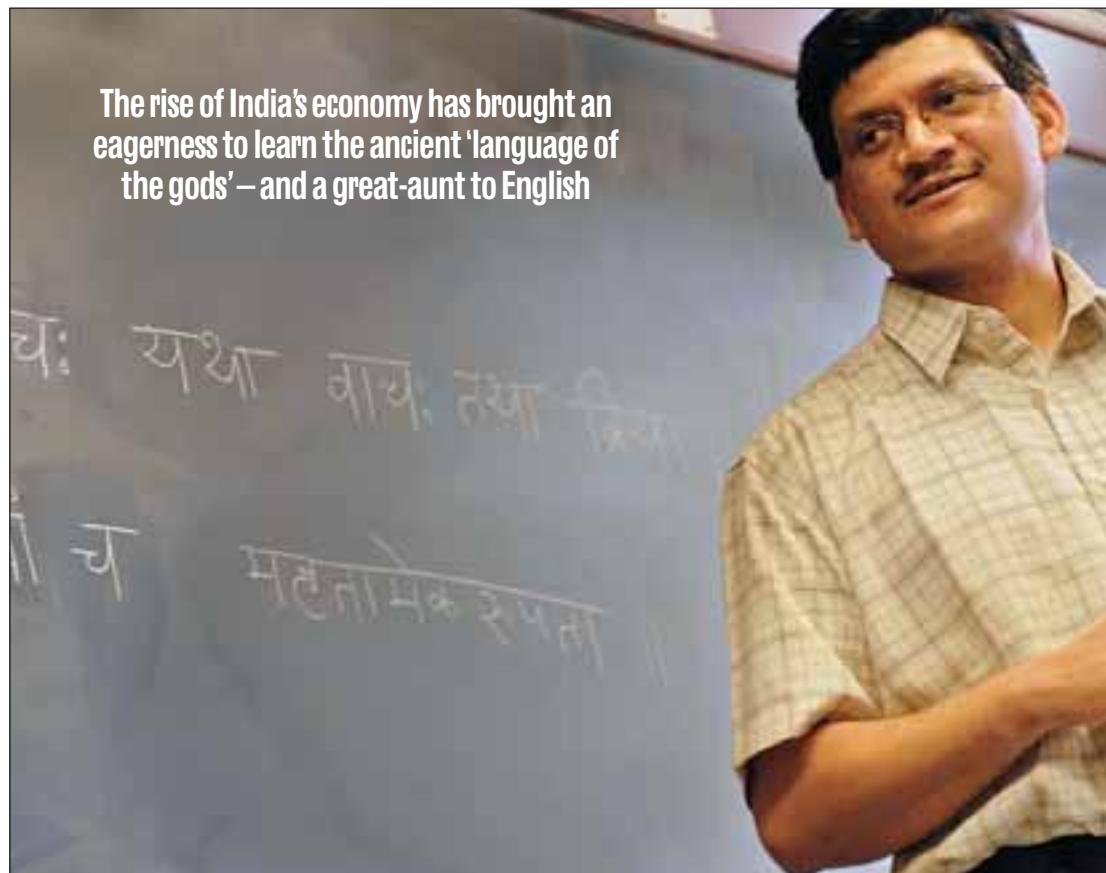


currents

SANSKRIT ECHOES AROUND THE WORLD

The rise of India's economy has brought an eagerness to learn the ancient 'language of the gods' – and a great-aunt to English



PHOTOS BY JOANNE CICCARELLO STAFF

SANSKRIT GURU: Pallamraju Duggirala (above) has been teaching a weekly course in Sanskrit to a small group at the Massachusetts Institute of Technology in Cambridge, Mass. His class is part of a Sanskrit revival taking place in India and in Indian communities worldwide.

By VIJAYSREE VENKATRAMAN
CONTRIBUTOR

CAMBRIDGE, MASS.

Deep inside the Massachusetts Institute of Technology on a Wednesday evening recently, a class of about a dozen students were speaking an arcane ancient tongue.

"It is time for exams, and I play every day," says one.

"Perhaps, you should study, too," counters another at the conversation table. The others laugh.

No, this isn't Latin 101 – that would be easy. This is Sanskrit, a classical language that is the Indian equivalent of ancient Greek or Latin.

Today, spoken Sanskrit is enjoying a revival – both in India and among Indian expatriates in the United States. There is even evidence of Sanskrit emerging in

to undergrads. But the demand for these classes is growing beyond academic settings. A decade-long economic boom has brought Indians some measure of prosperity, and with it a sense of pride in the nation's past. In large part, however, the revival is the result of the efforts of a private group, Samskrita Bharati, headquartered in New Delhi. The volunteer-based group's mission: Bring the pan-Indian language back to the mainstream and lay the groundwork for a cultural renaissance.

learning

"There were many reasons for the decline of Sanskrit," says Chamu Krishna Shastry, who founded Samskrita Bharati in 1981, "but one of the foremost was the unimaginative way it was taught since [British] colonial times." Later, in a newly democratic India, the language associated with upper-caste Brahmin priests held little appeal to the masses. The present movement to revive Sanskrit aims

American popular culture as more and more people roll out yoga mats at the local gym and greet one another with "Namaste."

Soon, the conversation at the MIT class turns to plans for the summer. Most of those attending are graduate students. Lavanya Marla, working toward a PhD in transportation engineering, says the informal setting is a good break from science. "Plus, the homework is easy," she adds.

Among the other attendees are a French post-doctoral physics candidate (who attended out of sheer curiosity at first, then stayed) and an 11th-grader from Lexington (Mass.) High School. Another is a self-described "old Yankee" from Salem, Mass., who has diligently taught himself Sanskrit script as well.

Harvard, Yale, and the University of Chicago, among others, have long offered Sanskrit courses

to teach the "language of the gods" to anyone who cares to learn it.

In India today, Sanskrit is mostly known as the written language of religion and metaphysics. Hindus – who make up 80 percent of the population in India – typically know some Sanskrit prayers by heart. Those who marry by the ceremonial sacred fire recite their vows in Sanskrit. Traces of the ancient language can be found in nearly all of the 15 modern languages spoken in India. (Hundreds of pure Sanskrit words are present in English as well. See accompanying note on page 11.)

"To dispel the notion that the language was nonliving and difficult to learn," Mr. Shastry says in a phone interview, "we decided to teach basic spoken Sanskrit in 10 days and to teach through Sanskrit only."



CLASS TEXT: Samskrita Bharati, based in India, is a source of instructional materials.

An eager network of volunteers experimented with this new method, teaching groups in villages, cities, and abroad through Indian expatriates. "We now hold classes even in prisons," Shastry says.

When the movement began, there was no money for printed flyers to advertise the classes, so publicity was strictly via word-of-mouth. Volunteers performed sidewalk skits about social themes using Sanskrit to draw the attention of passersby.

"[People] saw that Sanskrit need not be confined to rituals and prayer," says Pallamraju Duggirala, a part-time See SANSKRIT page 11

Plenty of tails are wagging at dog parks

More than 700 parks now dot the American landscape. Debates over leash laws and proper use of open spaces just come with the territory.

By AMY BRITAIN
CONTRIBUTOR

Doggie drinking fountains, pooper-scoopers, and tennis balls are just a few of the canine-friendly amenities at off-leash dog recreational areas across the United States.

These "bark parks" allow man's best friend to roam freely, creating stomping grounds for dogs as urbanization cuts into grassy play areas and leash laws limit dog freedoms. The decision to build a dog park often pits pro-leash and antileash citizens against one another in a face-

off about pet owners' rights. But dog lovers insist that a pack recreational setting is essential for an emotionally balanced and friendly Fido.

The US now has more than 700 off-leash recreational areas, says Claudia Kawczynska, editor of Bark magazine. And the demand for play areas is great: The Humane Society of the United States estimates that Americans own about 73 million dogs.

The dog park's origin is "fuzzy," Ms. Kawczynska says, but it is generally traced to the opening of the Ohlone Dog Park in Berkeley, Calif., See PARK page 12



NICOLE HILL

RUNNING FREE: Adam Day watches 'Louie' (far left) mingle with other canines at a dedicated dog park.

Sanskrit: A 'dead' language comes back

Continued from page 10

Sanskrita Bharati volunteer (and full-time space physicist) who has been teaching the free classes at MIT since September 2003.

In 25 years, an estimated 7 million people have attended spoken Sanskrit classes offered by Samskrita Bharati in India and abroad, says Shastri. There are 250 full-

time volunteers and 5,000 part-time teachers in the United States and India, and their numbers are growing.

Samskrita Bharati has chapters in 26 of India's 28 states. There are also groups in such places as San Jose, Calif.; Seattle; Pittsburgh; Buffalo, N.Y.; Dallas; San Diego; and Chicago. Requests are coming in from other US cities as well.

Like Latin and Greek, Sanskrit eventually became only the language of scholars as dialects spread in medieval times, notes David Shulman of The Hebrew University of Jerusalem in an e-mail interview. When the British Raj began in 1757, English slowly replaced Sanskrit.

Yoga practitioners in the US are seeking out the authentic Sanskrit names of various poses such as "downward dog" or "spinal twist" and the philosophy behind the practice as spelled out in the Yoga Sutras – the original treatise on the subject written in Sanskrit thousands of years ago.

Science-history buffs see old works in Sanskrit as treasure troves of ancient knowledge of astronomy, chemistry, mathematics, medicine, and metallurgy. When Copernicus announced that the sun was



JOANNE CICCARELLO – STAFF

the center of the universe in 1543, it was a defining moment for Western science. In Samskrita Bharati's recently released "Pride of India" – a compilation that offers a glimpse into India's scientific heritage – Sanskrit scholars point to calculations from AD 499 that indicate astronomer Aryabhata's underlying concept of a sun-centered planetary model.

"This knowledge tradition is what we hope to revive through the spread of Sanskrit," says Shastri.

SCHOLAR: Mythili Vutukuru participates in a spoken Sanskrit course at MIT. Since 1981, some 7 million people have attended such classes worldwide.

You speak a little Sanskrit

LINGUISTICALLY, SANSKRIT BELONGS to the ancient Indo-European family – a "sister" of Old Greek, German (Gothic), and Latin – and is thus one of the ancestors of English. More like a great-great-aunt, perhaps. This helps to explain the coincidence of words that sound and mean the same in Sanskrit and English, such as *bratha* and brother, says Michael Witzel, Wales professor of Sanskrit at Harvard University.

Hundreds of pure Sanskrit words – from avatar to Zen – became permanent fixtures in English through cultural interactions between the East and West since the Middle Ages, he adds.

Some of the pure Sanskrit words in English you know include: karma, guru, Juggernaut, pundit, mantra, and nirvana.

– Vijaysree Venkatraman

on the horizon NEWS FROM THE FRONTIERS OF SCIENCE

SCIENTISTS THEORIZE 'FELINE EVE'

Twenty years ago, scientists found that all humankind descended from one woman who lived in Africa about 150,000 years ago – the "African Eve." Now scientists say they've found the house cat equivalent.

Carlos Driscoll, a PhD candidate at Oxford University's Wildlife Conservation Research Unit, and colleagues compared house cat DNA with that of wildcats from Europe, the Near East, Central Asia, Africa, and the Chinese desert. Genetically speaking, domesticated cats were nearly indistinguishable from Near Eastern wildcats, although they came from five lineages, or families. Domestication probably coincided with the advent of agriculture 12,000 years ago. The surmised "Feline Eve" – matriarch of both house cats and wildcats – lived more than 100,000 years ago in the Near East.

Unlike dogs, which could easily accompany migratory bands of human hunter-gatherers, cats had to wait for a more sedentary lifestyle before joining humans, says Mr. Driscoll. "In order for cats to be around, you have to have a town," he says. It's likely that domestication was not entirely intentional. Rather, as humans began practicing agriculture, they moved into permanent settlements. Cities presented a new niche.

Like pigeons or rats, wildcats moved in to exploit the new environment. "Cats never really had a purpose. Cats were tolerated," says Driscoll. Cats that best endured a human presence – the tamest and friendliest – proliferated.

UNEVEN HEAT GIVES REGIONS A LIFT

Not only is North America floating on a sea of magma, it's riding high, scientists from the University of Utah say. And it's all because of unusual heat.

Currents of molten rock deep in the Earth heat some areas of the surface more than others. These areas expand and thus become more buoyant. They rise and "float" higher. Much of North America would lie far below sea level were it not buoyed by a greater-than-average share of warmth.

Traditional plate tectonics says that colliding plates pushed up the Rockies, the Himalayas, and the Alps. The new study argues that collisions alone aren't keeping Denver a mile high.

"If you subtracted the heat that keeps North American elevations high, most of the continent would be below sea level," says study coauthor Derrick Hasterok, a University of Utah doctoral student in geology and geophysics, in a press release.



INGRID VAN DEN BERG/AP

WILD THING: *Felis silvestris lybica* (above), found in Africa and the Mideast, is said to be the common ancestor of all house cats.

"Differences within the Earth's crust and upper mantle explain about half of the elevation of any given place in North America." Take that extra heat away, and Denver sinks 727 feet below sea level. New York City would be 1,427 feet down, and Los Angeles a whopping 3,756 feet under

the Pacific.

BOOK YOUR MARS VACATION IN 2107

Will shirt-sleeve vacations on Mars be a reality by the turn of the century? Noted physicist Lowell Wood, now a visiting fellow at the Hoover Institution in Stanford, Calif. thinks that humanity could be well on its way to making the red planet livable by 2050. The job could be completed in 100 years, he said recently at the Aspen Institute.

Mars is stuck in what Dr. Wood calls a "thermal depression." In a Martian day, temperatures near the equator can swing from 70 degrees F. during daylight to minus 110 degrees F. at night – too extreme for Earth's terraforming vegetation. The first step is to narrow the gap between these highs and lows. A potential solution: Create an artificial greenhouse-gas effect. After decades of warming, when Martian temperatures reach the "biospheric optimum" – temperatures resembling Earth's – Mars will experience a "Great Spring."

"I believe it's roughly a 50/50 chance that young children now alive will walk on Martian meadows ... will swim in Martian lakes," said Wood. It's not a matter of technology or money – it's a matter of will, he said.

– Moises Velasquez-Manoff

■ Some material, particularly quotes, came from the Associated Press and Space.com.