



# SearchLites

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**Offices:**

433 Liberty Street  
PO Box 555  
Little Ferry NJ  
07643 USA

**Phone:**

(201) 641-1770

**Facsimile:**

(201) 641-1771

**Email:**

info@setileague.org

**Web:**

www.setileague.org

**President/Registered Agent:**

Richard Factor

**Secretary/Treasurer:**

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## SETI Discovers Intelligent Life on Earth

by Dr. Chuck P. Haul, Executive Deceptor Emeritus, The SETI Cabal, Ltd.

**PITTSBURGH, PA., 1 July 2009** -- For the first time, top scientists in the Search for Extraterrestrial Intelligence (SETI) have announced solid evidence supporting the controversial theory that intelligent life once roamed the surface of planet Earth, mere dozens of years ago. Even more startling is the assertion made by some of those same scientists (but disputed by others) that such intelligence may survive to this day, deep within subterranean cubicles and warm office vents.

The first circumstantial evidence of this promising discovery came just last month, when noted radio astronomer Dr. Tara Princeton Jilter was giving the commencement address at a Northern California public high school. Jilter, best known for her Oscar-winning portrayal of actress Jodie Foster in the blockbuster film "Contract," observed that, at least in this particular school, no child was discernibly left behind.

Psychologist Dr. Dag Vockish, who specializes in inter-species message construction, immediately began seeking dialog with the students. "This task was complicated," Vockish noted, "by the likelihood that the subjects in question were, in fact, teen-agers, so that their communications patterns were truly alien."

One major breakthrough was a positive result announced by SETIonline chief scientist Hymie Danworth, whose 7 million volunteer hackers have been surfing the Web for the past ten years, in an effort to infer intelligent patterns in the Airline Scheduling Algorithm. In New Jersey, industrialist Frack Richter, who founded the non-solvent SETI Cabal, Inc. in the wake of NASA's ill-timed decision to retire the Space Shuttle, the International Space Station, the Hubble Space Telescope, and the secret moon base, pointed out that such a momentous discovery would never have been possible with Government sponsorship.

Several SETI Cabal co-conspirators met to compare findings today in Pittsburgh, at the annual gathering of Mensa, an underground society that has long toiled in secret to foster intelligence, while trying to escape the notice of powerful and sinister forces within the American educational system.

Dr. Stock Sethshack, public spokesman for the non-related SETI Institution in Valley View CA, had predicted such a result "any day now" at conferences in Shanghai in 1982, Cairo in 1986, Sri Lanka in 1990, Perth in 1994, Las Vegas in 1996 (and again there in 1999), Paris in 2003, Durban in 2005, Dehli in 2007, and last month in Anaheim, Azusa, and Cucamonga.

"This result has been long in coming," noted Dr. Drake Francis, the venerable scientist who is credited with inventing modern SETI. "I only wish that Oliver Barrie and Morris Philipson had lived to see this day." Francis devoted nearly a century of his life to an unsuccessful search for intelligence in the writings of Nicola Tesla.

"It is understandable that we were hesitant to step forward and reveal our findings," one SETI scientist said on condition of anonymity. "We have harbored very real fears that a public announcement of this magnitude might well lead to militarization of our research efforts. However, this concern must be balanced against the slim but exciting probability that publication might attract support for even more important follow-on research: the discovery of intelligent life in Washington."

*This work of satire was made possible by generous financial support from absolutely nobody.*

*Guest Editorial:*

## **Cold Fusion, Dark Matter, and SETI**

by **Richard Factor**

At the present state of research and theory, cold fusion is chimerical. Real scientists performing careful experiments cannot reproduce the stigmata of a fusion reaction - the production of neutrons and energy. And yet, once in a while, a real scientist performing a careful experiment does claim to see the production of neutrons and excess energy.

I am inescapably reminded of another experimental result in a different field, one in which I have a more than passing interest. That would be SETI, the Search for Extraterrestrial Intelligence, and the "experimental result" is the "Wow signal" which, so far as anyone knows, could have been a true but brief collection of photons from ET, but also could have been earthly interference or a temporary glitch in the receiving apparatus. Without more information, now unobtainable, there will never be a way to be sure. Is cold fusion in a similar state? The majority of CF experiments produce null results; every once in a while they "succeed" but convince nobody since science is based on reproducible phenomena. With SETI, most people, scientists included, believe that ET exists based on statistical and non-geocentric arguments, and are eager for actual, reproducible proof. With cold fusion, most people want to believe, suspicious in itself. Because of the circumstances surrounding SETI, proponents are able to keep looking on the reasonable basis that the "search space" has hardly been tapped. But with CF, the "search space," a laboratory experiment that should be easily reproducible turns out not to be such.

How do we reconcile the fact that good, honest, scientists occasionally see evidence of cold fusion with the fact that other good, honest, scientists cannot reproduce the results when they reproduce the experiments? If we're in the second group of scientists, we look for errors or misinterpretation in the results of the first group. This is good, and is exactly how science is supposed to work. If we're in the first group of scientists, we scratch grooves into our heads when we realize that we cannot reproduce the experiments at will, either. And, of course, if we're conspiracy theorists or even admirable, engaging eccentrics, we say that of course cold fusion works and that the results are being suppressed (for whatever reason) by the government, the energy companies, or, for all I know, by the Masons.

What if the three groups all are wrong? What if cold fusion really does work sometimes? What if "reproducing" the experiment is difficult or impossible due to some unknown, exogenous factor? Cold fusion, if it exists, is a nuclear reaction, based on the interaction of subatomic particles. It is unlikely that small differences in temperature, atmospheric pressure, radio waves, or other easily measurable laboratory conditions will affect the experiment. In any event, the people trying to reproduce the experiment will have done their best to keep conditions as close to identical as possible and will probably have succeeded, except for one thing. What if there actually is a difference in the subatomic environment, one which can't be controlled because we don't know how?

Cosmological discoveries have come fast and furious in recent years. Among the intriguing discoveries is that there is "dark matter" in the universe. Rather more dark matter, actually, than ordinary matter, such as the earth, sun, and other observable objects contain. Here's what science knows for sure about dark matter: absolutely nothing.

And here's what science is fairly certain about dark matter: It exists, and there's a lot of it, whatever it is. Nobody knows how dark matter is distributed, whether it is "hot" or "cold" in the sense that it is widely distributed or distributed in clumps, or even how to answer such questions. Are there dark matter rocks? Gas? Stars? At least in the universe of observable matter, we can use the term "astronomical odds" with confidence. In the conterminous universe with dark matter, we have, at best, only clues.

Let's say that CF depends critically on the density of dark matter in the vicinity of the experimental apparatus. (Which is also saying that it may depend critically on the lack of density.) Somehow or other dark matter catalyzes or, much less likely, inhibits whatever occasionally happens in the science bottles with the palladium and heavy water. Observable matter clearly does clump. You can't walk on space, notwithstanding the popular synonym for extra-vehicular activity. So it isn't preposterous to suggest that dark matter clumps, too. Unless it is uniformly distributed throughout the universe, it clumps by definition. But how densely, where, when, and how fast it is moving relative to the CF laboratory, are all up for grabs. If the (presently unknowable) density of dark matter somehow affects CF experiments, it would account for the observed "insane" results: Sometimes they work, sometimes they don't.

Am I right? I have no idea. To me it's plausible at best, with no evidence at all. But the good news - good news shared by SETI, by the way - is that it's easy and cheap to determine. I love experiments with spectacular risk/reward ratios. Just as the price of looking for ET is trivial compared with the potential reward of discovery, the price of a CF experiment is nothing compared to the new knowledge and possible energy production we get if we can finally understand what's going on!

So how shall we conduct the experiment? First, we realize that several different experimental configurations have been (claimed to be, occasionally,) successful. Rather than try to build the most expensive or most elaborate one, we should try to build a large number (tens, possibly hundreds) of a configuration that can easily and cheaply be reproduced. They should be automated, much as there is a network of seismometers that send earthquake data to central laboratories. Then they need to be placed on a grid of some selected dimension. I'd suggest starting on the tens of meters scale (for convenience) and, if positive results are obtained, spread them out. Of course what we're looking for is correlation. If one suddenly starts "working," do the others work at the same time? Or within seconds or minutes of each other? Do those on one side of the building work, but not those on the other side?

If, in fact, there are positive results from this experiment, we may not only have discovered why CF "works," but also some experimental characteristics of dark matter. All for a few grams of palladium, liters of di-deuterium oxide, and some science bottles. How's that for risk/reward ratio? ❖

*Film Reviews:*

***Star Trek (2009)***

Reviewed by Athena Andreadis

Let's call this latest *Star Trek* reboot *ST//*, for parallel timeline. I assume that anyone not in a silently running nuclear submarine has seen it by now, so I won't be coy about spoilers. My first impression was positive: I felt that it captures and renews the essence of its source without servility or campiness. It's playful, energetic and based on a reasonably clever conceit. It eschews the tiresome snarkiness and angst of contemporary SF, retaining instead the original ST's brightness and optimism. It's an alternative universe fanfiction, in the best sense. Last but not least, Uhura is a bit less of a prop and Spock a bit less of a prig, of which more anon.

Alas, after the euphoria subsided, several problems became obvious besides the standard-issue bogus science - which includes the dreaded, dreadful red matter and (yet again!) a leaky black hole horizon. I think that I, like many of the old(er) cognoscenti, was so relieved that *ST//* is not the disaster it might have been that I was willing to overlook a lot of asteroid debris.

The original *Star Trek* generally opted for civility and diplomacy, employing violence only as a last resort. However, today's Hollywood, along with several other segments of US society, seems to have firmly convinced itself that negotiation is not for real men. As people increasingly become beleaguered cubicle drones and deracinated couch potatoes, their tastes have reverted to the primitive: men and women are reduced to no more than the presumed primary attributes of their genitals. Besides, *ST//*'s almost exclusively male cast is in the high-testosterone age bracket. As a result, *ST//* adopts the standard stance: maximum force as the first and only response to conflict. Even the nominally restrained Vulcans are bullies in this re-imagining.

My other quibbles were that the villain is a stale, boring cross between an orc and a Matrix goth and his evil drill might as well be called the Death Star; the new Kirk is even more annoying than the old one and the director must be aware of this, since he denies him the lone eligible woman's favors; Spock Prime's expositions and exhortations flagrantly violate the prime directive of Show, Don't Tell, diminishing the Kirk-Spock friendship in the process; and the fist- and sword-fights look silly when the characters have phaser guns.

For me, the greatest loss was that of Vulcan, because this turn of events precludes the opportunity to explore that culture in depth. The last ST series, *Enterprise*, became truly fascinating when it started delving into that aspect. The decisions to destroy Vulcan and to make the Federation more prone to shoot from the hip make *ST//* less unique, less nuanced, less adult, closer to the usual conventional action flick geared to pre-adolescent boys of all ages. Destroying Vulcan was also probably a way to make this Spock's feelings be permanently closer to the surface - but I hope that they will at least allow him a wider emotional palette than just anger. Certainly the embrace on the transporter pad gives him borderline snacho status.

Which brings me to *ST//*'s women, all two of them. Amanda meets the classic fate of every good mother in Hollywood: a death that gives her son an excuse to go on convenient rampages. Uhura fares marginally better, at least on paper. She's a gifted linguist and assertive despite her tutu - er, uniform. Even so, she is still carefully excluded from all the action, whereas each of her male peers is given at least one major scene of derring-do.

*ST//* is an odd-numbered film in the series, so I'll give it a long space tether. However, if Uhura degenerates into the Angel in the House or if the certain-to-come sequels become more generic, I will put *ST//* permanently in the same category as *Star Wars*. And though my wrath may not equal that of Khan, if enough of my ilk get disaffected we may abandon all the old lumbering dinosaurs and manage to relaunch the real McCoy - the Firefly-class starship *Serenity*, with its true love of endless skies and its persistent aim to misbehave.

*This film review first appeared on the Centauri Dreams website, and is used here by the kind permission of the author.*

## **We Must Love One Another or Die: A Critique of *Star Wars***

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The day after *Revenge of the Sith* opened, I left work early and like someone sneaking off to an illegal tryst, I went to see it.

I went hopefully but reluctantly. I'd enjoyed the brio of *A New Hope* and had been captivated by the darker hues of *The Empire Strikes Back* - though being Greek, I knew what the "surprise" was the moment I heard there was one. However, I had heartily disliked both *Return of the Jedi* and *The Phantom Menace* and was highly ambivalent about *Attack of the Clones*. I'm not bewitched by the endless battle scenes or the lightsaber pas de deux that eventually blur into sameness. I have immovable reservations about a universe geared to eleven-year-old boys and their values, which exclude significant chunks of human experience but include the core belief that girls are icky and if a Jedi gets too close to them his lightsaber won't ignite. Yet here I was, a scientist, a reader of Sophocles in the original, and a woman nearing fifty, going to a matinee so that the room would be reasonably empty.

And in the darkness of the theater, I felt my eyelids prickle with anger and grief when young Anakin Skywalker, his mouth contorted with anguish, fell to his knees before the Emperor.

The ache persisted after I left the theater, so I started worrying it like a sore tooth. The plot, script, and characters of the film flip-flop between the 10th and 30th centuries, between frothy action and portentous message, awash in hip-bruising clunkiness and jarring contradictions. But these shortcomings bedevil all the *Star Wars* films, and I had expected no less of this last installment. Similarly, the annoying Campbellian

mishmash of iconic characters stripped of their specifics and reduced to facile shorthand was no surprise - Anakin morphs into Icarus, Sampson, Achilles, Oedipus, Christ, Lucifer, Tristan, Othello, Faust . . . I'm sure I'll find more if I put my mind to it. The degeneration of Padmé from Amazon to Puddle on the Floor was unbearable, but I had sort of expected that from Mr. Lucas, who clearly feels comfortable only with virgins of both genders.

For a while, the closest I came to identifying this ache was thinking regretfully that Mr. Lucas, with his unlimited resources, could have woven a gripping story if only he'd move beyond his love of gizmos and lunchbox profits. We desperately need compelling stories. Anakin Skywalker's fall, if told well, can hook right into the solar plexus because our culture has primed us for it: the fall of a great hero through pride, fear, rage, or loss is a major theme (and, some argue, a definitive metaphor) of Western civilization.

Thinking over the constant mantra from both the Jedi and Sith Treehouses ("Trust your feelings!"), I finally isolated what disturbed me so strongly that I started this essay on the eve of a grant deadline. I'd ignored similar twinges while watching the original Star Wars trilogy because those films were lighthearted, lightweight romps. I cannot ignore it in Episode 3, which unfolds with Wagnerian solemnity and aspires to the mantle of Greek tragedy. There is a punitive spirit in the Star Wars prequels, as manipulative and controlling as the Dark Side it professes to abhor. Essentially, we are told that Anakin falls because he loves his mate and so cannot gain the detachment required to become the Supreme Jedi Enforcer, a Buddhist Robocop.

To put it succinctly, Mr. Lucas insists that only hierarchical interactions are legitimate and that partnerships between equals are toxic. Those between women and men are destructive and doomed. Those between men are acceptable only if based on the ecclesiastic/military model of abject submission, in which alpha males apportion rewards at whim (there are no interactions between women in Mr. Lucas's opus, as there is a single girl in each trilogy). In Star Wars, old men rule joylessly over a wasteland; girls die before they become those dreaded aliens, women; young men are left bereft and isolated - in Anakin's case, literally walled off from all humanizing contact in his final incarnation as a demon in a can.

The presentation of such a universe as desirable even in fantasy by someone with Mr. Lucas's influence is dangerous, especially at a time when people worldwide are being turned into terrified cubicle drones and the U.S. is hurtling towards government by a fusion of military, church, and industry. We need different myths that topple this monolith, which combines gigantism born of industrial consolidation and institutional fusion with rampant social atomization. We have to reassert the virtues of thoughtful disobedience and wholesome self-will. To put it in Lucas-speak, guys who want their hugs should not be portrayed as weak or evil for wanting them.

Revenge of the Sith essentially asserts that submitting to the normal biological and social instincts catalyzes one's destruction and ultimately makes one subject to depthless evil. It's just a movie, I know. Still, it's a vehicle for the shared stories that orient our thinking and help us imagine the possible. Today, facing a post-9/11 three-headed monolith that would

make Eisenhower's military-industrial complex look benign, we really need archetypes in our shared narratives who are rewarded for their capacity to bind people in assertion of wholesome common interest. Anakin's story wants to teach us that a fate much worse than death awaits the fool who accepts love or tries to find an equitable community.

### **The Boys in the Bubble**

I once saw an eerie picture taken at a Hasidic wedding. Separating the foreground from the background was the long curtain that keeps the genders apart. On the curtain fell the shadow of a young girl dancing, her braids swinging. At the front of the curtain, a boy was stretching his hand, trying to touch her shadow. Whenever I contemplate Star Wars, I'm reminded of that picture.

The human universe of the Star Wars prequels is a cold, airless locker. There are no families, no civic life beyond power politics, no artists or scientists, no (pre)occupation except endless wars which make as much sense as the Aztec campaigns to capture more victims for their altars. There is no song, no laughter, no intimacy, no friendship beyond school-boy camaraderie, and no sex for either love or pleasure - though dismemberments abound, so it's not the PG rating that caused this elision.

The only ones shown to raise children in Star Wars are the Jedi and the crèches that hatch the cloned boys bred for docility who will become stormtroopers. Harry Harlow showed definitively what happens to primate babies when they're deprived of caresses, something that the Jedi seem not to have registered during their long communion with the Force. Several power hierarchies in human history used the Jedi recruitment methods (removal from family, celibacy, forbidding of attachments) - most notably the Ottoman sultans. Not surprisingly, this created the janissary shock troops, not the samurai rangers Mr. Lucas wants us to believe naturally arise from such an upbringing.

The Jedi mumble Taoist-derived platitudes to prove that they're on the side of Light but they are really a fusion of a rapture cult and a multinational corporation. To become "worthy," prospective Jedi must suspend their own judgment and unquestioningly obey an authority whose teachings consist of silly psychobabble, endless hazing rituals, and the sense of entitlement that comes from carrying arms. In the Jedi order, all normal mental or emotional responses are met either with the galactic version of the Amish Shunning ("You'll be expelled!" screams Obi-Wan when Anakin tries to rescue Padmé during a battle) or with instructions to take cold baths ("Mourn do not!" intones Yoda when Anakin comes to him twisted with anxiety from having nightmares about Padmé dying). Anakin is supposedly not just the most powerful wielder of the Force but also a pivot, yet the Jedi treat him like a passive asset or an unruly horse. At least the Sith are frank about what they want and how they go about getting it.

And what great purpose do the Jedi have in mind for Anakin's high midichlorian count? He is turned into a fighting machine for the status quo, just as Wolverine of the X-Men is made into a weapon even though his gift is for healing. The powerful realized long ago that the most reliable way to pro-

duce killer automatons is to separate young boys from the other gender and from the part of themselves that questions, combines thought and emotion, and fights from inner conviction, not thwarted affection and vaporous promises of glory. Anakin does not need to carry destructive genes. The Jedi have implanted in him such abject fear of natural reactions and processes that he is bound to detonate a land mine in any direction he steps.

The Jedi philosophy does not lead to swashbuckling exploits but to Wounded Knee and Buchenwald, to young men flying airplanes into buildings. People are systematically dehumanized in Star Wars, treated as interchangeable ciphers. We never see what happens to the civilians. The cloned soldiers never take off their helmets, making it convenient to forget that they are still human inside those plastic uniforms. Hacking off body parts appears the sole legitimate response to disagreement in Star Wars; there is no visible price for it, if committed by a Jedi, and by virtue of the lightsaber it's always neatly bloodless.

Yet there is an interesting exception to this coyness: Obi-Wan - the embodiment of all Jedi virtues - first mutilates his apprentice, his adopted younger brother, the comrade who repeatedly saved his life, then leaves him burning alive. Granted, the plot dictates that this charred stump must survive to menace his children as a cardboard villain in the sequels. However, Mr. Lucas could have achieved story continuity without making a snuff scene about what must happen to those who question authority.

All this desolation springs from the glorification of infantile dualism and the mistrust of complex human interactions. "Be afraid! Desire will make you betray duty!" pronounce the Jedi in their quest for tractability, and Anakin rips himself to shreds over the false conflict.

In Dune, Paul Atreides becomes a genuine Prometheus, because he wrenches control of his strings from the Bene Gesserit and assumes full responsibility for the jihad he unleashes. Anakin, on the other hand - ardent, naïve, frantic for approval - never attains free will or the charisma and seductive grandeur of a true Lucifer, despite his off-the-charts Force readings. Callously treated by all his surrogate fathers, he is not a failed Messiah but a pawn. In the end, he follows the Jedi teachings to their logical conclusion and creates a universe of total order by systematic slaughter. It would have been better for him and for the galaxy if he'd been Iroquois: the women of that nation could forbid their men from taking part in unjust wars.

### **Catching Girl Cooties**

If the men of the Star Wars universe are held in cages of rage and fear, its lone girls are ignored until the boys need an Angel in the House (Jango Fett at least is honest, bypassing women altogether by cloning himself). The token girl in the Lucas universe faces a lose-lose proposition. She cannot do anything by and for herself, and her sole function is to act as an impotent hand-wringing conscience for the men. However, this function is worthless, since nonwarriors in Star Wars are treated as subhuman, despite the lip service to justice and compassion. As Eowyn says to Aragorn in *The Return of the*

King: "All your words are but to say: you are a woman, and your part is in the house. But when the men have died in battle and honour, you have leave to be burned in the house, for the men will need it no more."

Just as the boys in Star Wars are given the false choice between glory or love, the girls are given the thankless task of being feisty but unthreatening, without any guarantee of clemency for good behavior. Worse yet, since there is only one female per Star Wars trilogy, she has to be mother, sister, and lover at once to her fellow characters. That, of course, is a no-no because it blurs the sacrosanct divisions between virgin and whore - and also because it implies dominance (to underline the transgression, Padmé is explicitly older and of higher rank than her tercel boy-husband). The girl is a threat to the boy's purity of purpose, an Eve in the making; when she crosses the sexual and emotional boundary, she is speedily dispatched, abandoning her defenseless children - the girl condemned to be left untrained in her power, the boy slated to undergo the brutalization already meted out to his father. Once again, Mr. Lucas is swift to punish those who partake of the fruit of knowledge and threaten to become independent moral agents.

There is something classically Puritan in this punitive vision of women; there is also a tremendous failure of the imagination. In a universe with advanced prosthetics, sentient AIs, cloned armies, and faster-than-light travel, women have no access to contraception and still stand to lose their jobs when they get pregnant, like Japanese office girls. Mr. Lucas not only cleaves to the tenets of the nuclear family but explicitly to its fifties incarnation. Yet even within Mr. Lucas's tiny menu of female choices there is one compelling alternative. Predictably, he toys with it but eventually lets it lie fallow, as it would subvert his emphasis on the dangers of loving women and the need to choose the disembodied rewards of monastic male bonding.

In Mary Renault's *The King Must Die*, the Amazon Hippolyta agrees to a parley with Theseus, "one king to another." You are a queen, he corrects her. No, she replies, I'm a king like you . . . a woman king. Hippolyta becomes the irreplaceable center of Theseus' life because she is his equal. Would that Mr. Lucas had been "radical" enough to make Padmé as powerful as Buffy, the slayer and lover of vampires, or as resourceful as Guinevere in the recent revisionist remake of *King Arthur*.

It might even have revived his anemic storyline.

If a girl cannot have adventures of her own, she can at least be the boy's partner in his. This allows a nonhierarchical interaction in which real stakes are involved, with room for both intimacy and camaraderie, both vulnerability and heroics. For a brief moment in *Attack of the Clones* there is hope for such an alliance, in the arena confrontation. There, Padmé becomes Anakin's charioteer (a position traditionally reserved for the hero's male lover) and proves formidable in battle despite her lack of a lightsaber. It is telling that this segment contains the sole believable kiss that the two exchange.

Such partnerships cut right through the hoary male bonding of the Jedi and their ilk and are truly subversive. Love that spurs people into action is rightly feared by power hierarchies, because it strides across boundaries considered immovable. Anakin's original hothouse infatuation in *Attack of the Clones*

is not really dangerous to the status quo - in fact, it acts as a convenient pressure-release valve. At the end of that episode, though, Anakin makes a conscious covenant with Padmé unlike his agreement to enter into the Jedi order, for which he was too young to give informed consent.

The stories of Andre Norton and the wuxia films of Yimou Zhang and Ang Lee explore this mode by making the genders often conflicted allies but always equal in prowess. In contrast to the passivity and distance of pedestals, partners guarding each other's back are fully engaged with each other and with the task at hand. The private and public duties fuse into a seamless whole, reinforcing rather than weakening each other. However, even second-hand heroism for women is not an option in the Lucas universe.

I once saw a Gary Larson cartoon showing a bunch of cavemen throwing spears at a saber-toothed tiger that has already mauled some of their group. One of them is saying to another, "I can't imagine how stupid the beta males must be feeling, left behind with the women." This encapsulates the attitude of the Jedi and Mr. Lucas and also serves as the goad used in boot camps. It's a neat trick, of course, because forswearing the love of women as polluting does not turn boys into superheroes or rebel leaders, it merely makes them angry and needy enough to unquestioningly become cannon fodder. Even doofy Peter Parker figures this one out in *Spider-Man 2*.

If the Jedi teachings are inadequate even during times of strife, they are even worse recipes for living when the exploits must come to an end (maybe that explains the need for constant upheavals in the series). Men and women who are fully grown humans can pick up weapons during rebellion or defensive war and then can lay them down and go back to being bards, healers, explorers, craftspeople, parents. The American Revolution was all about yeomen standing up to elite troops - as was the Vietnam War. When the din of battle ceases, people can think and start asking questions. The Jedi need to retain their privileges as a self-appointed elite caste, and the clones, bred only for killing, cannot stand down. So if one war ends, a new one must be started. Integration of professional soldiers has always been a major problem in human societies. In *Star Wars*, the slow pace and hard labors of peace appear as glamorous as doing laundry when juxtaposed with the duels and battles, no matter how pointless these are. But those who have been in real war and its aftermath know how far removed it is from the balletic, antiseptic melees showcased by Mr. Lucas.

The original *Star Wars* trilogy was a gentler, kinder place than the prequels, in part because the workings of love or peace did not rear their ugly heads. But Anakin wants affection as well as a purpose worthy of his powers. When the abuse keeps falling on him like Chinese water torture despite his heroic efforts, he grows mutinous - so he and his Jocasta must be made into examples. By making Anakin the focus of the sextet, Mr. Lucas invalidates the lightheartedness, verve, and hopefulness of the original trilogy. We are meant to judge Anakin as weak-willed and open to temptation because he's concerned for his mother and his wife, in need of redemption by the son who achieves the state of holy eunuch that eluded his sire.

The dilemma that eventually breaks Anakin's will is a decoy that prevents him from realizing that he's being used. His

real fall comes when, goaded past endurance, he attains the detachment so dear to the Jedi and stops seeing people as individuals. His tragic error is not that "he loveth too well" (as Mr. Lucas posits) but, on the contrary, that he doesn't trust his lover enough to heed her counsel. His primary loyalty is always to his masters, not to his partner - and he still gets seared to ash for not saying "Yes, Master!" often enough. As for Padmé, there is little left to grieve over. Except as an incubator, she really dies at the end of Episode 2.

Anakin should have listened to his mate and opted out of the brutal, pointless competition for teacher's pet. He could still have become the hero and savior he so craved to be: he could have gone with her to free the slaves on Tatooine (even if that meant giving up his nifty lightsaber). They'd probably have failed and he might go through the agony of watching her die - but, as King Théoden says, that would be an end worthy of remembrance. Or, if she could not sway him from his ruinous path, she should be the one to fight him, Galadriel to his Fëanor, instead of fading away like a Victorian consumptive.

The only man in *Star Wars* to get it all is the one who follows Padmé's injunction to step out of the imprisoning box of the Jedi hierarchy. That is Han Solo, a common mercenary who does not care about belonging to boys' clubs. This also happens in *The Fifth Element*, where Korben Dallas becomes a hero by just being a regular guy and by giving his supreme loyalty to his lover. In *The Lord of the Rings*, too, it is not the hero Boromir but his younger brother Faramir, the reluctant warrior, the scholar scorned by his father, who survives and wins Eowyn. Tolkien, despite his unabashedly Manichean view of the world, is more nuanced, progressive, and humane than Mr. Lucas.

After *Revenge of the Sith*, I can't look at the praying-mantis mask of Vader without superimposing the haunted eyes of the boy entombed within that carapace, still smoking with need and loss. I cannot watch the films without recalling how his mentors tormented and betrayed him, turned his humanity against him, leading him to wreak terrible ruin in his turn. Of the girl I can only see a pale ineffectual ghost. Episodes 2 and 3 of the *Star Wars* prequels are a cautionary tale about the dangers of wanting to be fully human, tracts on the need for unquestioning submission to authority. Armies, fundamentalist churches, and corporations should add them to their teaching manuals. The rest of us should pass by and create subversive tales of universes not threatened by complexity, the holistic affiliations of family or tribe, or plain garden-variety affection.

*This film review first appeared on the Strange Horizons website, and is used here by the kind permission of the author.*



Ask Dr. SETI

## Radiation Hardened Interstellar Probes

### Dear Dr. SETI:

*In connection with my day job as an aerospace engineer, I recently attended a meeting put on by one of the semiconductor companies. There, it was claimed that some of their Radiation Hardened parts have an MTBF (mean time between failures) on the order of 163,000 years. So, it appears that we now have most of the electronics needed to support very long space flights. Might this begin to make interstellar travel a possibility?*

A SARA member

### The Doctor Responds:

That's certainly the opinion of rocket scientist Mark Millis. Mark is a NASA engineer who used to head up the agency's Breakthrough Propulsion program. He is an advocate of interstellar missions, and thinks we'll be in a position to launch them within our lifetime. (Mark is about my age, so I will concede that he may be just a bit optimistic. Still...)

And, if we can launch interstellar probes, what is there to keep more advanced civilizations from doing the same? This is the premise of the Invitation to ETI initiative (<http://ieti.org>), of which I am Principal Investigator. Of course, detecting such probes is a long-shot. But, it's a very cheap, low-risk experiment with potentially high payoff, so why not try?

## No Intelligent Life in This Part of the Galaxy

### Dear Dr. SETI:

*I am reading news articles in which some researchers say that there is no identifiable intelligent life in this part of the galaxy (except us). This claim is due to the fact that after 50 years of SETI science, nothing has been found. In view of this lack of success, what is the current status of SETI? How likely is it that we are alone?*

Jim, an amateur radio astronomer

### The Doctor Responds:

This is hardly a new claim, Jim. When we had been doing SETI observations for ten years, there were those who said "after 10 years of SETI science, nothing has been found." Ditto after 20 years, and 30 years, and 40. It is certainly true that we've now been doing SETI observations for nearly half a century. It is equally true that, although we have surveyed most of the local neighborhood (at least at some frequencies), we have yet to detect convincing evidence of extraterrestrial intelligence. Thus, I would have to agree that, at our present level of technology, there appears to be no *identifiable* intelligent life in this part of the galaxy.

Does this mean that we can conclude there is no nearby intelligent life? Hardly! For one thing, on a cosmic scale, fifty years of SETI science is a mere eyeblink. Then too, our searches to date have covered only a tiny fraction of the electromagnetic spectrum. And finally, our technology is still continuing to expand exponentially, according to Moore's Law -- signals that may be falling on our heads, undetected and undetectable at this very moment, may become instantly obvious at some future level of human technological prowess.

I believe it's far too soon to draw conclusions from our null result to date. Once we have developed the technology to look in all possible directions, at all possible frequencies, at significantly enhanced sensitivity, if we still come up dry in a couple of centuries, there will then be plenty of time to contemplate our uniqueness in the cosmos.

But, for now, we have yet to scratch the surface. Hell, we haven't even felt the itch. ❖

## Event Horizon

SearchLites' readers are apprised of the following conferences and meetings at which SETI-related information will be presented. League members are invited to check our World Wide Web site ([www.setileague.org](http://www.setileague.org)) under *Event Horizon*, or email to us at [info@setileague.org](mailto:info@setileague.org), to obtain further details. Members are also encouraged to send in information about upcoming events of which we may be unaware.

**September 4 – 6, 2009:** *Fifth International Radio Astronomy Congress*, Heidelberg, Germany.

**September 26, 2009:** *Mid Atlantic States VHF Conference*, Plymouth Meeting, PA.

**October 10 – 11, 2009:** *AMSAT Space Symposium*, Baltimore, MD.

**October 12 - 16, 2009:** *60th International Astronautical Congress*, Daejeon, Korea.

**October 23 - 25, 2009:** *Microwave Update 2009*, Irving, TX.

**November 20 - 22, 2009:** *Philcon 2009*, Cherry Hill, NJ.

**January 25 - 26, 2010:** *The detection of extra-terrestrial life and the consequences for science and society*, Royal Society, London UK.

**April 17, 2010, 0000 UTC - 2359 UTC:** Eleventh annual SETI League *Ham Radio QSO Party*: 3.551, 7.0309, 7.2039, 14.084, 14.204, 21.306, and 28.408 MHz.

**April 18, 2010:** Sixteenth SETI League Annual Membership Meeting, Little Ferry NJ.

**June 4 - 6, 2010:** *Rochester Hamfest*, Rochester NY.

**June 2010 (dates TBA):** *Society of Amateur Radio Astronomers Conference*, NRAO Green Bank WV.

**July 22 - 24, 2010:** *Central States VHF Conference*, St. Louis MO.

**September 2 - 6, 2010:** *Aussiecon 4*, 68th World Science Fiction Convention, Melbourne Australia.

**September 27 - October 1, 2010:** *61st International Astronautical Congress*, Prague, Czech Republic.

**October 4 - 8, 2010:** *Second IAA Symposium on Searching for Life Signatures*, Milton Keynes, UK.

**November 17 - 18, 2010:** *IAA 50th Anniversary Celebration*, Washington, DC.

**November 19 - 21, 2010:** *Philcon 2010*, Cherry Hill, NJ.

**October 2011 (dates TBA):** *62nd International Astronautical Congress*, Cape Town, South Africa. ❖

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