

# WHITMAN'S ENVIRONMENTAL IMAGINATION

## A Hexose Carbon Ring of Poetic Ideas

Taken from the Early Whitman Journals and Notebooks<sup>1</sup>

### I.

The great mystery in Whitman's life is how he became the quintessential American poet. He dropped out of school and started to work when he was just twelve. Whereas Thoreau went to Harvard and listened at the feet of Emerson, Whitman moved from job to job in the printing and publishing business. For two decades he was writing and editing in the burgeoning new industry of American newspapers with the urgency of daily or weekly production. He did some teaching. His early attempts at short fiction were ghastly. He was doing plenty of ephemeral writing and certainly was well read, but none of it promised a single poem, let alone *Leaves of Grass*. In many ways, it appears that the first great collection of American poetry (1855) is the best example in literature of creation from nothing.

I wanted to solve this mystery by looking through all the records of his notebooks and unpublished manuscripts, anything that preceded the first edition. Eager to find support for the ideas of democracy and the species self, I was also looking for any other elements that might have engendered the project or provided the complex foundation of the poems which had given such a sense of depth to the life I was building. I found much more than I was looking for.

An ecology of ideas emerges in these candid scraps of Whitman's developing thought. They are not just **his** thoughts, of course, but largely seem to be connected to the science and thinking of his time. What's new about *Leaves of Grass*, however, is that while science has been making wonderful discoveries for two centuries now, no Lucretius has been celebrating the poetry of those inventions.

The scientific ideas of his day are, as we would say in the 1990's, "new age" materials, but the notebooks and early manuscripts show us about the new poetic language that expresses them. "Great is language," Whitman scribbled in 1855, "it is the mightiest of the sciences" (Kaplan 228). The shifting of voice in Whitman's notebooks is especially intriguing to watch in these early materials, especially when he moves an idea from the third person reporter to the first person, song-of-myself mode. Such pre-rhetorical flourishes of *Leaves of Grass* help us to see how the new poetry gains its

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<sup>1</sup> This essay uses Grier's Notebooks and Unpublished Manuscripts, Vol. 1 (NUPM); it was delivered as a paper at ASLE's second biennial conference in Missoula, Montana, in 1997.

integrity as an organic, relatively consistent flowing forth with an accomplished and seemingly well-trained voice.

The following is my thesaurus of the four hundred pages of Whitman's earliest scribblings, set forth in the form of a hexose carbon ring of motifs that mirrors the pattern of the glucose molecule.<sup>2</sup> Whitman is the first poet of thermodynamics and metabolism, of the plurality of worlds and the geological eras, of phrenology and body chemistry, of photosynthesis and solar energy.<sup>3</sup> So his chorus includes the voices and discoveries of men like Lavoisier, Laplace, Buffon, Whewell, Lyell, Agassiz, Liebig, Youmans, and especially Robert Chambers whose *Vestiges of the Natural History of Creation* (1844) was a compilation of many of their theories into a grand evolutionary scheme. The dynamic molecular interactions of this carbon ring launched the poetry of the modern era, the first major work of a purely democratic nature, and the primary “epic” of deep ecology in our culture.

## II.

### Carbon<sup>1</sup>

#### Equality and Equilibrium

The biological force behind Whitman's sense of equality is inherent in the symbol  $\rightleftharpoons$ , less-than-equals-greater-than. This is my icon for a reversible process which eventually equalizes in terms of two opposite rates of chemical reaction. For example, consider this note from the late 1850's, where Whitman spells out the dynamics of matter and spirit:<sup>4</sup>

*All through writings preserve the equilibrium of the truth that the material world, and all its laws, are as grand and superb as the spiritual world and all its laws.-- Most writers have disdained the physical world, and they have not overestimated the other, or soul, but have under-estimated the corporeal--*

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<sup>2</sup> In tackling the problem of sifting through the four-hundred pages of Grier's *Notebooks and Unpublished Prose Manuscripts* (NUPM), I decided to use a technique of thesaurus production I had developed for the study of Chaucer's vocabulary in *The Canterbury Tales*. Reading each note and journal entry, I assigned topics using the vocabulary of the poet as much as possible. Once I had an index of all the topics, in the manner of Roget, I threw out the mundane and organized what remained into groups and classes, based on the number of occurrences. In table I you can see the six major concepts and the intricate way they correlate with one another. First we can look at the evidence for Interludes I and II, and then I will explain why I created a new term for the third of Whitman's major concepts.

<sup>3</sup> For a quick outline of the sources of his scientific knowledge see <http://web65.rollins.edu/~sphelan/NINETEENTH.HTML>.

<sup>4</sup> The spacing in these citations sometimes indicates separate items of entry and sometimes just contiguous or related entries where one is not even finished before the next is entertained.

*How shall my eye separate the beauty of the blossoming wheat field, from the stalks and heads of tangible matter?--how shall I know what the life is except as I see it in the flesh? I will not praise one without the other, or any more than the other--the least one of the /*

*Let the idea of Equality stick out--my best-- /*

(NUPM 360)

Whitman's environmental imagination pitches body and soul, biosphere (environ) and noosphere (mental work), species self and individual ego, poetry and earth in a dynamic equilibrium of fully reversible processes. Decidedly postmodern in its effort to abase privilege, Whitman espouses a purely democratic seme<=>antics where many traditional axes of power are flip-flopped and neutralized:

body	<=>	soul
female	<=>	male
sin	<=>	virtue
reader	<=>	poet
animal	<=>	spiritual
death	<=>	life
nature	<=>	mind
old	<=>	young

These dynamic dualisms allow the poet and his readers to engage in something devoid of the sublime in any one pole or detail, but richly sublime in the ensemble. Whitman assumes there is an ecology that science had not yet studied; he imagines self-regulation through that long evolutionary process that generates a fully reciprocal system. For example, take the paradigm case of inferior <=> superior that governs all eight dichotomies as I have represented them above. Many a reader is troubled by Whitman's arrogance, but the foundation of his achievement is in the sense of equality with the reader which he holds forth at almost every line of "Song of Myself." Perhaps the journal seed of this idea will help:

*Where is the being of which I am the inferior?-- It is the [blank] of the sly or shallow to divide men like the metals into more precious and others less precious, intrinsically.*

*I never yet knew how it felt to think I stood in the presence of my superior.-- If the presence of God were*

*made visible immediately before me, I could not abase myself.-- How do I know but I shall myself [blank]*

("albot Wilson" NUPM 56)

We can find this kernel of truth expressed objectively (i.e., in the third person) in an earlier entry about the American character, which is to be "illimitably proud, independent, self-possessed, generous and gentle.-- It is to accept nothing except what is equally free and eligible to any body else." Whitman moves easily back and forth from the American to I, from the human sphere to all beings. Hundreds of lines in "Song of Myself" put the human up against the smallest or least significant element of the universe: the blade of grass, the rock, the mite, the atom. Nothing and no one is the meanest of things or of humans.

While Whitman recognized a pattern of progress in evolution (his term for it is *amelioration*), the I in "Song of Myself" is often an abstraction to the entire cosmos and its every detail--all are equal. He might just as well have asked, "Where is the being of which I am superior?" The poet abhorred the "precious" human and went out of his way to applaud the meanest and most sinful of the species with whom in this composite voice he completely identified. However, when he operated in historical time and looked at America, he often was depressed by what he saw and identified the meaner elements or baser metals quite readily.

Whitman's refusal to abase himself before God in this note seems blasphemous at first. Its larger re-workings in section 48 of "Song of Myself" are easier to understand. Whitman wanted an end to kneeling, the feudal gesture that bespeaks hierarchy. Galaxy and blade of grass, prostitute and prokaryote, the mite and the mitred, all are *natura naturans* (the creator in the dynamic process of creation), all governed by the same thermodynamic ethos. No inferior or superior obtains because each is turning into the other.

Thus, Whitman would destroy the Great Chain of Being that has governed western culture for more than a millennium, and in its place invoke a Great System of Becoming where essentialism dissolves and equality prevails. Darwin usually gets credit for changing the mindset of Western civilization in this direction, but Whitman anticipated much of the history of biology and its effect on our thinking.<sup>5</sup> As Youmans puts it in 1870, speaking of the influence of the thermodynamicists, "material ideas are

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<sup>5</sup> In *What Makes Biology Unique?* (2004) Ernst Mayr, the biologist turned historian and philosopher, has maintained that Darwin's book is the most important in the western world after the Bible. Most of what he describes as the autonomous characteristics of biology stems from systemic thinking of the kind that inheres in Whitman's poetry of earth.

giving place to dynamical ideas.” Whitman elevated such systemic thinking to the grand scales of a new literary music.<sup>6</sup>

## Carbon<sup>2</sup>

### Self: The Chemical Atlas and Whitman's Composite Voice

Whitman's voice is clearly composite, an hilariously new and troublesome feature that he invented. It differs from the Greek chorus in that it is a solo voice with a choral quality by reason of its reverberation through the timeless community of the entire species. It is not a blend of tones, but of thoughts, Emerson's Man Thinking perhaps, but very much out loud and outdoors. It does not use the plural pronoun *We*, as in Eliot's "We are the hollow men, the stuffed men," but rather the singular pronoun and its reflexive, the I-myself. Evidence for this species self shows up first in his early notes for a poem which, in my opinion, has to be "Song of Myself":

*Poem incarnating the mind of an old man, whose life has been  
magnificently developed--the wildest and most exuberant joy--the  
utterance of hope and floods of anticipation--faith in whatever happens--  
but all enfolded in Joy Joy Joy, which underlies and overtops the whole  
effusion/* (NUPM 102)

A few pages later in the notebook, this same man has an "I" that is eonic, made of star stuff, a chemical Atlas (see Liebig and Youmans), a vestige of the whole natural history of creation (Chambers), a Kosmos (Humboldt); and he is taking the full measure of his origins and development, as any one of us might:

*Amelioration is the blood that runs through the body of the universe.--I do not  
lag--I do not hasten--I bide my hour over billions of billions of years--I exist in  
the void that takes uncounted time and coheres to a nebula?, and in further time  
cohering to an orb, marches, gladly round, beautiful tangible creature, in her  
place in the processions of God, where new comers have been falling in the ranks  
for ever, and will be so always--I could be balked no how, not if all the worlds and  
living beings were this minute reduced back into the impalpable film of chaos...  
such is the*

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<sup>6</sup> In *Charles Darwin: Voyaging*, Janet Browne has dramatized superbly the effect on Darwin of the anonymous publication of *Vestiges of the Natural History of Creation*. He felt he had been scooped by an amateur and struggled mightily with the outrage of the book's many critics because these were the very ideas he had been working for years to prove scientifically. Too bad Darwin had not read *Leaves of Grass* first, a poetic version of nineteenth-century science worthy of his grandfather Erasmus, the natural philosopher-poet.

*Tongue of a million voices, tell us more. Come, we listen with  
itchings of desire, to hear your tale of the soul.-- (NUPM 104-105)*

I take this notation to indicate that the speaker of the poem is literally fifteen-billion-years old with the body of the universe that is in a state of development or betterment. Then Whitman tries out the concept as an I, and immediately it carries all the bravura of the poem I love. So now listen to the harmony of the complete carbon-ring of concepts in this lyrical passage from another notebook, just a phrase or two away from entry into the 1855 edition:

*I want a sublime of Hymn Chorus and orchestrium, wide as the orbit of suns,  
reliable as immortality and filling my capacity to receive kisses as the sea fills scooped  
out valleys. Tenor clean and fresh as the Creation whose vast pure volume floods my soul  
I want the Soprano that over-leaps the stars . (NUPM 125-126)*

The passion of these notes is uncanny, spurting out at almost every angle and design. They show that somehow, from the start, Whitman was a deep ecologist.

## Carbon<sup>3</sup>

### Magnanimal: Whitman's Concept of the Spiritual Animal

I had to invent a word for this part of Whitman's land ethos and its relationship to wildlife, the theme of our next river chapter. From an early notebook, we can get the idea of how Whitman prefers the human perspective, while not separating it from nature:

*I know well enough that man grows up becoming not a physical  
being merely, but markedly the mental being of the earth,--the esthetic and  
spiritual being...*

*...he is to be the seer of nature--he only can celebrate things,  
animals, and landscapes-- His mentality is a quality to be used toward  
things, as his vision is used*

*If he depart from animals and things he is lost.*

*In other words, man is not only an animal like the others, but he alone has the quality of  
understanding and of telling how divine a thing an animal is--what life, matter, passion,  
volition are:*

*He alone carries all the substances of the world, by this quality, in  
himself, and illustrates them. (NUPM 362)*

One remarkable pre-Darwinian sense of this entry is that we endanger ourselves by parting with nature. The intuition working here is that the mind of humanity is made of nature, by nature, and for nature. Herein lies the central force of Whitman's environmental imagination: mind moves toward => nature as nature moves toward => mind.

In another entry, dated 1857, we see Whitman's prescience on the issue of variation and development in the species.

*A main part of the greatness of humanity is that it never at any time, or under any circumstance, arrives at its finality--never is able to say, Now, as I stand, I am fixed forever.--If any one has the feeling to say, I am fixed--and retains that feeling--then a longer or shorter farewell to the greatness of that humanity....O I see now that I have the make of materialism and things, and that intellect is to me but as hands, or eyesight, or as a vessel...* (NUPM 365)

It is clear in this quotation that he is not just speaking of a person's lifetime of changes, as in the illustration of a voice, but of humanity itself through the eons. He thought he stood at the edge of waxing democracy and hoped (in vain) that feudalism was waning. Alive today, he might conclude that cultural evolution is indeed a slow process.

My reason for choosing the word *magnanimal* to express this idea is that it retains ambiguity and some novelty. It engages the two theses of the poem which Whitman recognized in the following note:

*My two theses--animal and spiritual--became gradually fused in Leaves of Grass,--runs through all the poems and gives color to the whole.* (NUPM 383)

## Carbon<sup>4</sup>

### Immortality and Time

Somehow or other, Whitman seems to have intuited the effects of the twentieth-century concepts of quantum physics and relativity theory. In a continuation of the passage on amelioration cited above in Carbon<sup>2</sup>, he describes his eternal scope: "my right hand is time, and my left hand is space" (NUPM 105). Since I have already written about the bio-temporal focus of his work, I will not include here any more of the notebook material on this topic than has already been shown under other headings.

Whitman's unusual understanding of time is a part of transcendentalism, geology, and the nebular hypothesis, but it goes far beyond his reading in the sciences of his day. In many ways, it is a special concept of his own making, as the following short unpublished note reveals. The manuscript in Whitman's own hand came to Rollins College with the papers of William Sloane Kennedy and is part of the Special Whitman Collection of the Olin Library Rare Books and Archives:

In my opinion it is the  
idea of <sup>above all other ideas</sup> Immortality, that is to  
enter essentially into, & give  
final coloring to Democracy.

... As the highest achievements of  
the modern genius <sup>in Literature and Art</sup> are to furnish  
a yet unknown & undreamed  
of Development for the masses  
of the people, the ~~prospect~~  
& broadest avenue toward that  
result is probably to be the  
entrance by common humanity,  
in due time, upon entirely dif-  
ferent & far more spiritual  
views of Death.

What a spectacle will  
that be of future New World  
Philosophers & poets - successive  
Dynasties of them - depicting  
<sup>such</sup> heroic life & <sup>such</sup> spiritual Death  
- making of average man a  
God - embodying in superior  
poems the whole genius of De-  
mocracy - <sup>arrived at last</sup> justifying its slow  
progress, & its long & varied  
Developments through History &  
Time - illustrating by works  
ahead of any yet its culmination  
in these States - portraying <sup>new &</sup> per-  
fect races of Women - & finally  
developing, beyond all hitherto,  
& adjusted to Science & the mod-  
ern, the ideas of the Immortal,  
& of that viewless & Unknown  
Experience <sup>that stage & sphere</sup> which all that goes  
before & all we know or view  
is doubtless <sup>not only for itself but</sup> mainly the prepar-  
ation <sup>for a preparation</sup> for identity <sup>for preparation</sup>.

In my opinion it is the idea of  
immortality above all other ideas,  
that is to enter essentially into and  
give final coloring to Democracy. As  
the highest achievements of the  
modern genius in Literature and Art  
are to furnish a yet unknown and  
undreamed of Development for the  
masses of the people, the broadest  
avenue toward that result is probably  
to be the entrance by common  
humanity, in one time, upon entirely  
different and far more spiritual views  
of Death.

What a Spectacle will that be  
of future New World philosophers  
and poets- successive dynasties of  
them – depicting such life and such  
Death – making of average man a  
God – embodying in superior poems  
the whole genius of Democracy,  
arrived at last – justifying its slow  
progress, and its long and varied  
developments through history –  
illustrating by works ahead of any yet  
its culmination in These States –  
portraying new and perfect races of  
Women – and finally developing,  
beyond all hitherto and adjusted to  
Science and the modern, the ideas of  
the Immortal and of that viewless and  
unknown experience – that stage and  
sphere which all that goes before,  
and all we know or view, or fancy we  
know or view is doubtless not only for  
itself but for identity – for  
preparation.

Courtesy of Rollins College Archives



## Carbon<sup>5</sup>

### The Body Electric

Whitman's commitment to body is what got him in trouble with many of his first readers. His poem "incarnates the mind of an old man," that is, puts body to his vision. The notebooks do not prepare the reader for the sensual passages that scandalized his Victorian and puritan-leaning readers, but the idea of the centrality of love and sexuality is prefigured in a number of ways. Here are just a few of the passages that point in the direction of body, earth, and love:

*My life is a miracle and my body which lives is a miracle...* (NUPM 63)

*Wickedness is most likely the absence of freedom and health in the soul...* (hence, not of the body: NUPM 65)

*I am the poet of the body / And I am the poet of the soul / I go with the slaves of the earth equally with the masters...* (NUPM 67)

*I am the poet of little things and of babes / Of each gnat in the air, and of beetles rolling balls of dung...* (NUPM 70)

*Most writers have disdained the physical world, and they have not overestimated the other, or soul, but have under-estimated the corporeal— How shall my eye separate the beauty of the blossoming buckwheat field, from the stalks and heads of tangible matter? — How shall I know what the life is except as I see it in the flesh?* (NUPM 360)

## Carbon<sup>6</sup>

### Poetry: an Ecological Definition

*Every soul has its own individual language, often unspoken, or lamely feebly haltingly spoken; but a true fit for that man, and perfectly adapted to his use.*

(NUPM 60-61)

The poet has the divine grammar of all tongues, Whitman imagines in his predilections prior to the publication of *Leaves of Grass*. He sees the poet as the translator of and joiner of the whole of creation. This is why science is essential to his vision. The poet cannot be a Nature-faker, as his friend Burroughs was at pains to show all his life, but must integrate the work of the sciences.

In 1995 Lawrence Buell published the first major critical study of nature writers in America, *Environmental Imagination: Thoreau, Nature Writing, and the Formation of American Culture*. As the title indicates, this eco-literary study takes account of the

tradition of nature writing in America from the dean of Walden academy. At the time of its publication, my own exploration into Whitman's environmental imagination began with a reading of the substantial scholarship which proves Whitman's debt to nineteenth-century science (see Aspiz, Asselineau, Beaver, Poirier, Reynolds, and Scholnick).

In 1996 when I got a chance to read Laura Walls's *Seeing New Worlds*, a fine study of the scientific tradition in Thoreau, I thought, "Holy beanfield, they have the same starting point," what she calls "empirical holism." Both men were seeking to move from the experience of the natural world to some totality. Thoreau, of course, was far more empirical. After all, nothing in these Whitman records shows the scientific method of Thoreau's careful study of how seeds are distributed in the forest. The major difference I see, then, in their environmental imaginations has to do with a basic difference between poetry and prose: Whitman's experimentation in language and form to suit the audience and the message of the carbon-ring of his poetic ideas and the password primeval.

Through a variety of still unappreciated inventions of language, Whitman goes far beyond Thoreau when he dreams of combining dynamic community building with self-reliance. He is especially interested therefore in restoring the language of the *demos* to literature. Even now we struggle to overhaul the language to account for dynamism, to move from atomism and reductionism to a sensible wave/particle dance, to a fully systematic thinking.

For Whitman, environmental imagination requires a word-shaper. The subject of poetry is creation, especially in the immediate mode, the here and now. Poetry (and by analogy nature writing) is inherently an act of community building. It assumes an audience, sound, voice, body, and rhythm. Whether we're talking of an essay, a short story, a long novel, or a trilogy of novels, the poet-author is one of us.

In 1976 when *Leaves of Grass* first got to me, Whitman became me. Poetry is an important energonic process, i.e. the leaves of Whitman's poetry are full of life experience stored in code for Americans to transcribe or translate into their own life and behavior. As Mary Austin put it, "experience is an amulet" that anyone can have or share through story or poem. The great books of poetry sit in the library on a shelf or else in cyberspace waiting for our downloading, sequestered like the sugars in our leaves and vegetables. Whitman's idea of such suspended animation is quite natural for Floridians because we have connate water lying in the deep rocky sediments, waiting in our underground caverns for Wekiwa to spring into germination. Just as the eggs in our mammal bodies are waiting half a lifetime to be fertilized, formed, and delivered into the breath of life, the poetry of America resides in us. Every stage of our bodily development is awaiting the proper circumstance, time, stimulus, and evocation to become the power in our life, family, and community.