



Pilgrims wait to bathe in the early morning at the 2013 Kumbh Mela festival in Allahabad, India. In spite of polluted water and cold, crowded conditions, they report returning home healthier than they came.

PANORAMA COMPOSED OF FIVE IMAGES

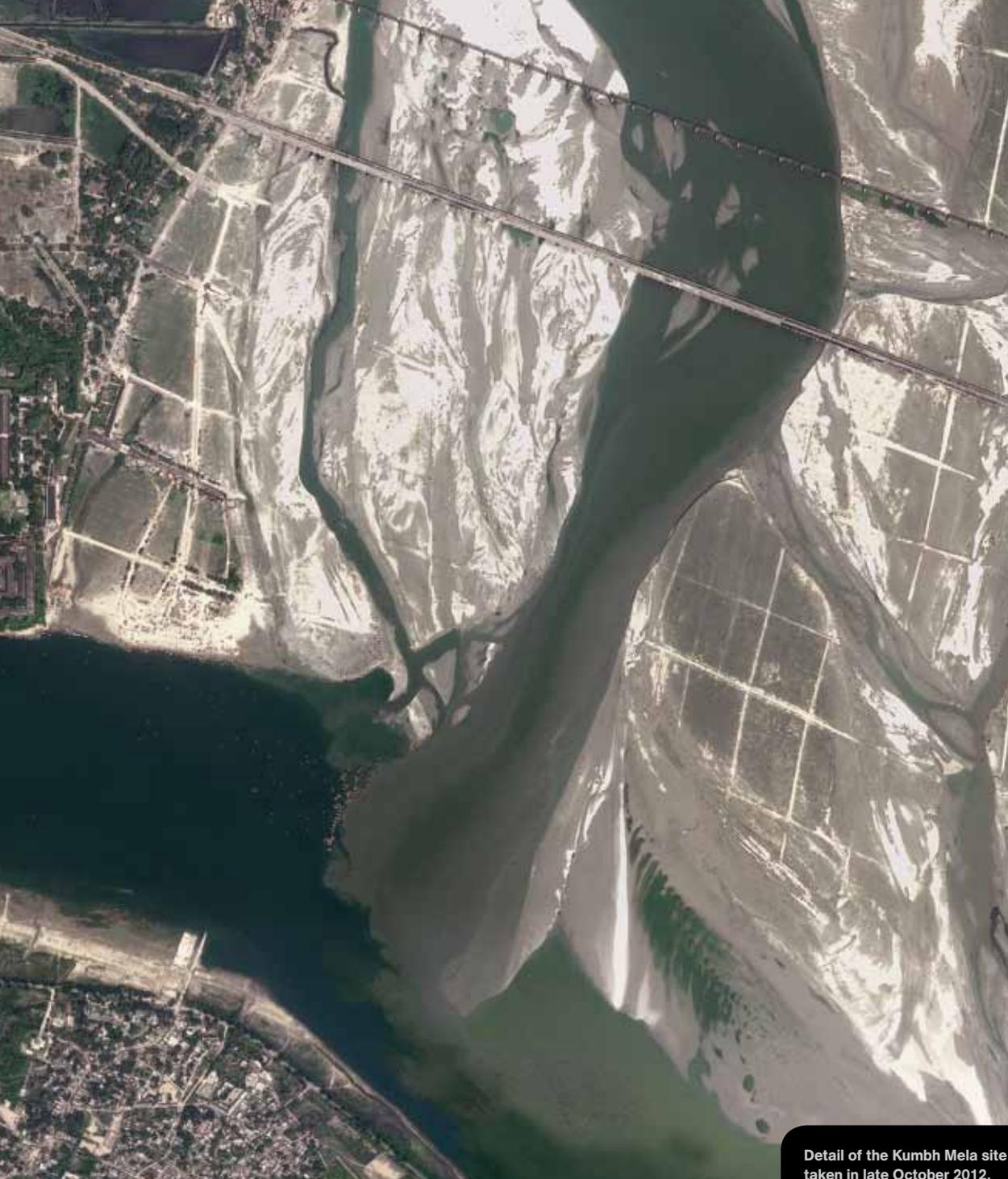
KARMA *of the* CROWD



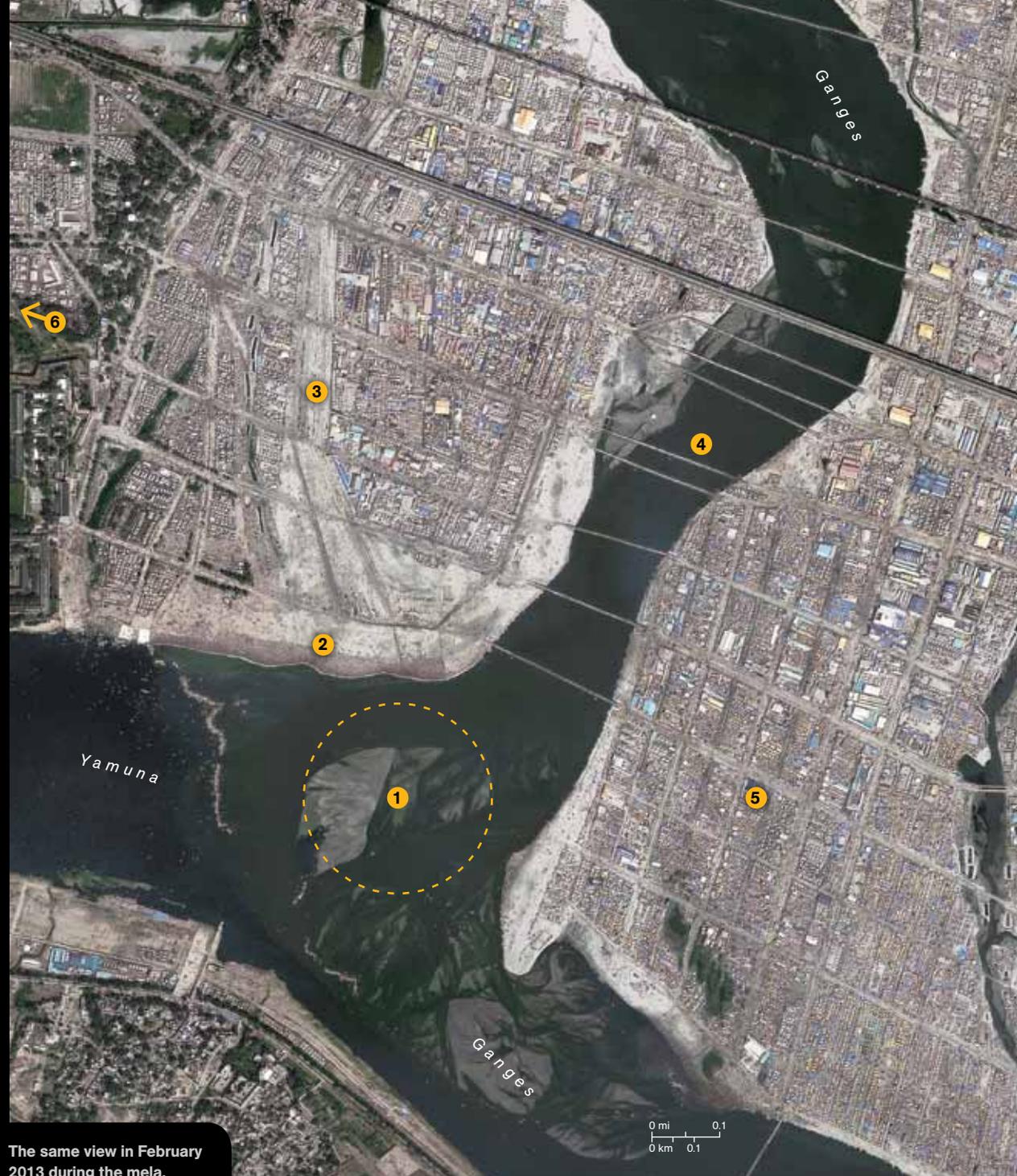
*At the Kumbh Mela,
the largest religious festival in the world,
a throng of millions can be one.*

*The Ganges is crisscrossed with
18 pontoon bridges for festivalgoers.
Below, prospective holy men head
to an initiation ceremony, where
they will cast off self-interest for
the collective good.*





Detail of the Kumbh Mela site taken in late October 2012.



The same view in February 2013 during the mela.

AN INSTANT MEGACITY

The Kumbh Mela in Allahabad hosts many millions of pilgrims over a roughly eight-week period. To serve this massive influx, the religious festival must provide all the food, health care, and basic amenities of a major urban center. Construction on the floodplain can't get under way until November, after the waters have receded from the previous year's monsoon. Organizers have just two months to build the temporary megacity before the first inhabitants arrive in January.



- 1 The *sangam*, or sacred confluence of the Ganges and Yamuna Rivers
- 2 Most popular ghats, or entry points to the water, closest to the sangam
- 3 The main procession path to the sangam
- 4 A total of 18 pontoon bridges are floated into place on the Ganges.
- 5 The "city" is divided into 14 sectors, each with its own hospital, police station, roads, and power supply.
- 6 About four miles from the sangam is the Allahabad railway station, where 36 pilgrims were killed in a stampede on an overcrowded platform.



All 14 sectors of the Kumbh Mela site occupy some ten square miles. The white box marks the area shown in the satellite images above.

By Laura Spinney

Photographs by Alex Webb

On February 10, 2013, overcrowding at a railway station in the northern Indian city of Allahabad led to a stampede that killed 36 people. The city was full at the time. Very full. It was hosting the world's largest religious gathering, the Maha Kumbh Mela, and the authorities estimated the number of pilgrims in the city that day hit its peak, at 30 million. The stampede made headlines around the world and is what most non-Hindus remember about the festival. But there's another story about the Maha Kumbh Mela that hasn't been told.

It begins two weeks earlier, about four miles from the station, on the banks of the River Ganges. It's the second major bathing day of the festival. Dawn has yet to break, fog shrouds the river, and a full moon illuminates the crowd massing at its edge. There are thousands of people here already, but this crowd is serene, unified. There's no pushing or shoving, let alone panic—only a palpable sense of purpose as they wade in, immerse themselves in the icy water, and wade out again. People make way for each other, give each other a helping hand. The ritual complete, purpose turns to joy. “How do you feel?” I ask a man wearing a dripping loincloth. “Rejuvenated,” he says, as two, then three, then four newcomers take his place.

Looking on is a policeman whose job is to keep the crowd moving, since no fewer than seven million people are expected to bathe here today. “Each one, on his own, wouldn't be able to do it,” he says. “They give each other strength.” His words echo my thoughts. There's an energy coming off this crowd, a sense that it amounts to more than the sum of its parts. The French 19th-century sociologist Émile Durkheim coined a phrase for it: collective effervescence. He was convinced it had a positive impact on individuals' health. His ideas were sidelined during the mass violence of the 20th century, but perhaps he was on to something. Have crowds been misunderstood?

The Indian government schedules hundreds of trains to and from Allahabad during the Kumbh. Departure seems the most stressful time: Among homeward-bound pilgrims the palpable spirit of cooperation that characterizes the festival can fray.

IN THE WEST THERE'S a pervasive idea that when people congregate, they surrender their individual identity, along with their ability to reason and behave morally—some of the very qualities that make us human.

“What our research shows is that, actually, crowds are critical to society,” says psychologist Stephen Reicher of the University of St. Andrews in the United Kingdom. “They help form our sense of who we are, they help form our relations to others, they even help determine our physical well-being.”

To test that idea, Reicher and his colleagues came to this place of potent cosmic significance for Hindus. It's here that the sacred Ganges meets the Yamuna and a third, mythical river called the Saraswati. Here, according to the scriptures, an ancient tussle between gods and demons led to the spilling of the nectar of immortality, or amrit. And here, a Hindu who



bathes in these rivers washes away his sins and comes a step closer to heaven.

Every year several million people make the pilgrimage to Allahabad to perform that ritual at a gathering called a mela. Every 12 years, when the alignment of the stars is considered particularly auspicious, the gathering is an order of magnitude larger, and a giant tent city rises out of the Ganges floodplain to host the Maha Kumbh Mela, or Kumbh. In 2013 the Kumbh drew an estimated 70 million people over 56 days. The mela has always excited outsiders' curiosity, mainly for its exotic processions of naked, snarling, ash-smearing holy men. Reicher and his colleagues had a different focus. They were interested in the people who came to blend with the crowd, rather than stand out from it.

Half an hour's jeep ride from the confluence of the Ganges and the Yamuna, but still within the Kumbh “city,” 70-year-old Bishamber Nath

Pandey and his wife, Bimla, 65, invite me into their tent. Carpets cover the dirt floor, but otherwise there's little comfort. The Pandey family are *kalpwasis*, pilgrims who come to the mela for at least a month and live a spartan lifestyle while they're here. They describe their daily routine to me: a dip before dawn, one frugal meal, chores, prayer, chanting.

“Have you ever been sick during your stay?” I ask. The *kalpwasis* are predominantly elderly, their tents are unheated, and the temperature at night often falls to near freezing. The Ganges, according to the local authorities' own measurements, is so polluted with sewage and industrial

Laura Spinney's portrait of a European city in 70 voices, Rue Centrale, was published last year.

Alex Webb's tenth book of photographs, Memory City, created with the photographer Rebecca Norris Webb, will be published this year.

effluent that it is neither drinkable nor safe to bathe in (the kalpwasis do both). And thanks to a PA system that broadcasts music, religious discourses, and practical announcements on a 24-hour loop, the noise level in their camps varies from 76 to 95 decibels, high enough to cause permanent hearing loss over a prolonged period.

Pandey shakes his head. It's his 12th mela, and he always goes home in a better state of mind than when he arrived. "Living among the gods," as he puts it, helps him to forget the hardship. "My mind is healthy, so my body is too."

Before the start of the 2011 mela a colleague of Stephen Reicher's, Shruti Tewari of Allahabad University, organized a team of field workers to go out into the countryside and question 416 prospective kalpwasis about their mental and physical health. They did the same for 127 of the kalpwasis' neighbors, and they returned to administer the same questionnaires to both groups a month after the mela had finished. They also interviewed the kalpwasis during the festival, to record their experiences of it.

Their findings would have made Durkheim effervesce. Those who stayed in their villages self-reported no real change over the period of the study. The kalpwasis, on the other hand, reported a 10 percent improvement in their health, including less pain and breathlessness, less anxiety, and higher energy levels—an effect comparable to that of some powerful drugs. Antidepressants, for instance, have been estimated to reduce the public health burden of depression in some populations by about 10 percent. But as Reicher points out, antidepressants treat only depression, whereas the crowd "drug" seemed to have a positive influence on all aspects of the kalpwasis' health. What's more, the good effects last long afterward—certainly for weeks, possibly for months.

Why should belonging to a crowd improve your health? The psychologists think the cornerstone of the effect is shared identity. "You think in terms of 'we' rather than 'I,'" explains Nick Hopkins, a colleague of Reicher's from the University of Dundee in the U.K., and that in turn

alters your relationship to other people: "What happens is a fundamental shift from seeing people as other to seeing them as intimate." Support is given and received, competition turns to cooperation, and people are able to realize their goals in a way they wouldn't be able to alone. That elicits positive emotions that make them not only more resilient to hardship but also healthier.

Belonging to a crowd—at least the right sort of crowd—might thus benefit the individual in the same ways more personal social connections do. We know that stress-resilience mechanisms can be activated by social interaction, with positive effects on the immune and cardiovascular systems. Very socially connected people tend to have lower levels of molecules associated with inflammation circulating in their blood, for example. They are less likely to die of heart disease and some cancers, and there's some evidence that they are less vulnerable to age-related cognitive decline. They respond better to vaccinations. Their wounds may even heal faster.

Reicher makes a critical distinction between a physical and a psychological crowd. A physical crowd—commuters jostling on a subway, for instance—lacks a shared identity. Although being very socially connected isn't the same as being physically surrounded by other people, it has a lot in common with belonging to a psychological crowd—sharing a group identity. And it isn't just bodily systems that are altered by the shift from "I" to "we."

"Belonging to the crowd can change the way you see the world," says Reicher's colleague, psychologist Mark Levine of the University of Exeter in the U.K. "It can alter your perception." In interviews kalpwasis often described the noise at the mela as blissful. "It's God's name ringing in your ears," said one. "The noise?" said another. "Oh, this is the real Saraswati."

THE RESEARCH IS TIMELY. Since the last Kumbh, in 2001, humanity has crossed a line: For the first time in history, more than half the world's population is urban. Despite the elevated levels of crime, pollution, and crowding in cities,

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scientists talk about an "urban advantage" when it comes to health. And not just health.

In 2007 a paper in the *Proceedings of the National Academy of Sciences* made the case that as the population of a city increases, the degree of social interaction in that city increases too, only faster—with positive effects on the creation of everything from art to knowledge to wealth. "There is a 10 to 15 percent extra benefit, on average," says sociologist Dirk Helbing of the Swiss Federal Institute of Technology in Zürich, one of the paper's authors. "So there is a strong social force driving us toward living together."

Implicit in the case for an urban advantage is that the city's infrastructure must be capable of delivering it. Collective effervescence won't make people healthier if their drinking water is contaminated. The histories of both the Kumbh and the hajj, another major religious gathering, are punctured by outbreaks of communicable diseases as well as stampedes or other crowd incidents. Though these threats are ever present, improved public health measures and understanding of crowd dynamics are gradually limiting their impact.

In 2013 there were no outbreaks of serious communicable diseases in Allahabad. The Kumbh "city" covered more than ten square miles—roughly half the size of Manhattan. The inhabited area was divided into 14 sectors, each with its own hospital, police station, roads, grocery store, and supplies of electricity and drinking water—an extraordinary feat, when you think that construction couldn't get under way until the previous November, once the floodwaters had receded after the monsoon. "Incredibly well organized, incredibly clean, very efficiently run" was the verdict of Rahul Mehrotra, a professor

of urban design and planning at Harvard University, who observed the festival.

The Kumbh authorities plan the layout with crowd management in mind. Exit routes from bathing places are roughly twice the width of entry routes, for example. This year the task of managing the crowd fell to Alok Sharma, inspector general of police for the Allahabad zone, who had a 14,000-strong police and paramilitary force at his command. When I met him in early February, he explained to me that his basic strategy involved shifting and dividing crowds with the use of detours to avoid buildup at hot spots.

One such hot spot was the main railway station, so the police monitored the arrival of trains. "Any crowd of 500 plus is reported because I have to make room for it," said Sharma. But he was also worried about the 18 pontoon bridges spanning the rivers. They were, in his opinion, too narrow. Where people funneled onto them, there was the potential for a crush. "We can identify the hot spots," he said, "but we can't predict when or at which one something might happen."

Nobody predicted the stampede at the train station on February 10. By the time it happened, Reicher had gone home, but I remembered an interview he and his colleagues had conducted in which a kalpwasi was asked to describe the feeling in the crowd at the station. "People think they are more powerful than you, they can push you around," she said. She was then asked to describe the feeling in the mela proper: "People are concerned about you. They treat you in a polite manner: 'Come, mother, [they say,] and go comfortably.'"

In an email from St. Andrews, Reicher wrote that one possible cause for the stampede may have been that the pilgrims no longer formed a



Before dawn an old woman performs puja, a ritual offering to the gods. The most devout pilgrims are often elderly. They come for the entire festival and renounce all comfort while there.



Gilded by the low afternoon sun, pilgrims drink deeply of the sacred water close to the confluence of the Ganges and Yamuna Rivers. Never mind that the water is polluted: Festivalgoers believe it contains amrit, the nectar of immortality.

psychological crowd. The others around them were no longer part of a larger whole but competitors for seats on a train bound for home.

The psychologists don't deny that bad things happen in crowds. If a crowd's goal is destructive, then that is the goal it will realize. Witness the urban riots in Britain in 2011, which were characterized by looting and arson. But collective effervescence can be a powerful force for good, they argue, and that has been overlooked. In 2009, when I first met Levine, he had just completed an analysis of CCTV footage of alcohol-fueled conflict in public places in a British city. His conclusion was that bystanders played a determining role in whether a confrontation turned violent or not.

In other words, when there is the potential for violence, crowds can have a calming influence—a finding that flew in the face of previous research on the so-called bystander effect, which

suggested that some people surrender individual responsibility in a crowd, standing helpless as horrors unfold before their eyes. Between them, Reicher and his colleagues have studied religious crowds, football crowds, political parades, and music festivals.

“Living out your beliefs takes a different form in a crowd of kalpwasis than in a crowd at a rock concert,” Reicher says. “But the underlying process is the same.” Reporting on the opening day of the Woodstock festival in 1969, *Life* magazine quoted an official who had just realized that more people would be coming than he had anticipated. “There are a hell of a lot of us here,” he said. “If we are going to make it, you had better remember that the guy next to you is your brother.” They did, and the three-day festival is remembered as much for its peace and love as for its mud, food shortages, and traffic jams.

things, as Vashisht Narayan Mishra, a 69-year-old retired teacher and kalpwasi, explained to me. I had asked him how he found the courage to take the plunge on a frigid morning. “Seeing people bathe who are more aged than me inspires me,” he said. “Who inspires them?” I asked. “God,” he replied.

AND THERE'S THE RUB: Joining a psychological crowd is not as easy as simply wanting to belong. Looking at the brownish, fast-flowing river, and especially knowing what I do about its fecal coliform content, I cannot persuade myself that I'm looking at the nectar of immortality. Does that mean you have to be born into an identity to be able to share it? No: Conversions do happen.

Deep inside the instant city I meet Geeta Ahuja, who recounts her conversion to me. A senior finance manager with General Electric who lives in Erie, Pennsylvania, she was a “born skeptic who practiced all the vices” until she heard a Hindu sage speak in Dallas, Texas, in 2007. “He talked about the impermanence of relationships in the material world,” she said. “It struck a chord with me.” She became his disciple, and her life took on meaning.

“In the Bhagavad Gita,” says Geeta, referring to an ancient Indian epic, “it is written that the company of people who don't believe in seeking eternal truth is bad company.” Her eyes, dramatically outlined in kohl, glitter as she tries to describe how it feels to be surrounded by people who are all seeking the same thing she is. The word she hits on is “uplifted.” But if the Kumbh doesn't mean anything to you, she warns, it will seem like “a kaleidoscope of nothingness, a Las Vegas, a Disneyland, just another fair.”

But one can marvel at the power of collective effervescence without converting—as one man did at the mela of 1896. “It is wonderful,” he wrote, “the power of a faith like that, that can make multitudes upon multitudes of the old and weak and the young and frail enter without hesitation or complaint upon such incredible journeys and endure the resultant miseries without repining.” The man was an American, and his name was Mark Twain. □

“The Kumbh works because of a combination of good infrastructure and psychological cooperation,” says Reicher. But in more advanced industrialized societies, the power of cooperation has been neglected, and we may be paying the price.

In the United States, for example, life expectancy has grown over the past 50 years but not as fast as it has in other developed countries. As a result American life expectancy has fallen down the world ranking, so that the United States now keeps company with Chile and Poland, which spend much less on health. One possible explanation, according to Lisa Berkman, a social epidemiologist at Harvard, is that Americans have become increasingly isolated socially. She points to evidence that the sense of community has declined. “We've lost sight of the fact that we're social animals,” she says.

The message, then, is love thy neighbor, because thy neighbor will spur thee on to greater