

# San Diego

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Nancy Moore photographed the display of her seventh-grader son, Brandon, from Santa Fe Christian, at the science fair in Balboa Park's Activity Center. *John Gibbins / Union-Tribune photos*

## Bogus entries are Fair game

### Kids give research a ribbing

By **Jeff Ristine**

STAFF WRITER

Amid one student's prize-winning research on genetic variation in orchids and another's invention of an inexpensive deep-sea inspection device, "Monkey Torture" was an oddly mortifying project in last year's Greater San Diego Science and Engineering Fair.

Crude graphs charted the pain suffered by Mongo, George and Apu over weeks of testing. The student responsible for the display coolly concluded, "Monkey torture is successful and a valuable asset to our society."

Fair organizers were chagrined, but not by the pointlessness and dubious taste of the project or its skimpy experimental data.

No, it just wasn't *funny* enough.

Monkey Torture was last year's spoof project, a fair tradition since the '60s.

The 47th annual installment of the fair, continuing the custom with four made-up entries, runs through Sunday at the Balboa Park Activity Center. Major sponsors are *The San Diego Union-Tribune*, Qualcomm, the County Water Authority, the Biomedical Research Institute of America, the San Diego Community Foundation, FGM Inc. and the Reuben H. Fleet Science Center.

The fake projects are hidden among hundreds of serious, time-consuming efforts by San Diego and Imperial county students.

Gags in previous years have included a study of myopia in black-eyed peas and a photographic study of black holes in space (those in the know would realize they can't be photographed, or even seen).

The best phony entries may require a second glance before onlookers suspect a prank -- if they ever do.

"One of them I recall when I was in high school was 'Urine Content in Mission Bay,' " said Shirley Parrish, fair director. "Everything was done quite professionally. . . . It had no telltale signs of looking fake."

But the revolting statistics -- documented with photographs depicting individuals allegedly contributing to the problem -- were entirely fictitious. Parrish remembers one couple walking past who didn't catch on.

"They were so aghast that they said they would never go there again," she recalled.

Only rarely, however, are the fabricated projects calculated to churn stomachs.

Mary Mikkelson, the fair's vice president for school relations, remembers a mock experiment in genetic engineering that created a true catfish -- half-cat, half-fish -- "documented" by a strategically airbrushed picture.

Other deceptions over the years have included a behavioral comparison of the TV characters Buffy the Vampire Slayer and Sabrina and -- with the help of some green paint -- an example of human photosynthesis.

Science fair lore holds that one of the first sham projects, around 1964 or '65, was more of a practical joke.

Douglas Palmer, then a Point Loma High student, vaguely recalls hearing of an instrument dubbed the Veebelizer, which supposedly projected light upon the ceiling of the exhibition hall. The twist was that although many spectators swore they saw it, nothing was there.

Palmer himself was part of a group now credited with turning fair fakery into a tradition. Now co-founder of an Internet infrastructure company in the Golden Triangle, he was surprised to hear the practice has endured.

Palmer said his first contribution, in 1966, was Total Mouse Conversion -- a takeoff on total mass conversion -- an explosive conversion of energy resulting from the union of mouse and anti-mouse.

"The second year was the compatibility analyzer," said Palmer, who signed his phony projects backward as Remlap Salguod. The device used an oscilloscope, which displays electrical waves on a screen.

Couples were invited to join hands and hold the leads on the oscilloscope, "and the computer would analyze whether they were a compatible couple or not."

In truth, everyone saw the same bunch of "noise" on the screen, and the students would simply interpret the waves as they saw fit.

"The funny thing about all of these projects is that no one really raised an eyebrow like it was ridiculous or anything," said Remlap, er, Palmer. "They looked and said, 'Yeah, this seems reasonable. Very good.' "

Today, the counterfeit entries are developed by members of the fair's Student Advisory Board, a group of fair veterans who provide feedback to the management committee and help students set up their projects. The number varies from year to year; some fairs have had none.

There are few rules for the ersatz entries, generally cobbled together in a few hours as opposed to the months of work that go into the typical senior-division project.

"It's best if they're funny," said Blair Beverly, a La Jolla High junior who won a first-place award for a real project last year and developed a fake for this year. "You just want to get a rise out of people."

Said Mikkelson: "We've always told them they can fool people as long as they don't make somebody unhappy about it. It's just strictly for fun."

As a high school student in 1992, Parrish was responsible for a fondly remembered hoax: The Radioactive Half-Life of an Object Consisting of Concentric Cylinders and Lactose Derivatives.

That's a Twinkie. They aren't really radioactive, so Parrish considered the open-air decay of the snack itself and arbitrarily designated it as 17 years.

Howard Grunloh, co-chairman of judging at the fair and research engineer on an experimental reactor at General Atomics, was part of a team that perpetrated another elaborate fraud, The Effects of Rankin-Hegeronsky Thermodynamics in Physics and Angle.

Cloaked in the dense technical jargon seen in science journal articles, the 1973 project actually was absolute nonsense, said Grunloh. But like many other spoof creators, Grunloh and his cohorts spent time standing by their display in the exhibition hall, treating it as if it were deadly serious and getting a similar response from viewers.

And fair judges -- even though they're in on the jokes -- sometimes take a break from their interviews with regular project entrants to grill the fake-project perpetrators, just to see how far they can keep up the pretense.

Monkey Torture, a simple cut-and-paste job, was more easily identifiable as a goof-off than previous more elaborate works.

"A couple of people got their noses out of joint on that one," said Mikkelson, and in a rare move to minimize the offense to unsuspecting fair attendees, it carried a sign identifying it as a fake.

Generally, though, fair-goers are on their own in identifying the deceptions. Fair officials offer a few tips:

Like the Twinkie effort, the title of the display sometimes will be obscure scientific mumbo-jumbo, and the student name on the project may involve wordplay.

Less ambiguously, notebooks accompanying the projects that ordinarily contain experimental data may contain little more than unrelated filler in the prank versions; some will contain an explicit statement of phoniness. Some fake-project creators have bestowed suspiciously long lists of equally fake awards upon themselves, and the counterfeits are never listed in the fair programs.

"Mostly, they're simply an impossibility," said Ronald Domb, chairman of judging. "Things can't do what they say they're doing."

When pressed, students standing by their fakes will usually 'fess up, and as a last resort, Domb said, officials at the fair information center usually can confirm whether a particular project is unreal.

But consider the experience of spoofster-turned-judge Grunloh one year as he admired a research effort that purported to turn a cloven-hoofed cow into a mono-hoofed animal by packing the gaps in its feet with dried mud. The student said he followed the cow around, taking copious notes on its reactions to the change in its life.

Grunloh thought the work would be remembered as a "classic" in spoof annals, but when he remarked on it to other fair officials, he had to change his mind.

"Howard," he recalls one of them saying, "I'm not sure if that's the fake project."

