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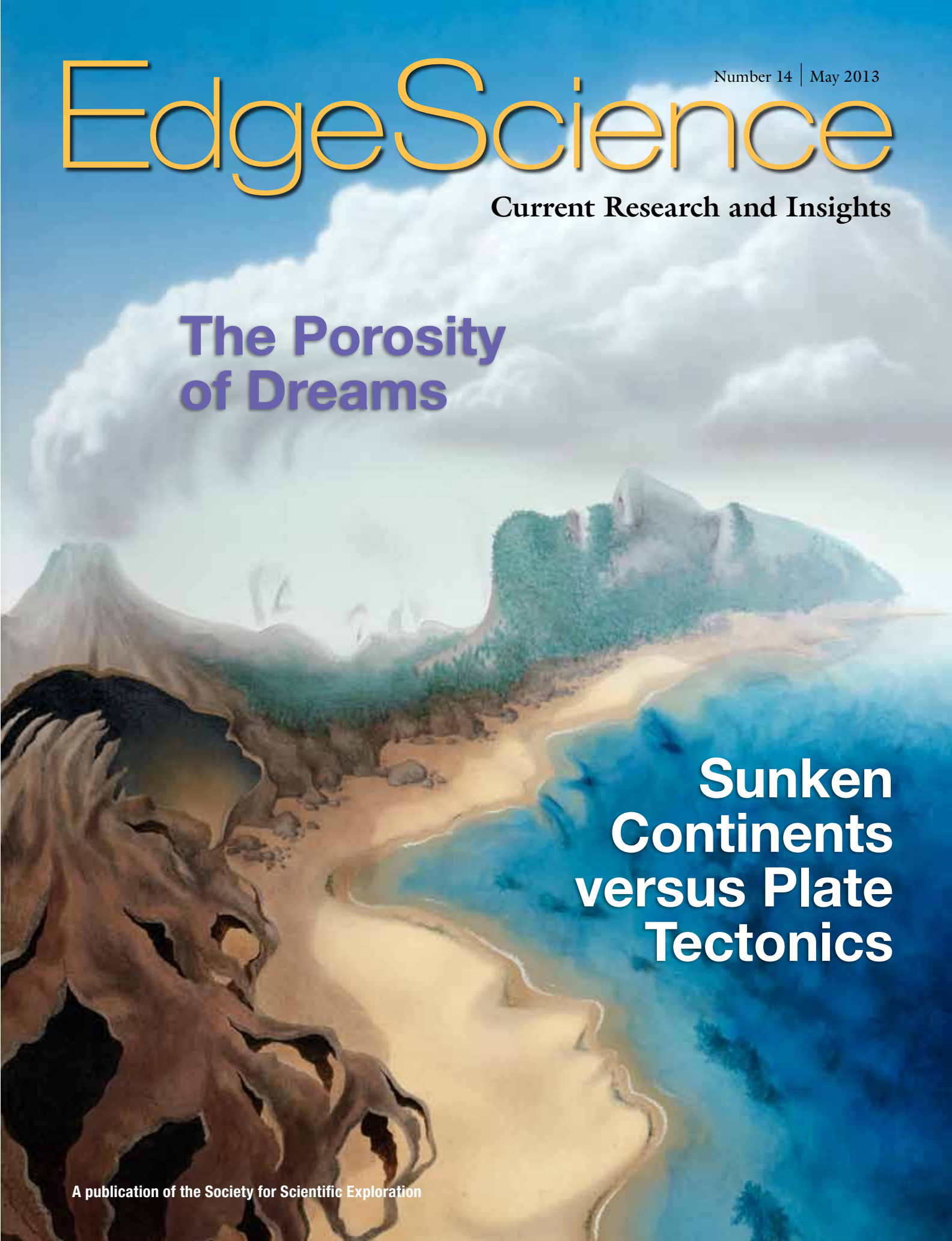
EdgeScience

Current Research and Insights

The Porosity of Dreams

Sunken Continents versus Plate Tectonics



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Why EdgeScience? Because, contrary to public perception, scientific knowledge is still full of unknowns. What remains to be discovered—what we don't know—very likely dwarfs what we do know. And what we think we know may not be entirely correct or fully understood. Anomalies, which researchers tend to sweep under the rug, should be actively pursued as clues to potential breakthroughs and new directions in science.

The Society for Scientific Exploration (SSE) is a professional organization of scientists and scholars who study unusual and unexplained phenomena. The primary goal of the Society is to provide a professional forum for presentations, criticism, and debate concerning topics which are for various reasons ignored or studied inadequately within mainstream science. A secondary goal is to promote improved understanding of those factors that unnecessarily limit the scope of scientific inquiry, such as sociological constraints, restrictive world views, hidden theoretical assumptions, and the temptation to convert prevailing theory into prevailing dogma. Topics under investigation cover a wide spectrum. At one end are apparent anomalies in well established disciplines. At the other, we find paradoxical phenomena that belong to no established discipline and therefore may offer the greatest potential for scientific advance and the expansion of human knowledge. The SSE was founded in 1982 and has approximately 800 members in 45 countries worldwide. The Society also publishes the peer-reviewed *Journal of Scientific Exploration,* and holds annual meetings in the U.S. and biennial meetings in Europe. Associate and student memberships are available to the public. To join the Society, or for more information, visit the website at scientificexploration.org.

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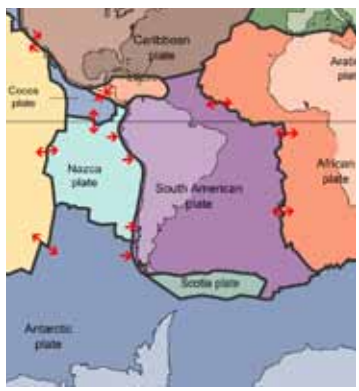


Cover art: "Surreal faces in a virtual landscape" by Prill Mediendesign & Fotografie/istockphoto

Loyd Auerbach

Harnessing the “Paranormal Community”

As many you are no doubt aware (and just as many, blithely unaware), the expansion of cable television’s channels and hours to fill has created a niche called “paranormal reality television.” These shows include the many variations of “ghost hunting,” variations on the “ghostly encounters recreations” idea, and variations on shows with psychics and mediums looking for ghosts, doing readings for people, or seemingly working on criminal and missing persons/objects cases. While the other themes have some popularity, it’s the ghost hunting themed shows that have created a cottage industry, a “paranormal community,” and a claimed “paranormal field.”

While there were television shows that featured individuals and groups conducting field investigations of haunted places for decades, and individuals and groups outside the field of parapsychology—both knowledgeable amateurs and hobbyists—it was *Ghost Hunters* on Syfy (formerly the SciFi Channel) and its imitators that essentially changed the game. By centering a show on a group fronted by average guys, two plumbers from Rhode Island with no academic training, and some equipment primarily used even in the context of field investigations by researchers for gathering data on environmental conditions, the show made ghost hunting seem to be something *anybody* could do. Simply by purchasing some equipment, one could go into a reportedly haunted house—or as things went on, apparently any old or spooky-looking site— and get “evidence” of the “paranormal,” provided of course you did things the way the TAPS (The Atlantic Paranormal Society) guys did.

Television Reality

The success of the show from a ratings perspective led to other networks, and even Syfy itself, to create similar shows. Some did well, others not. Fans of *Ghost Hunters* contributed to the ratings of the other shows, though as with anything else, fans developed their favorites, usually based on the personalities of the “team” on the show rather than how well (or poorly) the show depicted the subject matter or any reasonable methodology. Of course, even if the investigators (a.k.a. on-screen “talent”) did have any academic background in the subject, for the most part what one sees on the screen is under the control (and editing) of the producers. In other words, the methods shown on-screen may even be different from what the TV investigators would use off-camera. Different methods or not, they’re generally signed to such an iron-clad non-disclosure agreement that they cannot publicly dispute what is shown on TV or admit to any fakery that the producers might do. Because of this, the fans (and less fanatical viewers) generally accept what they see as the “reality” of the subject matter.

These shows have taught viewers the apparent lessons that ghosts mainly appear at night, and that working in complete darkness is your best bet for gathering evidence. They present the idea that an “investigation” is composed of an overnight stay in a place rumored to be haunted, regardless of whether there were any witnesses to phenomena or any people having experiences, and gathering evidence is about what the equipment, including digital recorders (for potential electronic voice phenomena) and cameras (for odd light, i.e.“orbs”), pick up. They often present the idea that activity is sometimes the result of “nonhuman entities,” elementals, and demons/demonic entities, though not all the teams/individuals present this front.

Across the shows, one other thing has been presented: that the methodologies portrayed on the shows are “scientific,” unless of course one uses psychics/mediums in addition to/instead of the various pieces of electronic technology (from EMF meters to “spirit boxes” to digital recorders to thermalvision cameras). Apparently, there’s no room for a psychic or medium in the “scientific” methodologies of many of these groups.

With this as a given, and the simplistic portrayal of “methodologies” in the shows, it’s no wonder people began mimicking what they saw on television. People already interested in ghosts and hauntings began starting local groups composed of like-minded fans of the shows. The “orb” pictures they often got (though mainly camera flash-related) were enough to whet the appetite for the paranormally-interested. The very idea of ghost hunting was thrilling to many, and the process of sitting in the dark waiting for something to happen added more thrills, as did the often normally-caused perturbations in the environmental sensors and apparently unexplained noises on recorders that could be interpreted in different ways.

Everyone Can Do It

But as people decided that they could do just as well as the guys on *Ghost Hunters* or *Paranormal State,* egos emerged in various groups around the country. Cities and towns with one or two groups found those groups splintering, as members disagreed with variations on the equipment or psychic or demonic themes. Each new group put out the word to find new members, and the number of groups and individuals involved in ghost hunting grew exponentially. The growth of social media added to the impact of websites devoted to the shows, and the numbers grew even more.

As with the early *Star Trek* fans, some savvy individuals saw an opportunity to get fans of the shows together and even give them an “investigation” in some of the many locations featured on the shows, visited by the TV ghost hunters (these days, called “paranormal celebrities” or “para-celebs” for

(continued on page 18)

‘LETTERS’

On “The Boggle Factor”

Bill Bengston (“The Boggle Factor” in *EdgeScience* #12) raises many points deserving of much further discussion. Rather than attempt to write that book, though, I’ll just briefly remark on some of those points. I also recommend the Introduction to Jerry Clark’s recent book, *Unexplained* (reviewed in JSE 26 #4), which “reflects Clark’s considered judgments,… wisdom acquired over decades of grappling with reports and other evidence about matters that most of mainstream science and scholarship find too difficult to handle”—in other words, the Boggle Factor at work.

Bill asks: What more would he need to do?

It depends on what sort of response he wants. Does he want people to believe that his experiences are exactly as reported, but to do no more than believe? What good would that do, and how would he or anyone else ever know?

This raises a distinction that applies to anomalous claims quite generally, the distinction between accepting—as information, in the abstract—that the evidence underlying the claims is factual, by contrast to taking actions that presume the anomalous claims to be unquestionably true. Applied to Bill’s situation, the latter would imply that if we are diagnosed with cancer, we should call for Bill Bengston instead of other alternative treatment or mainstream treatment. Anything short of that implies the “too much” Boggle Factor, doesn’t it?

This sort of distinction, I’ve suggested elsewhere, explains some of the reaction by the mainstream to anomalies. For instance, I think the evidence is strong that Loch Ness harbors an unidentified species whose identification would be of considerable import—but it would be ill-advised for a career zoologist to try to learn about Nessies, because there’s no obvious way to get more information within any foreseeable period of time. So, overall, quite a few career scientists privately entertain the reality of all sorts of anomalies without doing anything about it. I have to be satisfied with people saying about my Nessie claims, “Interesting. Hope we can learn more some time.”

An additional, strictly practical reason for doing nothing more than suspend belief, accepting the claims as plausible, as abstract information, is that most of us have our hands full—often more than full—with our own pursuits. We’re typically too busy to take a really serious interest—i.e. an active, participating interest—in other matters. Over the years I’ve felt unhappy, indeed guilty on quite a few occasions, when I’ve been asked to comment on someone else’s work on a subject I know nothing about, and have declined simply because I don’t want to take the time away from the long list of my “top priorities” that always seems to get longer rather than shorter.

Over HIV/AIDS, I experienced the same sort of frustration as Bill describes. After I had been led by sheer curiosity into collating all available results of HIV tests, and found that this shows beyond any doubt that what the tests detect is not an infectious agent and is not correlated with AIDS, I thought that the people who were already criticizing HIV/AIDS theory would build on my findings and cite my work all over the place. But it didn’t happen, not even among those who are quite active in arguing and campaigning against HIV/AIDS theory. Everyone has his or her own pet disproof of the theory. I suspect that Bill’s frustration may stem chiefly from the lack of active response from the many people and groups who might be expected to take up his initiatives, people and groups who have worked and are working on things like therapeutic touch and other mind- or soul-body interactions.

That some Society for Scientific Exploration (SSE) conference presentations can strike one as “too much” reminds me of my first reading of Tim Dinsdale’s *Loch Ness Monster*. It all seemed quite believable—until there came a chapter claiming similar “monsters” were extant in lakes and oceans all over the world. “Too much,” I said to myself. Some time later I woke up to the fact that if Nessies exist, it’s much more likely that their cousins exist in other places than that they can be found only in one lake. So too with probable reactions to my *Dogmatism in Science and Medicine*: Hard enough to believe that science could be wrong about HIV/AIDS, let alone that it’s wrong also about global warming, the Big Bang, dinosaur extinction, and all the other topics covered in the book. But: it’s much more likely that something has gone wrong with science as a whole, than that a properly functioning science could make and maintain such a colossal mistake as HIV/AIDS theory. So one reason that Bill’s work is “too much” is that it implies that the worldview that’s ingrained in most of us is misleading in some very fundamental and important manner. One can’t accept and act on that acceptance without changing one’s approach on many other things as well. (For more on what’s wrong with science, and the popular mistaken view of science, see *Dogmatism in Science and Medicine* and my new blog intended as continuing commentary on those topics, beginning with “A politically liberal global-warming skeptic?” at http://wp.me/p2VG42-e.)

Bill’s essay is at root about how we come to believe something and how we might change our mind about something. Working on my first “anomalies” case-study, I realized that the usual rhetorical dismissing of an anomaly—“How could anyone believe that?”—is a fundamentally wrong question.

Humans are brought up and trained to believe what we're told. The correct and interesting question is: how do some of us ever manage to start thinking for ourselves on the basis of evidence and experience? (See *Beyond Velikovsky: The History of a Public Controversy,* especially chapter 11, "Motives for believing", and chapter 12, "Accomplices to belief.") Some years ago John Brockman published *What Have You Changed Your Mind About? Today's Leading Minds Rethink Everything,* and a reviewer noted that the self-described mind-changes were only minor ones, not the sort of paradigm shift that anomalists dream about.

What I've found most conducive to mind-changing is when friends, people I'm comfortable with, disagree with me about something I believe or take seriously something that I've hitherto dismissed. I've gained immeasurably through interactions in the SSE for that reason, recognizing flaws in my arguments and coming to appreciate all sorts of other things because their proponents are respected and valued colleagues.

—Henry Bauer
Blacksburg, Virginia

As much as I look forward to reading the excellent *EdgeScience* publication, I have serious reservations about the positive portrayal of the HIV denialist argument from the editorial of Prof. Bill Bengston. Associating the excellent frontier research that is regularly featured in *EdgeScience* with subject matter that is not only demonstrably false, but leads to early death in those adherents who eschew modern anti-viral treatment, is an editorial oversight and could damage mainstream interest in psi and related consciousness research.

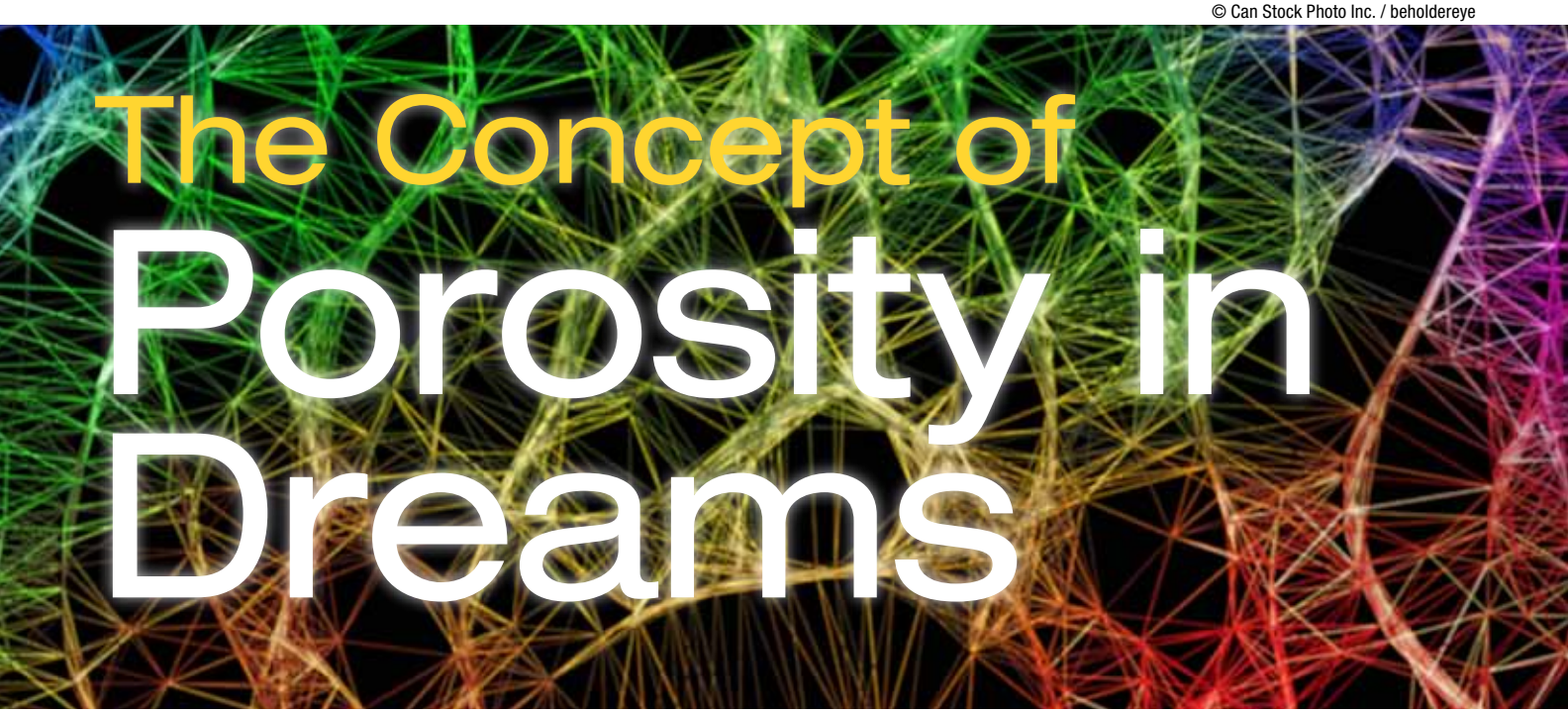
From my work recently, I can testify to the growing—albeit cautious—interest in psi from mainstream scientists. For example, a German group not previously connected with psi research is about to report a series of mostly successful studies replicating Daryl Bem's retroactive facilitation work. At such an auspicious time for parapsychology, it would be prudent not to give the pseudo-skeptics ammunition by allowing them to tarnish the field by associating it with the outlandish claims espoused by the HIV denialists.

—Michael Duggan
Birmingham, U.K.

Bill Bengston replies: The portrayal of Henry Bauer in simplistic terms as an "HIV denialist" serves to reinforce one of the points in my piece on the "Boggle Factor." My point was not to espouse or deny any particular area of anomalies research, but rather to indicate that we all have "buttons," and these buttons are not necessarily based upon the quality of the data. When our boggle threshold is reached, we tend towards emotional overreaction that ought to be outside the bounds of scientific discourse.

I stand by my original statement that Henry is a world-class scholar and intellect. Whether he is correct about the lack of association between HIV and AIDS is presently beyond my capacity to seriously judge. I am, however, grateful that he continues to push my buttons.

Robert L. Van de Castle



The Concept of Porosity in Dreams

My lifelong pursuit of dreams began rather reluctantly. After receiving my PhD degree in clinical psychology from the University of North Carolina, I took a full-time teaching position at the University of Denver. In addition to some undergraduate courses, I was also supposed to teach an open-ended graduate clinical course on some area of interest that would appeal to the eight or so students enrolled. When I inquired as to what topic they might wish to learn more about, they almost, to a person, said "dreams." I explained to them that I knew practically nothing about dreams as it was a topic hardly ever mentioned in any of my own previous classes. I asked them to suggest another topic, but they insisted that they wanted to learn about dreams. I again explained my ignorance about dreams, and they again demanded that dreams become the topic of focus for the course. We wound up as the "blind leading the blind." We agreed to read various journal articles on dreams and exchange our notes during class meetings. Everyone's interest seemed to subsequently "leap frog" in ways that were meaningful for each student. Since I had developed an interest in projective techniques previously (Rorschach Ink Blots etc.), I began to appreciate the similarities between interpreting the ambiguous images of inkblots with eyes wide open, and the dream images we develop with our eyes closed while sleeping.

During this time, I frequently came across references to Calvin Hall and his "continuity theory" of dreaming. Briefly stated, he proposed that dream images are "the embodiment of thoughts" and that by examining their content, one could become familiar with the important conceptual areas that organized one's life. He wrote a valuable book in 1953 entitled *The Meaning of Dreams* that offered comments on over 200 dreams. I became interested in his work and contacted him to inquire as to whether there might be any possibilities for working with him. He said he was just beginning a new study and would be happy to hire me if his proposed $7,000 annual salary were acceptable to me. Although I was married and had five sons, I was willing to make any sacrifice necessary to join him on the exciting projects that would be forthcoming.

In the two years that I spent with Hall in Miami, we worked together on developing an elaborate system for scoring up dreams in a quantitative fashion that would enable objective techniques to be employed with dreams so that they would receive the scientific respectability that they deserved. We utilized the scoring system we developed to objectively evaluate 500 dreams from American male college students and 500 dreams from American female college students. These results provided the baselines for what type of dream content might be found for any sample of dreamers. We published our "norms", and our rationale for how they were developed, in our 1966 book, *The Content Analysis of Dreams.* Our system became the most widely used one in the world for researchers who wished to treat dreams in the same objective way as other researchers employed standardized personality tests.

In addition to our work on developing dream "norms," our main project at the Institute of Dream Research focused upon comparing dream content from the same subjects when sleeping in their own beds at home and in our laboratory (actually the basement of Hall's home). We both served in the roles of experimenter and subject for this research. In one chapter of an unpublished book entitled *The Scientific Study of Dreams,* Hall described his efforts to investigate "the effects of subliminal stimuli on dreams" and admitted that "when the experiments were begun I was skeptical of obtaining positive results.... These personal observations are pertinent because

investigators of psychic phenomena have been accused of finding what they want to find, and of not being sufficiently critical of their experiments."

Hall had not told me he was starting to seriously investigate this area and use me as a subject. On one of the nights when I served as the sleeping subject, Hall reported: "the first two presentations with Van de Castle did not have any discernible effect on the dreams he reported. The third topic consisted of watching a prizefight. The experimenter visualized a prize fight mentally, looked at pictures of prize fighters in a magazine, wrote out the message: 'you are watching a prize fight,' and stood up and engaged in shadowboxing. These activities were continued for about 15 minutes. When the subject was awakened, he reported a long dream into the tape recorder. The first third of the dream was sexual in character, then the following episode was recorded: 'this setting shifted to a large auditorium and it was a boxing match going on. There were two young lightweight boxers who were fighting and one of them was doing much better than the other. It seems his opponent became vanquished and then another lightweight contender got into the ring with him. This new contender now started to give a pretty savage beating to the other boxer who at one point kind of started to use a double punch where both hands would be brought from the outside and would simultaneously hit the other boxer's head at the same time. My sentiments began to be for the underdog, and I remember standing up and throwing a few imaginary punches myself because I was so involved with the action in the ring.'" Hall then wrote: "The description of the fight continued for nine more lines, and then shifted back to the theme of the first part of the dream."

Although I experienced this dream back in 1967, I can still recall the vividness and intensity of that dream 46 years later. It served as my *personal* introduction to the reality of psychic phenomena, even though I had a broad previous reading background on the subject. For persons experiencing this kind of impactful dream, no amount of skepticism by omniscient scientists can ever dissuade an experiencer of this kind of powerful psychic event that they were deluded. If you get hit by a truck, you know that you were hit by a truck, and no amount of critical comments by "the arbiters of reality" will ever convince you that the truck that hit you was an imaginary truck. Hall mentioned: "we obtained 97 dreams from that subject who had dreamed of a prize fight when that topic was sent. There was no mention of a boxing match in any of his other 97 dreams."

In commenting about the boxing dream, Hall stated: "Several things will be noted about the incorporation into the dream of the topic. First it was a very direct reproduction of what the experimenter was thinking about and pantomiming. Second, the boxing episode was inserted into the dream and appeared to have no connection with what went before and what followed it. This inserted quality is also what one finds when a sleeping person is stimulated by a sound, light, or drops of water. It appears that the subject received the message in the middle of a dream which was interrupted in order to incorporate the subliminal stimulus and then return to the main dream again. Third, the subject's personal involvement in the action by standing up and throwing a few imaginary punches may have reflected the experimenter's rather spirited but silent pantomiming in the next room." Hall also conducted similar attempts with five other subjects with whom a total of 121 presentations of stimulus material were made. In 56 of these presentations, some correspondence was noted between the material that was sent and the contents of the dream that was subsequently reported. (Some examples of these correspondences can be found in my book *Our Dreaming Mind,* page 418.)

Hall also extended his explorations in another direction. "Sometimes, the sleep of two subjects was monitored on the same night. The subjects slept in separate rooms which were located on either side of the room in which the EEG was located. Occasionally, the two subjects would have REM periods close together in time, and in two instances a striking congruence between the dreams reported by the subjects from these REM periods was noted.… Subject A dreamed of receiving a special delivery letter and subject B dreamed his sister was writing a letter which was to be sent at a special rate. On another occasion, subject B dreamed of going into a store to buy something.… Subject C reported a dream in which he went into a store to buy something."

The most startling example of dream to dream temporal correspondences between two subjects was reported by Alan Rechtschaffen, professor emeritus in the Department of Psychiatry and Psychology at the University of Chicago and a noted pioneer in the field of sleep research. He was invited to present an experimental design for a 1968 conference sponsored by the Parapsychology Foundation on "Methodology in Psi Research." After conducting some informal research, he said: "We noted a good deal of correspondence, quite anecdotally, between dreams occurring about the same time in the night by two sleepers."

Here was how he described his best example:

> In the first dream, one subject dreamt about students singing in Russian and the other subject dreamt about students doing some kind of interpretive singing. In the second dream, the first subject was taking a violin lesson and the other subject was learning a guitar melody. In the third dream, the first subject was watching a James Cagney gangster movie, and the other subject reported a dream about a recent gangster movie, *Bonnie and Clyde*… As the subjects knew each other, the possibility of collusion, which we really doubt, could not be ruled out. So we had to go on and introduce experimentally an external stimulus into the dream. We did this by post-hypnotic suggestion. Before the subject went to sleep for the night, he was hypnotized, and while he was in a trance we told him that during the night he would have a certain dream.
>
> The very first night we tried it, we told the subject that he would dream of the death of Martin Luther King and of the fear of riots, and he dreamt that Martin Luther King had been shot, that somebody

threw a rock and they were afraid a riot would start. The other subject, who had not received any suggestion, dreamt of a Negro policeman who was beating another man and he was afraid that somebody would throw a brick and start a riot.

On another night we told the subject to dream that he was in an amusement park, having a very good time. He dreamt that, and specifically he dreamt about riding on a merry-go-round. The other subject had a dream of people laughing and running in circles and there were "grinning, funny looking horses" in his dream.

Rechtschaffen then decided to use hypnosis to investigate the possibility of inducing simultaneous dreams. He would hypnotize subject A and tell him to dream for 10 minutes about topic X. He would then hypnotize subject B and tell him to dream about what A had dreamt. He reported some very striking correspondences between these hypnotically induced dreams. He subsequently raised this intriguing question: "We thought that maybe the question is not so much what do dreams mean, but whose dream are you having?"

My first impressive personal introduction to the realm of "entangled dreams" and the question of whose dream are you having, occurred when I conducted an informal experiment from my home in Charlottesville, Virginia. I was a co-editor for the *Dream Network Bulletin* and announced to readers that I would concentrate on a picture on the night of November 17, 1985, and invited them to send me accounts of their dreams from that night. A total of 27 percipients from around the country responded to my request.

The target picture involved a black-and-white photograph of a Kuna Indian woman from Panama standing in front of a house with slanted, wooden walls, and a thatched roof with some children inside (at left). The participants reported numerous correspondences to the target picture, such as mentioning a short sleeve blouse, unusual ankle jewelry, foreign locations, and children. One woman, Claudia B, who was from Brooklyn and who was a complete stranger to me, mentioned her young daughter, hands on a structure of beams and poles, wooden sliding doors and a building with an unusual looking roof. In my associations recorded that night to the target picture, I had written that a thatched roof provides good protection from the rain. Claudia mentioned she heard rain falling and realized that she didn't have an umbrella. I recalled 4 dreams that night and there were striking correspondences between my dreams and Claudia's dreams throughout the night.

My first dream involved a fishing scene: "I was sometimes on a boat and sometimes on shore. The man I was with caught two large flounder, and a woman insisted that I put them on top of the boat and gut them. I attempted to cut the fish open with a razor blade. Some blood came out; the fish's face turned into a man's face and he was bleeding. I told him to rinse his face with water and said I would need his advice as to how to cut around his ears and nose." In her first dream, Claudia reported, "I am outdoors, perhaps on the deck of the ship… mounting the fresh, whole wet skin of a small whale or whale's head (fish size) on a board. After removing one eye (it's a side view) with the knife I'm using, I hear a conversation… (This could be influenced by a recent waking experience of washing flounder for cooking, but not removing their heads.) I feel a kinship, or sympathy, with the whale, which at some point transforms into a person. The wet, stretched, mounted skin is now of a man's face, reddish-brown."

The odds against two complete strangers on the same night, geographically separated by 500 miles, dreaming about a boat, cutting open a fish and having the face of the fish turn into a bloody man's face are astronomical, and that both dreamers specifically mentioned flounder seems to argue against any notion that the correspondences are a chance occurrence. Rechtschaffen had noted that, "When you simply have judges match a dream against a suggested topic, a hit does not reveal the degree of the hit. A simple matching procedure does not take into account the very unlikely probability of such a specific occurrence." Although not as striking in matching details, another female dreamer saw an "animal face and an animal with an open wound that I wanted to sew up or

heal before too much blood was lost."

My next dream involved providing drinks that cost $0.41 each. Claudia reported that she offered to count another person's share and wrote down figures which were an "odd amount of dollars and cents." My next dream involved a mother dividing a cake into two portions, and in Claudia's second dream, her daughter was with her and asked the others to count out a share with "equal denominations." In our next dreams, both Claudia and I dreamed about students and working on a project.

Dreamers other than Claudia also seemed to tune into various features mentioned in my first dream. There were references to: a water setting, an ocean, ocean trip, sea, river, yacht, boat (2x), oars for a rowboat, fishing, and fish hooks. There is no material in the target image that bears any relationship to any of this shared dream material, but it does seem as if some sort of content leakage or seeping in imagery occurs between and among the dreamers. In my fourth dream, I was using a hose to water down a pile of leaves. Two of the nine male dreamers reported urinating in their dreams, and one woman dreamt that something like tea was being splashed or dripped on the rippled pages of a magazine.

I have come up with the term "porosity" to describe how the material of multiple dreamers' dreams seems to interconnect in rather fluid ways. There has been a great deal of research conducted recently on the concept of "thin boundaries" and the term "porosity" seems relevant to this concept. I think the title illustration at the beginning of this article captures this conception of everything sort of being interconnected with everything else.

The results I obtained with Hall led to my serving as a subject for eight nights in the dream telepathy studies carried out at Maimonides Hospital in Brooklyn. I had EEG electrodes attached to my face and scalp to monitor my REM periods, and was repeatedly awakened throughout the night to report my dreams. A typical night's transcription would run to over 25 single-spaced pages. A total of eight potential target pictures, consisting of colored art prints, served as target stimuli. Since there were often similarly themed pictures present because of the randomization procedure to select target pictures each night, a decision was made to consider all my judging choices that were ranked as number 1-4 as "hits" and those ranked 5-8 as "misses." Using that criterion, I received a total of 8 "hits" during my nights at Maimonides and such a result would be considered as statistically significant (<.01). I also frequently tuned into personal material that pertained to the senders' private lives, as well as to that of the experimenters and other laboratory personnel. Thus, the concept of porosity seemed to be applicable in numerous situations.

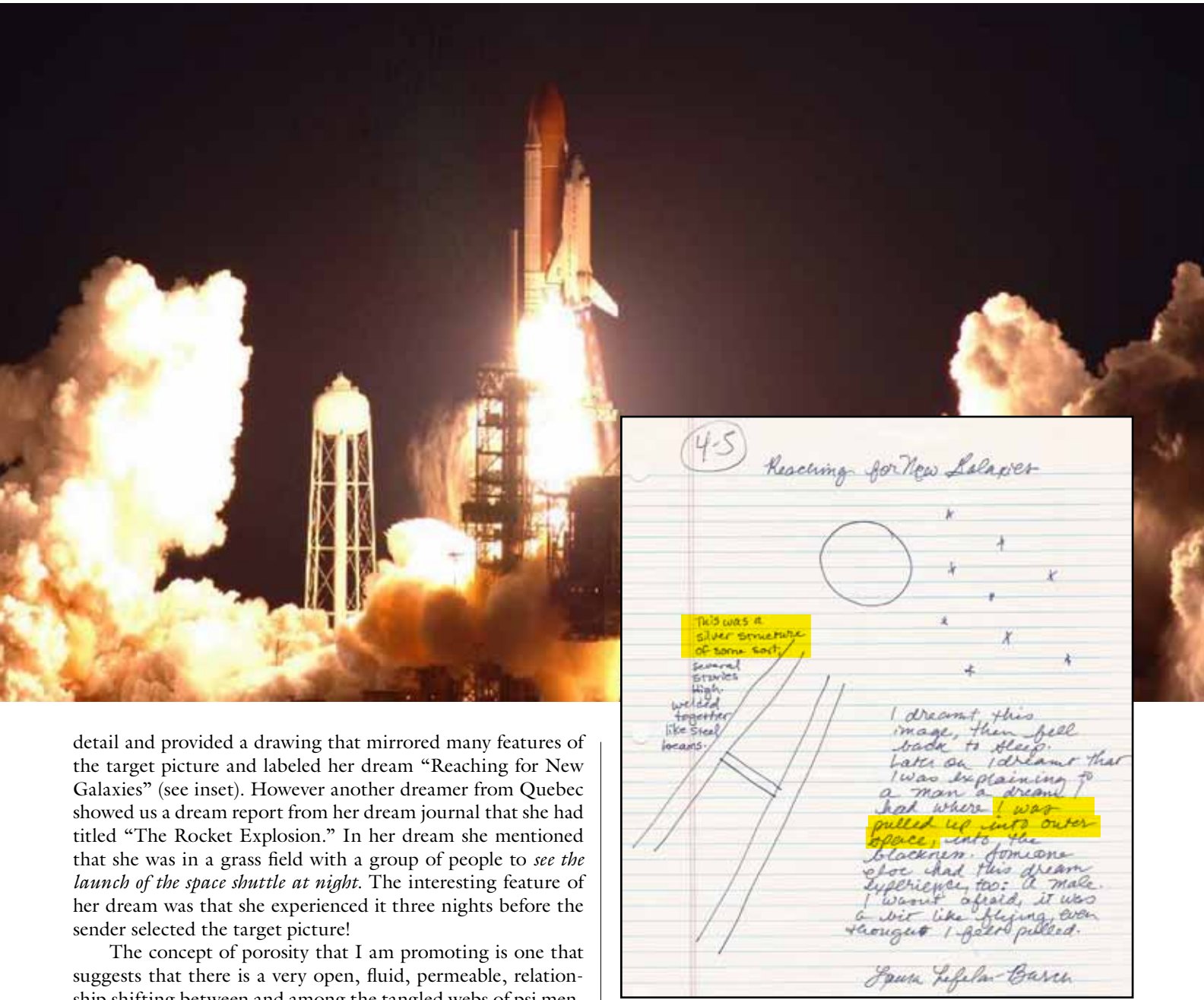
At the second meeting of the Association for the Study of Dreams in Charlottesville in 1984, I introduced the concept of a "Dream Telepathy Contest" which was loosely based on the Maimonides protocol. I did this to provide the dreamers attending the conference an informal introduction to the concept of psychic dreams, but to do so in an informal context that would be associated with the feeling of fun and relaxation. Encouraging results were obtained during that year and in every year that has been subsequently held. These conditions were very informal and not intended to convey any sense of rigorous experimentation.

If you get hit by a truck, you know that you were hit by a truck, and no amount of critical comments by "the arbiters of reality" will ever convince you that the truck that hit you was an imaginary truck.

The basic paradigm involved selecting four different potential target pictures that differed in the type of background setting, activities being displayed, and emotions that were presumably associated with the content of the stimulus materials. Each picture was sealed up in an opaque manila envelope. These four sealed envelopes were presented to the "agent" or "sender" who then selected one of them to take back to their hotel room and open it up in that private setting, and begin to "send" or "transmit" the imagery shown on the target picture to the participants. On the following morning, the four different pictures were posted and contestants had to determine which choice best represented their guess as to what had been the target picture. We always got impressive results, which were published in our quarterly newsletter describing the events of the conference.

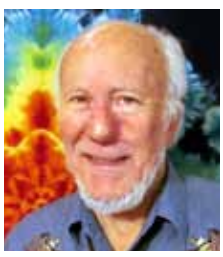
A detailed description of our procedure for the 2009 conference held in Chicago was reported in *Explore: The Journal of Science and Healing,* edited by Larry Dossey. The article shows the sometimes striking correspondences that occur between contestants' dreams and the contents of the four pictures utilized in the contest. The category of psi includes several different psychic phenomena. The term "telepathy" is used to describe a "mind to mind" interaction, the concept of "clairvoyance" to designate a "mind to object interaction," and the term "precognition" to describe accurate information that will become demonstrated at a future time. It becomes an extremely difficult task to try and develop a "pure or uncontaminated" state of psi involving mental imagery.

Although the agent (sender) is actively attempting to telepathically "transmit" the visible contents of the target picture to the "receivers," it is possible that the participants could also tune clairvoyantly into the content of the material contained in the other pictures. It is also possible that the dreamer could go "forward in time" and dream about the content of the eventual target picture which will be shown on the following morning. We had a striking example of this at the Chicago conference with a target picture involving the nighttime launch of a space shuttle (next page). One female psychotherapist from New Jersey picked up the contents of the picture in striking



detail and provided a drawing that mirrored many features of the target picture and labeled her dream "Reaching for New Galaxies" (see inset). However another dreamer from Quebec showed us a dream report from her dream journal that she had titled "The Rocket Explosion." In her dream she mentioned that she was in a grass field with a group of people to *see the launch of the space shuttle at night*. The interesting feature of her dream was that she experienced it three nights before the sender selected the target picture!

The concept of porosity that I am promoting is one that suggests that there is a very open, fluid, permeable, relationship shifting between and among the tangled webs of psi mental imagery associated with the state of dreaming.



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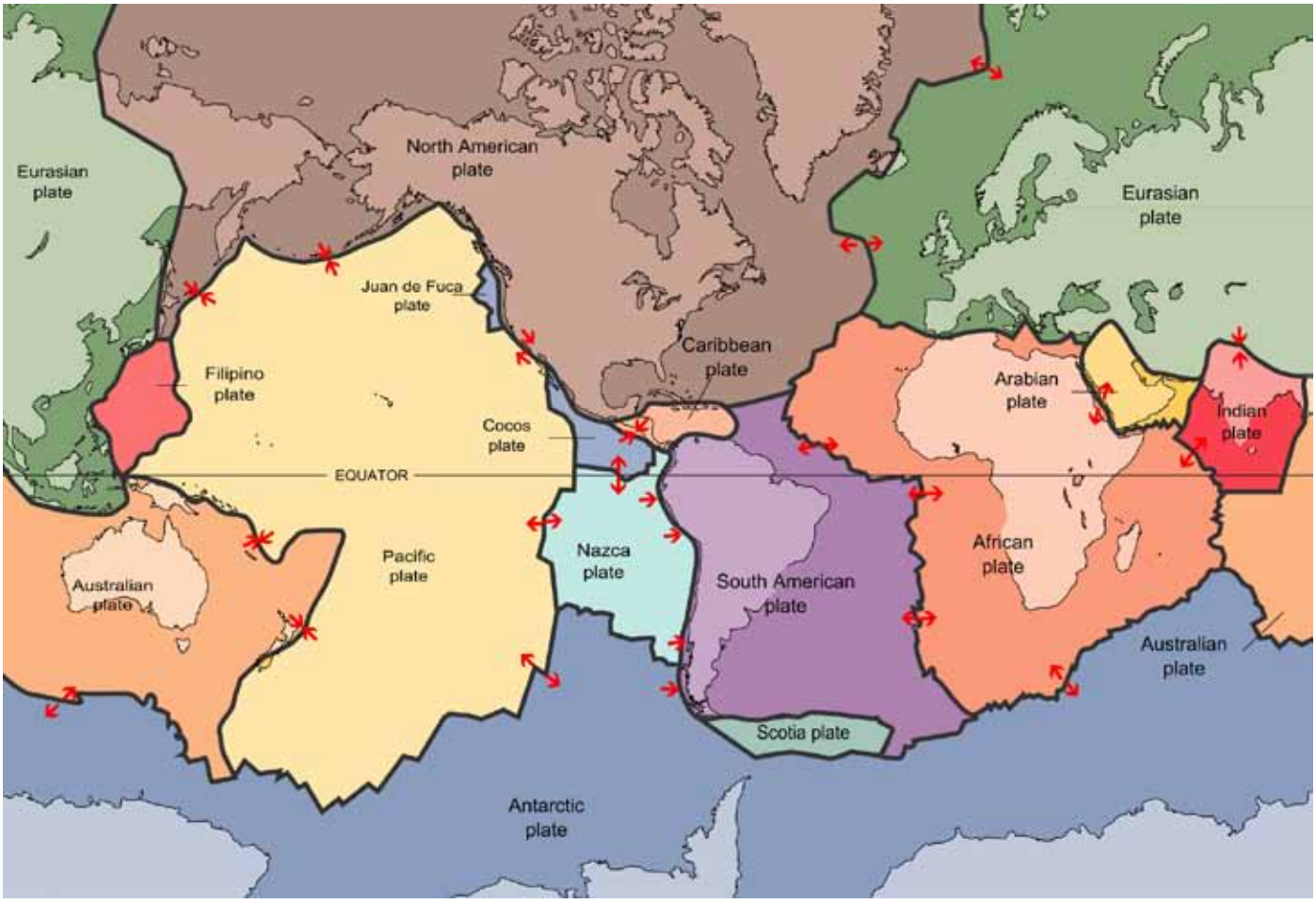
David Pratt

Sunken Continents versus Plate Tectonics

The idea of continental drift has been around for more than 200 years, but the first detailed theory was put forward by Alfred Wegener in 1912. It generated heated debate and met with widespread rejection. Interest in continental drift was revived in the early 1950s with the rise of the new science of paleomagnetism, the study of the magnetism of ancient rocks. In the early 1960s new data from ocean exploration led to the idea of seafloor spreading, and within a few years these and other concepts were synthesized into the model of plate tectonics, which quickly became the new orthodoxy.

According to plate tectonics, the earth's outermost layer, or lithosphere, is divided into several "plates" that move over an underlying plastic layer known as the asthenosphere. Plates cause mountains to rise where they push together, and continents to fracture and oceans to form where they rift apart. At the end of the Permian, some 250 million years ago, all the present continents are believed to have been gathered together in a single supercontinent, Pangaea, consisting of Laurasia in the north and Gondwana in the south, which began fragmenting some 180 million years ago. Plate tectonics claims that virtually the entire ocean crust must be younger than this age, because the ocean lithosphere is constantly being generated at



The key principle of plate tectonics is that the lithosphere exists as separate and distinct tectonic plates, which float on the fluid-like asthenosphere that allows the plates to move in different directions. Credit: USGS

"spreading ridges" and consumed in "subduction zones." Yet a mass of data contradict this fundamental claim.

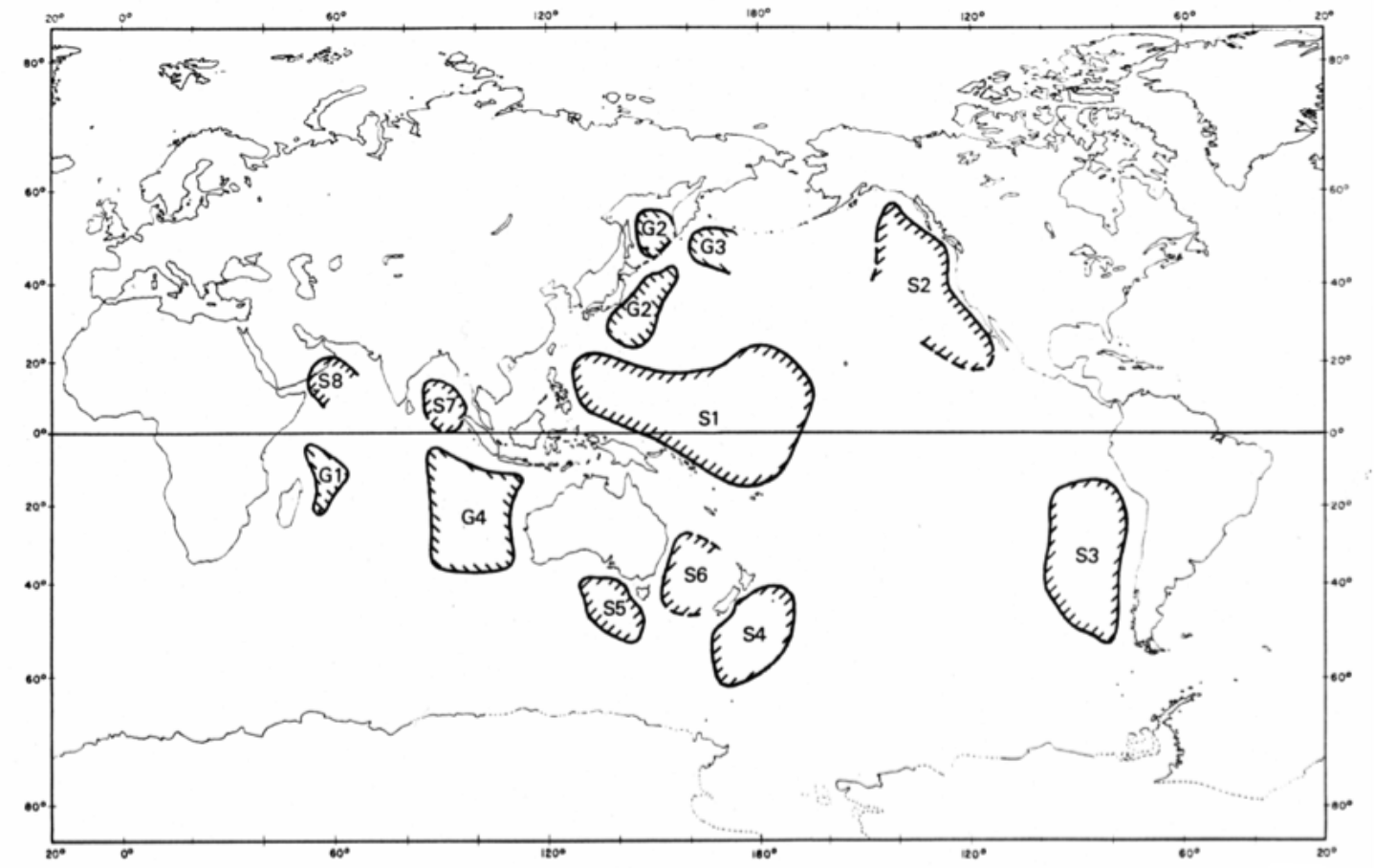
How old is the seafloor?

There have been numerous finds in the Atlantic, Pacific, and Indian Oceans of rocks far older than 180 million years (Ma), many of them continental in nature. This evidence refutes plate-tectonic reconstructions of continents drifting thousands of miles around the earth's surface. It also refutes earth-expansionist claims that the areas occupied by the present oceans did not exist 180 million years ago (in the Jurassic period of the Mesozoic era), when the earth was supposedly much smaller. Plate tectonicists occasionally make ad-hoc efforts to explain away all such finds, e.g. as rocks dropped by icebergs, as ballast from ships, or as "nonspreading blocks" left behind during rifting, caused by the seafloor-spreading axis jumping from place to place. On the whole, however, this abundant and well-documented evidence is simply ignored—a damning indictment of the plate-tectonic establishment.

During legs 37 and 43 of the Deep Sea Drilling Project (DSDP), for instance, Paleozoic and Precambrian rocks were recovered in cores on the Mid-Atlantic Ridge and the Bermuda Rise, yet none of them were mentioned in the Cruise Site Reports or Cruise Synthesis Reports. In 1969 it was reported that 75% of rock samples dredged from the Bald Mountain region just west of the Mid-Atlantic Ridge crest at 45°N consisted of continental-type rocks. The scientists concerned described this as a "remarkable phenomenon"—so remarkable that they classified these rocks as "glacial erratics" and gave them no further consideration. Rocks from Bald Mountain have yielded ages of 785 Ma and 1550 to 1690 Ma, whereas the predicted age is no more than 10 Ma. Rocks from the St. Peter and Paul islands near the crest of the Mid-Atlantic Ridge have yielded ages of 350, 450, 835, and 2000 Ma, whereas their theoretical age is only 35 Ma.

Plate tectonics predicts that the age of the oceanic crust should increase systematically with distance from the mid-ocean ridge crests. However, radiometric dates exhibit a very large scatter. On one seamount just west of the crest of the East Pacific Rise, the dates range from 2.4 to 96 Ma. Although a general trend is discernible from younger sediments at ridge crests to older sediments away from them, this is to be expected, since the crest is the highest and most active part of the ridge; older sediments are likely to be buried beneath younger volcanic rocks.

The spatial distribution of shallow-water sediments in the present oceans and their vertical arrangement in some of the



This map, compiled by geoscientists Dong Choi and Mac Dickins, shows former land areas in the Pacific and Indian Oceans. Only landmasses for which substantial evidence already exists are included, but their exact outlines and full extent are as yet unknown.

drillholes are inconsistent with seafloor spreading. The present oceans have undergone considerable subsidence since the Jurassic, but this occurred in a mosaic fashion rather than showing a systematic relationship with distance from the ocean ridges. Younger shallow-water sediments are often located farther from the axial zones of the ridges than older ones, and some areas of the oceans appear to have undergone alternating subsidence and elevation.

A major effort should be made to drill the ocean floor to much greater depths to see whether there are more ancient sediments beneath the basalt layer that is currently assumed to be "basement." There are already signs that the basalts are the result of magma erupting onto the seafloor or intruding into older layers of sedimentary rock. This was clearly shown at drill site 10 on the Mid-Atlantic Ridge, where the lowermost sediments are Cretaceous (about 80 Ma) and the underlying basaltic sill, erroneously termed "basement," had a radiometric age of only 15.9 Ma.

Ocean-floor sampling and drilling, seismic data, sedimentary data, and ocean-bed flora and fauna indicate that there used to be large (now submerged) continental landmasses in the present oceans. Many islands and ocean plateaus with semi-continental crust appear to be the remnants of such paleolands, whose former continental crust has undergone varying degrees of "oceanization."

A major practical implication of this emerging new view of the ocean crust is that enormous hydrocarbon resources are likely to exist in deep-sea basins.

Marine magnetic stripes

Strong support for seafloor spreading is said to be provided by marine magnetic anomalies—approximately parallel stripes of alternating high and low magnetic intensity that characterize some 70% of the world's midocean ridges. According to plate tectonics, as the fluid basalt welling up along the ridges spreads horizontally and cools, it is magnetized by the earth's magnetic field. Bands of high intensity are believed to have formed during periods of normal magnetic polarity, and bands of low intensity during periods of reversed polarity. But ocean drilling has seriously undermined this simplistic model.

Correlations have been made between linear magnetic anomalies on either side of a ridge, in different parts of the oceans, and with radiometrically-dated magnetic-reversal events on land. The results have been used to produce maps showing how the age of the ocean floor increases steadily with increasing distance from the ridge axis. This simple picture completely ignores numerous radiometric rock ages that are "anomalously" old. Moreover, the claimed correlations have been largely qualitative and subjective; more detailed, quantitative analyses have shown that the correlations are very poor. A more likely explanation of the magnetic stripes is that they are caused by fault-related bands of rock of different magnetic properties.

Side-scanning radar images show that midocean ridges are cut by thousands of long, linear, ridge-parallel fissures, fractures, and faults. This strongly suggests that the ridges are underlain at shallow depth by interconnected magma channels ("surge channels"), in which semi-fluid lava moves horizontally and *parallel* with the ridges rather than at right angles to them, as claimed by the seafloor-spreading theory. Indeed, there is strong geological and geophysical evidence for the existence of surge channels beneath all major tectonic belts.

Subduction

The earthquakes taking place at different depths on the landward side of ocean trenches define a Benioff zone, which is interpreted in plate tectonics as a "subducting plate." But just how ocean crust is supposed to descend into the denser mantle has never been satisfactorily explained. Moreover, Benioff zones have a highly variable and complex structure, with transverse and vertical discontinuities and segmentation, and bear little resemblance to the highly stylized pictures of continuous down-going slabs depicted in geology textbooks. An alternative view of Benioff zones is that they are very ancient fractures produced by the cooling and contraction of the earth.

The volume of crust generated at ocean ridges is supposed to be equaled by the volume subducted. But whereas 80,000 km of midocean ridges are supposedly producing new crust, there are only 30,500 km of trenches (mostly around the Pacific Rim) and 9,000 km of "collision zones." If subduction was really happening, vast amounts of oceanic sediments should have been scraped off the seafloor and piled up against the landward margin of the trenches. However, sediments in the trenches are generally not present in the volumes required, and do not display the expected degree of deformation.

Plate-tectonic interpretations of seismic profiles across Pacific trenches have been criticized as being model driven. The profiles actually show that the Paleozoic and Precambrian lower crust is present under both the ocean floor and continental slope and passes across the trench *without any subduction.*

Plate tectonics has great difficulty explaining earthquakes, even those associated with Benioff zones, which do not always match the location of supposed "subducting slabs." A new model is emerging, which has already had some success in predicting earthquakes: it recognizes that earthquakes are controlled by deep-rooted tectonic zones, which channel rising mantle fluids and thermal and seismic energy towards the surface, and which are also present in continental interiors, far from the alleged subduction and collision zones.

Paleomagnetic pitfalls

One of the main props of plate tectonics and continental drift is paleomagnetism. For each continent a "polar wander path" can be constructed, and these are interpreted to mean that the continents have moved vast distances over the earth's surface. However, paleomagnetism is very unreliable and frequently produces inconsistent and contradictory results. For instance, paleomagnetic data imply that during the mid-Cretaceous Azerbaijan and Japan were in the same place. When individual paleomagnetic pole positions, rather than averaged paleopoles, are plotted on world maps, the scatter is huge, often wider than the Atlantic Ocean. Paleopole discrepancies have led to the invention of hundreds of independently moving microplates and "exotic terranes," in addition to the 13 major plates.

One of the basic assumptions of paleomagnetism is that rocks retain the magnetization they acquire at the time they formed. In reality, rock magnetism can be modified by weathering, thermal effects, metamorphism, chemical changes, and tectonic deformation, and remagnetization commonly occurs. Sediment compaction, as well as horizontal and vertical rotations of crustal blocks, further complicate the picture. Another fundamental and equally questionable assumption is that over long periods of time the geomagnetic field approximates a simple dipole (N-S) field oriented along the earth's rotation axis. But the past existence of stable magnetic anomalies only slightly more intense than the present-day East Asian anomaly would invalidate this hypothesis.

Moving plates?

The lithosphere is said to average 70 km thick beneath the oceans, and to be 100 to 250 km thick beneath the continents. However, seismic tomography (which produces 3D images of the earth's interior) has shown that the oldest parts of the continents have very deep roots extending to depths of 400 km or more, and that the asthenosphere is absent or very thin beneath them. Even under the oceans there is no continuous asthenosphere, only disconnected asthenospheric lenses at different depths. Furthermore, there are close correlations between near-surface geological features, crustal structure, and inhomogeneities in both the upper and lower mantle. The fact that such connections remain stable for long periods of geologic time contradicts the idea that lithospheric plates have undergone considerable horizontal displacements in relation to deeper mantle structures.

The earth's crust is in constant motion. The earth's relief currently ranges from 8.8 km above sea level to 10.8 km below it. There is ample evidence that the movement of mantle fluids and hot magma can cause significant changes in crustal thickness, composition, and density, resulting in substantial uplifts and subsidences—*without the need for "plate collisions" and "subduction."* Some 90% of sediments on land were laid down under the sea. The scale of vertical movements is indicated by the fact that the thickness of marine sedimentary layers in mountain belts is commonly over 10 km and can reach 23 km.

As far as horizontal movements are concerned, field evidence indicates that crustal strata can be thrust tens if not hundreds of kilometers, and that crustal extension or shortening of up to hundreds of kilometers has occurred. But given the widely varying thickness of the lithosphere, the existence of deep continental roots, the lack of a continuous asthenosphere, the absence of some "plate" boundaries, and the correlation between near-surface and deep-mantle features, the movement of lithospheric slabs as relatively rigid bodies over hundreds or thousands of kilometers is highly implausible.

Satellite measurements of crustal movements have been hailed as having proved plate tectonics. Such data shed light on local and regional crustal stresses and strains, but do not confirm plate tectonics unless the relative motions predicted among all plates are observed. However, many of the results have shown no definite pattern and have been confusing and contradictory, giving rise to a variety of ad-hoc hypotheses. For instance, distances from the Central South American Andes to Japan or Hawaii are more or less constant, whereas plate tectonics predicts significant separation. Moreover, extrapolating present crustal movements tens or hundreds of millions of years into the past or future is clearly a hazardous exercise.

The earth's surface is crisscrossed by linear geological structures (faults, ridges, etc.), originating in Precambrian time, which often run for thousands of kilometers across ocean basins and adjacent continents—something that is incompatible with large-scale plate motions and seafloor spreading.

Drift versus geology

A "compelling" piece of evidence that all the continents were once united in one large landmass is said to be the fact that they can be fitted together like pieces of a jigsaw puzzle. The serious problems with such reconstructions go largely unmentioned. In the celebrated Bullard fit of the Atlantic continents, for example, the whole of Central America and much of southern Mexico—a region of some 2,100,000 km^2—has been left out because it overlaps South America. The entire West Indian archipelago has also been omitted. Ancient continental crust extends unbroken from Florida to the eastern Bahamas and northern Cuba and the total area involved, 300,000 km^2, overlaps Africa. The Cape Verde Islands-Senegal basin, too, is underlain by ancient continental crust, creating an additional overlap of 800,000 km^2. Several major submarine structures that appear to be of continental origin are also ignored, including the Faeroe-Iceland-Greenland Ridge, Jan Mayen Ridge, Walvis Ridge, Rio Grande Rise, and the Falkland Plateau. Yet the Rockall Plateau is included simply because it can be "slotted in." *All plate-tectonic continental reassemblies ignore the evidence for sizeable former landmasses in the present oceans.*

The opening of the Atlantic Ocean allegedly began in the Jurassic by the rifting apart of the Eurasian and American plates. However, on the other side of the globe, northeastern Eurasia is joined to North America by the Bering-Chukotsk shelf, which is underlain by Precambrian continental crust that is continuous and unbroken from Alaska to Siberia. Geologically these regions constitute a single unit, and it is unrealistic to suppose that they were formerly divided by an ocean several thousand kilometers wide, which closed to compensate for the opening of the Atlantic. If a suture is absent there, one ought to be found in Eurasia or North America, but no such suture appears to exist. Similarly, geology indicates that there has been a direct tectonic connection between Europe and Africa across the zones of Gibraltar and Rif on the one hand, and Calabria and Sicily on the other, at least since the end of the Paleozoic, contradicting plate-tectonic claims of significant displacement between Europe and Africa during this period.

India supposedly detached itself from Antarctica sometime during the Mesozoic, and then drifted northeastward up to 7,500 km until it finally collided with Asia in the mid-Tertiary (55 Ma), pushing up the Himalayas and the Tibetan Plateau. That Asia happened to have an indentation of the correct shape and size and in exactly the right place for India to "dock" into would amount to a remarkable coincidence.

Furthermore, major uplift of the Tibetan Plateau did not begin until about 5 Ma, and the fact that river terraces in various parts of the Himalayas are almost perfectly horizontal and untilted suggests that the mountains were uplifted vertically, rather than by horizontal compression. There is in fact overwhelming geological and paleontological evidence that India has been an integral part of Asia since Precambrian time. In short, the "flight of India" is no more than a flight of fancy.

Conclusion

Far from being a simple, elegant, all-embracing global theory, plate tectonics is confronted with a multitude of observational anomalies, and has had to be patched up with a complex variety of ad-hoc modifications and auxiliary assumptions. The hypotheses of large-scale continental drift, seafloor spreading and subduction, and the relative youth of the oceanic crust are contradicted by a considerable volume of data. Mounting evidence for significant amounts of submerged, ancient continental crust in the present oceans poses a particularly serious challenge to plate tectonics.

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The New Concepts in Global Tectonics Journal (edited by Dr Dong Choi), and its predecessor, the *NCGT Newsletter,* can be freely downloaded at http://www.ncgt.org.

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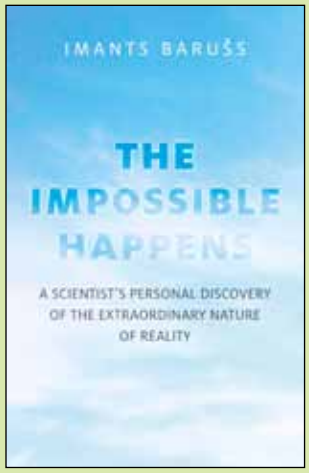
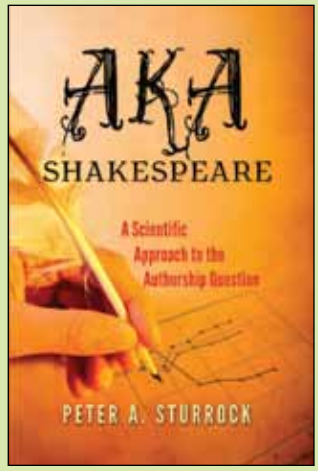




‘REFERENCE POINT’

Book Review by Michael Prescott

Who’s Talking?

Petek Arici/istockphoto

In 1976, with considerable fanfare, Princeton psychologist Julian Jaynes put out a provocative and fascinating book that purported to explain human consciousness, religion, ancient history, and even some forms of mental illness. This all-encompassing theory was presented under the imposing title *The Origin of Consciousness in the Breakdown of the Bicameral Mind*.

The crux of Jaynes’s argument is an apparently outrageous claim—that modern consciousness, in the sense of self-awareness, is a historically recent development, dating back only to about 1000 BC, and that earlier civilizations, including those of the ancient Egyptians, Sumerians, and Babylonians, were founded and maintained by people who were essentially “unconscious.” That is, they received marching orders from voices in their heads which they took to be the voices of the gods, but which were actually generated by the right hemisphere of the brain. (The division of the mind into two halves, godlike instructor and passive listener, is what Jaynes calls “bicameral.”) In a trancelike state that lasted a lifetime, primitive people carried out these instructions, living, marrying, working, and dying in the thrall of the “gods” who ordered and organized every detail of their lives. Later, the left hemisphere became dominant and the gods died out, persisting (in a debased and altered form) only in certain cases of schizophrenia.

King Hammurabi (standing) receives instruction from his god Shamash. Credit: Fritz-Milkau-Dia-Sammlung

There is an air of triumphalism about the book—the annunciation of a staggering new truth, blinding in its simplicity and awesome in its implications. One reviewer enthused that *Origin* “renders whole shelves of books obsolete.” The book’s lengthy title was clearly chosen to reflect Darwin’s *Origin of Species*, the longer title of which is *On the Origin of Species by Means of Natural Selection*. Jaynes felt that he had solved the problem of the origin of consciousness as decisively as Darwin had solved the problem of the origin of species.

Jaynes certainly makes a pretty strong case that the psychology of ancient peoples was distinctively different from our modern psychology, and that these people relied on statues, totems, figurines, and other such artifacts to stimulate the “hallucinated voices” that guided their actions. He further argues that the voice of the local chieftain (or later, the king) was itself hallucinated as a means of social control, and that the chief or king was “the first god.”

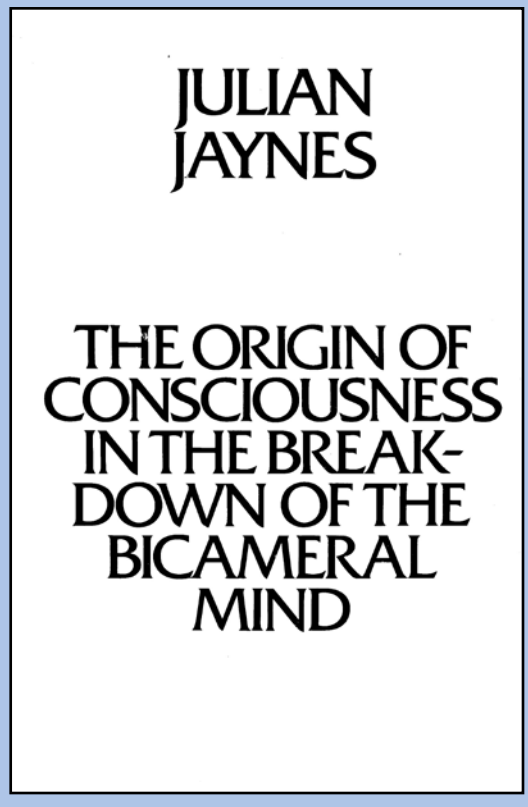
He adduces a lot of evidence in support of this position, ranging from the curious burial practices of the ancients, which typically treated the dead person as if he were still alive and in need of nourishment…to the multitude of idols carved with unnaturally large eyes, often represented by glittering jewels that would have had a mesmerizing quality…to the carvings of kings accompanied by a double who is seen guiding them by the hand and speaking to them…to such inscriptions as the Code of Hammurabi, which features a prologue and epilogue in the boastful and childish voice of the king, bracketing a series of 282 laws that speak in a calmer and saner voice.

All of this is pretty compelling, and it’s impossible to ignore the whole body of evidence he presents. Yet although Jaynes’s theory received a great deal of press, it has found relatively few takers. Only a handful of academics have endorsed Jaynes’s views, and his ideas today spark little interest.

There are several reasons for the widespread indifference to such challenging ideas. First, Jaynes’s theory is inherently difficult to accept. An entire civilization consisting of people who are unconscious is simply too far removed from our normal way of understanding the world. To support such an idea, Jaynes has to regard consciousness as nonessential to human life—as a mere ability to “narratize” behavior we would have performed anyway. He goes to great lengths to convince us

that consciousness is unnecessary for most human activities, pointing out, for instance, that we can drive a car without paying conscious attention to the task. But surely we need to be conscious when we *learn* how to drive a car; only after this skill has been habituated can we afford to drive on "autopilot," and even then we need to be able to snap back into full alertness in an emergency. The idea that such vast engineering projects as the ziggurats and pyramids could be carried out unconsciously is anti-intuitive in the extreme.

Second, Jaynes has a disconcerting tendency to quote selectively from his sources. When mining ancient literature for hints of the bicameral mind, he culls examples that buttress his point while ignoring or explaining away countless other examples that work against his position. One example of his tendentiousness is his treatment of Hesiod's *Works and Days*, a very early Greek poem that consists of instructions on how to manage a farm. Jaynes interprets the poem as having been dictated by the "god" side of the brain; in effect, he argues, *Works and Days* is a written record of the kind of voice that our ancestors heard incessantly.



The Origin of Consciousness in the Breakdown of the Bicameral Mind **by Julian Jaynes, Houghton Mifflin, 1976.**

But the poem itself contains scattered verses indicating a very different origin. The narrator tells us that he and his brother Perses inherited their father's farm, that Perses is shiftless and incompetent, and that having taken Perses to court and lost, the narrator has put together this instruction manual for Perses in a last-ditch attempt to salvage the farm. None of this is consistent with the bicameral mind hypothesis. Jaynes deals with this considerable impediment to his argument by brushing it aside; the sections of the poem containing these references, he says, must be later interpolations.

Finally, Jaynes falls into the trap that awaits any specialist who ventures outside his area of expertise. As a psychologist with no special training in ancient literature, he seems to misunderstand the ancient sources themselves. Jaynes makes much of Biblical writings that depict pagans worshipping their idols as literal gods, for example, but if these writings themselves are inaccurate, and if pagan idolatry was in fact much more sophisticated, then Jaynes's arguments are fundamentally flawed. No one disputes that Hebrew prophets inveighed against idols. The question is whether the prophets *correctly understood the nature of pagan idolatry.*

Jaynes's inability or unwillingness to properly address this question, or even to understand it, suggests to me that he suffered from a condition sometimes described as "theory blindness." Having constructed a comprehensive theory by which to view the world, he was simply unable to think his way out of that mental box.

Though Jaynes continued to promote his theory for the rest of his life, his promised sequel to *The Origin of Consciousness* never materialized. He died in 1997, leaving it to other academics to continue his work. Few have taken up the challenge. Today discussions of Jaynes's book are found mainly on New Age websites, mixed in with references to the pseudoscientific writings of Immanuel Velikovsky and Erich Von Daniken.

For myself, I have come to think that *The Origin of Consciousness* gets history exactly backward. In Jaynes's materialist worldview (in which consciousness is a mere epiphenomenon of matter), there can be no such things as gods and spirits or any other paranormal phenomena. Thus the universal acceptance of such things in ancient (and modern) cultures is a puzzle requiring some explanation. The bicameral mind is his answer to the problem; the gods and spirits are simply a more primitive part of the brain.

But suppose there actually *are* paranormal or supernatural phenomena. Suppose there *are* spirits and what we might call gods—or God. Then the universality of such beliefs does not require complicated rationalistic explanations. An alternative hypothesis to Jaynes' bicarmeral mind is that the ancients really did hear the voices of "gods"—or to put it more accurately, they received messages from the spirit world.

Rather than hunting for the gods in some forgotten corner of our nervous system, we might do better to seek out truths that "primitive" peoples knew—and which we have forgotten.

Near the end of his book, Jaynes laments misguided modern efforts to recapture the gods through mysticism, religion, poetry, and even science—"attempts to return to what is no longer there, like poets to their inexistent Muses…"

But what if the Muses did exist, and still do—and we have simply stopped listening?

MICHAEL PRESCOTT, author of nine suspense novels, has long been interested in evidence for psi and life after death and maintains a blog devoted to these topics at michaelprescott.typepad.com.

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short). In general, the key speakers are the para-celebs (even those with one appearance on a series episode), authors whose works connect to the methods and "findings" of the shows, people claiming excessive experience in "investigations," producers and other behind-the-scenes crew of the shows, and occasionally a psychic who has made some friendly connection with the event producer or the para-celebs. The speakers do on occasion include someone with actual academic background, but that's rare. After all, they can watch the TV shows and learn all they need to.

In other words, the events tend to be fan-based gatherings, with the added bonus of bragging rights for being able to go on an "investigation" with one of the para-celebs.

Not a Para-Celeb

My own experience with such events is limited. To some extent, the geography of the events, with the vast majority of them held east of the Mississippi (and me in California), brings with it higher travel costs for speakers like myself, which hits their budgets hard. As I may not be as big a draw as, say, Jason Hawes of *Ghost Hunters,* that's where they spend their money.

Those events that I have attended, speaking mainly on "Parapsychology for Ghost Hunters," I've had mixed reception and reaction to my presentations. At one event in Philadelphia, the audience appeared shocked that I was shocked that most had no knowledge that there was any relationship between Parapsychology and what they were "investigating," and upset when I questioned their hard beliefs such as turning out the lights ("going dark") and that phenomena supposedly happens more at 3:00 A.M. (called "dead time" on *Paranormal State*). In fact, my reaction to the audience, coupled with my refusal to "investigate" in pitch dark, likely contributed to my being fired from the event producer's schedule of events. Other events have had somewhat better results and audience reactions, though those same audiences were also exposed to speakers on demonology and the ever-present para-celebs with their strong opinions as to how to investigate "properly and scientifically."

This is not to say there were not individuals at these events who have expressed real interest in what the field has done and how parapsychologists approach field investigations differently. The main reason I've continued my efforts to reach out to groups, to people running events, and to individuals identifying themselves as paranormal investigators or ghost hunters is to find that minority, however small it might be, and cultivate their interest into something real. I have had some success in this, which has kept me going, but it is difficult when the majority is only getting this message from a very few of us.

While the downturn in the economy, and I suspect a dwindling pool of die-hard fans capable of spending the hundreds of dollars for the events, has caused a shrinkage of the number of "paranormal conferences" across the country, the number of groups and fans of the shows gathering on the internet has continued to grow. Some have figured out they really are not being "scientific," and have sought real research-based material, but this is a very small minority. Some have gotten bored with the antics of their fellow ghost hunters and have simply dropped out. But the numbers, in general, continue to grow.

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What this all means is that there are many thousands of hobbyists, thrill seekers, and amateurs who are essentially "weekend ghost hunters." They express their opinions, discuss (and argue) ideas, and even organize fundraising for their favorite historic haunted site that needs financial support. They spend hundreds on equipment and events.

The Paranormal Community

They refer to themselves as being part of the "paranormal community" (an apt term) and many purport to be conducting research and investigation as part of the "paranormal field" (meaning field of investigation of ghosts, hauntings, poltergeists, and unfortunately "demons").

They discuss concepts of physics and biology often with little regard to actual work and findings in those fields, and like many others, talk about theory as if it's established fact. Too many seem to hold to the idea that being "scientific" is as simple as using "scientific equipment," whether or not they know the actual functions/limitations of the equipment or what to do with the data they gather, though this is a broader problem promulgated by the dire state of science education in the United States. They generally seem unaware that what they do has any relationship to Parapsychology/Psychical Research and unaware that there's even a history to field investigations going back before the founding of the Society for Psychical Research in 1882. Many I've spoken with are surprised there's any work before the 1990s (when the paranormal shows began popping up more often).

The rise of the paranormal community with its many thousands shows that the interest in anomalous phenomena is there. That so many claim to be doing "research" for the

"paranormal field" indicates that there is a body of people wanting to contribute (even though they think they already are). On the other side, we have a field that comes from academia, from Science, that has few seriously interested people and next to no funding.

Imagine if we could bridge the gap with the paranormal community, create opportunities for them to be part of the actual research efforts, encourage them to join and support organizations like the Society for Scientific Exploration, the Parapsychological Association, the Society for Physical Research, and the Rhine Research Center, and mobilize them to correctly gather data and do fundraising for actual scientific efforts to understand psi phenomena.

But without some numbers on our side—even if only a few dozen people—all trying to connect with the paranormal community, we will stay as outsiders and the paranormal community will continue to grow, the "paranormal field" evolving further into what appears to be the pseudo-scientific "field" the skeptics have accused Parapsychology of being. This can only confuse the public even further and is a waste of what appears to be a potential resource for our field.

How To Bridge the Gap

The challenge is to bridge that gap, and part of the solution is in simple but active outreach to this community. I'd like to share some ideas as to how we can take initial steps, at least.

Acknowledging that they are out there is the first step, and awareness of their source material is the second. By this I'm not suggesting that folks start watching the paranormal television programs on any regular basis, but at least sample the shows. It will help to understand the growing paranormal community, and understand what kinds of misconceptions they might be taking on. You will likely have to put aside your visceral reactions to what you see on the shows—I know I generally do—but it's well worth sampling the many different shows that appear regularly on Syfy, A&E, Bio, Travel Channel, and other cable networks. Some are more entertainment oriented, with the on-camera "talent" not necessarily claiming any degree of expertise (some even being quite goofy). All too often, they speak as though they're actual authorities on the subject. Some of the shows actually focus on the ghost story—on the experience of the witness, with no follow-up investigation (though generally a dramatization).

Becoming aware of the myths is going to help ease people out of them. Being able to comment, even negatively, on the shows and their shortcomings or poor science or potential fraud or where they might get something right comes mainly from knowing at least something about the programs.

Reaching out to members of this community is as simple as finding groups on Facebook or other social media and joining them. You may not participate in their discussions, but finding out what they do discuss will likely lead you to jump in from time to time. You'll also find out about events, local and otherwise—if local to you, consider offering to speak. You'll learn about the myriad of interview podcasts, and you can offer to be a guest.

The purpose of any of all this is to be able to give these folks something different to think about (different from the shows). Be sure to talk about others in the field who are doing good work—the more we refer to them, the more familiar the paranormal community will become with the real "authorities."

Education Is The Mission

Real parapsychologists may feel hesitant or even embarrassed to deal with these members of the paranormal community, as there is such a vast separation between them and the academic/scientific side. However, consider the mission here: Education. You are helping to educate them about what has been/is being done from a scientific perspective. About Science in general. About how the findings and methodologies differ from TV's portrayal.

My efforts in this vein have been positively received, but it remains to be seen how effective this will be. I think that the more of us who present to the paranormal community with the same or similar message, the better. And I don't see doing this as anything to be embarrassed about, though in my experience, I do have to monitor the internet to be sure none of them are using my name to promote their own agenda, something that has happened only a couple of times in 10 years. I've had many more skeptics (including Randi) take my name in vain and misrepresent me than ghost hunters/paranormal investigators.

In conclusion, it's a little lonely out here as I orbit and observe the paranormal community. It may be true that I've had only little impact in swaying these folks into the sphere of information from psi research and investigation, but then again I am only one of a very few voices paying any attention to them (and believe me, it's attention they seek). I invite my colleagues, many of whom have much more academic/scientific credibility behind them, to join me in trying to educate the paranormal community, or at the very least get their curiosity about the real work engaged. If we can even get a small percentage of them involved and better educated, the amount of incoming data increases and the general support for the field and for organizations and research centers will grow, perhaps even significantly.

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‘BACKSCATTER’

William Corliss

Uncataloged

When William Corliss, founder of the Sourcebook Project, passed away on July 8, 2011, he left two draft items in his "typewriter storage." These two items from the current literature were slated for the next issue of his newsletter, Science Frontiers *(#195). His works continue to be available through science-frontiers.com.*

THE LONG WALLS

Long Wall of Quang Ngai. Credit: Tuoi Tre News

Long walls present anomalies that are not as easy to discern as they are with the Great Pyramid. Let us say cautiously that the bigger the pyramid or ancient walls, the more often closer looks will identify anomalies, such as:

(1) The use of unusual materials;
(2) Obscure purpose;
(3) An often-difficult-to-establish purpose;
(4) New, precocious technology used,

"Long walls" are here defined as being over 100 km in length. Obvious in this category are the Great Wall of China and the Great Wall of the Incas. Now, we can add Vietnam's "Long Wall," which has been completely absent from our files until now! This fact alone is unusual, since this wall is 127.4 km long.

> It survives in sections up to 4 m high, is reinforced by forts, 80 of which so far have been identified.

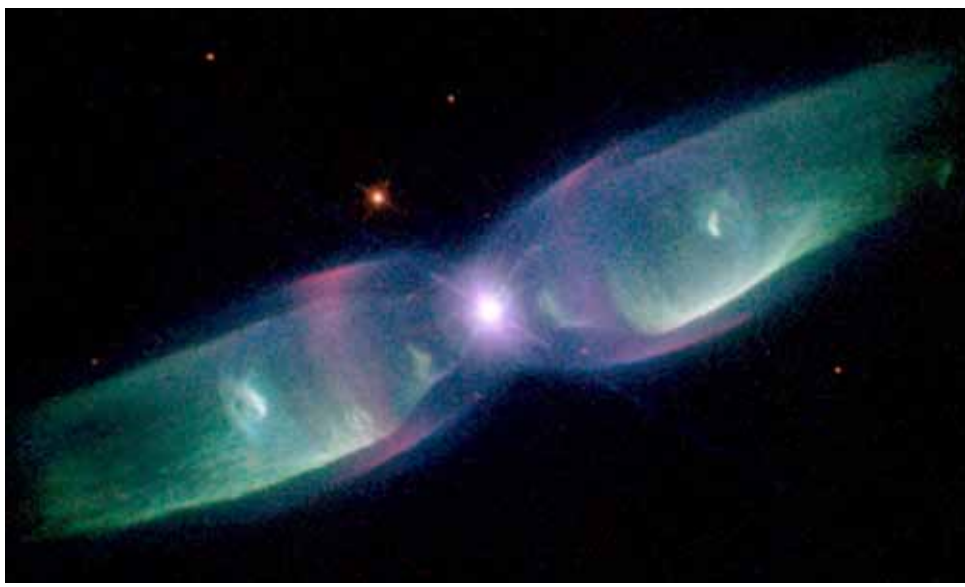
Some scientists are convinced that the Long Wall is the longest structure in Southeast Asia. (The Great Wall of China is far to the north.) The Long Wall has been known for about three centuries, but it does not seem to have been studied in great depth. Given the above statistics, more attention should be paid to this giant work of engineering. (Anonymous; "The Long Wall," *Current World Archaeology* #46:10, April/May 2011)

WHAT ADDS ENERGY TO THE COSMOS AND WHY?

Looking up at the night sky, we see only the traces of the violent billions of years that followed the Big Bang and the interactions between its progeny.

Recently, though, B. Rees, of the University of Manchester, U.K., has already discovered scores of pairs of aligned gaseous nebulae. Rees' pairs are aligned sort of head-to-tail parallel to the plane of the galactic disc.

We do not yet have good reasons why so many gaseous nebulae align with each other or for what purpose. (Anonymous: "Nebulae Show Mysterious Alignment," *New Scientist,* p. 21, May 7, 2011)



Credit: Bruce Balick (University of Washington), Vincent Icke (Leiden University, The Netherlands), Garrelt Mellema (Stockholm University), and NASA/ESA