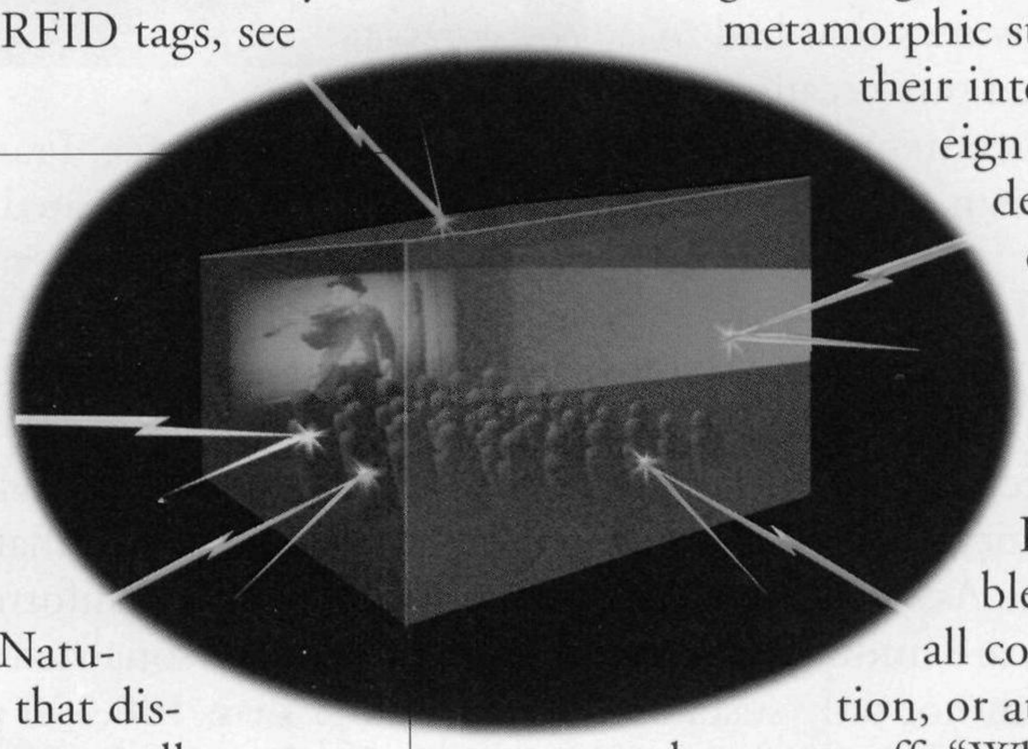
# News Track

### Embedded Risks

RFID tags, often debated over their surveillance capabilities, may be as vulnerable to destructive software viruses as other computing devices. The *New York Times* reports a group of computer researchers affiliated with Vrije Universiteit in Amsterdam recently demonstrated how it is possible to infect a very small portion of the memory in an RFID chip that typically holds 128 characters of data. Indeed, security experts have often discounted RFID chips as vulnerable due to the small amount of memory involved in tracking goods. With this demonstration, there is real concern that terrorists or smugglers may be able to evade airport luggage-scanning systems that will use RFID tags in the near future. "It shouldn't surprise you that a system designed to be manufactured as cheaply as possible is also designed with no security constraints whatsoever," said Peter Neumann, a computer scientist at SRI International, moderator of ACM's Risks Forum, and contributing editor of *Communications* "Inside Risks" monthly column. For more on the risks of RFID tags, see "Inside Risks" on page 136.

### Coat of Silence

A new paint mixed with nano particles of copper may offer the sweet silence that theater owners, school officials, even clergy crave. When applied to walls, the paint deflects cell phone radio signals, thus effectively locking out calls. The *Chicago Tribune* reports that NaturalNano, a firm in Rochester, NY, that discovers, refines, and commercializes naturally occurring nanoscale materials, inserts copper into nanotubes about 20,000 times thinner than a piece of paper. The process creates a medium to suspend the signal-blocking metal throughout a can of paint without changing the way the paint adheres to a surface. The wireless phone industry is opposed to blocking technologies, citing legalities and various emergency calls that might be affected by such wall treatments. NaturalNano counters the nanotech-augmented paint is a passive device, not an illegal radio jammer. Still, the firm intends to combine its signal-blocking paint with a radio-filtering device that collects phone signals from outside a shielded space, allowing certain transmissions to proceed while blocking others.



ILLUSTRATIONS BY MASAKO EBATA

### Buggy Concept

The news that DARPA scientists are hoping to create an army of insect cyborgs that can be remotely controlled to search for explosives and send transmissions drew some spirited reaction from British researchers. BBC News reports a new DARPA proposal is looking for innovative ideas to insert micro-electronic mechanical systems (MEMS) into insects at the pupa stage when they can integrate them into their body. Scientists there believe they can take advantage of the evolution of insects, such as dragonflies and moths, as the insects go through a renewal process at each metamorphic stage that repositions their internal organs around foreign objects. When fully developed, the insects could be remotely controlled to sense certain chemicals, including explosives. Some British experts told the BBC the idea was feasible, but others were not at all convinced, calling it fiction, or at the very least, a very long way off. "What adult insects want to do is basically reproduce and lay eggs," said one Oxford entomologist. "You would have to rewire the entire brain patterns."

### Net Oversight

In the continuing battle over what its citizens are allowed to see and read on the Internet, China has