

ASTRONOMY

Our search for intelligent life is in its technological infancy

Tuesday, November 07, 2006

TOM STATLER

On TV, it's easy. You walk up to an extraterrestrial being and say something nice, like "Live long and prosper."

And naturally, they smile and say something nice back, either because they already know English, or because you've got a gadget that translates anything you say into alien languages.

But what if we really met a truly alien intelligence? What makes us think that we could talk to them? We haven't got a clue how to communicate with whales, despite clear evidence that they're intelligent and communicate with one another.

And they evolved on the same planet we did.

This is only one of the problems faced by researchers trying to give the search for extraterrestrial intelligence a well-planned scientific strategy.

It's an exciting time to be strategizing. We're barely into our second decade of knowing that there really are planets orbiting other stars.

Yet for all our technical achievements, it's sobering to remember that we still don't have the technology to find ourselves.

Even if there were an exact copy of Earth orbiting a nearby star, we couldn't detect it. The Kepler satellite, still two years from launch, might catch it, but only if the tilt of the orbit is right.

And finding a planet is not finding a civilization. Seeing cities on a world light-years away is far beyond our best instruments.

Even if they had radio and TV broadcasts just like ours, their signals would be too weak for our most sensitive antennas to detect.

At least, so far.

The SETI (Search for Extraterrestrial Intelligence) Institute in Mountain View, Calif., and the University of California are building the Allen Telescope Array. When finished, the 350 dish antennas, each one almost 20 feet in diameter, will make up one of the most sensitive radio telescopes in the world, able to search a million stars for signals of intelligent origin.

Combing the radio spectrum for alien broadcasts isn't going to be easy. But Seth Shostak, senior astronomer for the SETI Institute, calls the Allen Array "the mother of all combs." There's a chance it could detect a powerful radar transmitter, such as the ones human astronomers use to study asteroids.

Shostak, well known to fans of the Discovery Channel and listeners of the radio show *Are We Alone?*, will be in Athens at 7 p.m. on Thursday for the Athens Public Library's "Cosmic Talks" series.

His lecture — "When Will We Discover the Extraterrestrials?" — will look at new technologies in the search for extraterrestrial intelligence and the possible, and unsettling, consequences of success.

See www.athenscounty.lib.oh.us/programs.html for details.

Tom Statler is director of the Astrophysical Institute at Ohio University in Athens.

statler@ohio.edu

