



## Driven to The Art of Brain: The Inside Story Abstraction

early all animals have brains. Most communicate with each other. Still others use tools. And many build homes after a fashion. But only humans compose symphonies, write plays, paint masterpieces—not to mention design the concert halls, theaters, and museums in which to showcase them. It is, in fact, this ability to conceptualize, to plan ahead, convey ideas with symbols, that most sets us apart from other animals.

Who better to turn to than creative visual artists—for whom manipulating symbols is a way of life—to illustrate the complicated workings of the human brain in the Museum's new exhibition *Brain:* The Inside Story, which opens November 20. Early in the planning stage, the Exhibition Department tapped two artists, Daniel Canogar of Madrid and Devorah Sperber of Manhattan and Woodstock, N.Y., to represent various brain functions in tangible works of art.

"Artists' works appeal directly—and powerfully—to our senses, and stimulate our curiosity about our world and about ourselves," says David Harvey, senior vice president for Exhibition.

Sperber's installation, for example, harnesses the mechanics of human sight and something scientists call "neurobiological priming"—the tendency of the brain to recognize certain images through repetition. At first, viewers see a large panel, 68 inches by 47 inches, composed of colorful spools of thread strung on aluminum-ball chains, each spool acting like a chip of tile in an attractive, if amorphous, mosaic. Then, seen through a clear acrylic ball set on a pedestal 6 feet in front of the "canvas," the abstract image is reduced in size and

reversed, just as the brain inverts the upside-down images captured by the retina, and it becomes instantly recognizable as a familiar work of fine art.

"At that point there's a real jolt when your brain has to make an adjustment from what you thought was there to what is there, and the word associated with that jolt is 'Wow!'" Sperber explains by phone from her studio in Woodstock. "The idea is to directly engage the viewer so they are having an experience of their own brain in action."

Canogar has found an uncanny way to evoke the human brain's 100 billion or so neurons—specialized cells that allow us to think, feel, and move—that connect through long, spidery arms and communicate with each other through electrochemical signals at speeds up to 250 miles an hour. On entering the exhibition, visitors will walk through a massive work in which recycled electrical cables, illuminated by racing beads of lights, mimic electrochemical

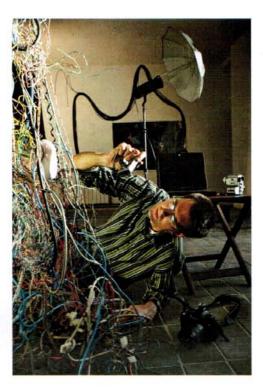
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- DAVID HARVEY

Senior Vice President for Exhibition

activity in the brain. Further on, a similar Canogar sculpture will explore how the neurons themselves develop.

Both artists have been deeply influenced by modern technology. In Sperber's case, she was struck by the translation of images into pixels, or small bits of color akin to her spools of thread, for easy transport across the internet. Canogar says he started out photographing junk yards and dumps and was drawn to what he calls e-waste-



Daniel Canogar at work on one of his pieces

discarded circuit boards, computer screens, and cables made obsolete by newer technologies. This e-waste had, for him, a poignant resonance with the neural circuitry of the human brain -as well as the larger "brain" of a networked society-recalling all the dreams, hopes, and disappointments it has channeled.

"In a world of excessive consumption," Canogar writes in an email, "it is important for me to try to rescue these materials, give them a new life, and above all, try to release the memories contained within, the energy that once circulated through them."

This fall, visit amnh.org to watch a video of Daniel Canogar collecting materials at a New Jersey dump-site and installing the finished piece in the major new exhibition *Brain: The Inside Story.*