BRUCE STERLING: *SCHISMATRIX PLUS* (CASE STUDY)

A Cyberpunk Saga of Posthuman Evolution

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In the early 1980s during cyberpunk's heyday, Bruce Sterling published a series of short stories and a novel that shared the same far-future scenario, characterized by the tensions between two different factions and their antagonistic approaches toward human evolution. A decade later, *Schismatrix Plus* (1996) collected this sprawling Shaper/Mechanist series—"Swarm" (1982), "Spider Rose" (1982), "Cicada Queen" (1983), "Sunken Gardens" (1984), "Twenty Evocations" (1984), and *Schismatrix* (1985)—and, in the volume's introduction, Sterling proudly proclaims that "[t]hese stories, and this novel, are the most 'cyberpunk' works I will ever write," but also that this is "all there is" (viii), implying that he has given closure to the themes he wanted to explore. Although Sterling never returned to this narrative universe, his vividly imagined posthuman embodiments continue to flesh out the phantasmagorical fantasies of western posthumanism, a train of thought still much entrenched in humanism's dualisms: self/other, body/soul, object/subject, material/virtual, and biological/technological. Sterling's saga thus presents a suitable tableau to discuss contemporary debates regarding posthumanism and transhumanism, without losing sight of cyberpunk's foundational myths.

Most critics and reviewers have underscored Sterling's capacity to imagine posthuman subjects when the term "posthuman" was still in its critical infancy. As Veronica Hollinger has pointed out, *Schismatrix* is "one of the earliest sf scenarios consciously to construct its characters as 'posthuman' and explore some of the implications of the term" (269). Posthumanism has now evolved into an umbrella term, a theoretical concept used in so many different fields of study—including science and technology studies (STS), philosophy, critical theory, architecture, communication studies, and bioethics—that it is difficult to discern what is meant by it in each case. This is complicated by the use of the term by transhumanists, who see the posthuman subject as the ultimate stage of their ongoing transformation toward an enhanced human, whose intellectual and physiological capacities will no longer classify her as merely human.

In navigating this fraught terrain, Tamar Sharon distinguishes four broad approaches to the term "posthuman": "a 'dystopic', a 'liberal', a 'radical' and a 'methodological' posthumanism" (5). While dystopic and liberal positions are politically defined by their rejection or embrace of technology used to enhance human capabilities, the radical and methodological approaches correspond to current academic discourses in cultural theory and philosophy. The radical position includes the optimistic visions of Donna J. Haraway, N. Katherine Hayles, and Rosi Braidotti, among others, who see emerging biotechnologies as destabilizing agents of western anthropocentric, patriarchal, and racist foundational discourses. The methodological approach represents a more

"neutral" field of scientific exploration (STS scholars and philosophers such as Don Ihde or Bruno Latour) that has found it necessary to transcend the previous paradigm of the human as subject distinct from the world (object) to better account for the interaction between humans and non-human entities. In the end, the "most important axis of differentiation between the various types of approaches to the posthuman," Sharon concludes, "runs not between their celebratory or condemnatory inclinations, but between their humanist or non-humanist underpinnings, where humanism refers to the view that upholds a foundational ontological divide between humans and the rest of the world" (4-5).

Sharon's cartography privileges the academic debate between humanist and non-humanist positions, in part because this discourse has taken the central stage among critical/theoretical discussions of posthumanism; however, the dystopic and liberal lines, typically embodied by the Luddite and the technophile (or transhumanist), run through not only popular culture, including science fiction's (sf) portrayals of posthuman characters in novels, films, comics, and videogames, but also through scientific narratives (see Coyne 1999). What is obvious is that academic and popular cultures intersect; mirroring one another, both impinging on what it means to be posthuman by producing overlapping, at-times contradictory, definitions. In this regard, sf's creative freedom can provide an honest, unpretentious, and raw depiction of the desires and nightmares that populate our contemporary culture and "find fitting cultural illustrations of the changes and transformations that are taking place in the forms of relations available in our post-human present" (Braidotti 203). Cyberpunk's foundational narratives regarding the posthuman are particularly fecund, as they often depict strangely alluring but equally discordant, even repellant, futures founded upon a cutting-edge punk sensibility which, as some of the contributors in this volume have outlined, often fails to be absolutely radical, especially when it comes to imagining alternative subject positions that do not perpetuate patriarchal and racist discourses.[1] It is within this terrain that *Schismatrix Plus* occupies a central position in the cyberpunk canon, particularly in its complicated, perhaps contradictory, handling of posthumanism. Sterling's posthumanism proposes a fascinating mixture between technoromatic utopia and a nihilist cybergothic dystopia; the dominant and countercultural trends of our western digital narratives (see Goicoechea 2008), nuanced by his reading of the theories of Nobel laureate Ilya Prigogine, who provided Sterling with an "ideologically free" understanding of biological evolution.

As opposed to the near-future settings common to cyberpunk and popularized by such contemporaries as William Gibson, Lewis Shiner, or John Shirley, Sterling's *Schismatrix Plus* is set in a distant future where cyberpunk fantasies have been fully developed: the time frame spans from Spider Rose's birth in 2045 ("Spider Rose") to the events of "Sunken Gardens," set in 2554. In these five centuries we follow the history of (post)humanity beyond planet Earth, in which (post)humans, ideologically divided by different evolutionary choices, inhabit and explore outer space in a continuous flow of physical, ecological, political, and technological transformations. The main source of conflict is a fracture in society caused by opposed interpretations of what constitutes our

(post)humanity. On the one hand, the Shapers have pursued bio-genetic modifications to create a race of *quasi*-perfect clones imbued with both beauty and intelligence. The Shapers (a.k.a. the Reshaped) have evolved as a transhumanist utopia that has set no limits to gene manipulation, surgical operations, and nanotechnological intrusion into not only the human body but into the ecosystem at large. Shapers reproduce by means of cloning and cast aside "unplanned" humans as an inferior caste, since they consider it their mission to bring humanity to its perfection as a species. Their ideal of purity leads them into a never-ending struggle in order to maintain virus-free artificial ecosystems where the clones can live. On the other hand, the Mechanists have achieved a total alliance with the machine, supplementing their bodies with prosthetics and even managing to transfer human consciousness to computer circuits. They use all sorts of prostheses, allowing the mechanical elements to slowly invade their bodies. According to the Shapers, the Mechanists' evolutionary path will lead them to a dead end, since at some point everything will be transformed into metal and programming, leaving aside willpower and imagination—in sum, life. It is the beautiful and super-intelligent Shapers, however, who end up exalting the power of science and intelligence over emotions, becoming enslaved brains at the service of their Shaper ideology. Even their much-vaunted intelligence proves dangerous, as dissident shaper factions like the Patternist have experienced, often becoming mentally unstable and developing "autism, fugue states, paranoia" (from "Sunken Gardens", *Schismatrix Plus* 304).

While the two factions war with one another, they harbor the same dream: they desire immortality achieved through any means possible, including the inoculation of a cell-regeneration virus in the original body, a series of clones that would serve as backup copies of the self, and/or the transfer of the subject's identity (understood as pure data flow) to a mechanical body, a computer network, and even to a sentient architectonic structure. In sum, any shape imaginable could possibly be inhabited by a (post)human consciousness. As a result of this sprawling narrative canvass, the Shaper/Mechanist battles take place along ethical borders, ideological disquisitions, and taboos regarding what can and cannot be tampered with. To further complicate matters, the conscious manipulation of human evolution in Sterling's universe has not been univocal or unidirectional, and the Shaper/Mechanist branches are themselves giving way to a proliferation of different factions, all the while the solar system is being colonized by omnipotent aliens, the Investors, who have the secret of 'starflight' and enjoy abusing their (post)human inferiors with cheap swindles. In Sterling's saga, each evolutionary path therefore gives way to different societies, where mass defections from failed experiments to more promising ones are customary. Sterling has therefore devoted this whole saga to exploring the future evolution of (post)humanity with such a richness of detail and vivid description that he has made of those imaginings the *raison d'être* of the Shaper/Mechanist universe. Or, as Tom Maddox has observed, "more so than any SF writer with whom I am familiar, Sterling has explored the Other as the future of our becoming" (238).

The protagonist of *Schismatrix,* the longest contribution to the Shaper/Mechanist series, is Abelard Lindsay, who lives torn between his Mechanist origin and his Shaper education. Lindsay uses this in-between state to his advantage by stepping from one mode of consciousness to the other, depending on the occasion. For example:

> Lindsay was afraid. He closed his eyes and called on his Shaper training, the ingrained strength of ten years of psychotechnic discipline. He felt his mind slide subtly into its second mode of consciousness. His posture altered, his movements were smoother, his heart beat faster. Confidence seeped into him, and he smiled. His mind felt sharper, cleaner, cleansed of inhibitions, ready to twist and manipulate. His fear and guilt faltered and warped away, a tangle of irrelevance. (*Schismatrix Plus* 14)

In this instance, the mode of consciousness associated with Shaper training refers to a rational, cold, and calculating point of view, associated with the scientific method. After all, to the Reshaped, fear is one of those emotions that makes one vulnerable, a feeling which the Mechanists, on the other hand, do not attempt to repress. Later in the novel, Lindsay has been kidnapped by Mechanist pirates who are attacking a mysterious asteroid-shaped spacecraft that encloses a labyrinth of dark passages. It is within this cybergothic setting that a clan of exceptionally gifted and beautiful Shapers, fearful of being contaminated by microbes, assassinate the Mechanist pirates one by one. The Shapers' mind control techniques, emotional suppression, and scientific method turn them into lethal weapons while the Mechanists, who have not disowned their emotions and feelings, possess a vital instinct that makes them feel dangerously alive.

At the end of *Schismatrix*, Lindsay considers the transfer of his "soul" to a newly designed, high technology "Angel" that is described in the advertising brochure as "an aquatic posthuman. The skin was smooth and black and slick. The legs and pelvic girdle were gone; the spine extended to long muscular flukes. Scarlet gills trailed from the neck. The ribcage was black openwork, gushing white, feathery nets packed with symbiotic bacteria" (232). The brochure goes on to describe this posthuman body in exquisite detail, including "long black arms […] dotted with phosphorescent patches," "nerve-packed stripes [that] housed a new aquatic sense that could feel the water's trembling," a "nose [that] led to lung-like sacs packed with chemosensitive cells," "lidless eyes [that] were huge," and a skull "rebuilt to accommodate them" (232). Lindsay learns these Angels glow and are "self-sufficient, drawing life, warmth, everything from water" (232). And, in the interest of reproduction, "[c]hildren can be created. But these creatures can last out centuries" (232). It is in this description of the Angels, however, that we see a common motif in Sterling's *Schismatrix Plus*: Sterling's posthuman future is often torn between techno-romantic heaven and a cybergothic hell. The Angels are a techno-romantic fantasy of posthuman self-sufficiency and eternity complicated by religious overtones, the potentially humanist desire to return to a primeval state of unity with the liquid element of the maternal uterus, the immediate satisfaction of corporeal needs without exertion, and the reverie of a pure and aseptic body that remains somehow uncorrupted thanks to state-of-the-art technology.[2] This Angel therefore serves as an unsettling reminder of the

ethical dilemma we humans face as a species: we have encoded in ourselves the capacity through technological transformation to modify the physical and cognitive characteristics that have up to this point defined our identity. Sterling's Angel is not too far from a terrifying and phantasmagorical vision of the sort of creature that a (post)human being can become; as a result, this distorted image of a return to some aquatic Eden shows how close techno-romantic fantasies are to a cybergothic imagination: they are two sides of the same coin for Sterling and speak to our at-times blind faith in technological progress. The Shapers in Sterling's Shaper/Mechanist universe therefore represent the techno-romantic ideal of perfect (post)human beings, quasi-divine and asexual, whereas the Mechanists symbolize the beliefs of the cybergothic by vindicating the power of emotions as that which distinguishes them as (post)human beings.[3]

These well-defined lines drawn in *Schismatrix* between the techno-romantic and the cybergothic are blurred in the Shaper/Mechanist short stories. The attitudes of Shapers and Mechanists in these stories are not so easily discriminated, providing an even more nuanced reading of evolutionary choices. For example, "Swarm," the first short story in this saga, contains many of the themes developed in the rest of the stories: the economic war between the two main factions, the mercenary ethics, and the life-or-death struggle for survival in hostile environments, to name a few examples. Its protagonist, Simon Afriel, is a member of the Shapers on a "research" mission to an alien asteroid inhabited by a primitive collective society. This alien culture, or swarm, is likened to a beehive or an ant colony and, seemingly devoid of any self-awareness or intelligence, is presented as an ideal society where innocence reigns, there is no knowledge of good or evil, and "it's always warm and dark, smells good, and food is easy to get, and everything is endlessly and perfectly recycled" (247). Afriel's companion, Doctor Galina Mirny, a researcher whose in-depth work on the swarm defines her life, remarks that this subterranean kind of heaven could last unchanged for thousands of years, but Afriel dismissively replies: "In another thousand years we'll be machines, or gods" (248). Afriel's Shaper bias shines forth, and when confronted by Dr. Mirny with his mercantilist, rather than scientific, objectives, he defends himself by attacking his opponents: he describes to Dr. Mirny the extreme factions of the Mechanists as "more than half machine. Do you expect humanitarian motives from them? They're cold, Doctor—cold and soulless creatures who can cut a living man or woman to bits and never feel their pain. Most of the other factions hate us. They call us racist supermen" (247). Pushed to the limits of their ideology, Mechanist and Shaper factions then represent similarly "barbaric" or inhumane positions: the absolute lack of compassion and empathy associated with the machine, versus the superiority and racism of the "enhanced" human, the superhuman.

If there is another similarity between the Shapers and the Mechanists that *Schismatrix Plus* emphasizes, it is surely their shared encompassing belief in colonizing and transforming other planets into habitable environments, a titanic effort that redoubles their necessity for technological advancement in a race against competitors. "Sunken Gardens," for example, deals with a particular terraforming contest in a Martian crater where several gardening factions compete to create the most enduring and beautiful

habitat. The prize is the "Ladder," an offer of admission to a more advanced society orbiting Mars in a city-state spacecraft, the Regals, a splinter faction from the Terraform-Kluster. The Kluster, which has remained neutral in the Shaper-Mechanist war, attracts capital from financiers and bankers while also benefitting from the alien Investors' patronage. This capitalist heaven is the realm of the 1% and the Regals rule over Mars, quite literally looking down and scrutinizing a planet populated by the losing factions, all the while viewing these refugees as living ecological experiments competing with each other in "closely studied simulations of the future" (307).

During the most recent iteration of the competition, a fire breaks out in the crater where the six competing factions have been allotted land to garden. Mirasol, the story's protagonist, discovers that the crater is not empty but secretly inhabited by a previous surviving faction, which has set itself and its habitat on fire in a suicidal escape from the Regals. This event reveals the "advanced" Regals as also a petty and destructive class, who had previously attempted to eradicate this captive faction when they discovered that these underlings had managed by themselves to obtain the secrets of star travel. This discovery would not only weaken the Regals' power and leave their partners, the Investors, without a negotiating advantage, but also threaten to turn the refugee ecologists away from competitive terraforming projects to instead fuel their launch into space. Mirasol confronts her Regal superior with the catastrophe she has witnessed, but the woman only replies nonchalantly: "If life worked perfectly, how could things evolve? Aren't we Posthuman? Things grow, things die. In time the cosmos kills us all. The cosmos has no meaning, and its emptiness is absolute. That's pure terror, but it's also pure freedom." This so-called superior Regal sententiously concludes: "Our ambitions have become this world's natural laws" (312). At the end of the story, Mirasol, the victor of the competition, now orbits Mars and similarly looks down on the people below her, and she agrees to keep the cruel and self-interested nature of the competition secret in exchange for her new privileges, including a newly extended lifespan. This story epitomizes the ruthlessness with which (post)human factions are thrust into outer space in a technologically-mediated battle for survival, and how personal ambition overrides solidarity.

In many ways, *Schismatrix Plus* remains faithful to cyberpunk's conventions: the narrative rejects both technological utopia and post-apocalyptic debris. Instead, it selects a paradoxically mild dystopia, a scenario that reflects Sterling's distrust regarding human capacity to develop a machine culture that is positive and healthy, but which nevertheless leaves some margin for hope since the characters' free will is never completely purged. The Shaper/Mechanist far-future includes "epidemics of suicide, bitter power struggles, vicious technoracial prejudices, the crippling suppression of entire societies" (64). At the same time, "the ultimate madness had been avoided. There was war, yes: small-scale ambushes, spacecraft destroyed, tiny mining camps claim-jumped with the murder of their inhabitants […] But humankind had survived and flourished" (64). In *Schismatrix Plus*, therefore, we have what 1980s-era cyberpunk authors often commented upon in this early wave of fiction: an exploration not of some urban sprawl but a probing of social

margins and the marginalized, the debris of opulent societies and their outcasts, and an unequally shared utopia that is the American dream, albeit transferred into outer space.

Curiously, *Schismatrix Plus* is both nihilistic and at the same time naïve regarding the power of capitalism and materialism to bend and twist ideologies. On the one hand, the Shaper/Mechanist universe is a projection of liberal capitalism gone universal, the common currency being calculated in energy, the "gigawatt." As the most powerful alien race, the Investors keep the secret of "starflight" to themselves, triggering market crashes, transactions of all sorts on the "open market" (286), and "commercial action" turned into "a kind of endemic warfare" (304). Colonization and terraforming also instantiate the economic conflicts that pervade the entire Shaper-Mechanist universe, making the decoys of capitalism real:

> There are two hundred million people in space. Hundreds of habitats, an explosion of cultures. They are not all scraping out a living on the edge of survival, like these poor *bezprizorniki*. Most of them are the bourgeoisie. Their lives are snug and rich! Maybe technology eventually turns them into something you wouldn't call human. But that's a choice they make – a rational choice. (42)

Nevertheless, Sterling instead blames unbound technological and scientific progress as the impersonal, destructive forces that have ruined human societies: "Pioneer elites burst forth, defying anyone to stop their pursuit of aberrant technologies" (304). Calling forth echoes of Alvin Toffler's *Future Shock* (1970) and *The Third Wave* (1980), Sterling writes that "[n]ew sciences and technologies had shattered whole societies in waves of future shock" (304).

Sterling's indebtedness to futurist Toffler's 'waves of future shock' cannot be understated, in part because it was embraced by the earliest cyberpunks and celebrated accordingly. In his preface to *Mirrorshades: The Cyberpunk Anthology*, Sterling goes so far as to call *The Third Wave* "a bible to many cyberpunks" (xii); however, the more noteworthy appropriation of scientific jargon in *Schismatrix Plus* is taken from Ilya Prigogine's *From Being to Becoming*. Prigogine, a physical chemist and Nobel laureate concerned with change and evolution, was trying to understand the enigma of time: How do we integrate the time dimension in our situated knowledge of the world? How do we come to think in terms of before and after? Can the past and the future really be predicted if the present state of a system is accurately known (as classical physics seemed to imply)? Or, as Prigogine suspected, are there oscillations, fluctuations, catastrophes that can jump-start evolution in strange ways and not one but "only various possible 'scenarios' can be predicted" (vii)? Prigogine's work was helping to bridge a gap between a scientific approach that had been quite sterile with respect to the preoccupations with time and change and the inventiveness of literary and artistic concerns on the subject matter (vi).

Even though Sterling only expressed his admiration for the superficial sound of Prigogine's prose— "very like the 'crammed Prose' and 'eyeball Kicks' that we cyberpunks were so enamored of" (*Schismatrix Plus* vii)—he went far beyond merely using "his terminology as the basis for Shaper/Mechanist mysticism" ("Introduction" vii);

instead, Prigogine structures the entire Shaper/Mechanist universe. For example, direct mention is made in "Cicada Queen," a story filled with Prigogine references through the invented philosophical-scientific terms that sprinkle the narrative: "the Fourth Prigoginic Level of complexity" (273), "prigoginic event horizon" (274), "the Prigoginic Leap" (282), etc. Sterling even makes one of Prigogine's ideas the motto for his universe: "life moves in clades," which is repeated like a mantra throughout the Shaper/Mechanist narratives. This motto is Sterling's metaphorical adoption of Prigogine's understanding of "this over-creativity of nature […], in which 'mutations' and 'innovations' occur stochastically and are integrated into the system by the deterministic relations prevailing at the moment" (128). What was Prigogine's integration of the thermodynamic law of entropy in biological evolution provided Sterling with an ideologically free sense of a technologically driven evolution in which chaos and change bring about new orders of being.

"Cicada Queen" is also notable because posthumanism is here presented as a philosophical school influenced by the "ancient Terran philosopher Ilya Prigogine," which has liberated humans from the cumbersome "search for moral certainties" (*Schismatrix Plus* 274). Science has become philosophy: "Posthumanism schooled us to think in terms of fits and starts, of structures accreting along unspoken patterns" (274). In Prigoginic terms, the entropic forces that bring about physical decay and intellectual finitude can eventually introduce a mutation, a change, that will give evolution a jump-start. This leap of faith remains the same for all the posthuman factions: an unwavering belief in the successful transfer of human consciousness from its original body to another container, be it mechanical, biological, or cyborg. It is the essentialist division between mind and body that remains untarnished. Overall, this faith permits Sterling's (post)human characters to think in more positive terms when facing irreversible situations, such as death, the extinction of a species, or the collapse of a meteorological system.

At the same time, stories such as "Spider Rose" and "Twenty Evocations" address the imposition upon the limits of a (post)human life by the unbearable accumulation of memories rather than by the progressive degeneration of the body. If there is something that defines *life* (and not just human life) it must surely be *death*; yet, by overcoming death, the (post)human faces a vampiric life, or undeath: senselessness and boredom as the overpowering problem of a saturated memory becomes pressing. As in "Spider Rose," acts of cruelty perpetrated in the past and the difficulty of coping with "the inconvenience of guilt" make the protagonist feel "old, horribly old" (*Schismatrix Plus* 268). The protagonist in "Twenty Evocations", Nikolai Leng, dies pronouncing his last words triumphantly—"Futility is freedom!" (*Schismatrix Plus* 319)—after enjoying a life marked by mercenary choices, negotiated yet seemingly happy marriages, conspiracies, betrayal, and, finally, suicide. Both Spider Rose and Nikolai die alone in a universe where true emotions are rare, and drugs have made sex and love irrelevant; yet, *Schismatrix Plus* shows the need for companionship is never fully eradicated. These passages contain one final moral message that we can extract from Sterling's disquisitions about the posthuman

future: Our humanity is relational; it is constructed through our ties with others, though, as the end of the novel implies, the myth of the solitary space cowboy as an isolated monad lost in the void remains alluring.

Sterling's depiction of a Prigoginic posthumanism is presented as the rejection of the moral constraints that limit personal freedom in order to protect the common good. It is an ideology that embraces individuality, change, and action; it is a way of thinking that facilitates unencumbered bodily transformations, which are most often enforced by the requirements of survival and domination rather than ethics or aesthetics. Generally, *Schismatrix Plus* presents us with a posthumanism that entails the subversion of current humanist ideals, but which is actually more faithful to contemporary human behavior, where individualism, alienation, and opportunism dominate the individual's actions rather than communal ethics or the defense of humane ideals. In the end, *Schismatrix Plus* has captured the western *élan de vie*, which is marked by the infinite desire for change and action, a being-in-the-world that is essentially active, fearful of the void, and incapable of truly visualizing a far-future without the never-ending human exertion to prevail.

Notes:

1. Most cyberpunk sf remains tied to a large extent to the very humanist ideals it superficially tries to sabotage. In other words, while Braidotti, Haraway, and Hayles promote posthuman subjectivities as potentially overcoming the cultural, racial, and gender barriers that have oppressed the Other, the posthuman in cyberpunk narratives is often subjugated to the same normative identities detailed by the Enlightenment, perpetuating the dominant gender and racial stereotypes of Western culture. See [insert names of other chapters in this collection] in this collection for expansion on this topic.

2. This image is reminiscent of Mark Dery's discussion in *Escape Velocity* (1996) of Burt Brent's designs for a winged human in *The Artistry of Reconstructive Surgery* (1987).

3. In a perplexing final *tour de force,* Lindsay will eventually refuse to choose either the Shaper or the Mechanist option, but will embrace instead an alien mysticism, following Presence, a disembodied force that offers him "eternal wonder" and the possibility to "wait out the heat-death of the Universe to see what happens next" in a total abandonment of the body (236).

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