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Adaptationist Criteria of Literary Value

Assessing Kurtén's Dance of the Tiger, Auel's The Clan of the Cave Bear, and Golding's The Inheritors

The Elements of the Literary Situation

In a classic formulation, literary scholar and theorist M. H. Abrams (1986) identifies four basic elements in a literary situation: an author; an audience; a literary work; and a represented subject matter. At the level of common sense, this formulation has the force of an a priori maxim. Writers are people talking to other people about their shared experience in a common world. The written work—or the spoken work, in preliterate cultures—is the medium through which one person communicates with other people. The subject matter is almost always some sequence of human actions in a concretely specified setting. Abrams first expounded his scheme in 1953, in the introduction to The Mirror and the Lamp: Romantic Theory and the Critical Tradition. He used the four elements as categories within which to classify all theories of literature throughout history. He argued that expressive theories concentrate on the author; rhetorical theories on the audience; formal theories on the work itself; and "mimetic" theories on the represented subject matter. This study was rightly celebrated as a masterwork of historical scholarship, but the classificatory scheme that provided its theoretical underpinning did not become the basis for any new theoretical system. (Hernadi [1976] tried to develop the scheme but only obscured its classic outlines.)

In the late 1970s, the eruption of poststructuralist theory radically transformed the landscape of literary studies, and this transformation shattered the framework of common sense from which Abrams had abstracted his four elements. Poststructuralism totalizes "discourse" as the sole causal agency in the world, and it thus suppresses both persons and the world they inhabit. There is no "outside the text," Derrida tells us (1976, p. 158), and Jameson draws the inference that "nature is gone for good" (1991, p. ix). "Man does not exist prior to language, either as a species or as an individual" (1972, p. 135), Barthes declares, and the literary work, Foucault infers, "is not something written by a person called an 'author'"; the author is himself only "a function of discourse" (1977, pp. 118, 124). In his valiant efforts to counter the flagrant unreality of

such declarations, Abrams has repeatedly reaffirmed the validity of the four elements in the literary situation, and he has identified these elements as the essential components of "the humanistic paradigm." Within this paradigm, "the site of literature is the human world, and a work of literature is the product of a purposive human author addressing human recipients in an environing world" (1997, p. 115).

Abrams believes that common sense is a foundation, a bedrock, and that literary theory cannot legitimately go deeper than that foundation. Post-structuralism deviated from common sense only by arbitrarily eliminating two components in the humanistic paradigm (people and nature) and totalizing a third component (language). What I propose, in contrast, is to locate all the elements of the humanistic paradigm within larger concepts deriving from Darwinian social science. Human beings—authors, audiences, and characters—are evolved organisms inhabiting environments to which they have adapted by a process of natural selection. Literary works can be understood as products of an adaptive need to make sense of the world in emotionally and imaginatively meaningful ways—to produce cognitive order. All the elements of the literary situation—the purposes of authors, the responses of audiences, the behavior, thought, and feeling of characters, and the formal properties of literary works—can be assessed and analyzed within the framework of adaptationist theory.

In this essay, I shall be particularly concerned with the question of evaluating literary quality. I shall formulate criteria of quality for each of the four elements of the literary situation: (a) the quality of authorial intentions and the quality of the author's mind and feeling; (b) the sort of response or effect a work is intended to have on a given audience; (c) the character of the represented subject matter; and (d) the formal character of the works themselves. I shall consider all of these criteria from within the conceptual framework of Darwinian anthropology, evolutionary psychology, cognitive ethology, and behavioral ecology. By using that framework, we can move beyond impressionistic and adventitious response, provide greater explanatory depth to our evaluative judgments, and connect these judgments with the whole larger network of empirical knowledge about human behavior and cognition.

In order to test and illustrate these evaluative criteria, I shall compare three works of fiction, each of which depicts encounters between Neanderthals and Cro-Magnons: Björn Kurtén's *Dance of the Tiger: A Novel of the Ice Age* (1995), Jean Auel's *The Clan of the Cave Bear* (1981), and William Golding's *The Inheritors* (1955). Such depictions directly confront the question of what it means to be "human," and they thus provide a peculiarly rich subject for the purpose of assessing depictions of human nature. In my view, Kurtén's and Auel's novels are both quite bad, and Golding's is a work of rare literary merit. Kurtén and Auel have ulterior purposes—Kurtén those of ideological manipulation and

Auel those of narcissistic fantasy—that diminish the seriousness with which they conceive their subjects, and the falsity of their representations forestalls any deep integration of formal elements. Golding immerses himself in his subject with extraordinary intensity, and through his handling of point of view and symbolism he fashions a thematically and tonally integrated work of art.

Values, aesthetic and moral, are grounded in emotion, and emotion is itself grounded in evolved systems of motivation. In an obvious sense, no value is "right" or "wrong" in the way that factual propositions are right or wrong. It is an objectively ascertainable fact that on a certain day in the first century B.C. the emperor Julius Caesar was stabbed to death by republican conspirators. When one states that fact, one is "right." But if one then goes on to declare that Caesar was either "right" or "wrong" in assuming dictatorial power, or that Brutus was "right" or "wrong" in assassinating him, that second statement is clearly of an order different from saying that these events took place. The question as to whether an act is good or bad in an ethical or political sense is a matter of subjective judgment based on personal value. So also, it is "right" to say that William Shakespeare wrote a play about Julius Caesar, but if one goes on to say that the play is good or bad, a masterwork of art or a hack piece of political propaganda, those judgments are not "right" or "wrong" in the same sense that a statement of fact is right or wrong. Judgments of value are relative to the motivational and emotional dispositions of individual readers.

In what sense, then, can we invoke evolutionary psychology, or any scientific information, in our judgments of literary value? Values cannot be justified by an appeal to fact, but values are themselves facts. They are psychological phenomena, and as such they are subject to analysis and explanation. We cannot claim that any of our own literary judgments are objectively correct in the sense that they are grounded in some system of values independent of personal feeling, but we can nonetheless identify the basis for our judgments; we can generalize the principles on which they are founded; and we can correlate these principles with the characteristics of our evolved psychology. We cannot justify our values, but we can explain them, and those explanations are part of the total body of knowledge relevant to literary criticism.

One of the chief qualities of any literary representation is the specifically human capacity for "theory of mind." (See Baron-Cohen, 1996; Baron-Cohen, Tager-Flusberg, and Cohen, 2000; Carruthers and Smith, 1996.) In common language, we can call this capacity the power of "empathy," and it translates often into the feeling of "compassion." An author who is strong in this characteristic has a strong intuitive understanding of the internal psychological coherence of the depicted characters. And the author has also a strong intuitive understanding of the way the thoughts and feelings of those characters are enmeshed within a specific environment. The idea of internal psychological coherence is parallel to an anatomical principle first enunciated by the great

French naturalist Frederic Cuvier—the principle that all the parts of an organism are functionally integrated—teeth, claws, skeleton, digestive tract, brain. (See Mayr, 1982; Young, 1992.) The idea of the integration of organisms within a specific environment is a founding principle of ecology. Both principles guided Darwin's thinking about natural selection and remain central to all adaptationist theory.

The degree of internal coherence in a represented organism, and the degree of coherence in the fit between an organism and its environment, are distinguishing features in any literary representation. The degrees of internal and ecological coherence vary, and that variance offers us a measure of the author's own integrity in his or her conception of the represented subject. Shakespeare, to take an exemplary instance, characteristically displays a truly extraordinary degree of integrity in the conception of the represented subject matter. Each character forms a coherent, integrated set of characteristics, and each is an integral component of the world he or she inhabits. This is not a question of realistic accuracy; Shakespeare often writes in the mode of symbolic fantasy. It is a question of truth to human nature—to the verisimilitude of motives and feelings, to the internal coherence of characters, and to the fit between characters and their imagined worlds.

The integrity of the represented subject matter is a necessary precondition for the coherence of formal organization. Coherence and integration are themselves ultimate formal characteristics that satisfy an elemental cognitive need—the kind of need that is satisfied in logical conclusions about sequences of events, correct arithmetical calculations, musical harmonies, cogent propositions, balanced architectural designs, elegant scientific reductions, plots that constitute completed actions with a beginning, middle, and end, tonal sequences that constitute emotional progressions correlative to completed plot actions, and thematic organizations that bring divergent aspects of a subject into meaningful relation to one another. (On the integration of formal elements as a criterion of literary quality, see Arnold, 1979, pp. 5–7, 11; Brooks, 1947, pp. 18–20; Brooks and Warren, 1976, pp. 9–12; Coleridge, 1984, vol. 2, pp. 15–18; Wellek and Warren, 1977, pp. 24.)

The coherence of artistic organization—or its absence—provides clues about an author's motives and the quality of his or her mind. Truth of representation is in itself a motive, and in literature the truth of representation is closely associated with an imaginative sympathy for the inner lives of other people. Seriousness and honesty in the conception of a subject matter give evidence that both these motives—truth of representation and imaginative sympathy—are dominant features of an author's mind. In the absence of seriousness and honesty, some other motive can reasonably be assumed to be at work. If a representation does not hang together, if it does not make sense, the reader must ask what motive has deflected or distorted the truth of the repre-

sentation. The reader's sense of an author's motives enters directly into his or her feeling about the imaginative quality of the literary work.

Dance of the Tiger

When I assess Kurtén's novel as a bad work of art, I am making a judgment based on the criteria I have outlined above. The representation of character in *Dance of the Tiger* is not true to human nature. The motives and feelings of its characters are not plausible. They are neither internally coherent nor integral with their environments. The plot is accordingly weak and dim, and the thematic structure is equivocal and indeterminate. All of these artistic features have been sacrificed to a prevailing didactic motive, and the quality of mind reflected in that motive is deficient in depth of feeling, in imaginative sympathy, and in simple honesty. All of these features have their correlative in the response of readers. No reader would heartily approve Kurtén's work unless he or she were both sympathetic to his didactic purpose and relatively indifferent to qualities of artistic integrity. Kurtén's work has won unqualified admiration from at least one prominent reader, Stephen Jay Gould. After giving a critique of the book, I shall consider Gould's defense of it.

Kurtén's protagonist is a young Cro-Magnon male, "Tiger," whose band is attacked and wiped out by another band. Like Hamlet, Tiger has a mission to kill the man who killed his father. It is a revenge plot, but the revenge plot lacks internal drive, in good part because Kurtén himself feels diffident about attributing to his protagonist any motive not in accordance with the values of an enlightened modern man of liberal sensibility. "His was not a vengeful nature. A happy boyhood and the friendly camaraderie among the Chief's men had made him an outgoing, pleasant young man" (1995, p. 70). How does one construct a revenge plot without invoking revenge as a motive? Kurtén takes refuge in hypocrisy. He translates morally suspect motives into those of an impersonal concern for the higher social good. Tiger "wanted redress, retribution. But the most important thing was to rid the land of this menace" (1995, p. 70). Redress and retribution have an ethical ring rather different from that of revenge, and even these relatively noble motives are subordinated to the larger, impersonal concern for the public welfare. Tiger is a shadow of a character, a facsimile created by an ethical formula. That shadow does not have the energy or conviction necessary to carry out an act of revenge, and the plot becomes murky and finally concludes in a long, talky scene in which all the characters suspend their threats of mutual mayhem so that they can justify their own ethical behavior and bemoan their existential plight. In the slow-motion sequences of violent action, repeatedly suspended for the sake of wambling introspection, this scene reaches something like a maximum in the nullity of its dramatic force. Given the author's inability to invest his characters with the power of definite action, the monologues in this climactic scene might well

have gone on indefinitely, but a natural dam breaks, the antagonist is swept away by a convenient flood, and the protagonist climbs safely to a hill, with all his surviving friends, who live happily ever after.

Plot and character in Dance of the Tiger are subordinated to an ulterior didactic purpose. The main purpose of the novel is to create a model of peaceable interaction among distinct human populations—Cro-Magnon and Neanderthal—presumably with the hope and intention that the model will influence the ethical beliefs and motives of Kurtén's readers. After his natal band has been wiped out, Tiger is rescued by a band of Neanderthals. His feelings toward them, at first, are typical of his Cro-Magnon outlook. He regards them with contempt and disgust, almost with abhorrence, thinks of them as "Trolls," and refers to their males as "oxen" and their females as "bitches." Predictably, he learns that he has been blinded by prejudice and that the Neanderthals, though different in some ways from Cro-Magnons, have unique talents, lovable personal qualities, and rich cultural traditions. Indeed, in important ways they are altogether superior to the Cro-Magnons. For instance, they offer an early model for modern, postindustrial, gender relations. They are matriarchal, and polyandry is common among them. The women are more "forceful and interesting" than the men (p. 60). Both men and women hunt, and both also do domestic work. Tiger finds that once he has overcome his Cro-Magnon prejudices, he too takes real pleasure in doing work that in his own band would be considered "women's work." He enjoys sitting about the camp scraping hides and swapping tales (p. 54). In this guise, Tiger is only a vehicle for the transmission of a didactic message about being broad-minded and culturally flexible.

One main wrinkle in Kurtén's didactic structure is a carefully embedded set of clues about the reasons for Neanderthal extinction. He wishes not only to avoid the scenario of extermination but also to present an image of amicable interaction. He solves this problem by depicting the hybrid offspring of Neanderthals and Cro-Magnons as sterile. Cro-Magnons are socially dominant and more numerous. Cro-Magnon males interbreed more frequently with Neanderthal females than Neanderthal males breed with Cro-Magnon females, and the Neanderthals gradually, quietly, become extinct. In an author's note, Kurtén worries that this scenario might bear an unpleasant comparison to policies of sterilization, but he still prefers it to the scenario of extermination (1995, p. 255).

Kurtén's Neanderthals have gracious manners and advanced botanical knowledge. They take their names from the names of flowers and ornamental and medicinal plants, and they invariably speak to one another in the forms of high courtesy, with formal titles such as Mister Silverbirch, Mister Baywillow, Miss Woad, and Miss Silverweed. They have difficulty articulating all the sounds that characterize Cro-Magnon speech, but they nonetheless have highly developed vocal musical skills and elaborate traditions of oral narra-

tive. Kurtén is a paleontologist, and he has been careful not to intrude any depictions that could be disconfirmed by archeological evidence. Names, manners, oral traditions, and vocal music do not fossilize, so who is to say this depiction could not possibly be true?

Before answering that question, I shall quote one passage to give the reader a feel for the tone and style of life among the Neanderthals. In this scene, the Neanderthal band has come across the corpses of Tiger's slaughtered band, which had been surprised and ambushed while they were hunting mammoths. In the last moment before the surprise attack, Tiger had been caught beneath a tree knocked over by a fleeing mammoth, and he had thus escaped the slaughter. The Neanderthals are occupied with salvaging meat from the dead mammoths, tending to the corpses of the Cro-Magnons, and looking after the injured boy. (The Neanderthals refer to Cro-Magnons as "Gods," hence the appellation "the young God.")

"Would you be gracious, Mister Silverbirch, and look at the young God? Can you tell us how badly he is hurt?"

The old man was already beside the boy. "We must get the tree off him, Miss Angelica," he said.

"Please, Miss Woad, would you ask some of the men here to assist?"

"With pleasure, Mother."

Gently they lifted the tree and flung it aside, muttering, "Excuse me, Miss Woad," "Please, Mister Silverbirch," and other civilities. The tree had fallen on the boy's legs, which were badly bruised and bleeding; the left leg had an ugly twist.

"He is alive, Miss Angelica," said the old man. "His leg must be straightened out. I should like to have some plantain for the wounds, but we have to go back to the coast for that. I will need a strong stick and some straps. Then we must make a litter...."

The meat collectors went to work on the fallen mammoths.... "They must have departed in a hurry, Miss Silverweed," said Miss Rosebay. Miss Silverweed, wielding a big hand-axe and splattered with blood from head to foot, agreed. (1995, pp. 37–38)

Characters in the novels of Jane Austen frequently exchange "civilities," but then, they are not splattered from head to foot in mammoth blood, nor are they standing amidst the corpses of an alien species they regard with both terror and awe. Despite their civilities, Austen's characters operate in the high tension of a ruthless social world focused on status and mate selection. They are civilized, but they are not saccharine, and they are not fatuous. The tonality in the passage I have quoted would not be out of place in a tea party among the Teletubbies. It would be painfully jarring even in Austen's world, and it is ludicrously out of place in a world characterized by pervasive violence, constant, strenuous labor, and chronic physical discomfort. The brutality of conditions in this world could not conceivably produce or sustain the manner of mincing politeness that characterizes the speech attributed to the Neanderthals.

The question of the plausibility of conversational tone among Kurtén's Neanderthals involves a principle of the widest application in the reconstruction of Paleolithic life. The principle is that of coherence and integration in a coordinated suite of behaviors. Plausible reconstructions require not just the *absence* of contrary evidence on any one specific form of behavior; plausible reconstructions require positive evidence for behaviors that could reasonably be expected to accompany the behavior in question. Stringer and Gamble (1993, p. 198) identify a suite of archeological features that distinguish the moderns of the Upper Paleolithic (Cro-Magnons) from all ancient peoples, including Neanderthals. These features include structured living spaces, windbreaks, storage pits, fixed hearths, huts, bone tools, and art. The absence of these items indicates limited capabilities in three critical areas of cognitive performance among the Neanderthals: (a) complex spatial organization, (b) depth of planning, and (c) symbolic order (pp. 154–177, 195–218).

The issue of Neanderthal language provides a good test case for the principle of plausible inference from coordinated suites of behaviors. On the basis of anatomical evidence alone, the extent to which Neanderthals possessed the powers of complex, fully articulated language remains controversial. (See Mellars, 1996, pp. 387-391; Shreeve, 1995, pp. 271-276; Stringer and Gamble, 1993, pp. 89-90; Tattersall, 1999, pp. 170-173.) Most investigators agree that Neanderthal vocal tracts would have made them capable of only a limited range of sounds. (Some commentators argue that gestures and sign language could have compensated for limited vocal capacities [Shreeve, p. 274], but modern users of sign language have the full neurological equipment of modern speakers; their signing compensates for a simple physical disability.) Mellars weighs the evidence. "In terms of the archeological evidence, the most significant observation is the virtual lack of convincing evidence for symbolic behavior or expression in Neanderthal contexts. . . . There is a lack of well documented decorative or artistic items in Mousterian contexts; a lack of any obvious symbolic component in most Middle Paleolithic tools, and a lack of convincing evidence for ceremonial burials" (p. 389). Tattersall employs similar logic. "It seems improbable that the symboling properties that are basic to language would ever fail to express themselves in at least some of the complex features that are so conspicuously lacking at Neanderthal sites—and that are present in the upper Paleolithic" (p. 171). Stringer and Gamble grant that Neanderthals "could certainly communicate, as can all social animals, and they no doubt spoke, albeit simply and probably slowly," but they also argue that Neanderthals "lacked complex spoken language because they did not need it. We could not imagine life without it, but they did not have the social life to require it" (p. 217).

Kurtén, Auel, and Golding all take account of anatomical limitations in Neanderthal vocal tracts, but Kurtén and Auel sidestep this limitation—Auel by attributing extraordinary powers of fluent articulation to Neanderthal gestures and sign language, Kurtén by ignoring the way in which restrictions of sounds would also very likely restrict the development of complex vocabularies and sophisticated syntactic structures. (One advantage of oral language is that one can both talk and sew skins at the same time. Auel's loquacious Neanderthals carry out all the complex manual tasks their ecology necessitates while simultaneously conducting long, elaborate dialogues with their hands.) Both Auel and Kurtén fudge the evidence on symbolic behavior among Neanderthals, making too much of limited (and now largely discredited) evidence for ceremonial burial. Kurtén tacitly acknowledges some of the negative archeological evidence—the absence of the items listed by Stringer and Gamble—but he attributes to his Neanderthals complex forms of symbolic behavior that are wholly out of keeping with this negative evidence. Auel simply ignores the negative archeological evidence and invests her Neanderthals with forms of technological, social, and cultural organization that are equivalent in complexity to those of fully modern humans.

Integrity in art and integrity in science are closely related characteristics. The English translation of Kurtén's novel contains a laudatory introduction by Stephen Jay Gould, and Gould's critical response provides us with an opportunity to elaborate on this parallel. Gould is enthusiastically responsive to the bad art of Kurtén's novel, and he formulates a scientific theory in support of the art. The theory amounts to a vindication of dishonesty, and in its sophistical illogicality, the theory is itself thoroughly dishonest. Gould has made it his special mission to counter adaptationist reasoning in biology, and most particularly to discountenance adaptationist reasoning in respect to human nature. He is a Marxist and is committed to the idea of social construction—the idea that innate characteristics do not significantly constrain human behavior and that the main source of human behavior is social conditioning. He applauds Kurtén's novel for its political ideology, and specifically for Kurtén's "proper treatment of both Neanderthal and Cro-Magnon as people of fully human intelligence and feeling" (1995, p. xviii). The word "proper" in this context is ambiguous. It might seem to imply "scientifically correct," but that reading would beg many questions about what it means to be "fully" human in intelligence and feeling. The word "proper" more plausibly signifies "in correspondence with my ethical disposition to insist on equality among distinct human populations," and in that sense it is an ideological designation, not a designation about scientific fact.

The theory that Gould formulates in support of Kurtén's depiction makes appeal to his own famous deprecation of all adaptationist explanations as "just-so stories." By designating adaptationist explanations as an equivalent to Kipling's whimsical mythography, Gould implies that they are the products of fanciful speculation unconstrained by scientific evidence:

Let me, as a scientist, make a claim that may seem curious. I believe that Kurtén's novel is a more appropriate place than the professional literature itself

for discussing many of the truly scientific issues that swirl about the Neandertal-Cro-Magnon debate. Evolutionary biology has been severely hampered by a speculative style of argument that records anatomy and ecology and then tries to construct historical or adaptive explanations for why this bone looked like that or why this creature lived here. These speculations have been charitably called "scenarios"; they are often more contemptuously, and rightly labeled "stories" (or "just-so stories" if they rely on the fallacious assumption that everything exists for a purpose). Scientists know that these tales are stories; unfortunately, they are presented in the professional literature where they are taken too seriously and literally. Then they become "facts" and enter the popular literature, often in such socially dubious form as the ancestral killer ape who absolves us from responsibility for our current nastiness, or as the "innate" male dominance that justifies cultural sexism as the mark of nature.

Yet these stories have a role in science. They probe the range of alternatives; they channel thought into the construction of testable hypotheses; they serve as tentative frameworks for the ordering of observations. But they are stories. So why not treat them as such, get all the benefits and pleasures, and avoid the wrangles that arise from their usual, inappropriate placement? (1995, pp. xvii–xviii)

The largest sophistical maneuver in this formulation is that of giving with one hand and taking with the other. We are told both that "stories" have a role in science, and also that they do not. They "have a role in science," but if they appear in science they are guilty of "inappropriate placement." Gould implies some vague distinction between "stories" that channel adaptive hypotheses and the adaptive hypotheses themselves, but that distinction is merely verbal, and it evaporates in his own examples. Arguments for "why this bone looked like that" or "why this creature lived here" would be adaptive hypotheses, not merely "stories." Such hypotheses are indispensable to all evolutionary science. Eliminating them would eliminate the interconnected explanatory power of paleontology, comparative anatomy, biogeography, ecology, embryology, and genetics. Real and important distinctions can be drawn about the relative weight of empirical support for any given adaptive hypothesis. Some are weak and fanciful (the aquatic ape theory); some are highly plausible (the functions of temperature regulation in the stocky construction of Neanderthal bodies); and some are so robustly supported that they approach to the condition of established fact (the functions of specific kinds of teeth as adaptations for specific diets, and the differences in the digestive tracts of carnivores and herbivores).

As a scientific proposition, then, Gould's formulation is transparently false. As aesthetic theory, it cannot be judged by the same criteria of truth or falsity. It must be assessed instead in accordance with the aesthetic values that are implied by the theory. We can paraphrase his argument as follows: "Adaptive hypotheses have a role in science, but not really. They are more appropriate in fiction, where the rules of evidence and logic don't count. In fiction, we can reject hypotheses we don't like (innate violence, male dominance) and entertain

hypotheses we do like (matriarchy, social equality)." In opposition to this aesthetic proposition, I would argue that in fiction the rules of evidence and logic do count. They are important elements in the integrity of conception in the representation of the subject. Allowing ideological values and didactic purposes to violate the integrity of conception produces bad art. Gould himself does not object to the badness of Kurtén's art, but then, he does not object to bad logic in science theory, either. With respect to his proposition about the role of adaptationist hypotheses in evolutionary science, one can say that he is simply wrong. His statements are factually erroneous and logically contradictory. With respect to his proposition about using art as propaganda, those of us who disagree with him can say only that our own aesthetic values are different from his, and that for us, at least, integrity counts. (For further comments on Gould, in this vol., see part 3, chapter 2.)

The Clan of the Cave Bear

The Clan of the Cave Bear is the most prominent example of a popular genre, that of Stone Age fantasy. The novels in this genre tend to be published as massive pulp paperbacks with schlocky art on the covers. Such works can be clearly distinguished from serious efforts in the fictional reconstruction of Paleolithic life. The two seminal authors in this latter genre are H. G. Wells (1971a, 1971b), and J. H. Rosny (1985), both of whom combine naturalism of style with allegorical themes of human evolutionary history. Auel's chief antecedent is not the work of Wells or Rosny but the 1960s cartoon series The Flintstones. Fred and Wilma are just folks from the suburbs, like Dagwood and Blondie, who happen to use stone and wood as the materials with which they replicate the technology and culture of modern suburban America. There are important tonal differences between The Flintstones and The Clan of the Cave Bear. The Flintstones is a sitcom, and The Clan of the Cave Bear is a soap opera. Nonetheless, the kind of historical imagination involved in the two works is clearly the same. The task that Auel has tacitly posed for herself is to provide a detailed fictional answer to the following question: "What would life be like if I could take myself and all my friends, with all our values, sensibilities, customs, manners, forms of technological expertise, and social dispositions, and place them in a world in which the only materials with which we had to work were stone, wood, bone, and leather?" Auel has evidently done some research into conditions of life in the Upper Paleolithic, but the precision is all in the details, and the larger picture is absurdly wrong.

Ayla, the heroine, is a Cro-Magnon girl who is orphaned in an earthquake and then adopted into a Neanderthal band. She is taken into the home of a kindly brother and sister, a shaman and a medicine woman. The Neanderthals are genetically programmed for conservative behavior. Their minds—as is supposedly indicated by the "occipital bun" or bulge at the back of their skulls—

operate exclusively by means of inherited memory. Ayla, as a Cro-Magnon, is genetically programmed to be boldly innovative and creative. As a result, she perpetually disrupts the Neanderthal way of life. She even takes up hunting with a sling, a practice that is taboo for Neanderthal females and for which the stipulated punishment is death. The main plot conflicts turn on her struggle against a male Neanderthal who is politically reactionary and sexually abusive. Eventually, she leaves the group and sets out in quest of her own people. (There is a long series of sequels, presumably still in progress.)

Auel makes distinctions between the cognitive style of Neanderthals and Cro-Magnons, but like Kurtén she attributes to both essentially modern levels of cognitive complexity. Both species have "a richly developed, if dissimilar intelligence" (1981, chapter 6). The kinds of distortions that arise from treating the Neanderthals as just another variety of modern humans can be exemplified by their organization of living space. Two of the features that Stringer and Gamble identify as missing from Neanderthal sites are structured living spaces and fixed hearths. Ayla, the heroine of Auel's story, lives with the Neanderthals in a capacious cave, and in this cave, there is a place for everything, and everything is in its place. Food and herbs are neatly stored in wicker baskets, and each family has its own private hearth. Ayla, lacking the instincts of the Neanderthals, must learn not to let her eyes wander into the hearths of her neighbors—the sort of problem an inquisitive teenager might face when growing up in a crowded trailer park.

Auel's contributions to the genre of Stone Age fantasy are complicated by the ambition of investing her story with certain thematic structures and making use of archetypal symbolism, but the central motive that animates the story is the desire to engage in ego-fulfillment fantasies. As the jacket copy explains, Ayla is "a very special heroine." She is an ugly duckling, a truly superior creature planted in the midst of ordinary people who misunderstand her and only gradually come to recognize her unique personal gifts. She struggles against tyranny and emerges triumphant, psychologically unscathed and supremely confident of her own prowess. She performs marvels of skill and courage, displays extraordinary resources of resilience and wisdom, humbles her enemies, wins the devoted love of her friends, and gains universal admiration. As the jacket copy of one of the sequels describes her story, it is "the breathtaking saga of one magnificent woman who shaped mankind" (The Valley of Horses, 1983). At the modest cost of a cheap paperback, the reader is invited to participate vicariously in Auel's fantasy projections—and many millions of readers have accepted this invitation. The vulgarity of feeling and style displayed in such projections reflects on both the author and the audience.

The chief thematic structure in the story is the political dichotomy between conservatism and liberalism—between sticking with the ways of the past and adapting to changing conditions. This is an important political dichotomy, ar-

guably one of the basic dimensions in the organization of all political life. (See Carroll, 1995, pp. 185–187; Eibl-Eibesfeldt, 1989, p. 15; Eysenck and Wilson, 1978.) Moreover, it is a dichotomy that is in fact central to the difference between all ancient hominid species, including the Neanderthals, and the modern humans who supplanted them. Auel grasps the basic idea, but translates it into a style more appropriate to partisan political rhetoric, or to advertising copy, than to serious reflection on the deep history of the human race:

She had not had subservience bred into her for untold generations. She was one of the Others; a newer, younger breed, more vital, more dynamic, not controlled by hidebound traditions from a brain that was nearly all memory. Her brain followed different paths, her full, high forehead that housed forward-thinking frontal lobes, gave her an understanding from a different view. She could accept the new, shape it to her will, forge it into ideas undreamed of by the Clan, and, in nature's way, her kind was destined to supplant the ancient, dying race. (1981, chapter 10)

In contrast to Kurtén's Neanderthals, Auel's Neanderthals are profoundly patriarchal, and Auel works this idea into the logic of species succession. Throughout their evolutionary history, the Clan has executed any woman who touched a man's weapon or showed any disposition to hunt, and they are now paying the genetic price for this rigid differentiation of gender roles. "Over countless ages, only those with properly female attitudes and actions were left. As a result, the adaptability of the race—the very trait on which survival depends—was curtailed" (chapter 14). This application of the standard political dichotomy takes human universals from the wrong end. Auel does not use evolutionary history as a larger framework within which to consider the changing social roles of women in her own time. Instead, she takes the changing social roles of women in her own time as the conceptual frame within which to envision evolutionary processes over vast stretches of time in the deep past.

The problem of perspective that appears in Auel's use of sociopolitical themes appears also in her use of archetypal symbols. We can take an instance from a scene near the end of the novel. At a gathering of the clans, after a feast featuring multiple courses of finely dressed dishes (not neglecting the hot salad oil splashed at the last minute onto the bowl of mixed greens), the folk participate in a religious ceremony honoring their totem, the great cave bear. As he hands around bits of bear meat, the high priest intones, "You drank of his blood. Now eat of his body and be one with the Spirit of Ursus" (chapter 24). In this ursified Eucharistic ceremony, Auel is not recognizing the common humanity in local cultural practices but taking a local cultural practice, the Eucharist, as a universal. Again, this is taking human universals from the wrong end.

Auel's failure of historical imagination can be exemplified in its extreme form in the most full-blown evolutionary fantasy in the novel. During the meeting of the clans, Ayla takes a hallucinogenic drug and under its influence retraces the whole course of evolution. "She felt the individuality of her own cells and knew when they split and differentiated in the warm, nurturing waters still carried within her. . . . Another divergence, and she knew the pain of the first explosion of air breathed by creatures in a new element" (chapter 24). And on it goes, up to walking on two legs and the emergence of a forebrain. This is good fun, no doubt, but it is hardly serious. Ayla feels herself as a single-celled organism, and then feels herself diverging into multicellular shape. That is, she actively experiences conditions that in the nature of the case are not accessible to self-reflexive awareness. Sensation and perception imply a highly developed nervous system, and single-celled organisms do not have such systems. The problem is parallel to that of recreating the mental conditions of Paleolithic people by investing them with all the reflective powers of modern humans.

The failures of imagination in both *Dance of the Tiger* and *Clan of the Cave Bear* make themselves felt within each of the four elements of the literary situation. The failures are in the first place failures in the authors' own minds—failures of insight, imaginative sympathy, and artistic integrity. They are lapses or deficiencies in the mental experience and cognitive performance of the artists themselves, and the responses of readers, positive and negative, reflect their own motives and qualities of mental character. The kind of appeal that is made to the reader is an appeal to share in or to collude with the mental experience of the author. With Kurtén, the reader is invited to replace real human sympathy with false and shallow sentiments that have been channeled by a local modern ideology. With Auel, the reader is invited to participate in a narcissistic fantasy that makes a false and sensationalistic use of sociopolitical themes and symbolic images. Writers and readers are always engaged in a social exchange, and in these two cases, the mental experience involved in the exchange is poor in quality.

The medium of social exchange in a literary situation is the literary work it-self. It is in the quality of the work that the quality of the exchange makes itself felt. A key factor in the quality of the represented subject matter is the evoked inner life of the characters, and the quality of that evocation depends heavily on both the inner coherence of the characters and the way they are integrated—or not integrated—within their environments, both physical and social. Kurtén's characters have no genuine inner life, and Auel's heroine is merely an evocation of Auel's own sense of personal identity transplanted into a world in which it does not belong—like a Pomeranian dog or a Persian cat transplanted into a savage wilderness. These failures in ethological imagination have effects also in the formal dimension. In Kurtén's novel, weak perceptions of ethological integrity eventuate in weak plotting, feeble scenic

construction, and misjudgments of tone. In Auel's novel, they eventuate in stylistic and tonal vulgarity and in absurd perspectival misconstructions.

The Inheritors

The purpose of this essay is not merely to say unpleasant things about two bad books but to bring the whole question of literary evaluation within the scope of Darwinian literary theory. The same criteria that have been used to register the artistic deficiencies in the books by Kurtén and Auel can also be used to register the merits of Golding's novel. I would myself identify *The Inheritors* as one of the great fictional works of the twentieth century. It is certainly the only work of Paleolithic fiction for which capable critics have made serious claims to that effect. (See Babb, 1954, p. 37; Everett, 1986, pp. 114–117; Hughes, 1986, p. 162; Kermode, 1962, pp. 205–207; Kinkead-Weekes and Gregor, 1984, pp. 81, 112, 117–118; Tiger, 1976, pp. 68–69, 89–90.) Golding's general reputation is very high. He won a Nobel Prize and holds a secure position among the canonical novelists of the twentieth century. *The Inheritors* has been much less popular than some of his other novels, especially *Lord of the Flies*, but Golding's best critics hold it in high esteem, and Golding himself considered it his finest work. (See Friedman, 1993, p. 49; Tiger, 1976, p. 91.)

The Inheritors has received a good deal of serious and respectful critical attention, but not the kind or amount of attention that has been devoted to the major works of Joyce, Lawrence, or Woolf. The relative and I think unmerited obscurity of *The Inheritors* can be accounted for in part by its genre. Paleolithic reconstructions are a specialized area of interest, like Westerns, science fiction, or detective novels. By their very nature, Paleolithic fictions do not engage a full and detailed array of modern social and psychological concerns. If they are any good at all, they do not portray their characters as possessing sophisticated modern minds. The minds they depict are rudimentary, the social order primitive, and the manners rough. The reader is not asked to participate vicariously in a refined social world graced by charming nuances of sentiment and wit. Good Paleolithic fiction creates a world of harsh conditions in which the characters are dominated by brute necessity, driven by elemental passions, and capable of only inchoate reflection.

Golding's narrative technique in *The Inheritors* presents special difficulties. He speaks from within the perspective, and often from within the idiom, of the Neanderthals, that is, of inarticulate and semi-human creatures who do not themselves fully understand the events they witness. This technique is essential to the success Golding has in evoking the inner life of his characters, but it presents a serious challenge to the competence of readers. Much of the story is hard to follow, and almost all readers have to read the novel at least twice to piece it all together. The sorts of readers who would be willing and able to meet such challenges have for the most part been less interested in the world inhabited by Neanderthals than in the worlds inhabited by Maggie Verver, Stephen Dedalus, and Mrs. Dalloway.

In *The Inheritors*, a small band of Neanderthals, eight in all—two old people, two adult couples, one child, and a baby—are making a seasonal migration to a rock shelter beside a high waterfall. There they encounter a Cro-Magnon band, a species hitherto unknown to them. The Cro-Magnons have broken away from their own parent band and are fleeing for their lives. They have encamped on an island at the foot of the waterfall and must make a portage of their canoes over the falls. The Neanderthals are pacific by nature and curious about the strangers. The Cro-Magnons are frightened and hostile. They regard the Neanderthals as forest devils and kill them one by one, until only two are left, an adult male and the baby. The Cro-Magnons have captured the Neanderthal child and baby, have eaten the child, Liku, and have kept the baby as a pet. The remaining adult Neanderthal, the protagonist Lok, falls into despair and lies down to die.

A major structural feature in the organization of the story is the manipulation of point of view. For all but the last two short segments, the story is told from the point of view of the Neanderthals, and especially of Lok. Events are narrated as he perceives them, and they are described only from within the concepts that are available to his limited intelligence and his restricted range of knowledge and experience. A few pages before he lies down to die, there is a sharp shift to a more objective perspective. He is then referred to as a "creature" and his movements are described without directly evoking his own perceptions and feelings. Lok has himself viewed the Cro-Magnons from this objectivized perspective, and up to this point in the story we have had no direct access to their point of view. We have not perceived events as they perceive them. We have very little idea what they think, and we do not know what their motives and purposes might be. In the final sequence, the Cro-Magnons have succeeded in crossing the falls; the new protagonist is an adult Cro-Magnon male, Tuami, and the narrative adopts his point of view. The final scenes are depicted as he sees them, and the main events of the narrative are his own thoughts and observations.

Dance of the Tiger also employs major shifts in viewpoint. The narrative first follows the protagonist Tiger; then shifts and tells the story of his antagonist, Shelk, from Shelk's point of view; and finally brings them together, in the same camp, and alternates between them. Since the plot in Kurtén's novel is inconsequential and the theme muddled, this device cannot be effectively integrated within a total artistic order. In *The Inheritors*, the manipulation of point of view is an integral part of the total artistic order. Golding's management of point of view (a) ministers to the represented subject matter, (b) reflects his motives and the quality of his mind, and (c) mediates the largest thematic design in the work. I shall take up each of these three aspects in turn.

Golding's mimetic or representational purpose is to evoke the character of experience in both sets of protagonists. The more unfamiliar set is that of the Neanderthals, and they occupy the bulk of the narrative. Many of the fictional

efforts to depict Neanderthals have been meticulous in registering the peculiarities of their anatomy, and especially the configuration of their skulls. (See Asimov and Silverberg, 1992; Silverberg, Greenberg and Waugh, 1987.) To my knowledge, no writer other than Golding has succeeded—or even made much of an effort—to see what the world looked like from within those skulls. To succeed in the effort to see the world from the perspective of the Neanderthals requires not just arranging the furniture in the cave, as Auel does. It requires (a) placing the organism in intimate cognitive relation to the physical and social conditions of its environment, (b) regulating the proportions of sensory perception and abstract reflection in the stream of its mental events, (c) coordinating language use with the level of cognitive complexity, and (d) calibrating the horizon of temporal anticipation suitable to its behavior.

As Darwin himself understood, the scope of temporal anticipation is a key structural feature in cognitive organization (1981, vol. 1, pp. 88-92). Using archeological evidence to assess the scope of temporal anticipation among Neanderthals, Stringer and Gamble conclude, "It is clear that the Neanderthals could plan, but only with limited depth and provision for the future" (1993, p. 168). In the light of that observation, consider that on a regular basis once every several years Auel's Neanderthals meet with other clans for feasts and rituals—a cultural practice that would require a horizon of temporal expectation wholly modern in its scope. In Golding's depiction, the main concern among the Neanderthals, before they encounter the Cro-Magnons, is the search for food. Once they have enough food for two days, they have reached the limit of the range in which their behavior can be actively regulated by conscious intent. They are aware, vaguely, of larger temporal patterns such as the annual migration from the sea cave to the waterfall, and when they approach a stream expecting to find a log bridge, and see that it is no longer there, the old man, Mal, struggles to recall what was done on a similar occasion in his youth. But the larger rhythms of behavior are matters of habit prompted by seasonal signals not very different from those that prompt the migrations of mammals and birds. Intentional behavior restricts itself to immediate physical needs. After they have found a dead deer and have eaten, "The people were silent. Life was fulfilled, there was no need to look farther for food, to-morrow was secure and the day after that was so remote that no one would bother to think of it. Life was exquisitely allayed hunger" (chapter 3). When the old man Mal has died from sickness and the dominant, smarter male Ha has been killed by the Cro-Magnons, Lok is forced to assume leadership. In attempting to fulfill his new responsibilities, he makes a feeble bid to provide direction. "'To-day we shall hunt for food" (chapter 5). The response of the old woman reflects the incompetence of his effort. "The old woman wailed pitilessly. There was still food piled in the recess, though little enough was left. What people would hunt for food, when they were not hungry and there was food to eat?"

Our most recent information indicates that the Neanderthals were big game hunters. Their diet consisted largely of meat (Richards et al., 2000). Golding

did serious research into paleoanthropology (Biles, 1970, pp. 106–107), and at the time that he wrote, the available information supported his supposition that the Neanderthals were a scavenging people. This whole issue was still controversial even in the 1990s. (See Mellars, 1996, pp. 220–244; Stringer and Gamble, 1993, p. 161.) Factual accuracy in historical reconstruction depends on the information available at the time of writing. The artist can work only with the materials at hand. For the purposes of art, what counts is not whether this information is factually correct but whether the initial premise is reasonable and whether the artist has succeeded in developing this initial premise in a coherent and meaningful way.

For an ecology of scavengers living in rock shelters, the rhythms of cognitive life would be very closely tied to the immediate sensory world. For a small band that is faced with a daily struggle to find adequate food and to defend itself against predators, the sense of collective, communal life would be very strong. In the passage below, Golding captures both these aspects of their mental life. The passage comes early in the story. The band has just arrived at the rock shelter by the waterfall and has built a fire. They are relaxing after the dangers and discomforts of the journey:

The old woman moved softly, pushing in more wood so that the red spot [glowing coals] ate and the flame grew strong. The people watched, their faces seeming to quiver in the unsteady light. Their freckled skins were ruddy and the deep caverns beneath their brows were each inhabited by replicas of the fire and all their fires danced together. As they persuaded themselves of the warmth they relaxed limbs and drew the reek into their nostrils gratefully. They flexed their toes and stretched their arms, even leaning away from the fire. One of the deep silences fell on them, that seemed so much more natural than speech, a timeless silence in which there were at first many minds in the overhang; and then perhaps no mind at all. So fully discounted was the roar of the water that the soft touch of the wind on the rocks became audible. Their ears as if endowed with separate life sorted the tangle of tiny sounds and accepted them, the sound of breathing, the sound of wet clay flaking and ashes falling in. (chapter 2)

The delicacy of sensory evocation here is not that of a hypersensitive, post-Romantic poet. It is the delicacy appropriate to a people for whom finely discriminated sensory perception is an adaptive necessity. The quality of lyricism derives from the blending of perceptual intensity with the mood of comfort, peace, and communion that is appropriate to the occasion and that emerges out of the rhythm of the day's activities.

I shall offer one further example to illustrate Golding's evocation of the Neanderthals' perspective. In this passage, Lok is on guard at the rock shelter, before the Cro-Magnons have made their presence known, and while the Neanderthals are aware of no danger more serious than the recent presence of hyenas: Lok squatted to one side and looked out over the dark waters. There had been no conscious decision but he was on watch. He yawned too and examined the pain in his belly. He thought of good food and dribbled a little and was about to speak but then he remembered that they were all asleep. He stood up instead and scratched the close curls under his lip. Fa was within reach and suddenly he desired her again; but this desire was easy to forget because most of his mind preferred to think about food instead. . . . His eyes considered the stars without blinking, while his nose searched for the hyenas and told him that they were nowhere near. . . .

The island dimmed, the wet mist stole towards the terrace, hung under the arch of the overhang and enveloped the people in drops that were too small to be felt and could only be seen in numbers. Lok's nose opened automatically and sampled the complex of odours that came with the mist.

He squatted, puzzled and quivering. He cupped his hands over his nostrils and examined the trapped air. Eyes shut, straining attention, he concentrated on the touch of the warming air, seemed for a moment on the very brink of a revelation; then the scent dried away like water, dislimned like a far-off small thing when the tears of effort drown in it. He let the air go and opened his eyes. The mist of the fall was drifting away with a change of wind and the smell of the night was ordinary.

He frowned at the island and the dark water that slid towards the lip, then yawned. He could not hold a thought when there seemed no danger in it. The fire was sinking to a red eye that lit nothing but itself and the people were still and rock-coloured. He settled down and leaned forward to sleep, pressing his nostrils in with one hand so that the stream of cold air was diminished. He drew his knees to his chest and presented the least possible surface to the night air. His left arm stole up and insinuated the fingers in the hair at the back of his neck. His mouth sank on his knees. . . .

There came a noise from the foot of the fall, a noise that the thunder robbed of echo and resonance, the form of a noise. Lok's ears twitched in the moonlight so that the frost that lay along their upper edges shivered. Lok's ears spoke to Lok. "?"

But Lok was asleep. (chapter 2)

The rhythm of desire and impulse in this sequence is not much different from that in a modern mind, but there are no higher layers of temporal concern, no anxiety about distant events, no obtruding memories, no complicated tangle of reflections involving self-images, abstract concepts, goals, values, and calculations. Hunger and sexual desire are the only active sources of impulse. There is nonetheless a constant and vivid stream of mental events, consisting of sensory impressions cued to information relevant to potential dangers.

Nothing in Lok's experience is alien to us, except as a matter of degree—the intensity and subtlety of his sensory perceptions. (Lok's ears and nose are so highly developed in their operations that they function almost as independent agents. "Lok's ears spoke to Lok.") His effort to analyze the odors in the air warming in his nostrils remains at the level of pure sensory awareness, but it nonetheless follows a cognitive pattern instantly recognizable to anyone who

has struggled to formulate an inchoate thought but then lost the thread and abandoned the problem as too faint and evanescent for solution. Even the absence of higher reflection is familiar to us as a local passage in the sequence of our own mental events. The sensations of locating one's self in a physical place, registering the presence of one's own people, scanning the environment for dangers, and feeling secure in the command of that environment—all those experiences are of such elemental importance that they place our own hypertrophic capacities for abstract reflection in perspective, reducing them in their proportions relative to the basic conditions of life.

In retrospect, the reader knows that the odor and sound from the island are indications of the Cro-Magnon camp and thus signs of the menace that will destroy the band, but as we read we are kept entirely within the pace and sequence of Lok's own perceptions and responses. The sense of a mortal danger almost glimpsed, and then lost, is as much a part of our experience as it is of Lok's. On this elemental level, Lok is one with the characters of Sophocles and Shakespeare, and Golding makes this connection possible without falsifying the actual scope of Lok's cognitive powers.

The total effect of the passage is to place us emotionally and cognitively inside Lok's skin, contracting its exposed surface to preserve warmth against the night air. As has often been remarked by Golding's critics, a performance like this is a tour de force of technique, an instance of dazzling virtuosity in narrative method. It is also an instance of a large and generous moral nature. Without preaching, without didacticism, simply by enabling us to share in his own achievement of imaginative sympathy, Golding gives new depth and breadth to our capacity for sharing in the experience of other creatures. He takes us outside the limitations of our own particular identities and our own local cultural values. He enables us to register our common nature not merely on the level of "human universals" but on the level of universals that extend beyond the characteristics of our own species.

When the point of view shifts to the Cro-Magnons, the whole cognitive landscape changes. It becomes more complex and sequential; there are layers of suppression and deceit, complex emotions of shame, embarrassment, and remorse, and the capacity for complex symbolic thought. All of this comes together in a single image at the end of the story, as the survivors of the Cro-Magnon band are floating across a lake in their canoe. Speaking of the "forest devils" from whom they feel they have escaped, the leader Marlan says, "'They live in the darkness under the trees'" (chapter 12). For the protagonist Tuami, this statement precipitates a moment of symbolic perception:

Tuami looked at the line of darkness. It was far away and there was plenty of water in between. He peered forward past the sail to see what lay at the other end of the lake, but it was so long, and there was such a flashing from the water that he could not see if the line of darkness had an ending.

A symbol in literature is an image, often an aspect of the setting, that is an integral component of the represented action and that functions metaphorically to signify the thematic implications of that represented action. For both Tuami and Golding, the scene on the lake crystallizes itself into a symbol for the human condition. The darkness is a natural metaphor for evil—for objects of terror lurking out of sight, for horror and self-loathing. The flashing of the light is a metaphor of mental reflection, at times not illuminating the world but blinding us to it. The water with its flashing of reflected light is an image of the future, stretching out beyond the visible horizon. The flashing of light obscures perception and leaves the protagonist suspended in uncertainty, but it is also epiphanic, a visionary culmination in its own right. The tone is complex and divided: relief at the escape from the darkness behind, a sense of temporary security, and anxiety about what lies ahead. In this one symbolic image, Golding has compacted all the latent complexity of the modern mind, and the capacity to think symbolically is itself one of the defining features of that mind. (See Mellars, 1996; Mithen, 1996, 2001; Stringer and Gamble, 1993; Tattersall, 1999.)

Golding's handling of point of view serves as the medium for his absorption into the experience of his characters, and it thus reflects his creative motives and the quality of his mind. It reveals that one of his central motives is the relatively pure and disinterested desire to exercise the power of sympathetic insight into the experience of other sentient creatures. Neither the Neanderthals nor the Cro-Magnons function merely to reflect ideological values or to serve as vehicles for narcissistic fantasy. They are not idealized, sentimentalized, or glamorized. They are treated with respect as figures of inherent interest and value.

The Neanderthal protagonist Lok is foolish, easily distracted, often baffled, and ultimately helpless, but he is also vividly alert to the world around him, and he is warm and loving. He accepts his lowly place in the band without petty egoistic concern; and when he realizes that he must be the new leader, after the deaths of Mal and Ha, he struggles heroically, though ineffectually, to fulfill his mission. He has a lot of heart, and the depth and sincerity of his feeling for the band invest him with dignity. The new people "had tugged at the strings that bound him to Fa and Mal and Liku and the rest of the people. The strings were not the ornament of life but its substance. If they broke a man would die" (chapter 4). There is a deep pathos in Lok's ultimate solitude and defeat. That pathos is conveyed in the blankness of the sudden shift to an objectivized perspective as he lies down to die. After we have been so deeply immersed in his point of view, being taken out of it and being made to see him only externally, from the outside, as an alien creature, has the sensation of a death, of a sudden, final separation.

The Cro-Magnon protagonist Tuami is frightened and secretive, and his mind is weighed down with foreboding, suspicion, resentment, and guilt. His

social world lacks the simple and instinctive bonding that distinguishes relations among the Neanderthals, but he has a dignity of a different sort—of the sort that is illustrated in the final moment of symbolic imagery on the lake. His world is complex and full of sinister mystery, but he is cognitively adequate to that world. He has helped Marlan, the leader, to steal a woman from their parent tribe, but he already plans to assassinate Marlan, and he secretly sharpens an ivory knife for that purpose. This anticipated act of treachery forms part of his sense of the darkness in his world. He is not morally obtuse. He is a tragic protagonist and not merely a villain. Like Macbeth, he is conscious of the evil he commits, and he suffers from that consciousness. He does not speak in soliloquies, but he articulates his experience, for himself, in symbolic imagery. In that imagery, he suppresses none of the conflicted elements of his moral consciousness, and he makes even his own confusion an integral part of the symbolic complex. Golding's sympathy for Tuami is not less than his sympathy for Lok. In the final words of the novel—"he could not see if the line of darkness had an ending"—Golding's own perspective and that of his Cro-Magnon protagonist converge into a single point of view. (On Golding's symbolism and the thematic significance in his manipulation of point of view, see Babb, 1954, pp. 53-61; Kinkead-Weekes and Gregor, 1984, pp. 110-118; Tiger, 1976, pp. 69–70, 74–75, 86.)

The interplay between the points of view of the Neanderthals and the Cro-Magnons provides a medium for articulating Golding's ambivalent vision of human nature, and it thus mediates the largest thematic purposes of the story. The Neanderthals are both entranced and horrified by the new people. By looking at the Cro-Magnons from the Neanderthal perspective, Golding evokes the strange and singular fascination of modern humanity, with all its ingenuity, its grotesque social and mental complications, and its cruelty. From the other direction, looking at the Neanderthals from the modern perspective, Golding conveys a sense of the simpler, more elemental realities of human life. In one scene in the final chapter, the Cro-Magnons collectively participate in this more humane perspective. The Cro-Magnons have taken the Neanderthal baby with them, and it has been adopted by a woman, Vivani, who has lost her own baby. The Cro-Magnons are both fascinated and repelled by the simian character of the baby:

He sniffed, turned, ran at Vivani's leg and scrambled up to her breast. She was shuddering and laughing as if this pleasure and love were also a fear and a torment. The devil's hands and feet had laid hold of her. Hesitating and half-ashamed, with that same frightened laughter, she bent her head, cradled him with her arms and shut her eyes. The people were grinning at her too as if they felt the strange, tugging mouth, as if in spite of them there was a well of feeling opened in love and fear. They made adoring and submissive sounds, reached out their hands, and at the same time they shuddered in repulsion at the too-nimble feet and the red, curly hair.

Tuami already anticipates the time when the cute Neanderthal baby will be a fully grown male of an alien species, and he wonders "what sacrifice would they be forced to perform in a world of confusion?" Nonetheless, for a moment, the baby serves as a temporary point of collective emotional poise. The baby gets turned upside down in Vivani's hood, and as his rump waggles in the air, everyone laughs. The laughter releases tension and ill will, and for a moment the group is in harmony. "They were an answer, the frightened, angry love of the woman and the ridiculous, intimidating rump that was wagging at her head, they were a password." The cruelty of ritual sacrifice that Tuami anticipates is one answer to "a world of confusion." Another answer is that of comedy—the upturned rump, the human animal divested of its mystery and surrounded by human warmth.

What We Can Claim

The criteria I have invoked in assessing these three novels are universal in their application. All novels involve authors, readers, represented subjects, and formal structures. For all authors, quality of motive and quality of mind are critical factors in the social exchange between author and reader. Readers can be more or less adequate to an author's intentions, and they can refuse complicity with intentions that they feel are ignoble or degrading. The author nonetheless holds the initiative in this exchange. It is for him or her to propose some structure of meaning. Meaning in fictional narratives inheres in a represented subject some sequence of actions by characters living in a world. Fantasy and symbolism often involve some deviation from simple realism, and the literal accuracy of a depiction is not a decisive factor in the quality of fiction. Seriousness and honesty in the conception of a subject, in contrast, are decisive factors, and for those factors, Darwinian social science can provide us with important conceptual measures. One measure is the internal organismic coherence of a represented subject, and another is the integration of an organism and its environment. Those measures hold good whether the subject consists in Neanderthals splattered with mammoth blood or gentlemen and ladies exchanging civilities in a drawing room. The formal features of a literary work—the plotting, scenic construction, thematic order, symbolic imagery, style, and tone—are all dependent on the integrity with which an author conceives of the represented subject. The ultimate formal properties are coherence and integration, and one classic criterion of literary merit is the degree to which an author in any given work succeeds in integrating all the elements of that work: the represented subject matter, the organization of the narrative, and the theme, tone, and style. We cannot claim any absolute, transcendent source for aesthetic values—whether those of motive and quality of mind, those of integrity in the conception of the represented subject, or those of formal integration. What we can claim is that certain specific qualities satisfy our own cognitive needs. We can hypothesize that the need for cognitive order is an adaptive response to "a world of confusion," and we can explain how certain works, for us, satisfy that need, or fail to.