SKYFARING

A JOURNEY WITH A PILOT

MARK VANHOENACKER





SKYFARING

A Journey with a Pilot

Mark Vanhoenacker

This Is a Borzoi Book Published by Alfred A. Knopf

Copyright © 2015 Mark Vanhoenacker

All rights reserved. Published in the United States by Alfred A. Knopf, a division of Penguin Random House LLC, New York. Published in Great Britain by Chatto & Windus, a Penguin Random House company, London, in 2015.

www.aaknopf.com

Knopf, Borzoi Books, and the colophon are registered trademarks of Penguin Random House LLC.

This page constitutes an extension of the copyright page.

Two brief quotes are adapted from "With This View, Who Needs Legroom?" which appeared on NYTimes.com (March 20, 2010).

Library of Congress Cataloging-in-Publication Data

Vanhoenacker, Mark.

Skyfaring: a journey with a pilot / Mark Vanhoenacker.

pages cm

ISBN 978-0-385-35181-2 (hardback) ISBN 978-0-385-35182-9 (eBook)

1. Airplanes—Piloting—Popular works. 2. Aeronautics—Popular works. I. Title.

TL710.V345 2015

629.132'52-dc23 2014041159

eBook ISBN 9780385351829

Cover photograph by Carolyn Marks Blackwood Cover design by Carol Devine Carson

v4.1_r1

ep

Contents

Cover
Title Page
Copyright
Dedication
Epigraph
Author's Note

Lift

Place

Wayfinding

Machine

Air

Water

Encounters

Night

Return

Acknowledgments
Permissions Acknowledgments
A Note About the Author

For Lois and Mark, and in memory of my parents

...Here, as everywhere else,

it is the same age. In cities, in settlements of mud, light has never had epochs. Near the rusty harbor around Port of Spain bright suburbs fade into words—Maraval, Diego Martin—the highways long as regrets, and steeples so tiny you couldn't hear their bells, nor the sharp exclamation of whitewashed minarets from green villages. The lowering window resounds over pages of earth, the canefields set in stanzas. Skimming over an ocher swamp like a fast cloud of egrets are nouns that find their branches as simply as birds. It comes too fast, this shelving sense of home—canes rushing the wing, a fence; a world that still stands as the trundling tires keep shaking and shaking the heart.

—Derek Walcott

Author's Note

I occasionally struggled to decide which units and terms to use in this book, as aviation itself, thoughten otherwise so globalized, is not always consistent. For example, feet are used to measure height altitude over most, but not all, of the world—whether or not the metric system is used by those on the ground below. Winds are usually quoted in knots—nautical miles per hour—except where they are quoted in meters per second. My own background as an American working in Britain didn't make things any easier. In general I have tried to use either customary U.S. units or the units most common used in aviation. When it comes to talking about the weight—or, more precisely, the mass—of aircraft though, I have stuck with the metric tons I'm most familiar with at work, as a metric ton (equivalent around 2,200 pounds) is not so different from a U.S. ton (2,000 pounds).

If you have a favorite photograph from the window seat, please send it along to me via the websi Skyfaring.com. I would love to see it.

Londo October 20

Lift



I've been asleep in a small, windowless room, a room so dark it's as if I'm below the waterline of a shi My head is near the wall. Through the wall comes the sound of steady rushing, the sense of numberle particles slipping past, as water rounds a stone in a stream, but faster and more smoothly, as if the vess parts its medium without touch.

I'm alone. I'm in a blue sleeping bag, in blue pajamas that I unwrapped on Christmas morning sever years ago and many thousands of miles from here. There is a gentle swell to the room, a rhythm rolling. The wall of the room is curved; it rises and bends up over the narrow bed. It is the hull of a 747

When someone I've just met at a dinner or a party learns that I'm a pilot, he or she often asks n about my work. These questions typically relate to a technical aspect of airplanes, or to a view or a noi encountered on a recent flight. Sometimes I'm asked where I fly, and which of these cities I love best.

Three questions come up most often, in language that hardly varies. Is flying something I have always wanted to do? Have I ever seen anything "up there" that I cannot explain? And do I remember my fir flight? I like these questions. They seem to have arrived, entirely intact, from a time before flying became ordinary and routine. They suggest that even now, when many of us so regularly leave one place on the earth and cross the high blue to another, we are not nearly as accustomed to flying as we thin These questions remind me that while airplanes have overturned many of our older sensibilities, deeper part of our imagination lingers and still sparks in the former realm, among ancient, ever atavistic, ideas of distance and place, migrations and the sky.

Flight, like any great love, is both a liberation and a return. Isak Dinesen wrote in *Out of Africa*: "the air you are taken into the full freedom of the three dimensions; after long ages of exile and dream the homesick heart throws itself into the arms of space." When aviation began, it was worth watching for its own sake; it was entertainment, as it still is for many children on their early encounters with it.

Many of my friends who are pilots describe airplanes as the first thing they loved about the world When I was a child I used to assemble model airplanes and hang them in my bedroom, under a ceiling scattered with glow-in-the-dark stars, until the day skies were hardly less busy than Heathrow's, and night the outlines of the dark jets crossed against the indoor constellations. I looked forward to each my family's occasional airplane trips with an enthusiasm that rarely had much to do with wherever were going. I spent most of my time at Disney World awaiting the moment we would board again the magical vessel that had brought us there.

At school nearly all my science projects were variations on an aerial theme. I made a hot-air balloc from paper, and sanded wings of balsa wood that jumped excitedly in the slipstream from a hairdrye as simply as if it were not air but electricity that had been made to flow across them. The first phone call I ever received from someone other than a friend or relative came when I was thirteen. My more passed me the telephone with a smile, telling me that a vice president from Boeing had asked to spea with me. He had received my letter requesting a videotape of a 747 in flight, to show as part of science project about that airplane. He was happy to help; he wished only to know whether I wanted my 747 to fly in VHS or Betamax format.

I am the only pilot in my family. But all the same, I feel that imaginatively, at least, airplanes are flying were never far from home. My father was completely enthralled by airplanes—the result of his front-row seat on the portion of the Second World War that took place in the skies above his childhood

home in West Flanders. He learned the shapes of the aircraft and the sounds of their engines. "The thousands of planes in the sky were too much competition for my schoolbooks," he later wrote. In the 1950s, he left Belgium to work as a missionary in the Belgian Congo, where he first flew in a sma airplane. Then he sailed to Brazil, where in the 1960s he was one of surely not very many priests with subscription to *Aviation Week* magazine. Finally he flew to America, where he met my mother, went business school, and worked as a manager in mental health services. Airplanes fill his old notes an slides.

My mother, born under the quieter skies of rural Pennsylvania, worked as a speech therapist and has no particular interest in aviation. Yet I feel she was the one who best understood my attachment to the less tangible joys of flight: the old romance of all journeys, which she gave to my brother and me in the form of stories like *Stuart Little* and *The Hobbit*, but also a sense of what we see from above or far awa—the gift, the destination, that flying makes not of a distant place but of our home. Her favorite hym was "For the Beauty of the Earth," a title, at least, that we agreed might be worth printing on the inside of airplane window blinds.

My brother is not a pilot. His love is not for airplanes but for bicycles. His basement is full of bike that are works in progress, that he's designing and assembling from far-gathered parts, for me or for grateful friend. When it comes to his bike frames, he is as obsessed with lightness as any aeronautic engineer. He likes to make and fix bikes even more than he likes to ride them, I think.

If I see my brother working on one of his two-wheeled creations, or notice that he's reading about bikes on his computer while I am next to him on the couch reading about airplanes, I may remembe that the Wright brothers were bicycle mechanics, and that their skyfaring skills began with wheels, heritage that suddenly becomes clear when you look again at their early airplanes. When I see pictur of such planes I think, if I had to assemble anything that looked like this, I would start by calling on the skills of my brother—even though there was the time I got him in trouble with our parents for skipping his chores, and so he taped firecrackers to one of my model airplanes and lit the fuses and waited just the right number of seconds before throwing the model from an upstairs window, in a long arc over the backyard.

As a teenager I took a few flying lessons. I thought that I might one day fly small airplanes as a hobby on weekend mornings, an aside to some other career. But I don't remember having a clear wish become an airline pilot. No one at school suggested the career to me. No pilots lived in o neighborhood; I don't know if there were any commercial pilots at all in our small town in wester Massachusetts, which was some distance from any major airport. My dad was an example of someon who enjoyed airplanes whenever he encountered them, but who had decided not to make them his life work. I think the main reason I didn't decide earlier to become a pilot, though, is because I believe that something I wanted so much could never be practical, almost by definition.

In high school I spent my earnings from a paper route and restaurant jobs on summer homestar programs abroad, in Japan and Mexico. After high school I stayed in New England for college but also studied in Belgium, briefly reversing the journey my father had made. After college I went to Britain to study African history, so that I could live in Britain and, I hoped, in Kenya. I left that degree program when I finally realized that I wanted to become a pilot. To repay my student loans and save the money expected to need for flight training, I took a job in Boston, in the field—management consulting—the I thought would require me to fly most often.

In high school I certainly wanted to see Japan and Mexico, and to study Japanese and Spanish. B really, what attracted me most to such adventures was the scale of the airplane journeys they required.

was the possibility of flight that most drew me to far-off summer travels, to degree programs in tw distant lands, to the start of the most literally high-flying career I could find in the business world, an at last—because none of even those endeavors got me airborne nearly often enough—to a career as pilot.

When I was ready to start my flight training, I decided to return to Britain. I liked many aspects of the country's historic relationship with aviation, its deep tradition of air links with the whole world, at the fact that even some of the shortest flights from Britain are to places so very different from it. And not least, I liked the idea of living near the good friends I'd made as a postgraduate there.

I began to fly commercially when I was twenty-nine. I first flew the Airbus A320 series airliners, family of narrow-bodied jets used on short- to medium-distance flights, on routes all around Europe. It be woken by an alarm in the 4 a.m. darkness of Helsinki or Warsaw or Bucharest or Istanbul, and the would be a brief bleary moment, in the hotel room whose shape and layout I'd already forgotten in the hours since I'd switched off the light, when I'd ask myself if I'd only been dreaming that I became pilot. Then I would imagine the day of flying ahead, crossing back and forth in the skies of Europ almost as excitedly as if it was my first day. I now fly a larger airplane, the Boeing 747. On longer flights we carry additional pilots so that each of us can take a legally prescribed break, a time to sleep and dream, perhaps, while Kazakhstan or Brazil or the Sahara rolls steadily under the line of the wing.

Frequent travelers, in the first hours or days of a trip, may be familiar with the experience of jet last or a hotel wake-up call summoning them from the heart of night journeys they would otherwise have forgotten. Pilots are often woken at unusual points in their sleep cycles and perhaps, too, the anonymic and nearly perfect darkness of the pilot's bunk form a particularly clean slate for imagination. Whatever the reason, I now associate going to work with dreaming, or at least, with dreams recalled only becaut I am in the sky.

A chime sounds in the darkness of the 747's bunk. My break is over. I feel for the switch that turns on pale-yellow beam. I change into my uniform, which has been hanging on a plastic peg for somethin like 2,000 miles. I open the door that leads from the bunk to the cockpit. Even when I know it's comin—and it's frequently hard to know, depending as it does on the season, the route, the time, and the place—the brightness always catches me off guard. The cockpit beyond the bunk is blasted with directionless daylight so pure and overwhelming, so alien to the darkness I left it in hours ago and to the gloom of the bunk, that it is like a new sense.

As my eyes adjust, I look forward through the cockpit windows. At this moment it's the light itself rather than what it falls upon, that is the essential feature of the earth. What the light falls upon is the Sea of Japan, and far across this water, on the snowcapped peaks of the island nation we a approaching. The blueness of the sea is as perfect as the sky it reflects. It is as if we are slow descending over the surface of a blue star, as if all other blues are to be mined or diluted from this one

As I move forward in the cockpit to my seat on the right side of it, I think briefly back to the trip made to Japan as a teenager, about two decades ago, and to the city this plane left only yesterdathough *yesterday* isn't quite the right word for what preceded a night that hardly deserves the name, squickly was it undone by our high latitudes and eastward speed.

I remember that I had an ordinary morning in the city. I went to the airport in the afternoon. No that day has turned away into the past, and the city, London, lies well beyond the curve of the planet.

As I fasten my seat belt I remember how we started the engines yesterday. How the sudden ar auspicious hush fell in the cockpit as the airflow for the air-conditioning units was diverted; how a alone began to spin the enormous techno-petals of the fans, spin them and spin them, faster and faste until fuel and fire were added, and each engine woke with a low rumble that grew to a smooth an unmistakable roar—the signature of one of our age's most perfect means of purifying and directing physical power.

In legal terms a journey begins when "an aircraft moves under its own power for the purpose of flight." I remember the aircraft that moved ahead of us for this purpose and lifted ahead of us into the London rain. As that preceding aircraft taxied into position its engines launched rippling gales the raced visibly over the wet runway, as if from some greatly speeded-up video recording of the windswe surface of a pond. When *takeoff thrust* was *set* the engines heaved this water up in huge gusting night gray cones, new clouds cast briefly skyward.

I remember our own takeoff roll, an experience that repetition hasn't dulled: the unfurling carpet of guiding lights that say *here*, the voice of the controller that says *now*; the sense, in the first seconds after the engines reach their assigned power and we begin to roll forward, that this is only a curious kind driving down an equally curious road. But with speed comes the transition, the gathering sense that the wheels matter less, and the mechanisms that work on the air—the *control surfaces* on the wings and the tail—more. We feel the airplane's dawning life in the air clearly through the controls, and with each passing second the jet's presence on the ground becomes more incidental to how we direct its motion. Yesterday we were flying on the earth, long before we left it.

On every takeoff there is a speed known as VI. Before this speed we have enough room left ahead us on the runway to stop the takeoff. After this speed we may not. Thus committed to flight, we continued for some time along the ground, gathering still more speed to the vessel. A few long second after V1 the jet reached its next milestone of velocity and the captain called: "Rotate." As the lights the runway started to alternate red and white to indicate its approaching end, as the four rivers of power that summed to nearly a quarter of a million pounds of thrust unfurled over the runway behind us, lifted the nose.

As if we had only pulled out of a driveway, I turned right, toward Tokyo.

London, then, was on my side of the cockpit. The city grew bigger before it became smaller. From above, still climbing, you realize that this is how a city becomes its own map, how a place become whole before your eyes, how from an airplane the idea of a city and the image of a city itself can overlay each other so perfectly that it's no longer possible to distinguish between them. We followe London's river, that led the vessels of a former age from their docks to the world, as far as the Nort Sea. Then the sea turned, and Denmark, Sweden, Finland passed beneath us, and night fell—the night that both began and ended over Russia. Now I'm in the new day's blue northwest of Japan, waiting for Tokyo to rise as simply as the morning.

I settle myself into my sheepskin-covered seat and my particular position above the planet. I blink the sun, check the distance of my hands and feet from the controls, put on a headset, adjust the microphone. I say good morning to my colleagues, in the half-ironic sense that long-haul pilots we know well, that means, on a light-scrambling journey, I need a minute to be sure where it is morning and for whom—whether for me, or the passengers, or the place below us on the earth, or perhaps at ordestination. I ask for a cup of tea. My colleagues update me on the hours I was absent; I check the computers, the fuel gauges. Small, steady green digits show our expected landing time in Tokyo, above an hour from now. This is expressed in Greenwich Mean Time. In Greenwich it is still yesterday

Another display shows the remaining nautical miles of flight, a number that drops about one mile ever seven seconds. It is counting down to the largest city that has ever existed.

I am occasionally asked if I don't find it boring, to be in the cockpit for so many hours. The truth is have never been bored. I've sometimes been tired, and often I've wished I were heading home, rath than moving away from home just about as quickly as it is possible to do so. But I've never had the sense that there was any more enjoyable way to spend my working life, that below me existed some other kind of time for which I would trade my hours in the sky.

Most pilots love their work and have wanted to do it for as long as they can remember. Many begatheir training as soon as they could, often in the military. But when I started my training course Britain, I was surprised at how many of my fellow trainees had traveled quite far down another path-they were medical students, pharmacists and engineers, who, like me, had decided to return to their find love. For me, coming later to the profession has been an opportunity to think about why many of me colleagues and I were drawn back so strongly to a half-forgotten notion, one that we shared as children

Some pilots enjoy the hand-to-eye mechanics that are related to movement in three dimension particularly the challenges that cluster at the beginning and end of every flight. Others have a natur affinity for machines, and airplanes are engineered nobility, lying well beyond most cars, boats, an motorcycles on the continuum of our shiny creations.

Many pilots, I think, are especially drawn to the freedom of flight. A jet is detached, physicall remote and separate for a certain number of miles and hours. Such solitude is all but absent from the world now, and so—paradoxically, for in the cockpit we could hardly be better encased in technology-flight feels increasingly old-fashioned. Paired with this freedom is the opportunity to come to know the cities of the world well and to see so much of the land, water, and air that lie between them.

Then, too, there is the perennial yearning for height that many of us share. High places have gravity. They pull us up. Elevation remains simple, a prime number, an element on the periodic table. "Higher Orville, higher!" cried the father of the Wright brothers, when he made his first flight at the age of eighty-one. We build skyscrapers and visit their observation decks; we ask for an upper floor in a hote we ponder photographs taken from high above our homes, our towns, our planet with a mix of love an bewildered recognition; we climb mountains and try if we can to save our sandwich for the summit. On the first morning in a new city I'll often go first to a viewing point on top of a tall building, where occasionally see travelers whom I recognize from my flight.

Perhaps evolution alone explains the attraction of altitude. Here is the big picture, the survey, the overview, the lookout, the lay of our land, what approaches our cave or castle. Strabo, the Gree geographer who would partly inspire Columbus, climbed the acropolis of Corinth merely to ga perspective on the city. When my father arrived to work as a missionary in a poor neighborhood of the Brazilian metropolis of Salvador, his first step was to hire a pilot to help him photograph the unmapped neighborhood and its informal, largely unnamed streets. Many years later, after he died, my brother are I heard a rumor that a street in this locality had been named for him after he left Brazil. We pored over a map of the city on a laptop to find Rua Padre José Henrique, Father Joseph Henry Street; we zoomed in from the digital sky, from four decades and many thousands of miles away, to remember the story of

But I think our love of height cannot be entirely explained by its many practical uses. In so mar realms we seek evidence of interconnection, of parts that form a whole. In music, comedy, science, we respond to the revealing of relationships we did not see at first, or did not expect to find so pleasing Flight is the cartographic, planetary equivalent of hearing a song covered by a singer you love, or

his first flight over this city.

meeting for the first time a relative whose features or mannerisms are already familiar. We know the song but not like this; we have never met this person and yet we have never in our lives been stranger. Airplanes raise us above the patterns of streets, forests, suburbs, schools, and rivers. The ordinary thing we thought we knew become new or more beautiful, and the visible relationships between them on the land, particularly at night, hint at the circuitry of more or less everything.

I've occasionally toured cathedrals in faraway cities that have labyrinths, sinuous paths inlaid in the stone that you follow around and around, back and forth. I've been struck by the peacefulness of labyrinths, the intended result of being able to see your path, and the contrast such a gift makes with the barely relaxing experience of walking a maze, or even the aisles of a supermarket, where you cannot see the whole.

Even today many travelers leave home not just to see new places, but also to see the whole of the place they have left from the various kinds of distance—cultural, physical, linguistic—that travel ope for them. Indeed, a fascination with this perspective is something I associate with the most experience travelers. Occasionally I fly to a city in which one of the attendants on my flight lives, or was born, and he or she is invariably eager to join us in the cockpit for takeoff or landing, in order to watch how the loved place, though it has no remaining mysteries, leaves the cockpit windows or comes to fill the again.

I love flying, for all these reasons. But to me the joy of airliners is the particular quality of the motion over the world. When I run through the woods, over the ground, the branches are close, lou fast. I am what's moving. Up and down, turning along the path, my feet never land twice at the sam angle. I could stop to touch anything. In contrast, films taken of the earth from orbit show a wholl different kind of motion, a steady and weighty perfection of turning, an imperious stability that's the last thing we might expect from such unfathomable height and speed.

An airliner does not move at either of these extremes. In the course of each flight, however, it crosses

much of the continuum between them. I love to fly because I love to watch the world go by. After takeoff we see the world just as we would from a small plane. Then in the high middle hours of a flight we perceive less detail, of course, but we also see a greater extent of the earth than we were surely extended to encounter at one time. And in some achingly stately inversion of our senses it's in the cruis when we are highest and fastest, that place turns most deliberately. The connections below make the most sense to me from this abstracted, apparently slow motion above them. The connections are made as a matter of course, we might say, as a road or a river or a railway runs between two cities, and or landscape or cloudscape flows into another as easily as lines across a page. They also build over time, at the dimensions of a city, a country, or an ocean are summed by the minutes or hours such a place tak to cross the mind's eye.

Then we descend; we *make our approach* to another place. The world accelerates as we return; it loo fastest just before landing, when the airplane is slowest. The wheels race at takeoff but are stilled if flight, and on touchdown they are sped up again by the earth. This touch turns the speed of flight to the speed of the wheels; the brakes turn this to the heat of home, of a journey's end, that is carried off the wind.

A measure of longing is attached to any mode of travel, of course. By definition every travelously wishes, or needs, to be somewhere else. What is longed for may be the place you have just left. Or may be a forest or cathedral or desert you have read about or imagined since childhood, or a place you have always wished to live, or a place you knew well when you were young. But flight, which takes us sfar to or from what we love, embodies this longing most directly. The space through which the airplant

moves is so alien. Humans can't breathe in it. We can't pull over halfway and silence the machine an stretch our legs; we can't swim in it or hold on to the side of the pool. The adversity of the sky sharp divides the journey from the times and places that lie at either end.

When travelers move between points on the globe so different in culture, language, and history-London, Tokyo—the imaginative distance can be as vast as the physical gap in the air above them. Like the music you love best, this mental distance feels partly external and partly your own. And so hig above the world, open to more of the planet and sky than any species has the right to see, we find room for introspection in one of the last places we might have thought to look for it. When I was thirteen an got my first portable cassette player and headphones and began to choose music for myself, I asked m brother if pilots were allowed to listen to music while they flew. He answered that he wasn't sure, but h thought not. He was right. But as passengers we are all given these increasingly rare quiet hours in which there is nowhere we have to go and nothing we have to do, hours in which we are alone with out thoughts and music and the moving picture of our journeys.

Then we blink and suddenly we see again the earth we are flying over. From the window seat or focal point crosses between the personal and the planetary so smoothly that such movement seems hint at a new species of grace, that we would come to only in the sky. Whatever our idea of the sacre our simplest questions—how the one relates to the many, how time equates to distance, how the preser rests on the past as simply as our lights lie on each night's darkened sphere—are rarely framed as clear as they are by the oval window of an airplane. We look through it, over snowcapped cordilleras in the last red turn of the day, or upon the shining night-palmistry of cities, and we see that the window is mirror, briefly raised above the world.

The journey, of course, is not quite the destination. Not even for pilots. Still, we are lucky to live if an age in which many of us, on our busy way to wherever we are going, are given these hours in the hig country, when lightness is lent to us, where the volume of our home is opened and a handful of or oldest words—*journey*, *road*, *wing*, *water*; *earth* and *air*, *sky* and *night* and *city*—are made new. Fro airplanes we occasionally look up and are briefly held by the stars or the firmament of blue. But mostly we look down, caught by the sudden gravity of what we've left, and by thoughts of reunion, drifting like clouds over the half-bright world.

Place



I'm thirteen. It's late winter, still bitterly cold. My dad and I have driven from our home Massachusetts south to New York City. At Kennedy Airport we park on top of the Pan Am termina We're here to pick up a cousin of mine who is coming to live with us for a few months. We are early, of perhaps his flight is late. We stay for some time under the gray skies and watch the planes as the ascend from distant runways and roll to the gates beneath us.

Among the coming and going of airliners I see an aircraft from Saudi Arabia approach the terminal have loved airplanes since I was a small child, but I feel a new kind of astonishment at this particular plane, at the sword and the palm tree on the tail, and the name on the side of the jet.

For some reason—the day, my age, a sudden new understanding that the cousin who will eat dinn across from me at our table at home tonight is still somewhere in the sky—the sight of this plan mesmerizes me. A few hours ago the jet, and all that it contains, was probably stopping for fuel is Europe, and a few hours before that it was in *Arabia*. When I woke up in my bedroom this morning when I sat at the table in our kitchen to have my cereal and orange juice, when we got into the car, the aircraft was already hours into a journey that was as routine to it in its realm as my walk to school is mine. Now my father and I watch the last of its many turns over the earth that day; the plane is parkin—what my parents do when they come back from the supermarket, and what a pilot does, too, I realize even at the end of a journey from a place like Arabia to a city like New York.

The doors and holds of the jet are still sealed. It strikes me that some essence of the day the jet heleft behind, the day of some euphonious city name I have read on the globe in my bedroom—Jeddah Dhahran or Riyadh, surely—might be locked inside. I try to imagine Saudi Arabia, falling back on me limited sense of deserts composed largely of the Saharan sands in *The Little Prince*. The passengers of that plane would fly this far, see from the window the Atlantic pressing on the snowy coast of Canada of New England; and at the same time my dad and I were driving along an icy old parkway through rur New York State, a road that could never connect you to Arabia, except that it runs to an airport and plane like this one.

The physical achievement of airplanes—that they take us up into the air, that they enable us to flynot half their wonder. Place turns before an airplane with perfect steadiness. It appears in the air as on new and gossamer geography of the sky, it passes unseen, behind clouds or within the modern fiction of the flight computers, it flips past so quickly that it is like a conversation overheard in passing, when yo cannot gain purchase on any individual word, or even be certain of the language. Then suddenly a particle of wings, this most charmed of our creations, brings us to a new day, a new place, and to such perfect stillness upon it that we are able to step through the unsealed door and start to walk.

I am in the cockpit of a 747 over the wintry-white Rockies, which spread out below me to the horizo The world is divided: blue above, snow below. I remark on how the shadows of the peaks fall on the land; the captain tells me that clockwise is only clockwise because that is the direction of time, of shadow, on a sundial in the northern hemisphere. A controller speaks to us on the radio, to announce the presence of another aircraft near us, "now at your two o'clock," so we know in which direction to scott the blue. Then she announces our position as it would appear to the other aircraft: at their "ten o'clock"

The jet that started at our two o'clock moves to three, then five o'clock, and then it is behind us and w lose sight of it. The hour-places turn like the teeth of gears.

Jet lag results from our rapid motion between time zones, across the lines that we have drawn on the earth that equate light with time, and time with geography. Yet our sense of place is scrambled as easi as our body's circadian rhythms. Because jet lag refers only to a confusion of time, to a difference measured by hours, I call this other feeling *place lag:* the imaginative drag that results from our jet-ag displacements over every kind of distance; from the inability of our deep old sense of place to keep u with our airplanes.

Place lag doesn't require the crossing of a time zone. It doesn't even require an airplane. Sometim I've been in a forest, for a hike or a picnic, and then later the same day I have returned to a cit Surrounded by cars and noise and blocks of concrete and glass, I'll find myself asking, how is it that was walking in the woods this morning? I know it was only this morning I was in that different plac but already it feels like a week ago.

We evolved to move slowly over the world, in sight of everything en route. It makes sense that passing time and changing surroundings share a rhythm, and that as a consequence further or more different places naturally seem longer ago. The differences between a forest and a city are so enormous that the journey between them interposes itself as a chronological jump, a kind of time-hill.

This is true of all travel; and the greater the contrast the journey draws between home and away, the sooner the trip will feel as if it took place in the distant past. This equation is pushed to its imaginative limit by the airplane, which takes us on journeys almost none of us would ever undertake by other means, to places as different from our home as any on the planet, over many other places we will knownly obliquely, if at all.

I sometimes think that there are cities so different in sensibility, culture, and history—Washingto and Rio, Tokyo and Salt Lake City—that really they should never be joined by a nonstop flight; that to appreciate the distances between them such a journey should be broken into stages, and that the imaginative distance might be better discerned if such flights took ten weeks, not ten hours. But normal, that London, the place we were, the place that surrounded us in every respect, has transformed itself into Luanda or Los Angeles, as if it was not us who moved, but rather place that flowed around us because after all, no one could move this quickly. I listen to Joni Mitchell's "Hejira" and feel "porous with travel fever," porous to the modern fluidity of place.

If we do not see much of the intervening earth—if we as passengers sleep most of the way or do n have a window seat—then journeys of such inconceivable scale can seem to take place all be instantaneously, the airplane door like the shutter of a camera.

It is right that our first hours in a city feel wrong, or at least bewildering, in a way we can't quit specify. We are not built for speed, certainly not for this speed. When we cross the world some lower portion of our brains cannot understand what has, we might say, taken place. I can say matter-of-fact to myself: "I flew from home to Hong Kong. Clearly, this is Hong Kong: the destination signs on the fronts of the buses, the rivers of pedestrians, the surface of the harbor where the lights of so many boar race over the heaving, blurred reflections of skyscrapers." Equally, I know that a day or two ago I was a home. I have the everyday memories, the receipts to prove it. Yet, just as with two disparate times from yown past, I am the connection between these wildly different places across 6,000 miles of intervening continent. Somewhere in my lower-brain unconscious, I am the most obvious answer to the question of what these places, separated not by an inconceivable distance but by mere hours, have

common. And that makes no sense at all.

If place lag were a more recognized term, the next time I walked down a street in Tokyo and a valuating political announcements for a municipal election went past, or I stood in a food market in Sa Paulo and saw a dozen fruits I did not know how to name or eat, or the skies opened in Lagos and I sa rain the likes of which I would never see in Massachusetts, I could blink and say to my companion, who would not and smile in recognition: "I have place lag."

For pilots, flight attendants, and the most frequent business travelers, place lag may be a more common experience than jet lag. We rarely stay long enough to adjust to local time—to acclimatize (the formal term that appears in regulations specifying the rest a pilot requires after a flight)—before it is time to fly back. I never change my watch or cell phone to local time. Many pilots find it easier to eat and sleep on their home time zone for such short stays, even when very far from it, even when the means a complete reversal of night and day, even if this means three days in a city and never walking through it in daylight.

Place lag, unlike jet lag, may get worse with the passage of time. A huge proportion of our memori relates to the most recent minutes, days, or weeks of our lives. So the first days in a foreign city, even a our bodies begin to adjust to the new time zone, fill our minds with the accumulating incongruities of new place, displacing the presence and immediacy of our now distant homes. The world gets stranger to the hour.

Travelers may know the experience of arriving in a city late at night, tired and unsure of where to go and acquiring a specific feeling of the place; then, the next morning, waking in a hotel and opening the curtain to light and life outside the window, and having the sense of arriving anew, or even arriving for the first time, as if what happened at night did not happen at all. When I flew to Delhi for the first time it was January, and the city's famous fog was thick at the airport and in the capital itself. It was perhapthree in the morning when our bus left the terminal. The streets quickly turned narrower, more residential. I was surprised that Delhi that night was far colder than London, and the gray dust on the streets, in the night drifts of fog, looked like nothing so much as snow. In my memory the journey was utterly silent; all I could think of was that we were stealing into Delhi, strangers to the city in both time and place.

Eventually, many passengers will have enough time to replace themselves in this new locale, like cartoon shadow that's briefly separated from its owner and later reunited. But before this can happe the crew from their flight will almost certainly have gone back to where they came from; we wi probably already have flown to yet another city. Equipped with eyeshades and earplugs, and largely fre from locally timed schedules in each city we visit, we have more control than most travelers over ho much jet lag we experience. But place lag is an unavoidable and all but permanent presence in our live

When I have a free morning, I often go to a city's main railway station. New or old, in Beijing of Zurich, the stations are typically masterpieces of architecture, and there are always cafés to linger with a book. I like, too, the signs on the airport-like departure boards for many smaller cities I have no heard of, or did not realize were close enough to be reached by train. But sometimes I think that the reason I like to wander or sit in these stations is because they are incarnations of in-betweenness. busy foreign station looks exactly how I feel.

Place lag is most acute when we depart from a foreign city in the late evening. We board a bus at ou hotel and journey to the airport, passing the cars or other buses filled with workers making their lat way home, and shopping bags filled with what someone will cook; perhaps they're listening to music to a sober-voiced news anchor reading out the evening's top stories from what to me might as well be

another world. Tonight everyone I see on this road will sleep in their own beds, while I'll be watchir the flight instruments and drinking tea over Pakistan or Chad or Greenland. Occasionally on these by journeys, I experience clarifying jolts of my current place, blasts of the truth that only foreigners wis see of a city and a day, the privilege of the outsider's view. But often I feel that I have already left, of that I was never in the city at all.

Later, several hours into a flight, I may think back to the staff we have left behind in Johannesburg of Kuwait or Seattle or Tokyo, those who "work on the ground," as we say, and about the world they return to when their day's or night's tasks are completed, when they disengage from the plane as cleanly as the fueler from the wing. I think about what time it is now, in their city, and whether it's dark yet. I try imagine what they will eat, or what they will say about their day; what the homes they have gone to localike—Indian or Japanese or American, and each home itself a country.

Although place lag is more a feature of a pilot's life than jet lag, it retains analogies to time. When see an old black-and-white photograph, I have to remind myself that the world was in color when it w taken; or that to the people in it, the moment captured felt as much like the present as the moment which I am now looking at the photograph. Place lag is the geographic equivalent of this chronologic effect, a dislocation only airplanes are fast enough to conjure from the present moments that run no chronologically down through the past, but horizontally, across the geography of the earth. It's o experience of a truth we could never have evolved to grasp easily: that the whole world, every place, going on at once.

One winter night I flew to New York, as a passenger. The plane was nearly empty. I was in a middle seat, but the windows on this plane were larger than most and if I sat up straight I had a clear view of the city scrolling past the glowing ellipsis of the windowpanes. In their stowed position the individual passenger television screens faced sideways, out toward the windows and the world.

As we came in to land these unwatched televisions were still on. When I looked toward the windows saw their images, partially reflected back into the plane. Projected against the night was a comedian a stand-up club, somewhere and some time else. His glowing, moving image, his silent, laughing audience, rolled smoothly over the turning illuminations of the city. Further down the plane, from another television, a flickering African savanna floated over the sky. Lions turned their faces sideway in inaudible roars and prowled over their unexpected night dominion.

I found myself recalling the memorable name of a category of papal address: *Urbi et Orbi*—to the ci and the world. Here we see place more clearly than ever; here we see one city that is given to us a beautifully, that gathers beneath us in the form of its own electrified approximation. Yet here, too, are places crossing places, unmoored and frictionless in the world made by airplanes.

"Twelve hours, twelve bounteous hours are gone, while I / have been a traveler under open sky," wro Wordsworth. Twelve hours in a 747 is a fair run under the blue or the stars; Tokyo to Chicag Frankfurt to Rio de Janeiro, Johannesburg to Hong Kong.

I struggle for a means to measure out the human scale of these journeys. The task gets harder, neasier, the more I fly. Sometimes after a long flight I reach my hotel room and close my eyes, and I'r hit by the silence of being alone for the first time in thousands of miles, and I don't know how man faces I've seen since my day began, since the sun rose in whatever city I happened to wake up in the

morning. I am certain that on most workdays I see more people than many of my ancestors saw in a

entire lifetime. I think how those I've seen have been scattered by the hours of airplanes, how the simplest definition of community, of sharing a space, has been disassembled, even as the plane has enabled new forms of reunions, those that take place on a fully planetary scale. By nightfall many of the people I saw in the airport or onboard my plane will have taken further flights, or will be at home, or is a hotel room like mine. Some may be driving the last miles down a narrow road, completing the journey to a place distant in every sense from the world I know, or may even now be describing the journey to the person they've traveled so far to see.

Sometimes, trying to imagine the dimensions of modern flight, I think of the air. Not just of the volume or depth of air we move through, or Wordsworth's open sky, but rather of their opposite. It ironic that what's called air travel, which vaults us through so much of the world's air, is so profound cut off from any direct physical encounter with it. I suspect this may be the sharpest contrast between those who flew in open cockpits and those who fly now. Who knows what teleportation might feel like presumably I'll be looking for work as soon as someone finds out. But I imagine we already have a smassense from the air-conditioned boxes and tubes, so well prepared for us, that can convey us near anywhere on the planet.

I wake up in a hotel room, after a long postflight nap. I'm in a hotel in an Asian metropolis. It takes me a moment to remember which one. I remember the name of the city just before I sit up, stand, go the window, draw the curtain back on a harbor filled with moving light, a maritime scene so frenetic is could be a far older age. I lift my gaze, and before looking for the airplanes descending over the waterscape, I pause to look at the noble skyscrapers behind the glittering logos and signs hardly small than the faces of the buildings. I shower, dress, wander outside into the electric evening, amid all the light, all the workers rushing home or to meet friends. I look up to where the upper floors of the tower thin out in a starless haze, and I can't calculate how many hours and miles have passed since I was latoutside under the open sky.

I skid over the miles and the hours, tripping over the threads that can't be cut, that constitute no various lags. I remember a dark early start in London, a walk to a Tube station, an unconsidered la moment of unmediated sky, when I did not even pause to consider a farewell. Then a train, to another train that took me to the depths of an airport; a walk through the terminal, another underground train, covered jetway to a plane bound for Hong Kong; a bus from the covered airport station to beneath the large awning of our hotel; automatic doors, banks of shiny elevators with music playing inside an advertisements on the walls for the rooftop jazz lounge; my room and sleep. A journey nearly station to be a superior of the rooftop jazz lounge; my room and sleep.

momentous as any we can make on the earth; yet not one mile or moment of it under open sky.

The ease with which we cross the world now would certainly shock previous generations. But of ancestors might be equally surprised that it's possible to make such a journey without seeing the sky, without, at least, the permanent mediation of glass. And air travel is often the most enclosed portion such journeys. I can enter a terminal in one city and take a series of connecting flights, be carried across the world in no small measure by the wind; I can shop and sleep and dine along the way and yet new face a local breeze.

I often try to open a window in the hotel rooms where I sleep. In many hotels, none can be opened all. The term *built environment* typically refers to the totality of man-made features such as street parks, and buildings. But one subset of this, the cocoon of glassed-off insulation that is modern travelin particular, the global house of sealed comfort that air travelers are presumed to want—is a mo compelling object for the name.

The completeness of the built environment, the built sky, is often taken as a mark of the quality of

the airport, or even of the level of development in a country. Few travelers enjoy boarding a plane that is parked away from the terminal, which may involve waiting on stairs in the wind and the rain. Jetwa —or air bridges, a term in which the increasingly sealed-off modern traveler might hear a touch irony—are added as airports develop and expand. Like aviation itself their shiny presence is taken for sign of progress.

The extent of the built air is revealed most clearly when it breaks down. Even when the plane attached to the terminal by a jetway, if the seal it makes is imperfect, where the edge of the climate controlled jetway meets the plane there are brief little gusts of Dallas heat or Brussels damp or Mosco cold. Such air feels and smells different from the conditioned environment; it hits me like transgression, but also a blessing of place—a sudden blast of place lag, perhaps, but also the first breat of what will eventually remedy it. Honolulu, with an open-sided, though still covered, terminal, is a rate exception in the world of large airports. I was dumbfounded when I first walked through it, not by the volumes it speaks about Hawaii's weather, but by what was for me the extraordinary sensation of natural, fragrant air washing though the sanitized realm of global aviation.

If the enclosed airspace of the world—"breathing what is called air," in poet W. S. Merwin description of waiting in an airport's atmosphere—is a sad thing, an effacement of place or a mode excess of insulation and comfort, it has the advantage that it makes arrival in the true air of a city much more vivid. If I sailed from one city to another slowly, exposed to long weeks of the elements, I migh not notice how sharp the air differences are between the two places.

Flying into certain Indian cities, I have come to recognize and love the unique and rich, faintly smol smell that I have been told comes from the burning of biomass and fuel derived from cattle waste. must rise through, or pool at, certain altitudes. Often I can smell it in the cockpit at night, in the la minutes before we land. Particularly if you are from one of these cities and have been away for a lor time, this must be a pleasing thing to recognize, an unmistakable and physical quality of the air th returns in rough symmetry with the lights of home.

I did not grow up in Boston, but it has been an important city in my life. When my father left Braz this is where he came, and where he met my mother. I lived in the city for several years when I worked in the business world. After I moved to Boston, my mom pointed out that, unknowingly, I had picked apartment a few blocks from where she had chosen to live three decades earlier, which was itself only few blocks from where my father had lived in the Back Bay. When I fly to Boston now I can often smelt he sea as soon as I step out of the airport. Sometimes I smell the city even before I step off the plan especially in winter, when the snow-air mixes with the salt and there can be no question where I are The smell of Boston is not quite the smell of home, but after 3,000 miles of flight to the city where my parents met, it will do.

The smells of cities are so distinct that it's disconcerting when they occasionally fail to match of memories. Once I landed in New York, in the throes of a summer wave of heat and humidity, the dater a trip from Eastern Asia. I took a cab from the airport, and when I opened the window I felt a gu of the night air, the thick water-air of a sweltering city that would barely cool in the evening. If I'd been blindfolded and had had to guess where I was, I would have said Singapore or Bangkok; somewhere a warm sea, with a neon-scattering waterfront and outdoor markets thronged with evening diner a place on which snow might never fall.

More intrepid travelers will also know the experience of flying from a shining steel, glass, and marb airport to the sky-harbor of somewhere smaller or poorer, where there are no jetways, and maybe only handful of flights per day, and where as the plane parks on the tarmac staff rush toward it. As soon a

sample content of Skyfaring: A Journey with a Pilot (Vintage Departures)

- read The Tudor Tutor: Your Cheeky Guide to the Dynasty pdf, azw (kindle), epub, doc, mobi
- read online Screenplay: The Foundations of Screenwriting pdf, azw (kindle)
- download Halvvägs book
- download Physics for Scientists and Engineers with Modern Physics (9th Edition)
- read Body, Inc. (Tipping Point, Book 2)
- http://transtrade.cz/?ebooks/After-Legal-Equality--Family--Sex--Kinship.pdf
- http://thermco.pl/library/Ella-s-Kitchen--The-Cookbook--The-Red-One.pdf
- http://ramazotti.ru/library/Rumoer-in-een-rustgebied.pdf
- http://korplast.gr/lib/Too-Big-to-Know--Rethinking-Knowledge-Now-That-the-Facts-Aren-t-the-Facts--Experts-Are-Everywhere--and-the-Smartest
- http://transtrade.cz/?ebooks/A-Companion-to-Greek-Literature--Blackwell-Companions-to-the-Ancient-World-.pdf