

National Geographic Daily News

Surprising Discoveries From the Indus Civilization

Archaeologists say the Indus civilization wasn't nearly as peaceful as popularly thought.



The Indus civilization was first identified at Harappa, once a city of 80,000 people.

Photograph by James P. Blair, National Geographic

Traci Watson

National Geographic News

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They lived in well-planned cities, made exquisite jewelry, and enjoyed the ancient world's best plumbing. But the people of the sophisticated Indus civilization—which flourished four millennia ago in what is now Pakistan and western India—remain tantalizingly mysterious.

Unable to decipher the Indus script, archaeologists have pored over beads, slivers of pottery, and other artifacts for insights into one of the world's first city-building cultures.

Now scientists are turning to long-silent witnesses: human bones. In two new studies of skeletons from Indus cemeteries, researchers have found intriguing clues to the makeup of one city's population—and hints that the society there was not as peaceful as it has been portrayed.

Peaceful or not, the Indus civilization accomplished great things. At its peak, its settlements spanned an area greater than that of ancient Egypt, a contemporary culture. Indus jewelry was so coveted that examples have

been found as far as Mesopotamia, some 1,500 miles (2,500 kilometers) away. Indus cities boasted blocks of houses built on a grid pattern and drains that funneled sewage from homes to dumping grounds outside the city walls.

But who was living in those cities? A new study to be published in the May issue of the *Journal of Archaeological Science* focuses on Harappa, one of the largest and most powerful Indus centers, with a population of up to 80,000. Researchers examined the chemical composition of teeth from a Harappan cemetery used from roughly 2550 to 2030 B.C. The analysis showed that the city was a cosmopolitan melting pot. Many of the deceased had grown up outside Harappa—the first direct evidence that "individuals were indeed migrating to the city," says University of South Alabama bioarchaeologist Lesley Gregoricka, who was not involved in the study.



This skull of an adult male shows traces of a broken nose and a blunt-force injury.

Photograph courtesy Gwen Robbins Schug

Most likely the newcomers came to Harappa from elsewhere in the far-flung Indus area, perhaps for trade. But they may also have come to cut another kind of deal—marriage. Many of the outsiders, surprisingly, are men buried near women native to Harappa. The findings are preliminary, but they suggest men moved in with their brides, even though in South Asia women traditionally move to their husband's homes. Confirmation of these early results, says lead author Mark Kenoyer of the University of Wisconsin–Madison, would point to a "system where women were powerful."

The new study is pioneering, says Indus expert James Shaffer of Case Western Reserve University, and offers "one of the few real insights we have" into the structure of Harappan society. If the study is correct, Harappa's unusual gender roles could mean that social structure in the Indus region was radically different from that of other ancient cultures, Shaffer says. In Mesopotamia, for instance, ancient texts show that women were usually subordinate to men.

Experts have long thought that the Indus region was indeed vastly different from ancient Egypt and Mesopotamia in one respect: the level of violence. Based on the lack of evidence for mass destruction of any Indus cities, and the lack of depictions of soldiers or killing, the Indus is often described as a "peaceful realm." But recent scrutiny of another group of Harappan skeletons tells a darker story.

Bones from about 1900 to 1700 B.C.—more than a millennium later than those examined by Kenoyer—make it clear that at least some Harappan residents were subjected to savage violence. The skull of a child between four

and six years old was cracked and crushed by blows from a club-like weapon. An adult woman was beaten so badly—with extreme force, according to researchers—that her skull caved in. A middle-aged man had a broken nose as well as damage to his forehead inflicted by a sharp-edged, heavy implement.

Of the 18 skulls examined from this time period, nearly half showed serious injuries from violence, researchers reported in a recent paper in the *International Journal of Paleopathology*. The rate of skull injuries tied to violence is the highest recorded in the prehistory of South Asia, the researchers say. It may be no coincidence that at the time of these burials the Indus civilization was beginning to disintegrate and parts of Harappa were being abandoned, for reasons that scholars are still debating.

The results run contrary to "the myth of the peaceful Indus civilization," says Appalachian State University's Gwen Robbins Schug. "Violence ... [was] part of life at Harappa." Schug carried out this study with help from Kelsey Gray, a graduate student, and Veena Mushrif-Tripathy, from Deccan College in Pune, India.

Schug's conclusions divide outside experts. Nancy Lovell, a professor emeritus at the University of Alberta who has also studied Harappan skeletons, says the study's findings are "a really important contribution, because the tendency has been to think of Harappa as being fairly ... peaceful." Shaffer argues, however, that the violence reported in the new paper is not unexpected in a crowded city. Schug agrees but says her findings contradict previous opinions that Harappa was an oasis of serenity.

The analysis of more skeletons in the future may settle the matter, but for now, the Indus people are keeping their long-held secrets.

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matheesh g

Aug 19, 2013

Please understand, if IVC was a great civilization, migration must have happened in a large scale like it does today. Back then, trade might have been the main reason.....different people with different beliefs might have settled in IVC. Finding out what happened back then is very hard to determine.....did any superior group of people invade the cities IVC???? did any natural calamity or catastrophe changed the minds of the people??? did any flood or draught forced them to migrate??? or did it face similar fate like any other civilization????

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matheesh g

Aug 19, 2013

Please note neither India nor Pakistan is the SCION or the HOLDER of the CRADLE of IVC.....actually it is the other way round.....IVC was a great civilization and is the cradle to our existence. But its history is still murky.....there are evidences that claim that DRAVIDIANS were part of the IVC and were displaced by the INDO ARYANS.....please note that there are some DRAVIDIANS still living in Pakistan and they speak BRAHUI language; the remaining migrated to South India and some to other places in Mid and North India over centuries during the migration and collapse of the civilization.

Archeologists have found seals with Swastikas in the IVC, which is one of the earliest evidence of Hinduism; even phallic symbols have been linked with one of Hindu Gods Shiva. These formed the basic elements of a religion, no one knows if there was a different religion that existed prior to Hinduism in IV but may have been the roots to the the formation of Hinduism. Unlike this, there is no evidence linking that the IVC followed any Abrahamic religions except for some theories. But there could be a probability that some of them did.

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Imtiaz Khan

May 15, 2013

The broad classification of Vedic literature tends to underline two different facets; Rig Veda based early Vedic literature and Atharva Veda, Brahmanas, Aranyakas and Upanishadas based later Vedic literature. However, it also reveals a protracted cultural growth which can be identified through use of Sanskrit, societal varna system, monotheistic and polytheistic rituals including yajnas, animal sacrifices and cremation of the dead etc.

From the archeological evidence it becomes clearly evident that Vedic literature based cultural traditions are better identified with Post Indus Valley Civilization (IVC) cultural traditions. Let me highlight some of the more pronounced facts in this regard:

- The formation of IVC's cultural entities can be identified between 3000-1300 BC. Contrarily, the Historians identify formulation of Vedic traditions between 1500-600 BC.
- The IVC's culture was identified in the Indus Valley, Ghaggar-Hakra basin and in the Doab. These cultural moorings however do not find an extension into central and lower Gangese Valley in eastern and central Indian plains. Contrarily, the traditions abound in Vedic culture extends all over Pakistan and northern India.
- The decline of IVC traditions started declining after 2000 BC and little of it was identified around 1300 BC. However, the Vedic traditions sustained its development even to the early historic era (Joe's pre, proto and history duly accounted) and shaped into a state-based urban civilization period.
- The Vedic cultural tradition do gel with the chiefdom -based Post-Indus cultures as they also use rice, horse and iron etc. However, it also displays a distinct difference with the IVC for the absence of fortified cities, town planning and drainage, monumental art and architecture of burnt bricks, advanced specialization and sea trade, use of seals, weights, measures and script and the custom of burying the dead in cemeteries.
- An attempt aimed at presenting a distorted version of history through identification of fire places as fire -altars, waste pits as sacrificial pits in Harappan era sites and the imaginary reading of Sanskrit legends on Indus seals is nothing but clear fabrication of historical and archeological evidence. Such falsehood was presented in the manner because the presenters believed that India is a Hindu nation and has Hindu culture in continuity from Vedic Aryans and they themselves wanted to see it that way, which however is not supported by evidence.

Based on the above clearly identifiable differences, I have stated earlier and claim that Pakistan is the scion of and holder of the cradle of Indus Valley Civilization and not India.

Yes the people of this land later on were Hindus, Buddhists and are now Muslim. And the land is now known as Pakistan – earlier it was known as Malluha. What is it that irks you – the land being called Pakistan and the original people of this land are now Muslims.

A marvelous study in this regard has been reflected in an article by Khan A. Sufyan, "From Meluhha To Pakistan: The Embodiment of a Civilization" published at <http://www.eurasiareview.com/29032013-from-meluhha-to-pakistan-the-embodiment-of-a-civilization-oped/>. In another comment I had also mentioned the article written by the same author "“Pakistan: The True Heir Of Indus Valley Civilization” published at <http://www.eurasiareview.com/25122012-pakistan-the-true-heir-of-indus-valley-civilization-analysis/>, which is also relective of the archeological, geological, historical and genetic relevance of this great covilization.

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Pedro Farina

May 14, 2013

Well, the statement presented in this report is very reasonable if we link these discoveries of crushed skulls with the theory that the Harappian civilization was invaded around 1500 B.C - probably a little earlier, around 1900 and 1700 B.C, because of the age of the skulls - by the sub-barbarian aryan people, who utilised violent behaviours for domination of the dravidic people.

The dravidians, who had a naturalist (Sámkhya), sensorialist (Tantra), matriarchal and anti-repressive culture, were invaded by the aryan, who were repressive, anti-sensorial and patriarchal.

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Black Nightshade

May 13, 2013

I don't see any sensationalist article. What I see is an interesting write-up of what could be. Of course there would have been violence. The fact that there are minimal or no records of violence is what is strange, not the other way round. But, that's just my opinion ;)

[Like](#) [Reply](#)

Phil Dor

May 10, 2013

From 2500 to 1500 BC, the world was undergoing climate change. Desertification was spreading in mesopotamia, in the middle east and Pakistan... The akkadians had a new king every year it had become so unstable. The Saraswati river is said to have dried up approximately in 1900 BC. This violence was most likely the result of mass migration towards the east.

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Phil Dor

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Jayantckulkarni Kulkarni

May 7, 2013

Novice.....

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Cyndi Rutledge

May 5, 2013

Has DNA testing been tried on any of these remains? Any clue as to Haplogroups?

[Like](#) [Reply](#)

Nicole Inv

May 3, 2013

I'd like to know more about how these bones show that the society itself was more violent in nature? They say the early bones do not show evidence of a violent society, but that the bones from a later period (closer to the end of that society) do show violence. Wouldn't that suggest that there may have been a conflict leading to the collapse of their society? Truly finding a peaceful society is much more surprising than finding a violent one, no? Look around at our civilized society,

makes you wonder what it was like before we became "civilized."

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Jeyakumar Ramasami

May 3, 2013

I support the statements of Selva Kumar and Elicia Deva, the article is trying to sensationalize the issue of "Group of skeletons found". This small number of victims could be from any kind of skirmishes. Further these excavation sites have been used as burial grounds for centuries, this group of skeletons could be from post Harappan period also. From this fragile evidence, concluding that Harappan society was violence prone is far fetched conclusion.

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Leeladhar Gondraja

May 2, 2013

Hi

I have request to all researchers and archeologist working on indus civilization, please consider the views and facts of the natives of india which should have been the starting point for studying indus civilization but people are neglecting angle of indias native side of the story which is the obvious and natural point to start the root and script of indus civilization, I belong to gond tribe of india, and our writers has written and proved many striking similarities between gond tribe (exa: such as the figure of man wearing bull horns and playing mrudang/dhol, this exact wardrobe is still wearied by gond dancers who plays mrudang/dhol in present time) and he also explored and explained the indus script and its meaning in his book...tho it is in hindi, i am posting the pages in many harrpa fb pages geting good response..will try to publishthat book in english so that the another neglected story of ours will come in front of world. the violence in harrapa can be relate to the fight between natives and arians!!

can anyone tell me how i can contact national geo for our books and finding??

prakash bhalavi

mailid: litbhalavi@gmail.com

india

1  [Like](#) [Reply](#)



Manish Jha

May 7, 2013

@Leeladhar Gondraja

i donot know but could the word Gond be a derivative of the word Gandharva. they have been described to be very rich and artistic and great fighters. similarly other tribes too have been described like nagas and vaanars. and could the animals on the various indus seals be representative of the animals their tribes held in respect.

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Gabriele Uhlmann

May 2, 2013

A development like this can be observed in most early settlements. Fact is, they found great evidence for the rests of a matrilineal society: "But they may also have come to cut another kind of deal—marriage. Many of the outsiders, surprisingly, are men buried near women native to Harappa."

Fact is, no matrilineal society develops from patriarchy. Bronze Age was patriarchal organized with kings. Fact is, violence is

dated just in the last centuries of Harappa Culture. One and one added, they found patriarchalization documented. This is no surprise and no feminism, it's applied logic and stands against patriarchal ideology of ruling archeologists and theologians.

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Elicia Deva

Apr 30, 2013

Ho hum. Yet another article trying to sensationalize itself and desperately search for evidence of violence in ancient societies. Before you jump to conclusions, consider this. The violence you are seeing is in a time well into the Bronze Age, when, as the article mentions, was a time of violence and male-dominance throughout the region. It is just as likely that the violence was imposed from without, from invaders. In any case, there is no surprise finding violence at such a late date. Further back in the Neolithic, you will find peaceful society. Until Indo-European invaders from the steps brought patriarchy --war, male dominance, hierarchy -- to Mesopotamia, the Mediterranean, and India, which were all formerly peaceful.

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Alejandro Martinez

Apr 30, 2013

@Elicia Deva sounds like a feminist

[Like](#) [Reply](#)



Nicole Inv

May 3, 2013

@Alejandro Martinez @Elicia Deva sounds like you didn't have anything to say against anything she said.

[Like](#) [Reply](#)



James MacDougall

Apr 30, 2013

@Elicia Deva it sounds like you are taking a dismissive (Ho hum) and ideological premise and hoping to make the facts fit that framework. Indo-European refers to a linguistic group not an actual people.

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C Selvakumar

May 2, 2013

@James MacDougall @Elicia Deva Erica Deeva says, "The violence you are seeing is in a time well into the Bronze Age, when, as the article mentions,..." If there were evidences for widespread violence before this late in history *and* were there seals and other artefacts depicting and glorifying violence, then what Erica says can be found fault with. I too thought just like Erica did, that the article perhaps is "trying to sensationalize itself and desperately search for evidence of violence in ancient societies". Science is also about proper balance of evidences. The article's contention, "The rate of skull injuries tied to violence is the highest recorded in the prehistory of South Asia, the researchers say." without

qualifying with some numbers and distributions. Perhaps these details are thee in the original article, I'm not sure.

The article says with an estimated population of about 80,000, the researchers have so far discovered and examined 18 skulls. ("Of the 18 skulls examined from this time period, nearly half showed serious injuries from violence")

1  Like Reply

Ritvik Balvally

Apr 30, 2013

Try reading about Farmana. The strontium isotope analyses data has suggested that a certain female who was buried was probably from the Rajasthan region and not a local.

1  Like Reply

Ritvik Balvally

Apr 30, 2013

No Marcos there is no scientific data to support that

1  Like Reply

Marcos Toledo

Apr 30, 2013

There are suggestions that Harrapa and Mohenjo Daro meet a very devastating end. Rumours that nuclear weapons like distruction.

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