and Gujarat, and with the ports and hinterlands along the Persian Gulf that were significant to Harappan maritime trade. . . .

POSTSCRIPT

Was an Aryan Invasion Responsible for the Demise of the Indus Valley Civilization?

Historians have expressed steady interest in the reasons for the decline and fall of civilizations and spend much time analyzing and evaluating the reasons for those occurrences. Historically and for professional reasons, they are interested in setting the record straight. Contemporarily, "they hope that lessons from the past can be studied as warnings of the potential demise of present civilizations." There are no guarantees that our own civilization can assume indefinite survival. Perhaps it behooves us to learn some lessons from the past.

There are many civilizations whose demise can be fitted into a decline/fall paradigm. In this book, material is available for a comparison of the reasons for the downfall of the Indus Valley, Roman (Issue 6), and Maya (Issue 8) civilizations. Any of these could provide useful information for comparative purpose, as would the decline of the Greek, Islamic, Aztec, or Ottoman civilizations. A useful source to consult would be Norman Yoffee and George L. Cowgill, eds., *The Collapse of Ancient States and Civilizations* (University of Arizona Press, 1988), which includes information on many of the civilizations mentioned above, as well as several essays on the general nature and pattern of civilizations and their decline.

There are many sources that are useful to a study of the Indus Civilization. Gregory Possehl, ed., *Harappan Civilization: A Contemporary Perspective* (American Institute of Indian Studies, 1982), offers a series of essays on the subject, including one that compares the Indus demise with the Maya collapse. Possehl has also edited *Ancient Cities of the Indus* (Carolina Academic Press, 1979), another useful compilation. Archaeologist Jonathan Mark Kenoyer's *Ancient Cities of the Indus Valley Civilization* (Oxford University Press, 1999) contains much information along with many useful visuals. A summary article of his work can be found in "Birth of a Civilization," *Archaeology* (January/February 1998).

Padma Manian, "Harappans and Aryans: Old and New Perspectives of Ancient Indian History," *The History Teacher* (November 1998), presents information as to how the questions raised in this issue are covered in the various history textbooks used in American colleges and universities. And Sudeshna Guha's "The Indus Civilization," *History Today* (October 2007) tells "how the interpretations for this civilization have shaped and been shaped by notions of an authentic 'Indian Civilization'."

