

by Scott\_LaFee

## PRIME NUMBERS

39 - Maximum body-mass index (BMI) China allows for any foreigner adopting a Chinese infant

26.6 - BMI of an average American adult

3 million - Estimated number of babies who have been created so far through in vitro fertilization

Sources: Harper's Index; China Center of Adoption Affairs; International Committee for Monitoring Assisted Reproductive Technology

## 'TRUE FACTS'

TRUE FACTS - Researchers say rats can manipulate each whisker independently to feel their way through dark spaces. CNS Photo.

WHERE IS IT? - This is a picture of the Solomon Islands, 1,330 miles northeast of Australia. CNS Photo.

SOUNDS GREEK TO ME - This is an open-air theater designed in the fourth century, B.C., at Epidaurus, a small Greek city on the Saronic Gulf. CNS Photo.

JUST ASKING - If the No. 2 pencil is so popular, why is it still No. 2? CNS Photo.  
Researchers have discovered that rats can manipulate each whisker independently to feel their way through dark spaces.

## BRAIN SWEAT

Use all of the letters in this sentence just once each to spell out the names of three animals: "Tall elephant or apeman."

## SOUNDS GREEK TO ME

In the fourth century B.C., an architect named Polykleitos the Younger designed an open-air theater at Epidaurus, a small Greek city on the Saronic Gulf.

The result was a typically lovely Greek amphitheater looking out upon a lush valley. But what really set Epidaurus apart, then and now, was its acoustics: Audiences can hear the music and voices from the stage anywhere they sit, with astounding clarity and without any artificial amplification. The ancient Greeks knew they had built something quite remarkable, but they didn't know how. Indeed, the acoustic marvel of Epidaurus has long been a mystery, the subject of much study.

Some investigators have said the acoustics are a result of the wind, which tends to blow from stage to audience. Others have attributed it to the slope of the amphitheater or the particular rhythms of Greek speech. No one has ever been able to replicate Epidaurus' particular acoustics anywhere else.

Now, researchers at the Georgia Institute of Technology say they've discovered the secret of the Epidaurus sound: It's the seats.

Polykleitos used limestone to build the rising rows of seats. The limestone, says Nico Declercq at the Woodruff School of Mechanical Engineering at Georgia Tech, acts like an acoustics filter, hushing low-frequency background noises such as the murmur of a crowd while reflecting high-frequency sounds like actors' voices, bouncing them throughout the entire theater.

But what about actors speaking at lower frequencies? Theatergoers at Epidauros have no problem hearing them, either. Declercq says the answer lies with the theatergoers themselves. The human brain, he said, can reconstruct missing frequencies in a sound - a phenomenon known as virtual pitch.

What Epidauros' visitors don't hear, they imagine.

BRAIN SWEAT ANSWER

Panther, antelope, llama

JUST ASKING

If the No. 2 pencil is so popular, why is it still No. 2?

VERBATIM

"When people thought the Earth was flat, they were wrong. When people thought the Earth was spherical, they were wrong. But if you think that thinking the Earth is spherical is just as wrong as thinking the Earth is flat, then your view is wronger than both of them put together."

- Isaac Asimov, biochemist and author (1920-1992)

## WHERE IN THE WORLD? ANSWER

The Solomon Islands, 1,330 miles northeast of Australia, were rattled April 1 by a magnitude 8.1 earthquake, whose epicenter was just west of the islands. The quake triggered a small tsunami, resulting in at least 22 people killed and several thousand left homeless.

- Georgia Institute of Technology

*Eureka! Daily discoveries for the scientifically bent by Scott\_LaFee*