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Of Enigmas and Xenoencyclopedias

Richard Saint-Gelais. *L'Empire du pseudo: Modernités de la science-fiction*. [The Empire of Pseudo: Modernities of Science Fiction] Québec: Éditions Nota Bene, 1999. 399 pp. C$14.25 pbk.

Irène Langlet. *La science-fiction: Lecture et poétique d'un genre littéraire*. [Science Fiction: Readings and Poetics of a Literary Genre] Paris: Armand Colin, 2006. 304 pp. € 32.58 pbk.

The two French-language books under review—they should be read together, so close are their arguments—fill a significant gap in sf theory. *L'Empire du pseudo*, by Richard Saint-Gelais of Québec's Université Laval, and *La science-fiction: Lecture et poétique d'un genre littéraire,* by Irène Langlet of the Université de Limoges, develop a sophisticated conception of sf's literary distinctiveness using tools from semiotics, cognitive psychology, and narratology. Both authors work within the sphere of narrative theory concerned with readability—how readers construct literary experiences by understanding and manipulating textual codes—associated with Roland Barthes, Gérard Genette, and Umberto Eco. For both, sf is an exemplary kind of fiction because it maximizes readers' pleasure in semiosis. Readers of sf actively construct fictive worlds not primarily through recognition of familiar signs; instead, they are stimulated by a wide range of unfamiliar alterities [*étrangetés*] in each sf text—words, discourses, images, concepts—whose meanings are not given beforehand, and so trigger conjectures. Readers gradually fill in gaps in their knowledge by inferring world-contexts that explain and consolidate those enigmatic alterities. Both authors trace the guided but indeterminate negotiation of semantic gaps from the level of individual words to the constellation of paratexts that surround individual works. Both also describe the gradual maturation of the genre as its writers become adept at weaving the play of "enigma and explanation" (Langlet 67) throughout the storytelling.

The premises are not original to the authors; the systematic unfolding, however, is. Marc Angenot's 1979 *SFS* essay "The Absent Paradigm: An Introduction to the Semiotics of Science Fiction" identified sf's genre-specificity in terms of structuralist linguistics.[1] According to Angenot, readers of sf encounter new words—"fictive words"—that do not exist in the store of terms available in real discourse. Cognitive uncertainty at the lexical level is resolved by imagining that the fictive words are parts of an unknown, invisible referential system—the absent paradigm of the essay's title—in which they have a rational and motivated, albeit entirely imaginary, place. An alternative, coherent world of references is imagined to stand behind the fictive referents. At about the same time, Samuel R. Delany began publishing essays and interviews on what he termed sf's distinctive reading protocols. For Delany, sf requires a very different

reading strategy than realistic fiction, or what he termed "mundane literature." Where the latter depends on readers finding easy correspondences between the words in the fiction and the normal sign-relations of everyday experience, sf forces readers to do the "textual work" of imaginatively inferring object-worlds that correspond to the linguistic alterities of the individual texts.[2] These alterities are not only fictive words, as in Angenot's framework; they are often phrases, larger discursive units, and literalized metaphors or paradoxes. Such ostensibly non-figurative concretizations of strange expressions force readers to consider what sorts of worlds or ontologies would have to exist for such phenomena to exist. For Delany this means that sf is the inverted shadow of mundane narrative, and on two counts. First, while modern mundane fiction is mainly concerned with the deconstruction of the subject, sf is concerned with the deconstruction of the object (Delany 189). Secondly, by forcing readers to become involved in the power of language to create imaginary alternative worlds, sf's protocols are closer to those of poetry than of realistic prose. While the latter reinforce the ideologically charged linguistic status quo of the culture through easy reading, the former offer linguistic and imaginative autonomy.

Angenot's and Delany's ideas are often cited, but they have rarely been explored. If they are not quite dormant, they have been static. Since both writers rely on the structuralist-semiotic concept of textuality, it is striking that their implicit systems have not been explored in sf scholarship.[3] Indeed, the semiotic phase in Anglophone sf studies was a brief one. Books like Robert Scholes's *Structural Fabulation* (1975) and Tzvetan Todorov's *The Fantastic: A Structural Approach to a Literary Genre* (1970; tr. 1973) enjoyed a certain academic prestige as textualist approaches, a judgment possible only because so few scholars of sf had a grasp of structuralism and semiotics at the time. Scholes's little tome tried to argue that sf was akin to contemporary metafiction, while Todorov's study of the European *fantastique* was mistakenly considered applicable to sf. More serious Barthes-influenced studies such as Christine Brooke-Rose's *The Rhetoric of the Unreal* (1981) had almost no impact. By the mid-1980s, semiological investigations of sf had become rare. The currents of sociocultural criticism—Marxist, feminist, cultural-studies inflected, and technoculturally-oriented postmodernist—swept away the jetties of textual studies before any serious fishing could be done from them. Semiological flotsam appeared occasionally (in analyses of pulp iconography, and the curious ubiquity of Greimas's semiotic rectangle in the work of Jameson and his followers); but by and large, the moment passed. Textual concerns ascended to the mountaintops of elite theory, while sf—and genre in general—became increasingly identified with the avowedly interventionist study of popular culture.

Saint-Gelais's *L'Empire du pseudo* is, to my knowledge, the first extended scholarly meditation on sf's textuality, and it is a dazzling achievement. Saint-Gelais draws on a daunting store of knowledge of both Anglo and French sf, as well as comparative literary theory. Moreover, he writes with great skill and energy. It is no accident that the book was conceived in Québec, where there is a rich, active, and indeed contentious sf culture familiar with both Franco- and

Anglophone fiction, and with close ties to French literary life, where structuralist concepts have retained currency. Saint-Gelais builds on Umberto Eco's notion of the text as a "lazy machine" that requires constant inferential work from readers. Realist fictions especially ask readers to build up models of fictive worlds through references to what Eco calls a "cultural encyclopedia"—bits of knowledge that act as if they were entries in a tacit, invisible archive of everything considered significant in the world. The sense of a coherent world is conjured up by inducing readers to fill in the gaps between, on the one hand, the signs, objects, and events that the text in question selects, and, on the other, the vast network of merely implicit contextual connections. Readers thus supply the sense of meaningful, culturally logical connections themselves, an illusion easy to induce in realist texts, since a similar illusory coherence governs the processing of the sign-systems of everyday life. In this way the unity of the fictive world is constructed at the very moment the reader of a realistic text believes s/he is finding correspondences with reality.

For Saint-Gelais, sf is unique among genres because it involves the same operations as the reading of realist texts, but the most salient qualities of sf's fictive worlds are not supported by the shared cultural encyclopedia. Each sf text-world is marked by unique alterities: strange words and phrases, strange objects, strange concepts, strange relationships. The pleasure of the sf text for experienced readers is precisely the work of pretending that they are reading a realist text, but one that requires constant conjectures about what these strange terms and figures mean. These conjectures are tested, confirmed, reconsidered, or disconfirmed as readers progress through the diegesis, striving to fill in the contextual gaps. It is as if they were consulting an imaginary encyclopedia, but one they are constructing themselves as they read. Saint-Gelais calls it a *xeno-encyclopedia*.

Much of *L'Empire du pseudo* is devoted to exploring didactic strategies—techniques for delivering elements important for compiling the xeno-encyclopedia in the course of reading, from infodumps to the subtle distribution of data throughout the text. Many of these strange terms can be understood via the *paratext* of sf—the body of extra-diegetic supplementary data that the genre builds up over time, from book-cover art and blurbs to touchstone motifs of other sf works. The competent reader gradually learns more and more about the genre's own grand-scale xeno-encyclopedia in order to understand each new work's specific xeno-encyclopedia.

Unlike Delany, Saint-Gelais does not see an affinity between sf and lyric or experimental fiction; readers of sf are not expected to do the hard textual work of reimagining every aspect of discourse, as poetry and experimental fiction may demand. For Saint-Gelais, sf assumes that readers will use the same strategies involved in reading realistic fiction, but with a far greater cognitive engagement. An sf world will be strange *and* rationally cohesive—it will be *pseudo-realistic*. In this sf readers do not follow what Marie-Laure Ryan has called the "principle of minimal departure" of realist fiction, according to which readers naturally tend toward expending the least cognitive effort to resolve enigmas posed by discursive alterities, and feel pleasure within a narrow range of possible

interpretations. Saint-Gelais's notion of sf involves a different principle, one of "indeterminate departure" (Saint-Gelais 218). Every alterity in the text, from individual words to causal principles, adds to an ensemble of conjectures from which a complex picture of imaginary relations emerges.

Over time, the writers and readers of the genre become increasingly competent—simpler texts require less and less effort to interpret, and the demand rises for more complex and challenging ones. *L'Empire du pseudo* outlines a history of sf reading, from a naïve phase, in which conjectures are primarily deductive and conclusive, to a self-reflexive phase, in which more open-ended induction dominates. The pleasures of reading sf may begin with the immersive "sense of wonder" of imagining a world as if one is discovering something that already exists but was not known. Over time, a different pleasure forms, what Saint-Gelais calls a "sense of reading" (225).[4] Readers take pleasure in sensing their own participation in the emergence of a coherent imaginary world. A dialectic develops between a naïve sense of immersion and a sophisticated sense of construction and play. This sense of reading makes sf a special kind of modernist metafiction, with its own internal, generic, literary strategies of communication and interpretation. For Saint-Gelais, sf thrives on *motivated* metafictional devices. The formal and figurative tricks that avowedly metafictional texts employ to call attention to their own fictionality and to undermine any sense of naïve understanding (Saint-Gelais singles outs "autodesignation," texts calling attention to their own fictionality, and "embedding," texts that include other fictions) appear in sf as if they were actually existing aspects of an alternative reality. Like literalized metaphors, metafictional devices are made concrete in a pseudo-realistic world-framework. As in Bester's *The Demolished Man* (1953), where typographical play represents real telepathy, or in the inter-embedded narratives of time-travel stories, sf thrives on "the mechanism of the conversion of devices into fictive data" (261). This notion of sf as concretized metafiction complements Brian McHale's argument that sf is the postmodern literary mode par excellence because of its concern with ontological plurality, as opposed to the modernist detective-story's concern with epistemological plurality. Sf texts create the sense of diverse and strange ontologies precisely by taking realistic fiction's reading strategies beyond the limits of familiar decoding. Sf does not undermine the protocols of realistic reading; it employs the procedures of realism to undermine its postulates.

Metafictive, destabilizing tropes are basic to sf in Saint-Gelais's framework: texts written in the future or other worlds and read in the present, the New Wave's "syntactical machines," infinite embeddings, strange loops, concretized paradoxes presented not as tropes and puzzles but as actually existing alterities, are all recurrent devices in sf. The display of textual machinery, so beloved by non-sf metafictional writers, remains hidden in sf's "diffused metafictionality" (250). Sf often comes as close as possible to revealing its own illusion-producing apparatus, without actually crossing the line (as for example, in Lem's hyperrealistic style of using maximum plausible discourse to deliver entirely imaginary content). This logic of concretization governs not only sf's diegetics, but also its paratexts, the supplementary non-diegetic materials that appear to

provide surplus data to reinforce the text and the genre's encyclopedia. In a brilliant penultimate chapter, "Text Captured by its Fiction: Some Reflections on Science-Fictional Artifacts," Saint-Gelais explores a wide range of what he terms "sf artifacts": semiotic objects that seem to originate from an imaginary world beyond the closed space of the story. His emphasis is on the use of discursive non-diegetic artifacts, "pseudo-nonfictions," that deepen the story's illusionary world by giving the sense of a rich xeno-encyclopedia existing beyond the story frame, such as maps and figures, appended essays or lexicons. These culminate in embedded fictions (particularly strong in time-travel, reality-shift, and identity-doubling stories) in which "the frame is invaded, almost absorbed, by what it should embed or circumscribe" (338).

In the concluding chapter, "On the *Star Trek* Constellation: SF and transfictionality," the larger trajectory of *L'empire* becomes evident. Saint-Gelais, who was clearly once a *Star Trek* fan, views *ST* as a quasi-Borgesian phenomenon: "the elaboration by a whole community of writers, directors, telespectators, and *fans* of a sprawling universe, stratified, prolific to the point of generating its glosses, its apocryphal writings, its heretics, its reference works, its parallel versions: the universe, or rather the 'multiverse' of *Star Trek"* (343). Because of the volume of connected texts and practices associated with the shows, *Star Trek* is exemplary of *transfictionality*, when two or more independent works share either fictional characters or world-frames. *Fictions transfugés: La transfictionnalité et ses enjeux* (2011; *Renegade Fictions: Transfictionality and its Stakes*), Saint-Gelais's major work after *L'empire*, is devoted to the subject, and in retrospect it appears that sf—and *Star Trek* in particular—has served him as a starting point for the more embracing literary category of the transfictional. Within the context of *L'Empire*, *ST* and the transfictional also stand as the consummate expressions of sf's basic logic of concretization of figural devices. Beginning on the lexical level with fictive words, through strange phrases and literalized metaphors, to the construction of xeno-encyclopedias, all the way to paratextual sf-artifacts and metafictional gadgets, Saint-Gelais's describes a genre that thrives on the mechanisms of what Baudrillard termed simulation and hyperrealism. In his final chapter, Saint-Gelais observes the xeno-encyclopedias of sf myths like *ST* diffusing into actual experience, as the emphasis shifts from alterity fictively represented to fictive alterity actually performed. These transfictional/artifactual texts act like sf's vertiginous metafictional embeddings—invading and blurring their own "real" frame, the "real" cultural encyclopedia, making sf a dominant art of an age of simulation.

Langlet's *La science-fiction* builds directly on several of Saint-Gelais's ideas. The xeno-encyclopedia, the sf text as a conjecture-engine, the importance of didactic strategies for delivering explanations of strange data, the increasing importance of the science-fictional "sense of reading" are core premises of Langlet's work also. But where *L'Empire du pseudo* poses them in a grand sweeping panorama, *La science-fiction* focuses sharply on the specifics of "the textual machinery of the marvelous" (28). Langlet pares Saint-Gelais's claims down to an axiom: sf is a literature of "enigma and explanation." Its literary

distinctiveness lies in its use of strange novums that trigger conjectures in readers seeking rational explanations for them; the text guides readers via various strategies of delivering the data that will help them create a context—in other words, to build a coherent, rational imaginary world. Langlet uses the term novum almost interchangeably with *étrangeté* (a word with much more useful connotations in French than the English literal translations, "strangeness" or "alterity"). And indeed one of the contributions of *La science-fiction* is the expansion of Saint-Gelais's ideas to include Darko Suvin's concepts of the novum and cognitive estrangement, which were largely downplayed in *L'Empire*. For Langlet, cognitive estrangement is not very different from the triggering of *étrangeté* and the search for explanations. In this respect *La science-fiction* can be read as a careful analysis of the actual operations that sf readers perform in both Delany's and Suvin's models. This alone would make Langlet's book an important contribution. Delany's essays have given numerous examples of how sf readers gradually discover that strange phrases are not entries in the shared encyclopedia, but rather of a text's xeno-encyclopedia; but Delany's comments lack a narratological apparatus to explain how these moments are part of science-fictional thinking—or, to use Langlet's Cartesian metaphor, the "textual mechanism" of sf. Suvin, for his part, treats the cognitive portion of cognitive estrangement primarily in terms of ideology, the ways in which the constructed estranged world illuminates the (ideologically constructed) actual world. The cognition involved in reading specific texts does not come into play. Langlet uses Saint-Gelais's model to ground both Delany and Suvin by describing how readers make sense of sf texts, how their competence grows, and how this growth effects the increasing sophistication of the genre's textual strategies.

That said, Langlet's use of the term novum is not identical to Suvin's. Where Suvin looks in each sf text for an overarching new event or object that dominates the global relations of the narrative, Langlet considers each strange device encountered by the reader—a word, a phrase, a pseudo-document—a novum. The difference this makes for analysis is significant. For Suvin, the goal of critical reading is to arrive at the dominant new idea of an sf work, the better to use it as a tool for social criticism. Reading for him is a form of dis-enchantment. For Langlet, the goal is to trace the ways the reader builds up coherent imaginary worlds in response to enigmas distributed throughout the sf text, at every level of textuality. Reading is guided construction.

La science-fiction has three main sections, each of which could have been a separate monograph. The first and longest, entitled "Tools of science-fictional mechanics," is a detailed analytical catalogue of narrative devices used by sf writers to introduce novums and their didactic strategies for explaining them. Langlet divides them in terms of scale: lexical, discursive, and global (societies, values, technologies, biospheres, etc.). Lexical novum-triggers include words that are unambiguously strange, Angenot's fictive words. Readers encountering words like *hralz* in Iain M. Banks's straightforward third-person narrative of *Use of Weapons* (1990) try to disambiguate the word through speculative substitutions until its meaning in a xeno-encyclopedia is made clear. On a higher

lexical level are words that are given ostensible meanings, but which in the course of the story's unfolding require re-evaluation and reinterpretation (often when the reader becomes aware that the speaker has a biased subject position). Changing narrative points of view in sf texts create a "game of cross-referencing verifications" (31). The more the text engages the fluidity of discourse, the more the xeno-encyclopedia will involve a variety of alternative usages corresponding to diverse xeno-cultural points of view.

Resolving lexical strangeness involves the same operations as any cognitive construction of a literary text. Two dynamic formations are in constant play against each other: the ensemble of gaps in available data, and the fund of stereotypes (most often from scientific discourse, narrative history, and sf's past works), which must be constantly revised. Each work of sf is expected to construct the gaps and their supplements in a new way. Thus for the genre in general we can speak of two xeno-encyclopedias: a "generic" or "megatextual" one, and the one specific to the work at hand.

Above the lexical level are discursive alterities that affect the phrase, and which often do not involve strange words at all. Langlet's prime example (also used by Saint-Gelais) is the opening line of Christopher Priest's *Inverted World* (1974): "I had reached the age of six hundred and sixty miles." (Most of Langlet's many examples are taken from the openings of texts, where strangeness-hooks are usually on full display. Both Saint-Gelais and Langlet tend to ignore the unfolding of what we might call "second-phase alterities," when new novums are introduced that are strange even in terms of the alter-worlds' strange initial conditions.) The reader encounters an attractive enigma through the strange use of entirely ordinary words—none in the sentence are strictly speaking neologisms or neosemes (words whose meaning has changed). Readers expect such discursive enigmas to be resolved, but exactly how, and on what scale, they can only speculate. (Such phrase-novums do seem to be genuinely favored by sf. One need only begin a list of well-known oxymoronic and catachrestic titles: *The Female Man, The Jagged Orbit, Burning Chrome, Icehenge, Nevèrÿon, The Windup Girl, The Bohr Maker, Blood Music, Synners, Schismatrix, Galactic Pot-Healer, Vacuum Flowers, The Forever War, Born with the Dead, The Demolished Man*—on and on.) On the third level, global novums, the reader is thrown into a completely different universe, and the construction of a xeno-encyclopedia is required on all fronts: lexical, narrative, and conceptual. Often this begins by immersing the reader in alterity, which Langlet demonstrates via the opening pages of Dick's *Ubik* (1969) and Ian McDonald's *Desolation Road* (1988). In most cases the web of alterities is compensated for by a network of details familiar from the "real" encyclopedia: dates, a company name, a familiar kind of event or document, etc. "The impression of general strangeness is not due to the appearance of objects and actions that will be entirely extraordinary, but an equilibrium cleverly constructed between the multiple alterities and multiple familiarities" (37).

Langlet identifies a rudimentary narratological armature of devices through which the explanations of novums are managed: "how the devices of estrangement articulate their rational or rationalized explanations, and how

these articulations are entrained in the story in all its narratological dimensions" (59). These develop from simple forms, such as "apposition" (definition) and "characterization" (description), to "motivated description," the presentation of a novum in the course of narrative action, often without any explicit didactic elements. Langlet observes the increasing subtlety of such motivated descriptions; they can reach a pitch, as they typically do in Bester's work, at which the reader often does not realize at first that a description is of a novum. With Bester, "the reader must not understand it without effort like the character, but must laboriously decompose it, without understanding all the implications" (42). With "analepsis," a crucial detail of a major novum is explained, creating the conditions for a full explanation later. For Langlet, sf gains novelistic maturity when the novums in the story are rendered doubly motivated, not only in terms of science-technology or speculative philosophy, but from the point of view of the narrative, the inweaving of the novum/explanation into the actions and events of the story (48).

Langlet moves from the discursive level to the poetic in the second section of Part I, entitled "A Topography of the SF Novel: Some Formal Options," juggling several expositions at once: the historical development of sf narrative to maturity and artistic sophistication as it adapts classical novel forms for its own uses; the adaptability of novelistic forms to the new contents of sf; and, by implication, the novel's almost natural suitability for sf. She follows Saint-Gelais closely in tracing sf's evolution from relatively crude didactic novum-management to complex distribution of explanatory data throughout the narrative, and fully agrees with Saint-Gelais's notion that sf tends toward a form of self-concealing metafiction in which motivated, literalized metafictional devices replace openly formal ones. After tracing a history of this gradual consolidation from naïve beginnings to ironic self-reflection in the *Galaxy* period of the 1950s, the deconstructive moves of the 1960s New Wave, literary experiments in the 1970s, and full consolidation with cyberpunk in the 1980s, Langlet assesses sf's use of what can only be considered traditional categories of the classical novel—the "linear novel," the assemblage of multiple points of view, the Bildungsroman, and the polydiscursive composite novel. She makes no judgments about their relative worth; it is impossible, nonetheless, to read this catalogue as anything but a fairly traditional history of aesthetic progress. What is original in Langlet's approach is her proposition that the different novelistic forms of sf mirror in content the kind of cognitive labor the reader devotes to negotiating the novums in the works in question. In other words, the more complex novelistic forms both formalize and thematize the kind of textual work that audiences put into reading.

The *linear novel* (which Langlet defends against the charge of naïve simplicity) as practiced by Arthur C. Clarke and many other (perhaps most) sf writers, follows a strict pattern: "a tranquil exposition, a perturbation, an explanatory proposition emerging from a new perturbation—new information leads to looking back to reinterpret/provisionally complete data that had been enigmatic earlier" (63). The relationship between the explication and the reader is one of trust; the narrative usually delivers its deductive conclusions. Sf novels

with unreliable (or indeterminate) narrators—such as Vonda N. McIntyre's *Dreamsnake* (1978)—in which the required knowledge has to be reconstructed inductively through the responses of characters who have partial and prejudiced knowledge—exploit "the gap felt between the point of view of the reader and the character, and the explanation of this gap can be used as narrative supplement" (71). The Bildungsroman is well suited for fully distributed gap-management because it doubles in the action the search for the coherence of a strange world that the reader is performing. "In his march toward his integration with the world, but acting in a story that has for its object precisely to narrate the successes and dangers of this integration, the character makes real in the text that which the sf reader regularly accomplishes in his reading" (73-74).

Langlet moves from the "linear novel" to "polydiscursivity" involving formal devices that not only juxtapose diverse subject-positions but also diverse kinds of texts. The gaps between these texts—sometimes intertexual, sometimes peritextual—make the reader's gap-filling conjectural work especially active at the level of form. Such devices include intimate journals, dialogues, inserted texts, epigraphs, narrative prologues, non-narrative annexes, glossaries, dictionary entries, maps, chronologies, statistics, genealogies, extracts from imaginary encyclopedias—all core devices in the sf tool chest. Polydiscursivity can generate integrated sf polytexts, such as Brunner's *Stand on Zanzibar* (1968), whose novums can only be understood in the course of combining disparate documentary units, and *The Diamond Age* (1995), Neal Stephenson's "staggering exercise of meta-literature" (97). External polytextuality in Langlet's frame involves the narrative bricolages that bring distinct but closely related texts into constellations. These include fix-ups, "story suites," novel cycles, series, and shared-universe fictions. The section is a bit thin, though with some interesting insights, and should be considered a set of guidelines for future analysis. The main purpose of the section is to introduce the role of interpretive communities in sf textuality, which becomes the tacit theme of the last two sections of the book.

Compared with the first main section of *La science-fiction*, which deals in detail with narrative typology and topology, the last two are sets of sharply crafted observations that might act as prolegomena for a much more expansive literary history of the genre. In the second main section, "Toward a *literary history* of sf," Langlet shifts her attention to the development of sf as a literary institution. She insists that there can be no monolithic cultural narrative of sf's evolution because the institutional conditions for its production and reception were uneven in different societies. Accordingly, she divides its history into a zigzag of phases in which sf evolved in different configurations in different cultures. She identifies the phase of The Founders (Wells and Verne—not Mary Shelley or Mercier, tellingly), the evolution of American pulp supremacy (which she associates suggestively with the weakness of US literary institutions and the protections of the First Amendment), the paperback anthologies in France (predating the US), the influence of US pulps in France, the special conditions of the German market (where *Perry Rhodan* so dominated sf that it somewhat stifled other, more mature developments), etc. Typical of Langlet's suggestive

but unelaborated insights is her claim that US science fiction's engineering/technoscientific sensibility gained supremacy in postwar Europe mainly because the post-World War II reconstruction projects brought engineering visions into the foreground of public discourse.

Sf scholars partial to social-critical approaches often suspect that textualist poetics ignore historical factors. That cannot be said of *La science-fiction*. In a chapter of Part II entitled "Academic theoretical science vs. popular technoscience," Langlet articulates brilliantly the cultural assumptions underlying sf's relationship to scientific ideas and motifs. Langlet contends it is not scientific ideas or even the history of scientific inventions that matter for sf. For social life at large, science is less a specific professional practice or body of theoretical knowledge than a dynamic system of cultural images. It is this intense circulation of images, stereotypes, and fantasies that feed sf, and also vice-versa. Langlet considers the sf/science relationship to be a matter of elective affinities, on several levels. Both are institutions of community. In contrast with the traditional literary predilection for inimitable masterworks, sf develops in a spirit of circulation of inventions, as does scientific culture. Moreover, not only has sf drawn overtly from scientific culture, that culture has from its beginnings drawn on literary metaphors and topoi. Langlet alludes to (but leaves frustratingly undocumented) the notion proposed by the French physicist-essayist Jean-Marc Lévy-Leblond that industrial machines in the nineteenth century fertilized the European literary mentality in profound ways. Indeed, in Langlet's reading, sf's machines always concretize social conditions. As an enormous gap develops between the power of technoscience and social knowledge about it in the twentieth century, science-fictional imagination takes on the role of filling it in quasi-mythological fashion. As the gap widens late in the century beyond even sf's normal mediating power, there is an evident increase in quasi-sf fantastic fiction no longer bound to rational conjecture, such as fantasy, uchronias, and steampunk.

The final section, "Inside the science-fiction machine," puts together the micro- and macro-topologies in a cluster of readings of specific texts. Langlet's aim is to demonstrate how the comparative study of literary sf texts appears in action. She emphasizes four exemplary works by four exemplary writers—William Gibson's *Neuromancer* (1984), Iain M. Banks's *Use of Weapons*, Elisabeth Vonarburg's *In the Mothers' Land (Chroniques du pays des mères*) (1997), and Andreas Eschbach's *The Carpet Makers* (*Die Haarteppichknüpfer*) (1995)—analyzing them along several axes. Using three large subgenre categories (future-society sf, space opera, and time-travel stories), she compares different combinations of texts at different levels of textual mechanics. Banks's use of dialogue is set against Gibson's world-reduction devices to demonstrate the affinity between dialogue as a polydiscursive device and the utopian thematics of the Culture novels, and the inverse affinity between the reduction of voices in *Neuromancer* and dystopian social visions. Setting the devices of Gibson's novel against Eschbach's reveals the difference between the former's singularity of vision and Eschbach's kaleidoscopic diffusion. A longer close reading of Vonarburg's novel involves an acute discussion of the affinity

of the Bildungsroman for futuristic feminist sf. Langlet's four writers also exemplify another suggestive idea, that all are somehow in estranged, or at least nomadic, relations vis-à-vis their native cultures. Gibson is a US emigré, and also a denizen of Vancouver, which Langlet considers to be somewhat separate from mainstream Canadian culture. Banks is a Scotsman writing in English for a mainly Anglo-American audience. Vonarburg is a woman in a predominantly male literary culture, and also a transplant from France to Québec. Eschbach writes his sf in a German-language culture that has little respect for or history of sf as a mode of art, and is thus an outsider even in international literary terms. Langlet's choices possibly indicate a broader agenda: to see sf not only as textually bound to great cognitive gaps that generate imaginative inference, but also as a field whose producers experience the same drive to fill great social-cultural gaps in their own lives.

The apparatuses of both *L'Empire du pseudo* and *La science-fiction* have their eccentricities. *L'Empire* includes a very useful bibliography of critical and literary sources in English and French, but with odd and glaring omissions. (Nothing published by Delany after 1980 is included, for example.) It also lacks an index. *La science-fiction* has an index, but its bibliography is rather thin and lacks references to cited writers whose works are not directly concerned with sf (such as the aforementioned Lévy-Leblond). Langlet includes also a very useful four-column chart mapping out the differences in the historical development of the genre in the US, the UK, Québec, Germany, and France, and another set of charts outlining the narratological "beats" of the four novels by Gibson, Banks, Vonarburg, and Eschbach that she explores in her concluding section.

As with most theoretical texts on sf, it's often hard to decide who the intended audience of *L'Empire* and *La science-fiction* is supposed to be. For academic readers primarily interested in critical theory, the books may simply demand too much familiarity with the sf genre, and with a large store of specific works. Can books like these demonstrate to readers unsympathetic to the field that it is worth caring about *because* it can be approached in such sophisticated ways? Alternatively, can books like these demonstrate to lovers of the genre that thinking theoretically is worthwhile because sf is so congenial to it? Ultimately, both books tacitly depend on two related changes: that sf readers will become interested in literary theory, and that literary scholars will become interested in sf. Even with those questions left hanging, it is frankly puzzling why two such impressive works of comparative literature devoted to sf have so completely escaped the notice of sf scholars in the Anglosphere. To my knowledge, only one review of *L'Empire du pseudo* has appeared in English (Roger Bozzeto's review in *SFS* 81); none have appeared of *La science-fiction*. Before we blame the arrogance of the hegemonic Anglosphere, it should be noted that neither book received much critical attention in France or Canada either. In the still staid academic environment of Europe, sf remains very much a vulgar art. There are signs that things are changing in that regard, fortunately. Langlet herself has spearheaded the establishment of a new peer-reviewed French university journal devoted to the study of sf, *Res Futurae: Revue d'études sur la science-fiction* (ReSF), the first issue of which will appear online at the site www.revues.org.

One can only hope that these superb comparative studies will get the respect they deserve, either from a more enlightened Anglosphere or a more enlightened Francosphere.

NOTES

1. Angenot published two versions of the essay; the earlier one appeared in French in 1978.

2. On Delany and the notion of textual work, see Chernaik (70).

3. The one major exception is Damien Broderick's scintillating but idiosyncratic *Reading by Starlight.* See also Chapter X in Malmgren's *World's Apart* for clear expositions of Angenot's and Delany's ideas.

4. Saint-Gelais uses the English phrase.

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