The Speed of Light

T begins in the sky, a cold, dark sky in a Northern latitude, a sky so still its once-bright stars now seem aged, no longer fixed but slowly falling, drawn into themselves. It begins on the ground with four figures looking up into the night, their eyes sweeping this sky for something they have never seen before, something that is said to shine and whirl and circle the earth they stand on once every ninety-six minutes, leaving these ancient stars in its wake. It begins as the tallest of the figures turns and peers and points, directing the attention of the children she has roused from sleep: heads up, a prize to the one who sights it first! It is a New Age, and it begins at this moment, though these four never do see its harbinger, the "something" that is moving at 18,000 miles per hour above them, the "thing" that weighs 184 pounds and lurches in a wild ellipse and is 584 miles away at its farthest point and 143 miles away at its nearest and could conceivably crash down into their own backyard though they know it is expected to turn first to flame and then to ash before it gets that close.

It is "Sputnik," and if these four were Russian they would know it was a "traveler," but as they are American they only know that the year is 1957, and there is something up there now that was never there before.

It is a new age but an old, set-in-its-ways world, so the line that demarcates one era from another is not cleanly drawn but blurred. There are some who speak of "iceboxes" when they really mean refrigerators or Frigidaires, and some who ride in "autos" while others simply drive cars. There are some who cannot make sense of "Hi-Fi" or "Mono" and hoard boxes of 78's in basements, records they can no longer play on the latest equipment sold in the stores; and so the singers and bands of their youth

are silenced and the new music on 45's that blares from other houses and cars is just "noise." There are teenagers, "j.d.'s," who put radios in their pockets, of all places—"transistors" smaller than any such devices their parents have ever seen; but there are still "good kids" who choose to carry slide rules around instead. And for the very small ones, the ones born into this new age, there is "television," a pulsing cube of light that sits in the living room—not hidden in the corner but placed pridefully at its very center—coffee tables and sofas and chairs gathered around it, these blind, mute, old-fashioned artifacts paying homage, like tentative supplicants, to something new, something that summons not just sounds

but pictures from the very air above.

And the children who have searched for something in the sky will gaze expectantly at this television, too, and will meet people in it they have never seen before-grownups who are calm and quiet and sometimes smile, children who are spirited but sweet, families that talk and spend time together. They will get to know the Cleavers, and the Andersons, and Sky King and his niece Penny and their plane, and Lassie, and Flicka, and Mr. Ed; and while their own mother, unattached, goes out night after night to bars to meet men (and sometimes brings them back), these children who wait for her at home will note that adults on "Tv" are never ever lonely, or in search of something they cannot even name. They are all married, have always been so, and are never edgy or hopeful or disheartened, but are gray-suited and steady; and while they may worry about their children, those children never worry about them. It is, in consequence, an alien culture these heralds of the new age invite into their homes, but one they welcome even so, for its odd figurations are strangely soothing.

In the future, avid TV viewers will be advised that they may have been exposed, while under the sway of the apparatus, to a misrepresentative and possibly harmful view of human behavior. And those viewers born in the 1950's will secretly suspect that such gloomy prognostications are correct, for they will have witnessed, in that ceaseless play of wave and particle, scenes of contentment, good fortune, and lack of fear.

But this is not the world they wake up to; it is the world they dream,

the new world that is always just beyond the horizon.

When is one old enough to look back, to speak of what was but is no longer? At what point does one receive dispensation to idle, to hold one's

life up to the light, like the curio it has become, and turn it up and down and around?

Is it when one first determines that a country some called "the Belgian Congo" now bears another name?

Or learns that odd coins collected on distant travels no longer constitute legal tender?

Or notes that clerks who used to speak of "Miss" now make do with "Ma'am"?

Or is it perhaps at that moment when one who studied the sky as a child finds herself walking, thinking, and worrying, consumed with the claims of the present, and suddenly envisions a distant road or house or room and is drawn into a state of unbidden drift, a state she recognizes as reverie?

If she is old enough, this woman who thinks and worries, she will allow herself to be drawn further into that drift, she will relinquish vantage point and perspective for the purer sensation of indirection itself, she will resist all notion of past, present, or future until finally—if she is old enough—she will see that life, stripped of its encumbrances, as if for the first time.

Families in the 1950's are stolid but restless entities, particularly those families whose members vaguely perceive that theirs is a patchworked postwar creation which cannot long contain the energies pent up in its very being. Women who went in the 1940's from proms to jobs in aircraft factories and became heads of households have found they must again defer to the men who have come home from the war. And men who fought evil and outrage "over there" must now adjust to the deadening calm of the corporate world. And each of these naggingly discontented figures must struggle against the urge to break away, a struggle so rarely alluded to that even the language cannot keep pace with the reality, so that phrases like "the nuclear family" stand aside others like "the friendly atom" in disregard of the darker intimations of the age. And while most families in "the fifties" do manage to withstand such expulsive forces, in others the strains of expectation provoke first instability and then rupture, and the man who is husband or father, once free, floats off to another life or world or way of being while those who are left behind simply watch.

One such family, after one such break, finds itself one day in a new

neighborhood and house, hoping to make a fresh start. There is much to be done, many situations to settle into, and the woman who is no longer a wife but remains a mother must struggle now against the feelings of betrayal and abandonment that rise to color and fill each free moment. She is by turns angry, distracted, and aggrieved, and her children (themselves at loose ends) seem always to be underfoot. When she is "at the end of her rope" and wishes simply to be by herself, she orders them to "stay out of her hair," and though they cannot make literal sense of the words they know well enough what she means. They try not to make noise but their very presence in these moments aggravates her sense of injury, the ache she cannot abide. Though they are in a new place, with new prospects, their lives seem to her already overly familiar and old.

It is while in one such mood, on one such day, that she has an idea. She gathers the children around her and ushers them onto the porch. "See if you can find your school," she says, pointing off into the distance. "It's that way—just walk," she adds, as though she is proposing an adventure. But the children shrink back from the brick path and sidewalk and street, for while they find this new house strange, what lies beyond it is infinitely more unsettling. They have so far, in their few years of tutelage, only truly mastered the art of standing, of keeping their balance on a sphere that is known to spin and tilt ever so slightly, and they cannot imagine what it would be like to "just walk" farther than they have ever walked before, without knowing the way. But she is insistent, and so they

set off, no longer tethered but free.

And if Sky King were to fly over this neighborhood in this north-western city at this moment, he would find it difficult to distinguish any one block from that adjoining it, for each house, yard, fence, rockery, parking strip, alleyway, or street would look much like another at that dizzying distance, but if he were to dive down and pull up at the last possible minute he might sight this party of stragglers, and if he recognized them he might tip his wings or roll upside down and over, in a lazy spin, until the flash of the sun off his craft caught their eye, and then might straighten out and show them the way. But if he did not know them, or had turned his radio off and could not receive messages urging him to keep watch, he might simply fly on, and then they would be left on the ground, lost.

This, in any case, is what the first grader in the group thinks of as she and her brother and sister turn the corner and cross the street, leaving their own house behind. The oldest, a fourth grader, has taken charge.

She marches the others on as they attempt to trace the arc of the woman's upraised arm, the invisible path that shoots "that way" through the sky. Later, after they have studied for some time at the school they search for now, they will learn about such points of orientation as "north" and "south," and how to use a compass, and how to tell how long they've been out (if they have forgotten their watches) by looking up at the sun. But for now they are on their own, and the streets they will one day walk along "with eyes closed," as the boast goes, seem forbidding and strange.

They walk and walk and walk but find nothing resembling any school they have ever seen, and so the search is abandoned and they make their way back to the house. The woman, having passed through the one mood and not yet moved into another, seems neither disturbed nor surprised at such inconclusive resolution, but listens intently as they describe the place where they stopped. She reflects for a long moment, as though she is turning the city around and around in her mind, and finally speaks. "You should have kept going," she tells them. "You were only two blocks away."

What form of instruction can effectively prepare one for the future? What feats of pedagogy must be performed, what secrets passed on, if the young are to become what the old once wished for themselves—beings who face what lies ahead, without fear?

Must the pupil master languages, principles, or formulae? Should the instructor pass on lessons, parables, or lies?

And who can truly teach? Who is left untouched, inured to hope and disappointment? Who is left, finally, to speak with a clear head of the terrible power of dreams?

The issue resounds in the late 1950's and beyond, its charged elements couched in such innocent terms as "the new curriculum" or "the New Frontier"—a new vocabulary through which (as in a kind of alchemy) the inchoate uneasiness of the culture is transmuted into the harder, brighter currency of challenge. And the young are quick to respond to such challenge, for while they seem to avert their eyes from the horizon, they harbor in truth a secret wish to see beyond it, and so they accede to the difficult apprenticeship the adults have devised and begin to acquaint themselves with the world as it unfolds around them.

It begins with a flat sheet, a sheet of pure expanse, a sheet so white its sheen hurts the eye. It begins as the outlines of states, countries, and continents are inked onto the surface of that sheet, the thin black lines set out in irregular curves and angles that seem to cut into and diminish its expanse. Longer, languid lines of streams and rivers are then drawn in, threading around and through the mountains, hills, and valleys marked off with dashes. Tiny round symbols are layered over these lines, and the names of villages, towns, and cities are sketched in beside them. Slowly the whole is filled to its edges and color is added, suffusing the white sheet. Blue is for water, for the rivers, lakes, canals, and seas; green is for foliage, for the woods, fields, marshes, swamps, and grasslands; brown is for the earth itself, its contours and terrain; and black is for what man makes, for the roads, buildings, bridges, railroad tracks, power lines, and boundaries that together transform emptiness into places where people can gather, put down stakes, and settle. This is how it begins.

Over time, as the children study this sheet, they learn how to distinguish one place from another, how to determine what individuates each municipality, principality, county, district, state, country, protectorate, or continent. They learn that islands differ from atolls, and that an isthmus is not a peninsula; that some countries produce coffee, sisal, and cashews, while others produce cotton, pyrethrum, tobacco, cloves, and tea, and still others sugar, tires, and textiles. They discover that these products are not simply known by their own names but are also called "commodities," and that copper, bauxite, magnesium, zinc, iron ore, and oil are to be coveted, as are those areas where gold and diamonds can be extracted from the earth. They learn to take note of such "factors" as the population density, per-capita income, and average annual rainfall of each city, state, or country. From this wealth of information they develop

a mental picture of each place.

When they are older, they will be ready for the last in this series of lessons. At that point they will realize that carefully drawn borders can shift or vanish in a flash; that places can be renamed at a stroke; that the vicissitudes of disease or human agency can cause whole populations to disappear; that economies can founder and civilizations fall; that the world as they know it can be altered, in an instant, beyond all recognition.

And they will learn then that they have always known little or nothing, that they must always be prepared to begin, to begin all over

again.

Slowly "the sleepy fifties" edge into "the sixties," and a certain impatience seizes the citizens of this northwestern city, many of whom would like to "get moving" again—"who knows where, who knows why" goes the song—as though motion itself were occupation enough. It is an intensification of sensation so infectious as to make its promptings felt in almost every family. Most people, once accustomed to the "shake, rattle, and roll" of the era, feel renewed, and a nation that only "liked" Ike stands now in thrall to a younger, more invigorating leader. The world, as always, ages; but its people, paradoxically, feel the years falling away.

One young man, among many, finds himself caught up in the fever. He too is impatient, for while he may once have been only a baby at the mercy of mother and sisters he is now virtually nine years old and would like to make his own way in the world. Before he sets out, however, he hopes to discover a newer, faster method of traveling from place to place, because walking (as everybody knows) takes forever, bikes are for babies, and it is unlikely that his mother will ever leave him alone in the car again after what happened in that parking lot. ("Stay away from that gearshift," she has shrieked ever since.) If the boy knew anything yet about the laws of motion he might speak soberly of constraints, of the need to "minimize" drag and create "optimum" conditions for flight, but as he is still relatively untutored in the subject he can freely ignore gravitational realities. He wants simply to "zap" from here to there, as he has seen characters do in cartoons, and where there is a will, he has heard, there is always a way.

So he determines to experiment, to test various modes of locomotion (as Mr. Wizard would) by employing whatever materials might be at hand in the house. The living room will serve as his laboratory: once cleared—furnishings pushed off to the perimeter and rug rolled back—the hardwood floor will offer a pristine surface upon which he can run, jump, or roll, and his hypotheses be put to exacting analysis.

The day of the experiment begins auspiciously. His mother is painting the basement and will be down there for hours, maybe days; one of his sisters has withdrawn to her room, and another is always "out." (The oldest doesn't even live at their house anymore.) The maneuvers begin. First he runs back and forth but fails to build up any speed. He jumps across the space, first in five hops, then in three. He glides for a few feet until his tennis shoes stick. He tries but fails to "burn rubber." So far, he feels, science is unproductive, even a little bit boring.

But he sees the hassock across the room, the one he has pushed out

of the way, and realizes that it will roll, if upended, and that he will roll with it if he keeps his balance, feet never touching the resistant floor. And suddenly he is on the move, shooting through space, neither flying nor floating but suspended in the air even so, and feeling as though he could keep moving forward forever.

The moments that follow will be remembered by those in the house not as picture or story but as sound: the crash, the howl, the shout from downstairs ("What's going on now?"), the clatter of trays and cans pushed aside as the woman realizes that the screaming above her is not going to stop. She and the boy's sister reach the room at the same time; both see the unmoving body and the arm that is bent the wrong way, but the girl is transfixed by the sight so only the woman moves to his side. She fashions a sling from her scarf, cradles his arm, and takes him out to the car, where they screech off in a cloud of smoke.

And they are gone; but the screech and the howl hang in the air behind them.

"Life goes on," the girl learns, for there are other matters of urgency to attend to. She must make ears of corn and potatoes out of construction paper and paint for the Thanksgiving pageant at school. She must memorize lines and pretend she is a Pilgrim woman who lives in the woods and has never seen cities, movies, or cars. She must accomplish the transformation more quickly than she would like, for she has spent far too much time lately watching her reckless brother and feels—knows—she is completely unprepared for the upcoming spectacle. The certainty of lasting embarrassment looms ahead.

These mournful thoughts color her waking hours but abate just a bit one day during lunch while she is eating ice cream. No one notices at first that the Principal has entered the room—each child absorbed in sandwiches or crackers—but a tiny shock of awareness soon travels from table to table, for children in the sixties are still made anxious by the appearance of "authority figures" and Principals rank next to parents in the uneasiness they can cause. Even as the boys and girls "settle down"—each certain that he or she is about to be upbraided—the Principal explains that it is the President who is in trouble this time, that someone has shot him, that he has been killed. And then she falls silent, as though lost in herself. The silence spreads until the whole room is muffled and the only voices to be heard seem to come from far away. Teachers drift together, stricken

and mute, and the children study their faces as if for the very first time. As they make their way home, the children discover that the silence has moved on ahead of them, has moved out from the school and into the city itself; and when they turn on their televisions, they see that the silence has traveled yet farther still, from city to state to the whole of a now-quiet nation, and it seems to them that no one will ever make noise again.

And the girl who witnessed one kind of fall now takes note of another, thinking to herself: this is what it is like when terrible things occur to adults. There is no crash, no howl, no shout: something just happens, and the world falls still, as though willfully enveloped in silence. And she wonders, silently, why.

Years later, in the middle of a spring night in this northwestern city, the girl will be awakened by the sound of voices rising in another room, and she will walk down the hall to find her brother standing, alone, in front of a tiny portable television. She will learn then that another assassination has occurred. And she will later remember not the shock of the news itself but the sight of that teenaged boy, his body rigid, the white of his T-shirt catching the white of the screen and shooting it back in one luminous arc of light. She will want to pull him away, out of range of the image, but she will not move. She will have learned by then that nothing exceeds the speed of light, that no one in this world can hope to outrun it.

Who would profess at this late date that the earth as we know it is flat? Who would declare, in defiance of certitudes arrived at over centuries, that the world each of us most truly lives within lacks full dimension?

Only, perhaps, those who have found themselves in thrall to the transformative power of a plane surface, to the world that imagination offers in standing reproach to the cautious, habit-ridden realm we have come to regard as "reality."

Some read the World Book Encyclopedia or stories about sailors on schooners or picture magazines like Life, and as each page is turned are swept off to faraway territories, though they never leave their rooms;

Some watch nature shows or travelogues or unabashed "trash" on television, and are for a time transported outside of themselves;

Some are entranced by strips of celluloid projected onto a screen, and spend their liveliest hours in darkness pierced only by a shimmering shaft of light; Some simply study the atlas, and for them, the earth is line, angle, and degree, plotted on abruptly bordered sheets that might just as well extend to infinity.

All of these travelers know that the worlds they so imagine are illusory, but they treasure them even so; for those who have once experienced sheer expanse wish only that more such worlds be unfurled before them.

Outbursts of anarchic energy can be sensed everywhere as the sixties unfold, the most profound of these sparked in reaction to a nation's fitful wandering in a tiny Asian labyrinth half a world away. What begins as an "incursion" turns in time into a "widening conflict" and finally a "war," and a whole generation, galvanized, takes to the streets. Newspapers, magazines, and television become "the media" and bring word of large-scale cultural dislocation into communities already riven by their own home-grown discords. These irruptions, together with the war itself, are tracked nightly on television as the networks institute a national feverwatch. Leaders and authorities of long standing, hounded by surprise, seem to founder in private reverie, and children born in the 1950's must look to their own impassioned peers for a kind of moral compass.

For one young girl the puzzlements of the age seem to coalesce in the figures she studies at close range. One of these is a sister, a former "take-charge" fourth grader who has long since lapsed into a chronic, dreamy inattention; on impulse she one day determines to enter a high-school essay contest on "Why We Must Win the War." The fiery piece she submits in support of the proposition is hailed, and she is acclaimed by her elders as a youthful patriot worthy of wide emulation. It is said her steadfast resolution cannot help but inspire others. But inspiration will take its own preemptory course in this instance, and the gifted young woman, as it happens, will run off to San Francisco just weeks before graduation to become a "hippie" in a district known as "Haight-Ashbury," and will be lost for years in the subculture before belatedly fulfilling that early augury. For these few months in 1965, however, she is heralded for having "bucked the tide," and it seems then as though her path to responsible adulthood is sure to be straight and undisturbed.

There are others in this troubled age who seem to be headed into uncertainty, and the girl knows someone like this as well—the older brother of a friend—whom she has long admired and liked. He is the first in a large family ever to graduate from high school, and though the family

views this as achievement enough the boy aspires to something more, so he decides to "join up," to serve his country and "see the world." For a moment, given the force of his energy and drive, the girl forgets the war that awaits him; but on the day she sees him off, in a grim dawn, she remembers, and as he rides away she feels an apprehension that transcends her girlish taste for intensity. He writes faithfully while in boot camp, assuring her he is "okay." It is only when the letters stop that the girl begins to worry, but by then he is in "Nam," farther away than she can imagine, and she becomes accustomed to his silence. Later, when the boy returns, he seems quieter than ever. He marries immediately and becomes a mailman, the first in his family to secure a post in the civil service, and he seems content to walk the same route day after day after day, as though a familiar piece of ground that would soon have bored the boy is more than enough for the man.

What distinguishes one form of life from another? What differentiates "me" from "you" or "us" from "them"? How can lines be drawn such that an "I" might arise from the multitude of like creatures that surround it, arise to receive a name and an aspect of its own?

Is it a question of gender, race, occupation, or class? Alliances, associations, or enmities? Behaviors, desires, or beliefs? Genetic endowment, neural configuration, or cellular complexity?

Or is the matter more complicated still, so that sooner or later the assumption of distinction itself comes under challenge? Eventually, all that one has read, seen, felt, wished, believed, asserted, or experienced begins to blur; all those one has known of, lived among, or met begin to merge; and each place, locality, or area one has traveled to takes on a similar coloration, until finally borders and divisions begin to dissolve. Is the urge to search for fixity in such flux itself a trick of nature, a play of forced perspective?

If so, it is also true that even the canniest of nature's creatures must inevitably acquiesce in this greatest of illusions, for the natural order seems enduring and imperturbable, and who can remain alert to its tricks and feints forever?

In time the sixties come to a close, and the girl spends the last summer of the decade visiting her married sister in Southern California. She is making plans for college, a place where she expects to receive advanced instruction and so equip herself for the larger world that awaits. In the meantime, she and her three-year-old nephew play "Blastoff," a game of her own devising that involves perilous journeys through interstellar space. The game is a favorite of the future physics major; he seems to enjoy the challenge of hurtling past asteroids and colonizing planets and still getting back in time for dinner. One night, on a gentle evening in July, the girl takes the little boy out to the patio and points up past the fence, straight up to the moon, and explains that men are walking and jumping on the surface of that luminous sphere even as they watch. When she asks if he can see them, he peers intently and declares finally that, yes, he thinks he can. And she is reminded of an evening years earlier when a little girl stood in a northwestern city and looked up at the sky herself, and for a moment both she and the boy are still.

And this is how it begins, begins all over again.