

Genetic advances spark racial profiling • Kids query God's webmaster

science & spirit

your guide to connecting science, religion, and life

september/october 2002
www.Science-Spirit.org

1 million
Westerners
(and counting)
seek Nirvana

Marketers
forecast faith
with 95%
accuracy

Organ
donation:
A chaplain's
diary

MindSight

CONSCIOUSNESS REVOLUTIONIZED

Do our minds move as one?
How sexy are our brains?
Can you paint your soul?

Display through October 31

\$5.49 Canada \$8.49



Artist Alex Grey illustrates veins, viscera, and the divine mind

the Mind's Eyes

IS HUMAN CONSCIOUSNESS AN ACCIDENT OF EVOLUTION OR A GIFT FROM GOD?
THREE RADICAL VIEWS REVEAL ASTONISHING LINKS BETWEEN MATTER AND MIND.

“Consciousness. It blows my mind,” quips theoretical biologist Stuart Kauffman.

“Mind,” intones writer Ambrose Bierce. “A mysterious form of matter secreted by the brain.”

“Zen koan for today: What is the shape of mind?” teases physician and best-selling author Larry Dossey. His answer: “Take two aspirin with a glass of champagne.”

Sometimes it helps to joke about deep, necessary things. And the mind certainly leads that list.

(continued on page 18)

Take your **pick:**

Consciousness is either mind or matter. Today, the study of the mind—the field of consciousness studies, as it's formally known—is exploding. Philosophers now get respectable jobs as experts in the arena, and in Tucson, Arizona, a biennial conference called "Toward a Science of Consciousness" culls researchers from around the world whose papers are then gathered in hardcover volumes that run to eight-hundred pages. And yet no one can define mind. As philosopher Ned Block of New York University puts it: "Consciousness is a mongrel notion."

It's all in the mind's eye.

There are as many different views as there are researchers and theoreticians. Did primordial measureless Mind—such as the mind of God—create matter? Or is mind an intrinsic part of matter, the way charge is intrinsic to an electron? Perhaps mind is a building block of the universe. Any of these views would align you with those who believe consciousness is essential to all that is. Or, to put it in the words of nuclear scientist Elizabeth A. Rauscher, research director at Tecnic Research Laboratory in Arizona: "Physical reality is 'precipitated out' from the field of consciousness and is a small piece of the action, of the whole of existence."

But what if mind is an accidental blossom of evolution? That's a popular view today. Perhaps mind emerged from matter, at first just simple awareness that ultimately unfolded into the gorgeous complexity of human consciousness. Some researchers believe mind is truly just the neural correlate of perception. Others contend it's an

orchestration of neurons synchronizing and firing, *while* we pay attention to the signals. If we don't pay attention, well, never mind—no mind. Or maybe mind emerges through the amplification of information, in which case the physicists might puzzle it out someday. A math formula and—kaboom!—mind? Mind, in these views, is like a rose—infinitely petaled and unique, and no more than one of evolution's many masterpieces, determined by physical laws.

For the mind-as-brain believers, we're in the midst of a revolution. According to cognitive scientist Nancy Kanwisher of Massachusetts Institute of Technology in Cambridge: "Neural correlates of perceptual experience, an exotic and elusive quarry just a few years ago, have suddenly become almost commonplace findings."

We know which parts of the brain get active when we see faces, for instance. We can see which areas of the brain light up or suddenly go silent during profound meditation, thanks to recent research by Andrew Newberg, director of clinical nuclear medicine at the University of Pennsylvania, Philadelphia.

Groundbreaking experiments that use the brain in novel ways now help blind people see: A recent invention by physicist Peter Meijer, a senior scientist at Philips Research Laboratories in Eindhoven, The Netherlands, uses sound to stimulate the visual cortex. A webcam mounted on a blind person's head converts height into pitch and brightness into loudness and, like flipping a switch, the brain converts the sounds into sights.

We've been able to make rats jump, climb, and run by remote control using a tiny webcam hooked to hair-thin wires implanted in different parts of their brains. Call it a computer bridle—but where will it lead? In a few decades, will we still call our mind our own?

What of evolution's role in consciousness? When an international team of anthropologists last summer uncovered "Chad Man," a seven million-year-old skull that appears to be the remains of the oldest human ancestor ever found, *The Wall Street Journal* called it "palaeoanthropology's most important discovery in eighty years." Leading University of California-Berkeley anthropologist Tim D. White was quoted in the *Chicago Tribune* as saying: "We have now sampled human evolution all the way back to the fork, the place where we humans and chimpanzees split off from a common ancestor."

Meanwhile, in the realms of philosophy and theology, confusion and excitement abound. Galvanized by breakthroughs in physics and neuroscience, these thinkers try to grapple with the chasm between the experience of consciousness and the findings of science. "Consciousness is not physical," contends philosopher Christian DeQuincey, author of *Radical Nature: Rediscovering the Soul of Matter* (Invisible Cities Press, 2002). "You can set up experiments that reveal physical traces of neutrinos. But there is no comparable experiment to show where consciousness left a trace. Both religion and science may be wrong about consciousness. From science, we get the notion that our brains and nervous systems

miraculously squirt out consciousness. From religion, we get this special God that infuses our dumb and dead bodies with vital souls." As DeQuincey points out: "At this point all we can say is consciousness is nonlocated. We don't know where it is."

Physicist Freeman Dyson puts it more succinctly: "We know so little about consciousness, we probably need another century or two of research in neurology before we can begin to answer our questions."

Here's what we do know: Mind is mystery.

And mysteries lead us exactly where we want to go: inward or outward, toward God and soul, or toward brain and nerve; to answers that thrill us and then require bigger and better questions.

Here, we journey into the mind with three very different individuals pushing the bounds of consciousness studies: Geoffrey Miller, a scientist who views the mind as an evolutionary marvel stemming from courtship and mating rituals; Dean Radin, a scientist convinced that telepathy, precognition, and global consciousness are signs of an underlying unity between mind and matter; and Alex Grey, an artist who has devoted his life and work to the subject of human consciousness in all its manifestations. —*Jill Neimark*

Both religion and science may be wrong about consciousness.

WONDER - ZENA GAZING AT THE MOON by Alex Grey

1996, acrylic on paper

16 x 20 in.

WONDER (Zena gazing at the Moon) 1996, acrylic on paper, 14 x 18 in.





Painted Love

The preeminent painter of consciousness, artist Alex Grey captures the medical and the mystical in his transcendent images.



One night, when artist Alex Grey was barely twenty years old, he met his future wife and decided to devote his life and art to the subject of consciousness.

From that night on, he has never wavered. Twenty-seven years later, he shares his Brooklyn, New York, home with his wife, Allyson, and their daughter, Zena. And he has amassed a body of work that is transcendent, original, and widely renowned. His remarkable portraits of human beings depict the body and soul as never seen before: In fine and accurate detail, Grey paints the viscera—nerves, organs, blood vessels—as well as a metaphysical anatomy that includes renderings of acupuncture meridians and energy centers called chakras, described in ancient Hindu yogic texts. His paintings span the entire spectrum of consciousness.

The artist himself is unassuming and gentle, in spite of his fame. His Brooklyn loft has high ceilings, polished pine floors, and open space. It's a place that serves as a kind of impromptu gallery for some of his more spectacular and outsized works of art. Along the floor near an easel, one can find painstaking, almost pointillist drawings of pieces of larger paintings he envisions. Floor-to-ceiling bookshelves and a series of budhas in various shades of gold flank the upstairs bedroom.

Grey has been profiled in *The New York Times*, and he has taught artistic anatomy and figure sculpture at New York University. Two best-selling books featuring his work have been published, *Sacred Mirrors: The Visionary Art of Alex Grey* (Inner Traditions, 1990) and *Transfigurations* (Inner Traditions, 2001).

As a young artist, Grey worked several years in a medical school morgue, learning anatomy in the tradition of Leonardo da Vinci and Michelangelo. During that time, he had a series of mystical experiences that inspired him to devote his artwork to consciousness. We sat for several hours at his kitchen table sipping tea while we talked about brain, mind, soul, heart, death, love, and light. —Jill Neimark

Science & Spirit: When you were in art school you decided you wanted to see what a brain looked like, and you ended up working in a morgue from age twenty to twenty-four. What was it like the first time you held a human brain in your hands?

Alex Grey: It was an awesome and bewildering experience. To hold this organ through which another person's whole understanding of life has passed ... there's this terror and awesome energy, the sense of the *mysterium tremendum* of one's own life, and the limitedness of it, and maybe the unlimitedness of it, too. Who are we? What is consciousness? The brain is the crucial lynchpin to the mystery of the mind, and though I don't think we'll ever directly translate neuronal firing into lived experience, there's a direct correspondence between the two.

Anatomy is the box that consciousness comes in.

SeS: One of the most famous stories of the brain is that of Phinneas Gage, a railroad worker in the 1840s who underwent a dramatic change of personality when an iron rod impaled his brain. His story seems proof that who we are is embedded in our brain structure. And yet there seems to be evidence of just the opposite—like the near-death experiences of heart-attack survivors. A study recently published in the *Lancet*

gave strong evidence that at least 5 percent of people have deep, life-changing, near-death experiences.

AG: Oddly enough, the morgue I worked in had the skull of Phinneas Gage! We've known for a long time there's a correlation between brain matter and personality. Look at the effects of lobotomy, or psychotropic drugs. The brain is an incredibly sensitive instrument. But in near-death experiences there's a separation from the receiver or transducer we call the brain. I don't have a problem with that. I don't think consciousness is reduced to the locale of the brain. I would accept bodies when the funeral home would bring them, and sometimes I felt there were beings still hovering around the physical body. I've always been interested in anatomy, because it's the box that consciousness comes in. It's so beautiful in all of its intricate detail.

(Painted Love continues, page 26)

Illustration: "The Artist's Hand" 1997, oil on wood, 16 x 16 in., www.alexgrey.com Photo: Eli Morgan

THE ARTIST'S HAND DETAIL by Alex Grey
1997, oil on wood
16 x 16 in.

(Painted Love, from page 25)

SeS: The intertwining of physical and metaphysical, of body and soul, is boggling.

AG: The only thing we can be certain of is that all our theories are found wanting. The wisest response is to study the anatomical, physiological, and biochemical aspects in depth, as well as to explore the whole spectrum of consciousness. In the morgue I did things like take people's eyes out of their sockets or saw off their hands or heads for donation to research. People don't have these experiences of dismembering the body unless they're in medical school. It gave me incredible respect for the complexity and delicacy of the human anatomy. At the same time I've had experiences where I have seen angels and transdimensional beings. So I paint the physical body and interlace the subtle energy systems from both Eastern and Western occult mystical and medical traditions.

SeS: You've described how one day you prayed, in a kind of desperation, to find God. The next day you met your wife, Allyson.

AG: I was nineteen. I didn't get quite how remarkable it all was. Now I look back on twenty-seven years of an incredible relationship that just keeps getting better every day, and I think, what incredible good fortune. I certainly don't deserve it, when I see so many of my friends struggling with love. I do know that my life is about the nature of consciousness and death as well as the mystery of real love. If love isn't manifesting through your work and relationships, then you're cut off from the essence of what life is.

SeS: What is love?

AG: Love is radiance exhibited through action. There's an infinite ocean of love reducing down to a direct interaction. Love demands us to care and to act, to be agents of love. Art can be one of those actions. There's devotional labor that goes into great works of art that make them a kind of battery of love and awareness, which the sensitive viewer can feel.

SeS: I feel that when looking at your paintings. I'd like to meditate with the one called *Psychic Energy System*. It's extraordinary. Standing in front of it before, I could feel my body responding to it. It seems to be emanating light and energy. Do you mind if I take it home? It's only eight feet tall ...

AG: (laughing) My wife owns it. You'd have to ask her.

SeS: You were about twenty-one when you and your wife took an LSD trip and shared a transcendent vision. Can you describe it?

AG: We were lying in bed, and I found myself in what I call the universal mind lattice: A continuous grid work that was infinite, and each node in that grid was a cell of light, and every being and thing in the physical universe was one of those cells. And they were all both a fountain and a drain of light, both spewing and sucking light. All were linked and I felt loved and in love with all of them, and regarded each one as distinctive and yet in some sense equal. And all of it seemed to be arising from some kind of emptiness. There wasn't anything behind it; it wasn't coming out of anything except spaciousness. I wasn't really prepared for this vision in any way. I hadn't studied mystical literature. And then Allyson told me about her experience, and she'd had the same vision of this omnidirectional

lattice. I might have dismissed it as a really beautiful hallucination, but she described and then drew exactly what I'd experienced. That really convinced me of the reality of transpersonal dimensions. It changed our work. Now we had to make art about that.

SeS: The word *omnidirectional* is interesting. I once had a dream that I was standing on the earth and at the same time looking up at the earth in the sky. And in the dream a man standing next to me said, "You look at the earth from one direction, but she looks at you from all directions. You must learn to look at her omnidirectionally."

AG: There's an incredible tendency in human consciousness to polarize. But in that universal mind lattice everything was beyond good and evil.

Consciousness
is the means
by which
we **access**
our relationship
to **God**. And
yet we can't
reduce God to
consciousness.

SeS: And yet you've said yourself that transcendental experiences can be terrifying and difficult. As Rainer Maria Rilke wrote in the first Duino Elegy, "For beauty is nothing but the beginning of terror, which we are still just able to endure."

AG: Or, like Rabbi Hillel said, "God is not just flowers and songs, God is an earthquake." The spiritual path can be deeply, deeply disturbing, because it brings unsettling perceptions that will break down your limited concepts of who and what you are. For instance, maybe there are orders of reality beyond consciousness, but it's the best tool we've got to figure things out. Consciousness is the means by which we access our relationship to God. And yet we can't reduce God to consciousness. We are like waves emanating from God, but waves of flesh. Here we come, God! Here we come, embedded in these very fragile and forgetful forms, wondering what the whole experience is about.

SeS: And painting wonderful paintings about that wonder. ©