

Scottish harbor where U-boat sank the *HMS Royal Oak*.

## THE MOON AND THE NAZI SUB

One of the most famous naval attacks during World War II occurred in 1939 when a German U-boat sneaked into a Scottish harbor and sank a British battleship. Günther Prien, captain of submarine U-47, became a celebrity in Germany after his daring nighttime invasion. But few are aware that Prien's knowledge of astronomy played a critical role in the attack.

Astronomer Bradley Schaefer of Louisiana State University in Baton Rouge recently examined charts and logbooks from the attack, held in British archives in London. Speaking last week at a meeting of the American Astronomical Society in Washington, D.C., he related that Prien used astronomical calculations to convince his superiors that his sub could sneak past shallow blockades to torpedo the British fleet at Scapa Flow, a sheltered harbor in the Orkney Islands. His brilliant plan, says Schaefer, relied on "the highest of the highest of high tides," which were created at midnight on 13–14 October by the moon's closest approach to Earth in its orbit and its alignment with the sun. U-47 was able to scrape into the inlet and sink the battleship *HMS Royal Oak*, killing 833 sailors. An unexpected and very bright aurora borealis foiled further attacks, forcing the sub to withdraw. Says Schaefer: "The skies affect historical events on Earth, more than most people realize."

## VIDEOS AND BRAIN-NUMBING

A new entry in the perennial debate about video violence uses brain waves to argue that violent video games "desensitize" players, making them more aggression-prone.

Researchers led by psychologist Bruce D. Bartholow of the University of Missouri, Columbia, asked 34 male college students about their exposure to violent video games. The researchers then wired up the men to see how their brains reacted to different types of pictures. They found that the violent game aficionados showed a diminished P300 brain wave—a wave that responds to stimuli the brain registers as significant—in response to violent pictures compared with the other game players. And the smaller P300 correlated with higher levels of aggression in a test allowing subjects to punish an unseen "opponent" with a blast of noise. "To our knowledge, this is the first study to link violent video game exposure to a brain process associated with desensitization to violence and to link that brain response to aggressive behavior," says Bartholow.

The study, in press at the *Journal of Experimental Social Psychology*, still fails to show that video games cause violent behavior, says psychologist Jonathan Freedman of the University of Toronto in Canada. Although games can "habituate" the brain to violent images, Freedman says "there is no good evidence that exposure to lots of [video] violence desensitizes you to real violence."



Scary picture has little effect on violent video fans.

## Bog Men as Sacrifices

After 18 months of investigation, archaeologists have revealed that the two Iron Age men whose bodies were found in 2003 in Irish bogs were probably ritually sacrificed. Both were tortured before being killed about 2300 years ago. One was stabbed and had his nipples cut off prior to being beheaded and dismembered.

Much can be learned from bog bodies, which are preserved in the peat. Analysis of hair from one of the recent finds indicates a largely vegetable diet, suggesting he died in the summer, according to scientists at the National Museum of Ireland, where the bodies are being held. The hair also was coated in a gel made from resins that probably came from southern Europe. The other man was a striking 2 meters tall and apparently a man of leisure. "His nails were well-manicured, showing that he never did any manual work," says the museum's Isabella Mulhall. The two bodies, the subject of a 20 January BBC documentary, will go on exhibit at the museum in May.

Many of the more than 100 bog bodies discovered in northwest Europe show marks of violent deaths. Museum archaeologist Ned Kelly says 40 of those found in Ireland, as well as the two latest finds, were discovered on the borders of ancient tribal lands, which leads him to suspect they were killed as offerings to the gods of fertility.



Bog torso. (Inset: Manicured hand.)



## Betting on Bird Flu

When public health officials talk about the chances that H5N1 will reach the United States this flu season, most don't back up their chatter with cold cash. But a gaming house has, offering a 20-to-1 payoff should people start coming down with the much-watched virus before 6 April.

General manager Peter Ross of YouWager.com says his house based its odds on the speed and direction the virus has been moving in Asia and Europe. Ross says 4 days into wagering, the public appears pessimistic—so if bird flu arrives, the company stands to lose big. Neuroscientist Adil Khan of the Buck Institute for Age Research in Novato, California, a seasoned wagerer, points out that chance may not play the only role: "The last thing you want to get is a big bettor who goes out and brings back the bird flu themselves."