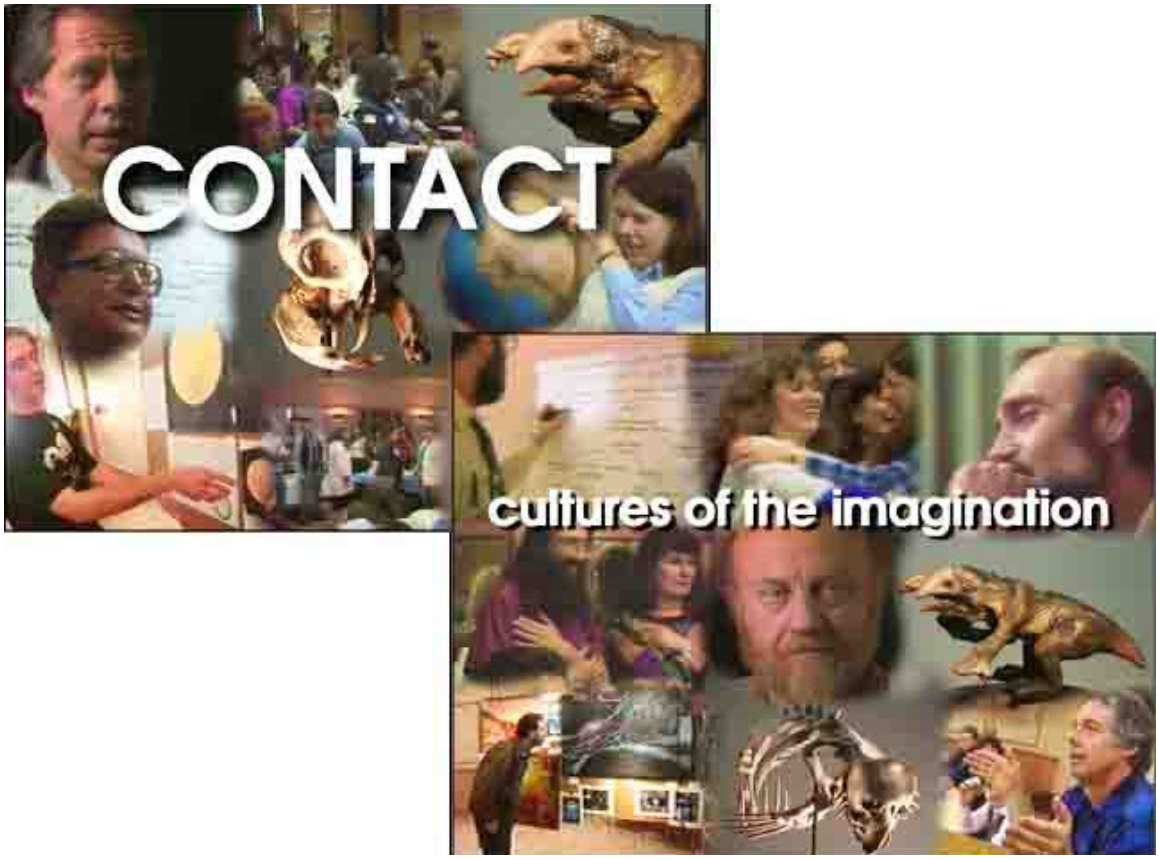
The CONTACT Chronicles



a quarter century of a forum for the future

By Jim Funaro

www.contact-conference.org

Table of Contents

THE CONTACT CHRONICLES

...being a personal memoir by the founder regarding the origins, evolution and some highlights of an interdisciplinary forum on the future during its first quarter of a century.

by Jim Funaro

[**NOTA BENE**: A complete listing, by year, of the titles of all papers and events presented at CONTACT since its inception can be accessed at our History webpage - www.contact-conference.org/choo.html

Introduction: What's a COTI?

Cultures Of The Imagination (COTI) is an experiment in creation -- participants design an integrated world, alien and its way of life, and simulate contact with a future human society. I have tried resisting the acronym because of the associations for me with the plastic bug-eyed monsters of a game of my youth, but COTI seems irresistible, nonetheless, to the rest of the public.

COTI works like this. One team, the Aliens, constructs a solar system, a world and its ecology, an intelligent native life form and its culture, basing each step on the previous one and utilizing the principles of science as a guide to imagination. The other team, the Humans, designs a future human colony, planetary or space faring, "creating and evolving" its culture as an exercise in cultural structure, dynamics and adaptation. Finally, through a structured system of progressive, real-time revelation, the teams simulate -- and experience through unrehearsed roleplaying -- contact between the two cultures, in order to explore the problems and possibilities involved in inter-cultural encounters.

Anthropology for the Future

COTI has had dual origins. One source was a course I initiated at Cabrillo College, Aptos, California, in 1979, which was designed to use both science and science fiction to teach Anthropology. I had earned a baccalaureate degree in English and creative writing before my graduate degrees in Anthropology, so I was quite comfortable combining science and art. As early as 1966, several science fiction novels were among the supplementary texts in my Anthropology courses because they seemed specifically well suited to illustrate principles and methods in my field.

Why science fiction literature? Because I had found that science fiction writers and Anthropologists have a lot of common interests. Put briefly: Anthropologists study alien cultures, science fiction writers create them. Besides,

science fiction is the only literary genre I know of that ever makes Anthropologists the heroes.

COTI is, above all, a simulation, an instructional tool that includes many aspects of role-playing games. The technique derives from my teaching experience that synthesis -- putting things together -- can be just as powerful a learning device as analysis -- taking things apart. In terms of practice, one of the best ways to understand how something works is to try to build it. In the class, Anthropology for the Future, students would create cultures, both to see how they work and to explore the dynamics of intercultural contact, which is a central concern in our discipline.

The simulation technique supplements the traditional lecture format by providing a sort of "hands-on" laboratory experiment. It allows the students to experience things from the inside -- i.e., as a role-playing game, which encourages them to feel as well as see the results of their decisions through the new perspectives of the "others" they are identifying with. And in addition to their educational value, simulations are fun!

CONTACT

The other point of origin was CONTACT. COTI was the main event of the first CONTACT, a national academic conference I founded in 1983, which each year brings together some of the nation's foremost scientists, science fiction writers and artists to exchange ideas, explore possibilities and stimulate new perspectives about humanity's future. Our goal: To encourage serious and creative interdisciplinary speculation about what lies ahead as we enter the space age.

During the summer of 1979, I took a vacation to visit a friend in Port Townsend, Washington. After waiting until I had finished enthusing about the course I had so recently proposed, she smiled coyly: "Do you want to meet Frank Herbert?" Did I? *Dune* was a novel I had planned to use in class, being one of the best examples of a credible created culture, but I had no idea that I had come to His town. Shows you how little I knew then about science fiction writers. One half hour later, I was sitting in Frank's living room. His wife, Bev, started feeding us short bread, and we must have finished off the entire supply in the house that afternoon, as we got more and more excited about the connections between Anthropology and science fiction. This was more than a course. Hell, this was a conference!

I taught the course twice in 1980 (writer and Herbert-collaborator Bill Ransom came down to guest lecture) and, in the fall of that year, I started riding the circuit of "fancons" in hopes of "collecting" science fiction writers. At Octocon, in Santa Rosa, I luckily met Carol Bowman-Porter, who at first became captivated by the conference idea and eventually became a Board Member. She

introduced me to the first NASA scientist I had ever met, who at the time was dressed in a mint green body suit. This gave me hope for the space program, too. Richard Johnson, Chief of Biosystems Research at Ames, agreed to join us.

Next, I tricked writer Michael Bishop. While on a trip to Florida, I tracked him down in Pine Mountain, Georgia (he was in the phone book). I had been using his novella, "Death and Designation among the Asadi" as an exemplary creative ethnography. I don't think he really wanted to talk, but when I invited him to come along on my visit to the Lawrenceville Primate Center to look at bonobos (aka pygmy chimpanzees) -- Anthropologists have some privileges -- he agreed. By the New Year, I had a commitment from Mike.

At the following Westercon in Sacramento, Carol introduced me to award-winning authors Larry Niven, C. J. Cherryh and John Brunner, and I proposed the idea of CONTACT. It was around a table in that hotel bar in summer, 1981, that CONTACT first looked like it could become a reality. With the moral support of Herbert and Ursula LaGuin, and commitments from a core group of such prominent writers as Niven, Cherryh and Brunner, I now had a stellar roster to attract others. I was starting at the top. It was more than I could have hoped for.

The next auspicious event occurred on Halloween (how perfect): At the 1981 World Fantasy Conference in Berkeley, which I attended to join the crowd in honoring a friend, Peter Beagle, I ran into artist Joel Hagen. People had been telling each of us for a year, "You got to meet this guy." They were right. (By the way, Joel has a BA in Anthropology.) When I described my culture building and contact simulations, Joel told me about the Thraxisp world-building and alien design project, which he and Niven, Paul Preuss and William K. Hartmann had produced at Equicon in Los Angeles the previous Spring. Others in the Thraxisp project were Art Costa, Don Dixon, Pat Ortega and Rick Sternbach, later a keynote speaker at CONTACT. The Thraxisp progress report, written by Hartmann and illustrated by Hagen, was featured in *Smithsonian* magazine (3/82).

Because we were working in such parallel -- indeed convergent -- tracks, I asked Joel to join me in putting on the conference; he agreed, and we became the founding directors of CONTACT. We decided to feature a full "combination" simulation, from world building to contact, as a way to showcase the creative process. I called it the Bateson Project, which was ultimately redesignated COTI.

Even during my earliest stages of planning for the first CONTACT, it seemed clear to me that the guest of honor could be no one else but University of California Regent, teacher and Anthropologist Gregory Bateson. Though he inconveniently died before the conference, his tradition of exploring possibilities and stimulating ideas is still our guiding light, and CONTACT was dedicated to him. He was my friend and one of the only genuine geniuses I have ever met. Luckily, he never required me to understand his theories.

Over the next year, I was able to add others. Hoping to entice some wonderful demons, I began to send out letters announcing a conference on "exploring the possibilities in the Science Fiction/Anthropology connection." Jerry Pournelle joined at the annual Pinckard's Science Fiction Writers' Salon, to which Niven had invited me to speak. Joel enlisted Preuss' talents.

Of my Anthropology colleagues, first to respond to the call and spread the word was Northern Arizona University's Reed Riner, editor of the *Cultural Futures Research* journal, who eventually became our first Board member. Next came Bob Tyzzer, teacher at San Diego State and author of a leading textbook in Physical Anthropology, Mischa Adams, a brand-new "doctor" and former student of mine and Gregory Bateson, and Chico State's Charlie Urbanowicz, longtime champion of science fiction in our field. Finally, Paul Bohannan, past president of the American Anthropological Association and dean of Social Sciences at USC, wrote to ask if there were, by any chance, room for him. O yes, there was! I was starting the conference with the cream of the crop from both domains.

CONTACT I/83: First Contact

First CONTACT occurred in Santa Cruz, California, on April 8-10, 1983. The mayor of the city proclaimed "Contact Day." Each of the writers and Anthropologists presented professional papers with titles like: "Data and the Voodoo Sciences," "Materialists and Mentalists," "Stranger Than We Can Imagine," "Biological Factors in Species Contact," and "Fictional Mirrors of Contemporary Human Societies." C. J. Cherryh gave us the first of three case studies in alien creation: the Regul, from her Faded Sun trilogy. (The Majat and the Caliban followed in successive years.)

The first Bateson Project was made up of two teams of writers, Anthropologists and artists: The aliens, Cherryh, Riner, Pamela Lee, Hagen and myself; the humans, Bohannan, Adams, Tyzzer, Bishop, Preuss and Darrel Anderson. Since a primary rule of the game was no communication between the teams, Niven (who can do it all himself, anyway) was the spy and Pournelle was the troubleshooter; they acted as consultants to both groups.

The alien's world was hurriedly mapped out on a placemat in the hotel restaurant over breakfast by astronomer/artist Bill Hartmann. (4) With a K1 star, the planet, at 1 AU, was cooler than Earth, with more extreme seasons and massive permanent ice caps, and its surface was mostly water.

The aliens were sea creatures, a new taxon combining many characteristics we find in the cetaceans, crustaceans and mollusks of Earth. They had several distinct life stages, each one increasing in size and decreasing in mobility: The young caretakers of the Nests, the warrior-singers, who did most of the work of the colonies, and the huge, ancient and philosophical dreamers, who became almost completely sessile as they aged. We named the species the “Alchemists,”

because their bodies were chemical factories, producing complex nucleotide messages as well as wide spectrum sound. They filled the seas of their world with song and pheromones.

The humans were refugees from a destroyed Earth. The colony had been traveling in space in search of a new home for many generations, during which time they had not only developed a unique, self-contained culture but had also evolved biologically. The techno-ecology of their star ship included many sub-environments ranging down to zero g; these conditions had selected for linear bodies, elongated limbs and digits, and prehensile tails (which our astronauts and cosmonauts might find useful).

The two species met in space. The Alchemist's technological development of spaceflight was long retarded by their marine environment -- especially in matters of pyro-based propulsion systems and internal "atmosphere" of a craft -- but they had strong religious motives for expansion. They finally arrived in orbit in their "water-filled tin cans" just at the time when the human ship entered their solar system. A critical moment for contact, if ever there was one.

The encounter was dramatized in front of the audience by the two teams, utilizing a game-like scenario. A structured dialogue ensued, each team taking a turn or "move." Cherryh proved a masterful gamemaster. The climax occurred as three humans were allowed to enter the aliens' ship in their space suits and encountered a youngster, by chance, who turned down a corridor and fled directly toward the central Nest, to report the strangers. The humans followed. A bad move, in this case. They appeared suddenly and unannounced near the most vulnerable and precious spot in the colony, heavily guarded by large, agitated soldiers. The result: Aliens 3, Humans 0.

At the game level, the encounter seemed a failure, but, at the metalevel of the project as a whole, it was not. Any first contact situation involves risk, and it should be expected that some sacrifices due to wrong choices or miscommunication, however regrettable, may be required in such uncertain circumstances. It is to the credit of the human team that their reaction was not to annihilate the aliens in revenge (which they could easily have done), but to learn from the results and try again, with different tactics. Of course, this was a simulation; no one was really killed. But it constituted a positive move in the direction of one of our primary conference goals: To develop ethical approaches in cross-cultural contact, whenever and wherever it occurs.

As Paul Bohannan summarized his CONTACT experience: “We played a ‘game’ called ‘Bateson.’ I have seldom learned so much in three days.”

CONTACT II/84: Legends are Born

The Bateson Project simulation had been an immediate success, indicated by the large number of guest returnees, new participants and the manifest interest of the audience.

Playing a long shot, I snagged Ben Finney, chairman of the Anthropology department at U Hawaii, who I discovered was fortuitously resident at NASA Ames on a fellowship that spring. Ben became an ardent proponent of his "beloved" CONTACT and our first keynote speaker in 1992.

CONTACT II was memorable for the number of legends created there.

One example: This year's alien, the "Squich" (imagine a cross between a squid and an ostrich), was modeled by Hagen and previewed by the teams the night before the conference opened. Responding to some problems experienced the previous season, we had decided to see how it would work to let the planet-builders among us work backward from the alien, the culture builders work forward from it, and the life form builders work around it. After our introductory briefing, we all retired to the hotel bar for the serious discussion.

One hot topic was the Squich's nervous system. The bipedal alien had long, triple-jointed hind legs, which, when extended, scissored out to more than twice the length of the body pod. Pournelle argued that locating the brain in the body would place it too far away to allow effectively fast nervous transmission to the hooves, which were critical not only for locomotion but also for communication (they drummed their feet and danced messages to one another). One of my students, no youngster, a gentle man who had been a computer programmer since the days of Univac, disagreed. After the decibel level of the voices rose to three figures, he brought his foot down on Pournelle's instep. As Jerry leaped up, the student said reasonably, "See. It doesn't take that long." Pournelle, never at a loss, grabbed a chair, held it out in front of him like a lion trainer, turned to me and yelled, "Funaro, call off your dog!"

We also had a remarkable demonstration of the value of role-playing, though in this case it was rehearsed. Like last year, our master storyteller, Ruthmarie Argüello-Sheehan, had created a myth of the contact, to follow the final session and memorialize the story. The relationship that had developed between human and alien, though asymmetrical, was close and loyal, almost symbiotic. Her tale, with dancers, was exceptionally touching, depicting the parting of the two species after many years of companionship, and we were all quite moved. As an index of how powerfully affected they had been by the three-day experience, the audience, at the end of the performance, spontaneously stamped rather than clapped their applause.

CONTACT III/85: The first time it worked

By CONTACT's third year, we had had a chance to evaluate some of the problems which had emerged in the previous sessions. One was that there was just not enough time in three days to create two complete worlds from scratch; after all, God took twice that long for one. Another was that everyone wanted to play. In the original project, only about half of the twenty or so guests participated; by now, our guest list had grown and all of them (plus most of the audience) wanted to be part of the project, making group dynamics increasingly unmanageable. So, we initiated some changes, which ultimately had a far-reaching influence on the future development of COTI.

1. We prepared a pre-conference package. Poul Anderson gave us a planet, Ophelia, with its primary and solar system. By the way, over the years we have been presented with several worlds by science fiction writers. For example, one day, out of the blue (or out of the black?), Larry Niven called me up and said, "I owe you a planet." I soon learned to accept such divine gifts graciously and eventually even with some aplomb.

We then sent the planetary specifications to C. J. Cherryh, who suggested the Mossback and provided us with its basic design. Next, Larry Niven elaborated on this alien, contributed other species for the ecology and explained the conditions that the human team would face on this world. Finally, Joel Hagen produced some sketches of the critters. This "homework" was then distributed to all the guests several weeks prior to the conference.

2. We dedicated the first two days to the aliens. We assigned the audience to specialized teams according to their interests and expertise, so all would take part successively in the development of the world, the alien and its culture. Then, in the final session on the third day, we reconstituted the entire group into the human expedition, to discuss how we might contact the Mossbacks.

3. We instituted a system of sequential workshops in world building, bioform design and culture construction, directed by the professionals, so that the audience could work throughout the conference on a parallel but separate experiment in creating their own cultures of the imagination (the Beta Hydri world and aliens), while still following the progress of the professional team.

Each of these innovations turned out to have significant effects on the evolution of the Bateson Project into COTI. The packages accumulated over the next several years gave us a growing stable of worlds and aliens that could be used as models or resources for a wide range of educational contexts, where students would have limited experience in celestial mechanics, geology and evolutionary biology or where time constraints restricted the duration of the project. The actual contact simulation (as will be seen below) demonstrated that the key to the usefulness of the simulation was spontaneous role-playing, which allowed participants to experience the system from the inside. And the

workshops provided the model for an instructor's guide to producing our simulations, which would become the basis for the development of an educational curriculum, Cultures of the Imagination.

Ophelia and the Mossbacks. Ophelia is not a happy planet for humans. Its F5 sun is larger and brighter than Sol, but, at 3.28 AU away, Ophelia receives only half the irradiation the Earth does from its sun. So, it's cold. That and heavy gravity (1.3), dense atmosphere (9.2 bars at sea level), thick fog and cloud cover, high winds and cyclonic storms, and powerful tectonics all mean that we could only find tolerable conditions for ourselves on a 12-mile-high mountain. Luckily, there were quite of few. On one of them, the humans landed and set up their Base One to observe.

The “Mossbacks,” like most other complex life forms that can survive on this planet, are big and tough. Picture a warm blooded, hermaphroditic, tool-using horny toad as big as a grizzly bear, with colorful algal symbiotes imbedded in the thick tissue of its naked skin. It sports a beak that would look just right on a 500-pound eagle and eats about anything it can catch. And it's smart. That's a Mossback.

They live below the clouds, in mud villages. (C. J. Cherryh built a charming little model of one, which is a prized possession of mine.) Remote observation by probe had unobtrusively revealed many details of their socio-cultural behavior. For example, upon greeting, they alternately (lower-ranker first) expose their backs to one another. This seemed to simultaneously indicate their non-aggressive intentions and display their individual and family identities, via the patterns of algae they "cultivate" through mutual grooming into intricate and distinctive dorsal "gardens," like living, growing tattoos.

What seemed to be one of their most significant cultural events the humans had dubbed "the death quest." The eternal cloud layer above made the "sky" appear to the Mossbacks as a sort of mirror that covered their world. As each Mossback felt the end of its life approaching, it began a one-way migration up a high mountain, whose peak was never visible because it disappeared into the "other world." These were the only occasions that they were ever observed to climb the mountains, and they never returned to their homes afterwards. It was assumed that this behavior constituted what we would call a final religious experience, a sort of solitary "last rites." As a matter of fact, Mossback bones littered the mountaintops, including the one upon which we had landed, a native "burial grounds."

Contact! When the final session was convened at noon on Sunday, all the folks who had been working for two days on the Mossbacks were suddenly transmogrified into the human expedition sent to study those same aliens. Packed at one long table on a raised platform stretching across the front of the meeting room was the entire stellar cast of almost twenty scientists, writers and artists, all very bright and mostly very opinionated. (5)

As nearly as I can reconstruct it from memory and records, that group consisted of: Mischa Adams, Poul Anderson, Greg Bear, Paul Bohannan, Paula Butler, C. J. Cherryh, Ctein, Ben Finney, myself, Joel Hagen, Barbara Joans, Mary Mason, Larry Niven, Jerry Pournelle, Reed Riner, Devayani Smith and Bob Tyzzer.

As you might imagine, there emerged an interminable discussion about what to do and how to do it, with arguments usually polarizing between the "scientists," operating via consensus and usually and informally represented by Bear, Cherryh, Mason and Joans, and the "military," commanded by Pournelle. How many people should go? What should be the composition of the initial team? Should we initiate contact? If so, where? On and on. After forty-five minutes, all we had agreed upon was that our ship/base had landed on a mountain peak and our perimeter was guarded by an electric fence, with enough power to knock out a rhino. Within the barrier, our debate continued in safety.

At this point, exasperated by the lack of action, Paula Butler, geologist and Board member of CONTACT, leaped up out of her chair, roared, and then announced, "I'm a Mossback! I've just encountered your electrified perimeter on my death quest and have been rendered unconscious. Now what are you gonna do?" *Brava.* Role-playing had just been spontaneously introduced into the simulation, out of frustration.

In all previous simulations until this moment, I had always felt a bit useless in the discussions, daunted by the prodigious intellects, which surrounded me. But suddenly, an actual situation had arisen in which I could play the practical role I had been trained for, without any rehearsal. As an Anthropologist confronting a "real" intercultural encounter, I found I could define interaction contexts, apply field techniques learned in primatology and cultural Anthropology and develop an emergency protocol on the spot.

I approached the stunned alien, stopping short of what I calculated (on the basis of probe information) to be outside its "flight distance." When it awoke, I did not want to be discovered suddenly within threatening proximity. (Remember, the Mossbacks are big and beaked, and had never met an alien before!) To be on the safe side, I asked Jerry to keep his troops on alert, but to stand clear and not interfere unless the situation got obviously out of control. I crouched into a posture that reduced the size of my body outline, another common way of showing non-aggressive intentions among earth animals, and waited.

When the Mossback regained consciousness and saw me, I utilized its known greeting behavior, slowly turning my back and displaying a particolored sweater I had just borrowed from a fellow crew member. Such an act might seem rude in some human cultures, though primates commonly use it (to avoid direct eye contact) in submission or to elicit friendly grooming. But here, I'm using

familiar and non-aggressive actions learned from the Mossbacks themselves. Luckily, the alien responded appropriately, and "read" my back. Still mimicking its own cultural behavior, I reciprocated. No doubt, neither of us understood the patterns, but we were polite; I found myself relieved that the sweater lent to me did not seem to have, by ill chance, shown to my quarter-ton companion the markings of a sexual rival or an enemy clan.

In general, I did not initiate action, especially close up, but confined myself to reacting, so as to remain as much as possible within the Mossback's world of expectations. That is, by observing its behavior, I tried to let it tell me what to do.

One amusing incident. Primates are touchy-feely critters, but I purposely harnessed my heritage here, not because Mossbacks are not (they are), but because we had learned that physical contact between them using their primary manipulators, which are also their tongues, initiates mating behavior. At one point, the Mossback did touch me, whereupon I asked rhetorically, "Does that mean I have to mate with this thing?" Pournelle immediately quipped, "You're already pregnant."

Another fairly universal activity seen in human greeting or friendly "alliancing" contexts is mutual gift-giving, though results can be uncertain unless the local value of the offered items is known. I tried it, anyway, placing an object on the ground between us and stepping back. It was accepted, and the Mossback offered its own gift in return (a bone whistle to be used in its death ceremony, I believe).

The scenario itself may have given me an unexpected but credible advantage in first contact: Such ready acceptance of my behavior may have been due to the fact that, since Mossbacks only make one death quest journey and never return to tell about it, our alien was more mystified by the encounter than we humans were. Maybe it thought this was what always happened beyond the sky!

A new technique seemed to emerge naturally out of the created situation: I simulated an interaction, modeling appropriate human behavior for the alien. Taking advantage of the Mossback's "following" response, I led it to another human, Mischa Adams, a medical specialist who wanted to examine the alien for injuries. I shook hands with her, demonstrating our greeting behavior, then carefully attempted to shake "paws" with the Mossback. It allowed this. Then I instigated its handshake with Mischa, and contact was considered achieved.

Of course, this simulation is artificial and limited. The Mossback was human and the situation occurred on earth. But, like the real intercultural contacts that Anthropologists have been participating in for more than a century here on our home planet, the interaction was unrehearsed, proceeded carefully from known behavioral and ethnographic methodologies towards consistent and ethical choices of action, and provided at least a possible model for developing a

protocol for an extraterrestrial encounter. And the value of spontaneous role-playing in enhancing the effectiveness of the simulation was convincingly (however unexpectedly) demonstrated. It has been an essential part of COTI forever after.

This CONTACT III/85 scenario that has remained the guiding archetype for COTI and its later applications as an educational curriculum for conference and classroom and even a design project for an offworld human colony illustrating some anthropological applications to space research.

An amusing (to others) and embarrassing (to me) incident took place at this conference, which illustrates the fun factor that has always been part our gatherings. Two legends of science fiction, Poul and Karen Anderson, were coming to CONTACT for the first time and I very much wanted to impress them. Before they arrived on the scene (so I thought), I, responding to some obscure but recurring primitive impulse, leaped into the hotel pool fully dressed in suit and tie, and hauled myself out dripping wet -- right in front of the legends. I was mortified, sure that I had blown it for CONTACT. But Poul and Karen just smiled – apparently familiar with such shenanigans from their many years of fandom – and not only enjoyed the conference but eventually became good friends, board members and some of the staunchest supporters of CONTACT.

1986

In 1986, CONTACT took a vacation, but one significant event occurred which demonstrates my desire to mainstream anthropology into the space program. I organized a special session at the Society for Applied Anthropology meetings in Reno, "Designing a Human Habitat in Space". It was a pioneering venture in a number of ways: One, it suggested, for the first time, practical ways to apply anthropological expertise to real issues in the space program.

The second way is which the session was extraordinary was that I included "strangers" from other disciplines into the workshop. (This was the first of several times I have intruded outlanders into AAA programs.) The first person I phoned, out of the blue, was Al Harrison, chairman of Psychology Department at UC Davis and NASA consultant (author of a the benchmark publication, *Living Aloft*). Al didn't know me from Adam, but, on a fortunate (for me) whim, he decided to join the crazy anthropologist on the other end of the line. Besides fellow colleagues Riner and Ben Finney (department chair at U Hawaii), I also corralled Richard Johnson, former Chief of Biosystems Research at NASA Ames and Eric Jones, physicist at Los Alamos and co-author (with Finney) of *Interstellar Migration and the Human Experience*, a remarkable collection of interdisciplinary perspectives on the future.

The goal of the sessions was to familiarize the anthropological community with space science's plans for humanity offworld, and to suggest the nature of anthropology's complementary role. The response to this star-studded performance was disappointingly lukewarm, though we did add Mort Klass (Columbia) and Barbara Joans (San Jose State) to our ranks. In fact, all the gathered participants remained faithful supporters of CONTACT in the subsequent years.

CONTACT IV/87: Contact with the Outside World

In 1987, we were back in operation in the first of two years that I (as a loyal Santa Cruzano) jokingly refer to as the “Sacramento Captivity.” We were joined by three newcomers who were to become stalwarts of our conferences: Allen Tough, originator of the “Invitation to ETI” website, and welcome kindred spirits, Anthropologists Doug Raybeck and Jim Moore, student of primate and cetacean behavior. Our newest SF writer was Jim Hogan.

Our COTI simulation, named the Achilles Expedition and starring the decapod Centaurians, was showcased in a PBS video documentary, “CONTACT,” as one of a series of “California Stories,” aired initially on KCET, the Los Angeles affiliate. This was our first public exposure to a wide audience in the national media and became our primary way of demonstrating COTI.

Proud actors (alien and human) in the Achilles Expedition included: Mischa Adams, Poul and Karen Anderson, Paul Bohannan, Paula Butler, Christine Carmichael, Ctein, Keith Doyle, myself, Joel Hagen, Al Harrison, James T. Hogan, Barbara Joans, Richard Johnson, Mary Mason, Jim Moore, Diana Paxson, Jonathan Post, Reed Riner and Bob Tyzzer.

An unmanned probe reported evidence of intelligent life on a planet (codenamed “Achilles”) of Alpha Centauri B. A two-ship scientific mission is mounted to gather data, initiate contact and explore economic potential. The starships are based on a projected but not unrealistic technology. Since the 4.3 light-year journey will take about 25 years at 0.2c, the expedition is effectively an offworld colony, in its design, operation and development, The slow speed, which allows interesting ship-to-ship exchanges of people and culture en route -- coupled with a long period (perhaps generations) of orbiting the planet during which the ships become an O'Neill-type colony -- will permit sufficient time depth for the evolution of a "natural" human community in isolation from the continuous cultural influence of its home planet.

Upon reaching Achilles, the expedition team encountered the native sentient species, which the humans named “Centaurians” (punning on their planetary system and their decapod stance). They massed more than humans and had 10 legs -- like most of the large animals on the high-gravity planet -- with six for support and fast locomotion and four with prehensile extremities, making

them good tool users. They had two large eyes and three huge dangerous-looking mandibles used for eating and scent gathering and perhaps other unknown purposes.

After numerous, sometimes amusing, attempts at establishing communication, the team leader was kidnapped by one of the local political factions to enhance its bargaining power with rivals, a native strategy often encountered in anthropological fieldwork. (She was eventually returned unharmed.) Contact was judged to have been achieved, but with a new and – considering the history of contact among humans on earth -- quite plausible twist.

CONTACT V/88

In 1988, in addition to our traditional symposia and simulation, we offered a Bateson Project called "2020 Vision," organized by Board member Riner. This multidisciplinary program, designed to use the methodologies developed in Futures Studies, was loaded with past veterans, and also brought in new talent, astronomer and science fiction author David Brin, NASA psychologist and spokeswoman Yvonne Clearwater and (a surprising coup) the elusive William Tenn (Phil Klass), all of whom returned for future conferences.

The COTI simulation was our first to depict aliens coming to Earth and the first to involve three groups: The Ivos and Triquids visit the Home Team.

CONTACT VI/89

During the next three years of our "Arizona captivity," a number of innovative projects launched major CONTACT programs. In 1989, we added writer Alan Dean Foster and a crew of my buddies from SUNY Plattsburgh, anthropologists Phil DeVita, James Armstrong and Rich Robbins, to our list of participants and featured two new Bateson Projects – Southwest 20039 and the SolSys Council.

The COTI simulation featured a planet donated by Larry Niven, which was colonized by Earthlings who named it "Puddle." Barbara Joans took over as COTI coordinator for several years. The scenario that played out – The "Puddle-Jumpers" meet the "Space Blob" -- generated some startling, unplanned insights into the potential for misunderstandings in first contact. The Blob was a spacefaring colonial organism whose sole strategy was the assimilation of all other lifeforms it encountered, a superorganic Borg on steroids. The human's pre-emptive strike against the Blob (throwing gigantic paint balls at it to disrupt its solar sail) was interpreted as friendly greeting behavior; the blob ate the weapons, and was apparently pleased at having been invited to a feast. In response, its attempt to be hospitable in return, bestowing the honor of incorporation into its oneness by ingesting Puddle's ambassador, horrified the

humans. Ah well, it's a diverse universe. The Blob was eventually defeated when the humans developed a "magic" virus, which some observers in the audience considered "cheating." But then, one could argue that humans have always cheated to fit the universe into their limitations.

The Solar System Council, orchestrated by Greg Barr, created an imagined interplanetary community in near solar system space, consisting of Earth and six colonies, fifty years in the future. After several months of pre-conference development of background material and timelines via e-mail, the participants met at CONTACT IV to play out the scenario in real time. The teams represented the various "topographical" regions of space; and each was physically isolated from the others during "gametime," to simulate actual conditions of separation, and only shared information between teams via "official" channels, using video and computer technology in each room to simulate interplanetary communication, complete with time lags.

As always seems inevitable in similar historical situations, the interests of the motherland and its distant colonies began to diverge and conflicts emerged. A crisis was reached when the outer colonies, Luna, Mars and the Prospectors, rebelled and sent an ultimatum to Earth: Either comply with our demands or we will launch a combined armada hidden behind Mars. There was no such fleet (I know, I was a Martian), but there was no way that Earth could determine whether or not the threat was real, and so capitulated.

What struck me so forcefully about this situation was the critical importance of who controls the media. That lesson learned in the simulation hit home hard a few years later during the US government's careful monitoring/censoring of media coverage of the events of the Gulf War.

This year also marked the initiation of the quarterly CONTACT Newsletter, edited by Greg Barr, our hardworking CEO. The publication ran to five volumes, 18 issues, until 1994, and admirably recorded the events, interests and ideas of our organization.

CONTACT VII/90

1990 brought more "exotics' into our motley crew: Chuck Stovitz, space lawyer, and Mary Clare Woodson, an ex-student of mine, now a dolphin trainer in Mexico. They added new dimensions to our blatantly interdisciplinary academic sessions. Award-winning journalist and old friend Mark Dowie attended and was enthused enough to publicize our mission in several publications.

Springboarding on the previous year's project, Reed Riner and Mel Neville initiated one of our proudest accomplishments, the Solar System Simulation, an

intercollegiate honors curriculum in Anthropology and Engineering, centered at Northern Arizona University.

SolSysSim is a showcase of innovative teaching and learning techniques. It features multimedia approaches, introduces interactive role-playing simulations, integrates collaborative and remote learning into the campus context, and provides experience in networking and computer skills. The simulation, which included students on campuses around the world, began operations long before "remote learning" became a buzzword in education theory.

Each school's team (originally NAU, Hamilton and Cabrillo Colleges) represents one of the colonies in a simulated future human community in space. Teams project their timelines and build their communities. They communicate through Internet e-mail, websites and a Multiple User Domain (MUD), a text-based, virtual reality program. Students are directed and encouraged by their local faculty advisors and by a board of professional consultants in the social and space sciences.

The students build and "inhabit" a learning environment in virtual space and explore communication problems in their community of remote "colonies." The computer-supported, interactive virtual reality environment can be dramatically demonstrated. An audience visits sites in the future Solar System, where they can tour a city in L-5 space, walk on the moon and talk to Martians.

This pioneering simulation has received national recognition. A group of federal agencies representing education for the future, including the Coalition for Networked Information and the American Association of Higher Education, selected SolSysSim, out of a wide field of proposals, as one of two projects in the country to be presented at the 1994 EDUCOM convention. The judging committee stated that the project "represents best practices in the use of networking and networked information in teaching and learning."

Our COTI simulation, scripted by the Andersons and with Joans at the helm, involved (for the first time) two human teams, The Lost Tribes, stranded Earth colonies who met again after thousands of years of separation on different planets. The encounter was dubbed "Scientific Tekkies vs. Mystic Druggies."

Their two suns would be rather close together, in a distant star cluster. They would have landed at least ten thousand years ago, to allow genetic drift and adaptation to make them physically different; and they would have lost most of their material culture (and with it the history of their origins) soon after beginning their colonies. To emphasize their differences, we gave them very different worlds.

One group, the "Spacers," were designated beforehand to develop space travel and make contact with the others. These we gave a heavy planet with a thick atmosphere and a sun redder and dimmer than ours. Local flora and fauna

would not give them all the vitamins they needed, and they would always know that the six-limbed native forms were different from the four-limbed ones such as themselves and their imported livestock. The folk became short, stocky, and scantly pigmented.

The" Groundlings" we gave a planet lighter than Earth, with a thin clear atmosphere, orbiting a star brighter and bluer than ours. They had saved some of their Earthly animal stock, but had lost all their plants, and must eat meat to get essential vitamins; they spent a time as cursorial hunters, and are tall, lean, and swarthy. They lack the little toe, and have strong canines, bone- cracking molars, and a shortened gut. Some of the planet's native life is edible, but some produce potent neurotoxins.

Spacers visiting the Groundlings would find gravity and air pressure about half what they were used to, and a blinding little sun that could raise blisters on bare skin.

As usual, the teams modified their starting material. The Spacers decided that some of their ancient technology had been saved, not only on the ground but elsewhere in their system, to be found when they regained spaceflight. The Groundlings kept some of their Earth crops and decided that they could support at least one sizable city.

The Spacers developed five major cultures. The oldest was based on the Sacred Technology; another involved a desert warrior- religion; another, as I remember, was based on Green technology. They rebuilt technical civilization, explored their solar system, and found a Sacred Technology matter converter that they could use for a space drive. They rebuilt a large asteroid, prepared for a one-gee boost-and-turnover mission, and recruited a population from all five cultures. Each had its own reason for moving out. They knew the next system had planets; and they didn't expect to be back.

The Groundlings had nomadic, ranching, and seafaring groups. They had reached about an Elizabethan level of technology, generally, with specialties in astronomy, ocean navigation, and psychopharmacology (remember those neurotoxins?). They had no radio or energy emissions beyond firelight, but the patchwork ecology was clear to the Spacers' probes, and they deduced that folk like themselves might live there, in spite of the absence of Sacred Technology from the system. They sent a mothership to the planet and landed a shuttle on a mid-ocean island lacking colonial flora.

The Groundlings were not sure whether a natural object, a divine messenger, or what, had landed on the island, but they were able to locate it and went out to look. (In case the probe personnel were careless, the Groundling team planned various things the island flora and fauna could do.)

At this stage the two teams came face to face. The Spacer team recounted what they had done on the island: explore carefully in protective suits. They then took their shuttle (which was amphibious) out to sea to meet the Groundlings' sailing vessel. There was initial wariness, but no attack from either side, and various forms of greeting were offered. Finally, a volunteer from the groundlings went aboard the Spacers' probe, and the encounter was judged a success.

In 1990, we were also proud to announce the inauguration of another educational spinoff, based on our COTI simulations: **COTI Jr**, a middle school curriculum developed by Greg Barr, Barbara Sprungman, and Darlene Thomas, was funded by NASA and Smithsonian and piloted in the Washington, DC, area. The flexibility of COTI allowed it to be tailored to any grade level. This project blazed the trail for the later COTI Hi and COTI L, developed for secondary and elementary school levels and implemented in classes and conferences.

CONTACT VIII/91

The 1991 COTI simulation explored yet another new situation, a variation on the theme of Anthropology on Earth: A meeting between aliens of the same species -- two parallel-world societies based on the same physical background. The “Heesh” and its world were invented by Poul and Karen Anderson, Ctein and Paula Butler. To bring together the two teams that were living isolated on the same planet, the “deities,” Larry Niven and Karen, invoked a mysterious “pink fog” that was to become a COTI idiom for a science/magic solution to a technical problem. This simulation ended tragically in violence, for the two allopatric populations had evolved mutually unintelligible communication systems during the long years of their separation and were unable to overcome the difficulty. The contact was judged unsuccessful.

CONTACT VIII also premiered a play, “CarboNation,” written by philosopher Dennis Rohatyn and performed by the Cabrillo Players.

CONTACT IX/92

An exciting and pivotal year. In 1992, CONTACT returned home to California, with NASA and SETI in tow. In our search for scientific credibility and recognition, Joel Hagen and I trekked to CASE FOR MARS III to present papers and shamelessly court its organizers. This conference had been initiated some years ago by a group of maverick grad students at U Colorado, most of whom we have managed to run down and recruit for CONTACT, which loves mavericks. These folks and their colleagues had subsequently formed a bright new generation at NASA Ames, sometimes called the “hippie” NASA research center, where much of the innovation in our space program was nurtured in the last decades of the 20th century.

We got commitments (and lasting friendship for CONTACT) from Ames' Chris McKay, Carol Stoker and Michael Sims to participate in our next conference, and were able to entice Seth Shostak, senior astronomer and spokesman for the SETI institute. Chris also introduced us to NASA educator and National Park Ranger, Don Scott, who also agreed to join us. They all not only came, they stayed, as CONTACT regulars and as board members.

In 1992, we initiated one of our finest and richest Bateson Projects. The year before, I had visited the SETI institute (then still a NASA program) and the venerable J. B. Billingham to propose a joint venture with CONTACT. My simulation proposal was not officially accepted, I think largely because SETI was still nervously dependent on government funding. I decided to go it alone. My question was: What would REALLY happen if our search for extraterrestrial intelligence proved successful?

So, beginning in 1991, I invited experts to produce our first remote (communication-only) contact simulation. Over a three-year period, a team of scientists, writers and artists, organized by Poul Anderson and directed by UCSD anthropologist Jim Moore, created a credible and coherent extraterrestrial civilization, a specialized adaptation demonstrating the flexibility of COTI. The representatives of "Homer's World" produced and sent messages to Earth from their home planet light years away. An Earth receiving team, representing various national and global communities of interest, first detected the signal's presence during CONTACT IX and worked for two years, via Internet and connected virtual networks, to understand it, simulate our world's reaction, and formulate a response. The public followed the progress of the scenario via daily newscasts and press conferences.

SimSETI was an attempt to construct a reasonable and realistic simulation that might be of practical value in the event of an actual first contact of the kind that the Search for Extraterrestrial Intelligence project anticipates. We hoped to provide a test of the protocol that had been recently developed in 1989 by SETI for such an eventuality. Several of those involved in devising that protocol, e.g., Ben Finney, Allen Tough and Seth Shostak, were present for our demonstration.

Also in 1992, Anthropologist Dirk van der Elst and Israel Zuckerman began a long tenure as the COTI Coordinators and produced "A Primer For COTI." The simulation returned to a favorite theme, the meeting of two aliens, the Giant Cockroaches and the Elephant Rats. UCSC Anthropologist Shelley Errington joined the work and fun.

Dirk proposed a three-year COTI, to allow time for fuller development of critter and culture, which he christened "**COTI Mundi**." This is how new projects are born! Over the following year, a long-term, professionally-staffed version of COTI was organized as an international Bateson Project headed by Martyn Fogg, Wolf Read and Greg Barr, which created the world Epona.

As a special treat, an old buddy of mine, musician James Lee Stanley, premiered his science fiction musical “Button Willow” for the CONTACT audience. There was even a part for me.

This year, we inaugurated a new event, modeled on the "Honoring Veterans Ceremony" of my Chippewa-Cree family traditions. At the banquet, we invite a special guest, whose contributions to CONTACT has been significant and long-lasting, to present a keynote address. The invitations state that the chosen speakers can talk about “whatever you damn well please.” Our first keynote address was presented by Anthropologist Ben Finney (UH).

In June, through an introduction by Don Scott, I met Ted Everts, the US director of the Association of Space Explorers, an international organization of astronauts and cosmonauts he helped create. Demonstrating his understanding of what our organization was all about, Ted took Don ~~Scott~~ and me to the Presidio in San Francisco and showed us a potential office space for CONTACT on the future site of Star Fleet Command. It was the beginning of a long and rewarding relationship with Ted.

In October, COTI was featured as the cover story, “How to Build a Real Alien,” in OMNI magazine’s 14th anniversary issue, written by the editor-in-chief, Keith Ferrell, a CONACT participant and enthusiast.

We also invited to produce a COTI simulation at the MENSA annual gathering, the first of several such successful performances for this group.

CONTACT X/93

Our 10th anniversary celebration witnessed the conclusion of the simSETI project (see above), demonstrating some inadequacies in the official protocol, such as selfish international pressures and the unanticipated intrusions of hackers, as well as difficulties of technological incompatibilities among the players’ equipment.

As at the previous CONTACT, the audience followed the progress of the scenario via daily newscasts and press conferences, and, after the final broadcast, was introduced to the “extraterrestrials,” who described their world and its cultures, displayed their artifacts, and explained their motives and expectations. This was followed by the unveiling of a dramatic sculpture of “Homer” by artist Marghé McMahon.

On the human side, NASA’s Carol Stoker and Yvonne Clearwater were among the most outspoken Earth council representatives, and there was general consensus that Anthropologist and director of the Military Conflict Institute Don

Marshall, after only two years of his term, was perhaps the best US president since Lincoln.

More scientists were attracted to the symposia by our new NASA colleagues, Larry Lemke and Geoff Landis, and British astronomer Martyn Fogg.

Mike Sims organized a robot scavenger hunt (suggested by NASA's Butler Hine) to illustrate the difficulty of designing a machine that can integrate sensory input and motor output as naturally and efficiently as a living organism. Hagen and I were respectively the "brains" of two teams facing away from our machines, while the participants (the component parts, each limited to its own function) blundered around the room inside large cardboard boxes, communicating among themselves and their blind brains by voice only.

In 1993, Anthropologist and board member Paul Bohannan (USC) was our keynote speaker. And there was a visitation by comedian Saint $ilicon, who gave a sermon, our first church service at CONTACT.

CONTACT XI/94

1994 was a year of risks. CONTACT tested its "spirit of responsible adventurousness," by inviting John Lilly and a remote viewer, to see if we ready to (as our mission statement says) "face the challenge of presenting a balanced interdisciplinary, scientifically-based inquiry on any subject." Lilly showed videos and extolled the virtues of Vitamin K; the remote viewer spoke of contact with "greys" and other ETs here on Earth. Stoker ran a social experiment that provoked controversy. It was all a mixed success.

We also began a provocative, interdisciplinary series, featuring anthropologists, a psychologist and a philosopher, and NASA and SETI scientists that ran for two years, "What Does it Mean to Be Human?"

1994

Defining Humans for Animals, Machines and ETs –Jim Funaro
The Humanistic Psychologist Meets People from Space –Al Harrison
Human and Other Intelligences - Chris McKay and Michael Sims
What is a Person? - Lyn Miles and Rob Schumaker

1995

Drive and Overdrive - Paul Bohannan
So Inhuman an Animal - Dennis Rohatyn
Intelligence in Humans and Robots - Michael Sims
Will There Be Intelligence on Other Worlds? – Chris McKay
The Search for Intelligence – Seth Shostak

We were joined this year by Gerald Nordley, our CFO-to-be and later conference coordinator, and Keith Farrell, editor of OMNI magazine who had

written a cover story on CONTACT in 1992. Also, we had a report from COTI Mundi, describing the world, Epona, its lifeforms and its sentient species, the Uthers.

CONTACT goes international: Through a special arrangement, some of our Japanese CONTACT veterans and friends, Masamichi Osako and Takashi Nakamura, produced CONTACT Japan 1. Seven CJs were eventually held, in Nagoya, Kobe and Yokohama, the last in 2007

This year, science fiction writer Poul Anderson was our keynote speaker.

CONTACT XII/95

Another significant year for CONTACT. COTI Mundi -- now styled “the Epona project” by its international team of over 30 designers -- climaxed in a blaze of glory, presenting, after 3 years of work, its finished version, detailing the culture of the sentient flying “Uthers”, and simulating a COTI-style contact with humans to cap the conference. During the encounter, Hagen and I were literally carried away as the flock took to the air.

Epona is quite likely the most thoroughly researched imaginary world ever created. Larry Niven, veteran of many CONTACTs and this year’s keynote speaker, enthused on Epona's final presentation at the conference: "Half the secret of Epona is [COTI's] 20 years of practice. The other half was in realizing that a week wasn't long enough. Epona was three years in the making ... I've never seen a playground this size!"

Impressed by his first CONTACT, computer entrepreneur Bruce Damer dragged me to a table and proposed an offshoot of our organization, to provide a practical link between our theoretical worlds of the imagination and the emerging worlds of virtual technology. The **CONTACT Consortium** was born! Bruce, Keith Ferrell of OMNI and I became the first board members.

This year, science fiction writer Larry Niven was our keynote speaker.

CONTACT XIII/96

This year we produced two Bateson Projects, bringing together experts in paper and panel sessions entitled “Toward a First Contact Protocol,” consisting of social scientists, and a NASA track, “Toward a Sustainable Martian Ecology.” There was a strong focus on xenoecology and sustainability throughout the program. The CONTACT Consortium gathered together an exciting group of entrepreneurs from the computer industry to discuss the state of the art in virtual reality. There was also a Solar System Simulation, in which students from several participating colleges presented their experience as SolSysters. Johanna Silverthorne, student-pilot of our L-5 team, eventually became a Board Member.

This year, science fiction writer Jerry Pournelle was our keynote speaker.

CONTACT XIV/97

We inaugurated our CONTACT website, proving that a novice like myself, using an editing program, didn't have to learn HTML. Another technical coup: Our entire conference was digitally taped and stored on a CD, produced as a gift from a talented friend of mine, Dan Williams, and his crew.

Also, through the diplomacy of Chris McKay, we added our first new science fiction writer in a long time, Kim Stanley Robinson, who brought back some of that particular SF brand of exciting and responsible speculation that has always made our conference and organization unique, and more fun. Since then, Stan has become a veteran at CONTACT, returning year after year.

This year, science fiction writer Kim Stanley Robinson was our keynote speaker.

CONTACT XV/98

As a joint NASA/CONTACT project, Chris MacKay, Don Scott and I invited Larry Payne, enlightened principal at Oroville (CA) High School, to bring along a group of adventurous teachers; and we put together a "course" to show them how to use the COTI simulation to create a curriculum that would be educational and fun. They loved it, and **COTI Hi** was born! Led by teachers Carol Anderson and Dave Tamori, the high school student COTIs became the final event of CONTACT for the next 10 years.

1998 also generated one of our most innovative SolSys simulations, highlighted by Doug Raybeck's Hamilton University team, which produced a remarkable fly-by video of its underwater colony, Chakura.

This year, artist and co-founder Joel Hagen was our keynote speaker.

CONTACT XVI/99

This year we instituted Ames Day, a kickoff Friday with a theme held at NASA's research center. (Our foot in the door.) Board Members Chris McKay and Michael Sims were instrumental in gathering a stellar academy of scientists to explore the Copernican Principle – to consider what in the realm of human experience might be universal. Psychologist Steven Pinker, cosmologist Paul Davies, physicist Andrei Linde, geologist Bruce Jakosky and biochemist Hy Hartman led the list, which also included a minister, philosopher, anthropologist,

roboticist, planetary scientist, and artist, neatly demonstrating our blatantly interdisciplinary approach.

The Oroville high school teachers produced a COTI HI curriculum and brought the first student team to CONTACT. First COTI HI contact! This inaugurated a ten-year run.

Poul and Karen Anderson had been invited to attend Contact Japan 3, as our ambassadors abroad. They reported on their experience.

"Now CONTACT has taken on [an] international character. Although it derives partly from science fiction, it also draws on real science. As you know, its founder, James Funaro, is an anthropologist. Participants have included scientists of almost every kind, as well as engineers, artists, writers, teachers, students, and others who are simply interested. We ourselves have been active in it since its early years and seen it grow from humble beginnings, through occasional difficulties, to its present position. We hope this growth and improvement will continue. [CONTACT Japan] certainly shows that it has gained attention and interest outside its country of origin. What made this happen? Well, we need hardly tell you. The creation and exploration of imaginary worlds is fun!"

This year, science fiction writer Greg Bear was our keynote speaker.

CONTACT 2000

The new calendar millennium was welcomed with a new numbering system for us. The Roman numerals were becoming too cumbersome (the same reason they were abandoned historically) and we began designating the conferences by year. CONTACT 2000 looked good to the eye and was celebrated with a unique silver and black T-shirt. Also celebrated was the inauguration of my 6th decade on the planet, this time around. Karen Anderson sang to me.

Our Ames colleagues again sponsored a star-studded assemblage of experts to speak to the theme of Artificial Intelligence, led by AI pioneer Marvin Minsky of MIT, philosopher John Searle, computer scientist Doug Lenat, writer and CONTACT veteran Greg Benford, and future board member Bill Clancey, specialist in machine and human cognition.

A revealing scene, documented by Don Scott, illustrates the easy and open ambiance of CONTACT: Marvin Minsky, renowned maven of AI, was in the lounge, playing classical music on the hotel's grand piano. Carol Anderson, teacher in charge of COTI Hi, approached Minsky and asked him if he'd be willing to help the students. "Sure." Minsky was a big help -- and really enjoyed himself. One of the photos of the workshop shows him sitting cross-legged on the

floor with the kids, aluminum foil antennae on his head. He was demonstrating how their alien species might communicate.

Taking the lead from this year's theme, a simulation was initiated by Allen Tough to simulate a meeting between humans and a machine civilization. I named it **COTI AI**. A very smart probe enters earth space and makes contact. The scenario was inspired by Allen's welcoming "Invitation to ETI" website.

Preparation: Dave Brin and Jim Moore communicated extensively about organization and procedures with me and team members over a period of several months. We decided to send to members of both teams, as resources for speculation, Allen Tough's website URL, David's commentary on the website, "An Open Letter to Alien Lurkers," and also his short story about a human/AI encounter, "Lungfish." The teams also met separately several times during the conference before the encounter on Sunday, sometimes with the remote advisors on line.

An unresolved variable at the meta-level: It was not made clear to the humans whether or not the aliens were AIs; but, because of the nature of the sim and the attendant publicity, it was probably assumed. This accounts for the minimal attempts by the human team to determine if it was a machine or biological intelligence.

The onsite team representing humanity -- author Poul Anderson, anthropologist Barbara Joans, Welcome to ETI website originator Allen Tough, and one of my college students, J. P. Cling -- was assembled on a podium in the main conference room, which was packed with an excited and vocal human audience which acted as resources and kibitzers. There was a computer and projector displaying the interaction between the humans and aliens on screen.

The Alien AI team -- artist Joel Hagen, film editor Howard Heard, AI specialist Dave Miller, NASA's Michael Sims, and teacher Bill Wilson -- were ensconced in a room nearby, out of sight and earshot, with their computer linkup to the main screen.

Pre-contact, the alien team members developed a number of strategies that they thought might characterize the nature of an artificial intelligence and would display "machine-like alien-ness" without being deceptive. Examples:

1) It was decided that the AIs did not have the equivalent of human emotions and did not "understand" motivations. Consequently, any human questions including the word "why" would cause an automatic reset followed by a reiteration or restatement. For instance, the AI would not answer "Why are you here?" but would readily respond to "What are you here to do?" It was felt that this kind of distinction might also allow the humans to learn about the nature of the aliens' intelligence.

2) Anticipating that it would be asked for verification, the alien team prepared visuals to demonstrate several possibilities. For example, if asked to light up the dark side of the moon, the team was ready to answer, "What color?" and comply accordingly.

3) Another technique was to make use of a machine translator (German was the model employed) to modify spoken English in order to give it a "mechanical" dialect. Early on, this resulted in a misunderstanding by the English-speaking human team, which the aliens recognized as the result of incorrect syntax due to the translator and immediately corrected in the next message.

4) Also, a list of "random" responses was prepared, perhaps as an instrument to test intelligence. This -- along with factors such as odd syntax, directness of questions and obsession with its goal rather than ”politeness,” and other effects that were contrived to convey a "mechanical" nature -- led some on the human team to assume that the AI was considerably dumber than it actually was and gave the impression of its being deliberately deceptive or obtuse.

5) Finally, the alien team decided that what they were after was the information on the internet. They had already been able to download about 71% of their goal, but found the remainder to be denied them by the need for a credit card number. Thus, their only interest in establishing contact was to acquire what they understood as "the number" that would give them access to the remainder of the sites.

The simulation was begun by the alien AI, via a "hit" on the website. The humans were referred to a website created by the aliens, and the conversation ensued. The initial message to the humans announced the presence of "The Gatherer," which stated its purpose -- "I must adapt you" -- and directed whomever answered to "give the information" which was being withheld. It explained: "I need these information. I am the Gatherer."

This scenario played out, involving a flurry of exchanges, for over more than an hour, with all participants immersed in the action and, I think, reluctant for it to end. Finally, we called for a discussion of results. As the “metaperson,” I found two outcomes particularly interesting.

1) Allen's website approach was accepted as a possible medium for alien contact, particularly in an encounter with a machine intelligence. However, some of the problems previously pointed out in this particular project did surface naturally in the simulation.

For example, who speaks for our species? It was clear from the audience participation (representing, in the sim, humanity as a whole) that -- though there were a multitude of suggestions to every response from the aliens -- there was no consensus on any of the replies. Because of this manifest multiplicity of opinions,

it was soon realized that in order for the simulation to proceed, someone had to make decisions; and a spokesman was selected. This emerged as a matter of convenient necessity, however; everybody still had his or her own ideas. It is also worth noting that, on a number of occasions the appropriate answer (from the aliens' point of view) was voiced in open council but was not the one chosen by the leaders to be sent.

Also, the approach may predispose the humans to unwarranted assumptions -- that the aliens would share similar goals or have common interests. It had been noted that the website seemed little prepared for hostile intentions; in the event, it proved even less prepared for humans to be entirely ignored.

2) The target of the alien team's communication was, from the beginning, the information on the internet; and their goal was to get the "access code" from the human team.

However -- and this may be my impression alone -- it only emerged gradually during the course of the simulation that the alien team realized their AI "thought" it was communicating, not with humans behind the internet, but with the internet itself -- that is, another colonial machine network -- and was only marginally aware of the carbon-based entities that also inhabited the planet.

This post-game revelation came as a surprise -- indeed a shock -- to the humans, who seemed to be disappointed at least and angered at worst. Yet this explained, in hindsight, why the alien responses to "friendly" human overtures were not returned in kind and why the AI seemed so single-minded and persistent in its requests for "the number," instead of patiently answering what it considered to be extraneous questions.

It also explained why certain of the aliens' phrases, such as "you will be included" (the Borg term "assimilated," though appropriate, was avoided), which seemed threatening to the humans, were in fact not threatening at all. The humans were never in danger; actually, they were considered so inconsequential that -- but for the presence of the welcome website and the need for credit card access -- the information download could have taken place without humans even being aware that alien contact had occurred.

Our keynote speaker this year was science-fiction writer Octavia Butler, who was both a charming and awesome presence. She became the catalyst around which some of our illustrious female participants coalesced to form their own impromptu “Queens of CONTACT” panel, featuring Lara Battles, Karen Anderson, Barbara Joans and Galen Brandt.

CONTACT 2001

For the first year of the 3rd millennium, the theme of Ames Day was “Space Odyssey: Imperatives for Space Exploration” – why do we want to go? This stimulated a spate of talks ranging outward into the universe.

A highlight of the year was a telephone conference call to visit with Sir Arthur C. Clarke. Another COTI AI was presented by Tough and teams. We were also treated to a tour of Ames’ Future Flight Center, arranged and guided by Michael Sims.

This year, SETI scientist and board member Seth Shostak was our keynote speaker.

CONTACT 2002

We finally got our Astronaut! Rusty Schweickart, on the recommendation of Ted Everts, was our keynote speaker. Our Ames theme, “Is the Universe Rife with Life?,” was sparked by Frank Drake, father of SETI, Robert Zubrin, father of the Mars Society, and Penny Boston, mother of caves. Also starring in this impressive lineup were Barry Blumberg, director of the Astrobiology Institute, and Chris Chyba of the SETI Institute.

This year we piloted a new structure, alternating symposia with activities sessions which featured interactive demonstrations of fascinating projects by their originators: Orrery (Rob Furey), BotBall (David Miller), Webtanks (Zann Gill), Contact Consortium’s Virtual Worlds (Bruce Damer and Bonnie DeVarco), UCSC’s Virtual College (Patrick McKercher), World Builders (Elizabeth Viau) and SolSys (Reed Riner).

In a special Tribute on Saturday evening, we bade farewell to our beloved Poul Anderson, who left us behind the year before. Among his many awards, Poul had won seven Hugos and three Nebulas. He had been a board member of CONTACT and an ardent supporter of our organization. Joining Joel and I in honoring his memory were Karen Anderson, Jerry Pournelle, Larry Niven and Vernor Vinge.

Men larger than life gather myths unbidden, accreting them like planets around a new sun. One of my favorite Poul sagas goes like this: When asked why he writes science fiction, Poul reputedly answered: "I want to go to the stars, and I can't wait." No more waiting, old friend. Save a cold one for me.

CONTACT 2003

For our 20th anniversary, we at last found our “home” at NASA Ames. For the next ten years, our entire conference was held on the base. Our theme was the

first of our series emphasizing one of CONTACT's major objective stated in our Bylaws: To promote interaction between the Arts and Sciences and to demonstrate the value of using scientific principles as a guide to the imagination and creative speculation as a tool for research. This year we focused on the visual arts: "Visions of Exploration."

Largely due to Hagen's initiative, we began attracting a new generation of participants, particularly among the computer animators in the film industry. Also, UC Berkeley's multi-talented polymath Carlo Sequín joined us, and was immediately recognized as a kindred spirit. Astronomer and artist Bill Hartmann, veteran of first CONTACT, returned to give the keynote speech.

CONTACT 2004

For centuries, Mars has captured our attention, fired our imagination and beckoned us onward to a frontier unlike any that humanity has yet encountered. Across times and cultures, Mars has been part of our science, religion, literature and art.

With Mars on our minds in the afterglow of its spectacular closest approach, our theme for CONTACT 2004 was "The Challenge of Mars: Past, Present, Future," and the conference coincided with the Mars Exploration Rover mission. Several mission scientists at Ames gave up-to-the-minute reports on the project to our audience.

Appropriately, our keynote speaker was NASA's Michael Sims, co-investigator of the MER mission and a member of our Board of Directors.

We welcomed new guests, space journalist Andy Chaiken, British science writer Oliver Morton and ILM computer artist Jeroen Lapré, and cheered the return of veterans David Brin, Dennis Rohatyn, Keith Doyle and Rich Sternbach. Gus Frederick and Israel Zuckerman were elected to the Board.

CONTACT 2005

We returned to our Arts & Sciences series, with this year's focus on writing: "Science in Literature, Literature in Science."

We added an impressive contingent of new participants: Emmy-nominated composer Phil Aaberg, Board Member-to-be Anthropologist Kathryn Denning, Astrosociology founder Jim Pass, "Star Trek Scientist" Athena Andreadis, and *Dream of Spaceflight* author Wyn Wachorst. Riner organized an international panel of futurists.

Board member Don Scott announced his research for his new book on George R. Stewart, author of the celebrated novel, *Earth Abides*, and introduced

John, Stewart's son, who gave us a personal perspective on his dad. The session closed with an inspiring performance by Aaberg of his piano composition, "Earth Abides." As his final notes died away into silence, there were not many dry eyes in the house.

At the banquet, Hagen and I were presented with the "Best Ideas" Award from the journal *Contact in Context* by founders and editors Allen Tough and Robert Lodder for "exhibiting an effective combination of scientific rigor, open-mindedness, wide-ranging vision, and warm personal encouragement."

This year, science journalist Andy Chaikin was our keynote speaker

CONTACT 2006

We concluded our three-part Arts & Sciences series (begun in 2003) with "Music of the Spheres," which produced a remarkable set of presentations, ranging from explorations of the biological infrastructure by Denning and Raybeck, through media astronomer Andrew Fraknoi's "The Music of the Spheres: Astronomically Inspired Music" and SETI's Douglas Vakoch's "A Primer of Basic Musical Concepts for Interstellar Communication," to musician Phil Aaberg's "Would Alien Music Sound like the Bar Scene in Star Wars?," author Kim Stanley Robinson's "I Tried to Write Science Fiction About Music," and astronaut Marsha Ivins' "Life and Music in Orbit."

Our banquet brought a double treat: Aaberg's keynote and magnificent concert.

A sad note: 2007 also marked the final iteration of our award-winning SolSysSim curriculum of 17 years running, as the online multicampus course, long devotedly directed by Riner, ran out of university support.

CONTACT 2008

After a year's vacation, we returned to hear the latest reports from NASA's mission scientists on the progress of the Mars exploration program and the plans for future spaceflight. In "Charting the 21st Century," Riner brought together a panel of well-known futurists to discuss how we produce timelines.

Physicist-cum-computer scientist-cum artist Carlo Séquin, in his keynote, introduced us to new dimensions of reality in "Modeling Our Universe … and Other Things."

Sunday brought another curtain call: The final COTI HI simulation. Having been run for 10 years as an extracurricular course financed by bake sales and teachers' volunteer work, this pioneering project in the future of education had to be terminated due to the diminishing support to sustain it.

CONTACT 2009

Silver CONTACT celebrated our 25th anniversary. A glorious birthday cake was produced by our ever-loyal and ever-resourceful Jean Moss, who also initiated a "Friends of CONTACT" campaign to help support our efforts and has since become a board member. Also, Penny Boston, a Case for Mars veteran, and Kathryn Denning joined our Board of Directors.

"Looking Back, Looking Ahead." A panel of CONTACT veterans from the earliest days, the middle (NASA) years and the more recent times, gave their perspectives about where CONTACT has been, where it's going and what they see as the best ways to create, in the years ahead, an interdisciplinary forum for the future that generations ahead will look back on with respect. Panelists: Phil Aaberg, Bill Clancey, Bruce Damer, Kathryn Denning, Jim Funaro, Joel Hagen, Al Harrison, Larry Niven, Chris McKay, Seth Shostak, Michael Sims, Reed Riner, and Kim Stanley Robinson.

New to CONTACT were biologist Randall Hayes, Alan Combs, film animator Chris Ford, storyteller Joe Lambert, entrepreneur George Raynault, and anthropologist John Traphagen. Returning after a hiatus were writer Karen Anderson and NASA's Yvonne Clearwater.

Penny Boston, new Board Member and "Our Lady of Caves," gave the keynote address. Board Member Gus Frederick organized the Silver Screen Film Festival, a wonderful medley of short, self-produced clips by Contact veterans.

The climax of our 25th conference was the "Mars Odyssey: One Thousand Days at Sea." Harrison opened the Sunday program with a discussion of maritime analogues for space missions and introduced Reid Stowe's venture as an example in progress. Then, from New York, Carter Emmart of the Hayden Planetarium demonstrated the Digital Universe program with emphasis on interplanetary travel, and we remotely watched and conversed on a live satellite phone call to Stowe at sea in his sailboat, 700 days into his non-stop voyage without any ports of call, as a Mars mission analog. We were virtually in the boat with the pilot. A stunning finale for our silver anniversary party.

The Mission of CONTACT

When we put on the first CONTACT in 1983, my goal was to create a unique, interdisciplinary gathering about the future that I hoped would earn a respected place in that future. As I now look ahead into the new millennium, I see the following principles of operation as a guide to our vision and a statement of our mission.

- **An Interdisciplinary Approach.** This, more than anything else, makes our conference unique. My purpose in setting up CONTACT in the first place was to create a professional conference (typical of any particular discipline), which atypically included many different professional disciplines. This not only forces together many new and diverse perspectives (a basic anthropological concern) but also increases the enjoyment factor. This is what "contact" means to me. I like to see sparks fly when ideas connect and ignite.

- **Professionalism.** CONTACT needs to remain committed to fostering and maintaining its professional scientific credibility by encouraging the participation -- and publication -- of scholars who are acknowledged as responsible representatives by their peer colleagues. Only in this way can we present reliable material to each other and to the public, and be taken seriously in our endeavors within the educational, scientific and policy-making communities we want to influence. Otherwise, Contact becomes just another "con."

- **Science as a Guide to the Imagination.** Notwithstanding this, we should also continue to maintain "a spirit of responsible adventurousness." Subjects and approaches that stir the imagination as well as the intellect should not be discouraged, as long as they can bear the scrutiny of scientific investigation. As we gain confidence and credibility, we can eventually face the challenge of presenting a balanced interdisciplinary, scientifically-based inquiry on any subject. In all undertakings, our reasonable discretion should be directed toward reaching a position of valor.

- **New Forum for New Ideas.** Too often the atmosphere within our own disciplines is so competitive that we are discouraged from doing the kind of creative speculation that rejuvenates our perspectives. It has been my intention that CONTACT would provide an alternative forum for piloting or "sunshining" new ideas for peer review. CONTACT should continue to provide an open and synergistic context, nurturing a spirit conducive to exploring (not denying) possibilities. In this way, we can ensure that we entice valuable new participants, that our work remains on the leading edge and that our conference never ceases to be an exciting, innovative event.

- **Education for the Future.** We are chartered as both a scientific and educational corporation, with a commitment to public benefit as well as collegial satisfaction. Our By-laws clearly state our purpose "to educate the general public;" and we have a standing committee on Education. Most of us are educators or deeply concerned with education; and our human resources, simulations and interests place us in a unique position to develop curricula for building a new generation that is excited about humanity's future on Earth and in space.

- **Focus on Human Factors.** Human problems -- unlike technological and physical ones -- commonly have no solutions, only resolutions, which are by their nature temporary, context-specific and variable; and levels of predictability

will likely always be lower than in the hard sciences. It is, perhaps, precisely for this reason that we must not give up our commitment to professional exploration of the human component of the human future.

I feel these principles of operation have successfully survived the selective pressures of the past and ought to continue to be the guiding stars of our journey into the future. Survival is not a sufficient goal; we have to be adaptable without abandoning our ideals. These principles will help us chart our course, so that we can explore the unknown without losing our way.

Appendices for the CONTACT Chronicles

I. Original Letter of Invitation to First CONTACT -1982

II. Bateson Dedication

III. LOCUS - the first CONTACT

IV. Bohannan - the first CONTACT

V. San Jose Mercury - interviews with Funaro, McKay, Harrison & Bohannan

VI. Wedding – Anthropology for the Future

VII. About CONTACT – Bibliography

CONTACT 

Introducing a Symposium for Exploring Possibilities in the Science Fiction/Anthropology Connection: An Odyssey to Cultures of the Imagination

As science fiction has been gaining both immense popularity and literary respectability during recent years, science fiction writers and anthropologists have become increasingly aware that they share some fundamental and professionally relevant interests and perspectives. Anthropology was perhaps the first science to concertedly use science fiction as a teaching device; over a decade ago, the first text combining the fields was published, and since than at least two more have come out expressing specifically the same theme. Also during this time, numerous courses have been designed and taught by professional anthropologists at various universities around the country with the express purpose of using science fiction to teach Anthropology. My course, "Science Fiction and Anthropology," at Cabrillo is an example (and was, by the way, mentioned by Robert Heinlein in one of his latest books).

One traditional academic role of anthropology (one might add "on this planet") is the study of human "exotic cultures." This role has already been expanded to include non-human primates and is presumably logically extensible to "exotic cultures" wherever they may be met with. At any rate, the perspective of cultural relativity, the principles of biological and cultural adaptation, and the techniques of cross-cultural field experience have probably made the anthropologist the most appropriately-trained scientist at present to deal with alien cultures should we encounter them in the future.

For science fiction writers attempting to portray scientifically credible — if fictional — contacts with alien "exotic cultures," anthropological theory and field work involving earthly ones can provide both a practical time-tested model and also a storehouse of "curious" documented ethnographic data for projecting into imagined realities. And, indeed, for anthropologists (who study real "alien" cultures), much of the best science fiction might be labeled — and studied as — "creative ethnography," which can be effectively used as a medium to illustrate principles and explore possibilities within their own discipline.

In an attempt to clarify for non-Anthropologists just what it is we're talking about — and therefore provide a firmer focus for our conference — let me briefly outline the field. Anthropology is a holistic, functionalist, and comparative approach to the human experience, from the perspectives of both biological and cultural adaptation, in both the past and present.

There is, in all this pedantry, a hidden motive: To entice your demons. I believe that many science fiction writers are closet anthropologists who are 1) fascinated

by one or more aspects of the discipline (language? social structure? human adaptation?) and 2) creating cultures of the imagination with such a practiced eye for details-which-ring-true that the anthropologists must recognize in them a kindred spirit. And some anthropologists are refugees from English departments or have for other reasons literary aspirations ("novelistic" ethnographies abound): and, as scientists, many would love to unshackle theory from known or knowable fact by letting art, however temporarily, become knowledge.

When we get two such groups of professionals together, exciting things are bound to happen. This is what I want to do on April 8-10, 1983, in Santa Cruz. Help me tweak the nose of academic entropy.

Quamquam ridentem dicere verum quid vetat?

Jim Funaro
1981

GREGORY BATESON

Even during my earliest stages of planning for the first **CONTACT**, a conference linking speculative anthropology with speculative fiction, it seemed clear to me that the guest of honor could be no one else but University of California Regent and teacher Gregory Bateson.

Anthropology claimed him because his focus was ever on the human being. But no single discipline could circumscribe his intellect. His early commitment to the natural sciences was basic to an approach that provided significant contributions not only to anthropology but to psychiatry, communications, cybernetics, and perhaps some fields that as yet have no names. His range of interest is illustrated by his major works: *Naven; Balinese Character: A Photographic Analysis; Communication: the Social Matrix of Psychiatry; Steps to an Ecology of Mind* and *Mind and Nature: A Necessary Unity*.

As a scientist, he showed a genius for abstracting principles from data. As an academician, he challenged intellectual complacency and mediocrity whenever he found them. And, in his wake, he left expanded perspectives. Though his death on July 4, 1980, has made it inconvenient for him to join us in person, his tradition of exploring possibilities and stimulating ideas is still with us. He has led us to a more comprehensive vision of our place in nature and what it means to be human. Thus, it is to Gregory Bateson that **CONTACT** is respectfully dedicated.

- Jim Funaro

First CONTACT • April 8-10, 1983 • Santa Cruz, CA

DAY 1

The Science Fiction/Anthropology Connection
Reed Riner - "Materialists and Mentalists"
Paul Bohannan - "Premises and Science Fiction"
Larry Niven - "Specifics"

Science Fiction as Creative Ethnography
Michael Bishop - "Fictional Mirrors of Contemporary Human Societies"
C. J. Cherryh - "Regul: Case Study in Alien Creation"
Mischa Adams & Ruby Rohrlich - "In Search of Utopia: Mavericks and Mythmakers"

Bateson Project: Open Session

Film Program - Discussants Peter Beagle and Vivian Sobchack

DAY 2

Monkey Bodies and Others
Robert N. Tyzzer - "Biological Factors in Species Contact"
Richard D. Johnson - "Looking Forward"
Paul Preuss - "Stranger Than We Can Imagine"

Monkey Minds: Theory and Method
Jerry Pournelle - "Data and the Voodoo Sciences"
Jim Funaro - "Science and Other Magick"
Charles F. Urbanowicz - "Culture, Anthropology and Science Fiction"

Bateson Project: Open Session

DAY 3

The Bateson Project: Contact!
Major Discussants: Larry Niven and Jerry Pournelle
"Gamemaster" - C.J. Cherryh
Participants: Mischa Adams, Darrel Anderson, Michael Bishop, Paul Bohannan, C.J. Cherryh, Jim Funaro, Joel Hagen, Pamela Lee, Paul Preuss, Bob Tyzzer

A Tale of Two Cultures: Storyteller Ruthmarie Arguello-Sheehan and friends

FIRST CONTACT

© Paul Preuss and LOCUS, June 1983

CONTACT, the science fiction and anthropology conference held April 8-10, 1983 in Santa Cruz, both began and ended on high notes. At the start, the mayor of Santa Cruz read a charming proclamation declaring April 8 "**CONTACT** Day"; he expressed the hope that the conference "would learn how to deal with alien cultures in the city of Santa Cruz." And **CONTACT** ended with an instant myth, a tale of two cultures touching minds for the first time, skillfully expressed in a show of music, mime, and narration under the direction of storyteller Ruth-Marie Sheehan.

CONTACT left its participants exhausted, its organizer Jim Funaro (who personally underwrote all costs) several hundred dollars in the hole, and its audience hungry for more, but despite (or because of) the intensity of the weekend and its lessons, **CONTACT** promises to become an annual affair.

Funaro expected hard work from his volunteer speakers, and he got it. A dozen scientists and writers presented formal papers in symposia totaling eight hours of discussion of such questions as the future evolution of humans and machines, how to recognize an alien if you meet one, what you can ethically do with or to it, and why we need aliens anyway. Out of deference to the science fiction writers, or perhaps out of academic habit, several anthropologists soberly discoursed on nonexistent alien cultures as if these were matters of obscure fact. Writers Michael Bishop, C.J. Cherryh, Larry Niven and Paul Preuss were somewhat more down-to-earth, acknowledging their creations and projections of explicitly human concerns and talking about the hows, whys, and consequences of alien-making. NASA biomedical expert Richard Johnson characterized the stereotypical square-jawed hero or lithe heroine of the spaceways as a self-flattering delusion and made the unsettling prediction, based on the evidence, that homo *spatium* will resemble nothing so much as a boneless bag of bodily fluids - the first aliens we meet may be us. Jerry Pournelle, with two degrees in social science, attacked the "soft" sciences as mere voodoo, while anthropologist Funaro retorted that all science is a species of magic.

Concurrently with the academic brouhaha, two teams isolated from each other by mutual consent invented alien and human cultures of the far future, in an exercise dubbed Project Bateson (after the late UC Santa Cruz professor Gregory Bateson, whose improbably varied career was devoted to investigating the many respects of

Mind-with-a-capital-M). The resulting imaginary cultures were possessed of meticulously worked out social and religious structures. Although in retrospect it is apparent that major features of the two societies - dreaming sea-creatures, ritual sacrifice, flying asteroids, and so on - might have been predicted by anyone familiar with the works of Cherryh, Bishop and Preuss, the writers involved, there was nonetheless a convincing amount of fumbling in the dark when the two teams first confronted one another, alien to human.

Since most Bateson Project participants wanted to hear what their colleagues had to say, lack of time and sheer fatigue were major obstacles to persuasive world-building. More seriously, the organization of the project barred effective contributions from the physical sciences; "hard" science types were justifiably frustrated, and the imaginary scenarios were excessively rubbery. Anthropologists outnumbered writers, talkers outnumbered visual artists, women of all categories were much in the minority, and the public was too often excluded from the world-building process. Next year it will be different. (?)

An outstanding feature of **CONTACT** was the small, invitational art show organized by Joel Hagen, displaying space art, ethnographic art, and works of pure imagination by Darrel Anderson, Pamela Lee, William K. Hartmann, Art Costa, Hagen, and others, plus a NASA exhibit complete with moon rock.

Among the eager and sophisticated audience were many northern California fans and writers and not a few social scientists; at least one graduate student and one team of professionals among them were seriously scrutinizing the participants, doing unsmiling studies of male dominance rituals and other aspects of human group interaction. Like the majority of those who attended **CONTACT**, they got a very good display - uh, show.

ANTHROPOLOGY AND SCIENCE FICTION

Paul Bohannan
(From CONTACT Newsletter, Vol. I, Number 2, March 1990)

In the spring of 1983, I attended a conference in Santa Cruz on anthropology and science fiction called CONTACT. The "con" is there because all science fiction CONferences have either something-CON or CON-something. The place was full of science fiction writers and anthropologists, as well as some "fans" who came to watch. We played a "game" called "Bateson." I have seldom learned so much in three days.

Perhaps the most important thing I learned is that anthropology needs science fiction almost as much, though not quite, as science fiction needs anthropology. Science fiction writers have to know something about a lot of fields of science, but the main ones are physics and anthropology. They also have to know just enough evolutionary biology to deal with problems of adaptation. They are concerned with the principles of planet formation, of what constitutes special environments, and about the cultures that prescient creatures form when they interact and communicate in that environment.

The focus of science fiction is almost always on some problem of adaptation to (including conquering or protecting) some strange environment. Then, in order to fit it into a story form, every good science fictioneer should know rather a lot about psychology. The very best SF writers are, like Dostoevski or Melville or Hawthorne, skilled psychologists. The level of psychoanalytic sophistication is high among science fiction writers. That takes care of the motivation and activities of characters. And it is also important to know a lot of mythology ~ many science fiction stories are versions of myths derived from some culture or other ~ often blatantly from the Greek or the Anglo-Saxon Arthurian legends, but the myth of any culture will do perfectly well. And all that brings me back to "Bateson" (anthropologist Jim Funaro, who organized and staged the conference, was a friend of Gregory Bateson and had been much influenced by him).

The game was fun: two teams were created, each composed of anthropologists and science fiction writers and artists (very important in science fiction circles). One team, composed of science fiction writers Michael Bishop and Paul Preuss, artist Darrel Anderson, anthropologists Robert Tyzzer, Mischa Adams, and me, had the task of creating a human society, with its environment, at least 5000 years in the future. The other team (science fictioneer C. J. Cherryh, artists Joel Hagen and Pamela Lee, anthropologists James Funaro and Reed Riner), created a society and culture of non-human, sentient, culturally advanced creatures. There was no communication between the two teams. Writers Larry Niven and Jerry Pournelle played spy and troubleshooter, respectively.

Each team had a session of a couple of hours with the fans, telling them what kind of culture they had created and answering questions. This session was of

great value because the questions drove us to greater consistency and also provided a lot of ideas that we had not thought of before.

Science fiction writer Larry Niven went between the two groups, so that he would know both creatures and both cultures and could set up the conditions of the contact.

Then the CONTACT took place between the evolved human species and the non-human species in ways that Niven and the two teams extemporaneously created in front of the audience of fans. Each team made a move, then the other made a response, and the CONTACT was in fact carried out. It is astonishing how easy it is to fall back on some sort of violence in the face of difficulties of comprehension. It is astonishing how, just as in a family, the protagonists create a "story" that neither anticipated. It all takes place in front of you: you are part of it, but it really isn't anything you planned. It isn't, perhaps. even something you like.

While the two teams were planning their cultures, more-or-less "scholarly" but certainly entertaining papers were being given by anthropologists and science fiction writers, to keep the fans (and one another, because, after all, all of us are fans) informed and amused. Then, at the end of the conference, a story teller working with two mimes turned the whole event into stunning and convincing myth.

The importance of all this to anthropology should be evident: it gives us a chance to dream up cultures ~ even non-human cultures. A number of things become apparent as you take part in this kind of exercise: first of all, you'd better get the physics of your environment right ~ only if you know that can you see the range of adaptations necessary. And those adaptations are fundamentally cultural adaptations: I know of no better way to express instantly and clearly the basic dominance of the environment in the adaptational exercise. You also discover in creating a culture that if it doesn't all hang together, Malinowski-fashion, it all falls apart. Cultures in fact must be functionally consistent behavioral responses to environment, and the familiar and strange things that enter that environment.

Finally, anthropology raises the fun level at every university where it is taught ~ in every organization where anthropologists hang out. An association with science fiction raises the fun level of anthropology itself. It also sharpens the anthropological wits.

Science fiction is "*als ob* anthropology." Long may it wave. I am looking forward to the next CONTACT conference.

San Jose Mercury News • West Magazine • August 19, 1990

(Including interviews with Chris McKay, Al Harrison and Paul Bohannan)

Cabrillo College anthropology instructor Jim Funaro
studies the future of human culture

Close Encounters with our Own Kind

by Mark Dowie

The first step in preparing to meet extraterrestrial creatures is figuring out what sort of creatures Earthlings are. That's what Jim Funaro and the exoanthropologists are up to.

In 1969, when the rest of us called them "bums," Jim Funaro was talking about "urban nomads." Anthropologists, Funaro explained, never use words like "bum" or "hobo" or "drifter" or even "homeless," particularly to label wandering dispossessed sub-cultures of the human species. As academia's most exotic social science, anthropology selects more dignified terms from its lexicon, he said, terms like "urban nomad." When they travel together, then a bunch of bums become a "nomadic tribe" (sub-phylum: urbanus).

This year, Funaro is into "space nomads" -- same species, but quite another tribe, and one that he hopes to join himself.

"Humans will soon begin migrating off this planet in very large numbers," asserts the Cabrillo College professor. "We are an exploring species -- have been ever since we dropped out of those trees in East Africa and bounded across the savanna on our back legs." And here he mimics *Homo erectus* taking his first awkward steps into civilization. "We've really never stopped searching for better

econiches" -- anthropologese for habitats. "But there's no room left on this planet, so we are rapidly developing the technology to move off it, just as seafarers developed the means to move off crowded continents." Intergalactic migration, Funaro adds, will be larger than anything we have ever witnessed on Earth.

"In the not too distant future," he calmly predicts, "there will be more human beings living off the Earth than on it." (Terms like "in the not too distant future," one must remember, can mean many generations in a science that reaches back 5 million years to the dawn of human history. To an anthropologist, a generation is the blink of an eye.)

"And having been born in space," Funaro continues, "most humans will be total strangers to the planet of their origin." By then a whole new field of anthropology will be in full bloom, and Funaro expects to be in its vanguard.

Funaro calls his nascent field "exoanthropology" -- "exo" being the scientific prefix meaning "outside," here adapted to mean the study of things outside the biosphere. "Exobiology" is already an existing sub-specialty. Exobiologists study life forms in space. "Exoanthiopologists," then, will study human culture in space. And if he has his way, Professor Funaro will be out there somewhere transmitting data back to Earth from orbiting nomadic bands of one sort or another.

Since fewer than 200 men and women (that we know of) have been outside Earth's biosphere, there hasn't been much field work for exoanthropologists. Funaro and his colleagues have had to resort to "simulation" -- a word they reserve for talking to engineers who, they have found, don't respond quite as well to the word "games."

Funaro's favorite simulation is in fact a game -- a game he invented called "Bateson." Played between two teams composed of anthropologists and science fiction writers, the object of Bateson is for one team to imagine itself as a band of intergalactic travelers, the other as inhabitants of a planet somewhere in our galaxy. Each team sequesters itself for two days, away from the other team, to create an imaginary environment and design a culture for their society. Then, at a predetermined time, the imagined parties encounter one another somewhere in the universe.

Their reactions and behavior during the end game are carefully observed by an audience of scholars -- anthropologists, psychologists and, in recent years, a sprinkling of space scientists. Some of the spectators' insights and impressions will appear in next year's science fiction. The rest will be published in the *samizdat* journals of exoanthropology, most of which Funaro creates.

The notes of space scientists will be stored in NASA's small but growing "Human Factors" file, to be exhumed in years to come, when Earthlings begin

their migration into the solar system and beyond -- something that Funaro, his Bateson players and most spectators of the game consider to be either inevitable or ordained.

Funaro created Bateson in 1983, after hosting an informal gathering of anthropologists and science fiction writers in Santa Cruz. He named the game -- originally "The Bateson Project" -- after his colleague Gregory Bateson, former husband of Margaret Mead and a regent of the University of California until his death in 1980.

The idea of convening anthropologists and sci-fi writers came from Frank Herbert, author of the sci-fi classic Dune. Herbert convinced Funaro that their two professions working together could offer the world's space scientists some valuable insights. Ursula LeGuin and John Brunner concurred. They agreed to find the sci-fi writers. Funaro would recruit the anthropologists.

"Anthropologists study alien cultures; science fiction writers create them," says Funaro, whose main academic objective now is "to design cultures for off-world societies," something he soon hopes to be doing for NASA.

Designer cultures? Absolutely. Funaro believes that only in carefully planned social structures can human beings survive the lonely hostility of space. NASA hasn't bought it yet, and they may never accept Funaro's design, but they are listening, and watching Bateson games from the sidelines. This year they saw something particularly intriguing. Both tribes of alleged aliens who met in space turned out to be of Earth origin, although they didn't realize it when they met. They had been part of an intergalactic probe that had left Earth 15,000 years ago in separate spaceships that had wandered apart, got lost and landed on planets with very different environments.

On one planet, with gravity twice that of Earth's, but with a small star at the center, shedding half the light of the sun, humanoids had evolved into short creatures with very large eyes. Almost the opposite had happened to passengers on the other craft. Thus, when they met, these two bands of lost nomads were unable to recognize their commonality.

Funaro, who creates the premise for each year's game of Bateson, chose this year's scenario because he is convinced that "the first aliens that humans encounter in space will be ourselves." The first meeting will be tense and frightening. But Funaro is confident that peace will prevail and both humanoid societies will be better prepared for eventual contact with true biological aliens, which of course won't happen for several millenniums after the first alien contact.

How we Earthlings respond to such encounters will, Funaro believes, depend on the cultures and scenarios we have imagined in our literature and in settings like the Bateson game. Anthropology and science fiction (the best of

which Funaro says is really just "creative anthropology") are thus "lighting our path" to eventual contact with other worlds.

Although Funaro and his culture designers have met seven times in as many years, playing a new game of Bateson each time, only during the past three has NASA begun to heed his work. Interest in anthropology at the agency has been sparse. The first anthropologist it hired, in fact, was assigned to study the corporate culture of NASA's suppliers and contractors. It would be three more years before there was interest in exoanthropology. NASA's curiosity about off-world cultures seems to have been stimulated by the Search for Extraterrestrial Intelligence (SETI), a $100 million research effort centered at Moffett Field's Ames Research Center.

Not everyone at NASA is a "tin bender," nor are all NASA engineers obsessed with propulsion and payloads, but techies do dominate the culture and most techies, according to Funaro, "go into their field to avoid human factors."

There are few social scientists scattered throughout the agency, and even a few techies who are sensitive to "human factors." Take **Chris McKay**, for example, a physicist and self-described techie in NASA's Special Studies Division. McKay, who has followed Funaro's work closely, believes that at some point in the near future space engineers must become grounded in the social sciences.

"Before I spent time at NASA's experimental station in the Antarctic," says McKay, "I didn't think much about human factors. But 10 years of regular visits to the place and I was gradually converted. During the first two years, we lived in tents and worked all day in 20 degrees below zero environments. When they eventually built heated Quonset huts for us, and we were able to live and work in shirt sleeves, we became much happier, more productive, and I began to understand the importance of human factors."

McKay is now a human factors champion at NASA. He is also convinced that Antarctica is about as good an analog for a Mars colony as we will ever find on Earth. "There are a few people at NASA who are beginning to realize that we are not just sending people to Mars to pick up a few rocks and come home. Eventually people are going to settle there."

McKay has accumulated reams of material on the human side of space exploration and is ready to provide studies and papers to his peers when they show concern for sociological and anthropological matters. In his files are the musings of Jim Funaro, not all of which McKay predicts will be well-received by NASA. Take for example, a long paper recently published by the American Astronautical Society, in which Funaro questions the suitability of Americans for off-world settlement.

"Compared cross-culturally," he opines, "Americans have large heavy bodies, expect privacy, many conveniences and considerable personal space.

They are also individualistic, competitive, unused to sharing and relatively poor at group dynamics."

The observation is unlikely to be popular in the patriotic environs of NASA -- even in the embryonic "Human Factors" section where "human," Funaro says, "still tends to mean 'American.'"

"These are not human problems," quips Funaro, "they are American problems. We could hardly find more difficult people to design off-world habitats for than ourselves! Members of many other societies might be better prepared by their normal cultural upbringing for the human problems involved in extended space flight."

Although he can list many other cultures, some primitive, some developed, that he believes are better suited for intergalactic exploration and settlement, Funaro does not propose that we send hunter-gatherers to colonize Mars or provide a vehicle for the Japanese, whose homogeneity and personal discipline he believes would make them preferable space voyagers to Americans. However, he asserts, "if we don't take account of our own cultural characteristics before we leave, we will have real problems out there."

"We may be the right people to check out Mars," Funaro allows, "but when we send people to raise families, maybe not. At the exploration stage, Americans are perfect. We're good at innovation, good at operating at a distance from central authority, coming up with our own solutions. We should be the explorers. But colonists need different qualities. They have to be reliant on the group. Japanese are that way. We aren't. We are taught from an early age to be responsible to ourselves. They are taught to be responsible to other people."

Chris McKay agrees with Funaro's premise, but is confident that within our multicultural society the right stuff exists for long-term travel, just as it has for short explorations. "There is no monolithic American culture," says McKay. "Sure, there are Americans who fit Funaro's profile. Lots of them. But there are also many who are more cooperative and less individualistic than any Asian I have met. We can find the right people in our vast society and we will before we leave."

Funaro knows that it is unrealistic to expect Americans to stay home and design missions for other nationalities. "But it is worth considering," he says, "if only as an intellectual exercise. I don't want to send Japanese explorers off in American spaceships. But I do want to send Americans who have learned from the Japanese."

NASA listens but rarely responds. "The agency is still dominated by old military types," says consulting psychologist **Albert Harrison** of UC Davis, a friend of Funaro's and a regular Bateson spectator. "As they retire and younger people grounded in social sciences take their place, things will change."

Harrison's work with NASA is typical of their human factors research. He tries to anticipate the day-to-day working and living environments for the next generation of space vehicles, ships he expects to be about the size of a Winnebago that will carry six to eight passengers to orbiting space stations, the moon and Mars. Early voyages to these destinations will last, in some cases, five or six years. And most of the astronauts and scientists aboard will return to Earth to finish their lives. It will be decades, says Harrison, before the agency needs to think in Funarian terms about longer-term space travel.

Not true, says Funaro, who points to the fact that blueprints for space stations and other off-world colonies are already on NASA's drawing boards. He says that without anthropological input now, we will make the same mistakes with space stations as we did with our cities.

"After building thousands of complex urban settlements in almost every civilization in our history, we still don't know what a cultural environment would be like that met real human specifications." Human specifications, he says, should be considered before infrastructure is designed, not afterward.

Funaro faults his own profession for not being more aggressive with NASA. "Anthropologists are arrogant," he says. "We pride ourselves in our government and nationalistic policies. Although it may be true that we aren't ready for long-term migration, we could be learning a lot about how people respond in space simply by studying the astronaut program. But anthropology hasn't done a very good job of pointing that out to NASA or showing them what we can do."

Funaro doesn't trouble himself too much with NASA, however, obsessed as it is with short-range shuttles, leaky fuel lines, military missions and faulty telescopes. He doubts that the first permanent off-world colony will be a NASA mission anyway. "It will more likely be private," he says. "Some eccentric billionaire like H. Ross Perot will decide it's time to mine asteroids or beam solar energy down to the Earth and will sponsor the first real long-term expedition."

And would Funaro like to be aboard?

"My bags are packed," he says.

Even if he knew he would never see the Earth or his family again?

"Absolutely. If human beings are going to leave this planet, anthropologists have to leave it too."

DO HUMANS HAVE A FUTURE?

• A Conversation with Paul Bohannan •

by Mark Dowie

Most Anthropologists are content to study human cultural evolution and history. Thus, their focus is primarily on the past. The future, outside of their personal lives, is of little interest. In such a milieu, colleagues like Jim Funaro are likely to be regarded as benign lunatics or worse. That was the case, in fact, until Paul Bohannan, past president of the American Anthropology Association, took an interest in Funaro's work.

Bohannan, who taught anthropology at Oxford and Northwestern and retired recently as dean of social sciences and communications at the University of Southern California, is revered throughout the anthropological community. And his opinion is respected, even as he bemoans the pessimism and backwardness of his field. "Not very many of my colleagues have made the concrete step toward examining the future -- of either anthropology or mankind -- on the planet or off the planet," he says. "There are very few suitable pioneers in this field. Jim Funaro is one."

Q. Jim Funaro seems fairly optimistic about the future of mankind. Do you share that view?

A. Yes. Humans are very elastic and they will invent amazing things in desperation. And I believe they can live in any environment, anywhere in the universe, if they have enough culture. And, like Jim, I don't think that human beings are going to destroy the planet. Anthropologists really shouldn't be as pessimistic as they are. I encourage them to join Funaro and begin thinking about human life in space. Otherwise, anthropology will simply not survive.

Q. And NASA's leadership -- should they be listening to Funaro?

A. I am not sanguine about NASA's leadership or its future. They still haven't accepted the fact that space missions fail because of social, not technical problems - despite all the evidence from the Challenger disaster. NASA tried very hard to portray the explosion as a technical failure, but if you look behind the O-ring you find *human* failure. Engineers pay lip service to social problems, but don't do much about them. Funaro's message is that in space we must imagine situations before they occur. Once we leave the planet we can no longer afford to learn from catastrophe.

Q. And is there a message for academia?

A. Yes. But there's a serious problem with academia. There are no rewards in the social sciences for imagination. Technical imagination is rewarded, but social

imagination is not. Suggesting technological changes is encouraged; but suggest social change and you are a commie or something worse.

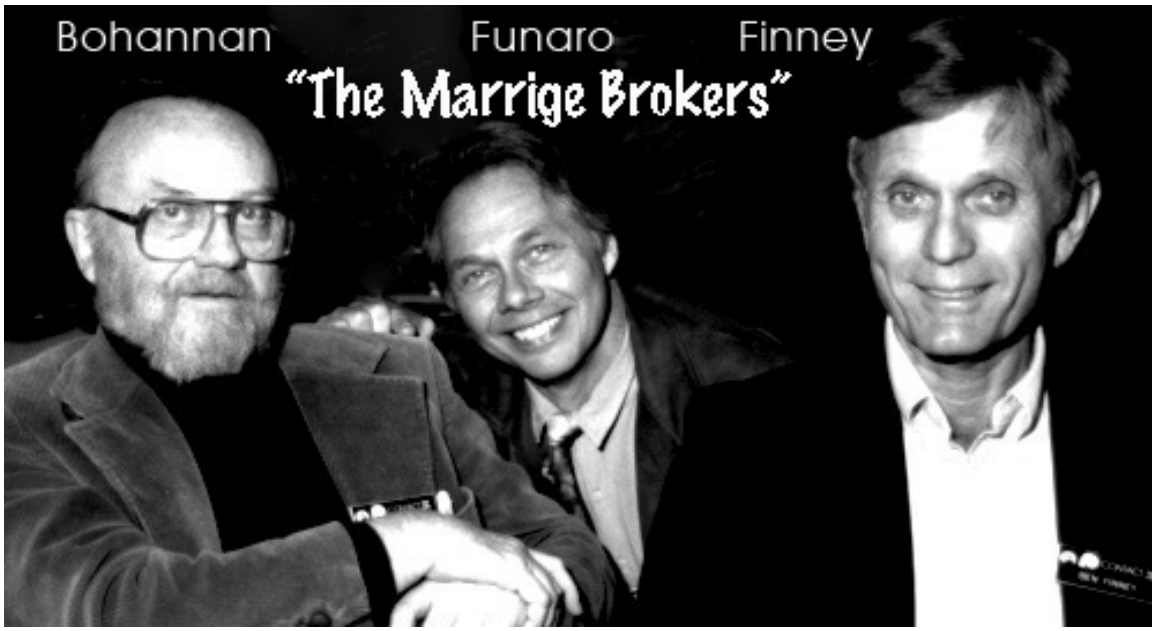
Q. Is NASA well-enough grounded in social sciences?

A. They would say so. On the human side NASA likes to argue that their astronauts are trained military people who follow orders and do what is expected of them. Well, the hell they do. No sooner are astronauts out of the Earth's gravitational field than they are telling ground control not to bug them with unnecessary orders and instructions. There have already been at least two small rebellions in space -- one American, one Soviet. A little basic anthropology could have prevented them both.

Q. What is your opinion of Funaro's suggestion that Americans are the wrong people to be colonizing space?

A. He's right. We aren't disciplined; we don't follow leadership easily -- the Japanese and Chinese do. And we are spoiled by all the choices we have had in life. So we probably would not do well up there. But we'll go anyway.

MARK DOWIE has won two National Magazine Awards for investigative reporting. His last article for West was on Eric Drexler and nanotechnology.



SHOTGUN WEDDING: Does Anthropology Have a Future?

Jim Funaro • Cabrillo C
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Over the past several decades, the primary mission of my professional life as an Anthropologist has been to forge a marriage between my field -- which I feel has great untapped potential (and a great personality!) -- and the public and private institutions and agencies that have committed themselves to researching, designing and directing the future of our species.

I (and my few fellow conspirators in this matchmaking) have been surprised and disappointed to find that, for the most part, our beloved Anthropology has played the reluctant bride in this proposed union, having to be led --- sometimes dragged kicking and screaming -- toward the altar.

True, in the last half century, there have been some serious wooings, and a few memorable affairs. During and after the Apollo years, sessions on the future and futures studies were organized at almost all the American Anthropological Association's general meetings; *Speculative Anthropology* and *Cultural Futures Research* had their days in the sun; and a few Anthropology courses focused on the future (I taught one for 20 years), and textbooks to support them, were sprinkled through our colleges and universities.

But that brief fling was stifled, during the unadventurous 80's and 90's, by the progressive tightening of the national sphincter. And now we are fully entrenched in the new Millennium, yet not one of the 42 official sub-sections of the American

Anthropological Association has boldly espoused Tomorrow. Maybe it's time to start one. Anthropology for the Future, anyone?

Nonetheless, I am convinced that this shotgun wedding must take place if Anthropology is to expand its concerns for the past and present into the future. Otherwise, our field may wind up an unhappy spinster, left behind rocking in the attic with only memories, while the object of its affection, humanity, enters the space age and leaves Earth without us.

And if you want to find those few, those proud Anthropologists who are dedicated to exploring the future of our species onworld and offworld, there's really only one place they congregate. You'll discover them conferencing at NASA's Ames Research Center or the SETTI Institute in California, with other professionals in the space and social sciences, computer technology, digital art, education and the humanities, at an international, blatantly interdisciplinary forum on the future called "CONTACT: Cultures of the Imagination." Here we are!

It's a small wedding, but come anyhow. See *www.contact-conference.org*.

The Wedding Party

Mischa B. Adams
James Armstrong
Paul Bohannan
Jen Clodius
Sam Collins
Kathryn Denning
Phil DeVita
Suzanne Engler
Jan English-Lueck
Ben Finney
James J. Funaro
LuAnne Hudson
Barbara Joans
Morton Klass
Don Marshall
Lyn Miles
Mark Meadows
Michelle Merrill
Jim Moore
Mel Neville
Arthur H. Niehoff
Doug Raybeck
Reed D. Riner
Richard Robbins
Devayani Smith
John W. Traphagan
Robert N. Tyzzer
Charles Urbanowicz
Dirk van der Elst
Elizabeth Viau
Richard Zimmer

SOME ARTICLES PUBLISHED ABOUT CONTACT

Paul Preuss – "First Contact," *Locus*, June 1983

Jerry Pournelle - 1985 *Science Fiction Yearbook* (Pg. 211)

Erik Larson – *Omni, (8.12) 9/1986* (Pg. 28)

Michael Crichton – *Sphere*, 1987 (Pg. 84, Fictional Account)

PBS Video – "Contact: Cultures Of The Imagination," (KCET *California Stories*, 1987

Mark Dowie – "Close Encounters Of Our Own Kind," *San Jose Mercury* 8/19/1990

Frank White – *The Seti Factor*, 1990

Paul Bohannan – *We, The Alien*, 1992

Greg Barr – "Contact In the Classroom," *Analog* 1/1992

Keith Farrell – "How to Build an Alien," *OMNI* (Cover Story) 10/1992

Al Harrison – *After Contact*, 1997

Poul & Karen Anderson – *Contact Japan* Newsletter Vol Ii, 3/1998

Poul Anderson – *Starfarer,* 1998 – "To Jim Funaro, Who Has Led Many a Contact Mission."

Ulli Kulke – *Die Welt* (Germany) 3/18/2002

Niels Boeing – *Geowissen* (Germany) 8/2003

Contact 2004 – *Starlog 21* (Japan) – Summer 2004

Jim Funaro – "Space Colonization and Extraterrestrial Life," *Denisonian,* Spring, 2005. (Interview by Mark Dowie.)

Paul Gilster, "Upcoming Stellar Sessions", 3/12/2012, http://www.centauri-dreams.org

Bear, Greg & Gardner Dozois 2014 *Multiverse: Exploring Poul Anderson's Worlds* (pp.10, 103)

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The Contact model has inspired fictional situations in *Footfall* (1985) by Larry Niven and Jerry Pournelle and in *Sphere* (1987) by Michael Crichton.