
From the Fossils to the Clones: On Verbal and Visual Narrative

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During the 1790's, much like the 1990's, the few decades before, during and after, nearly every idea, value, practice, concept, episteme, paradigm included its opposite. But this age of contraries never amounted to the progress that Blake anticipated: religious and secular, literary and scientific, traditional and innovative concepts of nature, God, and human life co-existed in ways that would puzzle someone living in contemporary compartmentalized knowledge. Rather, someone such as Coleridge, for example, intellectually engaged and massively learned, practiced double-think, as Seamus Perry called it, or even kaleidoscopic thinking, finding life in the half-truths, that Keats identified with greatness. For example, at the intersection of science, religion, and technology, the same concept of infinity that William Herschel, the astronomer, and James Hutton, the geologist, found so provocative inspired apocalyptic cults and terror in some, and the invention of personal time itself by others along with instruments to measure it such as pocket watches, schedules, deadlines, and, consequently, belatedness. Politically and socially, similar oppositions led some to fight wars for individual human freedom while others created the mind-forged manacles of manners and morality to regulate private life.

Even narrative forms generated opposites. Biblical or epic narratives depicted, shaped and reflected human history as spatial, temporal, with heroes and villains, a succession of developing events, a climactic point, a revelation, a clarification, resolution, reconciliation, or apocalypse (Abrams). But the new natural histories and post-Kantian explorations of inner life required non-linear narratives such as philologists had recovered from the oral tradition: oral narratives are episodic, synchronic (things happening simultaneously), symmetrical (containing opposites), a-temporal (without beginning or end), anonymous, collective, populated with composite, impulsive, a-moral figures. Without a definitive beginning or end, or even location, they are perennial, recurrent, and universal.

These oral narrative forms survive like cultural fossils, like cave paintings or runes, compressed, symbolic, the vestigial remains in contemporary oral communities, in the non-literary or pre-literate expression of the uneducated, or as an alternate form of expression for literate speakers who use the oral mode. The new descriptive and empirical natural histories of the 1790's required them: Hutton's geology, Herschel's astronomy, Priestley's and Dalton's chemistry described a universe without origins, ends, or limits. Similarly, if there were agency, a creator, and ancestors, they were beyond knowing, outside the narrative. Fossils and clones, the topic of my paper, were among the many dualities of the sciences in the 1790's, which reflected these oral narrative forms.

My title, "From the Fossils to the Clones" is from Jean Baudrillard, *Fragments: Cool Memories III, 1990-1995*. In the conclusion to *Jurassic Park*, in which "the cloned neo-dinosaurs wreck the museum and wreak havoc upon their own fossilized ancestors," Baudrillard saw "the fate of our own species, trapped between its fossils and its clones" (138). Human beings, he continues, having mastered the universe, are no longer concerned with their "evolution" but with their "disappearance"—which explains, he believes, "our" interest in dinosaurs. Using the implicative, corporate, collective, editorial and royal "we," he concludes, "we are using the dinosaurs to flirt with our own abolition as a species. We are projecting ourselves into the past in the form of the only species whose domination was as total as ours. . . [they are] "our model of disappearance," "prey" to the clones of our own invention." While Baudrillard began as if he were going to explain why people collect, display, recreate and animate fossils, even make movies about them, he concludes with a vision of clones as if they were Frankenstein's monster, virtual beings, automata, the opposite of fossils and threatening to humans. In the process, he moved from the factual fossils to the fictional clones; from the right evidence, he created the wrong story, and framed it in the wrong narrative, a literary narrative with agency, a plot and an ending rather than

the oral narrative form, collective, synchronic, symmetrical—equally suited to the visual experience he is describing.

Similarly, Baudrillard considered clones in another inappropriate literary narrative, equating them with sinister virtual beings. Historically, clones, like fossils, are ancient and natural, referring to any organism that reproduces a-sexually such as worms, viruses, salamanders, tulips, potatoes. While cloning can also refer to selective breeding of both plants and animals, even house pets, some socio-biologists, have proposed that organisms actually engineer people to clone them to survive. Metaphorically, cloning entered the industrial world in the 18th century referring exclusively to replication, to manufacturing, creating a prototype and copying from it, standardizing, reproducing anything from dishes and pictures to poems, newspapers, colors, textiles, and fashion itself. The new musical instruments and the spread of musicianship also depended on the idea of cloning, a device that with the same human gesture, no matter who played, where, or what tune, would produce the same sound which could be varied infinitely according to the combination and order. Coins, maps, rulers, clocks, scales, recipes for soap, and, when manufacturers discovered sizing, shoes, gloves, hats were also dependent on the idea of cloning. Instead of being copied by human hands, or voices, or grown in nature, clones referred to anything in multiple copies, made by machines, standardized, regularized, produced by the dozen instead of one at a time, distributed, purchased or traded in distant places.

Again, in the 1790's, the idea extended to writing: Erasmus Darwin found writing so laborious that he devised a duplicating machine, two pens attached to his writing hand both inscribing at the same time. The typewriter, invented in 1808, and carbon paper allowed one to clone individual expression and by-pass the deviations of individual handwriting. Unlike cloning in nature, as Keats says in *Ode to Psyche*, which "breeding flowers will never breed the same" (60-64), the manufactured clones are always the same, from prototypes of something that people want to the stereotypes that fulfill their desires: editions, films, reproductions of paintings, blue jeans, the universal menu at MacDonaldis, apartment houses, cars. Curiously, when some of Dr. Frankenstein's descendants set out to clone living things, they cloned frogs, sheep, and pigs, fourteen of them in Italy in November, 2005, pigs, not black orchids or even humming birds—which shows the imaginative limitations of those solely devoted to cloning. For them, creativity and originality, the unique or idiosyncratic are not options—that's for fossils.

Clones are menacing, as Baudrillard implies, because human beings, then and now, fear multiplicity even as they pursue abundance. In the industrial world, clones have become, as Eric Wilson calls them in *The Melancholy Android: On the Psychology of Sacred Machines*, "the new golem," artificial beings, "genetic doubles" with alien scripts who will rise up and destroy their makers (131). Repetition, reflection, resem-

blance are both appealing and appalling: while people like the familiar, the predictable, things that match, stuff that comes in pairs, or by the dozen, they also worry about the prolific, as Blake called it. People are attracted to crowds, create crowds, stand in lines, pursue fashions, fads, even as they fear being overcome by the many and the more, by over-population, the statistical, actuarial, averages and majorities, resist becoming typical and the tyrannical sameness collective life.

Clones have their poetry: Coleridge believing that the imagination is a "repetition in the finite," found inspiration in imitation, reflection, representation, even plagiarism, the image of poems giving rise to poems "a nightmarish power of endless growth and self-reproduction" (*CL*. III: 439; Perry 88), like the "thousand thousand slimy things" with which the Mariner is surrounded after he kills the unique, singular, archetypal Albatross. Here, the Albatross, resembling the recently discovered pterodactyl, is the embodiment of fossils, without which clones would not exist—or alongside which clones always exist, their necessary opposite.

The Romantic writers were the first generation to know that they lived in a world of fossils, that the bones and debris littering the landscape were the remains of monsters, aberrations such as leviathans, dragons, unicorns, even giraffes. Fossils came into being, literally, in the 1790's as part of a quest for origins, originality, authenticity, authority, with which theology, philosophy, natural history, literature and the arts were preoccupied everywhere. Fossils, unique, static, original, evidence of creation arrived just as philosophers such as Malthus were thinking about proliferation, about the reproductive energies of clones, or as Edward Young had complained in 1759: "Born Original, how comes it to pass that we die copies?" Fossils and clones were different expressions of the same experiences, the oppositions, the contraries that characterize the decade.

Although fossils had been around for as long as human history, each age, until the 1790's, offered a mythological interpretation of them. The ancient Greeks thought fossils were the remains of Cyclops and Griffiths. In Gilgamesh and in the apocryphal Book of Enoch, they were the remains of monstrous children born to human women and the sons of God. In *Theory of the Earth*, Cuvier mixed science and myth, interpreting the bones as evidence of catastrophe, which on a literary level inspired a lot of clones, at least five long poems Gayle Shattuck discussed in *England's Amorous Angels, 1813-1823*, as well as two of Byron's plays, *Cain* and *Heaven and Earth*. A tale of recurrent trauma and revolution, this catastrophic geology explained fossils as the previously unthinkable extinct species, natural relics of the last divine intervention, and the earth as a giant graveyard of divine mistakes. It extended what had become in England, certainly, but also on the Continent a culture of death, a subtext of decay, fragmentation, and body parts that had survived for nearly a hundred years in the graveyard poetry of Young,

Blair, and Gray, in gothic ruins, architecture, novels, fragments of pottery and bone recovered from Pompeii and Herculaneum, the stratified anatomical displays in the Hunterian museum, the Elgin Marbles, Dr. Frankenstein's monster, and Byron's vision of post-war Europe as a giant graveyard for youth and heroic history. Excavating many of his fossils in Montmartre, the mountain where the beheaded Christian martyrs were buried or where bodies had been thrown because the cemetery was full, Cuvier himself was expressing those same morbid preoccupations that arose unaccountably during an age identified with reason, validated by experiment, repetition, duplication.

Cuvier's catastrophism held great literary and artistic appeal: the narrative was familiar, biblically and politically, and sequential, with an author, agents, good and evil, and a reconciliation, a promise at the end. While Shelley, criticized his generation for lacking "the creative faculty to imagine that which we know" (*Defense of Poetry*), he imagined Cuvier's catastrophic flood in the old narrative form, spatial, sequential, with agents and consequences: the "canceled cycles. . . uncouth skeletons,/. . ./Huddled in gray annihilation, split,/Jammed in the hard, black deep; and over these, /The anatomies of unknown winged things, /. . . and on the slimy shores, /And weed-overgrown continents of earth,/ Increased and multiplied like summer worms/ On an abandoned corpse, till the blue globe/Wrapped deluge round it like a cloak, and they yelled, gasped, and were abolished. . ." (*Prometheus Unbound*, IV, 297ff). Like Shelley, John Martin, in his painting "The Deluge," depicted the Flood in great narrative detail, initiated by a wayward comet, pterodactyls, giant iguana, dragons, mammoths, semi-nudes in Grecian poses, an angel overhead. Cuvier claimed that it was "absolutely authentic."

However simple the bone or shell, fossils were too complicated for a literary narrative. Like jewels, they were part nature and part culture, survivors of another history, and like jewels, insects, birds eggs, feathers, and botanical specimens, they also joined a social and economic narrative, specimens one could sell, swap, or exhibit. (Mitchell, Pascoe).

To naturalists, fossil-hunting was the romance of nature comparable to any literary romance, the quest for treasure, the unique, authentic, the grail. The "nightmarish" reproductive energies of clones, their boundless proliferation in the factories in the north of England, were offset by fossil-hunting in the south, in the sea-shells Mary Anning was collecting off the shores of Lyme Regis. In the 1790's, politically, the elitism of the fossils, the one, was offset by the diffusion of the clones, the many, and the clone's affirmation of the universal and common lay behind political ideals such as all men being created equal or the greatest happiness for the greatest number and the majority rules.

Fossils even promoted a figure of speech, the synecdoche, the part that represents the whole, the symptom that

defines the disease, the bone from which one can infer not only a whole animal but a whole society, the flag, the coin, the icon, the single "Tree, of many, one/A Single field" that "speak of something that is gone" (Wordsworth, *Intimations Ode*, 51-53), the Solitary Reaper simulating the history of song, the "mighty world of eye and ear," of all sight and sound summed up in body parts. Fossil memories appear in such geological synecdoches as the Rosetta Stone, Blake's "Eternity in a grain of sand," real ruins such as Stonehenge or the imaginary *Ruined Cottage*, the melancholy relic of a lost paradise, a lost pastoral community, the self-sufficient society. More condensed fossil histories survive in a single stone evoking the French Revolution in *The Prelude* (IX, 63-64), or the evolutionary history of humankind in *Resolution and Independence*, or, in *Michael* an arrested generational history in an unlifted stone,

Synecdoche, fossil-thinking, compression, allusion, and ellipses characterize oral narrative— illustrated in ballads and nursery rhymes, cultural fossils as mysterious as any bone or shell—and those historical activities which used its protocol: paleontology, archaeology, geology, anatomy, folklore, Biblical studies, mythography and philology— systems of thought based on the belief that there is a single language, tale, narrative, or form from which all others are descended, languages or tales in which the original is still visible. This analogy between folklore and fossils, which are both products of the 1790's, leads to two coincidences, which I must admit, seem more meaningful than they are: first, Cuvier's *Theory of the Earth* was published in English the same year as the Brothers Grimm's collections of tales (1812) secondly, the word "folklore" was coined in 1842, the same year as Robert Owen coined the word "dinosaur."

These descriptive historical sciences still depend on synecdoche, not only fossils but also fossil thinking: millions of biological years are derived from one specimen, fragment, relic, a skull, a leg bone, a frozen hunter, seldom a group or a tribe. An anthropologist working in Tanzania discovered a small donut-shaped ostrich shell which he interpreted as a deliberately carved ornament for decoration or ritual, a synecdoche for the first appearance of symbolic behavior, of speech, art, abstract thought, the very origins of what it means to be human. The discovery and dating of a single shell, shifted the boundary of human consciousness back fifteen thousand years, from 35,000 BC to 50,000.

Similarly, one DNA code identifies a human being, one version for each individual, each bit a synecdoche for the whole history of the species, of all species. Mitochondria, a particle within DNA, another synecdoche marks the human descent through the female line back to a prehistoric female ancestor, of which they claim, there were only seven (Sykes, Lane). The ultimate synecdoche, however was a molecule extracted the oldest meteor ever discovered, 4.6 billion years old, a symmetrical molecule which resembled a soccer ball, or a geodesic dome, and called a Buckyball, after Buckmin-

ster Fuller who invented the architectural form, voted “Molecule of the Year” in 1985, “the most magnificent molecule ever known.” In 2003, astronomers concluded that the entire universe was shaped like a Buckyball, that the molecule was a microcosm, a synecdoche, and that the universe itself, therefore, was finite, bounded and reflecting like a hall of mirrors. Again, the fossil molecule had become the repetitive clone.

Such fossil or synecdochal thinking characterizes folklore, philology, and those cognate disciplines which originated in the 1790’s. While languages and the tales they carry may appear to be different on the surface, they have a common ancestor, a fossil ancestor, a single source, a monogenetic descent. Clones, on the other hand, are polygenetic: analogous ideas, languages, forms of life and rituals arising spontaneously, synchronically, without influence. Individuals develop by predictable stages from thumb-sucking to kicking things and whole societies pass from hunter/gatherers to urban slums without examples, encounters, or instructions. Polygenesis explains the appearance of 211 versions of “Cinderella” in Tibet, South Africa, and among Canadian Indians, and comparable celebrations for the same solar event, the spring sacrifice, the autumn burnings

After the 1790’s most natural history subtly combined monogenesis and polygenesis, fossils and clones. A monogenetic creation, whether by a God or a Big Bang, self-sustaining, recycling, but also self-replicating, happening repeatedly, sometimes in other galaxies or new species. For example, Hutton’s landscape narrative begins with a grain of sand, a pebble, falling into a stream, deflecting the water, eroding the opposite bank, creating a curve that the waters over-ride, and soon a valley floor, disrupted by earthquakes lifting up mountains, volcanoes, hurricanes, tornados, draught, all shape the landscape and the life that was possible to be lived on it: the one is followed by the many, the Big Bang by the re-cycling. Like oral narratives, the story is episodic, symmetrical, indeterminate, repetitive, the fossils becoming clones.

Photosynthesis similarly combines fossils and clones: believing that God breathed life into an original man, Lavoisier and Priestley then demonstrated that human beings, like animals, even plants, are totally dependent on the air they breathe, that it is produced in a wonderful cyclical process, the rain, sun, chlorophyll convert toxic gasses into living air, a favorite phrase of both Coleridge and Wordsworth. Similarly, Dalton depicted a world full of particles, atoms, recycling all the time, and human beings as re-incarnations, their parts dispersed and re-appearing in other people and places, endlessly cloning. Finally, Darwin himself, in his magisterial conclusion to *The Origin of Species*, carefully balancing the fossils and the clones, explained differences: the life “breathed by the Creator into a few forms or into one. . . from so simple a beginning endless forms most beautiful and most wonderful have been, and are being evolved.”

The theory of evolution however, and much of the conflict around it, arises from this narrative form, reflecting the Biblical and fictional narratives of its time as Gillian Beer revealed in *Evolutionary Narrative in Darwin, George Eliot, and Nineteenth-Century Fiction*. Similarly, to explain how the unique fossil became replicated into clones, Richard Dawkins in *The Ancestor’s Tale* depicts evolution on the model of *The Canterbury Tales*, which he reads as literary rather than the oral performance which Chaucer brilliantly captured—and may have led him to other conclusions. Stephen J. Gould and Niles Eldredge, on the other hand, in a theory called “punctuated equilibrium” explained the processes of evolution by implicitly adopting the oral narrative form to explain the episodic, repetitive, symmetrical, synchronic, unpredictable, and anonymous evolutionary tale. When Gould enlarged on the theory in *Times’s Arrow; Times Cycle: Myth and Metaphor in the Discovery of Geological Time*, the very title captured the terms of oral narrative. In other words, while it is a commonplace to see narrative in science, indeed to see it everywhere, few recognize the many distinctions between literary or written narrative and the oral—not only as it existed in primitive societies but also as it is practiced by contemporaries. According to Walter Ong, the mechanical reproduction of the human voice, which he called the second orality, recording, transmitting, translating it into computers and digital technology requires the same structural characteristics and narrative forms as the first orality.

In the 1790’s, fossils and clones appeared in a series of related visual images: pterodactyls, angels, vampires, and dragons. Although they have diverse origins and histories, folklore, religion, or literature made them familiar, and this familiarity helped human beings conceive and assimilate the strange, menacing, and unprecedented fossil images. The fictional, in other words, and the folk-culture overcame the cognitive dissonance generated by the factual. Pterodactyls make sense because they resemble what people believe dragons, vampires, and angels look like, even though they are mythic and often invisible. Subsequently, in later periods such as the 1990’s, they seem to bring one another into being, appearing together like a little repertory company. Real or imaginary, they are all boundary creatures, hybrids, reflecting the conflicts they expressed, mediating between the physical and the spiritual, past and the present, nature and culture, animal and human, the quick and the dead. Like the oral narrative of the same period, the contraries, the oppositions, turn into one another, superstition into fact, history into fantasy, science into fiction, and back again. For example, when archaeologists discovered the bones of tiny people in a cave on the Island of Flores, in 2004, they called them Hobbits and developed a narrative around them worthy of Tolkien himself, identifying the other skeletal remains as ferocious dragons, miniature elephants, and giant rats the Hobbits had defended themselves against before dying out a mere 18,000 years ago— although surviving, in the oral narratives according to the natives who were interviewed. So folklore lends authenticity to science, and science to myth,

but, whatever their biological fate, through the literary narrative, the Hobbits were extinct. If scientists had chosen the more appropriate oral narrative, they would have evolved, been recycled, or simply disappeared.

In *Darwin's Century*, Loren Eiseley explained this relation between science and fiction in a way that accounts for the simultaneous appearance of the fossils and clones in the 1790's, for the stunning creativity of the Romantic period—and, for my purposes, for the resemblances among angels, dragon, vampires, fossils and pterodactyls. Before Darwin, he writes, "Scientifically, man's oldest records told him nothing of himself. . .trapped as he was within the ominous and enigmatic present, man becomes addicted to a naïve supernaturalism. . .peopled the nature about him with baleful or beneficent beings which were often, in reality, the projected shadows of his hopes and fears. Man was a creature without history, and for a thinking being to be without history is to make him a fabricator of illusions. His restless and inquiring intellect will create its own universe and describe its forces, even if these are no more than the malignant personifications which loom behind the face of nature in the mythologies of simple folk" (27-28). Catastrophic theory, which survived for fifty years, was such an illusion, a transitional narrative between Bishop Ussher's old universe and Darwin's new one, a narrative frame that accommodated both the real fossils and the fictional clones, the pterodactyls, which were real, and the angels which weren't, the dragons and vampires which felt real enough.

I began this study with what I thought was a simple question: if Cuvier only had a few bones (discovered in 1784) and there were no prototype, and he assumed that they came from an earlier creation, and he had no picture or description of whatever it represented when it was alive, why did he believe that it resembled a flying lizard? And, after fussing with it for a couple of decades, in 1809, why did he give it a Latin name and call it a pterodactyl? His image may be personal, an early encounter with bats and crocodiles, or it may be archetypal, embedded in the pre-verbal reptilian brain, a vestige from a primitive encounter as Sagan claims in *The Dragons of Eden*. Or it may be, as Charles Lamb claimed in "Witches and other Night Fears," the "transcripts," he calls them, "archetypes," surviving as a mental fossil in some primitive part of the brain, visiting children at night even when they have been shielded from such imagery, surviving as Wordsworth said, "in our embers."

For Cuvier, the pterodactyl, a flying dragon or reptile, its huge wings, reptilian head, had many literary sources in the dragon-imagery in the closing decades of the 18th century: Biblical (both Revelations and a popular versions of St. George that appeared in illustrated Bibles for children), Osian and Boewulf, the *Arabian Nights*; neo-Spenserian verse, gothic novels and ornamentation, coats of arms, such popular Germanic folktales as the Brothers Grimm collected, staged and dramatized even before they were translated. All

these narratives included or alluded to flying dragons, often identified with nature, the demonic or satanic, protecting their secrets, their powers and treasures, alienated from divinity, from spirituality, devouring human antagonists or lusting after their virgins. Signs of an abandoned natural world, with both religious and secular connotations, dragons proliferated like clones across a believing culture that hungered for the supernatural, in which passionate apocalyptic cults, tent missionaries, Joanna Southcott, Joseph Brothers, Swedenborgians all thrived. Did pterodactyls give power to the dragons or did the dragon tales give form to the pterodactyls? Is the greater mystery that science, if Cuvier was practicing science, and fiction, if folktales are fiction, give shape and voice to each other?

Angelic history took an odd turn as well during the same decade. Originally, as depicted on vases and friezes in the 3rd century BC, angels were, like the dragons, hybrid animal-human figures, often birds, messengers or intermediaries between human beings and the gods they worshiped (Bloom), as a-moral as Hermes, an angelic analogue. In the first century, the animal messengers, now including animals such as dogs, cats, cows, and lions, acquired wings to travel to the gods who been celestialized, wings they retained like vestigial limbs even in their later incorporeal state. In the apocryphal Book of Enoch, as God's sons, angels lusted after mortal women, producing the monsters that God destroyed in the Flood. In the 1790's, while fossils acquired a spiritual history, angels entered cultural history, evolving in song, poetry, art, from the primarily masculine warriors, disciplinarians, musicians, enforcers familiar in *Paradise Lost* into ghosts of the virtuous dead, the infantile cherubs or feminine insect angels, with long curly hair, feathered wings, diaphanous gowns, or guardians of the living.

The vampires of the 1790's, like witches, pagan in origin were descended from earth goddesses, enraged, displaced, unreliable, and a-moral, the uncommitted or those who fell with Lucifer. Explicitly as in Southey's *Thalaba*, Coleridge's *Christabel*, or Keats's *Lamia*, they were shape-shifters, appearing as birds, bats, serpents, irresistible women, but all resembling the familiar angel/flying dragon/ pterodactyl. Taking the same predatory delight in destroying innocent women as the angels of Enoch, some believed the vampires were also their monstrous off-spring who had survived the Deluge, God's grandchildren so to speak. The also acquired power from contemporary medical knowledge and practice: infecting, maddening, destroying, vampires accounted for blood-born diseases and the derangements of puberty. Since disease itself was conceptually in transition from an inner disorder to an invasion of alien elements, vampires accounted for both the disease and the prevention, such counter-invasions as breathing strange gasses or vaccination—Jenner's thesis was published in 1798. Suspended between the living and the dead, and what has never been born at all, they are the ultimate clones: they do not procreate; they appropriate—a kiss, an exchange of body fluid, and suddenly, more,

until, as James Twitchell observed, the number of predators exceeded the number of available victims and everyone becomes a vampire.

Romantic writers and thinkers, painters and shopkeepers were the first generation to live in a world that contained fossils and clones and, as their heirs, we live in a world that contains nothing but them. The pterodactyls, dragons, angels, and vampires, still resembling one another, accumulated referents and meanings, from the mysterious, mythological, scientific, to aesthetic, fictional, ultimately popular and commercial—decorative vampires and angels, comic, pathetic, menacing, appear as toys and on tee-shirts, compete for attention on television and film. Without an accurate representation, real or imaginary, visually they reflect the culture that discovers them, as Tom Mitchell brilliantly illustrated in *The Last Dinosaur Book*.

The fossil, the one with a genuine history, the pterodactyl, evolves like the oral narrative to which it is most suited, like the folk images which it resembles. The post-Freudian pterodactyl became less vampiric, more rapacious, phallic, an unbounded masculine sexuality that, according to catastrophic theory, lay behind the Flood. New versions, and there are always new ones, are aggregates, collages: the pterodactyl's contemporary cousin, the *nothronychus*, looks like Big Bird on Sesame Street, a Mardi Gras Mummer, or a show girl from an old Ziegfield Follies film, a trans-sexual biped, long pointy fingernails, a provocative little belly, both furred and feathered, a mighty summing up of all animal life. The pterodactyl's phallic identity has been displaced onto the fossil of a little shell fish, at 425 million years old, the oldest male animal, called an *eclecticus*, which means "amazing swimmer with a large penis." Being a fossil, there is only one, a synecdoche from which scientists inferred an entire species, eons of time, and a rare instance of a male fertility principle behind nature.

"What is now proved was once only Imagined," Blake wrote, instinctively recognizing that images shape human perception, not the other way around, that they evolve from a menacing original and strange to the familiar, with which we are comfortable. Based on fictional and artistic prototypes, archetypes, or folklore, early archaeologists, and even some contemporary ones, interpret the unique and original fossils into clones. This imaginative dimension was part of their appeal and authority: however questionable the factual basis of the Hobbits of Floresia, scientists and the public want to believe in them, see them from a perspective shaped by Tolkein and Tom Thumb.

This reluctance to see, without fictional intervention, the human form divine in a primitive state, whether monkey or savage, giant or midget, accounts for the long delay in identifying the first human fossil. Nearly a hundred years after its discovery in the valley of Neander in 1836, a skull frag-

ment, was identified as a human ancestor (Moser, Rudwick, Haraway). From this fossil fragment, this hard-working synecdoche, the origins of the human race were inferred. Reflecting the values of the time, the Neanderthal, was visualized as hairy, simian, a heavy-browed and graceless savage, a laborer, definitely a working-class fossil coinciding with Marxist revolutions. This image evolved among the scientists and in the popular culture as well, where, like angels and dragons, vampires and pterodactyls, it is familiar and a-historical, cloned without explanation even on t-shirts. In 2005, in Ethiopia, out of tiny fragments, skulls with lower jaws missing, paleontologists constructed three new human fossils, the first fossil family, erect, taut muscles, good teeth, intelligent eyes, burnished by the sun, a racial aggregate, a projection of the multicultural physically perfected creatures one might find in ads for underwear, a true American idol, to everyone's relief emancipating the entire human race from its historical origins among the lonely Neanderthal bachelors and spinsters, who died out only 50,000 years ago without descendants. While Wordsworth, protesting the alienation of human beings from the natural world, observed "nothing we see in nature that is ours," to these scientists, everything in nature is us: every new fossil discovery or interpretation looks like the human beings who discover it, walking erect and acting socially as if all of paleontology were a working out of The Flintstones. While no fossils escape this humanization, new versions in the evolutionary narrative are inevitable, and will, as they always have, call forth the clones, the clones in turn completing the fossils, like Byron's heroes in *Don Juan*, when "every year and month sends forth a new one" until "the age discovers he is not the true one." (I 1-3).

I began with narrative, the ascendance or revival of the oral narrative in the 1790's and claimed it was a more suitable form for the new sciences than the literary narrative which influenced the way scientists and others saw and formulated the new knowledges. Written narrative is governed by rules, plots, characters, conflicts, temporal restrictions, causal relationships, all regulated to suit the syntax of writing, the disposition of letters, the demands of publication, copying, cloning. If writing is culture, then oral narrative and the images I have been exploring are counter-culture, escaping from the linear, repetitive, finite, and coercive tradition. As a form, oral narrative was not simply a predecessor of written narrative but an alternative: a collective, anonymous, and public voice; a symmetric, indeterminate, episodic, flexible, form; each performance or expression unique, original, reflecting the contemporary contexts in which it appears, and yet historical, fragments of lost stories, variations on original forms, like the fossils themselves.

In honor of Karl Kroeber, this paper reflects our shared interest in narrative, Romanticism, and the oral tradition.

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The Critics, the Monsters, and the Fantasists

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People would call me up to say, "You must read this wonderful book about a school for wizards, it's so original, there's never been anything like it!" The first time this happened, I confess I thought they were telling me to read my own *A Wizard of Earthsea*, which involves a school for wizards, and has been in print since 1969. No such luck. I had to hear all about *Harry Potter*, and it was hard, at first. I felt a lot of ignoble envy. I had to wrestle the green-eyed monster by reminding myself how bad hype is for the writer's soul.

But I soon felt a growing and less ignoble astonishment. It wasn't only common readers: reviewers and critics kept talking about Rowling's book as if it were a unique, unprecedented phenomenon. The true phenomenon was its reception — the huge, genuine popularity it earned, before the sales hype took over. The book was a charmer, in the wizardly sense of the word: it cast the narrative spell. Word-of-mouth led adults to read it who had not read anything remotely like it since they were ten, if then; and finding it new to their experience, they thought it original.

But critics and reviewers of literature are supposed to have some experience of literature. Those who praised *Harry Potter* for its originality were demonstrating blank ignorance of the tradition to which it belongs: the literature of fantasy, specifically fantasy for children. Within that tradition it also belongs to an intensely British sub-tradition, the "school story," which American readers and reviewers might excusably not recognize as such. But how could so many reviewers and literary critics know so little about a major field of litera-

ture, have so little background, so few standards of comparison, that they believed a book that was not only typical of a tradition, but quite conventional and in many respects derivative, to be a unique achievement?

The modernists are largely to blame. Edmund Wilson and his generation left a tradition of criticism that is, in its way, quite a little monster. In this school for anti-wizards, no fiction is to be taken seriously except various forms of realism, which are labeled "serious." The rest of narrative fiction is labeled "genre" and is dismissed unread.

Following this rule, the universities have taught generations of students to shun all "genres," including fantasy (unless it was written before 1900, wasn't written in English, and/or can be labeled magical realism). Students of literature are also taught to flee most children's books, or books that appeal to both children and adults, as if they were ripe buboes. Academic professionalism is at stake — possibly tenure. To touch genre is to be defiled. Reviewers in the popular journals, most of whom come out of the universities, obey the rule. If the reality of what people read forces a periodical to review mysteries or science fiction, they do it in separate columns, coyly titled, at the back of the journal — in *pardah*.

To declare one genre, realism, to be above genre, and all the rest of fiction not literature because it isn't realism, is rather as if judges at the State Fair should give blue ribbons only to pigs, declaring horses, cattle, and poultry not animals because they're not pigs. Foolishness breeds ignorance, and