Phases of Gravity by Dan Simmons

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reviewed by Gordon Van Gelder

Everywhere we go, all day long, about one g of gravity pulls at us. While we sleep, while we eat, while we put our pants on one gravity-ridden leg at a time. Wouldn't it be nice to escape for a while?

Richard Baedecker did. In 1972, he and Dave Muldroff kicked up the dust in the light gravity of the moon. Now it's 1988 and the former astronaut is experiencing an earthly phenomenon known as mid-life crisis. He's divorced from his wife, he has quit his job, his estranged son now follows the teachings of an Indian guru, and life in general is a drag. Welcome to Earth.

Baedecker begins an odyssey the goal of which seems to be escaping Earth, getting out of gravity's steady pull, flying once again—even if just for a little while. He flies first to India in hopes of seeing his son Scott, but Scott is preoccupied with his Indian spiritual exercises; instead, Scott's free-spirited friend Maggie Brown shows Baedecker around the country. She states portentously the "theme" of the book: "I think some places have a power of their own. . . . Sometimes I think that we spend our whole lives on a pilgrimage to find places like that" (p. 23). Baedecker embarks on just such a journey.

This odyssey doesn't summarize well because much of Baedecker's pilgrimage consists of recalling the past, while the events he experiences in the present—camping with and visiting friends, touring the new space shuttle, experiencing various sites of power—sound more trite than they are. They are trite, but their strength lies in the heartfelt characters and in the graceful interweaving of past and present that bring Baedecker to a successful reappraisal of his life on Earth.

Everywhere we go, all day long, some force other than gravity pulls at us: time. Twenty-four hours a day, we grow older. Wouldn't it be nice to get away for a while?

Simmons uses this metaphor—gravity as time—with a slightly heavy hand but to great effect. The novel slowly, insistently builds up until we stop seeing Baedecker as a self-pitying old man and care for him and for his friends. The book bogs down in parts, is giddy in spots, yet is very moving overall. The technological details are convincing, the themes are examined well, and the final third of the book is wonderful; I really enjoyed sharing Baedecker's growth. *Phases of Gravity* falls somewhere between the mysticism of Kubrick's *2001: A Space Odyssey* and the realism of Wolfe's *The Right Stuff,* but I think all three works share an attention to the bonds formed beyond gravity's pull, the links between man and space, and the links among all mankind.

At first, the book's attitude towards women bothered me because the structure was so very familiar: older man revitalized by the young, mysterious, attractive woman he cannot control. Baedecker doesn't seem to realize the obvious fact that Maggie Brown is actually the "place of power" he seeks. I was even bothered by the fact that men are referred to by their last names, women by their first names.

But I couldn't understand why it bothered me that Maggie should be the goal of Baedecker's odyssey: I'll aver gladly that we pass our lives in search of people of power. Not until I reached the heart of the book did I understand what irritated me: Maggie simply never takes on a life of her own in the story: she comes and goes as the text requires of her, flitting in and out of Baedecker's life in order to suit the plot—her own motivations never really convince me, perhaps because they're left unexplored.

This story is a man's story, what I would term "men's fiction." It abounds in scenes of father and son, son and father, and man and man. There's lots of amiable drinking, good ol' reminiscing, and outdoorsy comaraderie. There are lots of high-technology toys with which to play, gliders and Hueys and rocket ships. Man's best friend also rears his head and wags his tail throughout the book—very effectively, too; *Phases of Gravity* radiates the generous warmth of a boy's love for a puppy. Yes, the female characters are more effective in the ideal sense than in their actual scenes—Maggie's presence is far more powerful when she's off-stage, and Baedecker's ex-wife never speaks a word—but that is not where the book's strength lies. This book is sincere and moving and if Simmons makes one antiquated assumption—that the women will be waiting when the men return to Earth—it's made with the simple open-heartedness of a true romantic. A guy's hug exerts a lot more force than just one g.

Jessica Amanda Salmonson

Gender Structuring of Shell Persons in *The Ship Who Sang*

Introduction: Mores, Militarism and Inequality

Anne McCaffrey created a marvelous work of fiction in *The Ship Who Sang* (Ballantine, 1970), a collection of connected short stories about a human whose brain has been implanted into a starship. The author has taken for granted the historical perspective of a future that is curious for reasons perhaps not intended. Although the reader is never handed the history lesson that the people of her book would have as common knowledge, we are aware of a planets-wide civilization with traditions dating back to the 20th century. Indeed, the future history seems to *begin* with our century, as there are no references to anything prior to the 1960s, except Shakespeare.

There is considerable evidence of 20th century mores at work in McCaffrey's future. The major governmental/militaristic organization we see is Central Worlds Service, whose leadership, organization, image and traditions ("archaic whimsies," p. 234) seem to be those of today's Marine Corps.

That this conservative, powerful agency of necessity reflects the precise attitudes of non-service citizens and individual planetary governments is doubtful, just as the present-day Marines do not necessarily reflect the mood of non-military groups and individuals. Yet there are clues that 20th century mentality dominates elsewhere. When we are introduced to a shell-person who is the equivalent of a city mayor, his concerns are merely capitalistic; his value system is right out of mid-1900s middle America. Elsewhere, "Dylanizing" (p. 68) is described as a futuristic concept of protest through emotional song. Since Dylan was not the first (nor, help us, last or best) minstrel commentator, this is the strongest clue that 20th century and specifically 1960s ideologies shape McCaffrey's future. It further reflects how most history prior to the 20th century is inconsequential or lost in this portrait of the future.

There is no equality between the sexes, let alone between races or species. We do see women in a few positions of power, as today. There is an extreme lack of balance in this regard, however, as today. The career women we see are in Central World Services, exactly equivalent to present-day opportunities for women in the armed services, with the same drawbacks.

One woman, Kira, is a skilled professional in human embryology, given a major assignment of transporting embryos to a sterilized planet. She is herself a child: "Her voice was breathless, like a child's" (p. 65), with long braids and childlike mannerisms. The protagonist feels a "twinge of regret that her partner was feminine" (p. 61), and sees her as "too fragile and young for her responsibilities." That the first impression proves inaccurate is beside the point. The preconception wouldn't exist in a society that valued women as highly as men. Kira, we're told, achieved her position only because her occupation is regarded as a women's field; fetal children are a woman's business. The protagonist observes, "Central Worlds might be relying on her maternal instinct as additional insurance for the mission." McCaffrey's future believes men lack parental abilities inherent in women.

We don't see women in the highest positions of power, except in a matriarchal society (p. 18) depicted as religious fanatics worshipping a male deity (unlikely for a matriarchy!) and fundamentally irrational.

It could be argued that 20th century ideology is firmly rooted in McCaffrey's book because McCaffrey wrote it in the 20th century and is incapable of stepping far enough outside her own culture to depict anything altered by time. If this is to be our general stance regarding authors of science fiction, then it follows that science fiction is never futuristic; visions of the future do not exist in science fiction. It can additionally be inferred that any work predating the mid-1970s boom in feminist science fiction is more apt to be backward in its images of women, making McCaffrey's book an example of transitional science fiction bridging masculine pulp sf to feminist authors of the middle and late '70s. However, the intention of this essay is to evaluate the attitudes of Central Worlds as though it *were* an accurate portrayal of a militaristic organization actually existing in the future.

Gender Relationships of Brawns and Brainships

The central character of this patchwork novel is Helva, a "brainship." Born monstrously deformed, her parents opted against euthanasia and donated their infant to Central Worlds to salvage the infant's brain. This is not *morally* different from selling children into slavery or prostitution, but they presumably do not become slaves, due more to organizations that protect the rights of sentient beings than to Central Worlds' attitudes.

The infants are conditioned to life within a "shell" that allows them certain extraordinary powers. Shell persons have many opportunities that "normal" people do not. Never having had the use of biological bodies, they do not feel disoriented by their shell-bodies.

Shell persons are structured—physically and emotionally—by Central Worlds, for a fee. That fee is later paid off by service in Central Worlds. After this period of indentured servitude, the shell person is free to contract her or his talents and services to private enterprises.

The loftiest position for a shell person to become is a brainship. Helva has a sleek, powerful space vehicle for a body. Although people with natural bodies are often horrified by the thought of a dwarfed, useless body and highly intelligent brain at the center of a magnificent ship, most recognize the adventure and excitement of *being* a ship capable of traveling to alien worlds at will.

Rigorous emotional and psychological structuring is necessary, as brainships have enormous power, enough to wreck worlds were they to become psychotic. They are raised never to question their own humanity, conditioning aimed at providing them healthy outlooks. Unfortunately, Central Worlds, being inordinately conservative, implants numerous attitudes that are less individuality-oriented than would be optimal for emotional health and socialization. Ironically ships like Helva, who overcome a small degree of Central Worlds' conservatism, end up the best ships in the service.

Some conditioning is self-serving for Central Worlds, such as insuring a zealousness that makes brainships apt to remain in Service after they've paid off their indenture. All conditioning is undertaken from the 20th-century idea of normality.

The most curious thing Central Worlds does is assign gender to shell persons. There is no indication whether this is done randomly, or according to the chromosomal sex of the non-functional bodies encasing the brains. There are three reasons to suppose that it is done randomly, with a decided preference for female genderization in the subservient sense as well as broader role-modeling. First, in the case of severe birth defects like Helva's, even chromosomal sex may be in question. Second, there are more female brainships, manned by more "brawns" (mobile human units) who are generally men. This tallies with present-day inclinations to think of sailing vessels as "she" and women as objects. Brawns are highly possessive toward their ships as well. It appears as though Central Worlds values female gender structuring for brainships because women can be "possessed." The third consideration is that shell persons would be naturally genderless, and *any* gender assigned them *is* arbitrary even if it coincidentally matched chromosomal sex.

It is established in the book that gender voice patterns are assigned, or chosen, arbitrarily. Helva has a distinct, personal, archly feminine voice. Yet she admits, "since my voice is reproduced through audio units, I can select the one proper for the voice register required" (p. 119). This ability comes in handy at various times in the story, but she always reverts to her "personal" voice afterward.

There are many reasons why Central Worlds would assign gender, and shape shell persons artificially as their personalities mature. The most defensible reason is that in a society that is itself rigidly dichotomized, which would or might be horrified by and depersonalize a human being who is physically a machine, it is necessary to maximize the human qualities of a shell person in the most obvious and prosaic manner possible.

Shell persons are aware of other people's suppressed attitudes. "Very few people she had met, Helva admitted sadly, thought of her as Helva, a person, a thinking, feeling, rational, intelligent, eminently human being."

The "public" attitude is evident even in the brawns, who are highly trained and would theoretically know better. The most overt evidence of bias among brawns is that they tend to talk to the titanium column encasing the useless dwarfed body, failing to recognize the ship *per se* as the shell person's body. Shell persons' rudimentary biological bodies are superfluous; they are maintained at infant size so as never to outgrow their shells. Yet one character hugs the titanium column though it is devoid of sensation and incapable of response. Brawns cannot completely accept the humanity of the ship. The unseen dwarf drifting blind and fetal behind a wall they can *almost* accept. I say "almost" because the self-image of the brainship is neither of being a sentient spaceship, nor of a blind fetus; brawns and brainships alike believe in an idealized woman, a fact that triggers psychotic behavior in a number of characters in the book.

Jenna, Helva's first brawn, invents an image of her that Helva comes to accept: "I fancy blondes with long tresses," and admires her for her "sweetness" (p. 14). Another character, while accepting Helva as a woman, tells her she is "a beautiful *thing*" (p. 8). And she proudly realizes the competitive brawns are "all quite willing to do each other dirt *to get possession of her*" (p. 9, stress added).

It restricts shell persons to be assigned gender traits and attitudes, cut off from all opposing attributes and presumptive capabilities that do not belong to a narrowly defined female-ness. But it is better to be an "it" and depersonalized by the biases of a society that limits itself in the same manner, and considers their conditioned attitudes natural.

There are terrible ramifications in assigning gender to a genderless being. McCaffrey does not deal with many of these ramifications, but some of them provide the highest moments of drama when she depicts the ways in which gender structuring leads to various kinds of insanity.

The most trouble stems from interpersonal power situations between male brawns (possessive and competitive) and brainships assigned feminine characteristics. One overbearing brawn makes Helva react "more and more on the emotional than the reasonable level" (p. 173), has her inaccurately doubting her own sanity (p. 176), and gets them into a bad situation because, as Helva describes it, "if *she* had countermanded *his* order, he would have been in the right to call her down. But since *he* had taken the initiative, naturally all was in order" (p. 182). He sees her as being one part mere woman, and two parts fallible machine—never a fully capable, let alone superior, human individual.

By cultural definition, it is necessary for the female to become dependent on the male. Helva believes and accepts that she "was conditioned for a partner, for someone to take care of, to do for, to live with" (p. 101). The years in space together make brawn and brainship equivalent to husband and wife, although sexual relations are impossible for the shell person and it is *expected* that brawns will seek sexual outlets in port (p. 235), analogous to the frigid housewife whose husband is justified in seeking prostitutes. It is analogous also to the backward sentiment that "good" women are virgins and "good" men are not, heightening the merits of brawn/brainship romances.

The fact that the brainship is herself the senior officer, officially the higher authority, and literally the greater strength is overridden by the emotional dependencies she acquires on her brawn. Dependence can become so intense that separation induces psychosis. Brainships' life spans are immense. Brawns live normal life spans. It is, at best, a

trauma to find oneself without the person upon whom one has been emotionally reliant. Occasionally brainships vanish, and there are many legends about what becomes of them. Their grief at losing virtual husbands is so overwhelming they simply never return to home port. They wander the edge of the galaxy until they die; they commit suicide in the heart of a sun; or they go mad.

Helva discovers a lost ship who has become psychotic with grief and must be destroyed (p. 88). In essence she has taken control of a planet and created a horror-story environment in memory of her dead brawn. It is a grim, sorrowful part of the book, told powerfully, as macabre a piece of science fiction as has ever been written.

Earlier in the tale, Helva also loses a brawn (p. 21), a man with whom she has "fallen in love." She was strong enough to survive, unlike the psychotic brainship she was forced to destroy. But the pain was at times nearly crippling, when it needn't have been had she been allowed by Central Worlds to develop as a more self-reliant individual less absorbed by romance-novel ideals of love. There is evidence in the story of other brainships suffering identical crises, as a rule rather than exception, as the natural outgrowth of gender structuring, causing Central Worlds to lose some ships altogether.

Interpersonal relationships between male brawn and male brainships; between female and female, and between male brainships and female brawns, are not explored. The possibility of brainships acquiring attractions to other brainships, and "eloping" across the galaxy with no brawns whatsoever, is never dealt with even marginally, though this would be the most logical development. Attachments would be very likely between people sharing much in common, including the commonalities of long life spans and steel physiques. Possibly Central Worlds' rearing programs include conditioned aversions to such attachments, although such an aversion to one's own kind would lead to self-esteem problems for all shell persons.

When ships get together, they share little more than gossip (p. 52). Although Helva seems to have a vaguely mother-daughter relationship with an older ship, ships mainly pour their emotional energy into brawns and relate to other ships in sewing-bee fashion, scarcely respecting one another, as indicated when Helva feels of another ship, "she knew from past experience the voids in the other's personality" (p. 53). The conditioning of shell persons may be such that they cannot seriously consider attachment to their own "race" and this would have an emotional impact more damaging than the novel conveys.

Helva does have two women brawns during the novel's duration, but only as expected transients, of whom, "Theoda had been too immersed in her life-long expiation to entertain a personal reaction to Helva. And although Kira had been with her over three years, neither of them had let friendship develop into deep attachment." One would rather suppose female brawns with female brainships could develop close, intense, loving friendships without the sexually frustrated "love-romance" that dooms many brainships. But it appears as though the artificial boundaries, definitions, and conditioning of "gender" as structured by Central Worlds raises barriers between women as well as setting power traps between genders. Ideal, equal relationships are never an option.

Male brainships are hardly glimpsed. The one exception is depicted as effeminate, such traits given as negative: gossipy, complaining. His brawn relationship might have been curious indeed, but was not explored. Male brawns fit a specific image Central Worlds deems valuable: handsome, tall, white. It is never stated whether the effeminate brainship is an exception; he may be typical, with Central Worlds role-structuring for "butch and femme" homosexual pairing imitating the power structures of male/female pairings. Yet there is nowhere an indication that homosexuality is condoned by Central Worlds, even in celibate terms, and it is more likely that male-gendered brainships are structured to the same "norm" as male brawns: strong-willed, masculine, possessive, aggressive—then assigned female brawns when possible, leading to brawn inability to function under overbearing, possessive, and exceedingly powerful brainships, ultimately reinforcing Central Worlds' sense that female brainships with male brawns is best. Similarly, though male brainships could legally choose male brawns, these would be too competitive to be entirely effective, although on temporary assignment they might become excellent buddies in a parody of male bonding.

Although there is no official pressure for ships to mate with the opposite gender, and they often team up with same-gendered brawns for temporary assignments, long-term brawn/brainship partnerships are male/female in all cases shown.

Each of Helva's female brawns were temporary. Some of the things Service personnel take for granted is revealing. "You and Jennan made a fine team. His death was a piece of rotten luck. Let him rest in peace. Find yourself another guy . . ." (p. 204). It was no coincidence, then, that Helva's female brawns were stopgaps between men to fill the vacancy permanently. Clearly female space pilots would have a bugger of a time advancing in their careers under such constraints.

The two long-term brawns (Helva's first and final in the book) were men. A third was *intended* as long term and was also male (chosen by Helva for his perfect masculinity, although he turned out to be a rotten guy inside). So of three male brawns, all were expected to be long-term, and of two female brawns, both were expected to move on soon.

Gender structuring and attitude conditioning is such that heterosexual role-playing and power-dynamics are the most satisfying to the programmed individuals. Therefore, though they are not depicted, it seems inevitable that female brawns must find *their* permanent assignments with male brainships, though these are rare. Male brainships are less common, and female brawns are less common. Perhaps subconsciously, but more likely by design, Central Worlds is *causing* one kind of pairing to remain the *de facto* norm.

Since either brawns or brainships could conceivably overcome the role structuring that society (for brawns) and Central Worlds (for shells) imposes, there ought to be exceptional cases. McCaffrey shows none.

The close of the book finds Helva vying for a partner who is too small to fit the Service "image." It is not because she had learned (from a villainous ultra-masculine brawn) that the power roles have been crippling her. Indeed, she continues to believe if she could again achieve the dependent relationship she had with her first brawn, her life would again have meaning.