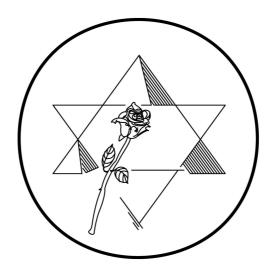
THE CONSCIOUSNESS OF EARTH



Esther Cameron writing as George Richter

Collected Works Volume I

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In memory of my parents
Eugene and Adrienne Cameron
who set an example
in the wise use of the mind

This little threshing-floor that makes us so fierce

Dante, *Paradiso* XXII

And an earth will climb up to us, our earth, this one.

Paul Celan, The No-One's-Rose

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INTRODUCTION

This book began as a response to Jonathan Schell's *The Fate of the Earth,* which was first shown to me in 1982, in a circle that met in Jerusalem to discuss the work of Paul Celan.

Schell's work is mainly concerned with the nuclear peril, but also with the ecological crisis generally. Early on in the book he writes:

Looking at the earth as it is caught in the lens of the camera, reduced to the size of a golf ball, we gain a new sense of scale, and are made aware of a new relation between ourselves and the earth: we can almost imagine that we might hold this earth between the giant thumb and forefinger of one hand. Similarly, as the possessors of nuclear arms we stand outside nature, holding instruments of cosmic power with which we can blot life out, while at the same time we remain embedded in nature and depend on it for our survival.

Throughout much of the first half of the book, especially, Schell struggles to grasp the psychological and spiritual implications of the threat of extinction: "But in imagining extinction we gaze past everything human into a dead time that falls outside the human tenses of past, present, and future." Now, he writes,

the whole species is called on ... to protect our being as an act of will. Formerly, the future was simply given to us; now it must be achieved. We must become the agriculturalists of time. If we do not plant and cultivate the future years of human life, we will never reap them. This effort would constitute a counterpart in our conscious life of reason and will of our instinctual urge to procreate.

Schell posits that "the obligation to save the species" implies "a new relationship among human beings" which he calls "universal parenthood": "The nuclear peril makes all of us, whether we happen to have children of our own or not, the parents of all future generations."

The question Schell begins to ask—what spiritual transformation would have to come over humankind to help us refrain from destroying ourselves and our surroundings—was one I had been raising in the meetings of the Jerusalemer Celan-Arbeitskreis, and this was doubtless what prompted the

late Mary Zilzer, a Reader and listener par excellence, to hand me the issues of the New Yorker in which The Fate of the Earth was first published. Celan, of course, had been an interim survivor of what Schell called "the closest thing to a precursor of the extinction of the species that history contains"—the destruction of European Jewry.

To my disappointment, the third part of Schell's book turned back toward a more immediate pragmatism, postponing spiritual questions on grounds of political In response, I began a prose work entitled The urgency. Consciousness of the Earth. But somehow it did not flow; I was checked at every turn by the sense that what I was saying was logical but at the same time quite implausible. I put the work aside.

A few months later Jerry Glenn, a scholar who was in touch with the Jerusalemer Celan-Arbeitskreis, invited me to write something for an issue on Paul Celan that he was editing. I chose to write about the image of the earth seen from space which appears in Celan's poetry, especially in the last section of The No-One's Rose. 1 And a few weeks after that I found myself writing:

For many seasons I have sat and pondered the omens of this wonder-perilous time, and most of all that image all have seen, the earth, that cloud-veiled jewel of blue and green...

And so on for 131 lines, which committed me to writing a blank-verse epic on the ecological crisis. After that a sense of having been "dared" held me to the task of gathering information, internalizing it, and giving it poetic form.

Why did this work have to be in verse? I was not really party to the decision, but I can think of reasons.

First, the impulse driving poetry is, to borrow Schell's language, a "counterpart ... of our instinctual urge to procreate." Certainly Celan's poetry makes us feel this, but already Matthew Arnold, in The Study of Poetry, connected poetry with "the instinct of self-preservation in humanity." Therefore poetry is an appropriate idiom for a work concerned with human survival.

¹ "The Distant Earth: Celan's Planetary Vision," Sulphur 11, fall 1984. The argument of this essay was later incorporated into my book Western Art and Jewish Presence in the Poetry of Paul Celan: Roots and Ramifications of the "Meridian" Speech (Lexington, 2014).

Second, in poetry you do not worry so much about implausibility. The physicist Niels Bohr once dismissed a theory with the comment, "Not crazy enough." In the humanities, poetry is the home of what is crazy enough.

And third, in poetry one can think more coherently than in prose. In a poem things hang together, and this is a great help when one has to synthesize ideas from cosmology, paleontology, sociobiology, sociology, psychology, literature, and religious tradition. Gregory Bateson, in *Toward an Ecology of Mind*, acknowledges poetry as an ideal vehicle of "holistic" thinking; so it is more than ominous that in an age when the need for such thought has been recognized, poetry should have been shunted off onto an aesthetic sidetrack.

And finally, poetry demands concentration; that is why it is hard and why it is necessary. Over the last two hundred years, the inventions of material science have altered the world beyond recognition. Each of these inventions required considerable mental concentration. Many of them, and all taken together, had consequences that were not anticipated, and that have created environmental and social problems. These problems, the solutions to which lie in the field of the social sciences and the humanities, would need to be attacked with equal concentration.

Besides writing in verse, I have also taken the risk of using a conventional, at times somewhat archaic style, which even those who still practice poetry have abandoned. But in Human Nature Edward O. Wilson, grappling with the question of whether our sociobiological heritage will allow us to come to grips with our self-created dilemmas, rather abruptly suggests "nobility" as a quality we need to cultivate. Now, the linguistic vehicle of "nobility" is precisely the slightlyelevated, slightly-archaic poetic style which has taken many different inflections, yet somehow remained itself until its recent abandonment. Its quality of "nobility" must have to do with the fact that it is of no particular generation, but belongs to the chain of generations. The modern insistence on contemporaneity and novelty at every minute has a subterranean connection with the throwaway culture, and certainly implies-Schell makes this point, I think-an acceptance of futurelessness. Here I may seem to part company with Celan; but a sense that he had carried modernism ad absurdum, driven it, in a sadly literal sense, to its dead end, was part of what prompted me to turn back toward traditionalism.

The reader will often be aware of a struggle to bridge the gap between poetic and scientific language. Scientific language can be exploited for poetic ends only up to a point; you cannot get "deoxyribonucleic acid" to scan in any meter. This linguistic hiatus mirrors the hiatus between scientific and humanistic knowledge. The poet, even one who is also a scientist, cannot write as a scientist but only as a member of the human community, an inhabitant of the world which science has shaped. What could not be translated into the aforesaid standard poetic style, I have had to leave as a blurred outline on the periphery. But this is no bar to the task of finding a human orientation to the universe (see Celan's Bremen speech) against a background of scientific fact and theory which has shifted many times in the last century and is bound to shift again.

Indeed, some of that shifting has taken place since the first private publication of this poem in 1989. In the early years of this century I made some changes to "update" the poem accordingly, and above all to take into account an increased understanding of the genesis of language. And this, in turn, has enabled me to elaborate the final recommendations a little more, and to give them a more scientifically transparent foundation.

Although these changes do not reach to the basic argument of the poem, still they make us aware that this poem's situation is not that of Lucretius' *De rerum natura* or Dante's *Commedia*. Lucretius and Dante described a cosmos in terms that remained plausible for some generations afterward, while their poems settled into the literary landscape as monolithic and permanent features. In our time, certainly, no one can aspire to describe the universe "once for all."

But this doesn't mean that the Lucretian/Dantean enterprise of describing the world in poetic terms should be abandoned! Rather, the new developments point up the truth (which I have dwelt on in the essays collected in *A Handbook of Macropoetics*) that literature does not consist only in the production of isolated masterpieces but is, ideally, an ongoing collegial appraisal and reappraisal. And so, the hope of *The Consciousness of Earth* is not to say the last word on the ecological situation but, on the contrary, to model and catalyze an ongoing process of poetical reflection, a discussion of environment and society deepened by the concentration and coherency that are the age-old inheritance of poetry, needed

more than ever if we are to assume our responsibility for the earth.

This poem was first published in 1989 under the pseudonym George Richter, which I have again placed on the title page of this edition. Perhaps one can still think of George Richter as the poem's persona. The name alludes, of course, to George Sand and especially to George Eliot, whose use of the pseudonym seems related to a spirit of objective benevolence which attempts to speak from some fictive observation-point between the genders. Perhaps it was also suggested by Schell's suggestion that we become "the agriculturalists of time"; its root meaning is "farmer" or "earth-worker."

Schell's book gave considerable impetus to protests against nuclear weapons. But in a conversation not long before his death in 2014,1 Schell "said that, despite arms talks and arsenal reductions, he thought the world had failed to come to grips with the nuclear question." He also said that we have not yet faced up to the prospect of extinction, and that while particular threats are disasters may move us to act, "we intuitively feel that's not the essence of the matter: the essence is more what the religious people say about taking care of creation." The present revision of this work has aimed mainly at sharpening this last point, by discharging a debt to the religious tradition I believe to be closest to this essence.

One thing I hope is that this work may make some contribution to the debate between creationism and mechanism, a debate in which what humans are given to know of the creative process is, curiously, seldom taken into account. I hope this poem will give the reader to sense that process by which poems—and also religious traditions—take shape has some affinities with the process of evolution, which is not described with complete adequacy by the term "natural selection."

Since the first publication of this poem, time has, obviously, not stood still. In particular, the faculties of attention and concentration to which this poem must speak have been further compromised. I can only put in a word here for the recognition that this is the central environmental issue, and for an effort, commensurate with the urgency, to recover such faculties. The reading of this poem must surely be, as was the writing of it, a form of exercise.

¹ The New Yorker, April 7, 2014,

http://www.newyorker.com/magazine/2014/04/07/jonathanschell

I wish to express my gratitude to the members of the Jerusalemer Celan-Arbeitskreis – Dr. Israel Chalfen, Manfred Winkler, Mary Zilzer, Magali Zibaso, Dr. Eva Avi-Yonah, all of blessed memory-for the dialogue in which the thoughts expressed here could unfold. Essential inspiration came from Rabbi Dr. Zvi Faier o.b.m., physicist, Talmud scholar and poet in quest of a "unified reality," who encouraged me to pit consciousness against "fate." Thanks are also due to Paul Mendes-Flohr and Haim Goldgraber, who recommended me for the Peter Schwiefert Prize, with the help of which part of the poem was written. Dr. Faier, Dr. Avi-Yonah, Rabbi Shabtai Teicher o.b.m, Frederick Leibowitz, Hadassah Haskale, Joseef Vleeschhouwer, Ilana Coven Attia, and Rabbi Avraham Sutton, the first circle of the poem's readers, gave me the invaluable assurance that the poem is readable; Ilana Coven Attia published a version of Chapter 8 in B'Or HaTorah; Chapter 1 appeared in Spindrifter. I am grateful, also, to Robert Ward, who published an installment version in The Bellowing Ark, and to Joe M. Ruggier of Multicultural Books, where the poem's third edition appeared. To my parents, Eugene and Adrienne Cameron o.b.m., whose moral and material support has sustained this lengthy quest, I owe more than can be expressed.

> November, 2016 Maale Adumim

Chapter 1

The image of Earth seen from space, a symbol of the fragility of the natural world. The ecological crisis as result of human nature. The question whether human nature has resources to meet the crisis, perhaps with the help of powers beyond the human. The imperative to take a distance from the human condition, and to gather and sum up our knowledge about it, in hopes of a "consciousness of earth" that would be the union of science and spiritual intuition. Metric verse as the proper tool for this task.

For many seasons I have sat and pondered the omens of this wonder-perilous time, and most of all that image all have seen: that globe, that cloud-veiled jewel of blue and green upon the black and lifeless infinite, caught in our far-sent instrumental eye. This is that earth our ancestors called Great and Mother, upon which they poured their offerings of wine, the blood of sacrificial victims, imploring sustenance of her large bounty, 10 into whose lap with song and prayer they sowed the seed of harvests and the lifeless bodies of those they mourned or hated; in whose depths their fearful hope conjectured dim dominions, the retreat of spirits banished from the light, whose distant regions were the vacant canvas for wild conjectures, now by fact effaced – the Earth, which yielded us at last the metals, the fuels, to thrust ourselves beyond its grip to where it now appears to us, so small, 20 as if it fit a thumb and finger's compass. We gaze on this and know it is a mirror that shows our power and our alienness; we read in this, as in a face, the fear of all the devastation we can do -we, who have not created yet one grassblade of all that give the earthlight its green shimmer! and at the same time here we are, caught up, as ever, in the illimitable web woven by life, sustaining us and all, 30 and if we tear that from the earth, we perish.

We know, too, that this sight, these meditations, come to impart not first, but final warning; yet, like a blinded tragic hero dreamed by some uneasy poet among the Greeks – that race whose thought, waking from nature's sleep, began the calculations which have led with an inevitable and quickening pace to these our present straits – pursue our course. Our madness is methodical and armed: 40 it borrows for its all-destructive purpose the scientist's brain, the manufacturer's greed, the statesman's guile, the hates of creeds and nations; our better reason, conscious of its ties to all that lives, the partner of compassion, whose inmost deep gleams with an intuition of an eternal Being that desires the life of our small world, and not its death, sits feeble and disarmed in warring hearts, confused with much that militates against it, 50 so that its scattered enterprises seem like the last twitchings of a dying body, and it prepares itself to be a nothing, or if the spirit survives, to be a ghost wandering the ruins of a lifeless planet. It knows: not all the heavens man has dreamed could compensate it for this world of matter in which it hoped to be incorporate.

So much this eye has seen, this heart has heard, with every eye and heart that wakes and fears 60 and scans the mind's field for some word or action, groping with partial knowledge, partial light. The greater mind that sees through all at once, that sees the pattern from above, discerns the path that leads out of the death-locked maze, is not yet with us, and may never be; and yet there is this impulse, this command to try and think as if one were that mind, thrust out from all particular entanglings 70 and viewing human life as it were whole. Now, while the hand still grips the pen, the mind has strength to sort the tangled skeins of thought, I will attempt it: render my account,

though flawed and partial only, of the world, all that I know of nature's laws, the laws that shaped the human heart such that it seems to war against the earth's and its own life; and then what sources in it, or beyond, still flow with wisdom and the encouragement to harbor, even now, a hope of turning, 80 of some discovery or revelation to free it from itself, and give it peace – a wakeful peace. I seem to see from far how it might be that, warned by a self-knowledge exact as knowledge of the atom is and nourished by a final recognition of what is ours, and yet not wholly ours seen not by outward gaze, but through our being we could at last distinguish good from ill and, even while accepting death, choose life. 90 This we would call the Consciousness of Earth: an outward knowledge, bent upon that object of which we are a part, articulate; an inward knowledge, flowing from our oneness with all that is, and with that deeper Inward by which alone Creation is sustained: these two in One, a constant interaction in an awareness not to be divided. a common mind through which Creation thinks thoughts self-deception shall not mar again, 100 and which may rule, as the brain rules the limbs, the diverse forces of its myriad will.

And you, who turn these pages: do not wonder that to the present urgency I speak in measures molded by a quieter time, that I compel my thoughts to keep this pace which seems to check and trammel their unfolding. Know, reader, what the elder poets knew and what the distant disk of Earth now tells us: that all things have their limit and their term and in that term and limit is their form, their beauty, and the laws which give them life, shaping the energy which otherwise would lose itself in boundless dissipation. It is by this that they are what they are,

it is by this that they are part of all.

Who would not know the end can never know
the whole; but, knowing it, one's thoughts cohere,
memory and anticipation speak
through every present line, and form the ear
to catch, the understanding to retain,
the eye to recognize the thing, when met,
of which the word had spoken.

Thus the laws
of ancient times were handed down in verse
before we learned to trust the hand too much,
and the brain instrumental to the hand.
Bear, then, with me and with this simple measure,
the step of a pedestrian on earth's ways.
So without haste, trusting our strength as far
as it may go, and the divining thread
of our own consciousness, we now set forth.

Chapter 2

Interrogation of the natural universe; the necessity of understanding the outward conditions of our existence, whatever the belief about our ultimate origins and destiny. Recognition of the limits of ordinary language for this purpose. Origins of the universe, the solar system and the earth.

Those principles that frame the world of matter, the origins of that enormous fact from which earth's being and our own has budded, the mind asks first to know; for in those laws the conditions of our lease upon this earth must be inscribed, that history must hold some intimation of our purpose here. We may not hold those laws inflexible – may think, through sacred text or our own eyes, to have seen clear evidence of their suspension 10 by spiritual force, as if some Other behind the known world wanted to remind us that they are nothing more than its decrees, or as if human thought could sometimes enter dimensions where causality is void. Yet always the miraculous moment passes and things resume their course. The prophet dies, the wizard leaves the city, and tomorrow their exploits will be told to doubting ears. If to the Source beyond the source all humans 20 could turn with one unclouded recognition, then we might see the bonds of time and space transformed for good; but meanwhile we must reckon with the material world such as it is, where not to wish to know these shaping laws is not to wish to know the Will that gave them: Necessity, the darker face of God. From kindred need did our most ancient kin collect a lore of herb and beast and weather and tell themselves how spirit shaped all this 30 as they shaped stone and wood to their own uses, seeking to know the will that rules the world and strike with it a bargain for survival. Only the scene has shifted. Not some range of beach or upland, forest or savannah,

where every tree and stone is known and named, but all the earth, which none can know alone, all of those tilting overflown horizons effaced by height, inhabited by strangers whose knowledge we must have to make earth whole, 40 in more harmonious union to rewed adam with adamah, homo with humus; and strange, too, is the knowledge, stranger far than hunters' tales to those who stayed in camp. How can we follow all the eyes that scan the fleeing stars, peer to the atom's depth, seeing that our sense is molded to dimensions between the microscopic and the vast, the small Euclidean universe of feeling...? Our language, too, is of that middle world 50 and cleaves with all its meanings to those objects the instruments gaze past and through, the fugue of symbols whirls away from, into spaces only accessible to minds detached from reference, from time and space, from being. So even the discoverers, returning into the room of common talk, begin to stammer, when they tell us what they saw, till what the common understanding gathers becomes a kind of legend, pieced together 60 from a word here and a word there that seemed intelligible, because metaphor, husk of a fruit the palate cannot taste.

In the beginning, so we heard, there was nothing. No form of space, no thread of time, only a point so tiny and condensed that all was in it, yet it was nowhere.

Till by some unimaginable decision it blossomed forth into the void, became matter and energy, in space and time.

Space was but where IT was, time the succession of its states, none like that which came before, matter and energy its alternate selves, each one convertible into the other, the sum of matter and energy forever the same, and equal to that primal nothing which once was all. This was the first decree:

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the second was, that though the sum of these remains the same, yet in their disposition they always move toward dissolution: dense 80 must become rarer, what is hot must cool, all that is ordered to disorder tending, till the compressed fires of the origin become at last an even distribution of particles too fine to be reduced or heat too faint to act on anything and nothing left distinct for it to act on. If time is what it was, what it will be, the measure of its passage that dispersion 90 our present minds call entropy, then such was the beginning, such must be the end. All things are but the intermediate states between the primal and the final Nothing, eddies in the unresting outward motion where entropy now locally decreases, so that the forces in some finite space are concentrated, giving rise to order, but always purchased with a greater price of a disorder and a scattering elsewhere. Thus in the rarefaction of the All 100 amid the empty spaces fiery clouds, condensing, separating, form to stars, and matter torn from stars, or cooled and hardened from those same clouds, becomes the circling planets, the traveling swarms of shards, the peregrine comets, the clots of cosmic dust that block our view into the center of the galaxy. Our sun, like other stars, once flung together, burns itself, huge and finite as its lifetime, in a tremendous radiant dissipation 110 of light and heat that scatter in the cosmos like a match struck in a vast empty hall, except that tiny fraction which encounters the planets' mass, that holds it and is warmed. Among these Earth, with fostering air and seas, conceives it in elaborating forms, and life arises in the sun's decline.

The human being, waking on this planet, is like a child born to an ancient house:

120 it does not guess, at first, how others stood at these same windows where it climbs to gaze, what footsteps hollowed out the stair, whose face peered from the mirrors that now hold its own. The child's world is no older than the child. It does not dream the house without its presence, still less the ancestral ground without the house, and least of all that here was mountain ridge or glacial valley, bog or ocean floor. To our young eyes the hills seemed everlasting, coeval and coterminous with the stars; 130 at most we marked the patient work of rivers changing their beds, the deepening meander cut through at last, resolving into rapids, leaving behind the oxbow's stagnant crescent. If the ground shook sometimes, we also trembled, not for our lives alone, but for the order of things, as if some god had broken faith! Yet all these things denote the work of earth, the last slow stages of its transformation. They say it aggregated first from fragments 140 that grazed and clung like snowflakes in a storm; their energy of motion as they struck transformed to heat and melted them together, so that the earth took shape, a molten globe. The solar system settled. Of its matter planets and sun were formed, the interspace was empty, and the rain of fragments ended (save for the visits of the Perseids, the rare, belated shard of ancient iron hurled burning into earth, for a reminder). 150 The core was formed of iron, molten still; above lay rocks whose mass had made them plastic (for any substance, heaped upon itself, though hard, will bend of its own weight at last); in these be radioactive elements that work their way by melting toward the surface. Through geologic time, by slow convection, a stream of stone that inches year by year, those elements and that primordial heat rise to be decomposed and dissipated 160 upon the surface. It is this convection that shifts the continents, makes spurt volcanos

from level ground, and draws down ocean floor to fill with sediments which, ages hence, the snow-cap of a mountain peak will cover. While earth-rotation drives the mill of the winds (itself a remnant of the cosmic whirlwind), rains slowly wash the peaks into the valleys, groping in widening channels toward the seas from which they rose as mist awhile ago. Thus as the forces of the origin, hidden beneath the surface, go on working, earth's hoard of gems and metals is exposed, the soils are formed in which our life takes root. Slow is the work of Earth, and long must be our thoughts if we would seek to travel with it until the mill shall turn no more, earth's spinning brought to a standstill by the pauseless friction of wind and time, of almost empty space; till, cold within, the ground shall heave no more, and, the last ocean filled, the last peak levelled, a shallow brackish water cover all; till the sun grow too faint to nourish life, or, a red giant, swallow it in fire. Till then our kind might live – a life so long, our heretofore would be the sapling ring within the trunk of an immense sequoia, had we but wisdom equal to our knowledge.

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Chapter 3

Further meditations on the challenge to human consciousness posed by science. The need for consciousness to feel grounded in the universe, rather than see itself as a mere chance result of mindless processes. The question of intentionality and meaning in the universe; a tentative response.

Wisdom: that word sits oddly on our tongue. It seems a sound expired, a curious image the faith that made it animates no longer. Whoever would restore that word to life, they must respin the thread of soul that fastened the creatural breath and heartbeat to the stars, the present to a time beyond all time, now that the painted walls of myth are down that hid the limitless domain of distance, the stellar generations and the light-years voiceless, untraversed by a sensate step, and in the merest dust-grain gapes the abyss of infinitesimal mechanism.

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True

we were in our own eyes, from our beginnings, a consciousness, a waking light of thought amid the shadows of unknowing matter (though the light fluttered from material wick!), but we construed all matter as a mask for something mindful, like ourselves, that chose to hide, and speak in code. We set ourselves to learn its language, stammered: sacrifice, dreams, prophecies. Mind bent upon the world heard in the night a voice that called its name, saw letters of white fire and strained to read their messages aright, and still was straining, when came that way of thinking we call science where observation rules the mind alone. with calculation as its minister, spirit and heart excluded from the council lest they rebel against the resolution no longer to commune with something hidden behind the solid world's impassive mask but to take Nature as its own machine,

a sequence of predictable effects

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explainable without ulterior purpose and, through such knowledge, subject to control. And now the prophecies come true, the wonders are worked indeed, the several tales converge toward a consistent picture of the world. Only it seems a world where heart and spirit 40 are mere illusions, mind itself a shimmer in the synapses' evanescent web, an orphan from the hour of its conception in the indifferent womb of the unliving, where what is least alive endures the longest: hydrogen atoms and great galaxies, even they to be extinguished or unlinked in entropy's aeonian decline, unless renewed in endless repetition, as some have thought and may yet think again 50 with some new twist of numbers in mind-space. It little matters to our mortal sense whether once only from its fiery bulb the universe unfolded and unfolds forever into the expanding void till all is dark, and lifeless planets circle their burnt-out suns still fleeing one another at distances unmeasured by a ray, or whether all the outward-fleeing fragments, feeling the mutual pull of mass, might finally 60 slow, stop, contract themselves into the dense singular source that once again would shatter, fling forth new clouds of hydrogen that swirl to stars again, and fuse within their core the heavier elements until exhausted they fold upon themselves and then explode, leaving to stars of second generation the stuff of planets, whereon life perchance would start once more the arduous ascent 70 after the shutting of the human eye. And likewise little would our natures notice whether this universe, of which we see only that patch (perhaps a mere detail of its vast canvas) which the courier Light traverses in some fifteen billion years whether this universe be all there is or one of many, many more than many,

immensity raised to immenser powers! Inane in their ungraspable dimensions these things appear to anxious living creatures 80 that haggle with the elements for a span which to the stellar pulse is as the blink of an electron to the mortal day; while at its vigil in the mindless All the mind encompasses its own cessation, transcending its ephemeral solitude toward what, being lifeless, cannot suffer death. As it is said that to a freezing man the snow at last seems warm, so the mind glides toward an indifference to human ends – 90 through mind itself the void reclaims its own!

Yet spirit — be it merely mortal breath or mist of something greater on the glass of temporal being - shakes us from that drowse, bidding us seek on those unfolding pages of time and space, the signature of Mind, pleading our consciousness no happenstance in a concatenation of collisions, but primally-envisioned end of all. Were not the plans of earth and sea and sky 100 drawn up before the universe was hatched, how from that mass of fire-consuming fire came even an atom, came the nuclear force that binds the protons in against their charge? How were the outward fling, the backward pull so balanced that the galaxies took shape in place of mere diffusion or collapse, with stars not all diffuse and swiftly-burning or dense and dim, but some long-lived and bright enough to give life's process light and time? 110 How settled out of incandescent sameness the properties of carbon, whose four arms reach out and hold in endless catenation the substances that form the living cell? Was the decree cast in that fiery furnace that water, solvent catalytic medium of transformation, should expand when freezing that ice might shield aquatic life in winter and yield in spring to the returning sun?

A different calibration of the constants, 120 and universes without form or life are conjured up, though they could not be known for lack of any knowers they might foster, and their conception too is ours alone. And even if indeed all combinations eventuate, all worlds are realized in wherewhens wholly other than our own, beyond the reach of any courier save mathematical imagination – our universe one dot within a matrix 130 of automatic variation, like the Shakespeare sonnet tapped out by one monkey among a billion billion billion monkeys typing, or merely playing with the keys (this seems unfalsifiable conjecture, such as Religions are accused of floating) this universe is such that we are here. Its overwhelming structure yet implies our little niche, the stair of magnitude on which we live and move and have our being 140 and ask our questions, find or make our meanings, and can still, stunning though the revelation of all this vast duration and extent be to the mind and soul, decline to measure our meaning by the length of time or space. For if indeed all blossomed from a point tinier than anything our eyes now see or instruments image; if in times as brief as the world's Aleph was minute, the laws of energy and matter were laid down, 150 first courses of the cosmic edifice; then we may note, conversely, that within the globe one human cranium encases more multifarious events occur than in the inflated future nothingness which one blank formula might circumscribe. Our action is not lessened if we know how vast an amphitheater we play to, though from the seats tiered to infinity no watcher may applaud. Nothing has changed, 160 or only metaphors. Although the earth

circles a sun that spins upon a wheel of stars and dust round nothingness flung spinning out of exploding nothing, we are still the vessel that takes shape upon that wheel, the fulcrum of the tiny and the vast, the point where fates of matter become action and open into thought.

Nor are we simply a product of the laws that set the force 170 of gravity, the tension in the atom, devised the alphabet of particle and quark, spelled out the elements, composed the phrases of the molecule, the stanzas and cantos of the chromosomes. The laws of chemistry could not have been predicted from physics, nor from inorganic forms the laws of living things; the rules of grammar do not imply, again, the Shakepeare sonnet of which they are foundation, but not cause. 180 May we believe the wholeness of the creature, that all-at-once of dawning form that pleads for mind anterior to brain, for laws not first laid down within the molten seed of the universe, nor in the cores of stars, nor in the cell's fortified water-drop, nor on the abacus of DNA, nor even in the choreography of animal behavior ...? At each level of ordering, new laws are manifest, not cancelling, but building on the known, 190 perhaps even toward that freedom we divine at moments of religious intuition: we have as much grounds as we ever had to think ourselves the point of Time's display.

Then, too, this solid-looming world of matter, to those who probe most deeply, seems to fade, thin out, and dissipate into a dance of nothing around nothing: proton circled by an electron, presence without place, fractions dissolving into smaller fractions, particles flickering in and out of being, twin particles that, separated, act

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in unison, as from a placeless joining: the causal laws no more an iron chain but rather tendencies of aggregates of things that could be one way or another, whose ultimate particular event is indeterminate, left up to chance, as though in the interstices of law a legislating will had left itself some room for future action.

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So we lay

the jackstraws of our little information in patterns that give comfort to our hope. And straightway from the side a whisper comes, again, of miracles, of messages from mind to mind without material sign, of dice a gambler's concentration loads, of psychic force that deigns to show its hand beneath the laboratory's sterile light. In eager throng around these findings grope 220 the imaginations of our self-deceit, ready to spin their webs across the gulf that still divides perception and desire, the fortune-teller's question and the weft of cosmic circumstance whereon as yet no human name or destiny appears.

And when we have retraced the gradual journey from the first jot of inarticulate life to life's now visible and vast array, will then such name and destiny appear? When we have contemplated how mutation produced, the sieve of natural selection sorted the forms, by seeming accident widening bit by bit the creature's bounds – was there intent beyond the sunlight's pulse to gauge and call it good?

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the mark of hands; yet from the atom's cave, where Fixed and Indeterminate dwell together, comes no denial; for the undetermined may be the even dice, the hairbreadth scale

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sentitive to the breath of shaping Will or questing need in creatural straits. If all

We cannot see

that lives and dies is but a spelling-out of a molecular message, this may be. The creature shapes and shapes itself again to seek its food and choose its mate and send the message on, another generation, and to run up against its limitations blindly as waves against the solid rock that never seems to yield, and yet some thread of water enters, and the rock is breached. Not chance alone, but Possibility, responding to Necessity as challenge, summoned Invention forth, as from the trance of workmanship design evokes design, through the mind-wearying ages that revolved in evolution's progress: were they more than the spinning of a potter's wheel? And when we pace the shore and hear with restless yearning the beating of the breakers upon stone: are we the yearners, exiled from the home of the unknowing? Or is it not the sea that yearns in us, surging against the chains of matter toward still-unenvisioned being?

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Chapter 4

Origins and history of life; constitution of Earth's ecosystem.

Contracted to a tale of seven days, creation served our forbears as a backdrop for human deeds measured in generations the scroll of bardic memory could record. Holding in awe the power that made the world, they sensed its presence in the human present and took things as the instantaneous flash of waking human consciousness – inspired, they heard, by greater consciousness—revealed them: creatures like figures from a sculptor's hand, 10 meant to be so and constant in design; although the wisest spoke among themselves of many worlds before this world contrived and broken in the workshop of the Maker. Then stirred in us the power of invention that had been born half drowsed, responding slowly to need's demand till more imperious need called forth its utmost effort. All our thought was bent now on contrivance, on the stages 20 that lead from one appearance to the next, and from that bent we questioned what we saw. The earth gave forth its answers. Every stone bore hieroglyphs that told its generations of metamorphosis and deposition from lava core to river-beach and basin to new-uplifted mountain cliff and glacier, from rock to sand and silt and back again. The strata – buckled, tilted – were the pages, printed with many an eldritch character of ancient life, that spelled a chronicle 30 to dwarf the flickering breath we read it by; in mines, on mountain scarps, in river-gorges the evidence was gathered, pieced together, proportion from a single femur conjured the prehistoric beast with all its limbs and sinews, while the microscope conducted eye's mind into the realm of the minute to read the cryptograms enciphered there. The human mind upon creation's trail

seemed equal to all subtleties devised by time and cosmic forces in their working without a thought toward one end or another; it wandered, hearing no voice but its own telling the tale of untold time and naming the dreamless dead of days before the word. 40

Yet marvelous, after all, this story sounded to one who heard it in a parent's voice opening realms of time where human mind henceforth must make its home. So let it be. The geologic column call a shadow 50 cast by a thought more mighty than we knew, let all along the length of that thought play creatures called from oblivion by our naming. Done cannot be undone, nor known unknown, but we can speak it to ourselves again until the macrocosmic time of makings beat with our pulse, until the tides of song smooth the sharp stones of knowing, and the hush of earth's slow breathing steal into our own; till we have got our origins by heart 60 again, and in the present bustle stands awareness timed to mountain revolutions.

From the first jot of inarticulate life to its now visible and vast array the gradual aeonian road extends, braided of many wanderings, like the trail our waggoned pioneers broke through the desert toward the western ocean: broad to all horizons, to all appearance aimless, yet impelled; and in retracing it, our theories too 70 crisscross, combine and recombine, evolve and supersede themselves. For a beginning, conjecture working back through time evokes the chaotic earth, cooled from that storm of stone so that its veil of vapor fell as rain till seas filled up its hollows, and the sun stood for the first time in an earthly sky and streamed within the seas and warmed and stirred atoms and molecules to intenser motion. And the way swiftly-churning water runs 80

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in patterns that hold steady while the substance that swells them slips away and is replaced: so, we surmise, that energy of light created standing forms of interaction, a chemical exchange urged on, reined in to restlessly-elaborating structures unknown among the vast and simple stars. - Unless it was indeed among the stars, in cosmic dust between the galaxies, in towers reared from vents in ocean floor, 90 or in the chinks of earth's infernal rocks where to this day archaic airless forms live on, that life's first soundless word was spoken, that in the molecular shuffle carbon bonds held and were forged to chains of many links, the polymers, until it chanced that one took from another to comprise its twin, and these unclasped to clasp yet further substance into the likeness of themselves. To these the protein enzymes were associated that make from what the ambient source provides 100 whatever is required for replication, and round them the protective membrane formed, dividing when the pattern was repeated. Unless it was that in its own beginning – unique as the first act of replication a cell-like pattern formed, a unity of membrane separating Self and Other, maintained by primitive metabolism, though empty still of the genetic core which then arrived as parasite, dissolving, 110 until it found one membrane that persisted as form around the replicating pattern. Metabolism thus wed replication – the whole that tends and struggles to maintain itself, the seed designed to make its likeness and so the long relay of life began, as replication led to variation, mistakes in copying carried on, compounded, each accidental small advantage saved from myriads of fast-dissolving failures 120 persisted and was added to another, and living forms evolved accordingly,

through ages deeper far than breath can fathom.

Thrice longer than articulate life records beat the Archaean seas against the shores of shifting continents, while in the shallows evolved unseen the scarcely-animate things, feeding upon the organic molecules with which the seas were filled beneath the sun, and then, as these were used, perforce devising 130 methods of synthesis at more removes, elaboration compensating dearth. Cells entered into other cells, became their minute organs, replicating still by their own code, as still they do today, within the household of the host whose plan is wound within the nuclear chromosomes. And thus for centuries of million-years the micro-organisms bred and fed, leaving faint traces in the roots of mountains 140 upheaved from ocean floor, then worn away before the first limb scuttled over ground. These casings, microscopic rods and spheres; this layered pommel of stromatolite, the work of massed bacterial generations; this film of hardened carbon residue wrung, metamorphosed out of recognition by subsequent contortions of the rocks – these in themselves would not suffice to fill 150 with characters of history the blank pages that make the first three-quarters of earth's tome. It is the cell itself, the living cell unravelled like the puzzle of the rocks, that shows what must have been, for this to be. As linguists pondering ten separate tongues can reconstruct from metamorphosed sounds the language that was parent to them all, establishing the sequence and the dates of severance from the common understanding, 160 so the elaborate central code that carries the message of our being, tells life's readers sequence and parentage of living forms; and the first, simplest cell, procaryote, still lives to tell the origin of all.

Not as a tenant to a house completed came life to earth and its enfolding air, but raised itself the roof-beam, if aright these scholars have rewound the thread of time. The atmosphere which pressed those early tides was not the air in which we draw our breath; 170 for oxygen, the sharp, the quick-combining, the consort of combustion and of rust, was bound with other elements in water and in the surface rocks which like a foam ride the dark masses of the planet's core, while that primordial lightest element whose atoms, over time, slip from earth's grasp, was more abundant, with its gaseous compounds, ammonia and methane, which still burns above the marshy ground where ancient things 180 that cannot breathe our present air, live on. Through those enveloping substances beat down the sun's intensive ultraviolet rays, breaking the new-forged links of life, confining its creatures to the dark of earth, or twilight of underwater realms. Till in some shallows, perhaps, where life was touched by softer beams, the ever-rolling dice of life's invention cast up a cell that caught the light and used 190 light's energy to break and recombine sea-water's simple compounds for its food. This process freed the avid oxygen from its old bonds. Now its diffusing atoms sought new alliances, disturbing those that constituted life's minute design, killing some kinds, driving some down and back to lightless crevices, but spurring others to find the means to shield themselves, or even to capture oxygen's corrosive power, fueling a quicker life that then discards 200 as waste, carbon dioxide, which the cells that capture light absorb and put to use. So with the closing of that ring were founded the twin-born indisseverable kingdoms of photosynthesis and respiration, the circulation of earth's single body.

At last the excess of oxygen rose up above the stratosphere, encountering the ultraviolet rays, beneath whose force its atoms split, then half combined with whole, and this new form of oxygen, the ozone, blocked out the rays that forged it. In the sea the Phanerozoic era had begun: elaborate cells were joined to other cells and, differentiating, brought to birth the realm of visible and complex life.

Now life emerged to make the land its home under the sheltering membrane of the sky.

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How long the new-formed earth lay desolate after it cooled, until the spore of life formed or arrived; how long till it devised the self-enclosed and fissionable cell; how long until the cell took in its neighbors, became a little city in the unseen: this laying-down of life's minute foundations we trace in thought more than in evidence, so slow and unobtrusively it went. But when two cells, dividing, did not part but clung and metamorphosed to divide the labors of existence, then the pulse of evolution leaped. The transcendental eyes (if such there be) that watch through ages saw of a macrocosmic sudden start a carnival of swiftly-changing shapes; and we, in looking back, can almost grasp the temporality of ancient strata marked, measured by the unfolding of life's forms. The deepened crenellation of a lobe, the opening or sealing of an eye, tell, like the sands heaped in the lower glass, the turning of a thousand thousand years when out of repetition, repetition and repetition, variation leaped, fell back into the drone of repetition monotonous as the hum of summer days in vacant lots, when under sun-dried stalks the unwearying locust plies his instrument.

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So beneath Cambrian seas the trilobite

scuttled and fed, molted, developed spines, reduced its segments in the Ordovician, 250 tended to blindness; in Silurian shallows the jawless fishes ranged; the lichens crept ashore, an arthropod essayed the air; in the Devonian came the first jawed fish, the plated arthrodires, and vascular plants that grew to forests, left the massive silicate columns of Callixylon, first of trees; from inland lakes the lunged fish raised their heads till from a shrinking pool at summer's drought 260 lungs that had learned to gasp the gaseous dryness and fins that had become ungainly limbs heaved themselves up on land in search of water and journeys lengthened into residence, although in water still their seed combined. Then came the Age of Coal. Seed-fern and club-moss rose in great forests on the marshy land, fell, and their carbon sank and was compacted beneath the weight of silt and sand and limestone, the slowly-settling sediments; meanwhile amphibious bodies formed themselves to fashion 270 a membraned globe, a lime-cemented shell, to hold the mothering fluid for their seed. Now reptiles grown, they parted from the shore and spread inland, amid the drier forests to which the rocks of Permian times bear witness: gingko and conifer, the gymnosperms. Then came upon the garden a great pruning, the greatest, not the last and not the first, bringing a curtain of extinction down on that Act One of earthly life we name 280 the Paleozoic. When the seas grew warm and thronged again, the trilobites were gone. In Mesozoic seas the ammonites evolved, convolved the patterns of their sutures, coiled and uncoiled their shells; on land the reptiles proliferated, differentiated; the dinosaurs arose, both great and small. Triassic and Jurassic and Cretaceous wore as a mountain wears, one grain a day, 290 while they held sway on land, and in the sea hunted the plesiosaurs, their giant cousins.

From shoreline cliffs the pterosaurs launched out, the sun upon their widestretched glider-wings, to plunge for fish; in some Jurassic forest flapped Archaeopteryx from branch to branch in the first of all plumage, heavy-boned harbinger of the light warm-blooded birds; and large and heavy-boned, a wingless loon, swam Hesperornis, first of waterfowl. Among the multifarious dinosaurs 300 customs of parenthood made their appearance, the young no longer left to hatch at random and seek their forage, but close-kept and fed, while inconspicuous within their world the ancestral mammal brooded, grew alert, its fur without and thermostat within held warmth to keep its senses at their vigil – it opened in its flesh the source of nurture, folded its offspring in a pouch the ages wrought to a chamber of unfolding life. 310 And while the floating motes, the nannoplankton, let sift their microscopic carapaces, perhaps a millimeter in a decade, on beds that rose as Dover's great white brow, plants of protected and provisioned seed, willow and fig, magnolia, poplar, plane-tree, the flowering angiosperms, took root and spread, and with them grew the realm of insect-kind that helped and throve upon their propagation. But now once more the rows of life were thinned 320 in the latest of the great extinctions caused by accidents of planetary scale before the mental mushroom flowered up. There came (as now time's record is replayed) a meteor-bolt that plunged into the planet with huge upheaval scattering far and wide fragments of rock, and in the upper air spreading a cloak of dust. There came a winter's age. The last lines of the ammonites withered from the seas, the dinosaurs 330 left on the darkened land their final bones. And when that lifted dust returned to earth, letting a gradual dawn and spring return, the Mesozoic chapter had concluded,

the era of familiar things begun. Earth has preserved alive only the remnant of many a strain that flourished for durations we can no more imagine than the distance between our doorstep and the nearest star: the horseshoe crab recalls the trilobites, 340 the single pearly nautilus remains of all the shipwrecked ammonitic fleet, the crocodile, last of the archosaurs, still threatens from the tropic rivers; ginkgo, caught from extinction's brink by human hands, forgets the woods in ornamental gardens or stands the smoky air of city streets. But what was lost is more than compensated by the diversifying lineages 350 that filled their places: mammals, insects, birds, the angiosperms, the grasses, the composites; the supple modern fish, the teleosts all the rich tapestry that drapes the earth and all the living gems that fill the seas and, always present with the visible creatures, around them, under them, above them, in them, the microscopic beings (they too evolved, sorted and screened, diversified, perfected) work in their various ways for good and ill. The way a single drop of dye in water 360 will, without stirring, slowly percolate by random motion of the molecules until an even tint pervades the fluid, so in time's jostling pace the organisms have slowly reached to occupy each space earth offers to the probing limbs of life: shoreline and marsh, valley and mountain slope, cold, hot, or dry. Upon Mount Everest and at the edges of the southern ice-cap 370 the clan of Collembola, eldest insect known from Devonian rocks, has pitched its outposts; under the thermal waters' seething crystal a blue-green algae lines the grotto walls in azure-shadowed verdant convolutions. And room on room, dwelling within new dwelling, life multiplies the space for life to inhabit: trees lift wind-stirred pavilions, while the soil

roots and bacteria have worked, gives home and hunting range to burrowing snout and claw, and nothing burrows for itself alone. 380 For every leaf there grows a mouth to crop it, all flesh is food for other flesh, the fiercest for carrion-eaters; agents of decay return all offal to the fertile soil from which new leaves grow for new mouths to crop. Through all this reigns a principle of balance, such that an overgrowth is checked by dearth of prey or forage, or the increase of foes; high in the atmosphere growth and decay 390 hold converse with the ozone, regulating sparsity and luxuriance of life by unseen paths of chemical exchange which in their endless intervolving make the one metabolism of the earth. Each cycle functions in another cycle within the gyres of cosmic revolutions, rings formed of day and night, of wax and wane, of ebb and flow, of equinox and solstice and the great year whose circle is inscribed by our North Pole among the unmoving stars. 400 An order intricate beyond all knowledge has risen here in entropy's despite, for though life as it lives creates disorder, turning its food to waste, dispersing heat, yet the sun's constantly-inpouring power, caught in transforming cells, redeems the debt and more, reorganizing what was scattered into new forms that rear from dissolution mansions ever more cunning in design, yet seeming innocent of all intent 410 and ignorant of itself, save through our knowing.

Chapter 5

The peril of knowledge, and its inevitability in living systems. Origins and development of intelligence. Effects of nurture and of the ability to manipulate objects. Mind and sociality. Emergence of the hominids. Origins of toolmaking, naming and syntax. Neanderthal and modern humans. The birth of Technology.

This order of the world which we have seen, this intricately self-perfecting being, calls us to lose ourselves in contemplation, and find ourselves in what we see, and fear. Through us it blossomed into mind's awareness, and mind's awareness threatens it with ruin. It bore us and sustains us, yet its law for us is pain and death and a self-knowledge that shows us in the image of an ape or something no more dignified: instinct 10 with mere behavior, chosen by the factors of ancient situations: made, like all, in conflict, for more conflict. Reason seems projection of our cunning, not First Cause but last effect; the soul a phantom, fevered by mortal dread; the mask of love is lifted, and we behold the reckoning of the genes. Not that this mocking mirror ever can reflect us truly. "What are we?" we ask, and our eye meets the squint of what we were, 20 and of that face our vision is distorted by what we would be. Those whose will is strife and brutal domination, often make the simian jaw their charter; others, hoping to hold a plea for mercy with the past, resift the evidence, here mitigate a stricture, there propose an alternate model, but theirs the weaker voice. Well may we admire, seeing the sequel of such inquiries, that wisdom which once set before our kind 30 the fable of a human pair, created perfect, for an immortal life of peace, who forfeited that peace by greed for knowledge of good and evil, and were thus condemned to toil, pain, conflict, degradation, death.

For to have fallen is to have the hope of restoration, and the beckoning vision of Being high above the floods of time; and when imagination takes that height, then it can see beyond immediate need 40 and steer the world toward better, on occasion. That vision snatched from us, we can at best acknowledge what has been: that we were shaped by the increase of knowledge, which procured advantage, and avoided threatened ills; that through all this we were impelled by need which drives all living things; but say this was to such end that with faculties entire we might as parents of all life survey the whole, and for our own advantage take 50 what may promote survival of the whole, perfecting thus our image with and in it, and opening life to that which lies beyond if intuition tells us right. This makes of evolution an ascent, implies, perhaps, a goal anterior to time, and saves our hope; yet still remains the danger that, looking back along the stair ascended, we may, like Lot's wife turning back to gaze on Sodom, lose the future for the past 60 and miss the final rung. Yet we must look.

Knowledge: another name for separation. Our kind were not the first that tree has fed. The primal membrane, that amid the unbounded flux of reaction, closed upon a cell, cleft a caesura in the text of matter, insured its reading by most alien eyes. For soon was born a cell that learnt to shrink from influences that threatened to dissolve its little difference from the ambient matter: 70 the Uncarved Block of unperceptive being was hewn to Yes and No. After the lapse of further time, the clustered cells composed receptors that could recognize the simple shadow of prey or lurking predator. Upon the differentiating screen further and further shapes gained recognition,

called for new correlations and decisions. In each advance the original parting was repeated, deepened, as the living thing 80 won, step by step, resourcefulness and will, elaborating form and self-awareness. And as for death, that shape has shadowed life since the first union of the cells distinguished between the message of the germ and that which lived to bear it. As the errand lengthened with obstacles that placed themselves between the start and once so proximate goal, the fall to dissolution and oblivion when the spent shell, the bearer, was discarded, 90 steepened. Until in us who walk upright form turns to see the shadow of its transience and grapple with that shadow all its days. The earth cannot accuse us, having taught shapes and behaviors to whatever came to fill its primal desolation: plants first did it teach to grasp with lightless root into alluvial silt, and lift their green sunward, then on the fattening soil to grow with stiff stems overtopping one another; 100 beasts it instructed in the crawling limb, the armored egg, the jaw that cropped and tore, while by the veering of the poles, the heave of mountain chains into the upper air letting the cold in, or their wearing-down to level hills a temperate air enfolded, the dynasties of flesh arose and fell. The shapes of whale and fish, of wolf and dingo, the eye of cephalopod and vertebrate, bespeak the power of the external mold 110 on things unkin, yet twinned by their conditions; even so the habit of the mind was set by habitat. For on the various land varying circumstance called forth the wit to choose and change, while wits, encountering, sharpened against each other. Slow, at first, the mind was molded in the reptile clay, in sideward-sprawling and cold-blooded limbs, dull subjects of the sun, that stirred at morning and stopped at night, like factory machines; 120

pursuit and flight impelled the dinosaurs to draw their legs in and to hoard their heat by some means that maintained them, though unclothed warmblooded, all their temperate eon long, and let them wake and move toward the beginnings of parenthood and nurturing social life, till the great winter swept them all away, leaving an empty earth to the furred mammals, flexible and alert. Thus one account, 130 one constellation in the evidence; and yet however told, the drift seems plain, seeing how since the dragon kingdom fell the skulls of mammals have gone on enlarging. In every age the game of life is played more wittingly, not by our kind alone: from dolphin sport flashes a conscious joy, and in the elephant broods a memory that grieves the dead, revisiting their bones. Although mind's loftiest crown would fall with us if we should fail, yet it might be regrown, 140 unless we scorch the phylum to the roots. As when an equatorial forest tree comes crashing down, dragging the tangled vines that weave the gloom on high, and thus exposing the floor to sudden brightness that sets off a burgeoning of growth into the breach plants racing each other to the top until the canopy shall close again so after ages when the elements have mastered our proud towers, effaced our roads, 150 covering such debris as will not rot and render back its elements to life, some unimagined creature that began to lift its head when our strong arm sank down may occupy our room, and think our thoughts, which we had once believed were ours alone.

While still the terror of the dinosaurs
was on the mammals in their tiny niche,
the garment of the continents was changed
to flowering plants, deciduous trees that offered
a maze of branches, ready for new tenants;
and after that great dying, when the mammals

grew swiftly into their bequeathed domain, limbs formed for grasping limbs of trees reached out, claws flattened over padded fingertips against whose skin crowded the tactile nerves reporting to the brain what hold the hand had closed on. Eyes that scanned from side to side swung forward, fixed together on a point, and from their differing reports the brain 170 measured the distance, gauged the leap. Likewise the sense of color now was worked into the subtle nerves behind the eye, discerning tree-branches motionless in even shade, ripeness of fruit. Between the reaching forelimb that grasped with fingers and opposing thumb, and the keen eye, coordination grew; thus with the primate hand came apprehension, the world of separate things to be distinguished, picked up, examined and manipulated; 180 the brain amid its ramifying choices redoubled and reorganized its networks, and with it grew the primate social web, the mind that lives beyond the single brain.

Society: not only in the order from which our kind descended, is it known. For as monadic cells learned to converge in bodies, and accept a common fate, so has advantage prompted many a kind 190 to mutual aid: wild geese that flock and fly in wedges, while the leader cleaves the wind the others follow in an easier air until the leader, weary, drops behind and the one next in line becomes the prow; magpies that in the Australian desert hoard their gatherings in common to maintain their numbers through perpetual hard times; the polity of bees, the termite mound powered as by computer that dispatches 200 unquestioning numbers to their various tasks of nurture, forage, war; wolves that deploy their stealthy forces round the musk-ox herd which, scenting them, in turn draws up its ranks, the young and cows within, the bulls without,

to front the foe with hooves and lowered horns. Within each group, the individual fates keep up their sifting. As conditions vary, common or singular expedience moves the selves, the members. Thus cooperation and competition twine their spiral dance, 210 most wildly when two groups come front to front and enmity calls comradeship to muster. And through all lists of love and opposition mind answers to the call of mind, becomes complex, to learn communication's ways according to the limits of its matter and form's implicit opportunity. Those mammal structures which afford the young asylum and then nourishment, imply teaching and long attachment, sense of kin 220 and concept of the individual being. The primate hand in reaching for the world garners experience the troop or tribe keeps and hands down, lengthening out thereby the tutelage of the young. The mother's burden grows, to be shared among the female kin; the young apes in their common play rehearse their future doings, while the males keep watch and form their ranks of precedence to weave strife and cooperation into one. 230 Among them signals multiply. The head becomes a face whose working muscles tell of threat and play, tenderness and submission. The hand, that cunning tool, has learned to make new tools: to peel a twig and fish for termites, break off a branch and shake it at a foe, throw stones, or use a stone to shatter nuts acts not instinctual, but learned and taught in rudimentary cultures. Humans coax great apes to stammer-sign their uncouth thoughts 240 or chip at flint, the way our forbears did, simian skill following behind the human along a trail which dawning comprehension and stumbling luck broke by millennial inches. Now clown, now cannibal, the chimpanzee unwitting acts the fool to our King Lear (although he knows his image in a mirror

and also has been known to die of grief), showing us much of what we were, of what we are, or have not yet outgrown: shakes hands, gives kisses, slaps backs, offers his behind to a superior, lets himself be groomed, by fits and starts devises hunt and war, whoops and stomps with comrades in a throng as if upon the eve of that dark voyage from which we never could return to tell him in any language he would understand.

How we set out on that ambiguous journey and how that past still speaks in us, we guess, though our conjecture sifts like desert sand 260 among the scattered stones and skeletal leavings that mark the trail, three million years and more since we begin to recognize ourselves, longer, since from the common stem diverged gorilla, chimpanzee, and future human. Only the hard parts of our evolution remain: the indigestible teeth that tell of diet; now and then a jaw or thighbone, a brain-pan; sequences of battered flint; 270 pollen and seeds of vanished vegetation. Long gone to quick-consuming air the flesh of feeling, and the ligaments of signal, the weft of withes or rushes, and the gift of water in a first cup stitched of leaves – gone with all memory of a departure without foreknowledge. Perhaps it was a time of cooling weather; forests that had fostered the primate family on fruits and seeds, insects and small game, dwindled. Grasses waited along the edges for the trees to die 280 and seeded in their place. Savannahs opened, stretching amid the thronged and shrinking groves, and out there moved great herds that cropped the grass and carnivores that preyed upon the herds and left the meat half-eaten. To their leavings came scavengers that fought, or snatched and ran, among them upright-walking apes that carried stones from which they had struck a flake or two that with the sharpened edge they might more quickly

290 sever the meat from off the bones, and flee. The biped gait: in the unsheltered spaces it draws the body under its own shade, the fur is doffed, the thatch of hair grows thicker, the higher eyes can keep a wider lookout, and in the free hands tools are carried, food is brought back to the young, whose long demand grows longer still, more onerous to the mothers, as haste and danger breed them quicker wits and knit them to a closer band. Together stature and brain increase, the group enlarges. 300 From scavengers they turn to hunters working by inference and plan; from foragers who merely range and browse, to gatherers who bring back, with their food, a store of knowledge. The throat is formed to more articulate calls, the musculature of jaw and tongue and face nerved to the central seat of understanding. The expanding skull-case multiplies the pain of birth, forcing a wider gate and slowing 310 the steps of woman; waxing mind demands a more attentive and prolonged instruction to mold the adult from the helpless young, a different vigilance, to lull the mate come strange from acts wherein she has no share. The primate troop, that centered on the mothers, has lost its ancient matrilineal focus. the male-led hunt reconstitutes the band so that the female, mating, leaves her kin; perhaps in compensation, then, the signals are multiplied among the female strangers, 320 fated to weave a texture of relation not given at birth. Concomitantly grows the bond of fatherhood, and single choice of mate contending with polygamy which the male favors, who can sow his seed in many fields that each can bear but one; so female choice of fathers that provide is cast into the balance with the ranking of the male hierarchy, which determines the access of the strongest to the most; 330 and seasonal heat, that stirred the primate troop like summer wind with flaunting copulation,

becomes a hidden individual cycle, the external signs of readiness made constant, clipping the pair together all year round, supporting with desire the tenuous bond of common enterprise between two beings different, and marked for further difference, division which the bond itself implies. —So grew the realms of hunting and of nurture, 340 feeding upon each other, yet enjoined to separation, lest the hunter's arm be stayed by fatal softness in the field or turned upon its own within the camp: a human nature that is two in one, the difference an impetus to culture that separates and bridges. Some indeed surmise that it was female choice, attracted in escalating measure to flamboyance of mind, as in the wondrous bowerbirds, 350 caused the enormous brain to mushroom out (the singer's fascination for the groupie a remnant of this ancient twist of fate); unless it was that hunting led to war, honing the human mind upon itself, till over both those realms awareness arched the vault of memory and premonition, hemming life in with birth and death, pursuing the adult with the ghost of childhood past, on mere aggression fathering remorse, 360 and cruelty as often, by the sharp entering consciousness of other's pain. Dread power of Thought, that presses on itself with all that is unbearable: is it not from self-defense of mind against itself that all the thousand rites of separation, the lattices of sculptured fiction, gods and spirits, terrible in themselves, arise? is not all human sacrifice a vain propitiation of this last-caught monster 370 that tears the hunter's net? And is it more than one more dream in its dementing presence that it was meant for us as a last gift to free us from the limits and the pain of our time-bound becoming, like that quarry

that in the hunt's high fever flashed snow-white, invulnerable, before the hunter's eyes, who following as on and on it fled found a kingdom of enchanted peace? 380 - A legend, and its time of telling past; yet legend from the future borrows leave to speak of things that are not yet; and we have heard that origin and destiny are not the same, even in evolution, that faculties framed to a certain function may in the course of changing uses come to serve another. So may it be with us and with this consciousness, our boast and bane. But howsoever we trace the cause of thought to life's necessities, it would appear 390 that as the water of a mountain stream will find the ocean by one course or other, so mind is in some manner bound to seek to free itself from circumstance. For always what can respond to change with innovation secures advantage, and sets new conditions wherein, again, the flexible response is advantageous. Intellect becomes self-reinforcing, founded on itself, protagonist amid earth's changing scenes. 400

In Africa, where the tectonic force is slowly pushing continents apart, lies a broad plain in seeming quietness belying the volcano's roar, the rain of burning ash, the ground that shuddering subsided, then remained a sunken waste. Kind seasons brought new seeds, life flowered again on its own grave, streams ventured through the lowland,

bringing fresh sediments, filling up the hollows, till earth-strain moved the hills again, again the plain sank down with cries in burning darkness, to be reclaimed after the storm of stone by life's forgetful hope. Across this plain there runs a gorge, now called the Olduvai, deep-cut through layers of ash and sand and soil, the archive of two thousand thousand years,

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and near the floor, the earliest scant remains of handiwork: chipped pebbles, piles of rock a kind of wall perhaps; within the enclosure, bones cracked to get the marrow out. Here camped, 420 it seems, a band of creatures on their way to humanhood. See how the brain-pan's grown, the teeth are smaller – tools now do the tearing – the simian snout's already in retreat, our human vertical countenance implied. Here, in the riven earth's calm intervals, our kind was fostered, stricken and driven forth, returned to thrive and to be stricken again from black and battering heavens; and who knows what shadows from such infancy yet lie 430 upon our brains? A million years ago, we guess, some groping tendrils of the vine that bore us, first began to find their way out of that continent. Northeast they headed, along the south shore of that land-bound sea, last remnant of great Tethys from whose bed the Alps and Himalayas were uplifted. The Bosporus lay then a shallow strait; they crossed it without boats and came to Europe. 440 Across the Asian continent they groped, even to the shores of China, everywhere leaving the record of the evolving brain in higher skull-domes and in larger bones of carnivores which they contrived to slay, scattering the earliest artefacts of form repeatedly imprinted upon matter by human will: the hand-axe, knapped out such as it would stay for a full million years, as if invention took one step, then paused in terror of itself. Well, that is hindsight; 450 processes have, it seems, a way of starting slowly, the first stones tentatively laid till a foundation is in place, but then a fast, faster and ever faster pace piles the consecutive courses, now the tower seems to be shooting toward the distant stars! So went the gradual quickening of life. It captured fire in Proterozoic times, bound it in respiration, starting off

460 the race of animate being toward the goal of mind, which having reached, our forebears found the naked flame in seams of dampened coal or lightning-kindled forest, took it up and gave it residence in life's domain to throw off vital warmth the way the sun squanders itself in heating empty space – centuries of vegetable labor lost at one night's campfire. And the extravagance is worked into our fiber; for the cooking of meat, say half a million years ago, 470 allowed the teeth to be again reduced, less chewing needed, while the frontal ridge to which the jaw was hinged, grew daintier, left more room for the bubble of the brain. Through fire the screen they raised against the wind closed to a second body. Caves could now be warmed, and the great cave-bears scared away. Fire-comforted they ventured further north while the great glaciers of the Pleistocene were weighing down the Eurasian continent. 480 Two hundred thousand years ago, perhaps, hands that had shaped hand-axes learnt to score a lump of flint and strike it with a hammer of bone, so that the keen-edged flake flew off a ready blade: an implement was made to make another implement, a purpose took aim from further off; and we surmise that round that act of making the winged words were venturing upon their maiden flight.

Language: again, no human property
alone. The social body moves by signals,
be they but pheromones released, received
as between cell and brother-cell, or fixed
gestures, the weaving honey-dance transmitting,
without deliberation, simple data
to instigate the unreflecting act.
The mating-strut of grouse, the begging-stance
of gulls, likewise unchosen and unvaried;
the vervet's repertory of alarms
(Leopard! Eagle! Snake!) still automatic,
save for that monkey-trick of crying "Leopard!"

to fright another monkey from its food: Aha, Deceit is born, a little crack opened between the signal and the world. Though still below the horizon, the word-sun is heralded where on the creature's mind the shapes of need or fear are printed, linked with patterns of appropriate reaction. Near enough is the making of the name to animal cogitation that the apes can learn to tell us of their simple wishes, though for themselves they do not find it out. Scarce different from their disjointed signings are childhood's earliest articulations, the stammerings of those unfortunates cast out in infancy, the pidgin-speech of adults mixed without a common tongue. Among the dolphin-whistles we begin to make out names they have for one another who knows, they may have crossed the second

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into the workshop of syntactic order, where among names of things and acts are fashioned ligatures that relate and qualify, give place and time, assign the roles of action, and make of scattered things and acts a world, the objective world, that can be mapped and plotted, held in the mind, though this or that be absent, evoke responses more and more considered in a constructive process that keeps building its organs of production and reception. The human mind, at least, was globed to hold this model of the universe approaching ever more, in complexity, the real. Almost our speech outgrows communication to serve the mind that thinks in solitude as loom of free decisions and devisings based upon differentiating knowledge that from an ever-wider ken arrives; yet this includes new knowledge of each other as, hearing through the word, we see the world the other speaker sees, echolocating

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the center of the other mind's concern.

When did we enter this reflecting world?

Between the age of two and three the child, taught, as it seems, by social interaction which sets some program in the brain to work at peak for brief years, gets the hang of syntax.

The growing mind mysteriously crosses a line, the faultline of the breakthrough when upon the genus Homo's drafting-board the plan of us emerged, to supersede all previous versions.

One of which we must

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have known. A century and more ago we came on their extinguished hearths, in Europe along the river-valleys where the cliffs of limestone stand exposed with many a door to caverns hollowed out by water seeping through centuries toward the level of the river. Their bones first found in the Neanderthal gave them a name; they for themselves no doubt 560 had found a name, although no echo now returns those syllables. Their skulls were large; the brain in contrast to our own appears pushed back by pressure on the heavy brow; their women were broad-hipped, as if to bear young fuller-grown and less in need of teaching, more bound to instinct than we deem ourselves, nor is it certain that the throat was wholly fashioned for delicate articulations; 570 but the variety of flinty tools bespeaks increased autonomy of mind, and bones that bear the scars of knitted breakings mean that their arduous life was mitigated by care for injured kin. Their camps were small, a score or two at most. They had no art, although we sometimes find a tool that looks as if its maker liked the way it looked; there are those lumps of manganese and ochre, sharpened like pencils, scratched to give a powder – their bodies, then, they painted, were aware 580 of their own forms, wanted somehow to improve them. They left some crystals they had gathered, lumps of mammoth-tusk, smoothed to no definite shape but ochre-stained, like inarticulate prayer,

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and graves. First witness of remembering pain, anticipating fear, and groping hope.

The haunch of meat provided for the journey, the ochre paint, the flowers once heaped here (their pollen lasts), the ibex horns: farewell.

Now Death is in the world, the Sign is born 590 to mark our place in life's forgetful tome.

— Thus we evoke the ghost of ancient mind that may have parleyed with our far foreparents, who knows, in pidgin sign.

From Africa these neighbors came, the latest flake struck off from human evolution's ancient core: a people taller and less ponderous, the brain less great, yet domed above the brow, where language and reflection have their thrones; and finished, also, was the instrument of utterance, the larynx. Their encampments seem more elaborate, structured. Most are small; some, at the center, larger. It appears that we had found our oldest social form. the band of bands, that seasonally meets, social complexity that correlates, we think, with the complexifying sentence. Their grave-goods hold a language, though obscure articulate, of set belief. The tools time buried with their earliest hearths are simple, bound by the ancient slow-learned ways of making. Then—fifty, forty thousand years ago as if time once again has shifted gears, or as if one fine morning a connection clicked between language's exuberant domain, and the still-fallow field of handwork. suddenly in the record there's a burst of radiating shapes. Spear-point and scraper, spear-thrower made of straightened antler-bone, blades, leaf-shaped, this blade too thin for use – ceremonial; amulet, petroglyph. The kingdom of Technology is founded, likewise the realm of mind-informing Art.

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To this the old, the slow ones had no answer. They melted from the slopes of the Levant and then in Europe, at the glaciers' hem,

fell back from east to west, a long retreat of thirteen thousand years. At the frontier of France and Spain we find some tools they seem to have fashioned in a puzzled imitation 630 of the supplanter's art, an ornament – trade-goods, possibly. Somewhere in Spain upon the air for the last time there sounded whatever syllables their throats had formed to name themselves, the shapes they saw and made; and on our tongues no doubt some name for them lingered on while the uncouth figures darkened back into the shadows of those dreams that haunt the fringes of our human life where live so many things that never were, 640 bogey and troll and unicorn and dragon, their unreal forms the by-blows of that skill in naming, making, that is half our knowing. The earth was ours. The tools were in our hands, our minds, to master it, to solve such problems as predators might pose, to meet new needs with new devices, to come face to face with one another, with the universe, and with the ultimate riddle of ourselves.

Chapter 6

"Human nature," the overall human behavior pattern. Earliest traces of modern humans. The Lascaux culture and its collapse. Origin of agriculture as a response to environmental depletion. Civilization as a consequence of agriculture. Changes wrought by civilization in the structure of society and consciousness. Crystallization of the scientific method and increased pace of technological development. Population growth, industrialization, and exploitation of fossil fuels. Increasing specialization of knowledge and fragmentation of society; limits to human expansion.

These strangers who, from tract of earth untraced where their design from ceaseless dice had leapt, now scattered forth to dispossess their kin by steps inexorable: they were ourselves, so far as body's heritage has made us. They had our present cast of countenance; they looked upon the world, not yet their own, from the same whorls of enterprising brain; and in them also lived the algorithm of human social life, deeply imprinted 10 in matter's memory, if we conclude rightly from variegated tales brought back by those who in the steps of farthest tribes have trudged, and noted all their customs down. Some things are constant through the variation of circumstance, emerging everywhere, like language, always in a different form, the forms, although opaque to one another, betrayed by structure to the objective eye as the projections of one selfsame mind. 20 In every human language there are names for kin, and every person has a name; all humans gesture, joke, and greet; all build in space of speech the branching tree of syntax, ordering (though on each particular stem in varying arrangement) thing and action in time and space, by attribute and manner; and in the background of all utterance all doubtless feel the far-subtending web Association, whereby every word 30 spoken sends tremors all throughout our thought,

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as the entire world's being underlies each thing and motion. And as in our speech, so in the actions of our aggregates the code of our inheritance is at work. All human tribes are parsed in ranks of age and status, men's and women's work distinguished; all know authority and government beginning with spontaneous recognition of wit and strength, elaborating more 40 as numbers and increasing skills compel. All mark out channels for the sexual flow, barring incestuous union; courtship, marriage have their due uses, pregnancy and birth are girt with custom. Food likewise is taken at set times, and mysterious curbs imposed on the enjoyment of some food or other; cleanliness also is defined and taught. The child receives instruction in set manner and passes to adulthood through the gates 50 of ritual, to sever childhood's ties; adults are bound by kinship obligations and by the jurisdiction of the law; all know cooperative enterprise, the rights of property, the fair exchange, gift-giving and the welcoming of guests. The family celebrates itself in feasts, and play configurates in game and sport; various arts enhance the body's form, shape the skull's thatch, and give to implements 60 a graceful superfluity of design, a meaning to accompany simple use. The end of life is solemnly acknowledged, the dead have funeral rites, and their bequests are parcelled by some rule among the living. And every tribe surmises that our life is acted on a stage some cosmic power has set, and which it someday will dismantle, though differently they narrate the beginning and guess the end. Moreover, they assume 70 that in the natural and the human world spiritual agents work, to which the soul is linked, with which it can communicate by divination, ritual and dream,

by spells that heal the ills of mind and body or make the weather answer human need or close what other gaps tend to appear between our will and power.

All of this

is common property of all our kind, although we do not know how much is ours alone, the outcome of those accidents that formed us as the species that we are, and how much is the shadow of the earth which it would cast on any creatural mind that dared to wake and view it; or conversely the mind's conditions, which it must impose on matter that would bear it to full term – as, in both squid and vertebrate, the eye has twice by chance and fate designed itself. For mind that can deliberate the whole to choose one path in it above another, not blindly pulled between mere precedent and the demanding moment, must have had the freedom of the child, that space of play sheltered from urgency and consequence; and yet to tend the nursery of mind there must be custom, must be precedent and actions placed by order of the kind beyond the range of hasty alteration. Moreover, mind at full must operate within a concentrating solitude, yet therein must be fed by others' labor with food and information and ideas. and many must bring forth what one devised. From this, perhaps, we have the thrust of self and kinship's far-reticulating syntax that captures it; we have the double vision imaging both the people and the one who lives and dies within it and alone.

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This tension of society and self, these tensions among selves, are mediated by language above all. The light of words illumines an objective world wherein the thought of justice and of good proportion arises to stare down the mere dynamics 110

of dominance and desire. By means of language folk understand each other, and combine to keep in check the individual who also pleads his individual cause. 120 Yet words alone, though certain good, would not have power to hold the people's form together. For this a darker strength must be invoked: the presences of gods, avenging spirits, dread rites that to the eye of strangers' reason often appear irrational, absurd, the food of satire and of indignation. All those grotesque initiatory ordeals, those costly sacrifices, all that time wasted in acts without utility, make sense, if seen as countermeasures to 130 the calculation of self-interest which otherwise would tear the group apart, reward rapacity and stinginess, deprive the child of food and rearing, set the whim of the most forceful in the place of common counsel and the common good. Thus Mystery rocked the cradle of our logos, inseparable the two, as form from message.

And there where mystery and logos meet there looms, as if it were a shape that lived 140 within the heartwood of the human tree, the Poet. Shaman, healer, storyteller, lawgiver – sometimes one or more of these, but always keeper of that rhythmic vocal murmur that rose before articulate speech when with coordinated shouts and stampings the primate troop affirmed its unity. When man took up a stone, and chipped, and named it, that pulse took up the name. And as the names 150 multiplied, as syntax branched and rooted, as the articulate world's unbounded reaches began to intimate a universe to the astonished brain, there grew the skill to bring these data home to the heart's pulse, to synchronize the pulses of the tribe while giving human form to information, building in words a picture of the world

by which the tribe could see to work as one, to do or bear what must be done or borne by each and all. In every enterprise, 160 in hunting and in warfare, in the passage of adolescence, in the courtship-dance, the making of the marriage-bond, the labor of birth and childcare; in the gathering-season, in winter's weary leisure; in the heat of quarrels cooled by storied precedent, by rules stored up in memory-making verse, and in the chill of death and loss, now known, feared, bewailed: there Poesy appeared to soothe, to rouse, to counsel, and at last 170 to give release out of particular pain into the harmony of greater being of which whatever happens is a part. Is not our whole existence, all our search for meaning, all our making sense, poetic? Is poetry not implicated in the making of the human mind itself, the coalescence of the great cathedral, the overarching castle of our reason, from the chapels and the huts of ad-hoc skill? 180 This oldest trade in which no one can tell the worker from the wrought: this gift was given to all, yet concentrated in a few, perhaps one in one hundred delegated by the group-fate, to be its carrier, to feel forever the itch and tug of words and be forever weaving them: a labor like ritual costly, often painful, often useless-seeming, and yet somehow known to nourish. So the ancient peoples held 190 the poet—as we piece from shards of stillpersisting tales and customs, from the fates and characters of those still born among us with song's long-countermanded order ringing loud in their souls – in the awe of sacred things.

Thus constituted, humankind then came into their wide inheritance, as stretch by stretch they marked the continents their own: in Africa the overhanging rocks

200 were scored with figures of the hunter's dance, soon duplicated on the Australian shore, where storm or early feat of boatcraft bore them; in the Ukraine they left us mammoth bones fitted to patterned huts; while in the south of France, the north of Spain, the caves bear witness to a new-opened and observant eye under the zenith of the hunter's sun proudly providing. No doubt in the clement season the women gathered on the tundra, but with less need than in these latter days 210 on the depleted lands where oftentimes men come back empty-handed from the hunt. It is not the complaint of want that strikes the mind's ear, when in fantasy we venture where the Vézère winds south through limestone valleys, its course so little changed through so much change: the few notes of a bone flute try the air in some forgotten scale, and there is song among the facing cave-mouths. All things breathe 220 the primal superfluity of nature our new-forged mind had just begun to harvest, and mind, too, overflowed. Those necklaces of bone and shell, these fine-knapped blades of flint too thin for use, yet pleasing to the eye, that reindeer-antler or that mammoth-tusk with animal counterfeit engraved or carved, this slate on which improving forms were traced as the hand taught itself creation's likeness, and, far back in the cavern's winding depths, the paintings. Manganese and ochre mixed 230 with fat - still fresh. Aurochs, rhinoceros and mammoth loom with intimated bulk yet light, cloudlike almost. Though we surmise that this was magic, that by capturing the quarry so in lines against the stone the artist thought to help the hunter's hand or to assist the labor of the earth in whose remotest recess, only reached by straitest passageways, they were implanted – yet in these shapes breathes the acknowledgment 240

of what is beyond capture, merely there

and there for all time, though the gate be closed through which those creatures poured into the world. -But what about these lumps of stone or ivory that bulge beneath the thumb to belly and breast, without a face, or feet on which to stand? What invocations did the carvers chant? Did laboring women clutch them in their fists, or were they meant as talismans of increase, 250 tokens of earth's blind generosity, or toys, idly carved out and idly fingered by man, a hunter's daydream of much flesh? Ask the masked staring dancer, horned and hoofed, skin-clad, maleness aswing, or her who stands, frontal on the cave wall in high relief, faceless, but holding up the bison horn as if she would command some ceremony. These with their mysteries ranked behind them witness the other mode of seeing, that is not sight but rather the extrusion of some impulse 260 into the visible, or the imposition of will upon what rises to the eye. And more the stream that flowed through them to mix their urges in our blood, will never murmur.

For three times longer than the turbulent scroll of our recorded history can tell, while the invisible pointer of the pole made almost a full circle in the stars, they lived as though the world could never change, unless the chain of their ancestral tales 270 made them aware of the millennial pace of glaciers' slow encroachment and withdrawal, or the flint-masters, the Solutreans, who interrupt the sequence of our finds, furnished a theme for sagas. But to us nothing among their artefacts implies the thought of history. At most they kept a tally of the days from dark to full in scratchings upon bone; perhaps the seasons, 280 the ebb and flow of plenty, were to them vicissitude enough.

And yet things changed. That early and most generous gift of earth,

the great herds of rhinoceros and mammoth, wild horse and giant deer, the hunters spent, with fire and shout driving them over cliffs and leaving what they could not eat to rot, having the skill to slay, the pride of prowess, but not the thought of farther consequence. Or, since they were as wise as we, perhaps they had the thought, but could not lend it action, 290 the hunters being the stronger, and each one determined to be first. I seem to see, from far off, some Cassandra of the caves being put to silence by the sorcerers with promises that still more simulacra in the earth's gut will cause her to bring forth an even greater plenty than before. So while the later middens tell of meals made from the leavings of the ancestral feast – fishbones, and bones of small game taken singly – 300 deep in the earth the great shapes multiplied, the energy of art was gathered, flung against the wall of circumstance, in vain. Impassioned act of sight could not restore the squandered herds, nor peg the shrinking line of ice that melted as the world grew warm and trees began to grow upon the tundra, blocking the run of droves; so natural cause conspired with the results of human action to end an age, till the last sorcerer 310 flung down his brush, the people's pride was broken. Upon their middens lived impoverished clans, who left no art but pebbles crudely painted with abstract markings, as if to record some groping and unformulable question, while to the northern bogs, now bare of ice, flocked the resourceful, there made shift to live by bow and arrow, boat and knot and fish-trap, gathering the forest's small and varied gifts and making little art, as though they'd learned 320 to trust in their own wits more than in spirits.

But to the east and south—in southern Asia on lands the Indus levels, and in Egypt whose Nile renewed each year the fruitful ground,

and on the plain spread by twin streams that take their wandering courses toward the Persian Gulf – there germinated first the novel plant called Agriculture. Whether happenstance had sown it, like those unintended gardens from seeds at the communal gathered meal 330 let fall at random, later noticed, tended, or whether some inventive dream had granted a wish for settled life and sturdy shelter, refuge for age's failing strength, and pardon for infants' ill-timed birth upon the trail these have the tillers of the past to ponder. Along the Nile, the Tigris and Euphrates and in between, on that half-fertile strip where an embattled faith has pitched its tents, 340 we trace the progress of a people living first from the wandering herds; as these began to fail, they settled in one place to gather the small and steady harvest of its seasons: the inconspicuous creatures of the field, fish, crabs, and turtles, snails and gathered herbs, and most the slopes clothed in wild wheat and barley, whose seed commanded now the heavy quern, the vessels where it might be stored away between the tides of harvest. So the plants held them to earth before they came to sow. 350 In settled life their numbers grew beyond what the wild growth afforded; then it was, perhaps, that spades began to tear the garment of earth, and thrust into unwilling ground seeds that it would not of itself have nurtured. At human touch the plant was altered: soon the fragile joints within the ear of grain, which once the winds had broken and dispersed, grew tougher to await the gathering hand 360 which sowed but from its harvest; and likewise the remnants of the roving herds, compelled or lured to fold, were led and fed and bred by husbandmen who gradually remolded their form and temper to a master's use. So led, so groping, pressed by need and lured by ingenuity, our kind proceeded along a road that could not be gone back.

The larger numbers that the farming life supported, never would again contract into the few the unaided land could nourish; 370 the forest cleared for fields no more provided cover for all the various creatures, gone to leave room for the human and the tame, nor could the gene-clogged tame again run wild. Henceforth the life of field and pasture lived by human sufferance and human labor which earned, each year, a harvest of more labor from soil that now lay stripped beneath the rain, starved of its annual tribute of decay, 380 and less resilient to vicissitude than wildlife's ancient many-threaded weave. When humans lived at hazard, they had leisure, plucking the fruit they need not sow nor tend; thus the impoverished tribes that still subsist on meager lands the stronger do not covet work a few hours, then spend the rest in play. The choice between two modes of life was made before we dreamed that we had had a choice. nor could the mind unravel its own making even if it would; whether it would, a question 390 too hypothetical to be decided although it cast the shadow of a longing backward in fables of a golden age that sigh to us from legend's earliest script.

Are they then true, our backward-gazing dreams, or only foam of an odd ripple pulling against the current carrying each toward death and all toward the abyss we have in view? Perhaps the gods and goddesses Old Europe brought forth before the chariot-people came 400 remember. Little idols, they would sit upon your palm, masked, half-animal forms without the darkness of the brute; the sun that warmed the first fields glistens from them yet: small gifts to charm the powers of earth and sky and make the hut of stones their cheerful fane. But in this man who sits propping his chin as if in thought, and in the woman carved by the same hand, there is a simple sadness

that seems to rise from earth itself to fill 410 their gestures and the hollows of their eyes, as if they saw for all time, and could bear what they perceived without pretence or protest; as if they lived beneath no harsher law than the primordial reign of birth and death. But there are other retrospects, less soothing. Those bards who from the heart's primordial darkness drew forth the stuff for many a dreary saga of brood-devouring ancestors, from whom the life-spring rises tainted with a curse, 420 saw true, it seems. The river-sands that covered that camp at Klasies, near our starting-post, have cast us up as in our earliest dawn we were: as hunters of ourselves. For these cracked bones were ours, and ours the hands that cracked them

for marrow; and our earliest monument was not a cemetery, but a midden. How came we to be so? The earth was all before us in those days, with room to send 430 our overflowing generations forth on ever-bounteously-unfolding lands. Is it then in our power of reflection that the dark deed is rooted, that the seed of bloodlust sprouted from the hunt's behavior? Or did that need to bind the clan together for hunt and nurture's work, entail the shadow of alienness thrown on the semblable no party to our bond, and fastened there by hate's abominable poetry? Or was that first Thyestian feast an aberration, 440 an ancient Jonestown episode, preserved and as if malevolence unearthed to second now, with thunder from the past, our generation's self-dismay?

With mixed

results we dig through ancient layers and sagas and ask the tribes that still survive among us if humankind in its first nature was more martial or pacific. For the lives of those that had not walked the modern path till our own time, were marred with mutual fear,

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with war the common lot of men. And yet the warrior was mistrusted, war decried; and though the warrior-hero stock the sagas, peace also has bequeathed its archetypes. The leader who could judge and reconcile and lend the authority of strength to counsel, the elder-woman versed in herbs and heart-paths, parents of all the children of their people, loom through the memory of generations amid the troupe of jesters, hunters, fighters, makers, that traveled the long road of time, stock characters the human plot required.

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Whatever our original disposition in the conditions that had brought it forth, in which it may have seemed to function freely, we altered those conditions and, misfitting the new, became a problem to ourselves. To the limits of mortality, inherent in all flesh, but by conscious mind alone 470 felt as imposed, there soon were superadded new, mind-forged fetters; for the added weight of labor was not equally divided. The strong compelled their weaker kin to do more than their share, already hard enough; from level humankind the masters rose, and slaves, to raise them up, were burdened down, while garnered wealth called forth marauding bands and ringed itself with ponderous defense. At Jericho, before a potter's hand had shaped the clay, before the furnace heat 480 had drawn a blade of iron from the ore, around the huddled huts a trench incised itself in bedrock; at its rim they piled a wall and high round tower of undressed stone whose stump is still in earth, a heap of witness to the brotherhood of civil life and war. And as when deep beneath a mass of rock an ancient sediment is pressed and heated, the layers are twisted and new crystals form, so in the growing pressure of our numbers the social mind was changed. For we had wandered through sparsely-peopled ages, always knowing

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the souls of a few nearest kin, the faces of neighboring bands encountered now and then for trade and marriage, or a seasonal feast. Here strength and skill spoke for themselves, and led the people simply through their simple straits. But in the flood of masks our cities poured toward us, each covering a past unguessed, unkin, beyond our sense to sort them out, 500 what could we do except hatch out abstractions, set categories and degrees of rule that brought proliferation once again into the limits of our comprehension? Only that rank and person seldom now were fitted, and too wide or narrow shoes chafed many a foot. The official who had come into an office not for him devised, serving the public, served himself in secret. So underneath the social architecture 510 that grew from tribe to settled town to state seethed a disorder of the unacknowledged, more tenebrous for every lucid tier.

The city and the state: these first took order along the banks of those broad-bearing rivers, Indus, Nile, Tigris and Euphrates, carriers of fertile soil, and moving highways apt for commerce and for war. Upon them floated the farmer's tribute and the troops that came 520 from far and farther, until foreign rule became the fixed condition of the masses. Then rose the first true idols of man's power, the totem-headed deities of Egypt, the gods of Sumer with their glaring eyes, colossal shadows cast in stone and bronze by empire's self-fulfilled hallucination, bidding the common people bow and serve, think thoughts stamped out in these same idols' mold, and offer what they ill could spare, that kings, 530 nobles and priests might live in stately pomp while the poor people dreamed of being kings, the wills of many paralyzed to make a body that could move with single will. To forge the enormous puppet's brain and sinew

all arts were busy: ritual and myth reared ziggurats of the imagination, the law laid out its courts and antechambers, the word that flew from mouth to mouth was caught and pressed into a sign on scroll or tablet to keep exaction's reckonings, bring commands 540 from capital to province, or proclaim whatever version of the time's events the rulers wished to see received as truth. The ingathered excess of the peasant's toil hired artisans to shape with deepening skill the loom and boat, the weapon and the bowl, the mirror and the necklace and the comb; set the geometers to calculate with accuracy the monumental line, 550 the movements of the stellar mechanism to which the enterprise of state was timed; sent merchants out, and miners to unearth copper and tin which, fused together, yielded the prouder idol and the deadlier blade, and from this industry we name the age.

Civilization thus began: a word spoken with pride, as if it made us civil and gave sagacity, till recent doubt put irony's quotation-marks around it and turned the praise to blame, perhaps unjust. 560 It would not be the fault of states, per se, if with the increase of our populations clash upon clash gives greater weight to force. By acts of force, as well as by the common consent of enterprise, our cities rose; but force has winnowed, too, the remnant peoples of jungle, tundra, desert, archipelago, shaping their customs and their minds to war, the gentlest dwelling on the poorest lands where at extinction's verge our travelers found them, 570 till it could seem that this is the direction which time takes in the human universe, as entropy marks time among the atoms: through wound on wound the deadly arrow flies! Unless we reckon with the other current that pulls toward solidarity, restraint

of violent impulse for the common good, so far as that consists in not capsizing the structure into which all are now fixed and whose mechanic arms, lowered and raised 580 by human chains, see to the needs of all lift water to the upper fields, bring grain to table, iron to the forge, protect what imposition leaves from mere marauding. So arbitrariness, at least, is chastened, a semblance of benevolence imposed, if specious; and behind the masks there opens the space of private life and private conscience to which society directs its voice where its surveillance cannot reach, and pleads 590 for voluntary efforts toward its peace. The mind in isolation comes to bear the weight of the whole world, and to devise schemes of a general peace, as it would have peace in itself; and it has left its marks among the signs of commerce, setting down the reckonings of truth and self-delusion as it strained to conceive some lucid final state of humankind, in all ways better 600 than we suppose the first state to have been. So one might proffer that unevenly, with many a letting-go, the word has pulled against the opposite tendency of time.

But knowledge travels with another pace; and from the word, too, time exacts its price. For as on outward surfaces the hand lays down the signs in linear trains of thought, the figure of the poet, of the one in whom the memory and consciousness of kin reposed, begins to fade, the first casualty of a process that replaces the human being with its own creations. With memory transferred from mind to matter, the main part of an occupation not merely learned, but fashioned in the nerve is gone. And with it goes the integration of what is learned with what we inly are. Knowledge no longer known by heart increases,

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increasingly increases, over time, till it could seem as though, made instrumental to instruments we cannot choose to make, we move toward destinies no longer ours.

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Technology: it lies not in the making of tools alone, but in the record kept of how the tools are made, so that a tool begets a tool, the way the formula within the cell reconstitutes itself in other cells, a second evolution. impelled by human purpose, and yet strangely alien to our sense of human being: impersonal, self-oblivious, it builds an edifice that may not be dismantled, no stone removed from where it has been set until forgetfulness shall overwhelm the human brain, and from between our signs wash out the mortar of significance. How few are the lost skills of fabrication, how many the forgotten songs and graces; how scattered seem the insights of the heart beside the keenly-mortised pyramid which ordered swarms of numbers, agelong, raise toward the approving silence of the stars! And in our time the contrast most appears; for as the crystal of the number sets around us, in us, reaching to the cell, the nucleus, the synapse – so the word of mutuality and admonition, of consequential pondering, on which the house of moral order sought to rise, seems to go fragile, shiver into fragments not to be added up again, mere echoes twisted by tunnels of frivolity

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Saving the peasant's inarticulate distrust of novelty, such deconstruction was not foreseen when we began to sift the world's appearances, not yet denuding material being of poetic image, still trusting in the qualities that strike

into a chaos of unmeaning sound!

660 our motley senses, prone to metaphor: humours and elements and mystic male and female powers were begot to rivet the world of substance to our waking dream. Experiment and speculation seldom conversed; for thought, cradled in lofty leisures, rested on labors that it knew not of; while those who forged the metal, mixed the glaze, improved the loom, the furnace and the mill, were slaves, or artisans of low degree, toiling for those who scorned them in the dark 670 of trial and error, without theory. Success itself earned handicraft the name of mystery; magic and cause were mixed in one retort. And though the calculations of the star-gazers, the geometers employed to lay foundation-lines, draw borders, schedule campaigns, attained clear consequence, their usage still was intertwined with rites, omens and auspices that steered the soul 680 of empire, while upon ingenious wheels its juggernautic body turned around. There have been times when to the rulers' counsel a too-clear understanding of the world appeared inopportune, as undermining the mythic props on which their power stood; or in a manner less defined, the pressure of hierarchic rule intensified and made more absolute each generation packed the mind down into a deepening rut from which it could not rise to new invention. 690 There have been ages, too, of overthrow that cut the roads and turned the empire's servants back to the soil to grub their meager life. Then the motion of the star of knowledge seemed retrograde. Manuscripts burned or rotted, the implements of scattered craft lay idle, their use forgotten, till somewhere again amid the swirling flood of feudal strife the clods began to cling around some reed and a new social continent arose, 700 along whose fresh-paved roads a call went out for all the useful secrets hand and brain

could recollect, or glean from ancient cypher, or wring once more from ever-faithful matter which to the selfsame question always gives the selfsame answer, in whatever age. So time and space are strewn with the false starts and the dead ends of technologic progress. Enfolded in the jungles of the south, the Mayan ruins, reawakened, speak 710 of cities gorged with sacrificial blood that burst and were forgotten like a dream by peasant generations, that hoed on, oblivious as their long-forgiving land; but the parched valleys of the Indus lie desolate these three thousand years and more because the axes stripped the hills of trees to fire the kilns to bake the many bricks to build Mohenjo-Daro and Harappa. 720 Sparse pasture now is the Sumerian plain which agelong irrigation sowed with salt; and in the late age of the Eastern realms, long home to subtle skill and deep conjecture, habits of despotism and resignation had slowed invention's pace and tamed the mind to walk along the ancestral trail, nor seek to redesign the machinery of fate.

What curious property had Europe's soil that from it sprang, like some great baobab whose roots go deep enough to split the planet, the iron tree of universal science? What hand assembled here the elements of destiny and thought that, once combined, became the thought and destiny of all? —Say the Phoenicians first, a merchant people impatient with those scribal mysteries, cuneiform and hieroglyph, the signs almost as numerous as the world of objects and suited to the learning of but few. They broke the word to its component sounds and to each vowel and consonant assigned a single mark, that all who spoke might spell and change their thought for writing's ready coin. This alphabet the Hebrews and the Greeks

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adapted for their ends: these to set down the instructions of a God they held above the gods of place, the kings of time, as source of universal justice; these to trace the searchings of a mind that owns no law 750 save its own logic and the truth that stands unveiled to all impartial open eyes or whispers nameless to the listening heart, as Socrates proclaimed, when he consented to die for thoughts that undermined the myths that seemed to hold the commonwealth together. His word and act have echoed through the halls of history, and made fragile every image that could contain the mind's exuberance. These influences crossed, when empire married 760 the vision of one God of all the nations, Architect of the mind, as of the world. Under the widespread cloak of Christian empire, the Latin of a universal reign, dogma might seek to subjugate the mind, but still the leaven of those founding visions worked on, so that from time to time the staff of hegemony once again became the banner of revolt, the mind reverting from doctrine's tameness to wild consequence. 770 In Europe, too, the merchant class was strong, could bargain with the princes for its freedom, and in its eyes the world was weighed and measured, reduced from the integrity of form to numbered and negotiable value for even trade, excluding force or falsehood the coin, like Latin, being a word as good in London as in Rome; and some dare think this quantitative sovereignty of coin instructed the deliberating mind 780 that wondered at the motions of the stars, the fall of objects toward the attracting earth, and showed the world how truth concerning these might be attained, by severing from substance image and quality, henceforth mere shades. The method: from the object's iridescence that beckons still with thousandfold appeal to sense and soul, select those aspects which

are numerable; next, among those aspects surmise a mathematical relation with consequences which experiment 790 can show; perform the experiment; observe; change the conditions, and observe again, measuring the results, each time, in numbers; use the confirmed surmise as fact, and lay thereon a fresh course of surmise and proof. Whatever has been ascertained this way is proof against the whisperings of magic, the dream's delusion, and the eye's deceit, and, surely as the moon and sun appear at their appointed times on the horizon, 800 its truth will shine for any open eye. Technology and Reason thus at last were joined. The seed of scientific method, ancestor of a new world of design, was in the earth, and waited for the season of need and opportunity to unfold.

All weathers had been gathering toward that season since first into the northern forests, home to hunting clans, the fields began to creep, trees being felled to clear them and to warm 810 the tillers of the soil, who then increased from lonely outposts where the axe's ring, the sound of human voices, scarcely broke the silence of the forest, to loud towns girt with wide townships where the earth was turned with heavy blades behind the collared horse. For centuries the woodsmen hewed, the hearths blazed blithely, while the trades went plodding on with what they had inherited, now and then patching contrivance from a traveler's tale, 820 rarely inventing. Till amid that landscape thundered the first report of louder war: Gunpowder! which from iron barrels flung missiles no castle wall could stand against. Then war's inexorable law, that makes invention father of necessity, placed orders for the casting of the cannon, the digging of the iron, and the heat of furnaces to melt the stubborn ore.

The trees were thinned, the winter winds blew cold. 830 They turned then to the stone that burns, the remnant of ancient life, pressed by the rock of aeons. They dug it where it jutted from the slope of hill or cut of valley, and they drove the tunnels deeper, till the waters gathered beneath their picks, and then they pumped the water until at last an engine was invented that pumped by steam instead of human strength, first of the servants whose inanimate host now throngs to wait upon us everywhere. 840 New uses for new powers were devised, and all used coal, and coal called for more iron, and iron for more coal. And this was merely one strand in the thick rope that drew us on since cannon felled the castles and dispersed a feudal order that had fixed the stations of lord and clerk and peasant, under heavens ranked in scholastic clarities up to the ultimate crystalline, which Galileo's 850 and Kepler's reasons shattered. Presently revolt was waged against the single church by skeptic thought and singular ambition lifting the weight of custom from the mind, and as it were a fresh wind blowing off an endless ocean of discovery that made explorers, merchants hoist their sails and no-less-daring mind lift up its spyglass. Not greed alone, but generosity the new-found treasures of the world inspired, for knowledge and the use of knowledge was 860 to those whose eager eyes could seek it out, whatever be their heritage or habit. Stirred by a faith in human mind, the people rose up against a tutelage outgrown. They severed rule from birth, awarded rule to whose might persuade them—as they hoped, by the voice of reason and beneficence – and claimed as right a share in this world's goods no less than in the councils of the nations. And this claim, in its turn, then worked a change 870 in the nature of the manufactured thing. Between the attributes of poverty –

the linsey cloth, the spoon of horn, the bowl, table and stool rough-hewn by kindred hands, worn down by generations' daily use to the consoling shape of the familiar and those dear-bought felicities of brocade, porcelain and parquet and cabinetwork, that set the gem of wealth and formed the pride of craftsmen lingering over their designs, 880 giving each thing uniqueness, like a soul, a space now gaped to be filled up with objects stamped with resemblance to the things of wealth, one pattern making many, at demand greater than gradual skill could satisfy, wrought out by clacking arms that could not weave a maker's joy into the unsubtle texture. That weft absorbed only the wasting flesh of human beings, soon thrust down to serve the mechanic servants conjured by their kind; 890 for profit's legion, loud with freedom's cry, soon proved that it could be as hard a master as any dandy king with all his court. The goods thus made to furnish middle wealth and general demand, called for the craft of marketing: for buyers, like the goods, fashioned after a pattern, with built-in insatiability tending to discard last season's goods for next, like food ingested and then excreted without having nourished. 900 Again as in that immemorial hour, so recent by the universe's watch, when without thought of what would follow after the first wild beast was led to fold, the first seed was cast with purpose, we had found another breach in the encircling wall of creatural limitation, and poured through, and in the rush of access to new power thought we had come into a land of plenty perpetual as the motion of our wheels 910 (we had just had it proved) could never be. The way a star in burning fuses first to helium its original hydrogen and only at the end of its long span fuses the helium to heavier atoms

and these to heavier still, with every stage briefer than the preceding, till the core is iron, and the star flares out and dies. even so combustion in our hands has run through all it could take hold of on this earth. 920 Through unrecorded ages we were warmed by wood that clad the surface of the planet and seemed, like air and water, given forever, fetched with the simple axe from nearby groves. When wood grew scarce we dug the buried forests of coal with toil and danger in the mines, thinking this too would last forever, though the rocks of earth hold no more energy than the sun gives in a few seasons' growth. For a few centuries we pursued the seams 930 further into the hill with greater strain and more elaborate engines. Then we pierced down deep into the planet and drew up petroleum, ooze of animal decay on ancient ocean floors imprisoned long in most occulted subterranean cisterns. rarely betrayed by seepage at the surface, more often found by the shrewd guess of those who map the earth's encrypted history from dip and sequence of outcropping rocks 940 and guide the daring speculative thrust of drill and rig and pump, that sometimes strikes the fountain of dark wealth, sometimes dry ruin. Found, it is not yet fit for human use like wood or coal, but first must be refined. broken into the fractions that will serve our purposes, which yet it multiplies, for swiftly from the black protean liquid the furnishings of a new world were conjured, 950 brave with all colors of prosperity. Petroleum was spun to shimmering cloth; moulded to toys, vessels and implements for every use, that almost seemed to be marble or glass, metal or rich-grained wood, poured on the field our increase had depleted that the old life might fertilize the new. Oil filled our mouths, and still more mouths were opened,

the sea's floor drilled at peril to its life as the reserves beneath the land were drained; rivers and lakes and coastal waters stank 960 with factory wastes, the nets were drawn up empty. 960 A century long we squandered this resource, and now the earth-drawn sap begins to ebb, the metals and the minerals are mined from which we shaped the vessels of its use and are in many places found no more. A thought of thrift now paces on the globe, taking stock of resources, reckoning how many centuries, decades, years, the stores 970 of this or that will hold, pondering how to keep the engines working and the house of industry repaired, lest it collapse, burying the human masses in its ruins, leaving perhaps a remnant to start over in a world plundered bare of all that nourished our slow-devising ancestors, or else to wander listlessly and let life go.

Yet fear, and thrift which it would bring, are dogged, always, by faith that whatsoever the need, 980 the wild demand, our ingenuity will find a way, and earth at last provide, or if not earth, the universe at large, which we with technologic might will open. Beyond the last reserve of fossil fuels, beyond the doubtful promise of the sunlight to do more than the all that it has done for life, there is the force that binds the atom, the primal bond of matter. Break it, and such energy's released as we have seen lit in instantaneous holocaust 990 over Alamagordo, Hiroshima, and since then more terrific weapons still have been devised, greater destruction waits within a thousand missiles poised and ready to hurl upon all life the ultimate bane if anger and retaliation press the mechanism that could set them flying such the first use to which the hand that seized the cosmic power put it. Yet we hope

that we can warm our hands even at this fire; 1000 that, tamed by layers of lead, the fast-escaping particles will not strike the living cells of those that freed them, and implant the seed that comes up in the rising generation as hideous deformity and death. We hope our shieldings also will be proof against mistake, malice, and acte gratuit, and the enormous energy alone be ours, to heat our homes and cook our food in peace, although the ash must be inurned 1010 longer than Cheops' mummy, till the last malignant force that glows in it is spent. Yet this is not our last resort; a greater and a more comfortable hope is ours, since atoms may be fused as well as broken, although at temperatures no earthly matter withstands, for this is of the solar fire. In a magnetic field's encircling grip we have now learned to make a minute sun explode, leaving no ash, no slightest sleeve 1020 singed. Moreover there's an isotope of helium will wasteless fuse, and this our neighbor Moon may lend us, or the huge gaseous globe that circles beyond Mars. Assuming all the thousand problems solved to make this profitable – and, above all, no sabotage or warfare on the moon – within a generation, two at most, we may inherit power which would be to all human intents and purposes 1030 infinite; we would come into a plenty perpetual, after all. As for the shortage of those materials which we require for tasks that every hour proliferate, we have but just begun to show the wonders of metamorphosis and making-do: composite fibers, graphite, glass, and resin, stand in for dwindling metals at low heat; ceramics, finely sintered, will conduct electric current; concrete, thinned, becomes 1040 a ship's hull. Then what bounds can matter set us who have the laser-beam, the microchip,

those huge arenas where the nano-mote is battered into smaller smithereens, those immaterial scalpels that can cut into the very core of generation—
What could the universe withhold from us which we propose to do?

So we must think

if we are to remain what we have been. We are – for six days of the week, if not for seven—the creatures that devise solutions from which new complications rise each time more vast and dense, requiring keener skill to solve them, and so on. To this we owe much of ourselves; in this the ingenious find a great delight, while those who can but stare uncomprehending at these mighty works yet by their very awe participate, as once perhaps Egyptian peasants gazed on Cheops' tomb, and felt its grandeur theirs. Since first the soil was broken for our needs, not much has held against the forward motion material demand and mental quest keep up, like racing stallions yoked together, our numbers multiplying with our needs – and yet earth holds us, and there is a limit. Upon the gravity of earth our frames are predicated, every bone and muscle, and though we slip it for a month, or six, or simulate it somewhere, for a few, we have no other home; and that home has but so much mass and surface, though we coin from every inch and ounce its ultimate use. No promise of a future infinite deceives our present sense that we are foundering in our own waste; our social systems, built upon our nerves' terrestrial foundation, crack with the weight of numbers and the strain of every function raised to the nth power, and now upon them rests the very sky, the ozone layer our chemicals untile, while vapors thickened from our engines' fumes hold in the heat that melts the glacial poles and abrogates the climates that had fostered

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our cultures, while the sap of life is sought vainly in many a land from brassy skies or comes polluted from the shrinking springs. And though frontiers of matter shift, we know that we have reached a limit in the mind beyond which we cannot advance, and still 1090 remain the selves that recognize ourselves. To all directions lured, we have exceeded the intellect's capacity to make a whole of what it gains, to oversee the workings-out of thought, now more and more entrusted to those artificial minds whose calculation, widening out beyond its own deviser's guess, dwarfs human judgment and turns our knowledge back to the unknown. 1100 As the circumference of experiment expands, expands, the neighboring researcher is out of call, while somewhere in the middle the citizen, the creature, waits in vain for word. Our fate has grown so like that story of a tower built toward heaven, then abandoned because the workers' tongues became confused, that we must wonder what in ancient times inspired that vision, so much more like us than anything that was. The signature it seems of prescient and far-traveled doubt, 1110 the whispering of a half-heard voice confirmed. It is that voice that calls on us to check the very outward push of human time, the motion of a wave that, from a stone dropped once into the middle of the cistern, has traveled till it clashes with the brim, and now must seek the center once again.

Chapter 7

Recent responses to the ecological crisis. The '60's "counterculture" and the movements of the '70's; their failure to create a viable alternative to techno-capitalism; the relapse into cynicism. Reinforcement of cynicism by Darwinistic arguments. A Darwinistic review of gender and economic relations and the "evolution" of previous social and religious counter-movements. Terror and techno-capitalism. Destruction of the biosphere as inevitable outcome of deterministic forces.

This crossroads at which humankind now stands, this instant in the great year of creation, will be remembered, if the future ages are tenanted by human memory still, as humankind's breath-stop of recognition, wherein necessity clashed with itself, the drive within against the world without, and Thought, born of collision, strove to hold itself aloft and to command those waves. The world which we had changed commanded us 10 to change ourselves, yet with no time for synapse and sinew to remold their form of matter by the ancient patient ways of evolution, but vision forced itself into the eye and riddles called for more than human mind to solve them, to dissolve and to reknit accordingly our pattern of response; and mortal flesh and mind of mortal flesh responded and rebelled, response, rebellion almost beyond discerning intertwined. 20 And who could tell us how to rise to this occasion? who could teach us what the graceful gestures are, or point out the right path amid the surface tangle of our landscape, inventions, institutions, and ideas so snarled in paradox?

Perhaps no teacher could come save trial and error, though the cost of errors mounts up till it almost threatens to price another trial out of sight.

With the most recent trial we must begin, the experiment which living eyes have witnessed,

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though eyes and witnesses deceive and though the mind secretes its rationalizing acids to break the lessons down, assimilate them to what we are and wish to go on being. Misgiving mounts in me upon the threshold of this inquest; yet certain it appears that if we do not thoroughly understand what has occurred and how, and for what reason, we shall but lend our wishes for a mask 40 to that which comes upon us to destroy. Then let us see, if seeing can be borne. Shine, distant Earth, to show these things aright! And, Will-to-Life that lives within us still give us the strength to tabulate the results of these experiments, to hopeful purpose!

More than two generations now have faded since all across the nation then most rich in comforts and inventions, it appeared 50 as though somewhere an alarm had started ringing and many rose to do, inventing each their own response, or joined to others' seeking, all sharing in a sense that human life could not go on as it had heretofore. Was it the fear of nuclear fire, the fear of water, earth and air forever tainted, poisoning even the mercy of the rain, the milk from mother's breast? Was it the tears and blood of the oppressed, seeping at last under the sealed door of upholstered comfort, 60 perhaps through the antennae, into rooms unused as yet to sight of them? Who knows. At any rate the sign of peace was drawn, the family of man proclaimed. Across a nation lately won from hunting tribes helpless against the arms of Europe, surged a new kind of repentance. Multitudes fought against war with placard and parade, while individuals stood forth for peace, refusing to bear arms, throwing their bodies 70 into the streets before the war-machines, or risked themselves to ride with the descendants of those their ancestors had brought in chains.

The flag of revolution that had passed from insurrection on to insurrection was raised again, the accusation sprayed against the walls of state and corporation as perpetrators of all crime and folly. The young rose up against a social order which, having brought them forth, bequeathed to them 80 a future like a polished poisoned fruit while bidding them restrain themselves and build. They spoke of love's fulfillment in the Now, tore marriage down and stigmatized the contest by which the right to nest and breed is won; renouncing corporate cleverness, they tried to bring the ancient ways of making back, that pleased the fashioning hand and comforted the eye with sight of labor comprehended. The creeds that had led on and justified 90 their ancestors in conquest and invention – the God of moral discipline and war, the cult of Logic, Reason – they rejected, seeking a mystic power to bind them back to earth, or to the universal soul. They sat in dreams before the shaman's fire, revered the tribes their ancestors had slain, bowed down before the teachers of the East. chanted to drown the voice of conscious thought, took drugs to thrust them wholly out of self 100 into another space, another time, made songs that were like spells to change the world. -The media, that served the corporate host without whom the recruited children reckoned. were on the scene almost before it started: they with alacrity took up the tune and piped it louder, piped it with a throb of liberated ardor of destruction, to drown the voices from without, within, pleading a certain logic which the mind 110 is not at liberty to abrogate, pleading that consciousness was ever twin to conscience, that on judgment rests the cause of the oppressed, that on commitments binding tomorrow's impulse into last year's word community, like all true love, is founded.

The physical destruction of the mind that came to some, must typify the end that came to all that carnival of dreams, felt by most revellers as an exhaustion of hope, a weariness of good intentions.

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But toward the morning that broke gray and cold two further causes were announced: the first Ecology, heralded by that image with which the labor of this song began: our Earth, that must become one household now to shelter all the family of man. Those who throughout the 'sixties had gone barefoot, worn old clothes, made cooperative markets for vegetable food untouched by poisons, 130 turned off the television, turned their backs on technical invention, tried to make of simple and discarded things a beauty that spoke of love for earth and humankind, were joined now by the scientist proclaiming earth's unity no mystic fiction merely, the natural world a web of such tight weave that action here is action everywhere and knowledge of the whole prerequisite for any intervention to be wise; 140 figures and facts were marshaled to protest the tearing-out of precious illustrations from the slow-written volume of creation. clear-cutting and the filling up of marshes, this poison, that. And this and that was done. Environmental laws were passed, enforced, imperfect, yet where kept they served to keep some facet of the earth from devastation. Yet the chief aim was missed, and scarcely sighted: 150 that wholeness begging to inspire a vast coherency of thought and plan and action to match and tame the momentum of destruction found no constructive, comprehensive answer. Therefore into the gap between great need and action's impotence, defiance crept, trailing new ostentation in its wake together with new lust for reckless power: the thought of walking humbly on the earth

soon passed, as if it were a freak of fashion.

The luck of thoughts—ill luck perhaps—would have it 160 that at the same time entered one more cause whose name invokes division: the demand of women, that with sudden rage rose high above the voices of debate and song.

Why this, why then?

It was not wholly new that women gathered to protest their lot; on many a graph of history are plotted dim insurrections the suppressing hand blotted till shape can scarcely be discerned; 170 but of late decades that enlightened thought which made the individual mind the measure of truth and right, had favored women's claims, perhaps to compensate for consequences (by half-acknowledged premonition glimpsed) of System's tree outspreading as the factory wheels drowned out the spinning of the home: they had gained a voice in government, the right to study and to practice and to teach where for long centuries they had been excluded; 180 they had man's hand in marriage, his support in keeping of the home and raising children, and for a shield from his strong arm the agreement that to impose one's will by force alone is not becoming to a rational being. These things they had, though in imperfect measure and poised upon contingencies which few seem then to have recalled. The voice that sounded deep in the small hours of the psychedelic Walpurgisnacht of dreams and wild ideas was not the voice of counsel but a whirlwind 190 of vectors which the adversary had more hand in shaping than the dancers knew. There was the rhetoric of revolution, of liberation, of equality, that propagated a like lot for all, though none could prophesy what it might be, wanting to bulldoze down whatever stood before a plan was drawn for new construction, and that, having caught up races and classes

200 distinctions accidental among men, a matter of the final coat of paint applied by evolution, or the dust of recent history, birth, education – now rolled on to demand utter effacement of a distinction hinted in the first haploid division of the ancestral cell. And with this was entwined a hidden anger hidden because the human fears to own rejection's wound, that calls for more rejection from that in all of us which follows power – 210 arising from the breaking of men's troth, the casting-out of constancy, on which the home is built, by which the child is nourished, lost in the ill redefinition of love, in men's rejection of their fatherhood in the name of freedom, from a voke indeed linked to the systems they now shied at entering, but of all fetters easiest to break. That wound in seeking to deny itself 220 issued a twisted outcry for more freedom for more enjoyment without pledge or future, letting the child's hand fall; they claimed the right, since home no longer got a share of spoil, to work – for the most part at the ill-rewarded jobs that fall commonly to women's lot then to come home to children kept all day by strangers, and the housework still to do, as if they had petitioned for their wrong. And this ill sorted with the myth that made the rhetoric of this paradoxic movement: 230 that women as the mothers of the race, less heir than men to the aggressive drives that built and power the car in which we sit aimed at the clearly-sighted cliff of doom, might somehow lay a hand upon the wheel and steer us from the brink.

This theme was sung
a half-tone down in many a lament
where the lamenter saw herself as Nature
spoiled, desecrated by men's violent greed;
though to proclaim oneself a victim means
not always to evince a saving wisdom.

Nor could the role of Wisdom be assumed without acknowledging inherent difference that seemed to split the human mind in two and often had been used in ages past as rationale for women's subjugation; so they felt obligated to proclaim all difference mere artefact of custom, and each one free to self-transform at will. No one bent to the task of laying out 250 the twin truths of necessity and freedom so that each one subtends its right domain; the countercultural mistrust of mind mingled with the primordial or acquired mistrust of women's mind specifically, which seems, internalized, to make it hard for women to assist each other's thought except in ways of mutual suppression. So ideologies of mindlessness entered, tricked out in academic jargon, 260 that narrowed woman's province to the body, supine, despoiled of home and shorn of child, and headless as misogyny could wish. Here and there it was urged that the estate of woman lies in kinship and relation; some cast the thought of networks reaching wide or, pointing to the structures of the brain that can, it seems, identify the sexes, ascribed to womankind a global thinking 270 as answer to the questions baffling men. Here indeed was a field where ignorant armies clashed by night: a field this time extending from street and office into home and heart. The accusation of the world came home from criticizing leaders at a distance to call for alterations in behavior, in the minute detail of speech and gesture, in my relations with the present Thou. Among the obscure melee what stubborn struggle 280 in many a human soul; what insights glimpsed and then obscured; what covenants and betrayals; what strange prismatic visions of new worlds, what novelties of conscience, that soon faded. For though the probing knife had touched the nerve

of ancient habit and prerogative, no spirit of integrity presided which might have clarified what must be done and given courage for it; in its stead those couriers whose object is to stir 290 their listeners to aimless violent feeling, as at some combat they will pay to watch, relayed and mocked the challenge, then presided with glee over the carnage that ensued. For when from dark defeat woman and man rose to resume the old as best they could, they found the old was innocent no more. Though privilege be reseated in its place and more, swollen with spoil of the defeated, the wound to self-esteem still festered on; the sense of right was lost, and that self-love 300 which hopes for the approval of the kind – losses which man avenged on woman's image and, all too often, on her person too; the children, who had no voice in the quarrel, compelled no less to share its fruits, endure what ultimate loss of mercy can inflict: before us to a dark horizon stretch the furrows of the future sown with salt!

In this debacle of mind and heart, the cockcrow sounded for other good intentions too. 310 The hopeful songs fell silent. One by one those who had worked at trying to right wrongs woke to futility, picked themselves up, walked back to catch the trains they had stepped off for where they might again obtain the portion of corporate power they once had pushed away. Not joyfully they went. Loud music sounded in which no words of hope were interwoven, whose only purpose was to shout down thought 320 in the off-hours; many sought devastation in drugs from which long since no visions came, self-loss the penance for a false self-gain, or schooled themselves in cruelty to purge self-hatred and the thought of being a puppet, till human agony is produced, sold, and bought, a commodity like any other.

Such was the end of all those brave intentions. All of those revolutions now appear the strugglings of an animal caught in quicksand 330 that only serve to sink it deeper in, a liquidation-sale of all our values, the self-annunciation of all ill which first used our remaining good as mask that now lies shredded while it stands revealed. Not that the movements altogether died: a few persist, the warners and the helpers in this or that field of concern, the ones who still as confidently prophesy of a new age, as forty years ago, and in the self-same words, barely affected 340 by the great refutation of events; but these are voices that are growing weaker – nor shall their silence afterwards be heard: so prophesies the spirit of this hour.

This twilight and collapse of our ideals occurred to the accompaniment of reasons authoritative science had produced to show that an irrevocable law condemns us just to this, without appeal. It was not altogether like that earlier 350 version in which "survival of the fittest" came arm-linked with a dream of national glory which in the coming-true proved stupefying abomination of desolation only – its mate this time was undisguised Despair; it came not to officiate at some lurid cultic scene in turgid sputterings mounting with fumes of beer and smoke of torches, but lucidly to lecture, well provided with charts and figures by statistical 360 procedure purged of bias and of chance, in seemingly-dispassionate voice that gathered confirmation from the echoing thunder of outward happening, from the obscure urge or ill premonition of the heart, so that, indeed, we could not choose but hear; and those who sought to question and correct the findings, brought what they themselves had found,

and lo, it fit; till on the lowered screen the data, overlaid, formed a composite 370 picture of how the human mind acquired its form, and what in consequence it is, this instrument with which we now are trying to think our freedom and project a future. Then it was that we saw in time-stopped sequence the germination of the creatural mind in the innumerable minute adjustments that helped the organism to carry forward the undeciphered message that composes 380 its couriers throughout the generations. In the course of this odyssey, we heard, the mind was bifurcated, male and female, each half with its own habits and desires, yet lending to the other of itself. The blueprint of the asymmetry was shown in generative organs that prescribe aggression on the one side, cautious flight on the other, whereby strength is proved and chosen; in the one, constant and promiscuous search for fertile ground in which to scatter seed, 390 to multiply the offspring, that of many a few may thrive to bear the sire's remembrance, and then to fence the ground from other sowers, as much as can be compassed and defended by tactics of control and rival strife; in the other, careful tending of the few that in the single vessel slowly form, alertness to their need, alertness likewise to the behavior of the counterpart, and strategems to bind the mate, or others, 400 to partnership in labor that is always constant, particular, and slow, and always pregnant with loss, as with the future being. And as the creature grows toward human stature, so also the circumference of care from the point of original conception expands in space and time and social habit, drawing a greater sustenance to itself. This to provide, as well as to supply their own immediate strength, the males with free 410 hands, and minds less trammeled by constraint

of too-elaborate solicitude, devise the hunt: pursuit alike akin to sexual conquest and defeat of foes, for which they mass around their weaker kin. These needs decree a hierarchic peace among the rivals now confederate, minds that in unison conceive a plan implanted by one keen in calculation 420 and acted on by all in calculating accord, as in accord they must divide the gain, and settle strife among themselves, for this constructing precedent and law; and law, together with fraternal love and loyalty to the leader who unites, form the three pillars of the haploid mind which must incline to think itself the whole. For there is a fourth pillar, wrapped in shadow, and that is animus toward those who bore them. whose domination is the more remembered 430 as infantile dependence lengthens out – dependence on the very being that is to be controlled, as sexual fact prescribes; to be excluded, lest solicitude intrude between the arrow and the quarry, or intervene against loyal self-risk for the sake of all; to be at last converted into a token of exchange among their kin, a voiceless vessel of succession. Therefore the origin of man becomes 440 a haunting shame, a scandal purged by jest, while that intelligence which taught the tongue its earlier word, that watchfulness which hedged the small steps trying to stagger beyond care and entertained the infant mind in bounds. are nameless in the annals of the clan, though here and there an artefact or custom, a shaman's dress, a tale of origin, seem evidence of bygone mother-right 450 (whether that bygone ever was a Now or just an inborn phantom of the mind), and though from that forgetfulness upwell the spring of song, the source of love and play. The maintenance of this division seems

one of the primal purposes of culture, that filtering screen which we have seen adorned with carvings various as Babel's tongues, but of a fundamental architecture imprinted in the nerves on either side. For, born to bear the young and to maintain 460 the little circle of a fostering peace, the bearer mainly learns to tread the maze of the possessor's mind: a knowledge given through instinct, isolate experience, the whisperings of those confined together, the implications of a children's story, unspoken understandings, and example conveyed in what appears mere idle gossip. Laws are not made here, though they may be kept 470 or else covertly improvised against; here loyalties divide beneath the pressure of the more powerful, whom each alone must court in competition with the rest, and who is watchful to crush down the signs of such autonomously concerted action as might disturb control's prerogative; so each will quickly loosen any tie that links her to one lost by too much daring. Here leadership and systematic thought cannot arise; and yet the tribal life 480 could not be whole, it would not hold together, were not the hierarchic drive, the forward unity of command and legislation, subtended by an inconspicuous weaving of awareness and perception, anarchic seemingly, yet unified into a global knowledge focusing on the moment's reaction and decision made in the total light of all relations that bear unnamed upon the moment's point 490 to rescue what harsh principle would rend. And these two modes of thinking are embodied not only severally in the sexes; for every human brain of either gender, however swayed by one mode, yet contains the other mode in shadowed operation, the lattice has interstices, there is

a narrow bridge between the mind's two halves, or, mutually mute, the halves were doubtless inviable; but yet the commissure 500 is tenuous, as between the sexes, so between the modes even in the single mind, as intuition wrestles with conviction and is itself with dark impulse confused.

And clearer grows this diagram of fate when we consider how the mind has been deformed through time beneath the press of numbers: how, when the tribes were welded in the cities, the mutual knowledge that had joined with law 510 to equalize the members of the tribe and hold the strong in check, was dissipated, so that old Hierarchy rose again to bind the strangers, drawing to itself the Law, now more and more its instrument, and thus emerged the structure of the State which, tested, bore the weight of pyramid and ziggurat, command upon command, court, clerkship, army, priesthood, all locked in beneath one figure of authority 520 who symbolized a universal Power, Creator of the world as of the empire. The female power that had always been less tangible, less solidly acknowledged, was in proportion weakened as the extended root-systems of the family were torn up and faces hidden behind masks of place and the authority of riddling tales where conflict dreamed itself to resolution gave way to the hegemony of thought shaped to the need of monolithic rule, 530 because the clash of state on state must favor the one most consequent in martial law, as within groups the most ruthless float atop by the upward sift of deference and threat. Yet after conquest nurture needs must follow to make the grass grow back on trampled ground; for lack of which, empires have swiftly towered and fallen almost as rapidly to ruin, too ruthless even to sustain themselves.

540 like wounded sharks devouring their own entrails. But kingdoms lasted when among the columns of power the moderating voice could filter somehow, and weave its own sustaining pattern, whether through public dignity accorded to woman's image, if not to herself, or through the founding of a realm of Art where, though without authority, the Muse might speak of what the laws could not acknowledge, or else through softening of manners giving a public imitation of the graces 550 of home, that now might or might not obtain within a family sphere secured by custom. By such allowances, such mitigations, mind found a sheltered space in which to flourish and hold a realm of possibility open for the yet-undetermined act even for that dream of founding the accord of common life on reason and on trust which could in thought extend its brooding wings 560 over a world entire, although in practice it was the sword bore it from place to place. And if such future seems now of the past, it is not only that, like some candescent water-lily floating on bogwater, the dream seemed ignorant of what bore it up, but also that the world made and unmade by the devices of the mind so formed now threatens to unmake the mind itself. More even than the exhaustion of resources, the poisoning of earth, water and air, 570 there looms above our human diminution this hypertrophy of the hierarchic mode in thought and action, which occurs in consequence of needs we must provide at more and more removes, a lengthening chain. When every home fetched its own wood and water and every village had its skillful hands to forge and weave and carve what was required for rural life, then kings might rule afar and nobles might oppress, but close to home 580 there was an independence of the person, a space in which to think one's thoughts, and sing,

and speak one's mind, and recognize a friend – or so we now imagine it, forgetting what was perhaps a brutish feudal dark from which we sought to free the miserable by progress equal to enlightenment, twinned as were its beginnings to rebellion against the ancient hieratic fetters of church and sanctified autocracy 590 and their complicit myths. Newborn Invention clamored for freedom to survey the world with fearless eyes, untinted by old schemes. Heedless of all traditional dress and bonds. the mind Invention hailed as principle believed a common reason could enact laws that would check the violent and the cunning and make the world a place where every mind might grow unfolding to its fullest flower a dream that floated long, a pretty rainbow, 600 on rivers flammable with industrial waste. For with each road and pipe and wire and cable that now supply what once lay close at hand, another metal shoot of hierarchic control enters the common earth and air. It is the Company that brings the water from distant dam, the heat from far-off mine, the voice of kin from the antipodes to which it sent him off to earn his bread and plant another runner of its stem. 610 And as the organizations grow and join, subsuming every enterprise they meet (consumers will not stop them; see them still shopping for what is shiniest and cheapest, invisible the talismans of trust relinquished with each coin they spend that way), the hierarchy tends to come unstuck from the community it once supported – the family, the town, even the nation – while government and law fall far behind, 620 dwarfed by complexity beyond provision, entwined with what they struggle to restrain. The people's needs become subordinate to an autonomous impulse of expansion, uncontrolled increase of control and profit

is paramount, and necessarily so, for other such machines made out of men watch to snap up missed opportunities. They fashion men who cannot love themselves, 630 knowing by what means they have had to rise far from the moderating eye of justice or wisdom conscious of the needs of all. Here human beings avoid each other's eyes and hide their thoughts, knowing that no bond holds. There is not much that they can tell their children, so that a silence opens in the home, but for this too the corporate mind has found a cure: a box of noise and flickering shadows to fill the vacant mind with vacancy and hunger for what will not satisfy, 640 to make the home a marketplace, suborn the vote, till none govern but by its leave. And some upon the streets you see whose ears are filled with whispering phones that come between them and whatever thoughts they may have left, next best thing to an electrode in the brain: these are the peons of the system, those its peers, who cease from song to build machines that ape and over-ape the robotry of human thought, when it is only this, 650 until invention with mad pride aspires to fashion circuits that outmode the mind. We know the harm; and yet the fascination of gadgets grows; we crave them more than bread, a craving that is in its final essence a wish to fuse with hierarchic power which, having gobbled up the rest of life, now beckons with the sole remaining promise of comfort – outward comfort – and survival. So, it is said, a captive rat will press 660 the button that will shock its brain with pleasure although food lie beside it, and it starve. -How then shall creatural mind, so undermined by the inane, take thought for the creation?

Such was the demonstration of events which we observed to the diminuendo of all our hopeful chants. As I review it,

the spirit of despair that argued then and keeps this watch with me now leads me forth and whispers gloating to my sense: "Observe, 670 you who have trusted in the universe, the other provinces of earth, and see how variously the selfsame fate prevails. Not for the first time in your generation, where plenty's momentary overflow fostered the building of such airy castles that crumbled when the Leviathan bedrock shifted (the peasants of the Third World, ravaged bare by locust corporations, could have told them), did human beings insurge appalled against 680 the social engine of their own destruction. Look back: Landauer too, and Saint-Simon had tried to shore against the mind's undoing a family of thinkers and of workers, a federation of communities, fired with a deeper thought, a clearer passion than through the hempsmoke of our time was seen who now recalls their names, to call on them? Upon ideas, too, a natural selection operates, retaining only 690 what sorts with the enormous schemes of might. Like phantom suns Landauer and Saint-Simon soon set, but one that rose between them long beat coldly down upon the great Northeast. It rose from the brain of one indignant man sitting in a library and writing, defining justice—as the opposite of private profit battening on the worker, whose bones he had observed being ground for bread. 700 Since this injustice was material (and all ideas merely superstructure upon a base that moves them and itself), the contradiction had to have its motive in economic mechanism, in a force of matter raised to greater power. A violent upheaval of the oppressed he saw, and a dictatorship which would endure until (by some causality whose nature remained vague) it was to vanish, 710 leaving a world of brotherhood and peace.

Such was the intellectual Minotaur begot on moral sense by tyrant-urge reducing life to mere mechanic matter and then exhorting matter to be just. Another read him on that continent Tatar and czar had broken to the knout and saw, guessed what a reservoir of power to weld the hungry and the envious, the unthinking and the cruel into one, 720 lay in those formulae that rendered down all human acts to economic laws; of these he forged a doctrine, then a party, and so by guile and force possessed the land. Proclaiming itself just, that cause enticed many whom wrongs of the oppressed had stirred to hopeful joining, miserable end. For soon enough the drapery of the ideal fell from the will to power, personated by one who knew one thing: to give commands 730 for murder and betrayal – word that found the executioners ready. At its hiss a thousand ears were opened in the cities, the wood of human trust was tunneled through, the prisons filled, amid Siberian snows empires of endless agony were founded while the workers toiled in serfdom to the state, bricks for a vast and stupefying temple towered above by one Cyclopean image, like those of Ra or Marduk, that proclaimed the final bleakness of material fact: 740 the block-like business suit bulked forth not flesh but the advancing shoulders of the tanks which the head on that thick neck could deploy, that head, whose thoughts were copied in the heads of those whom the desire of might alone could move: the men of stone with lightless eyes. Egypt and Babylon had risen again; Mandelstamm saw their shadow, and from it augured correctly of his own ill fate; 750 and the ill changes of the Caspian sea will witness to impoverished generations how nature fares beneath the heel of might. To this the dream of Socialism, that

hope of restraining greed, recapturing the fruits of enterprise for the common weal evolved."

To which I answer: "That colossus fell, after all. While still its nightmare shape frightened the dreams of children, one fine morning it was not there. For, evil as it was, it needed still the dream of common good 760 to hold itself together. It dispersed as soon as bribery and intimidation had clogged its arteries, rusted its joints from bending mind and arm to feed itself..." To this the interlocutor supplies: "...and left it prey to international commerce. Compulsion toward the common good was worsted by liberty of plunder; which, relieved from competition that had given it a sort of conscience, grows more impudent, 770 discards all pretense of beneficence. And are the precincts and the temples built by liberty of plunder more appealing? See a vast landscape made of screaming signs, see these enormous glass and concrete cartons, empty of images. There are no leaders here, only winners, less and less inclined to share the take, or tell you who they are. They are no one. It is a mindless process that's in control, churning out stimuli 780 to hypnotize, setting the treadmill's pace a little faster every year, to leave less and less space for thought of human fate, careless of its own future. For when all the world is beggared and the cupboard bare, it must consume itself. Yet till that moment immediate self-interest will keep on stoking the engine of this prosperous ruin, as upon Easter Island where the forests of palms that had provided food and shelter 790 and the sea-freedom of the long canoes were felled, to the last tree they might have saved to seed regrowth. No common wisdom grew an arm with strength to lay a hand upon the arm that swung the axe, to hold it back.

Then war and famine thinned them to a remnant scuttling about between the caves in which they hid from one another underneath the heaven-turned gaze of those huge monuments to their stupidity."

The pointing arm 800 swings now to where around that inward-reaching arm of earth's main three continents confer. "Observe," it says, "this petrie-dish of cultures, where, laboring amid the press of war, trade and migration, humankind brought forth the largest and most varied brood of gods and called most loudly on them to deliver some vision that could save it from itself. These visions, too, evolved. Consider first 810 the father of all protests and attempts to drive a wedge in Time: that spirit's thought which once between the massive force of Babel and that of Egypt, sprouted, pried a space, a Sabbath in the struggle for existence, in which a human freedom seemed to grow, sustained by vision of a power beyond the grasp of man, beyond the universe which it created and by will upholds, addressing humans, who can hear its voice, in the language of command, which if obeyed 820 would turn them from the path of unpurged impulse leading toward death, onto the path of life, a higher life of consciousness and choice. You, whom the universe has now confronted, may strain to catch the echo of that thunder, which seemed to have died away, becoming louder again; but what it said you will not catch; you hear the old imperatives of the tribe fused with a hint of universal law 830 perhaps in this one tribe to be revealed. As in some small and isolate population mutations first appear and propagate till a configuration of new species has taken shape, then to be spread abroad, so from the solitude of that one people much thought has radiated, although not the Law as manifest in dual shape

throughout that people's youth: there were the rules given in perpetuity to maintain the common life within a stable frame, 840 and there was inspiration that revealed the right act, in the unrepeated moment, to prophets whom the hand of spirit chose. This dual Law-and-Teaching, for a while, propped the nation up against great odds which had their way at last. The empires came and razed its temple and its holy city; wave after towering wave of suffering washed over the people, till their feverish spirit 850 began to toss with visions of the end, conceive apocalypse and anarchy. Their sages, still desiring to prolong the people's life in the world as it is, stopped up the wellsprings of immediate song, winnowed the sacred books and sealed the canon, commanded inspiration now to trickle through intricate channels of interpretation and deference to elder precedent: manifestation of supernal being was distanced to a memory that grew 860 dimmer and dimmer through the generations, brought now, it too, beneath the universal scepter of inexorable decay. Under the shadow of Time the people's soul sighed for deliverance, and their wishful thought conceived the shape of an anointed King who would tread down the kings who trod them down. Out of that expectation stepped a man -stepped many a man, for that great role is written 870 upon the clouds, and will precipitate – but one man in particular.

Not from

the soil and seed of Israel alone
he grew, but out of many strands that crossed
within that matrix. Follow, now, the Greeks,
whose city-states have left an after-image
of civic dignity that was the setting
for the dignity of individual person.
The gods to whom they built their columned temples,
whose forms they shaped in more than living stone,

were natural forces that had taken on 880 a human shape and human faculties in their imagination, entering in to dialogue and common consciousness, though still capricious, like those human forces of war, dissension, tyranny, that doomed the polis. Yet even as this tragedy proceeded, to their philosophic thought the shapes of gods dissolved into the mind that knew itself as causal principle and posited an ultimate Mind and Cause 890 beyond appearance and contingency, the source of freedom from brute force and passion and of the power to see the good and choose it perhaps, indeed, some influence had found the way from Sinai to that other haven. This faith, whose temple was the academy, whose creed still drapes our schools, enshrined a vision of Beauty, Truth, and Good inseparable, a logic-word inherent in the mind 900 as in the world, whereby the human being, instructed and in-formed by wisdom, knew the self as model of an ordered world, citizen of the cosmos, subject only to cosmic laws they thought they could deduce as by straight lines and circles drawn in sand. This enterprise they prosecuted while a king whom a philosopher had tutored, and who perhaps had gathered from such teaching a supplemental glory to surround a head that burned in the focus of that gaze 910 men turn upon a chief in adoration, exploded in a fireball of conquest upon whose wind of devastation floated, strangely, a vision of Cosmopolis which in war's wake precipitated cities and left behind an apparatus which became foundation for another empire built by a rigorous ambitious people who gained a world but lost their civic soul to profiteering, luxury, the vices 920 of power, and the people's degradation in spectacles whose cruelty deflected

the rage of the degraded. Through all this, philosophers pursued the shade of Good. Austere, abstract, they scorned the aid of poets, their pageantry of images deluding with semblances of things, their rhythms pulsing to raise the fumes of passion that becloud the clear bright flame of reason. Yet with words detached from the poetic tree they failed 930 to tame the great beast. For the tyrant's mouth spat out the curb of Reason, while the people went from the banquet of philosophy still hungry for the pageantry, the rhythms, the food of the delirium that gathers mind from the icy solitude of thought into the social body's heat. That need kept bodying itself forth, extruding forms of mystery and sect with doctrines merging myth and philosophy, promising freedom, worshipping many a god in mutilated 940 figure whose resurrection then betokened release from circles of vicissitude into a realm of fellowship and light. Magic and fraud were mixed with mutual aid and gleams, at times, of that aspiring vision which, penetrating masks of difference, perceives all gods as facets of the One.

"Two masses, then, of suffering and desire, the inheritance of Sinai and of Athens, met, merged, and flashed. And in that flash appeared 950 a shape that wore the mantle of the national deliverer on the shoulders of the god who dies with us to draw us into light and on those two roles overlaid a third. the role of teacher who had walked on earth and left a wisdom-trail for us to follow, and yet a fourth: the cosmic Word itself, from which the teachings to all teachers flow. And now the resurrection's great escape 960 holds up an apparition of true life beyond all grasp of empire and of law, trumpeting forth a universal love as from a generosity of soul

that cannot die. Soon toward that blinding light, whether it was indeed a shining-forth from the eternal, or one more combustion of exhalations over the endless swamp Mortal Fatuity, the souls were drawn, until a soldier saw that in that sign an earthly victory could be won as well 970 (though by great sins, at last to be forgiven). That figure seemed to magnetize the world. The people found a comforter and teacher, a symbol of their suffering and hope; the emperors an image they could use to hold the people's loyalty, and quash the exuberance of anarchic fantasy, and on religious pretext to cast down the trouble-making nation Israel. While in the highest tiers of intellect 980 philosophy mutated into dogma, the streets began to see the with mobs incited to demonstrate the truth of their religion by smashing rival shrines and images, burning papyrus, striking down whoever stood up in contradiction. So the splendors of Phidias lapsed back into the past; immortal staves of Sophocles and Sappho confided in the flames and were effaced.

"Such sacrifices of the intellect 990 could not arrest, indeed perhaps assisted the dissolution of Cosmopolis, repressing thought when thought was needed most, while pious fraud, to which the evidence of spirit is not strong enough unaided, added ingredients to corruption's stew. The realm of Rome fell to tripartite fate. Eastward a pious emperor's rigid code founded a churchly state whose frozen pattern of precedent and pageant could persist 1000 a thousand years until at last effaced by the all-dissolving power of the south; while in the west the empire's roads were cut, the arts of civilization were unlearned. In feudal darkness under local lords.

preached to by an hysteric Church that fed them on otherworldly dreams, the people dwindled and lived in expectation of the end and only after centuries revived, relearned, fused fiefs to nations, reconciled, 1010 unsteadily, the profitable endeavor of thinking with the reign of that great Prince in whose name deeds of love and hate were done, according as immortal certitude or mortal impulse grasped that wavering flag. But that uneasy fusion's seams enlarged to flaws, until in course of time it crumbled. For though the mighty conquered in its sign, the final approbation of its legend could never rest on deeds of force; and this lit in the given-to-force a wrath that smoldered 1020 till in a land once conquered by the sword for the Prince of Peace, that wrath flared out in worship of violent impulse for its own fell sake; and though its minions there were beaten down, those flames spring elsewhere up beneath the feet. And this crack joins another: the reliance on too much contrary to fact, or to those reasons that are now received as truth. Tertullian believed because absurd and contradictory to all the iron 1030 laws of the world, whose clench he doubtless felt, the incarnation and the resurrection: but the intensifying race of progress fixes the eyes upon the causal track few dare now look away from; and perhaps a sense of evils mounting to the skies, a slag-heap on which utmost forgiveness slips backwards, has settled in the soul: it sees itself commercialized, and knows its blight 1040 is one with the decay of earthly things too long contemned; too late, perhaps, regretted.

"And louder, in the silence of that faith, reverberates that voice which first intoned when certain tribes that had not studied long in civilization's school, insurged upon the southern fringes of the fraying empire,

their numbers mustering, pressing for more room. Among them rose a man of martial spirit who had hearkened when the teachers in the cities spoke of One God and that God's boundless power 1050 and Law insuperable. He then reported a vision from that God, in words that swelled above the verses of the tribal poets with vivid picturemaking, throbbing rhythm, rhetoric mounting in the brain and pulse toward ecstasy, wherein the call to prayer and call to battle sounded as one blast. Here was no room for spirit's opposition to power and might, for spirit here with these had fused. Nor was there limit set to conquest, 1060 one bounded promised land to have and hold, but propagation by the sword prescribed even to the ends of earth, and those who followed the sword assured of paradise adapted to the other need that follows lust of battle. The strongest wishes of the violent heart against which older faiths had wrestled, here were in the surge of faith itself confirmed; and freedom, which those older faiths had sought 1070 to fortify against the attack of passion and circumstance, dissolved into submission to the voice that from the tower beckoned, threatened, incited. At its call the armies gathered and marched with visionary exaltation upon an empire sickened by misrule. By force, and by the appeal of force, there spread an empire like a magic cloak unfolding out of a millet-seed, over the northern shores of Africa, over Spain, resplendent with spoils of wealth and learning. For a time 1080 that empire shone against the dark of Europe, maintained by rulers generous in triumph, wise to employ the wise as instruments without close inquisition into thought. There science and philosophy could flourish, legend and art and mystic love accrue upon the martial faith, enrich its fabric. Yet soon that glory withered. In the north resistance gathered. And within, that realm

was gripped by deepening fanaticism, fear of free thought, for which the praise of might 1090 left little room. Philosophy and science fell silent. Schism and repression brought a deepening cruelty of rule and custom, a harsher rule of manhood over woman, that power recompensing every lack of freedom, and all poverty of spirit, the abuses of that power more and more identified with piety itself (as has occurred in many a tradition, 1100 being another tendency of Time), while license given to violence and corruption soon crowded all renewing spirit out. So the posterity of that great empire seemed capable of giving birth to only fresh tyrannies which presently dissolved, yet in defeat that faith was undefeated. Over those weakened kingdoms swept the Tatars, mowers of heads, yet stayed to hear a teaching that liked them well enough. The West, the North, 1110 enabled by technology that had but just begun consuming them, subdued those ignorant dynasties, those inert masses a century or two, yet could not win their loyalty away from faith that seconds the carnal impulse with eternal hope and calls all humans to identify with Force and its insuperable law.

"And is it not, indeed, insuperable, by evolution's logic, that refutes all reason born of foresight and of care for earth and for the human, in the practice? For in the end the preachment that prevails—within each faith as in the trial among them—is not that which a syllogism proves, nor that which a tradition authorizes nor evidence of miracles, but that which jiggles out from the trial of replication. A version of religion that prescribes incessant conquest, copious reproduction (the latter founded on the subjugation

of motherhood that cannot choose but bear 1130 and bear its children to whatever fates) seems bound to triumph, trumping every other consideration, such as that the human image, half-hidden, is not wholly human, or that on finite Earth our numbers must reduce, by choice or not. The mystic urge was given us to override such reasons that the unreasonable might swell the more. Their tide now clashes with the wasteful wave of a technocracy that, far from serving 1140 the needs of humankind, has rather learned to farm the human race in furtherance of its own headless schemes. Fanaticism and knowledge liberated from the knower now skirmish with each other, now shake hands, each one self-justified and absolute. It is as though the ferment of the human quest for transcendence and for certainty, that broth of insight, impulse and illusion, 1150 whirled in Time's centrifuge, had settled out to these two compounds final and inert, though potent still to catalyze all harm.

"And what is all this but the confirmation of the evidence that the universe is governed by principles of quantity and number, to which whatever you perceive and feel may be reduced, though the reduction be their death, or expiration of their meaning; as if indeed it is not love but hate that drives the stars; or as if human hate were nothing but the working in the nerves of an essentially mechanic All, and the unfortunate capacity for love and pain, the feeble cry for justice, and surely too the prudence that would save some food and air for future generations, is something Hate created in self-nurture, as if an accident should make its victim. Let Truth be what it may; what history's experiment bears out, is this. And knowledge itself can only tighten up the chains

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and poison Hope, that lives on ignorance."

So speaks to me a voice that speaks to all now, in this time, beneath the differing hum of our religions and our fantasies of doing good, which, rooted to the ground by its grim fascination, take no flight: they know that all must walk a road that leads to an infinity of pain and evil, through darkness darkening till human mind calls at last to extinction, and it comes.

Chapter 8

The need to wrestle with the self-fulfilling prophecies of determinism. Arguments for an open future. Cracks in the deterministic picture of the universe. The paradox that the deterministic world-view, as an expression of a certain tendency in human nature, appears to be an effect of what it purports to explain. Probability and indeterminism; great effects from small causes. The flaw in reductionism: the simple does not explain the complex. Goedel's theorem, arbitrariness of the laws of probability. Evidence for a selforganizing tendency, an impulse toward form and harmony in the universe; "natural selection" by itself not a sufficient explanation of life-forms. Our own pivotal position in the universe, as the life-form that can either destroy the ecosystem or become the consciousness of that system as a whole. Hypothesis of a cosmic intelligence that may yet overcome disintegrative and obscurantist tendencies.

The first part of the task assigned at outset – to trace the laws that shaped the solid world and framed the patterns of the human mind such that it seems to war against all life – we have accomplished, and I fear too well, till the parameters of our disaster rise up before us in exorbitant lines, casting a shadow wherein not alone hope, but belief in that in us which longs for vision of a mended world, seems blotted. Well did an ancient prince of the handiwork I ply here, a belated stumbling prentice, spell out the warning: Easy is descent to the infernal realm, the shades of death; but to remount that stair toward sight of sun and hopeful star, that is the task, the labor. There's something in us draws toward the abyss and makes us gladly lend our voice to doom. How often we have seen, in our assemblies, how many nod acknowledgment, when one describes the steps that led to some dire strait, but when it comes to remedies, at once doubt is roused, and contention from all sides, till counsel of postponement is adopted and the evil takes its further course, unchecked and stronger by the faintness of all hearts.

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Now we have raised an image of despair whose feet seem planted in the firm foundations of the material universe, how shall we conjure up a strength to match that strength, 30 on what god call, seeing that all have failed and fallen back into those same foundations? And even supposing that we could discover some principle that Is, beyond the reach of our decay and strife: how thence derive axioms of thought and action that may seem as ineluctable of consequence as the great menace under which we stand, that all who read may see: the maze has one exit, and only one? For only so 40 might a concerted and coordinated action begin. And even if this were done and the form of necessity's command stood clear before us: could we then desire to follow it? and would it be for us or for some creature which we almost were, too alien for our choice, and not a way that we can go?

Yet on the inner eye still floats a vision of the earth as whole, and in the mind persists a sense of being bound with that wholeness in a common fate; and in the inner ear reverberates, still, the command: Go, speak of this as best you can, to who may hear; there's still the will not to desist from something undertaken; and even Science, whose imperatives we've heeded to so many a purpose, here instructs us to begin with the assumption that at some point along the wall of blank insolubilities, a door stands open – so as not, at least, to miss it through the blindness of those who think there's nothing to be seen. Then on: no worse can come of it than is.

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First with the shape of Fate we have created — created here, although there is no doubt it stalks the world — we must contend, to free our minds at least of its hypnotic spell.

Let Truth be as it may, it said, as though Truth made no difference to the experiment. Yet what we hold for truth, or hold before 70 the truth, maybe, so as not to see it plain, has weight, even if it has not yet outweighed preponderance of mass and might and habit. We never were content to seek the cause of our own being or action in ourselves, but always sought it in a deeper ground, god, universe or universal being, whose face or whose ineffable retreat we molded from perception and desire, and from that face a force returned to us 80 that molded us in turn. So now the impulse of mastery for ill that seems to rule us is not content to speak in its own name as impulse only, but derives a charter from the investigated universe, to which it gives a shape that blots out choice, makes plausible its utter dark dominion on earth as in those regions of the sky that capture light and do not let it forth.

Already we can notice that this image
appears related to some tendency
in us, to dominate and to destroy—
is suspect, then, of being a projection
upon a universe of which it may
(as Kafka said) be merely a bad mood.
Lift this projection, and we might begin
to see beyond the narrowing confines
this pattern draws for us, let through some ray
from the source of human freedom, be it far
beyond the curtain of the world's appearance
or near, that point behind the inner eye
from which our sight streams outward to the world.

We have heard, then, in the shadow of Earth's doom, of a creation that is no creation, being void of all intent or trace of Mind. Before all will was mass and force, the act of energy expanding out of nowhere, and then the scurrying particles, impelled

always on paths the number can describe. From the accountable hazard of their motion 110 all that we see derives: the wheel of stars. the sun, the earth and all that moves upon it. The forms which we behold, the qualities we apprehend, by taste and touch and sight – these have no permanence, nor no foundation in any thought that fashions and remembers or fore-envisioning incorporeal eye, but are such as persist in water rushing over a rocky bed, ridge, groove and vortex 120 holding while flow and obstacle endure: these shift away, and who will mark the place? Of such is all that struggles to remain itself, of such the will, of such the arrays in which these entities dispose themselves and interact; of such the imaginations, the opinions by which they are steered, and steer each other: nothing but a flimmering of particles reflected on itself, subject to end, as once it had begun, by hazard of the whirlwind, and indeed 130 destined to dissolution by the law which from the mouth of nothingness decrees the increase of disorder over time. Moreover all are bound to endless war, because that which persists is that which conquers, consumes, controls, outbreeds or underbids, by the mere execution of instructions established by coincidence of random errors in copying with circumstance; nor can the unchosen be revoked by choice. 140 As proof of which unfaith we are presented with fossil, chart, and learned argument, chains of equations whose invisible links only the long-devoted can behold, and, all too visible to all alike, the products of our progress, manufactured by methods we have copied from the cosmos which we proceed to judge by our own makings (although we say the cosmos had no maker). As priest and prophet brought forth miracles 150 in evidence of their gods, so we accept

technology as evidence of none; bomb and computer dare us contradict, as thunder from the sacred mountain once. And then the sheer dimensions of it all: no Babylonian or Egyptian rearing of towering statues could so stare us down. Those eons that have dwarfed eternity, those airless distances that suck out breath, 160 and, far below the surface of our sight, withholden from our most aggrandized eye, the ceaseless drama of the interaction among the infinitesimally small! How then believe that in this scheme of things our mediocre being has importance, that any eye is bent upon our doings to term them good or evil, fair or foul – that any Will is trained upon our struggles to pull us from these straits, so much our own? Then Time must take its course with us, through us, 170 and woe to all that grows upon its path!

Such are the arguments perdition uses (we felt them stalk beside us all along, and in some way, perhaps, they helped us tell the tale of time); but it is very strange how solidly they seem to loom before us, like to a very juggernaut of proof, while all the time our listening ear surprises the lapses of internal contradiction, assumptions whose foundations shift, and echoes 180 of reservation from the very minds that study number, particle and star. Only the argument from Force remains uncountered, and may in the end refute all vision by just putting out the eye; but otherwise, it does not stand to reason to judge the universe by our own makings yet say the universe was never made; to call it mindless and mechanical, 190 with form a mere by-product of the flux, and yet regard those patterns in the flux as rigid and unalterable by will, even while admitting that a complex world

is unpredictable, that even one minute condition altered at the start say, by the act of will of one small creature – rolls down time's slope to mighty difference. Nor does it seem that time alone sufficed to draw from simple plasma all the beings, the forms, of which the universe is full 200 (especially if we say that time must tend toward dissolution). For the elemental does not contain the later, the composite, nor all the principles of derivation, but laws appear, each in its proper time, with the phenomena they seem to govern, as if emerging out of some dimension deeper than sequence. Neither can the numbers account for all, since ratiocination tracked itself to Goedel's recognition 210 that every realm it can stake out, within what-is-the-case, by axiom and proof, may somewhere lie unfortified, or harbor the open treason of a contradiction and never hold the whole. Beyond all claims there may then dwell a Nothingness or Being that's numberless, yet emanates all that which may be quantified, and number's laws. The laws of probability, to which 220 causality is now reduced: they rest not upon logical necessity but on some throw of dice where Chance is not or maybe, on the action of some Will? At matter's depth the mysteries of mind reappear, like particles from the void, like those twin particles that, being disjoined, behave as though from knowledge of each other. By strongest light of analytic mind the cosmos in its next-to-naught appears more a great thought, one said, than a great machine. 230 Nor is the word, the currency and template of human thought, mere recent accident. We saw how in the earliest recognition of shapes that harm or help, it was foreshadowed; but here's a stranger thing: the gene for "eye" will, in a fruit-fly, form a compound eye

and in a frog, a little camera like that we own. Could it then be that meaning was, from the first, inwoven in life's warp? Nor need the numbers make the world a matter 240 of quantity and sequence and no more. We picked them up to keep our useful tallies of earlier and later, few and many; yet to our contemplation they convolve, exfoliate, revealing properties undreamt of by the brain that drove the hand to make that row of scratches on the stone – though sensed perhaps, the way utility and sacredness were often intertwined 250 in our kind's first impressions of the world, the moon's return bespeaking to our souls proportions which Pythagoras and Kepler, who without instruments beheld the mind, divined and half-erroneously described, harmonic structures in the universe that speak of an implicit dream of order. Nor is it true that matter in itself tends toward the lifeless and the inert; instead to our renewed experiment it shows as it were an inherent mindfulness 260 watching its opportunity to fashion design where randomness had been before, configurating compounds beyond reckoning of energy inpoured, and intimating the impulse that has driven it into life and life to convolutions more entwined. Nor are the living things we see mere products of multiplying molecules, improved by being hurled senseless against each other like our war-engines, while the prize is given 270 to fortunate confusion of the genes – it is an all-too-human thought that Force and Error the unmakers made the world. It rather seems that Evolution takes, to some extent, the creature as a whole; it is a metamorphosis proceeding not by the inching pace of gradual change but rather marked by sudden flashings-out of form, as to the artist's groping mind

280 a new shape in old elements appears, breaking the continuity which then resumes through ages where the form is constant in basic plan, although the outline stretch by breeding's chance to various distortions nor are these always of a helpful kind. Those antlers feint or combat made to tower above the stag's head as a cumbrous ballast have made the species cuckold to one impulse, for that which benefits the individual within the species, may unfit the species, 290 while that which overfits the single kind to tilt against the cycles that contain it can with the kind, the cycles, not endure.

Strife, then, is not sole parent of all things; we needs must posit, to account for Being, a second parent – Love, or Harmony – an impulse of communication, joining, that makes of scattered elements a whole, is not reducible to isolate cause but shimmers in the fine coordination. 300 the indefinable accord to which each seeming separate element listening moves. We find its workings still, even where substance lies pinned and stripped beneath the objective eye, in those twin motes' united separate twitching, in those compounds that alter in the alembic not gradually but everywhere at once as by a signal everywhere received; and it is felt behind a thousand veils in the sphere of living creatures, where the paths 310 of plant and animal, insect and microbe so densely mesh, configurate to patterns that speak not mere coincidence of blind strivings, but something like a weaving hand that lays these strivings on a loom and threads them into designs no single figure guesses. And yet the strivings are not blind forever. The play of life's improvisation opens a tiny field of vision and provision that, as the eons pass, goes on enlarging; 320 and likewise grows the social web that links

mind to other mind in its unfolding, until in us is formed the mind that aims beyond the mark of its own sustenance toward comprehension of the whole, that finds on sound's continuum the well-tempered scale, those harmonies that sound beyond the bounds of place and time and culture, even species, if true the scientific tale that plants 330 grow best with Mozart playing in their air, although that flute has yet to find a charm against the dragons raging in our blood. It is our lot to represent a crisis inherent in the nature of creation, where all things are dependent on the whole yet the whole has, as yet, no creatural voice. Its harmony is woven of the paths along which every living being must seek perpetuation, now in consonance with other beings, now at counterpoint. 340 Each hunger has its food, each danger has its warning and its fear, by ancient use and precedent recorded in the archives of brain and nerve, to be retrievable at a familiar call. But heretofore the Whole was safe, by being too immense for creatural act to grasp at its foundations; it had no voice, because it needed none. Not that it was not felt, the way contentment 350 is felt by creatures when their needs are filled for the time being, and no danger near; in such a space perhaps the simplest being opens some pore of sentience that drinks in presence of greater entity enduring beyond its brief and singular expressions, as at some interval of war and nurture perhaps there is no human who has not said in the inmost heart, I am but one among the uncounted who have kept the watch 360 of humankind beneath the circling stars and will yet keep it, when my time is spent. It is a new thing, that one single wave threatens the ocean with outrageous surge, a peace is broken which the eons kept,

old sanctuaries of tranquillity, to which the humbled could repair, are now invaded by a fear that had kept its distance. But now that it is so—then if indeed a mindfulness inhabits these recesses, then surely thence must issue some commands, 370 directions for a creature that must now assume the whole, become its mind and heart, composing life to new and higher order by the new means of consciousness and choice, or else with fatal passion rack this sphere! There must be in reserve some knowledge, some science, even, more in tune with All than ours, which is the prying of the creature raised by the exponent of our cunning to world-exploding power, held by us in perilous trust for all the earth has borne.

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Of all the creatures that arose before us none intends good, yet each does little harm because of limitations that apply to the gigantic as to the minute. Each one pursues its momentary goal; none sows that it may reap; none gathers in more than a winter's need; none dreads its death nor schemes to cheat creation of its due; but yet the elements of such intention are present even in the simplest being which the need to survive and reproduce commits to acquisition and control, so that our own inordinate power seems the granting of a wish common to all, though wishes granted, as the stories tell us, bring unwish in their wake. So with reflection of primal thought in conscious creatural mind came also thought of death, by which the creature is straitened, so that through such strait it sees the generous universe that gave it birth, feels its own dying in the falling leaves and can but envy the returning spring. Envy and need of mastery combined with apprehension which, the tongue betrays, is but the abstraction of the monkey's grasp,

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mark out the way of knowledge which we follow when we define as truth such acts of matter as flatter our dominion-dream, by being predictable, repeatable, recurring, 410 producible by self-same conjuration, at last mechanical. So we have set the laboratory's stage for matter's trial, controlling and repeating, till we build from all our reproducible results the image of a universe untouched by the finger of imponderable and always unique event, alone revivifying what's bound beneath the bootheel of decay. 420 And by such knowing we have built the kingdom of mindless things, boasting ourselves the while that we have had the secret of creation. It is not that we might not someday make even a vehicle to capture breath. It is that even then our memory, although we might not heed it, would distinguish between a world of born, and one of made, or even between made and made, the times some shadow of the grace of living things – 430 the seal of their appurtenance to something more than the singularity of need – rested upon the work of human hands: on painted vase and sculptured pediment, on veinèd soaring vault, on web that held the dance of bird and beast as if still free, on haft of tool that served some daily purpose yet looked to have been carved for its own sake. As now before our eyes creation darkens into the look of our appliances, the myriad creatures of our need and greed 440 that multiply through us and yet beyond us in a momentum that is exponential, stemming from us, and yet no longer ours, and that reshapes us to its inorganic demand, that simplifies desires and faces, cancelling introspection, variation, till life as in polluted waters takes fewer and fouler forms, yet still increases, each day more deathlike life and lifelike death —

450 doom's argument from ingenuity, to minds that shake off sleep, is self-impeached: if we have thrust a shuttle in the loom ill-fitted to the warp, this testifies that the equations have left something out, we have not grasped the secret of creation but let it go, grasped something else instead, or only part of it, in which there is no health, unless the other part be found. And last: the two abysses of the vast and the minute, Pascal already saw; 460 and those today who reckon that we stand between the Angstrom unit and the light-year, between the eon and the nanosecond, as median of magnitude, begin likewise to sense that our dimension holds the measure and the ratio of creation.

As thus we seek to weave the threads of meaning which science brings to us, the universe seems not "a great thought" only, but a story whose outline still is but a wavering shape, 470 even as its outcome is yet unforeclosed. An intuition of Empedocles, who saw before analysis had zoomed in to obscure the forest with the trees, returns to bid us once again perceive all things as issuing from the interaction of Love and Hate, one tending to disjoin, dissolve, scatter, the other to connect, compose and constitute, and both conjoined forever in a dance of opposites. 480 The principle of hate, of entropy, of separation and antagonism, seems in itself incapable of form, indifferent and even hostile to it. Yet without hatred nothing could be formed distinct, but all re-merge into the Oneness; form happens through the recapture of that force that always is in flight from primal center, that breaks through every outline, every shell, and so compels the principle of Love 490 to mold a further form. Each tries to use

the other for its ends: the shattering force appropriates a vehicle of form, the will to form is stirred by shattering to every higher levels of creation, and neither acts at all without the other. And these be not enumerable forces but metaphysical principles, that use all that is calculable for their ends, although the path of Hate appears the easier 500 to trace by methods that employ division. Moreover, if our temporal patterns are projected, as by some arcane decision at hidden juncture beyond space and time, we may read Hate as the prolonged momentum of the initial thrust out from the Source, Creation as that exile from the One of which the masters of the Kabbala dreamed on the midnight of their tribulation, whereby that which was whole in light became 510 detached, inert, self-ignorant, and yet keeps striving back through ever-higher forms more-comprehensive, -integrating forms and is cast down again, to be recast until some final moment of redemption, some final clarity of reintegration – so we may hope. And then it may appear that in our time the full destructive force precipitated, took on final shape, 520 that in beholding it (although the vision is fraught with fascination and with danger) we might become aware of what we are despite it, and by doing so come free.

So we begin to understand the plot of the play life enacts upon Earth's stage — for all we know, on many stages scattered, hidden from one another behind points of distant light, yet contemplated surely from beyond Time by authoring Intellect that framed our plight and possibility.

530 And shall that Intellect not finally favor its semblance in the mirror of creation against what seeks to darken and cast down?

Chapter 9

Evidence for paranormal phenomena, as intimations of an awareness not limited by the senses of the individual and a force not accounted for by the laws of physics. Laboratory parapsychology; anecdotal evidence for clairvoyance, telepathy, precognition, telekinesis. Arguments for and against immortality. The important question seen to be not so much personal immortality as the fate of the greater being to which all belong. The conclusion that spiritual forces are focused by forms. Reframing of the problem as the search for the form of thought and action that would attune us to the mind and energy of the greater being, and thus enable us to repair the world.

So we may reason, listening to words that rise from reckonings we cannot fathom, words which to their own speakers may well seem like the wind-fretted foam to which the ground-swell breaks on the beach. Yet if such stammerings issue from something like a substance in the depths beyond the reach of either common knowledge or specialized investigation, might we not also reach that substance through inquiry of our own prophetic Soul? 10 - A thing as often doubted as invoked; yet the soul's tenuous consistency insists, at times, that it is here for more reasons than evolution knows about. It feels an influx from beyond itself of inspiration, energy, or love; in pondering its pathway through the world it sees a pattern of events, no doubt projected from within itself, yet also as though arranged by larger destiny 20 to speak to it, to guide it, from beyond the circle of its knowledge and its powers. In a fair trial of the global cause shall not such testimony be received? And yet again, what can such witness weigh, considering how self-interest inflects the private dream, just as the need of war threads propaganda into revelation, to justify the unjustifiable and furnish Doubt with righteous arguments, 30

so that the ties of all religions lie slackly around us, cut off by our sense that they have failed in the face of what we fear?

But now our vision has conducted us out to a land that lies forever barren beyond the borderline of any future our rational conjecture can possess, we must attempt to see that doubted thing, the soul, for what it is, and if it holds some final gift, reserved for this petition. 40 A journey to the underworld of thought we undertake, as in that eldest myth, Gilgamesh for Enkidu's sake descended, not now for an elixir to ensphere a creatural life in immortality, but for some talisman of understanding, some herb of healing that would help us loose the hands our kind would lay upon itself and on the globed creation it inhabits, 50 some certainty that that in us which feels it is not I or you nor he nor she nor mine nor yours nor his nor hers alone but ours and of some Will that made the world and dwells in it and longs for its perfection may count upon some strength which, called upon, could overturn the overtowering odds that there is substance to the ancient tales of miracles, deliverances, which stopped Might's engine in its tracks, and kept alive the hope of good and those who held to it — 60 May we yet speak such hope, and not be mocked by those who tabulate objective findings. So help us, nameless Power, if You are, and if our kind's continuance and unfolding into its better longings, be Your will.

Doubt of the soul: how many generations have walked the earth, and almost all believed unquestioningly in powers of the spirit and wedded them unthinkingly to such powers of arm and arms as they possessed, till among spirit's various bedlam guises

such strife awoke, that we might almost think we built the structure of determinism to be a sanctuary from all that. Then the habit of investigation formed; we laid down demonstrations, block on block, by Occam's razor millimeter-trimmed, and did not always ask if the reduced ranks of causes really could explain everything that needed explanation 80 and begged to be included in What-Is. Therefore within the accounted world there spread the blind spot of the unaccounted-for, edged by a muffled sense of that which is and yet is orphaned of our understanding or carries with it, like a leper's bell, some fear that makes us shun it, or at best throw over it some costume old or new, that, masked, we may invite it to our revels and even crown it king, as if in jest. 90 Thus on the fringe of Reason's well-planned city (just at the time when Science claimed the throne on which we once had seated the Creator) arose a motley tent- or trailer-camp, home to visionaries, revelators, theosophists and mystics and clairvoyants, psychics and mediums, peddling doctrines borrowed from various traditions, new-combined, accompanied by purported demonstrations of spirit contravening matter's sway, 100 transgressing bounds of time and death and distance. Protest against mortality enforced by scientific rigor, an insurgence against the iron laws of matter's fate, impelled, no doubt, these seekers, these purveyors of what was sought. And those who then rose to expose, debunk, refute, were doubtless impelled by love of truth, or hate of falsehood – but was their zeal quite uncontaminated 110 by the wish to scotch revolt, impose dominion, which to Determinism lends its steel? At last the advocates of psychic power sought confirmation in experiments beneath the laboratory's lamp, to pinch

the spirit in the straits of our control, where answers may be counted, and the tally subjected to the ordeal of statistics, factoring out fortuitous conclusions. They then could find that subjects of the lab could sometimes read the symbol on the card 120 held by one whose face they could not see; statistics showed the light of information dawned somehow in the concentrating mind. They fashioned a device that let a ball roll down a chute with even chance of dropping to one side or another, and again some were found who by concentrating could inflect its path, so that it fell to one or the other side, more often than the odds, 130 mounting again toward meaning, would allow. And more elaborate ordeals were devised, as when a set of images was laid before a subject who then meditated upon them, one by one, while in another room another subject registered the meditator's thought, and copied down the images, which could be recognized not quite exactly, but as in a dream diurnal happenings return, not so that from the dream we'd know what had occurred, 140 but knowing what occurred we find it mirrored upon the dream. So the experimenters believed that they had proved that on some level we know more than our senses can report; we read each other's thoughts, we scan the world without a signal that can be detected by instrument, or blocked by insulation or barred by distance; nor is our perception helpless, but can handle without hands what we perceive and may desire to move. 150 Skeptics found fault with the experiments, repeated them under their own controls, and failed to find what had been found at first, so that Doubt's citadel remained untaken. But might it be that what had deigned to show under the laboratory's sterile light and quickly veil again, some patch of surface,

did not like being asked one question twice,
as Jung found when consulting the I Ching?
Or we may guess that the first eager testers
were motivated by desire to prove,
indeed, the spirit, while the later ones
were trammeled by a need of making sure
or a determination to disprove —
kin to that predetermined unbelief
which, rather than allow the world an Author,
would drive conjecture to beyond extremes —
and the results reflected such intent.

At last, then, the result is undetermined: the observer's will cannot be factored out; 170 our wariness of the wish-fathered thought must choose which wish it ought most to beware of. Yet not unlike the uncertainties which science at last admits into its iron weave, the findings of these tests, if even *one* was not an artifact of fraud or fault, would cause the calculable world to seem a village pitched upon a sleeping whale. If, as we may infer from intimations 180 of powers that show feeble in the light of the gray laboratory, in the absence of ancient discipline or the desire of those dear objects – vengeance, love, escape or gain - that seem most powerful to fashion messengers and executors unseen, we know more than the senses can report, we read each other's thoughts, we scan the world without a signal that can be detected by instrument, or blocked by insulation or barred by distance, nor is our perception 190 helpless, but can handle without hands what we perceive and may desire to move – What is not possible? The traveler's yarn (whose truth, we guess, may correlate inversely with square of distance from the thing alleged) how shall we now discount? or how pick fault with the report of conjuring and cure, of sorceries that murder without dagger or fatal drop, of human bodies lifted

in air, while others passed their hands beneath in all of which we cannot part the strands of influence on matter and on mind. The sorcerer's victim knows himself bewitched, and of his faith is forged the unseen blade that finds his heart; a rope that many saw rise like a snake into the air, appeared upon a photographic plate as coiled unmoving on the ground; yet no less strange than its arising, seems the sight imposed upon so many minds, of what was not as on the film behind the shuttered lens thought's images were printed without light. Nor do we know whether we hold these powers severally, the way we call our own the senses and the various powers of mind, or whether they attest a single field of sentient mind beneath a surface broken into our selves, to and through which it shows itself in its own time.

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Nor is it certain

that this is ours alone in the creation. The plant expanding to the gardener's love, the dog that howls a distant master's death, imply an obscure field of sympathy not bounded by our kind. And those who saw the nursing cat whose need appeared to draw the else so wary mouse out of its hole, the aging moose that did not stand its ground but broke into a run, and the wolves took it. have wondered if there is not, underneath the chessboard where the separate creatures ply their strategies, awareness that maintains a balance by dispatching them at times by errands counter to their paths of interest; and when the dice obey the gambler's bent, how do we know it is not by some thrill responding from the animate depth of matter? And yet this power is not everywhere and equally apportioned. Of our kind some individuals more than most inherit the psychic gift, which they for singular end employ; they train themselves, like the musician

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or acrobat, to exercise their skill. They mark the trail within them to the place of second sight, and travel it at will; they read the stranger's thought and find lost things in crevices of the world; and among tribes less apt to extend the mind in outward fashion much news is borne along the inner road; and it is told that powers not content with cloak and dagger, overflying plane 250 and microphone and -film, now seek to use the secret passage of the mind. But then again, it seems none ever was so deep in the counsels of the hidden, as to see consistently, but like the bridegroom's strength the gift may fail, leaving bereft the one who thought to wield it as we wield the things we make to do our bidding. Hence the eternal cheating to eke out omniscience and keep the seeming when the being's flown (which gives such seeming-solid grounds for doubt). 260 It lifts the sorcerer up and lets him fall; and we who greet the power when it comes as if in answer to our call, forget to reckon how it moves us unawares. We guess that much that passes for prediction is only second sight, and the extension of straight lines to the point where they must meet, as when the letter in the postman's pack sponsors a dream of news due to arrive. The present (says one adept) is a crossing 270 of roads, each leading through a different landscape, a friendly village here, an ambush there, as we with second sight perceive, and choose; but this holds only till what comes to meet us comes by the choice of others, who themselves at their own crossroads hesitate, and move themselves through many junctions of their choice with choices of still others, and so on without end, in the indefinite, unless 280 all choice is somewhere known (that is to say, determinate) and time is an illusion, or unless the unconscious mind can plot the aggregate result of all the choices

which, like the atoms that compose an object, flock to *Gestalt*, although the flight of each be unpredictable.

Or unless the mind that incubates prediction is itself a force that acts unknown on distant wills and masses, moves them to some end conceived in the dark lap of unavowed desire 290 seeded, for all we know, from elsewhere yet – for if there is hypnosis at a distance, who'll point to where it starts, or say which lives were not the acting of an alien dream? Small wonder if we fled to an inert causality, out of that jungle welter of wish and counter-wish, grasping the fact of earth and all the iron hid within it, ready to weapons more maleficent than any sorcerer's curse, but known, but seen— 300 or seeming to be seen; the use of all that rationality hatches out is brooded within the darkness of the human heart. In iron structures of reality precipitated out, in space and time, our own will to constriction now confronts us, till we forget it was our own, or even ascribe ourselves to its causality.

All we have seen till now, however strange to our self-limiting sense, is yet bound up with the creation as the senses know it; although the action of an unknown force, the presence of a dark field of attraction, is apprehended, yet it operates among material entities, that have weight and motion in the visible world. And therefore some have thought the force itself may be material; have interposed between the subjects of experiment long distances and cages of dense wire – but it is not a wave that these can block Perhaps, then, some imaginary flicker that might have mathematical existence without a mass, like the surmised neutrino?

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But when the experimenters rearranged the unseen random processes whereby a concentrating subject summoned up this or that figure on a screen, no change was registered in manifest result: the form intended brought itself about without regard for the statistic means. 330 Still there are those who strive to integrate the psychic force to the physical domain, as if it were a property of matter like gravity (mysterious, itself), or as if the cosmos were a hologram wherein each mote and instant holds the all of where and when; save that in such inclusion we cannot find the forms of thought and feeling as which we know ourselves, as which we act upon each other and the world by known 340 and unknown means, encountering each other through the material world, but not quite in it. If once the psychic element's admitted, not only is priority of thought suggested, but priority of form, of quality, identity, name, even; for not on atoms or on volumes does the power of mind take hold, but upon *things*; and surely not as particles but as 350 entities we inflect each other's paths, irreducible in principle although we be destructible in fact.

But now we cannot but perceive to what threshold of belief our argument has drawn us, drawn perhaps from the beginning by you, O sirens of eternity, friends whose fate, already half our own, tempted our mind beyond the earthly limit out to the empty spacelessness of death! Have we not in that wasteland gathered tokens, coincidences chiming with our thoughts of you, addressed by us to us from you, to prove you whisper: if without the mount of sense our thought can travel, why then should thought fail us when our senses fail? Think rather

form and capacity of thought remain in the invisible, whether to dwell as thought within the Mind that sent them forth or else, reclothed, return. If mind is first and builds itself of matter in the world, 370 shall the conception not survive the draft? -Yet we have seen how before death can die the thought of all the child looked forward to, the man or woman strove for, gained, endured; how accidents to tissues of the brain can snatch the very soul away, and plant a changeling in its place; how by excising from the brain's underside a little bulb the longing for immortal love is slain. How much is in us that we cannot trace 380 to the configuration of the genes so deeply intricate that the child repeats the gesture of a parent never seen? Add to this the overlay of nurture, then take both away, and what remains? – We may reply to this from a surmise fed by those junctures when we seemed to catch the uncanny orchestration of events called synchronicity, where lines of cause from separate origins were brought together 390 and suddenly resolved into a chord that cancelled the priority of time. True, it is to our minds that the conjoining signs were signs, and joined; yet deeply by these tokens we knew the universe was meant to mean, our minds contained the thought that what occurs is not descended solely from the past but is, as Freud might say, "overdetermined" by the influence of that which yet must be, the attraction of a pattern yet unguessed, 400 projected from some immaterial Mind, timeless. And if that Mind's informing thought is that which made us live, shall we not have life in its memory?

But from such hope it does not follow that the soul continues in time, that from vicissitudes of flesh it wakes, as we awake on mortal mornings and are the same, or more or less the same, after an interval in which our thought through the nocturnal culvert flowed obscure. Still there is that in us which stubbornly would have it so, or else cannot conceive continuance of being without time (the words that try to say it mock themselves). Yield to it, and soon you will unlock the medium's trunk: the skimble-skamble stuff billows forth, ectoplasmic, to engulf your critic sense.

Yet equally appears the spirit of resistance to belief, defender of the modern faith of doubt, to view the spectacle with mocking eye and wrestle with the phantoms as they rise. To the tranced call of one that has a spirit come voices claiming to be of the dead, remembering, imposing their commissions (a small debt left unpaid, a wish not followed by the relict), providing as it were tokens of recognition, information known only to the dead, and to one living, or even to no one present, verified in archives or from inquiry of strangers, as if those in another world were trying to prove their own continuance – in vain. For even those who credit us with seeing and moving beyond range of eye and hand note that there's nothing known, or capable of being known, by which a spirit might attest itself, that could not just as well be learned by stealth of the unconscious mind upon whose midnight, as it seems, the whole world opens like a book to any page which in its blind assurance it may choose; there is no uproar of a Poltergeist that could more plausibly be laid to spirits than to some unseen motor of the living translating thought to motion unawares so as to grant its own wish to believe. Even those phantoms of our parting friends who come before us at the fatal hour

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450 or, unseen, cause the clock to stop, the picture to slip its hook upon the solid wall, may be the language of our unknown knowledge that, as in dream, invents image and action to tell us what we cannot know we know, and no more evidence of their last will to speak with us, than next day's telegram. Here truth and trickery and self-deceit appear as if in twilight, indistinct, so that perhaps sometimes the extended fraud of string-rigged table and stuffed spirit-hand 460 grades into those strange sleights of mind and will which make us both the magician on the stage and the gulled audience. We hear report from those who tricked the callers of the spirits with false names, and behold, the spirits came to answer them, and were as they were called – and once a group of frivolous testers sat around a table and cooked up a spirit, voting upon his name and essence till 470 he indeed came to manifest himself with just such pranks and rappings as one might expect of him. And many a shade that sprang to life in dim rooms, may have been a person in the internal drama of the sitters, creation of the unconscious self (or selves, in some collusion, unison or union beneath the surface of all conversation), no more nor less real than the apparitions Will Shakespeare's wand summoned to walk the Globe out of the mazes of his magic mind. 480

And so it is with all soul's confirmations.

Adduce your memories of out-of body
and near-death journeys, observations made
from the vantage-point of air above the seeminglifeless body, then corroborated
by nurse or doctor to the last detail;
sort through the lore of those who could remember
a commonwealth beyond our final bourne,
all that topography of spirit-regions
where soul may wear a semblance of the body
it wore in life, and live among the imagined

props and stage-sets of its former play, acting its ancient wishes, till at last it tire of them and seek a higher sphere or else, possessed by earthly longing, fall into the funneling maelstrom of rebirth; track down the stories of reincarnation, question those children waking with strange talk of persons, places none around them knew till chance or search revealed their former kin; ask: If on some deep level we know all, why for *one* self should the veil be drawn aside just on the drama of one other self, why should it know so much of this and that which would lie scattered and of no import save that it centers in that other self and, magnetized, becomes a patterned life? Our skeptic daimon laughs: "Not too far-fetched is anything for mortal will to live." - Are we then mortal, daimon, and so mighty?

While thus the dubious battle sways from side to side upon the field Belief-and-Doubt, that thought which is the delegate of Earth to our mind's parliament looks on, awaiting an outcome Delphic in its either fall. For if the last word is Mortality, shall not all humans be subdued forever beneath the fear of Might, and thereby doomed to waste the earth in battle and decay? And if the soul should crown itself immortal, why should it labor for dissolving Earth, why grieve for its corruption, though thereby the souls of all its children be corrupted, enslaved, degraded, trodden into filth – it is but for a time. Let vision seek a higher plane, or else another planet, and tend hope's garden there.

Such comfort has (to soul yet mindful of the soil that fostered our flowers of song, the rock that was foundation for all our towers of thought) a carrion flavor, as do the words of many a ghost that speaks through passive human mouth of higher worlds, 500

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yet the words give not that abundant life we had from earthbound spirits in the enamored strife with matter to which they gave form while taking law. To them indeed the dead spoke sensibly – in every whispering thought that came (the living knew) not from today alone, but from the abyss of generations. In every object that the living saw 540 and touched, they felt where vanished eyes and hands had rested, and how every word had lain on lips that move no longer. And who'll venture to say that our awareness of the dead in this way is not also theirs of us and of the task to which they still are joined? It is the thought of soul's continuation dissevered from the consequence of what on earth it marred or mended, from the yoked straining of souls in bodies, that appears 550 inane, a shirking of the spirit's task. If spiritual authority forbade traffic with ghosts, perhaps it was instructed by the same sense that poses to us now in the construction of this hour's plight our human destiny as aggregate, bound to the rock whereon our tent is pitched. Before the human soul the fate of Earth is set, a riddle and a complex problem which it must solve to demonstrate itself 560 and its high patent of nobility deriving from the Mind that is not matter, source of all freedom. And although the answer must form in isolate mind, and be transmitted from isolate mind to mind, it must aspire to a circumference enclosing Earth, or else compound at outset with despair. —Still argues the ambiguous Comforter: "If mind that holds itself responsible for life, and a material arrangement 570 in which the cosmos finds its culmination and so rejoins the immaterial freedom, should lose its grip here, leave of all its works only dead traces for the stars to read, even so the universe might somehow learn

from our experience, felt by secret channel upon some other dust-mote in the All, the black hole of our misery and confusion flare out, a quasar, at the event-horizon of alien minds made wise by our disaster..."

—This saves the scheme of things, even the Creator and our immortal souls, which may then find a world on which to live down their disgrace, and yet comes to the same. For if we learn something from failure, it is that the attempt was serious, the lost was worth the saving. It is not heaven alone that judges earth: earth judges all the heavens, and its surface is like a dial on which soul's truth is shown.

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590 From wild conjecture as from questioned fact we are brought back again to our sole self, which, pondering its pathway through the world, perceives a pattern of events, no doubt projected from within itself, yet also as though arranged by larger destiny to speak to it, to guide it, from beyond the circle of its knowledge and its powers. Not subject to controlled experiment this sense, by definition anecdotal, and to this, too, the quantitative mind 600 objects that among many many many events that in each day and moment happen some will inevitably be bound to chime; and nothing answers this except the sense of story that we have in our own lives, to which coincidence appears a sign and symbol of some destiny arranged as if an Author dropped an obvious hint. All seems, then, matter of interpretation, 610 which has no power to impose itself, unlike the ineluctable equation. The Undeterminate – that More, which through the cracks in the reductive universe we glimpse with straining eyes – will not compel us, has no compelling shape, or bids us know that any shape we see is of our making.

Yet this much we have gathered on our tour of the unacknowledged, and can hold with something like certainty: the power of the form, the symbol, to align within their field 620 the matter we call things, the thing called matter. In some like manner as the eye's idea, the entelecty of the kind, attracts and choreographs atoms and organelles, so the occulted family romance provides an axis for coincidences, the shapes of our first love and fear becoming parental presence quickening the world. And since we children drew connecting lines 630 between the dots of stars, and mapped the wheel we call the Zodiac, we can surprise our skeptic selves with correspondences of charted sky and character inflected not by the mass of stars and constellations but by their deep reflection in the pool of our continuous mind. Let the beginning and end of all be formless: in the world It works through form, whether that form be statue or law that draws a pattern of behavior. And if we are admitted to Its counsels 640 and hold in fee some measure of Its freedom, then this can only be a liberty to choose, or modify at least, the form that channels our intention.

So the riddle,
the task, comes clear: we are advised to seek
the Form that's true to Earth's predicament,
that may so focus power of mind on matter,
even on the arcane codes of our compulsion,
as to impel and help us to restore,
preserve, enhance, the fabric of creation,
not render down to ugliness and death
the labor of the eons. In the finding
of such a form, and its communication
from mind to mind, we will yet hope, and pray,
for help beyond the realm of calculation.

Chapter 10

The search for the effective form begins with the "globe" of the individual mind, as the "model" for the consciousness of earth. The phenomenon of "groupthink": religious and political movements tend to be less conscious than their individual adherents. problem: to find a form for concerted action that would not sacrifice individual consciousness. The search for the juncture at which the choice between conscious community and collective groupthink is made. Individual mind; tension between autonomous selfhood and outside influence. The hope of reconciling this tension through integration of outside knowledge – including knowledge of others – into the self, and through the consent of the several selves to be integrated into a common design. The perennial frustration of this hope linked to the dissolution at adolescence of the mother-bond, which interrupts the development of individuality and subordinates the individual to a collectivity geared toward conflict. The motherimage as archetype of wisdom and community, and the key to a resumption of integrative development.

What we have traced among the points where spirit crops out upon the surface of the world spells hope for the revival of hopes quenched by failure of revolt, reform, where form was absent. If there's power in reserve which to be made effective must be focused in form of image, word and hallowed act from whence meridians of mental force emanate, and whereinto they bend, so that along these lines all the decisions 10 of conscious thought, the stirrings of emotion, configurate till they increase attraction down to the depth where even matter's moved, then all depends on finding of the form. For orphaned of some overarching matrix in which they might embed themselves, our acts and thoughts lack continuity, a gust of force can scatter them without a trace, or undetected suasion can deflect their drift, till the result belie the intent, 20 or else the massive quantity of all that's yet unchanged, must swallow newness down: such cannot generate the radiant message

that swallows entropy and reassembles diffusion, to infuse it with new life. Where then, in what mirror of contemplation shall we behold the form that truly answers in multifarious exactitude, without which answer would be none, our need?

Are we not led around to that beginning 30 in which, as mind in solitude, we sat before the image of the planet Earth whose mute word we attempted to decipher? We knew and know: that near and distant globe can only speak to those two hemispheres one skull encloses, in a unity of self that may be questioned, yet the vision of unity of self, at least, persists and gives a shape to thought. Always this one self looks out and in upon this world 40 and fears for it, and pleads on its behalf. To speak is to be mindful of the self, to weigh words is to weigh them for one self, not on behalf of some blind aggregate which, driven by the logic of bare numbers, hopeless of careful thought, plunges along. Now we must think for the sake of thought itself, which in each subject holds a world entire, though in the pincers of mortality, and by the very power of reflection 50 that constitutes its being, must desire not only to survive, but to preserve. The Individual Mind; it sees, it grasps, today, the image of a common task (though as yet unresolved to such detail that would show every I its own assignment); but it is all our sorrow since we woke into awareness under Time's command that Premonition, which can speak so clearly within the chambers of the isolate heart, 60 seems for the most part powerless to convoke those isolate who hear it; they instead run out to where the thoughtless bugle sounds, or haggle with each other for what all have lost before the bargaining began.

Just at the point where urgency compels our thought to leave its ivory cell in search of kindred thought and covenant and deeds devised to common end, it seems to yield, go blind, and take an unenvisioned way, swept onward by the logic of division, now senselessly contending in a tongue no other understands, now joined with others in hasty compacts that preclude true thought, till all at last in unison declare there is no common truth.

The elephant which seven blind men quarreled to define might have been known among them, had they only patience to patch their varying report into a map of it; but they fell out because contention seems imperative to separate being, each striving to annul the other's thought, and prove itself supreme, even inventing difference where none exists, to prove itself original, fencing perception to a property against the angle of my neighbor's vision, dragging each one a stone from the foundation that might have borne an architrave of peace. Nor seems it better when some general frame of mind is clapped over some group or other, subsuming individual thought, imposing identical opinion: then indeed tongues clack in unison, hands work in rhythm, but now the fear is greater than before. We dream the aggregate mind might be a vessel into which knowledge and perception flow from several eye and brain, to be shared forth among the knowers pledged to see as one; but ever again it shows itself as Moloch demanding sacrifice, even of perception, in the name of a common mind that is not common and not mind. It is what no one wholly believes, yet everyone subscribes to for the sake of contention with some They which every We is contoured to exclude. To this the great religions of the world

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bear witness: though in each we may discover truths which the universal spirit breathes, yet it is not the truths that hold the faithful 110 within the paddock, but the *quia absurdums* that keep the alien distant, and provide the fiber of the stoutest ties that bind. These are the talismans of our belonging, the brands by which the shepherd knows his sheep among the neighbor-goats, the syllables laid for stumbling-blocks before the tongues of strangers. Would that it were more than half true, that all our faiths are paths converging through the world's forest on a single Source, 120 instead of paths diverging from the Source which all alike have fled, seeking division! This is what gives Transcendence a bad name and shames the soul amid the assembled proofs of its material compulsion. Yet the same phenomenon may be observed in secular aggregations, that invoke no god, but human good: in every party, wherever humans rally to a cause, one part of truth is sent to Azazel 130 to reappear as the adversary's mask, the other part is tricked out for a totem of wholeness (which was banished with the half); and those who thought that, casting out all spirit, they cast out lies, erred no less than the first pagans that raised for deity a stone. Great Wisdom of the universe! is there, then, no image of the mind as whole, true to the inner truth of every one and to the outer need that presses in 140 upon us all? is there some precedent, some plan, some alternate system in our nerves that we might vet connect and make to work, or are we sentenced till the end of earth to Kafkaesque reduplicating madness of consciousness that cannot act itself?

 How should we seek an answer, save by looking more closely at the individual mind, searching its workings for the hidden switch that must be thrown, if we are to get off
this wrong track onto which we have been shunted
so that we do not reach the destination,
the junction of true minds. If we could learn
the signals that might warn us at the forking
and notice where the better track continues—
though overgrown with weeds of long disuse
or only plotted over rough terrain—
we might begin to move toward acted wisdom.

When the mind's eye turns inward from the globe that bears it, and the universe which calved 160 that globe, to see itself by the reflected light of Earth's danger that has made her oneness visible, - it sees within itself two minds, that in it live at variance or often as though only half aware each of the other, like two residents of the same house, one sleeping in at night, one working nights and coming in at dawn. One mind of us is centered in itself: the "I" burns at the zenith of its heaven 170 shedding all light and casting every shadow, its tiny point of consciousness the hub on which the earth, the universe revolve. This is the mind that meditates a life as if it were a novel of which I am always the protagonist: it feels time as a thread of narrative that runs through the moment's eye, and one day will run out, and in that knowledge of the tale and of its end, it knows the earth as finitude. 180 Yet out of very self-concern it seeks a point of origin beyond the world in an authorial Mind, that thought it up and keeps the memory of all that's made, and so it rises to identify with that great Mind, to contemplate the world from the vantage of a luminary eye unquenched in my small death. Almost, at times, it sees from this great eye the world entire 190 and dedicates for moments to that whole its love of self and fear for self, becoming

the faithful microcosm and the pupil of the creative Intellect, unclosing upon the dark primordial unawareness. True, creatural conditions do not cease to bind this consciousness, which is constrained, distorted, by each pressure from without; material circumstance and human force endanger and indenture it, as all 200 it has, the very words with which it names its little world, come from the human Other, without whom I were windowless and dark. a feral child in the forest of the world: but something in my deepest self refuses to know this, out of creatural compulsion which in self-seeking founds each separate being, the small I-Am imperious as the Great, as surface tension rounds the drop of dew so that it can ensphere the distant sun; as the sun finds itself upon the surface 210 of water in a cup easily shattered, or in a pond how light a breeze disturbs.

From these disturbances the second of the two minds that inhabit us is fashioned. at variance with I-Am and in itself divided, wrought by various impingements of alien will on my expanding sphere – by contact with the purposes of others who first pursue their own good, and if mine, then secondarily or by happenstance. 220 We do not see these purposes, but feel where we collide against them, and through pain we learn on the next voyage to steer clear. We learn what we must not do, and must do, what must be left unsaid, what must be said, what the face must not show, must try to show, and last we learn to intercept our thoughts, which at the windows of the eyes might hoist forbidden signals, trip the tongue to speak 230 words better left unuttered, or resolve themselves and us to consequence and act the flesh might rue. For these we substitute received idea, company policy,

cliché, flat levity, conventional phrase, premise hallowed by sect or school of thought, dismissing, without seeming to examine, perceptions which may not be entertained, alert, before awareness, to the changes in other's face and voice and pose, the signals of what we have to fear, what we may dare, 240 in a fast game that grudges time for dreaming. These lessons come to us; we learn them all, regardless of their source. The guardian slap on infant hand that reaches for the fire, the jeer of playmate at a show of weakness, the laws enforced by school and church and state for the common peace, or profit of the few, all the decrees of fashion in its reign from height of heel to theory praised or scorned – 250 the mind that lives in me, yet is not mine, accepts them all, and for a single reason, the way a pigeon learns to peck the lever that brings it food or pleasure, and not pain. Beyond freedom and dignity, indeed, this mind of fear can darken origin until, without a hope of taking thought, bereft of compass, blindfold, we are herded toward ends we can no longer contemplate, but welcome the extinction of our thought 260 as anodyne to its own consequence. And if I-Am, held hostage in the midst of this confusion, chafes against its fetters, then often by denying altogether its longing to be guided, to be taught, to think as others, and be one of them: lending its ear to the divisive counsel of the "anxiety of influence," it fortifies a solitude with deafness against the voices of affinity, but does not thereby win its freedom back. 270

Yet somewhere in us, to the last, persists the hope of peace, of reconciliation among our warring elements, whereby the solar flower of consciousness might grow straight toward the sun again, though knowing well it builds itself from elements derived out of the alien ground – accepting this as the condition of our knowledge here. From our seared flesh we learn the name of fire, from our stubbed toe the stubbornness of stone, 280 from tearing loss the needfulness of love, pain being but the extreme verge of sense that is the very fabric of our knowledge. Yet from the Origin a confidence inflows, inspiring us to use our portioned bits as brick and mortar of the world mind builds beneath the eye of higher Mind. The mortal eye, to hold the world entire and be the model of its origin, strives to absorb its earthly fundament, 290 to understand all forces that impel it this way or that. It knows that to attain some shadow of the freedom of the will that willed it, it must ponder every pain and every pleasure, trace each to the source, the grounds of their infliction or bestowal, and thence decide whether to seek or shun, brave or avoid, that pleasure or that pain, where choice is possible: must integrate 300 all alienness into its own design, believing this design will be, at last, the pattern of a universe that serves to foster mind's unfolding. Toward this end the laws of matter, then the social bonds that shelter, nourish, educate, maintain the individual in understanding have worked since earth, since time and space began. And every understanding must imply an intuition of the other self. the other selves. And from that intuition 310 there grows the wish to see by remote vision that which is hidden from myself alone, even to link (the dream occurred, recurs) the eyes of all in one composite vision that would assign to every glimpse a place within the sole intersubjective image of our condition. Then each one would be stationed on the periphery of sight

while at the same time dwelling at the center, containing all circumference, of Consent, that heart where every living soul would have both life and death, be whole and yet a part.

320

No less a being, now, is the earth's need, and if we have caught the intent of evolution, is it not this? As once the isolate cells combined, conglomerated and assigned each to itself a function in the whole at the behest of higher entelechy that on a sudden came to birth among them, so all our faculties await the hour when the orienting impulse shall go forth and build them to the mind of myriad sense equal to all the exigencies of Earth. Such is the urging of the cosmic time that's friend, not foe, to Mind; such was the vision of many a mystic whom our future Being apprised of unity – vision that now commands the friends of Earth to wake and speak till sphere of common mind englobe the sphere of matter.

330

Yet Teilhard, as others, knew: whenever we seek to climb toward the fulfillment of this innate vision, our ladders strike against some blind ceiling, a barrier within transparency. I-Am believes itself a microcosm of the All-One and yet is sundered far from its own semblance. No doubt such disappointment is built in to all configurations. By the same inherent tension of consistency that gave it shape, each thing, once made, resists absorption into even greater order. Still within each of us the primitive cell of the self defends its borderline, yields, not without resistance, to the urging that binds it into the structure of the tribe, rounding the cup from which the nation drinks its life, by closure against other nations. From this proceed much strife and dissolution

that menace now the wholeness of the earth

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But there is above all one tie of self to Other and to Earth, in which the strands of our predicament have always been most curiously and intricately knotted. Our bodies hold the memory of a time when, sheltered and confined, we fed upon the substance of another; and somewhere beneath the surface of our minds, we hold the memory of – at worst, the disappointed 370 longing for — a face that shone above us with joy in our existence and complete solicitude for all we might require. Where else but in that memory do mystic vision and Utopian hope strike root? And rightly so; for with the institution of motherhood, of parenthood, life mounted one rung above the chaos of contention. Life now was bent above another life, and all reflection founded on the locked gaze of the child and of the loving Other, 380 all faith in language, on the early words that named and by her goodwill brought the objects, all hope of social progress in that first taste of benevolence. As with the brain and skull the time of sheltered infancy expanded, heralding our kind's preeminence, making the space where intellect, unbound from narrowing yoke of need and fear, enjoyed the play of contemplation and creation, solicitude was correspondingly 390 deepened in adult man, parent and partner with woman drawn into that careful circle, providing and ordaining to preserve it. Let it be true that in the mother, in the father, wishes centered on themselves persist, resist the empire of the child; that there's no god more jealous than the child when brother, sister, with a rival eye reflect the orb of the one solicitude; that the child is not gentle to the need 400 of parent, when in weariness it rises

against the offspring's unrelenting claim then the earth shakes on which the little hut had stood so firm, the lantern of the mind sways, flickers wildly, casting on the walls shadows of demons that will haunt the world— Still this relation is the primal germ of order, higher than the mindless jostle of monads could construct; though only now and then, perhaps, the child awakes from out its own desires, the back-and-forth of Yes and No, presence and absence, to perceive a Mind that orders things for good around it, unconscious basis of its future faith (as well as love of beauty, of the earth) – which then, increasingly, the imperatives of conflict set about to undermine.

410

When the sharp foretaste of a man's desire (itself, perhaps, a shadow of the ancient closure of the simian adolescence, 420 time's fontanelle, reopened that the human mind might further build its skyward course) enters the clinging of the child to mother, then he begins to understand and covet the father's place, but even in desire knows the wrath of the stronger as unmanning fear for the precious scepter and twin orb or for the eyes that dare to see and know more than the stronger gives permission for. And strangely intertwined in that desire 430 are the determination to possess the mother as a battle-prize, already, and retrospective longing to return to the enclosure of a love that knew no severance, no rivalry, no warfare, but just the mirroring of self in self, requital of the gardener by the growing. Upon that distant idyll there intruded, as herald of a harder world, the father, feared, and yet welcomed by the blood that leapt 440 toward future deeds, the mind toward new instructions: the father beckons, and the child resigns relation for the promise of possession,

all in him moving toward the appointed hour of his ascension to the throne that stands uneasy now upon the shaken earth. And then that other scene: Initiation. We see the manchild, body freshly scarred with ordeals that detached his senses from the memory of soft solicitude 450 and wed them to a willingness to bear pain and give it: he is led forth from the circle of childhood's care into the wider circle of the adult group, welcomed with loud song and beat of the intoxicating drum, weapons are held ready for him to grasp in token of his membership, his being one of a many that are one against the world. He dons the alienating mask of totem, or the uniform, that makes him 460 a stranger to his own mind and perception, that stamps him with the orders of the clan, binds him to the collective mental structure anchored in the image of the Leader who teaches hands and mind to hunt and war. The mother's image, which betokened care for the self as an end unto itself, for soul that has a name and the clear gaze of childhood freedom in a world unclenched, how briefly, from necessity's distorting 470 grip that makes us see the emperor's clothes he now must trample. If he should refuse, the weapons held for him will be snatched back, and tribeless, weaponless, he'll face the world that wears no more the look of love, but rather the mask of that most terrifying monster Extinction: traceless, nameless, swallowed up as something never born. So it is done. Henceforth the guardians of childhood are the wards of manhood, and the word that pleads 480 for life is barred from council. In the shadow of the Unthinkable are swept together indulgence for the child's tyrannic selfhood, some vision of the individual spirit flowering unlopped by adult strife, and all the truths the tribal spell must banish

to charter combat, all complexities
which the schematic ensign has to streamline
into cliché to make its martial thrust,
all those perceptions that could not be beaten
into sharp swords, but rather might have been
laid on some vast intricate loom of mind
that shatters with the first thrust of a spear.

Thus it has been with all the sons of men and all their daughters too, who lead their lives within reflections of this act, and learn to set its ordeal as their price of love, and ever more so, as the stress of war grows heavier upon each generation; this is our kind's true primal scene and drama, 500 to which the Oedipal passion-play, enacted in the first light of speech, is but a prologue. And when the youth, his thoughts now turned to courtship, calls to the future mother in the maid. then the riches of the individual mind and special self, the mother's gifts and spoils, are fluttered as a favor in the contest for female favor: they become the stuff of rivalry, rather than combination.

This history of self and group that shows 510 as archetypal template through so many pageants of sect and school and institution appears to solve the riddle that confronts, in infinite variety of disguise, the mind upon the road to polity; here we've identified what casts the shadow that falls between conception and creation of a sustaining and harmonious order. And with this understanding, a direction 520 of remedy is likewise indicated, as from the first, indeed, it had been sensed: to speak of "Gaia" and "Earth Household" – was it not to guess that in maternal form the rede to rescue Earth would have to come? Strange sleight of time, that brings our ancient thought back from the precincts of forgotten myth laden with meanings of most recent hour:

it was, then, for more reasons than they knew (or than we knew in the ages of our pride) that those who were before us called the Earth 530 our mother. Not alone the bringing-forth from darkness of the soil to light and day, nor flow of nourishment to root and mouth, but this: that in the image of the mother, feared more than danger, trodden underfoot lest old authority reclaim the man, there lives – gathered, encoded and occulted – awareness of an awareness we suppress in adult claims and compacts; there persists the intimation of another order 540 that is most intimate birthright of each self and yet admits the outsider, the stranger who with the mother stands in outer darkness beyond the firelit circle of the tribe.

Thus it is possible that in the obscuring of the mother's countenance, in the foreclosure of that space of solicitude in which we grew toward possibilities that could yet be attained, if we could but return 550 to that space, and enlarge it – we have found the junction we were seeking, the departure from the true path, the great divide between our kind's ascent to within sight of wisdom and our descent through strife and mutual deafness toward the destruction of both earth and mind by motion ineluctable as the crawl of glaciers toward the sea in deepening cold, mechanical, beyond choice or encounter save for this point at which the aeonic weight of our predicament bears ice-like down 560 upon our brain, and shows itself to us as image and as situation, and therefore, perhaps, as choice. Although the choice be fore-cast in the vessels of the brain by heritage of matter, yet mind might – if mind has might to move the frames of matter by clinging to an image that is offered as a receptacle for spirit's power oppose here to the press of time the foe

a force that comes from greater time the friend and get us over this hump in evolution we bang at, like a fly against the glass. O now if at the gates of human thought life pulses with necessity of making a loyalty to earth, which through some chink in the wall of our conditioning might draw the thread of our survival, there must be some new ordeal and rite of further passage, consummate in the mind, in mutual speech, in covenant, to break the tribal ring (already broken, yet incessantly forming again, in the void of resolution) - or to subsume, include it in a Ring of Rings, a Great Circle of Understanding to ring this globe, at last, with wisdom's might and by new-opened channels sublimate the forces in us that Creation wrong.

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Chapter 11

Traces of the wisdom/community archetype in various traditions; development of this archetype in Western literature and in the Kabbala.

We seem now to have found a precedent, a template for projection and construction of the great circle which we seek to draw, in the small world that beacons from far off as goal of all our quests after lost time: that world inhabited by only two, where mother is the source of life and love and language too, since from her lips the child learned the first names, whose magic was her wish 10 to give what, in her judgment, might be given to keep him in the world and make him happy. Each I first knew itself as mother's Thou, the center of realities arranged within the force-field of a single care, a Providence, that had a human face. However fitfully that face appeared in mortal mother, being herself inflected by need, by an existence in the shadow of war, by rivalry that comes to all singular existence, nevertheless 20 that world was there, the sun that lit it up the other's simple will that we might be; or if through deprivation known, then in our crying need that such a will should be. Singly we dwelt in that world, singly left and singly grieve it; to the singular heart the sirens pitch their call to reconstruct the archaic garden, enter it again, relearn or reinvent its ancient language, its knowledge that was blissful ignorance 30 of alienness and death. But to reenter that world, as travelers back from history's roads, instructed, and accompanied by all who claim it—this would be the task, the art.

And are there precedents, not only in the archaeology of self and soul,

but in the external record of our race? When, on those stages where the imaginations of peoples caused the figures of their passions to stalk as gods and heroes, have we seen 40 the sovereign of our early world, enlarged, escaped from that far miniature sphere and newly present, to-be-reckoned-with, giving light to the counsels of her children though grown beyond her care and fortified by scorn against her interfering word? Shall we not now ascend to culture's attic, rummage through the capacious trunk that holds the multifarious guises of our yearnings, to see if there be aught not quite outworn 50 that might, refurbished for our circumstance, help to reclothe us in our rightful mind? Not "Magna Mater." What have we to do with all that burgeoning of indiscriminate birth, and death dealt with capricious hand, oblivious to us, and representing more a forgetfulness than a remembrance of the intent informing gaze to which the misty sight of infancy first cleared – what are those offerings of wine and blood 60 to us, or the self-wounding ecstasies that marred the body, and schooled not the mind? And though that mother of the son we know of (whom we see humbly bent above her infant, then distanced by her grown child from the circle of those who hear his word) appears inclined to catch the massive inarticulate prayer unwittingly composed of all the outcries that rise from earth (like that Kuan-Yin revered in Asia's realms), that feeling face seems vacant 70 of intellect that could devise an answer and beam it back to us.

Yet fitfully among the battling gods there have appeared brief half-illuminations of an image that half-invoked has waited in the shadows, holding no philtres and no childbirth-spells but counsel only. To the wisest king Israel ascribes the verses that project her

against the background of the streets, in ancient Jerusalem, building her house and sending 80 her maidens forth as messengers to men, seen less than heard, a voice that keeps on calling in the interhuman space, her habitat, and not the forest or the field, although she claims herself older than these, coeval with the Creation, the design of God, Who from the first envisioned, as His final artwork, that harmony of human wills that is wise conduct and good government. And through the pages of that Book of Books 90 the form of Wisdom flickers, coalescing with the image of that other, proud and desolate, faithful and erring City, now rejected, now redeemed, according as her children fulfill, or not, the law of their Creator. And not unkin to her, though alien – projection of a picture-making mind was she, sprung full-armed from the chief-god's brow, who kept the house at Athens, plied the shuttle whenever shields hung idle, and meant inner 100 coherency, not warring wile alone, so that by no mere happenstance the city that bore her name still shines through history as brightest beacon of enlightened thought. In recent centuries when Enlightenment, Progress, Democracy, were names of hope, there rose again this figure, not a goddess exactly, but a template in the mind projected onto monument and coinage, an image of the people and their freedom 110 as well as of their mutual boundenness in love of commonality and justice. Her counterparts appear wherever the tribe recalls its common origin, the bonds that draw them toward one center, felt sometimes most in the loss. Among the bloody Incas when the as-bloody Spaniard stooped upon that fold of wolves, in Cuzco there was heard a weeping of the mother of the Incas 120 for all her brood. Yet ever and again her figure looms into a depth of being

beyond the nation and, entire, disowns strife-born division. Was not the descent of the first poet to the realm of death a quest for one whose name – Eurydice – once meant "Wide Justice"? Was it not in that unnamed name old Sophocles called forth Antigone, true daughter of that king made wise by blindness and received at last by the great hidden mothers of all homeless 130 into the source of light? Was she not theirs who by her act drew bounds to enmity, keeping the sacred threshold of the dead from martial trespass, and inspiring Haemon's truth-speech appealing to authority beyond that will-to-power which would rule though in a desert made by its own rage...? And Black Elk, to whose people had appeared the woman in white buckskins as the bearer of the feathered pipe passed round among the speakers 140 to bind them in a spell of mutual truth he who perceived the Star of Understanding appearing in the morning sky surrounded by infant faces, souls of all the tribe – had stood in his great trance upon a peak, the "center of the earth" (but "everywhere is the center of the earth"), where he beheld "in a sacred manner the shape of all shapes as they must live together in one being" "in circles wide as daylight and as starlight" — 150 had glimpsed, beyond the shadows of his tribe's destiny, some ultimate hope for Earth.

But most among the peoples who begin their stories on the shores of that mid-sea where those three faiths from Father Abraham's sowing rose to contend, the figure that we seek has walked a long and tortuous road. Perhaps from both of her first sightings, in Jerusalem and Athens, coalesced amid the roiling of mysteries in Rome's harsh-ruled domain 160 the doubly-exiled Hagia Sophia,

First Thought of the Creator, that leapt forth from Him into the void and there gave birth

to the divisive powers that hold her captive, they being ignorant of the Origin and fain to hold themselves autonomous. So far they thrust her down that she must enter a female body, and from life to life suffer humiliation in that shape, as do her human children, soul by soul, 170 each birth a fall into a captive world. Around this single petrifying insight bordered and interwoven and shot through with variation, counter-variation, a writhing chevelure of myth and sect was generated, and most various conclusions drawn in act. Some blamed the Mother and set out to undo the work of woman by abstinence, or promiscuity that blocked the gate of birth, counting it crime 180 to deliver further souls into the dungeon; some sought for amulets that might procure safe-conduct for their own souls past the Powers that keep the threshold-gates between this world and the transcendent timeless Dwelling-place; others, perhaps, held hope for the redemption, here, of an earthly Being. So the tale is told, though by invidious pen, of Simon Magus, who from a stew in Tyre (they say) 190 plucked one Helen and proclaimed her She that shone in Troy, the exiled Mother wandering through the long ages in degraded guise, till rescued by himself, the incarnate Father! And some, it may be, though the record here is blotted, sought out women who appeared to them as avatars and oracles who was Priscilla? what was she? a true mirror of Holy Wisdom, or one more orchestrator of impulse and illusion? From out this chaos of inchoate form 200 no human figure steps, in whom the word, the mother-word, appears to be incarnate; and although fertile in phantasmagoric cosmologies, the Gnostic vision scorned fruitfulness of the flesh; so by the law even of the Demiurge which they defied,

before the rising power of the Church militant and philoprogenitive that wild assortment of cenacles fell 210 divided and self-slain. Yet, recrudescent, the heresy cropped up in Christian lands. Among the gentle Albigensians of southern France, where from the sun-warmed lyre the bards of langue d'oc drew forth the strain of courtly love, a charitable spirit moved the Perfecti, men and women both, to instruct the people in a faith unknown, expunged from human memory by the sword of Christendom, for which they were no match; 220 but it is said that many a courting sigh addressed in verse to some high worldly dame flew past her to the Eternal Rose, that same Holy Wisdom, revered in open secret in the circle of her bards faithful to love.

Dante in youth, we know, was one of these; the poets of Provence, he owned, had taught him, who had so many teachers: Vergil, Homer, Maimonides, Aquinas, Ibn Arabi, Augustine and the founders of the orders. 230 His brain, it seemed, had gathered all the lore a human mind could garner at that last instant when the exploding sphere of knowledge could fit the compass of one human brain, or seem to fit that compass. But above all his tutor's name was Exile. From the city where he had had the vision of a lady whom inspiration showed to him as Wisdom he was thrust out, to climb the steps of others' houses, and eat his bread with salt of tears. Thus wandering outside the pale, again 240 that figure rose upon his inner sight as symbol of that vision of the whole which can be seen from outside all the frameworks convention and authority ordain, in that great night to which the shaman's soul through unrecorded ages has gone out. He looked upon the earth from outer space, lifted beyond it by Imagination,

drawn upward by the love—of what, or whom? It little matters whether in the flesh 250 against the streets of Florence Beatrice shone to the eyes of him who would become master of love's inditers, or was merely projected from the eye of the beholder on some chance passerby, or empty space. Her being was in that remembered ray from childhood, filtered through the password lore, the contraband, of poets masked as lovers; her all-pervading presence made the world take order, if but in the poet's thought. 260 The palaces of reason and belief reared by Aquinas and Maimonides on Aristotle's fundament, the courts and galleries of legend and of law, the gardens with their springs fed by who knows what hidden streams of Kabbala that coursed through Jewry's shunned but neighboring domain, arrange themselves in avenues converging upon her single figure, which at last merges into the vision of the Rose, 270 the community of hope, which then in turn dissolves as sight is focused in a Point where energy from Outside all we know pours in, in-forming: Source of which the poem itself seems proof, radiant evidence that an Intention bent the bow, and guides Time's arrow in despite of dissolution. For who could doubt Creation's energy that worked here, summoned rhythm, rhyme and image into one great word-crystal where all things 280 move and remain in motion as though seen truly in time from vantage beyond time, -as if Medusa's eyes could quicken life! and take their places in an order where the global and the hierarchic seem by a transcendent sortilege reconciled. Uttermost miracle of human speech! And yet ambiguous in final message, or rather partly failing to transmit 290 the energy that wrought it: outwardly bound by fear to inquisitorial doctrine

while studying to encompass, to englobe cleric authority within the gaze of poetry, whose insight would be law – in vain, yet not in vain. No promised hero appeared, the sword of Michael in his hand, to cleanse the Tuscan cities from corruption, nor yet did Florence, laying to its heart the poem on which heaven and earth had worked, 300 cast cruelty out and welcome back the poet, save as a monument to its own fame; while in the reader's mind the Mediatrix -Supernal presence more alive than life remains mere figment of the poet's craft, while further generations praised the mind that passed through the purifying fire of this creation and yet left it in the world as one more mark for human pride to aim at. For of the poets his successors, most essayed to rival his accomplishment 310 without acknowledging his inspiration, and so invention darkened. Like the Archons that pin Sophia down in Gnostic myth, none deigned to be the offspring of the Mother whose Father is the ultimate Source of all. And therefore the epiphany established no ritual, no law, no lineage of bard and prophet constant to one thing: beside the worshipped images this image 320 remains known and unknown, seen and unseen, disbelieved, parodied and falsified, now and then appearing in the darkened mirror of a tragic plot that shows the fate of Holy Wisdom upon earth (that's Cordelia, that Eugenie in Goethe's deepest play, The Natural Daughter, forgotten in the shadow of his *Faust*), yet always present where the childlike, clear eye of an author opens on the world and shows things in a light severe and kind, 330 as in the Mother's presence they might seem. If there is freedom for us, then such sight alone confers that virtue which alone leads humans past the limit of their kind,

as Dante said: how needed in this hour, and how cast forth, even by those that cry for Justice, yet would force her to espouse each one his cause, that stamps the mind with slogans and blots the view of common consequence!

340 But we have sped on past the shape that stands scarcely defined as shape against that ground of light and shadow that is Kabbala. Here are no mythic deeds, no attributes, no speeches of a speaking Character, only a diagram of emanations out of an infinite transcendent Point that first emerges from the Infinite as Will that there should be a world, which then gives rise to Wisdom, Father of all things, 350 in whom they are but hidden and implicit, whose flash illuminates the higher Mother, Binah, or Understanding, in whose womb Being defines, articulates itself yet without separation; here each soul of Israel has its root; and we may venture to see in that one volume, that one Shape which Dante and Black Elk could apprehend some shadowing of this sphere, where lives Delight, and which is called Repentance when the soul rises from tenebrous particular cares 360 into the light of encompassing concern. It is this Higher Mother that gives birth to the qualities of Lovingkindness, Rigor, Compassion (which is also known as Beauty), Endurance and Acknowledgment (or Splendor) which go to make the Just Man, the Tzaddik, who is partner and foundation of the Kingdom, Malkhut, the Lower Mother, the Divine Presence. She is the lowest emanation. 370 the one that has to do with human speech and the material world; she is the Congregation of Israel, exiled in a world estranged from its high Source, a world of separation and husks, and subject to contamination, yet, strangely, closest to the highest Crown; for the desire that drove Creation was

that spirit might have home in matter's region. It is this Emanation that is glimpsed, at times, by sages in a woman's form, as when the sight of a tall black-veiled figure weeping beside the Western Wall, made known the death of Rabbi Pinhas to his fellow; alien eyes perceived her as the vanquished Synagogue with her broken lance, even thus more beautiful than that victorious Church that on the Strassbourg portal looks so bold.

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What glimpses have we now, amid the rubble left by the wars, the industrial waste and glitter, the poets prouder still of less and less, worshipping Dissolution, each a king or queen on his or her midden of words that do not mean, that point nowhere? Almost Rilke had seen her. Saw not her gestalt but the hollow of the world, the shadowy weft of correspondence and occult connection, the oneness that encompasses difference in a possible exactitude of structure which has its chemistry, its laws that might be learned, so as to make something of us, whereby the poet would become again the scientist of community. He saw almost this, but could not wholly see to call home the maternal Intellect into the center of the tapestry he wove at her instruction; in her place he saw his own eyes' blindness. After him another took the vigil, faithful son of mother murdered in the massive crime that put out Europe's brief candle of hope for slowly growing mercy and sweet reason lifting the world into the sphere of light. Into the heart of darkness, knowing that it was his blindness too, he stared and stared and saw through it and past it, to the Mother, his and not his, who mourns and meditates

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the fate of all Earth's children: humans, one by one, and beasts and growing things, and air, water and stone; and reached with sight unseeing

through and past her image to the Eternal Will whose thought is form and by whose mercy 420 man might be workman once again in her Earth-household. For which act the future tenants, if there is any future for our speech, will call him Master of the Hidden Name and in the month when earth renews its green will yearly mourn his solitude, his long descent to madness and self-chosen death in the years when the land of song lay waste and word was powerless to breed true act, 430 yet hail the resurrection of the Imago by whose light we shall see to work for good while the earth holds its course around the sun and the sun moves amid the other stars. And not alone the name of Paul Celan will shine in memory, but at his side the other builders of the earth shall rise, Teilhard, whose thought beheld the Noösphere, Laura Reichenthal, whose tale foreshadows the unity of world in that of word, and Simone Weil, whose groping thought reached out 440 to the circumference of human caring, and others still, throughout time's reach, who brought each his own word (thus Mandelstamm) to build the republic of true speech. Joined by our comprehension (as they were not, in a world that fragments insight) in a single council, they summon us to join them now in listening for the biddings we must pledge to hear and do. Now that our causes falter, may we turn 450 inward and backward, following the traces such voices leave, back to the source of vision, and from it follow its imperatives forward and outward, to the world that must be made, by new-forged will and minds conjoined. It is a quest, a spiritual path appropriate to an age that cannot find its own face in the mirror of a future, only, at first, a dark and roiling chaos whose darkness deepens as we scan its further dimensions, till the clocks stop and we stumble 460 into the dead zone of a silent After.

Yet we are not alone here. Eyes adjusting upon the lunar regolith discover the footprints of Black Elk, of Paul Celan, heirs to extinction, bearers of new life; and lifting up our eyes we see an Earth of vacant and yet habitable future which we may presently proceed to furnish with salvage of our multifarious past. For in the dead zone of that silent After 470 whatever spoke of a reality beyond our history's dividing struggle is gathered once for all; insight and custom, spare parts of disarticulated systems, from out which rubble the discerning eye She lends us, and the gathering hand She guides, selects what yet may serve, arranges it again into a pattern that could hold us. So Wisdom calls us to rebuild Her house and smiles with us as things fall into place. 480

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Chapter 12

Rootedness of the global vision in the tradition of Israel, and need of reconciling the two. Uniqueness of the Sinai encounter; history of the people Israel; its form of existence; relevance of its teachings to humanity at large; Israel and its land as microcosm of humanity and earth. Relation of this tradition to the maternal archetype.

Yet as we set our foot upon the path to which this juncture's signpost seems to point us, we sense, as from the side, another figure rising, and to our inner ear arrives a voice as of misgiving or rebuke, claiming possession of much that we sought to drag as stones into our new foundation: It is the archetype of Israel arising here with no unrightful claim. In seeking to unravel Earth's enigma 10 we have paged through the discontinuous record of human seeking, and have found here and there intimations; much has come from Hellas which we could not choose but hear; yet the most, and the unifying insight the hope of covenant, the invocation of some Transcendence for the sake of life – was taken, after all, from Israel's store. Messenger-nation always under fire (and most intensely from derivative 20 constructions that purported to improve upon their prior covenant with the Maker) yet, under fire, still deepening its knowledge of Heaven's ways, as yet to be imparted – and can we think that that they have not in store much more that would be needful for our purpose? If from the wide circumference of Creation we seemed to hear a voice that bore instructions. must what we heard not seek corroboration, must we not ask a blessing, from the holders, 30 by right of precedence and of persistence in tenancy, of title to that stock of hope on which we'd set about to graft a scion taking chiefly from itself?

But here indeed we venture on a path no less mined with anxieties than that which led to recognition of the Mother – not more entangled are Medusa's snakes than the objections which against this people's patent of primogeniture are lodged, 40 from snarling epithets that from the slime of ethnic hatred, which the inheritance of tribal enmity has caused to settle at the bottom of the human disposition, rise up against all aliens, and most against the ones who would be known as chosen, through wild fantastic calumnies and blame, to those objections where the intellect appears to judge impartially, as severed from boundenness to Israel or its foes, 50 though often not untinged by animus that veils itself in objectivity, be the gravamen of the accusation a violation of the general justice or conflict with the findings of our science; and not infrequently the accusing voices rise from among the children of this people pried from adherence by the weariness of being in eternal opposition! Spirit that has inspired this writing's quest, 60 if to the Holy One of Israel and his Shekhinah, such be not unpleasing, not unforbidden, guide these fearful steps in a mined land among so many fences, across a rubble-field where words are stones apt to be flung where one least wills to wound and shades of ancient accusations hiss for silence. Let me find words that cry out against invidious use, if such there are in humankind's strife-fashioned lexicon, 70 and if this be impossible, then let no eye survey these pages; let them rest unopened save to the eternal Eye of this world's Author, to Whom all intents are known, nor can be veiled by any feint.

Perhaps from the perspective of the way that we have traveled, we can now discern the outlines of a destiny germane
to an inquiry which we had believed
the child of an unprecedented hour.
By the apparition of the disk of Earth
we saw ourselves summoned beyond this sphere,
to take, so far as given to mortal mind,
a distance from the human, to survey
our constitution and predicament,
hoping to find some point on which our will
could lean, so as to turn aside the wheel
of Earth's apparent fate.

Suchlike excursions

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to the Outside were plotted, as we saw, in the bard's journey to the spirit-world, 90 of which the fullest testament was left by Alighieri, he whom exile served to lift him toward that highest vantage-point from which he seems to see in single vision the order and the form of all Creation and last, the infinite Point from which outstreams that Whole and all its intervolving forms. Others before and after him have found their ways out of our coil, have seen their visions, 100 although the several visions have not added to the One Vision Earth now seems to summon. O that Earth could acquire a thunderous voice like that which rolled from Sinai long ago, too mighty to withstand, and gave commandments not to the solitary but to all together, wrapped up in one consciousness, and yet to each in his own secret heart for the walking of his road as one of many many, of which the nation's path is braided. O for such voice, whose swelling waves would lift 110 each off the shoals of his or her resistance and make each eager for the work at hand! But to restage that scene which Israel recalls as fountainhead of all its labors exceeds the power, though the wish be great, of finite beings, who can but recall it; and as biologists reckon that just once - at one flash in the unimaginable continuum of immemorial time —

120 out of inanimate matter coalesced the self-transforming pattern that is life, even so, we see, once and once only stood a people face to face with the Transcendent, the Ineffable, whence stems all power to make – only once, and only to one people did Being's Author turn with His command to make this planet home to truth and justice and to compassion, fosterers of life, did Heaven's will-to-unity address itself, not as Prime Mover of a world 130 determined in its course, but as the Source of freedom, which the Law was meant to guard; once, only once, a human aggregate was shaped as vessel to contain that Will, and thus a higher life made possible than that of self, or even that of tribe, for Israel was given its patch of ground, the site on which their Temple should be built, in trust for all the family of Man. In looking back upon our course of thought 140 we see how much has flowed to us, by channels direct or indirect, from Israel's source! A teaching not repaid with loyalty bears bitter fruit at last. The loyal student alone makes contact with the teacher's source, which, opened thus, may flow to him as well.

To broach this is to open up a door that gives upon a history separate from that of Earth although therein included 150 and in some way including it as well, the small containing that which seemed the greater. Let us then follow, by the light of Earth, the road this people traces from its start in Ur Kasdim, one seat of Empire's might, whence Abraham was beckoned forth, detached from the conditionings of state and culture and kin, and from all temporary gods – the exile or the exodus inscribed, then, in the first step on that road. And once again, when it was promised that despite a barren wife, his line would be continued,

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he was led out, the Midrash says, beyond the stars, beyond the sphere where fate has power, to see that destiny can be reversed. And even the circumcision and the binding of Isaac, which appal the natural heart, seem meant as signs that not from that heart flows the more-than-life by which this people lives. Yet as the goal of that exorbitant journey not heaven but one tract of earth was set -170 that spot of ground to which this people never resigned the claim which it maintains today —so that, for all that Israel has given to humankind, the quieting of title to that small doubly-hallowed spot of ground would be a modest recompense enough and sign to all, that in the ground of Earth Transcendence must, and will, confirm itself. Yet exile even from that land was also part of the story: upon Abraham 180 a horror of great darkness fell, portending captivity in Egypt, which the sages portray as kingdom of Determinism, from which no slave escaped, whose might seemed anchored in the natural world, as we indeed have seen how in the soil of natural selection the tyrannies that menace Earth, that hold hostage our power to repair, take root. The plagues of Egypt: we ascribe the crumbling 190 of the natural world which we observe today not to the hand of God but to the workings of natural law (administered by us); yet if this demonstration we are seeing of the nullity of life that is no more than life, can flash a meaning to our brain, then something like the great release recalled in the Song at the Red Sea, might yet bequeath a new triumphal song to generations! What pity, that to hearers not akin to Isaac, who consented to be bound, 200 that scene of liberation has betokened relief from outward fetters, but not yet release from the compulsions that recapture, again, again, our liberation movements.

The road that leads not from the ruined land and sundered sea to the mountain of encounter with the eternal Will which to our life gives law and form,—leads only back to Egypt.

So far the archetypal tale, to which mainly this people's memory bears witness, 210 inscribed on all their scrolls, though widely scattered since their first kingdom fell; its confirmation today comes not from stones, but from our hearts, so far as these are something more than stone. But gradually now the stones begin to show their traces, though almost each trace beset by doubts impartial, more and less, down to that malice which today would blot the name and place of Israel from Earth's soil! 220 The Jordan crossed, they entered history: we hear, we trace, the conquest of a land, the struggles toward the founding of a kingdom wherein the vision that had brought them there, now fostered and unfolded by the prophets, wrestled with pressure from surrounding powers that sent the dark of fear and in that dark, where the ground of commitment was obscured, voices that bade them turn to lesser things, till that defeat by Israel lamented each year upon the night the Temple fell – 230 receded into memory, yet there still radiates. Nor was the nation sunk in the oblivion that overtook the peoples whom the Assyrians expunged a century or so before their empire dissolved beneath the onslaught of another. This ancient miracle the archaeologists confirm: Sennacherib's defeat, when he had shut up Hezekiah like a bird 240 in Judah's last beleaguered citadel, Jerusalem, but that a sudden plague recorded on his tablets as recounted in the scroll of Isaiah, turned him homeward, and thus the embassy of Israel, the signature of God upon the world, was not effaced – and has not been effaced,

although the script be darkened by disasters. Nor seems it less miraculous, although we cannot find the spot at which the finger of Providence was thrust into the web 250 of circumstance, that after certain decades of Babylonian exile, Babel's empire crumbled, as empires have a way of doing and its successor authorized return of captive peoples to their native ground; it is not chance that from this juncture stems the scroll of Esther, where the people's doom is thwarted, true, by cunning and intrigue, but by so frail a plot, that had the strength of the Unseen not reinforced its threads 260 it scarcely would have held. The sense was gained of hidden miracles, where each detail appears explainable, but not the whole (a sense so fundamental to our reading of all our planet's immemorial scroll). And it is said, that upon that deliverance the people who at Sinai had been forced by the overwhelming evidence of God took on the Torah of their own free will 270 a second time, persuaded by the sense of Providence, though hidden, in the world. There have been other miracles, long marked as "little Purims" in their congregations, else were the light of Israel long extinguished.

In the return from Babylon, not all returned. Many remained there, or in Egypt, which had received them in the days of ruin.
For these, their homeland was the scroll they carried, remembrance, and a setting-down of roots into soils that uneasily received them.

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Diaspora had begun—the being here yet there, and not securely anywhere—that state, so questionable, in which perhaps foundations of the global mind are set.
And those who, few and poor, returned to Zion shored up Jerusalem's walls, rebuilt their Temple, or a poor semblance of what once had been, founded a commonwealth at war with neighbors,

dependent on an empire's distant power. 290 The empire changed again, as empires will. Great Alexander came, and left behind that universal culture where the reason of Greek philosophy kept house with gods of every stamp and provenance—there were some emperors who ranged themselves among them and only Israel with their only God declined the invitation to the feast and so became exception to the rule of tolerance, incurring a decree 300 that sought to ban the rite of circumcision, the study of the Law, which stamped this people unique amid so much diversity. The priestly Maccabees then started up: hands that had sacrificed now grasped the weapons of war and, few, maintained against the many their cause, became the founders of a kingdom which foundered all too soon, the spirit's fire that had burned long enough to light the battle quenched in a swamp of faction and corruption, 310 and Roman rule began, from which they date the longest, hardest exile, not yet ended. But while the Second Temple stood, once more rebuilt in splendor by a puppet-king, around it surged, in clash and confluence, currents of influence and fidelity sorting to sects of multifarious form of which the Pharisees proved most enduring, holding themselves aloof from the ambiance yet taking from it what could further nourish their ancient teaching in new fields of time. 320 From Greek philosophy they took the habit of moderation and deliberation in councils of the wise which substituted for prophecy, which, they perceived, no longer could pierce the turbid air of a world bowed beneath the shadow of the hand of Force; they thought not for the sake of thought alone but for the sake of life to be continued, and in this light they read and explicated 330 the ancestral scroll, and on its fundamental imperatives set many further courses

to fortify a house of good proportion where amid storms of time the human being could dwell in equanimity apprenticed, still, to the One who made the world for good. These friends, for so they also called themselves, by the practice and example of their teaching made friends of many strangers, moved to join them, although not all of these could cross the threshold 340 of separation from their kin, could heft the weight of obligations that make sacred the life of Israel, or think of braving the rite of circumcision, to the child a quick and unanticipated pang, a hedge of agony to the adult, for which no anodyne could then be offered. To such the sages spoke of seven laws given through Noah to all humankind after the deluge brought by human crime: to keep these laws, with all their implications, 350 and cleave to Israel as friends and pupils, would be a meritorious thing, no less, perhaps, than keeping all of Israel's charge. Nor proved it easier; for second fiddle, as has been said half-jestingly of late, is much the hardest instrument to play. So it might chance that among this penumbra of Israel's community, a doctrine that claimed authority from Israel's mandate yet nullified the rites of Israel 360 and promised individual salvation upon condition more of faith than practice found favor, as indeed it came to please the bitterest foes of Israel, the Romans, by whom the Second Temple was destroyed and from Jerusalem her children swept. At what point in that history of schism and on what base of fact the accusation took shape, that Israel's teachers had connived 370 at the death of one his followers deified – the true tale, or a tale that satisfies all hearers, is unlikely to be told; only that since that story was inscribed in a new scripture stamped with Empire's seal,

the Jews subsisted underneath a sinister sign of pariah-hood, a capital sentence that might at any hour be carried out.

We have been shown the parting of three ways whereby two prospered at the first's expense. Between those two great shadows, which seem strangely 380 cast by the light that shines within this people – the light Moshe saw in the bush that burned and yet was not consumed – they lived, now driven from one into the other, thriving here better than there, or better there than here. Though defeat had deprived them of their kingdom, they were not parted from the vision of it; and though uprooted from its native ground the ancient stem still put forth branch and leaf, as though upturned and rooted now in heaven, 390 in the image of the Temple that had hovered over the earthly Temple and its ruin, waiting the hour when it would redescend and be once more the house of prayer for all. The sages went on reading, through all storms, by exile's lamp, the script upon the stone, the Law which their forefathers had accepted, not understanding yet, but pledged to act in the belief that they would understand. 400 Indeed the acting of that ancient pledge instructed them, as history and encounter inflected now the tablets' silent voice, added crowns to the letters, glossed the words, inserted notes to notes on notes, and opened windows on stories which a stranger's eye resting upon the text would not surmise, even embroidered it with threads acquired in dealings with the neighbors, whose best wisdom they did not scorn, but wove into their fabric. The record of discussion and decision, 410 Mishna and then Gemara, kept at first in memory, then written down, became foundation and first course of commentaries that fence the text from rash interpretation and at the same time deepen the perspectives that open for the scholar from each word.

From Aristotle came the architecture of thought the great Maimonides rebuilt on Israel's ground; and no one rightly knows at which points first the subterranean waters 420 that surface in the Kabbala arose whether drawn up by Plato and Plotinus and coursing through the Gnostics' braided channels to the broken cisterns of the Occitans and thence to Israel's vessels, as some have it, or tasted by Akiba and his colleagues who dared to tread the ground of Paradise, and then by bar Yochai, at deepest source. But in Provence, in Spain and in Safed the multifoliate rose of Kabbala 430 unfolded, mystery on mystery, stair upon stair in the abyss of heaven, yet rooted still in the eternal Law, on which the mystics pondered as before; proposing their own versions of the code informed by their perception of the depths, beholding with profoundest inner sight the flow of emanation from the Source that is both Nought and Infinite, through the basins of ten Sfirot, down to the dark domain 440 of matter's limitations and concealments structure that also serves the soul to ascend, uplifting the world with it, toward its source. As scientists who split the hidden atom produced great changes in the evident world, they hoped through knowledge of the hidden forces to mend the breaches in Creation so as to raise the fallen and dispersed Shekhinah, and restore Her to the One. Through all these studies, over generations, 450 an intellectual continent has grown, scarce visited by travelers from abroad, shaping the studious minds as it was shaped minds that could hold great volumes, and could tell you whether a word is found in them or not, minds that could answer questions from the depths of centuries' learning, and that with the masters of yore discoursed as with their neighboring friend. Their heights and depths we can as little measure

460 as we can grasp the distance to the stars; doubt not that from such wisdom issued counsels that steered the nation through most perilous straits and that such power of concentration, deeper than counsel even, served them to repel waves that would have expunged them altogether, even while around this people swirled the tempest of calumny and misappropriation, exerting at the fringes of the people a pull that has drawn forth so many a one who came to the world with universal dreams. 470 From the ancient core of faith it seems that fragments keep spalling off, to work in the world at random, for good or ill according as the currents that circulate in the world at large impel them, as time and time again the world has snatched at Israel's gift, and torn it in the snatching. Thus, lately, Paul Celan, who tried to sow in exile's poisoned soil the seed of hope, failing, at last, to bind the souls he prayed to into the world-wide ring he sought to draw, 480 and himself faltering, being unsustained, far from the matrix of that ancient life to which he owed those sinews of his mind that could so far reach out, so almost hold; and Simone Weil and Laura Reichenthal. likewise from that same root and matrix severed whose thought toward the circumference of the Whole likewise stretched out and listened for commands, in acting which they seem like novice players who stumbled on the stage, leaving behind 490 a ring of speeches mingling deepest meaning with as profound confusion, and a trail of deeds where chaos more than order reigned.

But through the ages, though its outward growth was often checked, the people grew within the form first cast in that supreme encounter, a form where life and text were intertwined inseparable; where each one that was born, lived, bore, begot, and died, lives not his life or hers alone, but that of Israel, in each day's prayer presenting the petitions

of the whole people, whose desire has not shifted or swerved amid the shifting patterns that on time's surface ripple and disperse. Among these students of the wise (for so they called themselves, each generation looking upward to the preceding one, that stood closer to Sinai on the steps of time) a hoard of precious apothegms is treasured, 510 indeed, made part of prayer: these recommend the virtues that sustain community and regulate those movements of the heart which could, unchecked, unlink the generations, give controversy license to tear down the canopy of comradeship which solely shelters from exile's unrelenting weather. At each week's close the Sabbath, without walls or roof of wood or stone, gathers them in to a world where strife and grief have no admittance. Then lights are lit that signify a light 520 that shows the world from one end to the other. The family assembles at the table with places laid for guests who may appear, come from afar, yet welcomed here as kin. Yearly at earth's release from winter's bonds the tale of Pesach rivets time, returns those living now to the primordial scene of liberation. And upon this follows the barley-offering and the ascending count 530 of nine and forty days up to the night and day that once again evokes the Voice the people saw from underneath the mountain. That interim – what meanings, over time, have poured into the vessel of its counting! Akiba's students died then, it is told, because they failed to honor one another, and this is given as reason for the mourning, or muting of rejoicing, that ensues upon the celebration of the seder; 540 and it is also said: the barley, food for animals, betokens the rough soul which toward the meeting must be purified. And since the fragrance of the Kabbala over the congregation wafted forth,

each day is given to one combination of two of those Sfirot which represent both emanations of supernal Will out of the Infinite toward finite being and traits each self must foster in itself 550 to lift our being toward the Infinite, till the last day, Malkhut within Malkhut, that images perfection of the people and of each soul within it, as a vessel shaped to receive the infinite decree. And in those days they also reperuse those chapters of the sayings of the Fathers composed upon the nightfall of this last long exile, and still legible as manual of intellectual community. 560 This, then, the season that commemorates the grant of human freedom and the acceptance of the conditions for its preservation – time of exuberance which yet is checked by the clearing-out of leaven, by the muting of music and the putting-off of marriage in mourning and in sober calibration of the great work that still remains to do. But at the fall of the year, when light retracts, just then they celebrate the world's creation and seek to mend such flaws as they have caused, 570 to reconcile themselves with the Creator and bring down blessing for the coming year. This done, they build their shelter whose sparse thatch admits the starlight, yet which has outlasted the tempests and the overtowering halls. Its fragile walls, reared and dismantled yearly, contain the world, extend an invitation to all Earth's peoples, though acceptance tarry.

If thus, by study, we have penetrated some way into the forecourts of this form, then as if from within we hear the voices that rise to question or oppose the claim Israel makes to represent the cause of humankind and of our planet Earth. If gathered and presented at the bar in one brief by the attorney for denial,

the answer to our pleadings thus might sound: "How can the world take as a path to peace this ancient scroll that speaks so much of war, condones, enjoins, the slaughter of whole peoples, 590 of dissidents and deviants? Admitted that such instructions were not carried out by the bearers of the scroll in recent times, yet the instructions still are on the books and liable to find executors. Less heavily, yet heavily enough weigh the affronts this text and its tradition of exegesis offers to our reason, schooled as we are by science which is pledged to an impartial sifting of the data 600 and casts a cold eye on the claims of faith. If the accounts of those first seven days, of Noah's deluge, now appear to us at light-years' distance, shrunk to seem no more than nursery tales told to mind's infancy; if the exodus of Israel from Egypt has left scant tracks upon the desert floor; if to the literary critic's eye the sacred text seems not like something given 610 all in one breath in one unique encounter but rather like a thing of patches, each composed in its own time, to its own purpose, and at some unknown moment stitched together — In light of all this, are the quia absurdums — those ritual humblings of the mother-wit that test the loyalty of the adherent – in this faith less absurd than in another? And even leaving all of this aside – what counsel has this teaching for the earth now, when the whole complexity of matter 620 has risen up, challenging human law to tame its consequences which subvert not just the natural and the social fabric but the coherency of mind itself? Amid the technological tsunami what can the study of minute details of sacrifices long since discontinued, the finest points of dietary laws and Sabbath-keeping, benefit the creatures

our enterprises menace with extinction, the forests devastated, and the masses yoked to or trampled by invention's pace? What use, indeed, are all these ritual laws, how helpful to the enterprise of taming self-interest and aggression to the bridle of altruism and constructive action? Many have suffered; what, more than all others, are the sorrows of this one small group to Earth?"

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We hear this: but we also now can hear an answer from within: "Concede the harm 640 our word has authorized when snatched from us, stripped of that shielding of deliberation our sages placed around it (though the hordes that ravaged earth in ignorance of our script required no such permission, nor do those now, who disclaim inheritance from us); concede at once the most reductive findings of spade, computer, textual critique (though not the calumnies that would efface 650 our very rootedness in Israel's earth) but ask yourself: had God begun his teaching with quarks and particles, would all the time that has elapsed since His 'In the beginning' have brought Him to the topic of our being, still less our tasks as keepers of the Earth? Man lives not by the bread of fact alone which, served in place of the soul's truth, is stone. Just as computers have not written poems (nor will), so science has no algorithm to form a human conscience, without which 660 to speak of remedies for Earth is idle. For what is all the structure of our Law, with its provisions, some of which your reason accedes to more than others, but a shelter for that which is most needful, relevant indeed, to all concerns this time propounds: the I which can reflect the Infinite, the self that is the image of its Maker and holder of His power to repair? 670 You ask what relevance have ritual laws to the keeping of our duties toward our fellows,

not asking why the people that endeavors to keep such regulations, have been known for mutual aid and kindness toward the stranger; reckoning without that impulse to transgress, that taste for stolen waters, which will ever mock those who think to limit prohibition to what is harmful on its face, who see no need for any hedge within the bearable. 680 One day in seven, those who keep our Law may touch no writing-tool, may watch no screen, may neither buy nor sell, are thus detached from those devices that outwit their framers. dragging attention out to nothingness, from calculations of the marketplace into which the requirements of the Whole are seldom factored. Those who see constraint here lose consciousness of that to which rebellion delivers them: the Egyptian servitude of days, of weeks unmarked by pause for rest! 690 You hail the objectivity of Science, when not declaring God is Love alone, or seeking mystic ecstasies that leave the world and all its problems far below; we own the objectivity of Judgment, though knowing well it is a perilous word which human creatures may not lightly wield and yet may not refuse to hear forever. If there's a sign that human piety 700 is something greater than the naked creature's plea to be spared the looming fate of death and consequences of its mortal blunders, then most in our acknowledgment of Judgment such proof is seen. For thereby we arise from the strait bounds of our self-interest to contemplate the Whole and to acknowledge our part in what is needful to repair. It is to this that we commit ourselves in study, with the hope of understanding 710 what is required of us by those commands which before understanding we accepted, and in this find delight, such as is found in pleasing the Beloved, but untasted by those who think to sever love from law.

"Would that the lesson could at last be learned, the world at last accept our invitation, take on - not the six hundred and thirteen commandments that make sacred Israel's life, but just the seven laws which ramify with myriad implications from God's charge to Noah, and if widely laid to heart may yet arrest the fall toward dissolution. To wit: acknowledge that there is a God, a high creating Will that makes for order and harmony, not mere material cause; and curse Him not, despair not of the workings of Providence toward better and not worse; treat human life as sacred, and restrain those who cannot respect it; keep your hands from misappropriation; treat as sacred the bond of man and woman, which alone reflects the wholeness of the human being made in God's image; use no cruelty toward other sentient beings; and establish just government in the places where you dwell. This teaching Grotius had heard, who framed the thought of International Law, to bind the nations in a covenant of peace, which time and time again has been attempted vet without thanking Israel, nor staying to hear the further counsel of our teachers might it succeed, were this ingredient added? Not light this charge, but in it there is nothing that does not stand to Universal Reason which may, perhaps, with Israel's blessing, find its counsels deepened, and its hand more steady, more careful, for the work that's to be done. One spoke of 'universal parenthood' as a response to Earth's necessity; surely its seed is found in our commitment to raising generations toward the knowledge that clarifies the will and lights the way for good intentions."

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Still the skeptic voice rejoins: "What pledge have we, that a tradition so bound to precedent, can bring forth answers

to this time of unprecedented questions?"

In the silence following upon that question rises the figure of a bearded man with kindly eyes beneath a tall fur hat and with the poet-dreamer's cast of countenance, 760 and thus addresses us: "Israel's God is the source of the universe's life, of all creative powers, and so also of human power to make and to repair. That power is bestowed on those who rise out of their limited circle of concerns. returning to the greater Understanding. Scattered through space and time are men and women who made this journey singly; only once a people found that way and pledged to it 770 their future life, which was thereby made sacred. Not smoothly from the mount that road has led. For when the voice of God had ceased to speak, the sufferings of existence in the world took up the teacher's task, through years of exile. Exile has purified the people's soul while narrowing its vision to the four cubits of halakhah, the circle drawn around this people's life, to keep life in against the harshness of the outer world. 780 And even in this late return to Zion under so many nations' envious eyes constriction came with us; we are divided between those who cast off our sacred teaching and seek to be a nation like all others and those who will not let the circle widen again, to take in all the multifarious questions a nation-state today must answer, let alone one that bears the hope of Earth. 790 And yet with independence, prophecy must once again arise, and make this nation the mirror where the world-soul shall behold itself in all its universal scope, in childhood's freshness and the strength of youth."

Attentive to this interchange, the mind that seeks to mend the earth, now entertains

the thought that maybe we have reached the goal of our quest for the bridge that from the smaller circle of mind, leads outward to the great. In all codes there is something arbitrary, in that of life no less than in all others; and arbitrary, too, perhaps the choice of a chosen people; yet that choice enabled the shaping of that people as a vessel that long has fostered life against all odds and where we can begin to see contained, prefigured, the great form in which we seek to comprehend the destiny of Earth. So that the soul of the wide world, if soul indeed it has, must see itself penumbra of Israel's collective soul, must build its house around that central hearth of hope, and see a Providence for itself as well in that which brought the Universal Nation home, when this Earth so sorely needs a home. And as we read by Earthlight Israel's script, may it not be that in our voice an echo returns from matter's alienated realm toward the one central Point and Source of all and, like the mirrored image in friend's eye something come clear for Israel as well? This precious spot of ground: may it become a microcosm of the Earth as whole; may its true borders, recognized by all, be the seed-crystal of a world-wide peace, and may the world-tree in its soil take root!

Let us then bring to consciousness those gifts which from the outset have sustained our quest, beginning with the *tselem elokim*, the semblance in our kind of a Creator Who made the world and called it good and yet left it imperfect, for us to complete. To shield that image in ourselves, becomes the central task toward which we seek to arrange the structure of society, supporting the mother's care, the commitment of the father to the one bond in which the human image is made complete, and tender life sustained;

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the matrix of community, too lightly at industry's instruction disassembled, 840 perhaps could be replanted by some means; and round all such protections we must build the fence of law. Not legislation solely but precept daily learned and pondered over the law of Noah, with all implications and all that may pertain to upright conduct in the vast treasuries of Israel's lore. Already Jeremiah, long ago, discerned the crookedness of the human heart, 850 which generations of the sages strove to straighten. And shall not those newer findings that show us the constraints that have inflected and still inflect our actions, now be spliced into that ancient inquiry conducted always with the intention to arrive not only at objective understanding but at some insight that brings remedy? Such inquiry would certainly arrive at the necessity of reaffirming marriage, as reuniting the two halves 860 of the Divine Image, as middle way between denial of the generative impulse, and use of it for selfish ends. Marriage! that partnership of enterprise and nurture, that has given childhood space to grow and to learn trust! how undermined through the promotion of mere transient pleasure by those who will not know that if the act in which a human life originates be not held sacred, life itself becomes 870 a thing of little worth. Could this be seen clearly again, how much could be repaired!

The individual mind, which is the key and mirror to the wholeness of the world—shall it not see itself in Abraham, who with his naked eye saw through the idols of Ur Kasdim to the Master of the World and so became forefather to the nation who made the trek from Egypt to Sinai and settled in the land that must become

the talisman of freedom for the world? Nor was he ever only for himself: in parleying for Sodom he was admitted to the counsels of a universal justice. The covenant of circumcision, given to him and his alone, has yet become in the universal mind a metaphor for the check the vital impulse must accept that life may grow into the shape desired by the Creator, needed by Creation; likewise that dreadful almost-sacrifice may be interpreted as the surmounting even of that solicitude that my progeny live, whatever comes to others, which Universal Parenthood requires. Could all of those who claim descent from him cease to dispute his heritage, and meet him instead, like Melchitzedek, with their gifts of bread and wine, this would at last be faithful service to the Encompassing, the Most High.

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The mark of circumcision on the flesh is one sign given to Israel alone; the other is the Sabbath, which no stranger may keep as Israel keeps it.

Yet the Sabbath

was made before the parting of the ways that singled Israel among the nations, as the very keystone of Creation's arch, that seventh day on which the world's Creator rested from work and hallowed a hiatus in the momentum of the cosmic process, which over centuries has kept alive many a social hope that now is drooping because the fourth commandment is repealed. For it was through this periodic strike and stepping off the moving road of time to a space hallowed to hold us in encounter, that we were granted visions of a world ruled by mercy and by justice rather than simple might; that we were given power to know ourselves as souls that meet in God. To keep the Sabbath is to bend Time's arrow

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into a circle; and the structure seems implicit in the structure of the world: six coins exactly fit around a seventh! Even so, it has been said, the seventh day is not the end but center of the week, the empty space though which (the Tao supplies a kindred metaphor) the clay of time becomes a vessel fit for human use. 930 And surely no coincidence has laid on those to whom the Sabbath day was given that most endangered star, the hexagram – two interlocking triangles that also can also be interpreted as symbolizing the Sabbath by the central hexagon, surrounded by the six days of the week (the areas of six and one are equal, as though to say the Sabbath peace might yet balance the fragmentation born of struggle). So that the Sabbath here appears supported 940 not by authoritative text alone but by the chiming of the evidence -Euclidean, so to speak - of words and things. Beyond all questions of the Whence and When whose answers may be dug for in the archives of Earth, the inner eye that seeks the Whole finds intimations of some destined shape that grows through time toward clarity. The hymn that welcomes in the Sabbath was not sung until a master of the Kabbala 950 composed it some few centuries ago, yet sounds in every thought of Sabbath now woe to the world, if it should ever cease! For surely from that weekly song, if words and thoughts have power, as it seems they do, a wave of hope flows forth into the world and pushes back against the raging billows of forces that imperil the Creation, would turn the world back to a swirling sea 960 of malice deaf to mercy as to judgment. Alas for all that passions schism-born have rent the Sabbath's clock in three, and given pretext to those who would break down its wall as obstacle to profitable license

which is but slavery to time's ill ends. The voice that spoke to Noah when the flood which human wrongs had raised, had sunk again, spoke not of Sabbath, which the Torah fences as the preserve of Israel alone; 970 yet it is said the peoples of the world may keep it with a difference, with some change which would in Israel be a violation. And Paul Celan, who after that deluge of wickedness that swept the Jews from Europe and weakened the foundations of the world stood forth alone, trying to breathe life back into the world, pronounced as his last word "Sabbath," envisioning a space where those who bear in mind the destiny of earth 980 (be this one reading of those riddling lines) and who have deeply read its deep-layered record, could meet in mutual recognition, open to the messages which from the deepest heart and mind of each, which is the heart and mind of all, arrive and mount up to a common truth, which shall guide their joint and several hands in tasks their destiny assigns to each. And those so met shall surely lay to heart those Sayings of the Fathers (often studied by Israel on Sabbath afternoons) 990 that seem like algorithms set to fashion a vessel of communicating minds (that thing most needful now, when human knowledge has grown beyond the compass of one mind), maxims that school the mind in deliberation, in scrupulous attention to the other, in vigilance against the will to differ which is not truth's true freedom but the bar against its manifestation in our midst. The solemn chant that brings the Sabbath in 1000 calls it a memory of the departure from Egypt, kingdom of Determinism; and in this light we read, too, the account of how the Red Sea split to let them through and how above the sundered waves the vision of God appeared so clear that it was seen even by the unborn through the mother's wombthe structures of causality thus made transparent to the Will that had designed them and could revoke; this chanted every day may armor us against foregone conclusions.

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And not alone the cycle of the week begins and closes with the Sabbath day; the seventh year is made a year of rest for the tilled land, and limit of all debts; and after seven seven-years the year of Jubilee enjoins a further rest and turns lands back to their ancestral owners. Law of all laws most difficult to follow (and since the land's full sovereignty was lost the years till Jubilee not even counted) yet standing still, as form above the chaos of economic warfare, for the thought that the momentum of the wheel of Fortune which ever throws to riches greater wealth and to the poor a deeper dispossession shall yet be checked, reversed, and each return to an estate apportioned by the lot of Heaven, not by mechanism of greed. And meanwhile, we must gratefully recall the various laws that give the poor a portion the forgotten sheaf, the corner of the field, the tithe, the prohibition of retaining the workman's wage, or taking that in pawn by which the poor man lives, and all the various entreaties that commend Philanthropy and seek to clear the eye of any veil that in the poorer other hides the brother, the Image of the maker which all share. For next to marriage let Philanthropy be praised, in which the people Israel excel and which, wherever its sole is set, has made the desert blossom with the flowers of generosity and gratitude. Surely this impulse more than any other proceeds from oneness with the Generous One Who breathed Creation forth into the void. The great Maimonides, who for the Law

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built the great palace of his Fourteen Books,

distinguished eight degrees of charity,

according as the giver gladly gives

and honors the receiver; and the highest
is to find work by which the poor can thrive
so as not to be dependent upon gifts.

Perhaps we may yet glimpse a ninth degree:
to foster the devising of a system
that may provide for all, accept the gifts
of all, that none be useless or deprived.

And one more thing now asks to be remembered: 1060 Sacrifice! Of all peoples that have lived and shaped their forms of life, that then decayed while others sprouted from their mould, how few failed to reserve, out of their choicest goods, gifts for such powers as they recognized beyond the bounded circle of their days! Of Israel's laws the half concern such gifts, disused now, since the sanctuary fell, yet studied still, and hoped to be restored, and their deep meaning meanwhile probed, refined. It is not that the Owner of the earth 1070 craves such corporeal food, but that the mortal has need of giving, and has need to see the beast within him slain and elevated in service to the Highest. If now we blame such rites, how do we suffer in our midst the factories of meat, profane and cruel, and silently accept the human victims which the dark impulse in the heart of man, unpurified, unchastened, still exacts 1080 by way of entertainment? Were the Temple rebuilt, the daily offering reinstated with song and prayer, who knows but that the rage of senseless human sacrifice would dwindle? Though Time has seemed to leave this dream behind, yet we might turn back toward it, as again we look toward Zion as the source of good, envisioning the Temple redescended from where it is stored up beyond disaster. This is a thing that may come clear in time, if time now takes the direction that we hope. 1090 Among the sages some today envision

the former rites of sacrifice transformed in the new light they pray to shine on Zion, and from the present world that thought returns an echo: might today our offerings not be from that by which we chiefly live? Above all it is knowledge that men trade and turn to several profit. Might that new light not show some offering of knowledge, of intellectual effort dedicated to the promotion of the common good?

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All these the friends of Earth now lay to heart seeking in them a pattern for some action that may be true to Israel and Earth, and joined to Israel's prayer to the Most High Whose oneness as the Source of all that strives to make Creation whole, they do acknowledge and concentrate their wills in the petition to the Maker and Preserver of the world 1110 and Israel, Renewer, Reawakener, Giver of understanding, from Whom issues the summons to return, the promise, too, that what is done can be repaired; Deliverer and Healer, Gatherer of Israel, Re-founder of just government, Rebuker of perverse ways, Preserver of the just, Sender of those who will rebuild His seat and be the channel for redeeming force into a world whose prayers meanwhile He hears, and most of all that prayer for the return 1120 of Temple offerings joining Heaven and Earth, and Whom they thank for all the help that brought us to where we stand, and Who will give us peace, the peace that comes from following the laws of life. So may our longings, poured into this vessel with the prayers of Israel strengthen both to increasingly prevail!

Against the background of that prayer approaches once again the figure of the Mother, which we have seen projected on the background of the Creation as its central symbol and summary, the unitary shape

that is the earthly mirror of the Oneness of the One who breathed Being to the void may we now speak of Her without importing contention with the image of the Father that stands between Her and the Source of all, as in our childhoods loomed that further figure beyond the circle of the mother's care, that rod and staff, that leader and provider, 1140 whose firmness made the mother's circle just, so that it is no accident that here, within the shadow of the fathers' faith, the Mother takes her most instructive shape. We saw her flickeringly appear amid the motley dreams of humankind, but most distinctly, and most wedded to the thought of covenant, as Malkhut, Congregation of Israel, called also the Shekhinah, who with her children treads the path of exile, 1150 divided from her Father and Beloved, subject through history to external powers that veil the Maker's countenance from her sight. She it is surely who unnamed appears, to eyes that grow accustomed to the shadows, behind the riddling lines of Paul Celan, although divided from herself, or merged with shapes that rise out of the alien ground. She now, as from the Earth's periphery yet from within this people's heart, approaches 1160 to ask if she may enter without bringing contention with the image of the Father through which so many centuries of humans directed prayer to the One Source of all, while in the counsels of the wise her daughters' voice was hushed, and the Law assigned to woman a place subordinate and circumscribed. Yet in that Law's domain there could arise prophetesses, to whom God spoke directly as to the prophets; and when prophecy 1170 had fallen silent, still the wise acknowledged an extra understanding in the woman, having affinities with the principle of structure in the universe, the Judgment with which the Earth's conditions were laid down

(Freud's intuition, distant from the Source and yet perhaps at times informed by it, saw in woman the Wirklichkeitsprinzip). That understanding worked in hidden ways to make the fabric of Community, 1180 and once a week was sung, when in the shine of the Sabbath lights the master of the house praised the Woman of Valor. And beneath the daylight paths of rational reflection, halakhic question and determination, there flowed a stream of intuition, fed no doubt from cisterns that communicate with the subterranean waters of all souls, but by the straits that press on Israel channeled into a course that is the course 1190 constructive Will must take to reach the world. The Kabbalists saw from the crown of Will emerge the father-point which they called Wisdom in which all is implicit; thence unfolds in Understanding, the Supernal Mother, the world's design, which then through various stages descends to reach that lowest emanation, called Kingdom, Daughter, Lower Mother, most distanced and in this nether world exposed 1200 to warring unclean forces, yet at last destined to be repaired and reconciled even to the highest Will, as its fulfillment. Could but the circle of disdain that cinches the destiny of Israel, be dissolved, might She emerge from muteness and concealment to be the housewife of an earth made home to the just man's desire, and Heaven's delight? We can but pray, and hope, and try to see the shape of such a future; but by seeing we give the possibility some space 1210 at least in mind; and we have leave to hope that thus we pave its way into the world.

Enormous seem the obstacles that rise upon the path our insight now projects: can we indeed upon the stone rejected by almost all Earth's peoples, build Earth's house? For if indeed the friends of Earth resolve

to place their faith in Israel's destiny – by what means, by what channels could they now convey this message to the throngs of the Earth, 1220 stunned as they are by media designed to stun them, to stop up the inner ear that hears the pleas of conscience, and to fracture the mind to be incapable of forming and following a trail of argument however short? and surely not a long one, leading to what perhaps they never wished to see. And all the more, since Israel's foes have with the channels of the news, the seats of learning, and the churches, purchased influence 1230 with lucre, with the attraction that attaches always to arguments backed up by threats (safer to think the menaced in the wrong), seconded by the subterranean mutter of ancient prejudice too briefly banished? Yet in this cause the task of paving roads for the messengers of Earth is implicated, and to espouse this cause is a beginning and a continuance. Still from the dire straits that forever seek to close again 1240 upon the soul, the voice of Psalms aspires toward that expanse in which the whole is viewed, from which help comes, whether in form of counsel, or in such overturnings of the odds as we have seen can be. If now Earth's friends could join their prayer to that of Israel, might the great darkness dissipate at last?

Chapter 13

Invocation of the maternal archetype as an aspect of the Divine. Formation of an association based on awareness of this archetype. Spiritual discipline needed to sustain the vision. Form of meetings of such association; its structure. Role of the poet. Vision of the Hexagon as meeting place.

If we may hope that in this quest for hope we have attained from the One who breathed the world and still inspires it with creative life a benison to which His confidants. the people Israel, may yet say Amen if so the friends of Earth by deeds deserve, then with this hoped permission let us ask what it requires of us, this global Form, this great Imago which the mind projects from early childhood on the cosmic screen – 10 we now believe the Author also casts it from His supernal Will onto this plane so that that the vision of the creature made in the Creator's image may both mirror and meet the deep design of the Creator. Can our surmise hope to approximate that deep design, seeing we ponder here over a concept which we have but gathered from scattered foundling-pebbles which the stream of intellectual exchange has washed 20 into the world from Kabbala's massif? We can but handle them the way a child picks up a tool, though ignorant of its use. But if not vain imagining that voice which called us to this labor, we must needs hold faith that what has come to hand, to be by Earthlight now perused, was for this use permitted by that Providence of encounters which from the dawn of time has often steered the poet's dinghy through uncharted seas. 30

But at this new threshold of exposition a further qualm arises to impede my step. For till this moment we have moved among the monuments of former time,

the towers of the present dispensation, and had but to point out existing structures, noting and analyzing, while the real could chime corroboration. But from here onward, the path leads out into a future we have not to describe nor to predict 40 but to create, laying the paving-stones before us as we walk out on the abyss of Possibility. Here what is shown will not be real, but to-be-realized: shall it seem plausible? or shall it seem a mere Utopian fantasy, no answer to perils that too solidly impend, or can it come as friend to faith that waits for sign more certain than such screed can give? Utopia! Thou star of human making 50 which we from time to time have tried to thrust beyond the gravity of earth, in hopes of setting up a mark to guide our ships of state toward halcyon anchorage! Again, again you plunged to earth and cracked in pieces, showing the rubble of which you were made, and there were sometimes people underneath. Yet the constructive urge that lives in us, that senses and half-dares to deem itself an after-pulse of that which willed Creation, 60 still works upon us to thrust out such worlds, with bated hope that one at last will fly, lest humankind grow savage in the dark that veils the higher counsel from our sight. Then let me build this model, let me show if only an imaginary world, inhabited by human self likewise imaginary, to be entered into in the spirit of romance, suspending, for 70 the time of contemplation, disbelief, upon the hazard that those higher Spheres whose names if not in vain I here invoke will with some luminosity infuse the artificial star, that it find favor and influence the acting of some play.

The Lower Mother, then, bears several names.

She is called the Shekhinah, Divine Presence in the Creation; She is called Congregation of Israel, the wholeness of that people – the World-soul we have seen as Her penumbra; 80 as Malkhut She is governance, once shown in David's kingdom; and this lowest Sphere is also speech, in which thought manifests, and finally the world of things that seem lifeless, though it is said that even here sparks of Divine awareness dwell disguised. And closer to the source, the Higher Mother is Understanding, is the hidden structure of the Creation, and is also called Return, for in approaching her the mind 90 entangled in the chaotic world divests itself of partial interest and ascends to find itself again in the great matrix of Divine thought, where each thing has its place. This aspect let us first invoke, intending that with Her presence in each mind, the minds may come more readily to that concord that's requisite to action—that our thoughts may bend into the center of concern and outward thence to its circumference. 100 Thus with Your leave, Projector of the world, if by Your Providence we were set down upon this shore of thought, may we so speak: "Soul of this world, and our collective soul, Who in her exile prays to hear from us— Mother-mind by the highest hand inscribed in the circle of the Earth, life of our lives, **Indwelling Presence of Transcendent Power** Whom none can honor without honoring Thee, who still above the wreck of time appears 110 to call us home to the world that love would make; Thou art Understanding, that combines things most diverse into a single being; From Thee springs Judgment, that acknowledges what will not fit, and makes the sacrifice. House of good proportion where Compassion that teaches us to spare the frail beginnings of higher things, shall dwell forevermore, unwithered by the cold of mutual fear:

120 in all things from which helpfulness and beauty and honor shine, Thou takest Thy delight. Thou, hearing in our hearts, open our ears to the complaint of all that suffer wrong; Thou, seeing in our hearts, open our eyes to every gift pursuit of power would trample or hide from sight beneath a market-price; and turn by deepest sense the hearts of all that love Thee toward each other; be our common sense to order all Thy household goods thriftily, that each one may receive 130 needful reward for good work done in gladness, nor ever fail the storehouse of our Earth. Send us and all who call on Thee in truth dream and insight, oracle and song, and by Thy strength of love brace us to bear Thy vision through the darkness of our days, patient as gradual waters that replace dead matter with pure crystal, age by age, till, by the Eternal Will that shows Thee now, all human life be service to Thy oneness 140 with, in, the One Who is the source of all. May I in all ways honor Thee, my heart be open to Thy every admonition, by whatsoever messenger it come." Now if the soul has couriers that wait to take its messages by unseen roads, Her likeness animated in us by our words, may waken far-off correspondence; and if petition for the opening of sense, that we may recognize on meeting 150 the comrades of our quest, answers itself, then shall the solitary vigils join to one companionship and space of counsel, a glowing core of courage gather mass to draw in other hearts from paths of doom. Or as the wide unnavigable torrent that rushes toward Niagara was bridged by tossing to the farther shore a clew of twine which, drawn upon, drew after it a stronger cord, a rope and then a hawser, 160 until the heavy cable moved across from which the bridge was hung: so might we haul

on cords of prayer to bring in mutual speech, on mutual speech to bring in comradeship, till weightier deed and word of wider hearing and mental power to waken Understanding and stare down Force, may follow, till our kind have crossed the monster-teeming gulf to dwell in the long-darkened house from which the first faint light is gleaming now. O Star of Hope, 170 eternal Star of Love and Understanding, Ayelet haShachar! rise, shine, illumine for us the steps that we must climb toward Thee! For mounting up I see the thresholds high: first, the recognition of Thine Image, before which still the monsters of the threshold may rear, that guard the avenues of Return; next, inward constancy against the odds; third, the recognition of the Other to whom Thy vision also makes appeal. 180 O may that might of will by which the future begets itself upon itself, commend and show to our most generous desiring our sibling in the eternal love, the more favored with gifts of beauty and of truth, the less beloved of our most natural heart, by which bent will so many seek the praise of the unenlightened, turning from the light that shines from one another, and thereby darkening themselves and all that turn to them. 190 Trial in which the first trial is repeated; for whoso turns from Her light in another turns from Herself, and all that had opposed the pointing of Her vision on our sight regroups against that other, whose approach is heralded, then, by some dark alarm, stinging of envy or Medusa's snakes, against which may the Muse of courage gather nocturnal herbs for a transmuting potion, compose some spell to rock our rage to sleep 200 that we may dream the Others, and awaken to hail them for the eternal friends they are!

The service of that Aspect, in whose hands alone the earth might yet be held entire,

implies a certain science of the heart beyond, between the interstices of Law, though the Law's keeping is prerequisite to its distinct exactitude – exact no less than the laws that prod our dissolution 210 with number-spawned devices all the day – that truth may have its rightful consequence and word and act may build on one another. Not that we can deny or disregard what any science learns. All enters in to an inquiry whose criterion is the supernal Presence we invoke, whose rationale (as inexhaustible, as simple, as the Tao) is the awareness of her gestalt, of her becoming real 220 among us, till, as those who love intuit the feeling of the beloved on each point, we sense with her, like the Princess on the Pea, each slight misprision that, with usury of error, might imperil all Her being. Even by that sting one poet learned to use, owning a poem good that caused him envy, truth, in intaglio, reveals itself. The Form and the dark impulse which assails it both serve us, both alert us to the ones whom we must see, the words which we must hear; 230 but most the Form calls out for that attention which is, we heard, the soul's most natural prayer, so we may be instructed and perceive that in the common ground to which we come each in our hour, the lines of a foundation are traced, for us to make them visible and bring to every place its rightful stone; and for a written testament of Her we have the record of Her apparitions 240 from Solomon and Sophocles till now to set before our eyes, to place upon one shelf, and take them down in doubtful hour that our own vision may return to us from the depth of time, and we may act and speak in presence of the dead and the unborn and round us feel the matrix of connection that holds all destinies involved in one.

There is an art of tracing in that matrix the roads that go from poem to poem and from life to life, to lead them toward the same: 250 the art of dream-interpretation, known to stone-eyed Freud, a mirror that may yet, unmarred by seeking of the minor self, show the true form of all we hold it to. And then there are those speakings of our own (for it is promised no one shall be mute) that set a signal-flare, that take a bearing on some point in the landscape of Her truth, that make some contact with the Elephant (the common substrate to all sight and feeling), 260 findings that cannot jar with one another once we have set our heel on the envious impulse that was the only foe to Understanding: exactitude and generosity become each other and indeed are one, as love and rigor in the eternal Being. When we have pulled down vanity, how high the mountain which that hut concealed from view! -Such are the thoughts in which the friends of Earth, if prayer for Earth begins to take effect, 270 begin to school themselves, pondering each alone within the circle of the lamplight of their own reason and experience, circle that knows itself as a projection of Earth's circumference, light by which they read on the open page, in their own palms, the paths that lead them to the meeting place, as those who take upon themselves the obligation of Universal Parenthood, the task of thinking for us all. From such roads come, 280 they in their convocations shall consider the questions and the doings of the day and give true counsel to our good intentions.

But now another trial, another threshold looms up: it is the threshold of agreement upon some form of action that could mirror that Form, articulate and manifest the comradeship of souls such Form betokens and, beneath that, the sacredness of speech,

290 which with the Lower Mother is aligned: speech, the one touchstone of our thoughts and acts, the substance of our conscious common life. thought's only currency and circulation and medium of the overarching art; fluid that holds both music and depiction, gesture and number and the various knowledge extracted by our toil, in one emulsion, water of life – no primal plasma truly, a compound of most varying admixture that arbitrarily couples sound and sense; 300 a thing evolved, evolving to dispersion through chance forgetfulness and willful change by tribes and subtribes that like separate drops draw themselves in, shrinking from common meaning; a surface always crumbling into jargons or processed by high-placed prevarication to featurelessness like a napalmed face subject in fine to every human fate, yet still the one material we have to build the human house of Understanding, 310 the one arena where our consciousness can wrestle with dispersion, bind it back into the ever-kind configuration that gives to each a name, a talisman of worth, and to that name associations of true companionship and destiny, and does not leave us to the numbers' doom but in the vision of unity affords us shelter and allays our thirst with meanings that bind us to the Mother-word. Then let 320 us honor language as Her garment, as Her very self, hallowing every song that bodies forth Her wholeness, and consenting to be Her subjects for a weekly space, a clearing in the thicket of our strife: with this a habitable world begins.

It is no alien thought now, that in Form resides the only Power we might pit against the rot of ill-directed Time; has, then, earth's present urgency of speech some form that it could offer to the speakers?

There is a dread that often overshadows the recognition of necessity for the acceptance of a common rule – commitment that must be distinguished from that deference to external threat and power with which it must conflict, with which it is confused, but from which it alone preserves us, giving identity consistency, 340 binding identities into one being. On Form all solidarity is founded, and upon solidarity, all freedom. Known it is that the rules of chess are fixed. invariant; in none of all the games that have been played or could be played, might any rook move slantwise; yet from these restrictions an infinite variety arises. So it is here, once thought and prayer have vanquished the shadow of a fear for something called freedom, though empty and inconsequent. 350 From underneath the fast-shut door of this anxiety, may light of wonder seep to tell us of a world of wide perception where all regret dissolves into the sense of the power to make over which, once freed by the minds' fusion, shall subdue the might let loose upon the Earth when the atom split.

The convocations, then, of those who hope to body Wisdom forth, call for some rule of order, that will let us hear each other. 360 O may we learn the lesson of too many meetings convened for purposes of moment that, without ever an inner truth appearing, wore themselves down through clash and contradiction to a mere frittering of word and time! As love, so speech of destiny requires order and ceremony; counsel has its form, as well as song. For how can rede emerge from babbling voices that contend 370 for right of speech, and scarcely hear themselves, far less their fellows; that, as filings flock to one pole or the other of a magnet, are quick to bay the two ends of a question,

in between which the truth lies unattractive or trampled like the ground of a sham-battle? Save by the grace of Form, that is consent of each to be included in a structure, the One Mind will not come to us, but all hang separately, although by one decree. Not without memory's assistance here we innovate, for widely-scattered peoples have learned to pass the privilege of speech around the circle (form as if ordained by Earth's informing power around the globe).

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So, then, the light of hope and memory shows us a room, in it a ring of chairs, no more than ten or twelve. Upon the appointed hour they enter, take their places silently until the ring is full. Then let the one who entered last, invoke the helping power in words like these: We gather here to see faces from which we need not hide our face, to hear the sound of honest speech, to share what dreams have etched upon the sleeping brain, what the still voice has said, when heavy hours plunged us to regions of the mind and life not mentioned in the marketplace: to find and match the threads of common destinies, designs grimed over by our thoughtless life – A sanctuary for the common mind we seek. Not to compete, but to compare what we have seen and learned, and to look back from here upon that world where tangled minds create the problems they attempt to solve by doubting one another, doubting love, the wise imagination, and the word. For, looking back from here upon that world, perhaps ways will appear to us, which when we only struggled in it, did not take counsel of kindred minds, lay undiscovered; perhaps, reflecting on the Babeled speech of various disciplines that make careers, we shall find out some speech by which to address each sector of the world's fragmented truth

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and bring news of the whole to every part.

We say the mind, once whole, can mend the world. To mend the mind, that is the task we set. How many years? How many lives? We do not know; but each shall bring a thread.

The next around the circle (counterclockwise: a direction 420 long thought ill-omened, but here symbolizing a counter-movement to the uncorrected course of events) might speak a second prayer, in words like these: "Spirit of Understanding, Mother of all, in Your name we are gathered to know our mind and Yours. Help us to trust Your strength that grows among us, and thereby to trust in one another, that the truth deep known to each within may surface here 430 and shed its light on every situation, all knowledge we may bring from distant fields. Loosen, for this one hour of our encounter, the bonds of wariness, that freeze the mind from looking at itself; let dream and vision, proverb and song and those swift recognitions that run ahead of sight, come to thought's aid and not be turned away; may we attend through one another's voice to the low voice of our own heart and Yours, till we forget who speaks, and only hear the common thought 440 and see with single eye the single globe. Attune our counsel to the thought of those who elsewhere gather in Your name this night, for future's sake; and manifest Yourself to us now in the joy of fitting speech and awe of Being by Your grace unveiled." "Be it so," all say. The speaker turns a glass that runs five minutes, hands it to the next around the circle, who now has to speak – 450 or else be silent – till the glass is run. Relaxed, all watch the running of the sand and hear the voice that speaks, for those five minutes, not interrupting; for they understand that thoughts in the awareness of their limit will pack themselves to crystal density, as in the compass of poetic form a vasty recognition curls at rest.

The sands are run, the glass is turned and given on to the right, and so till it has come full circle twice or thrice. As from the centers 460 of one brain meditating on the world, so from the points of listening's compass rose thought answers thought and image comes toward image as That which has to build itself of us takes thought, that it may live. And when the last has spoken thus, the one next to that one offers a valediction, in this strain: "Spirit of Understanding, that has guided our speech while we entrusted, as to You, 470 our being's deepest thoughts to one another, we go now from this place, into a world not yet informed by Understanding's law, and for six days must trace within this world our separate paths. When they shall cross, then give us strength to be true to what we here have said, and lend each other aid for Your world's sake. With Your discernment let us look on all that we may see, and with Your patience wait for the word's right occasions, for the faces of those we may address to come in view; 480 and with Your force-field of protection cover the paths by which we move to the next hour when we shall gather and behold Your vision, the pledge of Earth entire and freed from strife." This said, they with courageous looks take leave of one another, and depart in silence, lest any idle word should mar the rite and crack the flask wherein our mutual speech listening to itself refines itself and counsel from the speech of all emerges. 490

When, in the hurrying flux of time, is space for such a meeting? "Sabbath," said the voice; but to that voice a dubious echo sounds from the continuous days and weeks through which are driven crowds that scarcely can remember the name of Sabbath, far less what it meant. Stern Liberty, that lifts the guiding torch above the pitiless map of our compulsions, what tears of bronze you weep to see us rushed

through endless weeks that grant no space for breath! 500 But if we can no longer, or not yet keep the Sabbath, we at least can hold it as the first theorem and the talisman of a world resolved in a well-tempered order we can remember and anticipate, project the circle of a Sabbath kept as the Mother would direct us in this time. Nor should the attention we are bade to bend on Time's appearances, omit to grasp that even this time, that for a time, for many, 510 has locked the sanctuary of the Sabbath, has opened up a space-and-time beyond divisions of the map, the calendar – a metaphor of the world's inner space, though travestied by uses most profane. Might those in whom the memory of Sabbath still lives, not enter into that new-opened No-Land, No-Time (O with what fearful wonder, Celan, you would have warmed this new-found house!) with sacred purpose, and in sacred manner 520 find out the forms that here would be projected by the aura of the Mother's need and nature? Let us suppose a Homepage, to which all that see the Mother's vision could report. The site would sort them into tens (in order of their appearance on the site, at first, though other sortings then could be devised - there's room here for experimental play). To a protected site each ten would send messages which they alone could read, 530 their contributions showing as a single continuous text, each writer posting once and waiting till all others had been heard from before posting again. A further rule might set the length of messages (at least thirty lines, say, and no more than one hundred) or specify that every contribution must be in verse, if only of the kind that seems but interrupted prose – even such can focus our attention on the words, 540 so leave our thought the freer to unfold. Each person, at the practicable hour,

sits down before the screen, lights, let us say, a candle, summons up the current thread (which always would begin with some such prayers as are above inserted). Reads these prayers aloud, reads anything that follows them subvocally, and writes what comes to mind. After two rounds of this, the thread of meeting would be tied off, with closing prayer appended, and posted on that forum as a message to be reviewed by all of its composers, and a new thread would start. In some such manner participants could make their separate times for meditation and reflection, yet their words would in a common form be bound.

Nor would the process of our taking-form end with convening of the group of ten, but when within our ken are two such circles, then every group would delegate one member 560 to meet with others likewise delegated until this circle, also, rounds to ten. And as the compass of the circles grows, new tiers are added. So we might proceed (adapting, thus, the counsel Jethro offered to Moses at the foot of Sinai's slope) to organize, build up an organism, sentient in all its parts, of living minds, envisioning a tenth and ultimate night 570 when in one space from all parts of the globe the inmost counsel of the earth shall meet to speak the song whose images and tropes have traveled like a wave from the circumference and will as clarifying echo spread in widening circles to the outer rim.

But I have overstepped the question how each circle ought to choose its delegate.

How shall we bar from this deliberation intrigue and envy and the pull of force promising conquest; how shall pure discernment prevail over the thousand motivations of interest and evasion, which award the shepherd's crook most often to the wolves?

But yet the method of our meeting might avail us, help us reach a depth where council's voice can sound, unjammed, a height from which the layout of our capabilities might be surveyed by all. Let us suppose a circle, for the fourth time reconvened, 590 who from the minds' acquaintance of three meetings proceed to choose. The first to speak relates such knowledge of each present mind as hearing has given, as though all, the speaker too, were characters in some long-since-recorded chronology, as though what now is heard were the voiced thoughts of some reflecting reader to whose far-distant eye the signs that mark the rightful one stand out in letters clear: the one who has most truly, deeply spoken, 600 who has the largest portion in the word, who with attentive meditation gathers the experience of all into their own to frame each time one message, which the rest acknowledge; in whose vision others see themselves reflected as they know themselves. So one by one they offer their perceptions of the small world they constitute, and of its best coordinator, who appears not so much chosen as revealed. When all have spoken thus, five minutes, then the hand 610 of speech sweeps quickly while each names one name, and it will be the same, the Mother aiding; but if they differ, then the one with largest following is chosen till ten more meetings have revolved, when the next favored is given authority for half the space, and after those five meetings they again choose by the same procedure as before. This is the first and greatest common task: 620 to recognize the one gift that confers on all gifts their appropriate arrangement and fittest uses; and when this is done, all have the accomplishment. The one so chosen they call the Gatherer, and to that office grant powers circumscribed, as in the game of chess one piece may move more than the others:

to be the first and last to speak each time after the opening prayer, before the close, to sound an opening theme and final chord; to change at will the first round of a meeting 630 for an hour's exposition by a speaker who craves a longer hearing for the labor of one mind on some theme that touches all, which they in usual form then meditate; to call a vote, should circumstance require it, although such closures of deliberation that break the circle to a wedge of action and weigh truth on the numbers' scale, are not the aim to which all tends. Rather to see and see ever more deeply and in common 640 and in the common vision-space to gather the worlds they move in: passing in review, bringing to focus in the common vision the causes to which they might speak, the others whom they might summon; learning each from each perspective, strength and skill; making connections. Nor is the hierarchy of the circles a hierarchy of subordination. As in the hierarchy of the nerves 650 that gather and sum up incoming signals, and then diffuse the signals of response, the levels here are mutually informed; nor are these ranks marked off by ostentation. Perhaps when two, or three, tiers have convened those hundred or those thousand might collect enough to keep one Gatherer amongst them free to pursue those studies and encounters that tend toward the formation of Earth's mind and make the Mother present in the world – so little substance needs the word to thrive! 660 Out of those so maintained, the further levels of Gatherers would arise. With added work each higher tier would ask the Gatherers of the next lower tier to render aid. At every level they would keep an archive containing what the files below contain: all records which the members wish to leave for their contemporaries to consult, for coming generations to recall;

and it would be the Gatherer's task to read, 670 to learn from all, and order what they bring with catalog, response and commentary, so as to make it most accessible and apprehensible in the relations among the offerings of various minds, creating, thus, an intellectual room where the wisdom needed for community, secure from mere invidious innovation, may welcome fresh discovery, receive beneficent invention with delight, 680 unfold its consequential panoply of implication, open up its springs of inspiration for resourcefulness; a room that shall ever more presently surround each circle meeting in the shadow and light of Earth. And in that room of meeting shall not our deepest mind begin to see the light of common dream, that vanquishes the power of separation, death itself 690 growing transparent to our sight, till even arrogance shall fade to awe and merge in ever-growing Power-to-make-over?

If through the Mother's presence in our thought these circles can configurate and shed light on our undertakings, then may bardcraft, that mystery of which the word is both material and implement, be seen in its true shape, assume its rightful place among the undertakings of our kind. 700 Wake, bard! The night of Newton's sleep is past, in which the word, the only apparatus of the poet's research and investigation, deferred to speechless numbers, as the too too solid bulk of those material feats made poetry appear a dream hard science should rouse us from. Now the awareness dawns of earth imperiled by default of mind, of mind endangered as our acts impinge on the distracted globe of consciousness 710 with stimuli that sabotage reflection, shredding the cloak of human thought, of human

dignity, which we must now reseam, having no thread and needle but the word—we needs must call upon that ancient trade of making-whole, its purpose long-obscured till it appeared a solitary craft, so often likened to a little boat tossed on the world-sea, far from common shore.

Not simple is the task. For though this craft 720 inhere in us through deep inheritance, come to the human from beyond the human, from the very pulse toward Form that is creation, the incrustations that obscure its nature are old as history. Nor can we claim that this vocation in its natural habit, or any of the styles thereof, is suited to the configuration of this hour. Rather its true shape is yet to be made by us, in light of the great Shape we've seen. 730 We traced its roots down to the deepest taproot of language – to the very act of naming, which in the flux of particles to which all being may be reduced, if so one will, draws a firm line, confirms the identity of shape and thing, and makes them usable for human purposes. The poet, making out of these shapes of sound and sign a greater shape, to denominate a situation, furthers the work of meaning which began with the first name; and now we see that work 740 of meaning leading toward some great completion in which the state of Man shall be made whole as the Creator's Name is unified. But on the way, we see that work involved with many purposes: to keep the laws and annals of the tribe, unite the wills in ritual and warfare, to call good that which the leaders of the tribe decree, to assist the body in self-healing through 750 integrative suggestion, soothing rhythm – in much of which the poet was the servant of the community, the Muse's child, one with the flowering life-tree of the people,

the delegate of magnanimity in the councils of the individual heart, - though creatural self-interest of the host in whose brain the expensive golden bird had built its nest, need also have its voice in the composition of the poet's calling. We saw the start of poesy in mirrored 760 delight of child and mother with the child's growing into the becoming shape of speaking humanness; but rivalry with father and with sibling overshadow that primal sphere. And if at adolescence the blossom from the childhood root appears in the display of mating—where the mind's superfluous splendors mushroomed, like the fan the peacock spreads, the bower-bird's construction, as some believe—then here is further ground 770 for rivalry that vies with common vision in composition of poetic mind. Here, too, the principles of love and strife seem to oppose and further one another, as self-display calls forth receptive mind capable, also, of responding song, enlarges the maternity of mind to see and shape another's faculty the poet and the mother of the poet 780 seem to follow each other into being. And as the wellspring of poetic voice is fed by several sources, various too are the relations that unite or distance the poet to or from the group. When humans lived with the earth on simple terms, the gift of poetry would oftentimes appear spread almost evenly among the tribe, degrees of its possession recognized through mutual self-knowledge of the band. Each had his song, his vision; each occasion 790 called forth its rhythmic comment and response, and the more rich in vision helped the lesser to catch their visionary moments; yet perhaps on average one in a hundred, as educated guesses have surmised, was marked out by the Muse to bear her burden

and be proportionately borne by all. As bands were joined to chiefdoms, as the social gradations turned to hierarchic stairs, the poet figured now as servant to 800 the powerful, maker of praise-songs, now as the diviner of What-Is and voice of the people, speaking truth to reckless power. And here and there, as humans start to gather in the first towns whose annals are unwritten, a half-told tale reports configuration of a collective poesy designed to gather in communicating minds the social body's intricate information: 810 the genealogies, the myths and tales, the laws of family and property, the lore of nature, mysteries of trades, summed and stored up in vasty combs of verse o'er which the prentice crawled for twenty years till he or she became a judge, a priestess, a ruler, even, of a city made transparent to the inner eye of song – The Druids' world, though alien to our own, with different graces, different cruelties, 820 still feeds our song, ironically recalled by Caesar's written record of the odd matters which his troops, reliably dispatched by written orders, made an end of. Through memory external to the mind the poets lost their jobs as memory's wardens and were demoted to mere entertainers dismissible at will—increasingly dismissed, as ways were found to entertain, and at the same time stun, the passive masses. Not that disaster brought no gift. The act 830 of writing, of projecting on a surface outside ourselves, the contents of the mind, could, to the mind that still retained its center, become an aid to introspection, as a mirror can at times reveal to us that which our inner thoughts might strive to hide; and in the poem as a written object through centuries the formal will has learned to concentrate and to enrich itself.

840 as meanwhile in the polity the press proclaimed what power wished, yet also served the people learning and communicating among themselves how best to guard their freedom. But gradually on the whole the poet's ground has shrunk, till those in whom the yen to make a thing of words inheres so deeply that no discouragement can root it out, persist like castaways from some lost world, superfluous to this world, unwelcome in it, or like one roused from sleep by an alarm 850 inaudible to others' sleeping ears. till they begin to lose the memory of what they meant, and fail to recognize each other on the pathways of this world but rival with each other for the scraps still flung to them by a forgetful culture; and envy, in the absence of the READER – of that receptive and delighting mind, empty of singular ambition, tuned to what can speak the human being's need — 860 strikes out the fellow-poet's deepest word and writes the word of literary fashion.

But if the form of Understanding now shines on us, giving focus to that willto-form, which is in us from old inherent, then shall our craft repair and right itself. Already, here, we have begun to read a work that had been shaping since of old, that great poem all poets have built up, like the cooperating thoughts of one great mind, since the beginning of the world, Shelley had said, although that unity for long was hidden from the workers strewn through time and space of Earth and only halfavowing their deep influence and relation. As to our eyes the Whole begins to loom, it seems a play performed on many stages by actors who appear and disappear, each catching just an echo of the other, or like an epic in long relays told, its theme the ever-and-again-repeated

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descent of Orpheus to the darkest deep of human mind and destiny, retrieving traces of vision that become a trail left by the wanderings of Understanding from shape to shape, her showings ever again obscured, from the first hinting half-inscription to Paul Celan, who kept the mother-word in the years when the land of song lay waste 890 and word was powerless to breed true act. And one by one, summoned by bardic chant, the other builders of the Earth shall rise, all those whose thought was tangent to this whole. All these a memory that would re-found tradition, knits into a single council, aided by other images returning: the Table Round, the passing of the pipe, the harp, in Indian or druid circle, the miracle at Philadelphia and that at Yavneh, where the rabbis wove 900 a fabric of community that stood the strain of exile: all the real and fabled precedents for a meeting of true minds. Of all such traces, then, we build a canon to which we may refer, which we may hope to teach, someday, to all that show the gift. To learn this story, learn these songs by heart, to teach the plots, the symbols that recur in dreams that ever and again betoken Her presence and endangerment amid 910 the thickets of the heart and of the world. is to devise or to reconstitute a common language capable of naming and of addressing in constructive ways the multiple predicament of Earth; and in that light we'll pray to recognize each word of one another that deserves inclusion in the storehouse of the Whole, using the sting of envy as a signal 920 and guide to what we are required to hail; studying, too, the writings that assist us to rectify the heart's more twisted ways. Surely, too, we shall frame a code of honor, to counter the temptation bids us woo

with base appeal a most unworthy hearing. And so each poet, standing forth to speak, shall to the minds of hearers summon up the assembly of the makers of all times; and fear of our one Maker may inspire the hearers to not lightly disregard them.

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Would this then be return of Prophecy? Not, surely as the ancient prophets knew it, who could invoke the high authority of the Eternal; yet a lunar shadow, perhaps, that from a sensing of this nether sphere, calls to the same sense in the hearer.

Suppose, then, that the circles we envision configurate, and that the Guild of Bards

can constitute itself (how these two structures would interweave their workings, we entrust to the future thought of those each way convened): these each would ask some space to bring and store their offerings, and meet when time allows. Supernal Mother! I have seen a house whose ground-plan is a hexagon, recalling the Sabbath and the polity of bees (that ancient symbol of the poet's trade): the shape that reconciles contiguous circles, betokening a shadow cast on our plane from some higher sphere (the hexagon can also be the shadow of a cube; Kepler called God a sphere, and man a circle). To think this shape in small or large dimensions, into the heart of every town and city, largest into that heart of hearts that is Jerusalem, perhaps hard by the place

of ancient sacrifice; to show this vision to fellow-citizens, and to expound

as wisdom's workers in particular—, for scientists amid whose calculations

a place that is a listening ear, a mind

its need to be, the hopes that it would hold as meeting-place and archive—for the circles

that meet in search of wisdom, for the poets

the vision of the Whole shall come to stand –

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that meditates, a memory that holds, a voice that speaks for all that live around it, a solid pledge of Earth-mind and Earth-household. Here is employment for our eloquence, and for the other arts as well: for music 970 tuned to such words, for color, line and contour to take the images our thought has called from off the inner retina and show them to outward sight. Great Shape we have discerned, and Source beyond all shape and form, assist us convene our aspirations in this wish! Then give us words to speak to every soul, to every interest that represents a single strand of our entangled care, till one day we be privileged to stand 980

beneath the rafters of Your solid house!

Such are form's miracles we must intend and make for with an urgency of Now that taps Creation's far-sent power-surge; such is the vision which the friends of Earth shall hold, however few at first and scattered among those blind as yet to Her desire, frowned down on by Goliaths of the mind that dwarf the word with ingenuities and wisdom's thrift with ever costlier madness. But even at this hour, not too late if we can find the will to make the start. the word may prove sufficient to the wise. If by the grace of Him who breathed the world we have found out an archetypal thing, a form of action that could represent the shape of shapes which Black Elk once beheld, the binding of the volume shown to Dante, the way things hold together in the hold of Understanding, the Supernal Mother; if these tiered circles, and the House that stands for the world's inwardness, could find beholders, could exercise attraction on the minds of more and many, these might presently configure a communications system relying upon truth from mind to mind

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that may yet send a message undistorted

around the world, in entropy's despite, anticipated in the hearing heart in circles wide as daylight and as starlight, and show the presence in the world of those resolved upon its healing, on the human arising from the struggles of becoming into our greater being and new life.

Chapter 14

The outward paths: implications and steps toward realization in the fields of politics, law, economics, technology. The critical importance of a community of teachers.

We have gazed into the future dark until a point of light appeared, into that point till it expanded into human, morethan-human form, which in its turn unfolded into an order of envisioned actions till upon steps appearing as we climbed we seemed to mount into another world, the real earth lost from sight, save for the beacon which blackest storm- and smoke-clouds roil to obscure -10 of Zion's citadel. Let us return, then, to the scene from which we turned away, and ask ourselves if that envisioned world, the laboratory of our thought, indeed furnished us with solutions that will serve. The earth comes back in focus as that field where fears, each boasting itself worst, contend to shape the nightmares of inertia's stupor: the fear that all the granaries of war we store each year with deadlier bane, may burst and make of us a harvest without seed; 20 the fear our greed, with widening sharpening jaws, may gnaw till it has girdled all life's trunk; fear for the poor whose strength is overmatched ever more by machines and aggregations that rake the sustenance of all to few; and there is fear, too, for the precious air of freedom, for unguarded talk with friend, for sleep at night unhaunted by the sound of boots upon the stair, as the grip of Might 30 tightens on many a land, while those who will liberty and equality, are shaken apart by random impulse, loss of law, and lack of mind to gather all concerns in one, foresee, and plan. How far away appears fulfillment of that last and hardest commandment given to Noah and his children: the building of a State whose courts, whose laws

would equitably administer Earth's household!
Goliath's shadow deepens everywhere,
and only in those lands where it rests lightest,
where individual will still holds a title
to action, might our will to life contrive
to set a lever to the mass of fate.
Then let us reason of the polity
in Western lands, hoping to fortify
some core of resolution, out of which
a strength might radiate to those who sigh
for freedom under harsher dispensations.

Democracy: that name by which the West has termed such leave of absence from compulsion 50 which still is granted there. Its premises are: that each one of whatsoever rank shall have one voice to choose those who shall rule, and that the authorities shall recognize as greater than themselves the laws that shield the citizen from the high hand of power. The law and universal suffrage keep watch on the hierarchies built by function, so that the dignity of all is guarded 60 and a place cleared for free exchange of thought. That is democracy; it is a form effective while, to the extent to which the people live within it, have not moved elsewhere and left the empty scaffold standing. And if that has occurred, then it must be (seeing that we have placed our faith in form) that in their freedom's diagram some corner was left unfinished, or an entire side, so that they have walked out into compulsion unawares, and find ourselves benighted, 70 far from the house in which they thought to dwell. It surely is that in their haste to bar the door against the power to coerce, the founders did not wholly have in mind that there's an obligation to instruct, that liberty must be confirmed by law which is not made by courts and legislatures alone, but by the teachings that descend through teachers whom the Spirit authorized

80 down to the parent lessoning the child. And therefore where the people place all faith in the electoral process, those who see have little choice but to look tongue-tied on while multifarious temptations tunnel their way into the house, and clear it out. Not all at once perhaps, but gradually, as weeds and vermin gradually discover the fields we clear, the houses that we build, and change themselves, the better to infest them, did those who take the numbers for their base 90 learn how to play to ignorance, appeal to prejudice, hold up the seeming-easy answer to the questions of the crowd that less and less knows what it asks, until today they sell themselves to those whose hands are on the dials that synchronize the music, the simulacra, for the mind-stunned mass. They speak like actors what they did not write and thereby win the power to decide 100 on what they little understand, as pressure by bloc and contribution may determine; starting perhaps from the hope of doing good, they soon find strings being tied around their wrists, till the watchers tire of the too-evident puppet-play, and leave their choice uncast. And even those whom urgent warning wakens with message for the whole, appear to take the pattern of their action from this game, competing for the attention of the public with others whom a different urgency, 110 and yet the same, impels. Those who most fear the withering of earth, focus their sight upon pollution and extinction, seldom looking where others point to signs of strain in the economic girders that uphold concern itself, when what was made with care is thrown into one market-scale with wares stamped out beneath no regulating law, or turn their heads to see the advancing shadow of force fanatical across the globe; 120 while those who fear the stopping of the wheels that feed us, or who post themselves as guardians

of freedom, or who seek to shield earth's heart in Israel, see the friends of earth as foes. Where roads diverge, yet all lead to one doom, easier it is to run divided forward under contending standards, than to stay in one place, and consider turning back, or dig with deeper thought to tunnel under the walls that stand upon all obvious ways. 130 To twist the lures for hypnotized opinion that strikes at any bait, so shape and color be fashioned to its reflexed expectation, and to map out, through the mined field, the sea dotted with Scyllas and Charybdises, the one course that would get us through unscathed these are two different arts. The second must begin far from the market and the polls – and maybe far, for now, from learning-places that seem but markets of the intellect. 140 where technical contrivance overtowers humanity, and profitable theory thrives upon differences that advance the individual career, but seldom tend to the building of a common world.

But now let us suppose the Hexagon founded, if only in the mind as yet, that circle of the circles of the circles, that House of Wisdom, Sabbath-space to which the seekers of the peace of Earth, however schooled, however occupied, repair with tithes of thought, linger in company of friends, listening long to song and story, then once again depart toward various fields that now divide the Earth. Starting from here, let us now follow for a little way only, the outsets of so many quests!

Let us begin with Law—the law once given to all of humankind, as we have heard, forgotten long in history's rough and tumble, but now once more to be articulate.

We know there is no life without a form, nor is there form that is not based on rules.

And as the individual body, so each group that has duration and coherence, is constituted by some law, unwritten or written, known or unknown to the members. Likewise the consciousness of Earth as one body, implies a law that could sustain it. That Hidden Law, which from the Earth's foundations 170 must shine up at this hour when they lie so nearly stripped, has shown itself through time in patches to our deepest sense. These patches we shall connect, and with the picture thus obtained, compare the tablets of our codes, from international through national and local law, down to the rules unwritten and written of the circles where we move. even to the workings of the private heart, where love and law inextricably entwine. 180 As love recalls us to those selves that fit the Mother's hope for each and all, and binds those who respond in a more perfect union, so may within the social sphere our voices acquire concerted resonance to enlist compulsion's power to remove the snares set for our worser minds and weaker moments; may legal minds, in trust united, clear the thorny thickets of prevarication where darkest motives have carved out their dens, 190 the unfathomable mass of regulation that ever at grips with the complexity of new contrivances conceives itself! They surely shall find legal means to tame that greed-born behemoth, the Corporation, that in our parliaments has risen claiming, in speech where money most unseemly talks, the stature of a person, though ungoverned by any consciousness of human image, 200 threatening personhood, unless we can find measures that may dissipate that shape or plant in it a brain that has a conscience. One measure's clear: a law that centers on the human image as we need to be to tend the earth, would know how to define and ban abuses of the human image,

decree that it no longer be hung up as a signboard for commerce, to depict ourselves as puppets of our own possessions, and these possessions too as empty counters 210 of power, not things in which the dignity of Earth presents itself to sight and touch. If images and words, we think, have power (in which belief resides our only hope), we must affirm the human form as sacred, surround it with the sanction of the law, forbid its venal use in advertisement offense by nature public, and the easier banished, without the aid of sleuth or spy, and without harm to freedom of discourse, 220 which rather thrives, the more our heads are clear of the conditionings such parodies of human life and human form impose. And from reaffirmation of this sacred we could proceed to ban from public space from every space that social power can reach the shows of cruelty, that to our worst offer the image of the violent act, who like the Colosseum crowds cheer on the doers, of whose deeds we wash our hands. 230 Most deadly to the common mind is fear of one another; and therefore no less than those mercuric effluents that stun body and mind, should we from circulation withdraw the sights that stimulate such fear, relearn, if not the teaching of the sages not to place stumbling-blocks before the blind, at least the wisdom of the Greeks who, highly thinking of freedom, banished from their stage all direct showing of the dreadful things, 240 the mysteries of force, on which they brooded: so drama, by that net of prohibition prevented from the plunge into the abyss, might find itself compelled again to climb, become once more a public introspection, showing the steps that lead toward the abyss and from it, and enlarging choice and wisdom. Let cruelty in obscure rooms thumb over its hideous pictures, where to seek it out

250 would strengthen force and fear among ourselves; but let there be again a public space clean of it, by purifying statute set by the people in the highest seat of fundamental law. Then even some whom lawless competition now compels to court the mass addicted to sensation with ever higher doses, may be freed from crime's necessity, and in the confines of decency may better like themselves. The Law: it lives not only by enforcement, 260 but by acknowledgment, by being set – through the deliberation of the people in council where each thinks of what is right for all, not of their own particular wishes – as standard raised above the plane of action, a standard without hands at times, and yet felt as a presence and an influence. Thus even where it is not yet enacted, its presence as a shape configurating 270 in more and more communicating minds may yet take gradual effect until it win consent and so enact itself. So might that best prayer for democracy at last be answered, and its soul confirmed.

And likewise to each place where interests clash do Understanding's advocates fan out, bearing a thought that could impart itself not otherwise than as the parents' word is uttered to the children, for one purpose only: that they should learn wisdom, and live. 280 If the medium is the message, then the medium of needful message is the word that bears the touch of care; it is the example set of diligent attention to the world and earnest effort to communicate for all life's sake, in a play of restoration to be enacted on a hundred thousand stages, each one a part and microcosm. It is not the war of classes, though a fair apportionment of what technology must, uncorrected, rake to ruthless hands,

is inescapably an aim included in the direction of a general justice; for it asks justice even of the oppressed not to oppress in turn, but to lay down each grievance at the feet of the one Wisdom that takes them up. It is not strife of races, but equity based on a single standard measured by light of insight shining through 300 both skin and custom, probing to awaken all humans to Circumferential Mind. Nor yet is it the battle of the sexes, rather a quest for wiser combination of powers, though it lean against the rooted pull toward a dominance which ever again obscures the attributes we need to call on, the individuals we need to see and set in Gatherer's place, to give the Mother a home on earth, for the sake of every fairness, for the sake of universal parenthood 310 and care for life of coming generations. By the sharing of our knowledge in the way which we have seen, we shall in time construct a matrix of response, that to the people at large can recommend corrective measures not hit-and-miss and at cross-purposes (while with undeviating massive logic the systems of self-interest function on), but from coherent sense of what is needful, 320 setting agendas and proposing laws, pointing out honest candidates for office, that suffrage may have meaning once again.

Hard by the road to Law, the way departs toward Economics: often will these two paths interlace themselves beyond discerning; for half of Law is what belongs to whom, and all our paths of interchange were paved, our castles of possession fortified by Law. Yet Law is not identical to the logic of the marketplace, whereby, today, that which is bought and sold too often sells and buys the buyers and the sellers, makes people over to suit market needs

or casts them off as superfluities from a commercial process more and more tended by robots, owned by robot-owners— Law issues from the center of the human, however it be wrested from its source by Commerce.

Commerce: ancient as the Word; production and exchange, as deep-ingrained 340 in the human fabric as communication. We saw how from the dawn of our awareness our fate was intertwined with manufacture: hunting called forth the weapon, gathering the vessel; once our language had configured its stock of names, its armature of syntax to grasp the world with words, our thinking also guided the fingers to articulate and to extend itself in implements 350 increasingly ingenious; and each such extension brought new needs and new devisings, and for devices, pathways of exchange. To give one thing so as to get another is one sleeve of primordial human habit, singling us out, as much as syntax does, from all the animals that beg and rob and have some dim conception of the sign; though in our early aggregations, small enough for mutual knowledge, it may be that giving, which created obligations 360 the memory of kin retained, to be repaid upon some later need, sufficed; but with the enlargement of the group evolved the realm of money, measure of all things, keeper of value out of memory, which, with contrivance keeping pace, expanded to calculations more abstract, abstruse beyond the buyer's simple reckonings of need or wish, and means. And with each new convolution of complexity, 370 widens the distance between those who need and those who at more more removes supply them and gradually learn that need itself can by manipulation be reshaped to the convenience of manufacture.

the buyer modified to suit the product, even as the production comes unlinked from human labor, as things made by man acquire the skills of man, from the arm's heft of hammer in the mine, the fingers' threading of warp and weft, or copying of letters, the brain that tabulated cost and price, now even the mind interpreting the symptoms of illness, the provisions of the law! Until it seems the pay of every labor, each craft, each skill, and even each profession must be diverted to enrich those few who skill is in the making of machines or acquisition of the means to buy them, and almost all save those who make machines or own them, or who navigate the sunless global ocean of exchange of values from human values more and more divorced, can in John Henry see themselves, whose human muscle and heart were overstrained by steam. And how shall we now measure our own worth, used as we are to measure it by labor, by our hands' work, whose occupation's gone? It is not, perhaps, the worst, that in the market the price of labor sinks to less than buys the needful for a dignified existence; rather that, being so bereft of function, having no gift to bring the world, and finding no use for their best powers, many see no purpose and no meaning in their lives and grasp the anodyne of passive pleasure which even in want they are supplied, or find in cruelties their compensation. And even as work itself becomes a good difficult to procure, much needful work remains undone: the nurture of the child neglectfully performed, resigned to strangers – that sphere contracted whose expansion once conferred on humankind its excellence and high preeminence above the creatures that, soon born and soon finished, unreflecting, feed, mate and perish! Nor is youth provided with such instruction as may help them stand

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against temptations and seek out the good, becoming what the world needs them to be: 420 those studies known as "the humanities" become dehumanized and are defunded, and it is long since anyone has deemed the poet's labor worthy of much hire. It often seems which that which is most needful has the least value in the market which remains as only arbiter of value since, like an acid bath, invention's progress dissolves community and then attacks 430 the cell of family, and at last splits the individual into selfish fractions to each of which a different bait is offered – none left to buy what benefits the Whole! The laws that govern number, and permit our restless ingenuity to father the endless line of engines answering each some discrete demand, solving some problem to benefit the solver, seem to issue in a world void and without form, Creation's undoing, as the bottom line dissolves 440 to dots of nothingness.

Too, we have seen

that even as the logic of material contrivance has evolved its consequence, that power of speaking by which Aristotle and Israel's sages designate the human seems rather to be withering than unfolding – the poets, memory-makers, idled first by the devices that displace the human. Too, language by its nature is averse 450 to being made the property of one who then can trade it; poems are not sold as paintings are; the word belongs to all, however commerce struggles to constrain it. A poem is a thing of no location; given to one, it is not kept from others, nor is it alienated from its maker. Praise may be purchased, true – and so may silence; but these, like justice, are commodities worthless when purchased. And when commerce learns to lay its yardstick to the round of time 460

and mark off hours, each worth so many grams of bread, the tangle thickens. For who can present the log of hours the poem took to fashion from experience and desire, drawing its threads from past and farthest future, its instantaneous form?

But all this is the sign of poetry's appurtenance to an order that commerce in its hypertrophy threatens: the order of the word, which also is the order of the home, of kin and friends, wherein the child matures to personhood and to the stature of a citizen.

Here, at the best, it has sometimes been true that all receive according to their needs, that all contribute what they have to give.

Here, at the best, it has sometimes been true that all receive according to their needs, that all contribute what they have to give, that property is an appropriate belonging, that the thing has dignity, and that the house was built to house the dwellers, and not the dwellers shaped to fit the house, love keeping no accounts but rather counting on each to do their part, on that good feeling by which the presence of good faith is known. The family! an institution, true,

too often marred by private tyrannies, too often praised by certain who refuse to understand how their own enterprises impinge upon its walls; while those who flee it or would correct its tyrannies, take refuge in anonymity of public action where good intentions struggle to define

in anonymity of public action
where good intentions struggle to define
an all-too-abstract right that seldom fits
the persons. But the House of Wisdom stands
between the private and the public, as
a place where knowledge of particular things
is gathered and summed up, not to a number,
but to a picture wherein each detail
has place and meaning, where ability
and need are known and can be used and filled,
so chartering an economics based

not on the unchecked working of the market which toward corruption tends to fall and drag the humans with it from the social center,

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and not on centralized control that makes the people one machine, to grind out goods ordered by overlords of dubious conscience; rather on free endeavor counterpoised by organized awareness and good judgment – a weight whose composition is the alloy of carefulness for life's involved domain, for worker's just reward, consumer's health, 510 for honest value of the hard-earned coin, for best use of materials, by which the earth is honored; for just government by those whose ears an honest word can reach for beauty, in a word which is the sign of opposites resolved, of many gathered in one, of true economy – it is the splendor of that truth which is our life. As on those great trees in Ceylon alight 520 male fireflies, and all at once give signal till the whole tree flashes a code of light and dark, and this is possible because the females would be blind to one who flashed out of time: so by consolidation of our responses to result of action that's gain-inspired, we may turn competition into a vying for who best shall please our household spirit, and so earn reward. Thereby we shall enlarge again the home, which now is shrunk so that the sellers hawk 530 their wares in every living-room, the mothers scatter to jobs, the children are farmed out to strangers' care and to the free-for-all of peer-groups that too soon teach herd-behavior. If there's to be a future for our foresight, then we must see the children of our kind have shelter in a motherhood instructed, made one with our encompassing concern, and this will be made possible as by the strength of promises redeemed, more can 540 entrust themselves to love, and work for love which rightly shall bestow what now is wasted by stimulated vanity and greed. Upon our vision dawns at hope's horizon, as asymptote of hyperbolic striving,

a state in which the word, winged emissary from the spirit of the whole, rules all exchange! Yet order less extreme could be envisioned, where economic contest still continues the dance of rivalry, that stimulates 550 enterprise and invention to provide but is constrained by rules that set a limit to the effects of contest on the world. In place of work, a spirit of wise play would govern our endeavors, till the game of enterprise would be a game indeed. As war refines to sport, so that the victor receives rewards, but wounds are not inflicted because of rules that chasten competition, so in the contest to provide, the winners 560 might gain points and prerequisites, apportioned in the division of the aggregate profit, and thus have honor, yet not at the expense of others' vital needs. Thus would incentive be reconciled with service to the Whole.

If such be possible, at least in thought, then not quite vain was that imagination, which trailed material cunning's headlong course, of labor's end, the lifting of the curse laid upon Adam, the return to Eden! 570 Could the shofar of the ultimate Jubilee be sounded in the halls of Economics: could it be promulgated and accepted that the laws of the material creation. once mastered, may not only serve the few who ride that whirlwind of unceasing change, but must revert, with Earth and all its fullness to the original Maker and Possessor, and it is laid on all who know to find 580 some algorithm of redistribution that will restore the dignity of Man released from labor, and on Earth re-sow beauty and thrift in place of sordid waste; could those assistants toiling without sweat toil equally for all, and if for idled hands and minds some play could be devised to make life's game again seem worth the candle,

then it would be as if we were allowed to taste, at last, the fruit of the Tree of Life, which would so sweeten that of the Tree of Knowledge 590 that we then could get back into the saddle and put a bridle on Technology, which now is threatening to recast the very genetic mold to serve commercial ends, while minds that lose the good of the intellect confuse themselves with their contrivances. But yet—like oxygen, that threatened life till life learned how to harness its reactions, or like the written sign that made so many deaf to the inner voice, yet held for some 600 a mirror to refine their inner vision computers, if we cling to self-awareness and mutual aid, conceivably might help us configure a communicative matrix that could objectively coordinate the data of our needs and our resources, the effects of action on the sphere of Earth – reflecting, thus, our consciousness of Earth and helping it to implement itself.

"From each according to ability, to each according to his need" - that word among the friends of Earth shall yet unfold; as in the circles which we have described the knowledge of particulars shall grow, to be stored up in the archive of each level, shared by the Gatherers in widening circles. The Gatherers and poets shall set tasks, match need and gift, instructed by a sense of the great Composition they are weaving, on Its behalf appeal to Wealth, while Wealth holds power, and perhaps at last persuade Wealth to yield half its kingdom, at the least, to the association of the Parents of Earth, who with wisdom would distribute the bounty which production has amassed and place upon Production such demands as may be consonant with the health and beauty of our surroundings, and with human growth toward ever more magnanimous horizons.

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Here woman's intellect might find its scope, 630 at last be comprehended and employed as surely it was meant to be. Less fitted are women, on the whole, for those endeavors that make men great discoverers and gainers; great feats of memory, great skill with numbers, leaps of invention, are not often theirs; yet to their minds the central gift of language which makes Community, is most entrusted, and they are listeners, receptors, echoes, 640 critics at times, to what men may produce. They tend indeed toward *mediocrity*, that middle in which balance must repose, in which the true proportions find themselves, and things appear as forms to their perception and are less broken down. This is perhaps that "extra understanding" which the wise could see in woman. If it could be cherished, then as Distributors there might rise the representatives of Her whose shape we traced through the better dreams of humankind. 650 Such figures could not rise in man's despite, for She is fashioned not of women's being alone, but of the memory in man of infant need and its maternal answer. Beyond the circle of that early spell man has been given power to determine not only what becomes of woman but what she shall be. If he could but elect to see the mortal woman in that image and—as a fellow-actor on the stage 660 supports an actress, chosen as the best available to play a numinous role heed her when in such quality she speaks, then with the One who as man's counterpart and helper fashioned woman, man would share the honors of this crowning of Creation!

Indeed the making of the human being into that Image that was first intended before our hasty grasping after knowledge of separate things condemned us to distraction

is surely our first industry, which now we must resume. Here Israel again offers a precedent, in those who sit and learn the Law of God as their sole labor, often rebuked by those who would return them to tasks now grown superfluous! Not idle their way of life, but to be emulated, adapted to the life we learn to live in the light of our new leisure and the abundance that shall accrue to all when wisely shared.

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Such are the bridges that we cross in mind before we come to them by roads of action; upon such errands would the House of Wisdom dispatch us, each according to their knowledge. Too gradual this way may now appear amid the yapping of emergencies from every side; but it is swifter far than enterprises greatly undertaken but badly underpinned, that tend to list 690 toward unforeseen disasters, or subside in listlessness, when the job remains undone. Just as that hero sent to stable-duty would not obey the seeming-foolish counsel to turn the shovel round and use the handle till desperation at the toppling offal made him decide to try the strange advice, and soon the place was cleared – or as the sage who found the short way to be long, returned to the long way that was short—may we be governed by intellectual consequence that leads us 700 away, at first, from the scene where we desire to act, into an inner world (arcane as atoms are, but no less real), from whence we may return with force that will not fail, a force that is not daunted by our numbers (at nine or ten removes, it has been figured, each one of us is personally acquainted with all) nor scattered by the thought of Might, however we may have to flee or fight it. We know that, first and last, it is the mind as principle of gathering and awareness must find some language to the scattering forces

and conquer not by them, but by itself; yet we suspect (again the ancient tales mutter their guidance) that, like all the powers that constitute our being, Might must have its invitation to the feast, or else will surely come, unbidden, with its curse. The sages knew that mercy to the cruel is cruelty to the merciful; nor will 720 a war-bent horde be stopped by flags of peace. Peace! word so often wielded as a weapon against those who desire it most, to buy the not-yet-set-upon a space of ease! There is no peace save as a common will to justice, schooled in forethought for the whole, has strength of arm to hold in check the violent who would burst forth to overwhelm the just. Force against cruelty employed is noble, as from the faces of those youthful heroes 730 whom Israel's dire need has made and lost radiates; may the world's vision, to such sights clearing, relieve at last that agelong siege!

In the shadow of all threats let us hold fast the vision of another *globalism* that from Earth's atmosphere's circumference looks down on all her tribes and seeks again its center in the home of Israel, whose thought first rose to meet the eternal Will and brought a pattern down for human action. May the world know that with them is endangered the conscience of us all! After the knowledge of direst crime against them, what forgiveness, what peace, without atonement, which must surely import safeguarding of that seedling saved from the great conflagration, and replanted on devastated soil amid what storms! But if that half-made promise of atonement could solemnly be reaffirmed and kept, then it might seem there was a Providence even in that homogenizing process that blurred so many boundaries, that dissolved so many patterns of collective life, yet left the kernel of that nation's life

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from which the rest, in more harmonious patterns reflowering, may yet arrange themselves; and if that sanctuary which was once a house of prayer for all the nations could arise where cursing long has made its den, what blessing might stream forth upon the world! what counsel for all lack and all division! And from that people's nursery what sages, what matrons and what captains, who will gather earth's people in the shelter of her law, till the sky's roofbeams once again are made secure, and sunlight falls, an unmixed blessing, upon a world made safe at last for life.

Chapter 15

Vision of a future Earth.

The tale of Earth and its long generations, of humankind, its character and fate, of hope implicit in the human life-form, is told, so far as one alone could tell it, and the advice of heaven and earth conveyed, and I am quit of this great obligation, save that before I turn to go my ways and leave this word to travel as it can committed, both, to that eternal Wisdom 10 and Understanding that must hold us all the vision of another Earth entreats that I should set it down: an Earth on which, by such magnalia as may be hoped from spirit grasping after higher form, the path marked out hereinbefore was long since taken and followed, and what seemed to us the unattainable is firm possession of human generations, age on age. It is an Earth that has known good and evil, 20 that knows the evil still, yet chooses good in vigilance that is heroic feat enacted on heart's field by night and day, reenacted in the imagination and celebrated with the turning year in feasts commemorating the redemption from what had seemed inevitable fate of human being cast into a world of lightless forces, yet at last released by insight and the vision of the One from Whom shines forth the Star of Understanding, 30 that Point, from which the ground-plan is projected of Israel's Temple and, around it ranged, the well-proportioned house of humankind, the laws of Israel and of the nations, the seasons of the turning year, the stations along life's road, each marked with some remembrance of going forth from Egypt, of the alliance for world's integrity, that overcame the impediments encountered in the heart and all the outward shadows that they cast, 40 recounted in the courses of instruction that bind the growing scion, man or maid, to vigilance at the light of consciousness, that seal again the universal contract of marriage for the sake of life to come, secured for good against the might of fear, the hissing counselors of envy, and the undertow of violence pleasure-wrapped. Still meet on earth the circles of good counsel, joined everywhere the first night of the moon, 50 hearing the word each finds to say, then sending the wisest to a new assembly met the second night, till when the orb is full they gather from all corners of the earth – perhaps indeed no longer in the body but in some room in the world's inner space by all-intentness hollowed and made firm for the hour of Understanding's fullest light – and then to the peripheral assemblies 60 return by stages, like the emanations of Divine Being in the Kabbala. Because the circles call on Understanding, the true name of what holds the world together, it does not fail them, nor in course of time does dissolution creep into that form, but ever again discovering itself in what is new each day, it can absorb Time's messages, and find them answers from that ground that has the clarity of light, the restfulness of dark; whose light and dark 70 illumine now a stage where the play of life goes on, yet has assumed another meaning. Those born into that world are not abandoned to grope their way toward whatsoever tree chance and the random urge plant on their paths while half-told tales confuse the paths of guidance, but of the stream that flows from Sinai's height, to which all other streams are tributary, they drink with their first taste of human speech. Secured from doubt they learn their origins 80 in the long double spiral from the dust and in the hidden pull of future being; they learn to see the pattern of their acts

just as they learn the alphabet; they learn to read their dreams, to catch the inmost voice in those songs which the Mother of all minds bestows, as talismans of integrity, upon each of her children. They become versed in the symbols and the signs that show both enemy and friend within themselves, 90 they learn to look Medusa in the eye, to slay the dragon; and they also learn to see, awake, the partners of their dreams, their destined kin. For of such bonds, cemented by tokens of the single dream that are like halves of broken rings to which one seeks the complement, the social fabric's woven, in ritual but solemnly displayed. Through friendship they interpret one another to those more distant in the mind; and those 100 who find with quickest sense the inward ways that run from mind to mind, are known to all from childhood on, as humankind's true guides. With calm exactitude the ones who teach them. like scientists that study living things and minerals, find out the properties of every mind, and see where it best fits the enterprise of planetary maintenance to which the race is pledged, and what must be 110 pruned in each temperament for higher growth; and such is possible because the voice of common thought has silenced strife of rank, so that to one circumference and center all orient themselves, and every gift they husband as the property of all. Through the direction of the inner eye youth finds its mate; and that same wisdom calls the children, one by one, into the world, to place prepared and kindred expectation. 120 It is no world of arbitrary freedom that proves itself by choosing to destroy rather than carry out another's will and makes a world mechanical, condemned to repetition of monotonous act, the same, the more variety is sought; it rather is a world of binding insight

which being acknowledged forms the stair whereby mind mounts to contemplate a wider circle of forms, of lives, and to gaze deeper in to the nature of the universe, dispersed 130 by scattering force to endless realms of space which yet are spanned and gathered in again by sympathy, by love that overrides both time and space, forming its vehicles even of the very matter of dispersion, and, at the limit, overstrides the thresholds of birth and death. For if the cracks be closed that sunder mind from mind within this world, the world of separation, who can say 140 but that the dead we exile with our fear might move with certain presence in our midst, their destiny unfolded to our insight, and the unborn make known their will to be as to the singer's ear the song announces its coming while yet inarticulate? And as the single sphere of all our knowing becomes with generations more intent, who is to say but that its listening might find the inner path even to the stars 150 despite the distances that yawn before the farthest surge of our Icarian skill, and we in true dreams given through the spirit of unity, from other worlds made one even as ours, might visit far beyond the event-horizon of material light? Not upon curiosity alone, if the hope that inspired our thought has substance, the boon would be conferred; only on mind that sought to read Creation as a book showing the Author's thought, and to partake 160 in the Creator's wisdom and delight; so might the Consciousness of Earth become a microcosm of universal mind, as in the single human we behold reflection of the Consciousness of Earth: the final evolution for which ages of life lived on this sphere might be enough, before the final cataclysm shatter this husk of rock, and spirit that here built

a dwelling to its measure, be ingathered to the eternal being, to be sent forth on new errand, or held beyond all time.

Has all this dream a substance? Dark and cold

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the surface of the present closes over the vision. We have built but to destroy, and perhaps also that above destruction the rainbow of the might-have-been might form, or that, the mass of this world being crushed, a high Discernment, housed in some dimension that is but tangent to our own, might cull from the debris some insight, like a crystal in which the lost is magically contained. Or is it indeed for nothing, and the sense of inner destiny a mere organic delusion of the cells? Of this we know no more than Pascal knew, when he declared all faith a wager; yet he also said that the true knowledge knows not till it loves. We know that love alone could yet restore the face of the creation we have marred, vet it cannot be love for what we have been, who have become the unmakers of this earth, but love for that which we would need to be in order to reverse that entropy of which we are the motor; and therefore as mirror of our own reformed self-love that distant world appears. May we behold. May you, whether or not you are to be, O our descendants! dwellers in that dream. friends in the future, at whose festivals we would be guests, attend us, that we live not in this hour alone, but have safe-conduct through the turmoil of those who pursue survival at the price of all they are! I gaze into that world and seem to see

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Soul of the world, O shadow-light projected from the Source beyond all being: it is done.

them lift a hand in greeting and in pledge they will, against the dead weight of our past,

will their being, and so draw us on.

Do now the rest, if more remains to do: find this word ears; and guide my further steps into the room of minds that will themselves, as this one does, to the Consciousness of Earth.

NOTES

Nothing is so inimical to "scholarly accuracy" as the process of poetic composition. As John Livingston Lowes points out in *The Road to Xanadu*, his account of the composition of Coleridge's "Rime of the Ancient Mariner" and "Kubla Khan," the materials on which the poet draws must be absorbed and subconsciously assimilated to the point at which they lose their own identities, before a new whole can take shape from them. Thus, *The Consciousness of Earth* draws on many sources, not all of which I am able to identify, but I have tried to identify the sources of the most important ideas.

The Road to Xanadu helped crystallize one of this poem's organizing concepts. The light shed on poetic creation by the demonstration of how the creative imagination worked upon a chaotic mass of information, seemed also to fall on the creation of living forms, offering a tertium quid to reductionism and "creationism" as crudely understood. This intuition resonated with the hypothesis of the "self-organizing universe" (see Ilya Prigogine and Isabelle Stengers, Order out of Chaos, also Lynn Margulis and Dorion Sagan, What is Life?, and Freeman Dyson, Origins of Life).

Chapter 1

The opening passage is adapted from Schell (Avon, 1982, pp. 153-4). The notion of a "consciousness of earth" asserted itself, as I noted in the introduction, in response to Schell's title The Fate of the Earth, as a protest against fatalism. The opposition of consciousness to fate is, of course, an ancient one; it is part of the debate between the "Hebraists" and the "Hellenists," the former claiming that a direct relation to the Creator of the Universe exempts one from the entanglements of fate. This attitude is exemplified in the saying "Israel has no horoscope." It is particularly associated with the figures of Abraham and of Rabbi Akiba; it was reasserted after the great recent catastrophe in Erich Gutkind's mad and magnificent book Choose Life (which, of course, like this chapter, echoes Deuteronomy 30:19), and (as I read it) in Paul Celan's "Meridian" speech. The "Meridian" seems to me to be moving toward the concept of a consciousness of earth. More widely known are the theories of Teilhard de Chardin (The Phenomenon of Man, The Future of Man, Human Energy) and J.E. Lovelock's Gaia, with its idea of an organic intentionality guiding the ecosphere as a whole. Lines 56-58 echo the Hasidic perception of God's desire for a "dwelling-place in the nether regions."

Chapter 2

"...that they are nothing more than its decrees..." I am indebted to Rabbi Haim Tabasky for explaining to me the view that while "natural" and "miraculous" events proceed equally from the Divine will, the "natural" laws represent a "vow" on the part of the Eternal to do things in a certain way.

"In the beginning..." The "Big Bang" theory of cosmic origins is here conflated with the Second Law of Thermodynamics—a poetic conjunction about which I have heard differing opinions expressed by scientists.

Chapter 3

"...pledging our consciousness no happenstance... but primally envisioned end of all": The idea that the universe looks as if it had been designed so as to foster consciousness is known as the anthropic principle. Martin Rees (*Just Six Numbers*) has countered this with the "multiverse" hypothesis, according to which all the possible universes eventuate, so that a life-fostering universe would represent only another random variant.

"Was the decree cast in that fiery furnace..." This passage replies to Steven Weinberg's *The First Three Minutes*, and generally to the tendency to identify temporal priority with causality.

"...twin particles that, separated, act/ as from a placeless joining..." This is Bell's experiment, as described by Gary Zukav in *The Dancing Wu Li Masters*.

"...psychic force that deigns to show its hand..." See the extensive treatment of "parapsychology" in Chapter IX.

Chapter 4

Some of the recent (or, by this rewriting, fairly recent) theories on the origins of life are summarized by Freeman Dyson (*Origins of Life*) and by Lynn Margulis, Dorion Sagan and Nils Eldredge (*What Is Life?*).

"... cells entered into other cells..." : based on Lynn Margulis, Symbiosis and Cell Evolution: Life in its Environment on the Early Earth.

Chapter 5

The account of primate evolution represents an overlay of several different theories. Among the works consulted were Richard Leakey, Origins; Alison Jolly, The Evolution of Primate Behavior; J.B. Birdsell, Human Evolution; and Edward O. Wilson's Sociobiology. To describe the evolution of human behavior is to enter a complex discussion with social as well as scientific meaning. Sources for the first writing included Peter Kropotkin's Mutual Aid; Margaret Mead's Sex and Temperament; Desmond Morris' The Naked Ape; Lionel Tiger's Men in Groups and The Imperial Animal; Adrienne Rich's Of Woman Born; Dorothy Dinnerstein's The Mermaid and the Minotaur; Levi-Strauss' La Pensée Sauvage; various essays by Stephen Jay Gould; and Melvin Konner's The Tangled Wing: Biological Constraints on the Human Spirit. For the 2004 edition I consulted Carol McGilligan, In a Different Voice; Richard Dawkins, The Selfish Gene; Elliott Sober and David Sloan Wilson, Unto Others: The Evolution and Psychology of Unselfish Behavior (a plaidoyer for the theory of group selection); Ian Tattersall, Becoming Human (on the Neanderthal and other early humans); The Evolution of Culture, edited by Robin Dunbar, Chris Knight and

Camilla Power (in that collection, Geoffrey Miller's "Sexual Selection for Cultural Displays" supplied the speculation about courtship as a factor in the evolution of intelligence); Dunbar, Gossip, Grooming, and the Evolution of Language; and several works by Derek Bickerton, particularly Language and Species. The reference to the Uncarved Block follows Bickerton, p. 93.

What came into focus in the more recent readings was the view that human evolution has been driven by language, as a tool of both communication and cognition, even more than by tool-making. Long ago, Aristotle labeled man as the "speaking" (in contrast to inanimate, vegetable and animal) being, a terminology that has entered the mainstream of Jewish thought.

Chapter 6

The list of characteristics of human societies is taken mainly from Wilson's Human Nature; the observation on syntax and association is added. Christopher Boehm's Hierarchy in the Forest and Derek Bickerton's Language and Species filled in some gaps in the picture of language and society. The passage on the original role of the poet draws on Shelley's classic "Defence of Poetry," Richard Moore's "Poets" in *Pygmies and Pyramids*, and scattered observations in works on sociobiology and anthropology. If the latter disciplines have yet to focus on poetry as a key to human nature, this is doubtless due to poetry's apparent superfluity in technological society. The cathedral as metaphor for the human mind is taken from Steven Mithen's The Prehistory of the Mind; juxtaposed with this image is Kafka's image of Gordon Childe's The Prehistory of a castle composed of huts. European Society and Man Makes Himself furnished some of the details in the account of Homo sapiens' early progress. For the development of agriculture and civilization, the main source was Charles Redman's The Rise of Civilization.

I believe that at some point I read some works by Mary Midgely and derived something from them, and regret that my recollection here is not more exact.

The description of the figures from Old Europe comes from Marija Gimbutas' *Goddesses and Gods of Old Europe*. Gimbutas' idyllic picture of the pre-Indo-European past is counterbalanced by some observations and reflections from Lawrence H. Keeley, *War Before Civilization: The Myth of the Peaceful Savage*, which compiles prehistoric and recent evidence of violent conflict in primitive society (and is a very impressive work, written with dispassionate carefulness, on the nature of war and peace).

"But knowledge travels with another pace..." Here I am again summarizing Schell (pp. 101-103). On the nature of technology see Ray Kurzweil's *The Age of Spiritual Machines* (to which an extensive riposte, "I, Human," appears in my *Handbook of Macropoetics*). Joseph Needham's *The Grand Titration: Science and Society in East and West*, which examines the reasons why science came to full flower in Western rather than Chinese civilization, furnished much material

for this chapter, including the discussion of Galileo's method. Also helpful was *A Short History of Technology from the Earliest Times to A.D. 1900*, by Trevor I. Williams and T.K. Derry.

"The way a star in burning fuses first..." This passage was influenced by Jeremy *Rifkin's Entropy*. On the mineral resources problem, see Eugene N. Cameron, *At the Crossroads*. Herbert Daly's *Steady-State Economics* was also useful.

Chapter 7

Most of this chapter is based on ideas which during the '60's and '70's were "in the air." I have already cited the sociobiologists as proponents of that form of social Darwinism which made a comeback in response to the "liberation" movements. Additional sources included Joseph Weizenbaum's Computer Power and Human Reason: From Judgment to Calculation; Jerry Mander's Four Arguments for the Abolition of Television; and Edward S. Herman's The Real Terror Network, an early exposé of capitalism's effect on the Third World. Mander's In the Absence of the Sacred, published between the first and second versions of this work, offers a very similar view of late capitalism. The view of Marxism taken here is that of Gustav Landauer in his Call to Socialism. In an essay written around 1920, the poet Ossip Mandel'shtam, who in the '30's was to fall victim to Stalin's purges, used the images of Egypt and Babylon to describe his premonitions of the Soviet future. This writer once visited an atelier in Kiev where only colossal statues of Lenin were being produced. The Easter Island parable is the theme of Paul Bahn and John Flenley, Easter Island, Earth Island. The view of the Hellenistic or Second Temple period is based on extensive reading during the 1970's. Timothy Freke's provocative The Jesus Mysteries brought certain aspects of this period into sharper focus and led me to an older work, Samuel Angus' The Mystery-Religions and Christianity. The view of the "third great monotheistic religion" is based on its own scriptures (Arberry translation) as well as a number of books by sympathetic observers such as Raphael Patai (The Arab Mind) and Jonathan Raban (Arabia: A Journey Through the Labyrinth). For the history of the Arab empire see Philip K. Hitti, The Arabs: A Short History. Several works by Bernard Lewis were also consulted.

"...humankind's breath-stop of recognition...": an echo of *Atemwende* (breath-turn), the title of Celan's fifth collection.

Chapter 8

"...and would it be for us/ or for some creature which we almost were..": Lately, on the Internet site Goodreads, I saw this remark by David Gross: "I wonder if her outlook was intended for some post-human species and landed here by mistake."

While revising this section I encountered the thought of Sir Karl Popper (*The Open Universe* and *The Open Society and Its Enemies*), who also felt the need to ground human freedom in a scientific view that leaves room for the undetermined.

"Easy is descent...": cf. Vergil's Aeneid 6:126 ("Facilis descensus Averno...").

"...and not a way/ that we can go?" Schiller's tragic hero Wallenstein prays: "Show me a way out of this dark impasse, A way that *I* can go!"

"By strongest light of analytic mind": cf. Kafka ("Reflections on Sin, Pain, Hope, and the True Way," translated by the Muirs in *The Great Wall of China*): "In a light that is fierce and strong one can see the world dissolve."

"More a great thought than a great machine"—the astronomer Sir James Jeans.

"... something like a weaving hand..." Jung's notion of synchronicity (see his introduction to the I Ching) has been influential.

The scientific-metaphysical debate in this chapter goes back to the pre-Socratic philosophers. The view that there are only "particle-flurries" and the rest is "opinion" derives from Parmenides (as quoted in Celan's "Stretta"). Heraclitus said that "war is the father of all things"; Empedocles held that the interaction of love and hate creates the universe.

As a non-mathematician, I cannot follow the reasoning behind Goedel's theorem; but it is said that Goedel himself drew theistic conclusions from it.

The idea of harmonic structures in the universe is an ancient one, recently represented by, among others, the French physicist Joel Sternheimer.

"...between a world of born, and one of made" : cf. e.e. cummings, "Pity This Busy Monster, Manunkind."

In the *Pensées*, in a passage that has become known as "Les deux infinis," Pascal contemplates our position between the astronomic and the microscopic dimensions.

Chapter 9

Since the original writing of this chapter, the openness to "parapsychology" appears to have decreased; I attribute this to the increasingly overbearing presence of material technology (some years ago I said to a friend half-jokingly that the Internet interferes with telepathy, and I still think there may be something in it). An edition of the Encyclopaedia Britannica which I consulted in 1982 had an extensive and serious article on the subject; the one which had replaced it by 2000 dismissed the subject a brief note. My own openness to the subject began with the experience I attempt to document in The Time of the Other: Poet and Reader in the Work of Paul Celan. The treatment here is based on extensive reading-from laboratory reports to the memoirs of mediums who inspired confidence in varying degrees. Belief in the paranormal is not an allor-nothing matter (see the end of Freud's "Psychoanalysis and Telepathy"!); skepticism exists at all levels in the field itself. Most "laboratory" parapsychologists do not appear to believe in the survival of the soul; Louisa Rhine, in a study of anecdotal evidence

(The Invisible Picture), concludes that all "psi" phenomena may be reduced to clairvoyance and psychokinesis on the part of monadic subjects, eliminating even the hypothesis of communication between living minds as such. The psychoanalyst Jule Eisenbud, whose writing is highly intelligent, likewise emphasizes the egoistic motives of those who have "psi" experiences, is skeptical of survival, and explains mediumistic experiences as psychological projections helped out by clairvoyance. Yet he also says the paranormal is difficult to explain without invoking a "mind of God." The notion that precognition may be self-fulfilling prophecy – that the predictor may influence the predicted events through psychokinesis and hypnosis at a distance—is advanced by Eisenbud (Paranormal Foreknowledge). Robert Kastenbaum's Is There Life After Death summarizes most of the arguments; for reincarnation, see Ian Stevenson's Twenty Cases Suggestive of Reincarnation.

"...the laws of Probability themselves": Eisenbud cites the mathematician Karl Marbe to the effect that "the answer to the riddle of why events fall out in conformity to the logic of probability had to be looked for in the psychological sphere" rather than in formal logic itself; Eisenbud believes that probability implies a "totality of all events" which is imbued with awareness.

"...thought's images were printed without light": refers to the "thoughtographer" Ted Serios; Eisenbud's *The World of Ted Serios* describes this peculiar phenomenon and answers the skeptics in a reasonable-sounding manner. *In Parapsychology and the Unconscious* Eisenbud wonders why the scientific world has been so reluctant to accept the evidence for the paranormal; but this reluctance is consistent with the reductionist mindset as analyzed in the preceding chapter.

"...not only thought, but myth": Muriel Rukeyser wrote in *The Speed of Darkness*: "The Universe is made of stories,/ Not atoms." In Lurianic Kabbala the Creation meant an original exile from the Divine fullness; see Gershom Scholem, *Major Trends in Jewish Mysticism*.

Chapter 10

 $\hbox{``...} common truth'': This phrase occurs in Celan's next-to-last poem.$

"The elephant..." Sources for this chapter, besides the sociobiological works above mentioned, include Irving Janis' *Groupthink*, Harold Bloom's *The Anxiety of Influence*, Erich Fromm's *The Forgotten Language*, and the depiction of the mother-child relationship in Rilke's The Notebooks of Malte Laurids Brigge.

"And if I-Am, imprisoned... " Cf. Dostoevsky's *Underground Man*, who compulsively isolates himself to preserve his "freedom"!

"... to integrate/ all alienness into its own design": cf. the Baal Shem Tov (in Martin Buber, *Tales of the Hasidim: Early Masters*): "... to struggle time after time with the extraneous, and time after time to uplift it into the unity of the Divine Name."

"... the eyes of all into one compound vision..." cf. Teilhard's essay "Human Unanimisation" (in *The Future of Man*). Aquinas wrote that the angels "always see each other in the Word." Teilhard notes "a mutual repulsion dominant in the human mass" which resists the unanimizing eros. "... the shadow/ that falls between conception and creation" an allusion to T.S. Eliot's "The Hollow Men" is meant.

Chapter 11

"... or if through deprivation known..." Both Edgar Allan Poe and Gerard de Nerval, two poets consumed with longing for a lost realm, lost their mothers at a very early age, ad did Dante.

"..reclothe us in our rightful mind": from a hymn by John Greenleaf Whittier, "Dear Lord and Father of Mankind." As noted in the next chapter, recognition of the Mother does not imply dismissal of everything associated with "patriarchal religion"!

"to catch the massive inarticulate prayer": after writing this line I read in Wikipedia that the name of Kuan Yin, who has occasionally been conflated with the Madonna, means "Perceives the Sounds of the World."

"To the wisest king": see Prov. 8:22-9:6.

Sources for the Wisdom archetype include the "Gospel of Helen" relayed by Irenaeus (see R.M. Grant, *Gnosticism and Early Christianity*), Jung's *Man and His Symbols*, and the works of Gershom Scholem. The poem alternates between the names Wisdom and Understanding. In the Kabbala the name "Wisdom (Chokhmah)" is given to the second Sefirah, also called Abba (Father), which represents the "point" of intuition; in the third Sefirah known as Understanding Binah), Mother (Imma) and Return (Teshuvah) this point expands into an articulate structure. In universal usage, the Mother archetype is usually called Wisdom.

"... the shape of all shapes..." I should note that in the transcript of the interview on which Black Elk Speaks is based (*The Sixth Grandfather*, edited by Raymond Mallie), this phrase does not occur. But since Black Elk was speaking through an interpreter to a fellow-mystic with whom he felt a psychic connection, it seems possible that this addition of Neihardt's was based on an accurate intuition.

"...in that great night..." "In the great night my heart will go out,/ Toward me the darkness comes rattling." From *Technicians of the Sacred*, ed. by Jerome Rothenberg.

The description of the *Commedia* as a "word-crystal" comes from Mandelstamm's "Conversation about Dante."

"the fate of Holy Wisdom upon earth"—In *The Web of What Is Written* I traced this "plot" in the works by Flaubert, Dostoevsky, Joyce, Rilke, Kafka, Proust, and Pynchon.

"Laura Reichenthal": the original name of Laura (Riding) Jackson, who attempted to minimize her Jewish origins, but whose thought in *The Telling* (see the chapter on her in *The Web of What Is Written*) seems unconsciously rooted in Jewish tradition.

Chapter 12

"excursions/ to the outside": See also my essay "Continuing the Conversation about Dante" (in *A Handbook of Macropoetics*).

"for the sake of life": see Deut. 30:19: "...I have set before you life and death, blessing and cursing: therefore choose life, that both you and your seed may life."

"as the Source/ of freedom": The Ten Commandments begin: "I am the Lord your God who brought you out of the land of Egypt, from the house of slavery."

"freedom, which the Law was meant to guard": Ex. 32:17 speaks of "the writing of God, graven (charut) upon the tables"; in Avot 6:2 R. Yehoshua ben Levi reads this homiletically: "Read not *charut* (graven) but *cherut* (freedom), for there is no free man save the one who occupies himself with Torah study."

"the loyal student": "R. Elazar said in the name of R.Haninah: Whoever says a thing in the name of the one who said it brings redemption to the world." (Megillah 17a)

"the small containing that which seemed the greater": the phrase "the lesser that contains the greater" stems from the Midrash (Gen. Rabba 5, 7); I have encountered the concept in various contexts, from the writings of Rabbi Nachman of Bratslav to the poems of Mandelstamm, andit seems to me related to the sense of "miniaturization" I often get from Celan's work.

"Ur Kasdim": Rashi (Gen. 15:5) interprets this place name as "fiery furnace" and cites a midrash that Abraham smashed the idols of Nimrod, the ruler of Babel, and was thrown into a fiery furnace from which he miraculously emerged unharmed (Rashi on Gen. 28).

"whence Abraham was beckoned forth, detached": "Go out of your land, and from your kindred, and from your father's house, to the land I will show you." (Gen. 12:1)

"he was led out": Rashi on Gen. 15:5 ("And he brought him forth outside and said: Look now towards heaven, and count the stars"): "The midrashic explanation is: Go forth from your astrology—that you have seen by the planets that you will not raise a son ... I will give you other names and your horoscope (destiny) will be changed ... He brought him forth from the terrestrial sphere, elevating him above the stars."

"not heaven but one tract of earth was set": again Gen. 12:1.

"horror of great darkness": Gen. 15:12. This phrase is generally taken to sum up one aspect of Jewish history. Rashi writes, "This is symbolic of the woes and the gloom of Israel in exile." Nachmanides cites an interpretation of this phrase whereby each word is taken to refer to one of the empires, from Babylon to Rome under which the Jewish people would be exiled. The exile of Rome (Edom) is said to be still continuing.

The association of Egypt with determinism is an interpretation I have heard more than once. A Hasidic work, *Degel Machaneh Efrayim*, explains that Pharaoh did not know the Ineffable Name (the Tetragrammaton) but only the name Elokim, which is associated

with the laws of nature, and cites a Tannaitic statement (Mekhilta 18:11) that "no slave ever escaped from the prison of Egypt." This thought resonates for me with the rebellion against determinism which I trace in the "Meridian" speech (see *Western Art and Jewish Presence in the Work of Paul Celan*).

"... almost each trace" refers to the field of Biblical archaeology. Rather as in the debate on parapsychology, it is hard to tell where objectivity ends and the wish to disprove the spiritual begins, though, of course, when it comes to denying the historicity of the First Temple it is clear that Objectivity has long left the scene. In 1976, as a research assistant, I read a great deal on this subject, as well as on the "intertestamental" (i.e. Second Temple) period, and this and the following passage summarize my impressions. As I trust is clear, this work's "defense of Judaism" is not based on correlations of text and scientific findings, rather on the appositeness of the vision to the human predicament generally, and the steadfastness with which the vision has been maintained.

"...seven laws": The concept of the "Noahide laws" is derived from Gen. 9:4-6, from which the Talmudic sages deduced seven laws. The Noahide movement has recently experienced a revival; see, for instance, www.en.noahideworldcenter.org. The use which this chapter makes of this concept represents what I hope is a responsible extension of the traditional view.

"the bitterest foes of Israel": An enlightening book on the Jewish-Roman confrontation is Martin Goodman's *Rome and Jerusalem: The Clash of Ancient Civilizations*. David Nirenberg's *Anti-Judaism: The Western Tradition* is one incisive treatment of subsequent relations.

"not understanding yet": See 24:7: "And he took the book of the covenant and read it in the ears of the people, and they said, "All that the Eternal has spoken we will do and we will hear (or: understand)"—that is, commitment to the Torah as the command of God preceded understanding of its provisions. I have applied this here to the process in which the written Torah has been interpreted over the centuries (the "oral Torah").

"the multifoliate rose of Kabbala": *The Zohar*, the central Kabbalistic text, begins with the image of the rose which symbolizes the community of Israel.

My impressions of Kabbala still owe much to the work of Gershom Scholem, but I have also read various works by Rabbi Yitzchak Ginzburgh (e.g. *Torat HaNefesh*) and hope that what I am relaying about the sfirot is fairly standard.

"proposing their own versions of the code": The last major codifier of Jewish law, Rabbi Joseph Karo, was a Kabbalist.

"a hoard of precious apothegms is treasured": the tractate Avot (a title variously translated as "sayings of the fathers," "ethics of the fathers," "chapters of the fathers" and included in the prayerbook for study on Sabbath afternoons during the period of the counting of the omer).

"a light/ that shows the world from one end to the other": I first encountered this concept in Abraham Joshua Heschel's *The Sabbath;* it stems partly from the Babylonian Talmud (Chagiga 12a): "For R. Eleazar said: The light which the Holy One, blessed be He, created on the first day, one could see thereby from one end of the world to the other; but as soon as the Holy One, blessed be He, beheld the generation of the Flood and the generation of the Dispersion, and saw that their actions were corrupt, He arose and hid it from them, for it is said: But from the wicked their light is withholden. And for whom did he reserve it? For the righteous in the time to come[.]" The Sabbath is considered "a foretaste of the world to come."

"the ascending count": the counting of the omer during the 49 days between Passover and Shavuot, which commemorates the giving of the Torah. It is a time (especially the first 33 days) when weddings are not held, there is no instrumental music and no shaving or cutting of hair (a sign of mourning).

"because they failed to honor one another": the Talmud (Yevamot 62b) relates: "It is said that Rabbi Akiba had twelve thousand pairs of students...and they all died in the same time-period because they did not give one another honor...It is taught that they all died between Passover and Shavuot."

"an invitation/ to all Earth's peoples": The seventy bulls offered during the seven days of the Sukkot holiday are said to be offered in atonement for the nations of the world; Zechariah prophesies (14:16) that in the end of days "every one that is left of all the nations who came against Jerusalem, shall go up from year to year to worship the King, the Lord of Hosts, and to keep the festival of Sukkot."

"Concede the harm/ our word has authorized when snatched from us": The translation of the Hebrew scriptures into other languages is viewed by the tradition with mixed feelings at best; the fast of the 10th of Tevet, which commemorates the day the Babylonians surrounded Jerusalem, also commemorates the translation of the Torah into Greek! In the oral Torah, which of course was not translated, the harsher provisions of the written Torah are generally reinterpreted or their application limited to cases unlikely to occur.

"For what is all the structure of our Law": It is said that the 248 positive commandments correspond to the organs of the body and the 365 negative commandments to the sinews, so that taken together they represent the Divine image in man.

"that taste for stolen waters": "Stolen waters are sweet" (Prov. 9:17)

"the Egyptian servitude/ of days, of weeks unmarked by pause for rest": In the *kiddush* (sanctification) recited before the Sabbath evening meal, the Sabbath is described as "a remembrance of the exodus from Egypt."

"The objectivity of judgment": God is understood as having an "attribute of mercy" and an "attribute of judgment." The latter is associated with the Divine name Elokim and the laws of nature.

"rises the figure of a bearded man": these lines describe the best-known portrait of Rabbi Abraham Isaac Kook, the first Chief Rabbi

of Israel, who was both a Zionist and a universalist philosopher (I see some affinity between him and Teilhard de Chardin). The passage following attempts to summarize part of his argument in *Orot HaTechiyah (Lights of Renewal)*, a section of his most widely-read book, *Orot*. In that book he wrote, "Israel and its essence are not confined to a restricted private circle. They are concentrated in a unique circle, and from that center they exert an influence on the whole circumference."

"Already Jeremiah, long ago": "The heart is deceitful above all things, and grievously weak; who can know it?" (Jer. 17:9)

"the two halves/ of the Divine image": cf. Gen. 1:27: "So God created mankind in his own image, in the image of God he created him; male and female he created them." One interpretation of Genesis 1 and 2 is that God first created man as an androgynous creature, then separated the two halves.

"to the counsels of a universal justice": See Gen. 18:17-25.

"in the universal mind a metaphor": the "circumcision of the heart," already in Deut. 10:16.

"The hymn/ that welcomes in the Sabbath": "Lekha dodi," composed by Rabbi Solomon Halevy Alkabetz around 1540.

"may keep it with a difference": Jewish Sabbath observance is defined by abstaining from thirty-nine categories of activities which are halakhically defined as "work." Halakha allows non-Jews to keep the Sabbath provided they do at least one action that falls into one of these categories.

"Paul Celan": the reference is to the last two poems in the posthumous collection *Zeitgehöft (Timestead)*.

"the solemn chant that brings the Sabbath in": the Kiddush.

"even by the unborn": Talmudic commentary on Ex. 15:2 (Sota 30-31).

"that the momentum of the wheel of fortune": Rabbi Abraham Isaac Kook interprets the laws of the sabbatical year in this fashion (see Rav Kook's *Introduction to Shabbat Ha'Aretz*, bilingual edition translated and with an introduction by Julian Sinclair, New York: Hazon, 2014).

"to the Maker and Preserver of the world": this passage is a partial paraphrase of the Amidah, the central portion of the Jewish daily prayer. The Noahide World Center (www.noahideworldcenter.org) offers a version of the Jewish prayerbook for Noahides.

"... whose firmness made the mother's circle just"—an echo of Donne's "A Valediction, Forbidding Mourning."

"an extra understanding in the woman": "the Holy One, blessed be He, endowed the woman with more understanding than the man" (Niddah 45b).

"the voice of Psalms aspires": "From straits I called to God, God answered me with expansion" (Ps. 118:5)—a verse that I hear in the background of Celan's work.

"Utopia": In "The Meridian" Celan twice employs the word "Utopia," the first time in a purely abstract sense, the second time with a hint of greater concreteness. In the same speech he mentions Gustav Landauer, a Utopian socialist whose influence on Celan was profound. In the Bremen speech he speaks of "stars of human manufacture," meaning the recently-launched artificial satellites; several poems also speak of the launching of the poem as a mental "satellite.")

"Ayelet haShachar": the morning star.

"...the soul's most natural prayer": in "The Meridian" Celan says in the name of Malebranche: "Attention is the natural prayer of the soul." "Attention" is also a key word for Simone Weil.

"Even by that sting one poet learn to use": one of the early twentieth-century Russian poets said that he knew a poem was good when it cause him to feel envy.

"...the roads that go from poem to poem..." Harold Bloom, in the *Anxiety of Influence*, suggests we study these "roads" as an antidote to "misprision," to the tendency he identifies in poets to misunderstand one another "so as to clear imaginative space for themselves." This passage responds to Schell's stricture: "There is no record of several poets' having independently written the same poem, or of several composers' independently having written the same symphony." True; but there is no record of scientists' having written identically worded papers either, and two poems can quite well point to the same thing (as *The Web of What Is Written* attempts to demonstrate). One small example: compare the line "the path that leads out of the death-locked maze" in Chapter 1, with Auden's "The Maze," which to the best of my memory I had not read before writing the line.

"..light by which they read..." An allusion to Celan's poem "Voices" is intended.

"... power to make over": Cf Black Elk Speaks:

A good nation I shall make live,

This the nation above has said.

They have given me the power to make over.

Concerning the circle, Black Elk writes: "You have noticed that everything an Indian does is in a circle, and that is because the Power of the World always works in circles, and everything tries to be round."

"...mend the world..." The concept of world-repair (tikkun ha-'olam), which has become something of a buzz-word in recent years, stems from the Kabbala, where it is associated with esoteric methods. However, Scholem also suggests that a secular Kabbala could be constructed based on literature and everyday experience. In Martin Buber's Hasidic novel, For the Sake of Heaven, one of his sages tells an inquirer: "You tell me, Prince Adam, that you can find no thread. You can see none so long as you are willing to try less than the disentanglement of the whole. The beginning and the beginning alone is placed into the hands of men. But it is placed in them.

Simply make a beginning and at once you will see all about you, in the very circle of your personal activity, all kinds of threads. You will have to grasp but a single one of them and it will be, if God wills it, the right one. Others will do even as you have done and what will come to pass, will come to pass."

Counterclockwise: The counterclockwise motion is suggested by a Celan poem that speaks of moving "wider die Zeit (against time)," as well as by the fact that in Kabbala the emanation called Mother or Understanding is also called Return.

"...so leave our thought the freer to unfold": in his essay "On Rhyme" Richard Moore suggests that poetic form, by focusing the conscious mind on a difficult but meaningless task, leaves the subconscious mind free to express itself.

Jethro: In Exodus 18 Jethro urges Moses not to be the sole judge of the people: "You'll wear yourself out, and them too." Instead he urges him to "provide out of all the people able men, such as fear God, men of truth, hating unjust gain; and place such over them, to be rulers of thousands, and rulers of hundred, rulers of fifties, and rulers of tens." The plan presented here, of course, assumes no Divinely appointed leader to choose the "gatherers"; instead they must be identified by the circles themselves.

"The great poem all poets have built up": from Shelley's "Defence of Poetry."

The estimate of one (potential) poet to one hundred individuals is, of course pure guesswork, but it was arrived at independently by this writer and by Richard Moore, whose "Poets" (in *Pygmies and Pyramids*) begins: "Scientists seldom are born, but the poets come one in a hundred." In an essay entitled "Preserving the Culture of the Word," I suggested that every large employer should employ one poet for each hundred workers!

"miracle at Philadelphia": title of Catherine Drinker Bowen's work on the drafting of the Constitution.

Yavneh: The academy at Yavneh (c. 200) compiled the Mishnah, thus solidifying the oral tradition that became the basis of Diaspora Judaism.

"...the hexagon/ can also be the shadow of a cube..." This is pointed out by Richard Moore. A saying by Kepler, cited by Celan in connection with "The Meridian": "God is symbolized by the sphere, man by the circle." The vision of the Hexagon first surfaced in a poem of that title that I thought of as a Utopian scherzo to the first version of this one (in my *Collected Poems*).

"And I saw that the sacred hoop of my people was one of many hoops that made one circle, wide as daylight and as starlight..." (Black Elk).

Chapter 14

"Let us begin with Law": The lines about the Law summarize the impressions of a three-year stint in law school, one product of which was an article, "Global Aspiration, Local Adjudication: A Context for the Extraterritorial Application of Environmental Law" (Wisconsin

Environmental Law Journal, Vol. 11, no. 2), which may be found in the "Poets' Law Institute" section of www.pointandcircumference.com. In Free Markets and Social Justice and Democracy and the Problem of Free Speech, Cass Sunstein points out that a) the democratic forum is not identical with the marketplace and b) the concept of free speech can be interpreted in a way that undermines democracy rather than supports it.

"...that best prayer for democracy..." "Confirm thy soul in self-control,/ Thy liberty in law." (Katherine Lee Bates)

"Commerce: ancient as the word": The fact that commerce is a distinctive feature of human society was pointed out by Adam Smith in *The Wealth of Nations*. However, David Graeber, in *Debt: The First 5000 Years* (which I learned of at the last minute and have not read) has argued that in the original, small human groups exchanges occurred through gifts which created obligations. The system of information-gathering proposed here might recreate the early conditions where gifts and obligations could be kept track of!

"get back into the saddle": "Things are in the saddle/ And ride mankind." (Ralph Waldo Emerson)

"... lose the good of the intellect..." Vergil's phrase for all the inhabitants of Hell (Inf. V). For further reflections on computer technology, see my essay "I, Human," in *A Handbook of Macropoetics*. "mercy to the cruel/ is cruelty to the merciful": "Those who are merciful to the cruel will end by being cruel to the merciful" (the Talmud).

"...then round the sacred circle of that nation...": The lines that follow reflect the thinking of Rabbi Dr. Zvi Faier.

Chapter 15

"enacted on heart's field by night and day": here I was thinking of the Senoi tribe, who reportedly (I no longer recall where I read this) avert conflicts by displacing them into dream-life; see also Franz Grillparzer's play, *Der Traum ein Leben*. I would also like to mention a work that did not become known to me until after this chapter was composed, namely Ruth Pitter's "Six Dreams and a Vision," in her *Collected Poems*. As in the present work, Pitter's "Vision of Extreme Delight," of a "transparent earth," follows a vision of extinction ("May 1947"). Terrible as it is, the vision of extinction is evidently a necessary moment in the genesis of hope.

"They are appearing, may you behold" is a refrain of Black Elk's songs.

The idea that evolution is "pulled" from the future, as well as "pushed" from the past, is voiced by Hoyle in *The Intelligent Universe*. "...safe-conduct/through the turmoil..." Translates a line from Celan's poem "Denk dir (Just Think)."

We may perhaps give the last word in these Notes to Teilhard de Chardin, who writes, in *Human Energy:* "The evil in evil does not lie in the pain, but in the feeling of diminution by pain. The greatest suffering you can think of will disappear, or even dissolve in a kind

of pleasure, provided you can discover a correlatively proportionate achievement of which it has been the price. Hunger, thirst and wounds are unbearable in passivity or inaction. They no longer count, or do not exist, in the fever of an attack or a discovery. Let us think what will be sufficient, even in our present unorganized state, to compensate humanity for the anguish of its ills? Simply for consciousness to awake to an object born from its sufferings. The idea of a personalization of the universe will bring that faith and that hope." ("Sketch of a Personalistic Universe")