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Carl Abbott

Homesteading on the Extraterrestrial Frontier

The colony was made up of homesteaders and townies. The townies worked for the government and lived in government-owned buildings.... But most of the colonials were homesteaders and that's what George had meant us to be. Like most everybody, we had come out there on the promise of free land and a chance to raise our own food.—Heinlein 105

Johnny Appleseeds. Ray Bradbury and Robert Heinlein define opposite poles in postwar American science fiction. Bradbury made and sustained his reputation as a stylist who crafted small stories with big emotional wallops. He has published only one sf novel—*Fahrenheit 451* (1953)—but many collections of loosely connected stories that wander back and forth among sf, fantasy, and nostalgic realism. Heinlein started with space adventure stories for *Astounding* but soon learned how to sustain longer narratives in more than two dozen novels for adult and juvenile readers. He liked problems in physical and social engineering and protagonists with can-do values. In his literary heritage are bits of the Tom Swift books mixed with Jack London's politically charged romances. Bradbury's contrasting models were the connected stories of Sherwood Anderson's *Winesburg, Ohio* or the miniature narrative poems of Edgar Lee Masters.

Beneath their stylistic choices, however, Heinlein and Bradbury had much in common. Both writers harkened back to Midwestern childhoods, but their ideas about the future drew as well on their firsthand experience of California's great transformation during and after World War II.¹ In the later 1940s, each made crossover sales to mainstream magazines, such as *The Saturday Evening Post*, that were helping their readers understand the postwar age of galloping technological change. In their very distinct voices, Heinlein's and Bradbury's mass-market stories evangelized for the high frontier of space exploration and its power to redeem or rescue a troubled and threatened world.

In so doing, each writer at the same moment found room for a Johnny Appleseed figure in a story of extraterrestrial pioneering. Heinlein's *Farmer in the Sky* (1950) and Bradbury's *The Martian Chronicles* (1950) both feature characters who reenact the story of John Chapman. It was certainly more than coincidence. Americans had been working hard to recover or create regional folk heroes since the boom in folklore studies in the 1930s. The ability to identify American virtues with larger-than-life figures was a way to emphasize national distinctiveness and unity. Nazis might have had Thor and Odin in their attic, but Americans had Paul Bunyan and Johnny Appleseed.² In 1948, Walt Disney studios had released a nineteen-minute *Johnny Appleseed* animation with Dennis Day voicing the character and singing "The Sun, and Rain, and an Apple Seed."³

Bradbury's version is elegiac. The twenty-three loosely overlapping stories and vignettes that constitute *The Martian Chronicles*, set in a fictive future history that spans 2030 to 2057, examine the effects of Mars landings and settlement on individual Earth people, and occasionally on the dying Martians themselves. In effect, they are thought experiments about the ways that middle-class Americans of the 1930s and 1940s might respond to an actual frontier (and are closer in form and spirit to Italo Calvino's *Invisible Cities* [1972] than to John W. Campbell's understanding of science fiction). The ninth episode, entitled "The Green Morning," zooms in on Benjamin Driscoll, who has spent the previous month planting seeds across the landscape of Mars: "The thing that he wanted was Mars grown green and tall with trees and foliage, producing air, more air" (101). Bradbury postulates a red planet with atmosphere that is breathable but painfully thin, and Driscoll's self-appointed mission is to hurry its thickening. His goal is practical, to provide the oxygen that feeds warm fires and eases straining lungs.

"That's what I'm here for," he says [to his fire].... "In school they told a story about Johnny Appleseed walking across America planting apple trees. Well, I'm doing more. I'm planting oaks, elms, and maples, every kind of tree.... Instead of making just fruit for the stomach, I'm making air for the lungs." (102)

And on Bradbury's mythicized Mars, dedication brings success. Driscoll wakens to a green morning. His seeds are now great trees, grown "as tall as ten men ... nourished by alien and magical soil and, even as he watched, throwing out new branches, popping open new buds" (106).

Heinlein's *Farmer in the Sky* offers a very different Johnny in the stony new fields of Ganymede. Here, it's Johann Schultz, a farmer from Earth who is determined to transform Jupiter's third moon into a breadbasket for the solar system. To some settlers he seems like a crank: "Johnny Appleseed. That's what everybody calls him in town," says the lazy and scheming Mr. Saunders. "He's nuts. You know what he did? He gave me a handful of apple seeds and acted like he had handed me the riches of Solomon" (148). Bill, the teenage narrator of *Farmer in the Sky*, knows better. Papa Schultz is a good and generous neighbor. Bill has seen Schultz's single apple tree, heard how he had persuaded it to grow, tasted its fruit—Winesaps this year, with Greenlings and Rome Beauties to come—and received a gift of seeds with suggestions about where and how to plant.

The Johnny Appleseed legend grew out of the early settlement of Ohio in the nineteenth century, where John Chapman was a successful orchardist, but the idea of tree-planting as a civic cause originated west of the Missouri River, where natural tree cover was scarce. Arbor Day got its start in Nebraska in the 1870s as easterners reacted to the treeless prairie. The Nebraska legislature made it official in 1885 as the practice of tree-planting as a good deed was spreading to other states. What is now Nebraska National Forest originated a century ago in efforts that planted 20,000 acres of ponderosa pines on the barren Sand Hills. In the dust bowl years of the 1930s, westerners learned to plant shelter belts of trees to protect farmsteads and hold soil (whereas the forest cover of the northeastern states has spontaneously regenerated). Bradbury thus transported a *western* tree-planting impulse to Mars and Heinlein to Ganymede.

Johnny Appleseed is the harbinger of agricultural settlement, and both writers place their stories directly in the tradition of the American farming frontier as it has been embodied in popular memory. The colony ships in *Farmer in the Sky* are

the *Mayflower* and the *Covered Wagon*, and Bill carefully calculates that the trip from Earth to the Jovian moon will be three days shorter than the Pilgrims' original crossing of the Atlantic. "The Wilderness," toward the end of *The Martian Chronicles*, begins in Independence, Missouri, one of the jumping-off points for the Oregon Trail. Women whose husbands are already on the red planet recall the American past as they wait to follow:

Is this how it was a century ago, she wondered, when the women, the night before, lay ready for sleep, or not ready, in the small towns of the East, and heard the sound of horses in the night and the creak of Conestoga wagons ready to go.... Is this then how it was so long ago? On the rim of the precipice, on the edge of the cliff of stars. In their time, the smell of buffalo, and in our time the smell of the Rocket. Is this then how it was? (158-59)

The homespun image of Johnny Appleseed is a good entry into the homesteading theme in science fiction. Homesteading is a particular facet of the complex processes by which agriculturalists settle "empty" or underdeveloped territories, whether the prairies of North America or the imagined planets of sf, and it is a process with deep resonance in American history and national identity. Homesteading is settlement of new farms by individual families or small groups who hope first to be self-sufficient and then to raise crops and livestock for the market. As a topic of fiction, it has usually centered attention on individual character and family dynamics.

In the United States, homesteading is both a general settlement pattern and a very specific practice that followed passage of the Homestead Act in 1862. The Oregon Trail pioneers whom Bradbury evoked in the preceding passage found their Willamette Valley farms first and then figured out how to obtain title (eventually involving special Congressional action). The 1862 law offered 160 acres of the public domain to anyone who would cultivate and live on the land for five years. The timing coincided with the push of agriculture into the Great Plains (the Homestead National Monument is in Beatrice, Nebraska) and into fertile valleys tucked among the western mountains, making the Homestead Act a key tool for developing the western half of the nation. Much of the West's economic history revolves around the inducements of the 1862 legislation and later modifications that adapted the terms to the region's dryer lands.

A focus on individual homesteading families, however, can tend to obscure some of the larger collective projects that were part and parcel of the settlement process. Settlers relied on their own pluck and luck, true, but they also depended on railroads, grain elevators, irrigation systems, and town merchants with stocks of seed and machinery—in short, on the infrastructure of regional development. In the same way, treatments of homesteading in sf, with their emphasis on rugged individualism, seem to stand in clear contrast to large-scale terraforming novels that retell the "modern" story of big science and state action. As Kim Stanley Robinson and Pamela Sargent highlight in their trilogies about the settlement of Mars and Venus, the big questions of terraforming have to do with public purpose and public action: What goals are worthy of the state? How can the costs and benefits of economic change be fairly allocated? How can large-scale action be sustained over time?⁴

These narratives are so sweeping, however, that they can contain multiple smaller dramas of politics, community-making, and family conflict, as is the case in the fiction of both Sargent and Robinson. The unearthly landscape, whether previously terraformed or directly (luckily) habitable by human beings, can thus be the setting for small-scale stories of settlement and adaptation. I call these homesteading stories, for they draw on the rich experience and mythology of the American farm-making frontier. Terraforming narratives look from the top down, from the broad problems of technology and organization to the roles and conflicts of individuals within that big picture; in short, they are about power and politics. Homesteading narratives start literally from the ground up, considering the ways that individuals respond to deliberately chosen new places and how they do (or don't) work together with their neighbors. Historians—from Merle Curti in the 1950s to John Mack Faragher and Dean May in recent years—have usually approached homesteading via family and community microhistory; homesteading stories, in short, are about families and neighborhoods.

The Western American Past in the Human Future. It is a truism that Americans often see the future, and especially the extraterrestrial future, as a frontier. That Americans in the twentieth and twenty-first centuries have looked upward for "high" frontiers is obvious. Space exploration as a frontier of scientific and economic gain is a cliché, and sf writers since Edgar Rice Burroughs in the 1910s have been mining the American West for visual metaphors for wild planets. Because these stories of the West are so powerful in the American imagination, they echo and re-echo in imaginative writing about the future. In Wilderness Visions, David Mogen has clearly analyzed many of the ways in which popular understandings of the western American frontier pervade American science fiction. Drawing the distinction between sf as extrapolation and sf as analogy and metaphor, Mogen emphasizes the importance for the latter of American founding myths-with The Martian Chronicles as a case in point. Because the imagery and mythology of the western frontier so pervade American culture, science fiction repeatedly internalizes the stories that Americans tell about the development of the West and writes them forward for places and times vet unknown.

On close examination, however, any notion of a single frontier experience breaks down into multiple and changing narratives, each of which encompasses part of the larger story. Over the past two centuries, Americans have constructed a powerful *set* of stories to explain how their nation expanded across the western half of North America and to describe the sorts of societies that expansion created. Although the terminology is a bit unfashionable, historians of North America have often written about "frontiers" in the plural—fur-trading frontier, mining frontier, lumberjack's frontier, cattleman's frontier, farming frontier. This emphasis on the development of distinct sets of resources dates back to Frederick Jackson Turner in the United States and Harold Innis in Canada. More recent writing has added the experiences of labor union organizers, city makers, civil engineers, federal bureaucrats, Asian and Mexican immigrants, utopian colonists, hippies, and modern survivalists to those of explorers, mountain men, and fortyniners.

Each of these frontiers had its own internal logic that has traced a distinct narrative, and each of these narrative frameworks manifests or expresses one part of the encompassing myth of frontier renewal. Each specific story—such as the narrative of homesteading by families and small communities—can serve as a template for multiple works of science fiction. The results are bodies of fiction that link specific aspects of nineteenth- and twentieth-century America to the twenty-first century and beyond.⁵ In effect, the ways in which we remember and talk about the past of the American West make it possible to imagine certain futures and difficult to imagine others.

This essay examines homesteading as one of the many and often conflicted stories that Americans have developed behind the facade of the "high frontier." In the discussion that follows, I start with a simple and positive vision that reproduces and adapts ideas found in nineteenth- and twentieth-century fiction and civic discourse about the economic and political possibilities of the West. In the later sections the examples change to more complex and often less hopeful understandings of the past-in-the-future. My treatment thus moves from obvious and straightforward ways in which western narratives are written onto the future to more ambiguous and questioning stories that reflect Americans' increasing ambivalence about aspects of their past.

This increasing complexity of stories about future homesteading parallels changes in the academic study of western American history. The past twenty years have brought the rapid emergence and intellectual success of the so-called "new western history." Where traditional history of the West emphasized the distinctness of the frontier as place and stage of development, the findings and arguments of new western history tend to stress continuities of development from the eighteenth to the twenty-first century across the supposed chronological barrier of a closed frontier, the convergence of multiple peoples arriving from every direction, the conquest of indigenous peoples and the landscape itself, the dominant role of capitalism, the conservation of cultural norms carried from Europe, eastern America, and other homelands, and the determining power of communities rather than individuals. Taken together, these arguments delineate a western America whose future has always been contested among different groups and goals, with the popularly understood westward movement only one strand among many. In short, newer western history is about historical and moral complications rather than mythic simplicity.⁶

Sf writers have been active, if indirect, contributors to the dialogue through which Americans have slowly been accepting a history that is more complex than a simple epic of "winning the West" through "undaunted courage."⁷ A growing body of science fiction has interrogated and complicated this popular history and thereby reinforced the message of recent western historiography. The newer understanding recognizes, as historian Elliott West wrote in 1990, that the American West has "a longer, grimmer, but more interesting story" that encompasses not only the full range of virtue and vice but also the voices of many

disparate peoples—Navajo and Cheyenne, Chinese and Filipino, Hawaiian and French-Canadian, Yankee and Mexican, European-American, African-American, and many others. Of particular importance to the concerns of science fiction, western historians now view western North America as one of many Eurocentric colonial realms or settlement regions whose counterparts include Argentina and New Zealand, Australia and Kenya, Siberia and Brazil. There is now a large and exciting body of historical scholarship that offers comparisons across different margins of European-American expansion and imperialism In this framework, exploration of similarities and differences among historical settlement frontiers and the imagined frontiers of sf is an easy and natural step.

O, **Pioneers!** For the United States, homesteading history can be seen as starting with the spread of English-speaking settlers into and beyond the Appalachians in the late-eighteenth and early-nineteenth centuries, if not with the even earlier movement of Spanish-speaking farmers into the upper Rio Grande valley of New Mexico. However, homesteading is described and imagined most extensively and vividly for the central prairies, Great Plains, and western mountains roughly from the 1850s to the 1910s. We can note, in this regard, that Laura Ingalls Wilder started her sequence of books with a little house in the big woods of the upper Great Lakes region, but that it was the little house on the prairie that made it to prime-time television.

Out of this experience developed a common homesteading narrative with two prominent elements. The first is the challenge of learning to live off a strange land. The second is the problem of generational change as children prove better able than parents to learn and adapt to the new environment.

Most American homesteading stories start with the dangers and inhospitality of the physical setting. Think about some of the defining stories of the prairies and plains penned in the later nineteenth and early twentieth century. They are filled with drought, blizzards, grasshoppers, and sheer physical discomfort. Hamlin Garland's *Main-Traveled Roads* (1891) depicts the crushing work of farm life and "the barn yard's daily grind" (Garland 376). The immigrant Norwegian-Dakotans of Ole Rolvaag's *Giants in the Earth* (1927) deal with isolation and desolation, insect plagues, and endless winter. Jules Sandoz, as his daughter Mari Sandoz recounted in *Old Jules* (1935), brought his new wife to a dank sod hut where water and bugs dripped from the roof.

Recent writers who have revisited the homesteading narrative keep the same troubles in mind as physical challenges that must be controlled and overcome. The intrepid heroine of the movie *Heartland* (1980), crafted by screenwriter Annick Smith from the 1910 diaries of Elinor Stewart, finds Montana a place of blizzard and cold. The erudite Jane Smiley programs drought into the troubles facing the Newton family in 1850s Kansas in *The All-True Travels and Adventures of Lidie Newton: A Novel* (1998). And Molly Gloss subjects Lydia Sanderson, her lonely woman homesteader in *The Jump-Off Creek* (1989), to bears, blizzards, and back-breaking hard work. Lydia comes to Oregon from Pennsylvania "seeking the boundless possibilities that are said to live on the frontier" (168). The claim that she's bought has nothing but a rat-infested cabin.

The rain pours down and cattle mire themselves in the boggy creek bottom. Windstorm and ice kill and scatter her livestock. "Crossing the field with the empty kettle, she fell on the ice and sat there crying dryly, tiredly. But she got up after a while and went on the rest of the way, because the goat was bawling, thirsty, waiting for her" (185).

But as Willa Cather reminds us, to homestead successfully is to learn to *understand* the land and natural processes that homesteaders face. The first section of *O Pioneers!* (1913) is "The Wild Land." Here at the opening of the novel the place itself takes on active character as a "wild old beast" that resists human agency: "In eleven long years John Bergson had made but little impression upon the wild land he had come to tame. It was still a wild thing that had its ugly moods.... Mischance hung over it. Its Genius was unfriendly to man" (20). But the spirit of place speaks differently to Bergson's daughter Alexandra, who grows up with the country and comes to love it:

When the road began to climb the first long swells of the Divide, Alexandra hummed an old Swedish hymn.... For the first time, perhaps, since that land emerged from the waters of geologic ages, a human face was set toward it with love and yearning. It seemed beautiful to her, rich and glorious. Her eyes drank in the breadth of it, until her tears blinded her. Then the Genius of the Divide, the great, free spirit which breaths across it must have bent lower than it ever bent to a human will before. (65)

Homesteading narratives are also family stories. Later in *O*, *Pioneers!* one of the characters muses: "And now the old story has begun to write itself over there. Isn't it queer: there are only two or three human stories, and they go on repeating themselves as fiercely as if they had never happened before, like the larks in this country, that have been singing the same five notes over for thousands of years" (119). Those same five notes are the tensions of fathers and sons, mothers and daughters, brothers and sisters. *O*, *Pioneers!* and *My Antonia* are both about daughters who guide and grow beyond their immediate families. Mari Sandoz has to escape from the fierce monomania of Old Jules before she can write about him. Even Mary O'Hara's *My Friend Flicka* (1941) is about father and son more than boy and horse.

Homesteading stories thus deal with folks whom writer Wallace Stegner calls "placed" people (*Where the Bluebird Sings* 199), the newcomers who "stuck" on their new lands to establish what historian Walter Nugent defines as "Type II" frontiers. These are frontiers of agricultural settlement by families, where there are close ties between farmers and the small towns that serve them, where newcomers work hard to establish schools, churches, fraternal organizations, and other social institutions, and where levels of violence are low. They contrast with the displaced people of "Type I" frontiers, who travel from one locale to another to harvest easily accessible natural resources. These are boom-and-bust frontiers that attract disproportionate numbers of young men who are rough, edgy, and often violent. Examples include California mining, Northwest logging, Alaska fisheries, and, in the imagination of the future, asteroid mining.

Robert Heinlein—who imagined a Type I frontier in *The Rolling Stones* (1952)—neatly encapsulated the two homesteading themes in *Farmer in the Sky*.

Heinlein is in many ways the quintessential American sf writer, and this relatively early novel for young people reaffirms the farming frontier as a source of positive values. First published in installments as "Satellite Scout" in *Boy's Life*, the national magazine for Boy Scouts, the book focuses on high-school-aged Bill. It starts in an overcrowded California, where 60 million people depend on a fragile system of nuclear-powered desalination plants. Faced with constricting opportunities, Bill, his father, new stepmother, and stepsister emigrate to Ganymede in the company of 6000 other settlers.

The family's goal on Jupiter's third moon is to become homesteaders. The Colonial Commission has done the basic terraforming to provide a thin but breathable atmosphere, but it is up to newcomers to build a new society. Those who want to become farmers, like Bill and his father, can "prove" a homestead, transferring a nineteenth-century term to the twenty-first century. As with US settlers after the Homestead Act of 1862, they can earn title to a future farm if they cultivate and live on it. The first steps are to crush the rocky surface into soil with special machinery—in effect, using the "plow that broke the rocks."⁸ Hard work turns boulders successively into rocks, gravel, and powder, which can then be seeded with "good black soil from earth," carefully sterilized and then reseeded with "bacteria and fungi and microscopic worms" (146). Like much Golden Age sf, the fun comes from imagining technical details, as the problems of earthside soil conservation, a major issue of the middle decades of the twentieth century, are inverted into moonside soil creation.

Bill and his father don't work in isolation, for this is the frontier as Americans want to remember it—a place of sturdy yeoman farmers who happily cooperate through voluntary association. Dad earns money in town as an engineer, while Bill apprentices to neighbor Johann Schultz to learn the art of moon-farming. Schultz is generous with his experience and his resources, showing once again that "pioneers need good neighbors" (147). There is a house-raising scene straight from American frontier mythology, when Bill's scout troop and his father's coworkers pitch in to turn a pile of stone blocks into a dwelling, while the women cook wholesome food for the crew. This is what Ganymedians do; Bill has already participated in six house raisings himself because "you can't do it alone" (150). When a moonquake strikes soon after, the whole community pulls together in the rescue operations and rebuilding.

Pioneer grit has its rewards. Within two years, "you would never have known anything had happened. There wasn't a wrecked building in the community ... and the town was booming"(186). After the disaster, Bill is more determined than ever to stick it out rather than return to Earth for college. "I'm not going home, if I ever do, until I've licked this joint" (183). He sees his future in the new land, quite consciously on the model of the nineteenth-century frontier. While overcrowded Earth moves toward war over scarce resources, the colonists will become increasingly self-sufficient. As in Bradbury's *The Martian Chronicles*, looming wars on Earth will pass them by, as Ganymede builds its own strength and looks outward to even newer frontiers—much as the United States watched nineteenth-century wars among European powers from across a wide ocean.

In the five-plus decades since Heinlein mapped the idealized homesteading frontier onto Ganymede, a number of sf writers have continued to utilize the standard homesteading themes at something like the same face value. Their work taps widely shared American values and assumptions, but it has not substantially advanced the genre beyond the 1940s and 1950s.

Given sf's adventure-story roots, it is no surprise that tales about the settlement of new planets repeatedly revisit the problem of the harsh land as pioneers try to cope with ecologies they do not completely understand, and that fight back. The challenge can be simple inhospitality, with a Ganymede moonquake the equivalent of a "blue norther" blizzard on the Great Plains. Unexpected beasts can lurk in the jungles and swamps, raiding crops and animals like swarms of earthly grasshoppers, rearing up to kill unsuspecting settlers on exploring jaunts. Allen Steele's recent planetary-settlement novel Coyote (2002), for example, brings a set of political refugees to a new planet where they have to get crops in for survival, learn the weather, and cope with food shortages. The land surprises them in the form of large, fast predators that cross an emu with a velociraptor. But hardship breeds courage and pulls the entire colony together. The flowery language and sentiments of hard-won satisfaction echo the reminiscences of aging pioneers looking back on the exciting days of first settlement, as detailed by historian David Wrobel: "they'd endured the extremes of climate, suffered through deprivation and loss, overcome hardships that might have broken lesser men and women.... [T]hey'd found something within themselves that many of them probably didn't know was there: a spirit unwilling to surrender to anyone or anything" (Steele 376).

More interestingly, crisis may arise from a mistaken intervention into the new ecology in ways reminiscent of American ecological disasters such as crowding the northern plains with far too many cattle to survive the severe droughts and snows of the 1880s, or plowing beyond the line of adequate rainfall in the 1890s. The sf variations are endless, for readers and writers are well aware of the notorious examples of ecological disruption on Terran frontiers, as well as the scientific implications of what Alfred Crosby has termed the "Columbian exchange" between the ecologically isolated eastern and western hemispheres, with its massive trading of crops, animals, and deadly diseases, and the resulting "ecological imperialism."

A good example is the first human colony on Avalon (Tau Ceti Four) as detailed by Larry Niven, Jerry Pournelle, and Steven Barnes in *The Legacy of Heorot* (1987) and *Beowulf's Children* (1995). Two hundred carefully selected colonists have settled comfortably on a large, apparently safe island. The ecology seems simple. Apart from providing the equivalents of grass, trees, birds, rodents, and freshwater fish, the planet appears largely a blank slate that is open to earthly crops and animals. Indeed, it seems a paradise: "Golden fields. Silver rivers....Year-round water supply and fertile croplands.... a beautiful place to start a new world, lovely enough to make him [Cadman Wayland, the lone military man among the settlers] feel ... almost at peace" (*Legacy* 7).

We know that this picture is too perfect to be true, especially only seven pages into the book. The authors set up the first novel as an intellectual puzzle requiring scientific detective work, for readers can guess that an ecology with so few occupied niches is unstable. The colonists soon encounter implacable, carnivorous killing machines called "grendels" and learn how to destroy them—only to discover that they have made their situation even more perilous. By killing off the adult grendels on the island, they allow the thousands of harmless fish creatures ("samlon") to grow into grendels themselves. Only the presence of adult grendels, who devour each other's young, had prevented a grendel population explosion! It is as if slaughtering the buffalo has opened the way for saber-tooth tigers to spring up in their place.

The story is quite exciting, for Niven, Pournelle, and Barnes are good action writers who follow the thriller model—the colonists defend their settlement, are overwhelmed, retreat to a mountain fastness, save themselves at great cost, relax after defeating the monster, and then must deal with its return. The authors' real interest, however, is the hard-sf challenge of building a scientific puzzle and laying down clues for the reader. They layer on interpersonal conflicts to keep the plot moving, and the climax is a classic defense-of-the-fort scene; but the novel is really about the process of learning a new land. The lesson for the reader, as well as the colonists, is to question assumptions. Their puzzle involves biology rather than physics or engineering, the mainstays of Golden Age sf, but the instructional spirit is the same.

In *Beowulf's Children*, the offspring of the colonists are coming of age. Chafing at their parents' hard-learned caution, they play psychological and political cards to gain the resources to establish their own beachheads on the mainland. They think that their parents are like Europeans in the new world, strangers in a strange land, while they see themselves as native Avalonians: "They could not own the land, but they could be a part of it" (132). But the children too are confounded, because the mainland has new ecological tricks. They think they know all about grendels, but they encounter new types in new places, and they suffer serious casualties from the planet's equivalent of killer bees, which swarm every fifty years or so. It is another "Avalon surprise," because the life cycle of the bees is tied to weather changes, which are tied to sun-spot cycles. Again, there is plenty of intergenerational conflict to push the plot, but the heart of the book is setting and resolving a mystery.

In Marta Randall's *Journey* (1978), by contrast, the generational conflict *is* the story. Randall prefaces the novel with Cather's passage about "the same five notes." Like many homesteading stories, *Journey* is about generations on the land. It pulls together many of the threads of the planetary settlement story, such as struggles for economic stability and the growth of communities; but its central concern is not the science of survival. The landscape reads easily, without mistakes and misunderstandings; for Aerie is a remarkably benign and fertile planet just waiting to produce a marketable crop. Instead, the "old story" that interests Randall is stress and adjustment within families, as telegraphed by the 1978 paperback cover, showing overlapping faces of parents and children, and the front-cover blurbs: "a human drama of passion and power" and "an epic novel of the last frontier."Among western American fiction it has something in common with Ivan Doig's fictional treatments of his Montana family in *English Creek*

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(1984) and *Dancing at the Rascal Fair* (1987) or with Annie Dillard's fine historical novel *The Living* (1992), about generations on the shores of Puget Sound.

The plot of *Journey* is driven by father Jason Kennerin's love of the land, his ability to pass that love to his "dutiful" daughter Quilla, and the inability of his two sons to share the same commitment. Jason is a remittance man par excellence; his family wealth allows him to buy the entire planet of Aerie sight unseen, but he labors to make it a new home. He experiments with crops, works with the sentient natives to develop a shared agricultural economy, and builds an estate and a family, two goals that are identical in his mind:

This—the land—that doesn't change. You put work and love into it, and it gives you food and fruit and flowers and beauty.... Making things grow—the importance of that doesn't change. I mean, things change, sure, but their importance—what they mean—that doesn't change much. Sunlight, the earth, water, children. Making life. (125)

As the Kennerins find a place for their planet in the larger economic and political system, a town grows at the foot of the hill below their house: dirty streets are paved, the one-room school becomes a four-story edifice, utility systems replace water hauled in buckets-all in roughly the same ten-to-twentyyear time-frame that saw the transformation of raw settlements like Bismarck, North Dakota, or Cheyenne, Wyoming, into respectably pretentious towns. Meanwhile, Jason's children take on familiar family roles. The eldest daughter Quilla is a match for Alexandra Bergson of Cather's novel. She's a bit plain looking, intense, and intelligent; she steadily takes on responsibility from her parents and becomes the colony's general manager and consensus queen at her father's death. One of her brothers parallels Alexandra Bergson's friend Carl Linstrum. Carl leaves Nebraska for Chicago only to find that jobs in the city are all alike, while Quilla's brother is a restless romantic who gets into space as an apprentice on a cargo ship, then officers a freighter. He may cut a romantic figure when he returns to visit, but he soon finds that space piloting is routine work and every space port much like every other. The younger brother cannot make his family match his ideal and therefore learns to manipulate his environment. Exiled from Aerie for abusing the natives through scientific experiments, he becomes a highly skilled physician and researcher-but one who devotes himself to genetic manipulation to give the rich perfect children. In the end, he tires of his life and comes home to try to make the best of what he still thinks of as his planet and his family-the prodigal returned to a family trying to work out its future with economically successful homesteading as a backdrop.

Questioning a Myth. In the 1960s and 1970s, in counterpoint to standard retellings of the homesteading narrative, some sf writers began to question and undercut the popular story as a model for the future. New Wave writers adopted innovations in narrative form and style that were transforming the practice of fiction in Europe and Latin America and also penetrating mainstream American writing in the work of novelists such as John Barth and Thomas Pynchon. They also strongly questioned traditional Golden-Age values of heroic individualism

and scientific progress. Their work was part of a larger cultural reaction against the American consensus of the Eisenhower and Kennedy years. Beneath the surface of national consensus, the 1950s and early 1960s saw a mounting civil rights revolution, initial re-evaluation of women's roles and opportunities, and the rooting of self-consciously oppositional art, writing, and music in major cities such as New York and San Francisco. From roughly 1964 to 1974, the consensus society fragmented with antiwar protest, minority separatism, feminist advocacy, gay rights protest, communal experiments, and environmental activism, all of which provoked conservative reactions that polarized political debate.

The writing of American history followed the same path. The years from 1945 to 1965 were dominated by the "consensus school" of historiography, which emphasized economic progress, social cohesion, and agreement on political basics. In trying to explain the absence of open class conflict, historians emphasized the nation's adherence to the political ideas of liberalism (see Hartz), the pragmatic character of its culture (see Boorstin), and the satisfactions of being a "People of Plenty" (see Potter). In the later 1960s, however, younger historians challenged consensus history by rewriting history "from the bottom up," rediscovering the strand of economic imperialism in international affairs and reevaluating the human and environmental costs of affluence.

When writers such as Philip K. Dick and Ursula K. Le Guin wrote about homesteading in ways that questioned simple stories of success through perseverance, they were situating their ideas in this changing context of American historiography and also reflecting specific historical writings of the 1950s and 1960s that were probing beneath the surface of the western myth to find uncomfortable and incongruous realities. Novelist and essayist Wallace Stegner in Beyond the 100th Meridian (1954) and historian Walter Prescott Webb in "The American West: Perpetual Mirage" (1957) documented the fundamental inhospitality of the arid West and the problems that arose when eastern expectations came westward. In Webb's memorable phrase, the western mirage defied eastern farming practices and technological solutions such as dry farming and irrigation. Literary scholar Henry Nash Smith, whose Virgin Land (1950) was one of the most influential works of post-World War II scholarship, analyzed the many ways in which the dream of a welcoming, garden-like continent had misdirected both political decisions and popular culture. Indeed, these scholars argued, expectations of individualism ignored the deep dependence of western settlers and communities on outside institutions.

In Le Guin's 1974 story "The Eye Altering," by contrast with Randall or Niven, Pournelle, and Barnes, the process of learning a new planet has been abstracted into metaphor. The settlers on New Zion find the light and landscape ugly, showing brown, purplish, and dark red: "Dirty colors, the colors you got when you scrubbed your watercolors too hard" (157). They are aliens to the new environment who depend on special enzymes to enable their bodies to metabolize the native foods. But one of the Zion-born, sickly since his birth, decides to forgo the medication and take his chances with the local flora. His decision turns out to be correct, showing that many of the planet-born have suffered not from Zion itself, but from their loving parents' efforts to treat them as Earth-born.

For Le Guin, with her family background in anthropology, the frontier story is ultimately about the cultural gap between pioneers and natives. To her simple "technical" plot, metaphorical as it is (there's no attempt to suggest a physical mechanism), Le Guin adds a second layer of adaptation. Genya, the young man who experiments with local diet, is also an artist who has skillfully painted portraits and other pictures that the first generation can appreciate, but he now starts to paint Zion as it looks in its muddled ugliness; as he works, he comments that he is "just beginning to learn to see" (166). But when one of his pictures of Zion is hung in the common room, where the older settlers are most at home, they see it as a beautiful countryside from Earth. It is still the same picture, but the Earth-born realize that young people who have adopted and adapted to Zion see their surroundings as a beautiful landscape:

It's here. Zion. It's how Genya sees it. With the eyes and the heart.... How do we know what a child of Zion sees? We can see the picture in this light that's like Home [Earth]. Take it outside, into the daylight, and you'll see what we always see, the ugly colors, the ugly planet where we're not at home. But he is at home! He is!" (169).

Where Le Guin was interested in cultural change, Dick saw the frontier controlled by the inescapable power of capitalism and consumerism. Neither *Martian Time-Slip* (1964) nor *The Three Stigmata of Palmer Eldritch* (1965) is about homesteading *per se*. The former explores some curious propositions about the nature of consciousness and the latter uses its plot as an occasion for eccentric musings about the nature of God. Nevertheless, Dick set all of *Time-Slip* and a substantial chunk of *Stigmata* on the surface of a cynically conceived red planet whose social and economic life subverts the values of dedication, family, and neighborliness that lie at the heart of the homestead myth as treated by Heinlein and Bradbury.

The Three Stigmata of Palmer Eldritch imagines a Mars of unrelieved bleakness. The planet is essentially a penal colony peopled by homesteaders who have been drafted into their new lives. Their situation is like trying to set up farming in the very worst of the Dust Bowl. Newcomers may start off trying to dig 200-mile connections to the big irrigation canals, but their machinery quickly fails in the never-ending dust. Martian rodents eat the crops that haven't shriveled and Martian jackals prey on people. The only rational response is despair: "On all sides of him their abandoned, decaying gardens could be seen and he wondered if he would soon forget his. Maybe each new colonist had started out this way, in an agony of effort. And then the torpor, the hopelessness, claimed them" (142). On this squalid frontier, the settlers quickly learn to hate the land, not to love it. They huddle in tiny groups in subsurface hovels to which they give names like Chicken Pox Prospects. There is no second generation to take over, only furtive, sordid sex and a drug that lets members of a group share the experience of inhabiting a set of dolls and their miniature dollhouses-to be Barbie and Ken for a day. A Marsscape of dead fields, abandoned machinery, and rotting supplies is a stand-in for the universal failure of the frontier ideal: "He knew from edu-tapes that the frontier was always like that, even on Earth" (159).

Dick was correct that homesteading viewed realistically is a hard fit with American narratives of growth, for close examination of the historical experience shows as much disaster as triumph. Settlement from the eastern US has repeatedly washed across the high plains into the Rocky Mountains, lingered a decade or two, and then washed back. One generation of failure began with the Homestead Act of 1862, expanded with the first transcontinental railroads, and crashed in the drought and depression of the 1890s. More generous land laws and European hunger for American grain during World War I attracted another ambitious generation, who hit trouble in the 1920s and disaster in the 1930s. World War II, farm subsidies, and energy exploration subsidies fueled a third generation of ambition that crested and crashed in turn in the 1980s and 1990s.

Towns grew, perhaps even prospered, but they also failed. From the Texas Panhandle to the Dakotas is now a region of declining agriculture, aging population, and few in-migrants (see Frey). Just as the western American mountains are specked with the ghost-town remnants of the mining frontier, the plains are slowly taking back small-farm towns, while regional centers struggle to keep young people from the attractions of Denver, Seattle, or Minneapolis. Some areas actually peaked in population in the 1890s, others in the 1940s or 1950s. Jonathan Raban has chronicled the process of ambition and decline in eastern Montana in Bad Land, and Larry McMurtry fictionalized the experience of Texas in The Last Picture Show (1966). William Least Heat-Moon has explored the thinning human imprint in central Kansas in PrairyErth. Geographers Frank and Deborah Popper aroused consternation and fascination when they noted that 388 western counties in 1980 supported fewer than six people per square mile, the shorthand for frontier conditions. Their proposal-really a metaphor-was to slowly return unneeded lands to a preagricultural ecology as a Buffalo Commons, pointing out that the extensive tracts of National Grasslands were the result of a similar process following the 1930s. The made-up title Pilgrims without Progress, the banned book that supposedly encompasses the Martian settlement experience in Dick's Stigmata, would not be a bad summary for much of homesteading history.

Martian Time-Slip describes a superficially more successful Mars, but one in which the hopes of a family frontier have given way to the worst of 1960s suburbia, with many of the details taken directly from the popular suburban critique of the 1950s and 1960s that Scott Donaldson incisively summarized in *The Suburban Myth*. The Martian homesteaders/householders that we see might as well be in San Bernardino County. They use water from the Martian canals for gardens rather than commercial agriculture. Husbands have second jobs as machinery repairmen or black-market merchandisers, while wives carry on sexual affairs in the afternoons. There are ads for automatic farm tractors, but no picture of how they might be used. There is also agribusiness, represented by a "ranch" in an area purchased by a Texas oil tycoon and administered by Texas (but, joke on Texas, it is really a dairy farm).

Meanwhile, the way to make money is through land speculation. The father of one of the homesteaders arrives unexpectedly from Earth with plans to buy land in the arid F.D.R. Mountains: "It was the last gasp of hope springing eternal in the old man; here there was land selling for next to nothing, with no takers, the authentic frontier which the habitable parts of Mars were patently not" (13). In fact, the father is not a deluded romantic but a shrewd insider, attracted by an inside tip about a planned government facility that will cause the value to skyrocket. He wouldn't need his son's warning: "Don't commit yourself, because it's a known fact that any Mars real estate away from the part of the canal network that works—and remember that only about one-tenth of it works—comes close to being outright fraud" (10).

Dick's 1960s Mars novels are satirical assaults on postwar American culture, with similarities to Kurt Vonnegut's *Player Piano* (1952) and Frederick Pohl and Cyril Kornbluth's *The Space Merchants* (1953) and *Gladiator-at-Law* (1955), but they are also critiques of the nation's past. They are positioned both chronologically and conceptually between the historians and critics of the 1950s, who pointed out the misunderstandings inherent in the agrarian myth, and those historians of the 1980s and 1990s who emphasize conquest, environmental devastation, and the corrupting effects of land monopoly. Dick's version of homesteading coincides with the ideas of numerous writers who have pointed out that the enterprising family of the homesteading West was caught from the start in a web of political and economic institutions beyond its control (see, for example, Dubofsky, Davis, Lukas, Robbins, and Worster). If it existed at all, the agrarian family utopia of nineteenth-century American aspiration and twentieth-century nostalgia was, at most, a brief moment in a process dominated by big institutions and capital.

Inventing New Stories. The writers examined thus far worked with the assumption that high-frontier homesteading is possible, even when they highlight the human costs. In contrast, Kim Stanley Robinson, Jonathan Lethem, and Molly Gloss have addressed the same broad topic of agricultural settlement in ways that step outside the standard narrative. Writing in the 1990s, they anticipated and responded in different ways to William Kittredge's challenge to invent new stories that move beyond the simple pioneer imperative to claim and own new territory, in the process rendering the settlement narrative more complex and more realistic. It is not that Robinson, Lethem, or Gloss is necessarily more negative or pessimistic than earlier writers (it is hard to beat Philip K. Dick for a bleak view of the future), but they are more willing to address both the ambiguities of homesteading and its larger contexts.

Robinson in *Blue Mars* (1996) revisits the question of learning the land as a writer very aware of the contemporaneous wave of environmental activism and analysis. *Blue Mars* is the third book in a sweeping trilogy about the terraforming of the Red Planet. By this final volume, Robinson has carried the story of environmental transformation far enough to allow embedded vignettes and stories about human adaptations and social constructions. One of these is an extended episode in which one of the first of the Mars-born takes several years off to cultivate a desolate piece of the Marsscape, exploring the possibilities for the individual (that is, homesteading) that the vast scientific and bureaucratic project of terraforming has made possible. Where Niven, Pournelle, and Barnes made

Cather's "wild beast" literal and Le Guin used it as a springboard to think about the conditions of cognition, Robinson understands it as natural system and metaphor both. The "genius of the divide" is what Nirgal seeks to understand: "Only the tiniest part of the basin would be his farm.... It wouldn't be self-sufficient, but it would be settling in. A project.... He would be an ecopoet" (385-87).

Introduced in the second volume, Nirgal is one of the first people born on the red planet. Given one of its many names, he encompasses the ways in which humans relate to their new home. He grows up in a maverick community where idealists from the first Mars landing are trying to create a more natural alternative to the initial high-tech settlement. He wanders the planet as a young man, experiencing its landscapes, dangers, and increasingly diverse cultures, and then becomes a political leader. After helping to negotiate Martian autonomy from Earth, he drops out of public life to come to terms with his own maturity and mortality, looking more and more closely at the planet itself as the source of his identity before deciding on his homesteading experiment. The remainder of the episode traces years of detailed landscape modification and Nirgal's effort to inhabit the place fully. By the time Mars reclaims the tract through a massive dust storm, Nirgal has become a true native of the new land. Growing in his understanding of the detailed character of his place in ways that match the "practice of the wild" as argued by western poet and essayist Gary Snyder, he has imagined a new story—even if one that cannot overcome the dust storm that eventually buries his homestead and brings the episode to a close.⁹

Nirgal's years in the small, high basin acknowledge the social as well as ecological complexity of the homesteading.¹⁰ The episode begins and ends with community, not isolation. Below the ridge is a Tibetan-Martian settlement whose residents are happy to have him as a distant neighbor and help him get started. Nirgal is a loner but not a hermit. He puts in stints of work with construction crews in a nearby city and manufactures blimpgliders as a cottage industry, making monthly trips to sell his latest work. He calls up other settlers for advice and entertains visitors.

The homesteading episode fails, but the overarching narrative of Mars is human success. Nirgal's work is part of an optimistic endeavor. His public role changes as he deliberately becomes more marginal to the changing tides of Martian politics, but his personal drive is always to encompass the planet, to understand it in broad sweep and in detail. In his way, he is working out the family issue that has been with American settlers since the Massachusetts Puritans had to think up the Halfway Covenant: How does the second generation shape its own future while remaining true to the vision of the original settlers? For Nirgal, it is necessary to understand the land before he can work out his own answer, which involves an eventual return to engage the changing Martian society.

Jonathan Lethem's *Girl in Landscape* (1998) moves in very close parallel to Heinlein's *Farmer in the Sky*. Written nearly fifty years later, and for a quite different audience, it shares episodes, scenes, and situations. Lethem took the strangeness of high homesteading seriously and has an interest in the theme of generational transition—but with a vastly different tone and "take." Heinlein

wrote from an era of technical and social optimism, Lethem with a voice of ironic doubt. The former repeated the modern story of progress and contained generational conflict *within* that story, while the latter explores the postmodern skepticism that any social solution can suffice.

In one-sentence encapsulation, Girl in Landscape has the same basic plot as Farmer in the Sky: a family migrates from a troubled and overcrowded Earth to a new planet, settles in the countryside, and experiences challenges that leave the teenaged protagonist chastened but ultimately determined to make it as a founder of the society. Lethem's characters understand the planet as a "frontier," themselves as "homesteaders," their task as "breaking new ground" and "tam[ing] the wilderness." But everything else is undermined or reversed from Heinlein's treatment. The protagonist is a thirteen-year-old girl, Pella Marsh, rather than a boy. Her mother dies and the remnants of her family are dysfunctional and apathetic, not cohesive and supportive. The new planet feels like exile: "The family was moving to a distant place, an impossible place. Distance itself haunted them, the distance they had yet to go" (1). It is not empty but inhabited by the sad remnants of a race that had once built huge arching structures. The challenges are social, sexual, and spiritual, not technological and economic. Disaster strikes from within rather than from without. The ending is resigned determination, not determined optimism.

The Marshes are the third family and the fourteenth to seventeenth humans in a valley settlement a day's journey from the port. One of the problems with homesteading here is that there is really nothing to do—no technical challenge. Familiar crops from Earth can be grown with difficulty, but there is no reason to bother. The ancestors of the native Archbuilders have left behind a ubiquitous plant whose tubers can produce the equivalents of potatoes, vegetables, cake, and meat. Mostly the women cook, the men sit around and talk, and the kids wander the valley and hills. If they had to leave Brooklyn, Pella wishes they had at least stayed in "Southport, the older, bigger town, where there were doctors, stores, a restaurant.... [S]he already wished they lived there instead of here, in the new settlement without even a name, this place on the edge of nothing" (62-63).

The Archbuilders hover in the background. Those who interact with the settlement are feckless and childlike in curiosity. They join the children's lessons and hang around the general store until kicked out, like deracinated Indians at a trading post. They've lost the capacity or desire to construct the great arches that make the planetscape into a version of Monument Valley:

The settlement was at the farthest edge of a basin ringed by crumbled arches. Eroded spires that rose a thousand feet into the air. Fallen bridges, incomplete towers, demolished pillars. The valley was a monumental, roofless cathedral with only the buttresses intact, and the calm purple-pink sky of the Planet of the Archbuilders glowed like stained-glass windows between these vast ruined frames. (48)

The emphasis on the big sky connects the planet to one of the common tropes of American western writing and contrasts with the novel's opening setting, an Earth where it is no longer possible to go out under the sky unprotected.

The novel is driven by Pella's sexual awakening and her struggles to understand her sexuality in a social vacuum. This central tension comes directly from the classic western movie *The Searchers* (1956), in which John Wayne hunts compulsively for young Natalie Wood, who has been abducted by Indians. Lethem has spoken of his "obsession" with that movie and its details of presentation. The book, with its bleak tone, also comes from Lethem's years in California and "that we've-reached-the-end-of-the-world" thing (as he told an interviewer for an Internet site). Pella is the Natalie Wood figure, but abducted spiritually rather than physically. Her mind begins to resonate with the planet. She finds a hiding place in the hills where she dreams or goes into fugue states in which she takes on the point-of-view of ubiquitous small creatures like "quicksilver giraffes" that scurry around inside and out, allowing her secretly to observe the other people. She has become literally a girl *in* the landscape, not simply set against it but merging with it.

Both the novel's title and its development thus respond to the importance that Jane Tompkins places on landscape as a defining feature of the American western novel and movie. The desert (or the wide open spaces of the Planet of the Archbuilders) is the typical setting for the western, says Tompkins, because its openness places human beings directly in nature. Mary Lawlor similarly writes that

The frontier was typically construed as a border zone that harbored mystery and danger, but that ultimately opened onto a plentiful, inviting space.... The wide, figuratively horizontal plane featured in such prospects gave material form to the ideals of democratic possibility so central to U.S. national culture from its beginnings. (2)

In turn, science fiction extends that openness to infinity, from cold desert surfaces of the Moon or Mars to the wide-open spaces of entire galaxies. The western plains and desert are thus made boundless and their possibilities and dangers are extended to the ends of the imagination.

The self-sufficient, arrogant, and planet-wise rancher Efram Nugent is the stand-in for *The Searchers*' Ethan Edwards, the monomaniacal character played by John Wayne. It's easy to hear Wayne's voice in Nugent's dialogue and mannerisms, to see Wayne's silhouette when Nugent is introduced standing against the skyline or described as physically imposing: "Possibly any space he inhabited was his, the way he moved his shoulders to carve the air" (112). Nugent's obsession is to maintain the separation between the two races.¹¹ He's been on the planet for seven years, can talk one of their many languages, and can work with them. But he also holds these remnants of the race in contempt:

"I think we ought to draw a line around this town we're starting here, Marsh. Make it a *human* settlement, a place where kids are safe.... I'm just talking about moving them out of our settlement. They don't care. They've got plenty of other places to wander around. A whole ruined planet for them to gawk at and wonder what the hell happened to their civilization." (114-15)

Nugent "searches" for Pella by keeping track of her movements, and by playing on her growing sexuality to pull her back to human society. He seeks out

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her hiding place physically and spies on her dreaming body. His physical and moral presence upsets and attracts her. She wants his notice, angling for an invitation to his house where she tries to seduce him (further confusing her and demonstrating his power over her). *His* sexuality, in the end, is his downfall. In the final crisis of sexually-driven violence, Pella falsely but plausibly accuses him of rape in order to save one of the natives. One of the other teenagers then shoots Efram to death.

In the crisis, the ideas of town and family both collapse. The "might-be-town" shrinks rather than grows: "The spaces between things were growing instead. The silences." The only woman with domestic skills can scarcely hold her family together, let alone knead together a fragmented community. Individual pain and passion triumph. "There is no town, Pella thought. There never was one. There was only Efram and whatever he wanted.... Families that weren't in a town that wasn't" (257-58). The settlers return to Earth or flee into the outback, leaving Pella to rename it for her dead mother and start it over again. She is a survivor, who endures and carries on, but with the parental generation fled from the story. To adapt another phrase from Willa Cather, if there is to be a history of *this* country, it will surely be in Pella's heart and nowhere else. Pella is forced to make decisions about her own future in virtually the same isolation in which the male hero of the classic western often finds himself.

Lethem thus situates himself in contrast to Kim Stanley Robinson as well as Robert Heinlein, for Robinson is a cautious utopian. Both in his MARS TRILOGY (1992-95) and in his earlier THREE CALIFORNIAS TRILOGY (1983-90), he embeds his characters in communities and civil societies. To be successful is to make the thoughtful compromises that are necessary when individuals work together to construct communities, something that Nirgal understands even in his years as a loner. As a number of commentators have remarked (e.g., Abbott, Franko, Moylan), Robinson takes the political process seriously and his most admirable characters are politically active, balancing their own desires against those of others. His preferred society in both trilogies manifests the "wise provincialism" that nineteenth-century philosopher Josiah Royce saw as the middle ground between radical individualism and corporate dominance.¹² Lethem's version of politics is Pella's failed and foolish father, defeated on Earth and unable to find an outlet for his committee-chairing skills in the intensely individualized and egodriven community of his new home. The novel progressively strips away family members and community members as characters die, flee, or withdraw into catatonia. Only Pella is left, and only Pella's hard-won understanding and individual determination will be able to prevail on the homesteading frontier.

In contrast to Lethem but similar to Robinson, Molly Gloss offers a complex homesteading story in which the answer to individual doubts is community, not radical individualism. She also places the homesteading narrative in a larger chronological frame by showing that the real drama may be in the decision to emigrate rather than the result. In *The Dazzle of Day* (1997) she takes on the steep challenge of injecting drama into Quaker decision-making practices—a far cry from the cardboard characters that Dick put through plots of corporate manipulation and individual greed. The bulk of the novel takes place on a "generation ship" toward the end of its long voyage from Earth to a new planet, but Gloss subverts the most common version of this setting by showing a society that has grown stronger and more cohesive over the generations rather than falling into anarchy, thus entering a plea for the power of social connections in a strongly individualistic genre.

Dazzle is a homesteading story in which life on the outward trail is more important than the arrival. The novel opens with a single chapter in which a member of a Quaker settlement in Central America struggles with the sadness of embarking on the great journey to the stars.¹³ It ends centuries later with another short chapter in which one of the planet-born generation encounters the new planet's ferocity and danger and takes it all for granted as the conditions of life. In between, the body of the novel centers on the immigrant ship *Dusty Miller* as it nears the new planet and its passengers try to decide if it is habitable. In other words, the generations that interact directly in *Journey, Beowulf's Children, Girl in Landscape*, and "The Eye Altering" are drawn apart from each other in time and place.

Because *Dazzle* is a novel about a community making up its mind, the plotline is about the struggle of the colonists to decide what to do about the new planet. They send probes and debate the findings that show a stormy, subarctic land that may barely be survivable. A manned reconnaissance ends with two of four explorers dead and the planet's inhospitality highlighted. The interstellar voyagers talk and set up committees, hear reports, and talk some more. Their ship may, just barely, have the capacity to seek out a new star system, but hopes and fears come to revolve around *this* one ball of rock and ice. Gloss takes the deliberations seriously—both the contrasting attitudes and ideas that the participants bring and the Quaker process through which insights are aired and a larger sense of the community emerges.¹⁴

Once the transfer has been made, the concluding chapter echoes Le Guin and Robinson, for new generations learn the planet in ways that the ship-born cannot. "My mother has an old, religious reverence for books," muses one of the new generation.

"My mother's understanding of this world, even after seventy years, is intimately linked to the fusty smell inside the covers of the books.... Mine is in the waxy panes of riverine ice, in the smell of a mouse's old bones and the spiny rustle of a ring-eye's nest. The landscape we inhabit as children, inhabits us." (252)

It is a quasi-mystical sense of place, perhaps related to the altered seeing of Le Guin's short story and the deep landscape-immersion of Nirgal, but it is also a fearsome understanding that takes stress and storm, disaster and death, as parts of everyday experience. Indeed, the very wildness of the planet which so disturbed the star-born and pushed the first explorer into mental collapse—"There was a wind!' he said wildly, as if that explained everything" (187)—becomes an essential for the planet-born: "The weather rode very slowly across the grass.... I suppose that was the first time I heard the earth speaking" (253).

Conclusion. Uniquely among the writers considered in this essay, Molly Gloss has written both historical fiction and science fiction about homesteading, and *The Dazzle of Day* reflects that dual understanding. It is the most complex of the texts discussed in this essay because it critiques one historical moment—homesteading—by inserting it into larger processes of historical change. For Gloss, homesteading is a story of tensions between mobility and community. She writes within a long historical literature that sees democratic experiment rather than continental abundance as the determining national experience. A number of western historians, such as Richard White and Robert Hine, emphasize the transfer of ideas from East to West, the continual reestablishment of values and institutions, and the hard-won formation of civil communities from individuals and families. Gloss wants readers to understand the story of homesteading not as the achievement of an end state but as one part of a larger process, directing our attention to the longer histories of prelude and consequence of which the crafting of family farms is only a brief stage.¹⁵

As critics of the American past, science fiction writers, historical novelists, and historians are tilling the same ground. They have been moving toward similar understandings of the national experience—as embodied in the history of the West—whether by re-evaluating historical sources or reflecting on standard narratives in fictions of the future. As my analysis shows, sf homesteading stories are most challenging when they step beyond the frames of adventure tale and family saga to place homesteading within larger narratives of economic development and cultural transfer. Academic historians who have taken on this task are often grouped as practitioners of a "new western history." There is no similarly convenient term for writers as disparate in specific interests and sensibility as Philip K. Dick, Kim Stanley Robinson, Jonathan Lethem, and Molly Gloss, but they are participants in the same debate about the underpinings of one of the most prominent American creation stories.

NOTES

1. Heinlein was born in Butler, Missouri, in 1907. He attended the US Naval Academy and then lived in California and Colorado after illness in the 1930s cut short his Navy career. Bradbury was born in Waukegan, Illinois, in 1920 and moved with his family to Los Angeles in the mid-1930s, where he has lived ever since. Heinlein tended to see the Pacific West as an exuberant realization of the American get-up-and-go that had conquered continental frontiers (see, for example, engineer Dan Davis's career in *The Door into Summer* [1957]). Bradbury's response, by contrast, has been a pained flinch from the cacophony of information-rich cities in favor of a nostalgic recreation of small-town scenery and society. See Wolfe for further discussion of Bradbury's "frontier myth."

2. Major academic studies of these figures were produced during the 1950s, at the same time as Heinlein and Bradbury were crafting their fictive variants; see Hoffman and Price.

3. In both animated films and live-action television, Disney Studios during the 1950s rummaged through American history for a variety of one-hundred-percent-American heroes—Davy Crockett, Mike Fink, Pecos Bill. Neil Gaiman's prize-winning fantasy *American Gods* (2001), which imagines the fate of Old World gods struggling to survive in North America, briefly introduces John Chapman as a mythologized culture hero who complains that upstart Paul Bunyan now gets all the attention.

4. For a broad theoretical discussion of these "big questions" of social engineering, see Scott. For an application to western US history in particular, see Worster.

5. This essay is part of a larger project that examines several of these different western narratives as science fiction, including the asteroid mining frontier, the engineering frontier, and the frontier of political formation. Mogen's *Wilderness Visions* lays out a contrast between rigorous extrapolation and symbolic/metaphorical depictions of the future. My interest lies somewhere in between, in the use of coherent narratives as templates or structures within which to imagine the future.

6. Entry points for the "new western history" include Patricia Nelson Limerick's books *Legacy of Conquest* and *Something in the Soil*; Richard White's *It's Your Misfortune*; programmatic essays edited by Milner and by Limerick, Milner, and Rankin; and the essays in a special issue of the journal *The Historian* 66:4 (2004) authored by ten recent presidents of the Western History Association.

7. These are characteristically heroic titles of books by Theodore Roosevelt and Stephen Ambrose.

8. The allusion is to the Pare Lorentz documentary film *The Plow That Broke the Plains* (1936), which deals with settlement, the dust bowl of the 1930s, and conservation efforts.

9. Snyder is one of Robinson's favorite writers and touchstones.

10. As Heinlein does for Ganymede, Robinson offers fascinating details of ecological change. Nirgal builds small dams to trap water and thin soil. Lichen has already colonized the basin, so he sows other seeds and spores and observes which ones thrive. Other modified plants that have been seeded on Mars begin to spread into the basin on the wind. He buys loads of topsoil and earthworms. After worms will come moles, mice, marmots, rabbits. Plants bloom with the new spring. Where Avalonians have to fight to learn, Nirgal simply has to inhabit a place, to experiment and experience. Nevertheless, the planet still fools him, first with a viroid infection that withers the grass, junipers, and potatoes, then with a dust storm that buries the cirque a meter deep. "In time, other winds would blow some of this dust away. Snow would fall on the rest of it.... Water would carry the dust and fines away, down the massif and into the world. But by the time that happened, every plant and animal in the basin would be dead" (402-404).

11. The Archbuilders have similarities to the Bleekmen in *Martian Time-Slip*, although Dick's race seems most closely modeled on native Australians.

12. A child of Gold Rush California and one of the first graduates of the new University of California, Royce spent most of his adult career teaching at Harvard as a colleague of William James and later Frederick Jackson Turner. His ideas about politics and society, however, were deeply rooted in his understanding of California's formative decades. He viewed that history as a great struggle between unchecked individualism and the moderating power of community. His solution to social disorder was to emphasize the importance of "wise provincialism" as the counter to "the brutal freedom" of the pioneers. Provincialism—loyalty to places and communities and the opportunities they may offer to all members—arises from the continued interaction of people and nature. Community does not just happen; it has to be constructed, tended, and valued. "We are all but dust save as this social order gives us life," he wrote at the end of his history of Gold Rush California. "[I]f we turn again and serve the social order, and not merely ourselves, we soon find that what we are serving is simply our own highest spiritual destiny in bodily form" (qtd in Hine, *Royce* 152; see also Pomeroy and Royce).

13. There is a significant Quaker presence in Costa Rica, drawing on both US transplants and native Costa Ricans.

14. For a non-fictional discussion of this decision-making process, see Sheeran.

15. Dazzle of Day could fruitfully be read alongside the work of Octavia Butler (*Parable of the Sower* [1993]), Greg Bear (*Moving Mars* [1993]), Kim Stanley Robinson, and other sf writers who take political processes and utopian compromises as worthy subject matter. There are close parallels between the depiction of Quaker decision-making practices and the town-meeting politics in Robinson's *Pacific Edge* (1990).

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ABSTRACT

Many sf writers depend on the multiple narratives of the American West as templates for framing their understandings of the future. This essay examines the ways in which the western homesteading story has been adapted in fictions about future planetary settlement. It argues that the increasing complexity of these treatments reflects the deepening awareness of the ambiguities of the American homesteading experience and parallels many of the insights of the "new western history." Key texts discussed include Ray Bradbury's *The Martian Chronicles*, Robert Heinlein's *Farmer in the Sky*, Philip K. Dick's *Martian Time-Slip*, Kim Stanley Robinson's *Blue Mars*, Jonathan Lethem's *Girl in Landscape*, and Molly Gloss's *The Dazzle of Day*.