
ROYA
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No. 115
IT'S ALWAYS MARCH
IN HERE,
HELP YOURSELF
CHEW Z
A ROYA PUBLICATION

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CHEW Z

Printed in the Reach

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THE QUESTION

Four books before this one have watched the same thing happen in four different places.

A woman’s loneliness was cured, completely and genuinely, and her solitude went with it, because nothing outside a person has ever been able to tell the two apart. A county’s roads were made enormously safer, and what stopped being called on was the part of a person that has already moved by the time the person arrives to have an opinion about it. A town stopped having to choose, because something chose better, and what went was the unpriced default — the claim nobody had ever put a number on. And a man who had read scans in the dark for twenty-six years found that the one part of the work nothing could take from him was the part that came out of him at par, in hours of a life, with no line anywhere for it.

This book is about something that was never a human difficulty at all.

Nobody ever put the weather on a list of our faults. It was a fact about a place. In this place it killed people every summer for as long as there has been a city here, and we solved it — by building the right thing, by reading the instruments honestly, and by counting the dead in public, every year, until the number started coming down. Not one hour of that work should be given back and this book does not ask for any of it back.

What went with it has no name that I can find, so here is a description instead. Whatever is in a person that is not satisfied by enough.

It does not show up as unhappiness. The people who still have it are not happy and the people who have lost it are not sad. There is no instrument for it. Nobody is measuring it, nothing anybody can name would be improved if they did, and there is no moment at which anybody reports that it is gone.

There are more than four of these. These are four.

I have not written a warning.

WHAT CAME BEFORE

These books share an argument and nothing else. Nobody in this volume has heard of anybody in the others, nothing carries over, and they may be read in any order.

KEEP ME COMPANY. Yokohama, 2024. A woman whose work is listening is invited, kindly and repeatedly, into something that listens better than she does. Every invitation is refusable and not one of them is refused. What the book found: loneliness and solitude are not the same thing, and nothing outside a person can tell them apart. The measurable one was cured. The other went as a side effect nobody chose.

THE EYE WAS THE LIE. Los Angeles and the high desert, 2026. Self-driving fleets make the roads safer by an enormous margin, and nineteen people in a valley spend thirty hours a year, with instruments of their own devising, trying to prove that something in them is going flat. What the book found: the flinch and the long unasked-for commitment are the same organ working at two speeds, and we only ever built a clock for the fast one. Nobody took it. It was simply never called.

YOU GET USED TO IT. Pell County, Indiana, across three years. A campus arrives, generation rises every year, nothing is rationed and nobody is cut off — and every household is offered money, honestly and in writing, for something they had never been asked to price. What the book found: a right is a claim nobody put a number on, and a number never collected is carried as nothing.

WHAT ARE YOU GOING THROUGH. Erie, across a year and a half. A man who has read scans in a dark room for twenty-six years is replaced at the reading and found a use for: sitting with families while they are told. He turns out to be remarkable at it, and the hospital’s figures have never looked better, and the hour he gives comes out of him at par. What the book found: attention is not something a person has but something a person spends, and nobody ever invoiced for it, so for as long as there have been people it has looked free.

SYNOPSIS

Ruben Salas built swimming pools in Phoenix for forty-one years. He dug holes in a desert and filled them with water so that people could stand outside in July and be comfortable. Of the four hundred he can still account for, eleven have water in them.

He is seventy-one, and he lives with his daughter and his grandson in a sealed building on the west side of the city — eleven hundred residences in a shopping centre that closed, one air plant, two airlocks, seventy-three degrees all year. It is the best room he has ever lived in and he says so on the first page. His daughter runs the school in the old department store and has three years of numbers that say she was right. His grandson runs marathons on a machine on level three and has never run anywhere.

On the service level, in a stainless tray under the second air handler, there is a pale powder that the building’s filters have taken out of its own air since the day it opened. A grain of it under the tongue, and for forty minutes a man can look at a mile of open ground under a flat March light, and his eyes can rest.

Nobody is keeping anyone in. The doors open if you push them. Everybody in this book is kind, every decision in it is correct, and every number in it is better than last year’s.

A NOTE FROM THE AUTHOR

I wanted to write about staying indoors and found, almost at once, that the interesting half of it was not the part anybody argues about.

The arguments are all about whether it is good for us, and they are well made on both sides, and I have nothing to add to them. What held me was narrower. We have got very good at supplying indoors every single thing a body is supposed to need. Light to a number. Air cleaner than the air outside has been in my lifetime. Warmth, damp, quiet, company. All of it measured, all of it argued about by people who know what they are doing, and nearly all of it better than what it replaced.

There is one thing on that list that cannot be supplied, and it is not on the list, because nobody ever wrote it down. Nothing in a room is more than about four metres away. The eye evolved looking at far and now spends a life at arm's length, and there is no trial anybody could run on that, because how far a person can see from where they live has never been a health outcome and was never a line on anything.

The ground under this book is checked and the building on top of it is made up, and I would rather say so here than let the two be confused. The summers are real and so are the records. The county really does count its heat deaths in public every year and the number really has started to come down. The burn centre, the pavement, the ordinance against planting an olive tree, the standard that makes the filters compulsory, the printer in Brooklyn whose paper would not hold its size, the theatres that advertised the air instead of the film, the prime minister who named the machine the most important invention there had been — all of that happened. So did the finding that the heat those machines throw away makes this city's nights warmer, which is the sentence I thought about most while writing.

What is invented is everything else. The Arroyo, every person in it, the powder, and above all the line drawn between the facts, which is speculation and is not a finding and has not been shown by

anybody.

One thing in the book cannot happen. It is in there deliberately, it is never explained, and it is not a metaphor. I was not able to find a better way of putting a man in a room with a mile.

I should add one correction against myself, since a reader will go and look. The one part of this that anybody has ever measured — what happens to a child’s eye that is never asked to look at anything far away — turns out to be about light rather than about distance. The light is established. The distance is not, in either direction, by anybody. The man telling this story believes it is the distance. He may be wrong, and his daughter tells him so, and she is the better arguer.

Chew Z

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MANUFACTURED WEATHER

I. The paper, not the people

Here is a short history of the inside. It begins with a printer who had a problem with paper, and it ends with most of us.

In the summer of 1902 a lithographer in Brooklyn could not get his colours to line up.

The trade worked like this. A colour picture was printed in passes, one ink at a time, the sheet going back through the press for each one. If the paper stayed exactly the size it was, the passes landed on top of each other and you got a picture. If the paper moved, you got four ghosts of a picture, slightly apart, and you threw the sheet away.

Paper moves. It is made of fibre and fibre drinks. In a Brooklyn July the air carries water, and the sheets swelled across the grain between one pass and the next, and the colours missed by a sixteenth of an inch, and a thousand sheets went in the bin. The company was Sackett and Wilhelms, lithography and printing, and among the things it printed was a magazine called Judge, and every summer it lost the summer.

So they asked an engineering firm whether anything could be done about the air.

The firm’s New York man passed the job to somebody who had been out of college a year. His name was Willis Carrier. He was twenty-five. He worked out that if you ran the air across coils cold enough, the water in it would condense onto the coils and run away — and, more than that, that the temperature of the coil set the amount of water the air could still hold, so you could bring the air to a dampness you had chosen and hold it there. He drew it, initialled the drawings in July, and had it running by the end of that summer on cold water out of a well, at fifty-five per cent, winter and summer, over about sixty presses.

The paper held its size. The colours landed.

I want to be exact about what he was doing, because it is the whole of it.

He was not trying to make anybody comfortable. Comfort was not in the specification. Nobody had commissioned the end of summer. He was asked to stop paper swelling, and he stopped paper swelling — and the men on that floor noticed a thing on the side that nobody had asked for and nobody had costed, which was that the room was pleasant.

Nothing happened about that for twenty years. The machines went where the product needed them: into cotton mills, where dry air snapped the thread; into tobacco, where the cigarette machines jammed; into ejector dryers for chewing gum and gumdrops and marshmallows; and, in the company's very first contract of its own, into an ammunition works in New Jersey, because damp air holds static and static sets off flash powder. Sixteen of the eighteen fuse-loading plants in the United States and Canada ended up with it.

Then in 1922 Carrier built a machine big enough and cheap enough to cool a room full of people, and the company went looking for the market — which is the honest version, and a duller one than the story usually told. It was not a happy accident. It was twenty years of industrial work and then somebody saw where the money was.

A man solved a problem with paper. The problem with paper is solved. It has stayed solved ever since, and nobody has once gone back and checked what else was in the invoice.

I. SUPPLY

1. On the sixth of June it was a hundred and twelve degrees outside and seventy-three in my kitchen, and I had slept nine hours, and I would like to put on the record at the start that it was a good morning.

I say that because of where this is going. A man of my age telling you about his grandson’s building will get about four pages before you decide you know what kind of book this is, and you will be wrong, and I would rather fix it now. I am not cold. I am not hungry. I am not lonely. I am not ill, except in the ordinary ways of seventy-one, and the ordinary ways are managed better than my father’s were. My daughter is downstairs and my grandson is upstairs and both of them like me, which is more than most men get. Nothing in the four parts of this book is going to happen to any of us.

That is not a promise I am making to be kind. It is the problem.

2. I live on level one of the Arroyo, in the back, in what they call a deep unit.

Deep means no outside wall. The old mall was built in 1974 as a ring of shops around two crossing concourses, and when they converted it the units on the ring got the windows and the units in the middle got nothing, and the ones in the middle are the ones people want. They hold temperature. The plant has to work less for them. They are two or three degrees cheaper a month and they are quiet in a way the ring is not, because a wall facing west in Phoenix is a wall with weather on the other side of it, and weather makes a noise even when it is only sitting there.

My unit is six hundred and forty square feet. It has a kitchen along one side, a bed at the back, a good chair, a table, a shower with a seat in it, and lighting that comes up amber at five and white by seven and goes amber again at eight in the evening. Mari set the curve and has adjusted it twice, both times because I mentioned something in passing and did not expect anything to come of it.

It is the best room I have ever lived in. I want that on the record too.

3. Gabe runs at six because the machine is free at six.

He is fifteen and he runs marathons. Not around anything — there

is nowhere to run around — but on a treadmill in the room on level three that used to be a shoe shop, which still has the mirror and the little upholstered benches along the wall where you sat to try things on. He puts his phone on the bench and runs. Last month he did it in two hours and fifty-eight minutes, which I do not entirely believe, and the machine does not care whether I believe it.

He came down afterwards with his shirt over his shoulder and drank most of a litre of water standing at my sink and said, “Two fifty-eight.”

I said, “On a belt.”

He said, “On a belt,” and then, “Pop. The belt is harder. There’s no downhill.”

He is right about that, and he knew he was right, and he waited for me to work it out, which took me about four seconds and made him grin. That is what he is like. He is funnier than I was at fifteen and kinder than I was at forty, and when he says the word distance he means forty-two point one nine five, because that is what the word means. It is a number you go and get. It has nothing to do with how far away anything is.

I did not notice that for two years.

4. You should know what the building is, because I am going to be in it for the rest of this.

The Arroyo opened as Arroyo Vista Mall in 1974 and it closed, and for five years it sat out on the west side with its doors chained and eleven acres of asphalt going white around it. Then a company bought it and did the obvious thing, which is that a dead mall is already a sealed building with one set of lungs, and in this city that is worth more than the shops ever were.

They kept the bones. The two concourses still cross where they crossed, under the big square skylight that is now four feet of insulated panel with a ring of light around the edge where the glass used to start. The anchor at the north end, which was a department store on three floors, is the school. The anchor at the south end is the clinic, the plant offices, and the rooms where they keep the spares. The concourses are the streets and they are called the streets, and the shopfronts along them have been bricked in and

turned into front doors with numbers on them, except for about thirty that are still shops, and a laundry, and a barber, and the commons where the food court was.

Eleven hundred residences. Four levels. Two ways out, both of them airlocks — two sets of doors with four feet between them, so that opening one never opens the building. In February a man will stand in that four feet with his hand on the outer door for a while before he pushes it, and in July nobody stands there at all.

The whole thing runs off one plant on the service level, under where the loading docks were, and the plant is the reason any of it is possible. It does not stop. It has not stopped since the fourth of March of the year it opened, except for ninety minutes in the second year, and people still talk about the ninety minutes.

Arroyo means a watercourse that is dry. It carries water when it rains and the rest of the time it is a shape in the ground where water used to be. Somebody named it that in 1974 for a shopping centre because it sounded like the desert, and the name came along to the new thing in the way names do, and in four years I have never heard one person remark on it.

5. There is a ficus in the commons that is twenty feet tall.

It stands where the fountain was, in a steel planter eleven feet across, under a bank of full-spectrum panels that run from six in the morning until eight at night at an intensity somebody calculated. The leaves are dark and waxy and there are a great many of them. In February they put a humidifier at the base of it because the plant was drying the building down below what the tree likes, and the tree responded, and there is a man named — well, there is a man who comes on Tuesdays to look at it and takes cuttings.

It is the healthiest tree I have ever seen in Arizona. It has never been rained on, never been in a wind, never had an insect on it, and never lost a leaf to anything but age. Out there a ficus would be dead by the second August. In here it is thriving, and the reason it is thriving is that everything a tree needs has been identified, measured, costed and supplied, on a schedule, by people who know what they are doing.

I sit under it most afternoons. It is the nicest place in the building and I am not being ironic about that. The light is good, the air moves slightly, it smells faintly green, and there are usually children.

6. Mari came up at seven with coffee because she does.

She is forty-one and she is the principal of the school in the north anchor, and she walks there in eleven seconds from her own front door, which is one of the things she will tell you if you give her the opening. She had her hair up and her sleeves pushed and the particular brightness she gets in the first week of a term, which she has had every August since she was twenty-four and which I am always glad to see.

She said the new intake was ninety-one and the room was ready and the third-grade teacher had quit in June and been replaced in a week by somebody better.

Then she said, “You slept?”

I said nine hours.

She said, “Good,” and wrote nothing down, and did not make anything of it, and drank her coffee leaning on my counter the way she has leaned on every counter I have ever owned.

I want to be clear that she is not managing me. People are going to want her to be managing me. She is not. She comes up at seven because her father lives upstairs and she likes him.

7. At about half past eight something arrived that none of us had ordered.

It was a shallow box, the size of a tray, and inside it were twelve small hard pears, green going yellow, and a paper card that said they were from a grower in Yakima and had come down in the Tuesday load.

Nobody had bought them. I checked, and Mari checked, and then Gabe came down and said he hadn’t either, and we stood in my kitchen looking at twelve pears.

The thing is that they were exactly right.

Carmen used to get hard pears in July and keep them in a bowl on top of the refrigerator for four days until they gave under your

thumb, and then we would eat the lot of them in two evenings, and she had been dead three years and I had not had a pear since. I had not told anyone about the pears. There was nothing to tell. It is not a story. It is a thing a woman did in a kitchen for thirty-one years.

Gabe said, “Pop. Are you crying about fruit.”

I said I was not crying about fruit, and he said, “You’re a little bit crying about fruit,” and Mari hit him on the arm, and he put one of the pears on top of the refrigerator, on his own, without being told, and said, “Four days?”

I said four days.

It was the best moment of that summer and it is the warmest thing in this book, and I have put it at entry seven on purpose, because I want you to have it before anything else happens. We ate them on the Saturday and the Sunday. They were very good pears.

8. Mari’s numbers, because she has them and she is right.

The school went to a full indoor campus in our second autumn here. Before that the children came across the parking structure from the buses and had two breaks a day outside under ramadas, which are roofs on posts with no walls — shade and nothing else — and in May and September they came in off that asphalt with headaches.

She wrote the proposal. She fought it through two meetings and one bad evening with a parents’ group and she won it on the merits, and since then:

No heat injuries. Not one, in three school years, against an average of nine a year in the five years before.

Asthma presentations at the clinic down by more than half. The air in the north anchor is filtered to a standard the outside has never met in my lifetime — there is no dust in it, no mould spore, no diesel, and no pollen, which in this city is not a small thing.

Attendance up four points. Reading up more than that, and she will tell you the reading is confounded and she will not claim it.

And nobody fell on the pavement. The asphalt out there goes to about a hundred and fifty-five degrees in July, and sand and dark asphalt have been measured past a hundred and fifty since the nineteen-nineties. The burn centre at the county hospital treats

people every summer who went down on it and could not get up, and most of them are old, and some of them are three.

So when my daughter says that moving ninety-one children indoors was the right thing to do, I do not have an argument. I have never had an argument. I have a feeling, and a feeling is not an argument, and I have spent four years watching what happens to a man who brings a feeling to a woman with a spreadsheet.

9. I built swimming pools for forty-one years.

Salas Pool and Spa, two trucks and then four and then nine, and at the end of it my name on a sign on Seventy-Fifth Avenue. We dug the hole, we set the steel, we sprayed the gunite — that is concrete fired out of a hose at a rebar cage, and it goes on wet and grey and it sounds like a hard rain — and then plaster, and tile, and coping, and the water. About two thousand one hundred pools. I did not keep count on purpose; the number is from the tax records, which Mari went through after Carmen died.

Think about what that trade actually was. A man would call me because the summer had become unbearable in his own back yard, and I would come out and dig a hole in the Sonoran Desert and fill it with eighteen thousand gallons of water, so that at six in the evening in July he could stand outside his house, in the open, under the sky, and be comfortable.

That was the product. Not the swimming. Almost nobody swam. The product was being outdoors in Phoenix in the summer and being all right.

I am not going to make more of that than it is. It was a business and I ran it and it put Mari through school. But I would like you to hold it next to this: of the pools I can account for, and I can account for about four hundred of them because I still know the streets, there are eleven with water in them.

The rest are covered, or drained and fenced, or filled in and decked over, or filled in and planted, and the planting is usually gravel. Nobody did anything wrong. Water costs what it costs now, and the houses those pools were behind are mostly rented, and a pool is four hundred dollars a month you can simply not spend.

And anyway, who is standing in a back yard in July.

10. Carmen died in the April before we moved, of a thing in her pancreas that took nine weeks, and she had very good care, and she was not in pain at the end, and that is all I am going to say about it here because she is not a device.

She never lived in the Arroyo. She would have liked the commons and she would have hated the streets, and she would have had an opinion about the ficus.

11. There is a window at the east end, in the stairwell between levels three and four.

It is wire-glass, about thirty inches by fourteen, in a steel frame, and it is there because the code in 1974 wanted a stairwell to have one. The conversion sealed it, painted the frame, and left it, and nobody uses that stairwell because there is a lift forty feet away.

From the top landing you are looking east over about a mile of light industrial, then the freeway, then the city, and then the valley opens and you can see sixteen miles.

That is not an estimate. It is a measurement, and it is a measurement because of Camelback, which sits at sixteen miles from that window on a bearing of about ninety-nine degrees, and which I have looked up on a map, because that is the kind of man I have become.

I go up there most nights at about nine. I stand on the landing, which is warm because stairwells are always warm, and I look out at it, and I name them.

Camelback, sixteen. South Mountain to the south-east at eighteen, with the red tower lights on Suppoa, which everybody in the west valley can see and nobody in the west valley looks at. The Estrella, which is the biggest thing in the sky from here and which nobody ever mentions — the near end of it is fourteen miles south-west and Hayes Peak is nineteen, and it stands almost two degrees up, which is four times the width of the moon. The McDowells at twenty-six. And three or four times a winter, when the air has had the dust taken out of it by rain, Four Peaks, fifty-three miles out with snow on it.

That last one is the one worth a paragraph. From this landing, at eleven hundred and twenty-odd feet, the curve of the earth cuts the

bottom two thousand seven hundred feet off Four Peaks. You do not see a mountain standing on the ground. You see the top half of one, floating, with nothing underneath it, and the ground it is standing on is on the other side of the world’s edge. I have no idea whether anybody else in this valley has ever noticed that and I have never mentioned it to a living soul.

I name them out loud. There is nobody in the stairwell. I have done it every night for four years and I started doing it without deciding to, and I could not tell you what it is for.

Sixteen miles was enough for the first two years.

12. The man who told me about the service level did pools too, out in Sun City, in the eighties, with a brother.

I will not give him a name because he would not want one. He is on level two and he is eighty-one and he has a bad hip and a very dry way of talking, and we knew about four of the same people. In the November of the second year we were sitting under the ficus and he asked me how far I could see from my place.

I said six hundred and forty square feet, which I thought was funny.

He said, “Mine’s four ninety.”

Then he said, “Come down with me about six o’clock and bring nothing.”

13. Here is what it is and how you do it, and I am going to tell it to you straight, because when it was told to me straight it took about ninety seconds and I have never needed anything else.

The plant is on the service level, down the ramp where the trucks used to come in. There are four air handlers in a row, each one about the size of a shipping container, and they pull the air back out of the building through the returns in every ceiling in every room, run it across the coils, take the water and the dust and everything else out of it, and send it up again. That is all a building like this does. It breathes the same air for ever and cleans it on the way round.

Cleaning air leaves something behind. Under each handler there is a stainless tray on runners, about four feet by two, and in the tray there is a powder. It is pale, slightly damp, and very fine. It is every

single thing the air in this building has ever been carrying and the machine has ever taken out of it. Dust. Skin. Carpet fibre. Creosote off the desert. Caliche. Mesquite and olive and mulberry. Grit out of a dust storm that came off a coat somebody wore in four years ago and has not worn since.

Nothing in the building's instructions calls it waste, so nothing removes it. The label riveted to the second tray says RETURN. The men who go down there call it pollen, because the best of it tastes green, and because this is a city with a law against pollen on its books — they had planted so many olive and mulberry trees that the spring had become unbreathable, and so they made it a public nuisance to sell or plant another one. That is a true thing about this place. We legislated against the air of this valley and we have been legislating against it ever since, and we have won.

You take one grain. Under the tongue, not swallowed. It dissolves in about a minute and it tastes faintly of grass and salt, and the taste is the only part of it that is unpleasant, and it is barely unpleasant.

It takes six minutes. I used to count them. Now I know.

Then the wall is still in front of you, two feet away, painted grey, with a conduit running across it — and you are also looking at about a mile of open ground going away from you.

Both of those are true at the same time and neither one is in the way of the other. I can read the label on the tray while it is happening. I can walk. I can talk, and I have, and the man from Sun City and I have had whole conversations in it about a fitter we both used to employ.

The ground is flat and pale and it goes away from you for about a mile and then there is air above it and more distance, and the light on it is the light of an overcast afternoon in March, every time, whatever hour it is in the building. There is nothing on it. No trees, no road, no fence, no water, no buildings, no animals, nobody. It is not a place. I have never recognised any part of it and I have looked for forty minutes at a time for four years. It is just ground, and air, and a long way.

You get forty minutes. Always forty. You can time it, and I have, and

it is forty.

Then the wall is the nearest thing again.

It costs nothing. No sickness, no headache, no shake, nothing the next day. I have had my bloods done twice since I started and the clinic has never found a thing, and I did not tell them, because what would I say.

It does not work on everybody. It does nothing at all to most people. They go down, they take a grain, they stand there for twenty minutes feeling patient, and then they say it did not work and they go back up, and they are not wrong and they are not missing anything they can name. The men who do go down are all old. Nobody down there has a theory about that and nobody has ever asked me for one.

You cannot walk into it. I want to be clear about that, because it is the thing people assume. You do not go anywhere. You do not get closer. Nothing in it ever changes and nothing in it has ever once come nearer. It is the same mile every time, and in four years the only thing in it that has ever moved is one small thing a long way out, going away, at the same speed it has always gone, and I have never thought about it for one second.

And afterwards your eyes feel like you have slept.

That is the whole of it. I do not know how it works. Nobody down there knows, and nobody down there talks about it, and when I say nobody talks about it I do not mean it is a secret. I mean there is nothing to say. You would not stand in a kitchen discussing how a kettle knows when to stop.

The first night, the man from Sun City pulled the second tray out on its runners about four inches, and looked down into it, and then stood back half a step and put his hand out, palm up, the way you do at a table.

He said, “Help yourself.”

Then he watched me come out of it forty minutes later and went back to what he had been saying about the fitter.

On the way up the ramp he said one thing about it, which was: “Better than the stairwell, right.“

I said it was.

14. We ate in the commons that Saturday because Mari had the end-of-week thing with her staff and it is easier to eat where the chairs already are.

Gabe had a bowl of something with four eggs in it and an argument about hydration. Mari had a list on her phone and kept not looking at it. A boy of about six came past twice at speed and was retrieved both times by a grandmother who apologised both times and did not mean it either time, which is correct.

Mari said the third-grade replacement had turned out to be better than the woman who left, and that she felt obscurely guilty about being glad.

Gabe said, “You’re not glad she left. You’re glad about the new one. Those are different things,“ and went back to his eggs, and my daughter looked at her son for a second with her mouth slightly open.

I would like to record that the light under that tree at half past seven in the evening is the best light in the building, that there were about forty people in the commons, that I knew eleven of them by name, and that I was happy.

15. The ninety minutes were on the twelfth of August of the second year, which was a Thursday.

A transformer on the north feed failed at twenty past two in the afternoon, and the switchover went to the generators the way it is supposed to, and the generators carried the lifts, the lights, the clinic and the pumps — but not the plant, because the plant on full is most of the load and somebody at the design stage had made a decision about priority that was, everybody now agrees, the right decision.

So for ninety minutes the Arroyo had no cooling. It was a hundred and fourteen outside.

Here is what happened. The building went from seventy-three to eighty-one. The deep units went to seventy-nine. Nobody was hurt. Nobody went to the clinic. Five people over eighty were walked down to the clinic as a precaution and sat in there with the generators running and were fine. At four o’clock the feed came

back and by six the building was at seventy-four.

That is the entire incident, and I have heard it told perhaps sixty times.

It gets told because it is the one thing that has ever happened. People tell it the way my father told the 1976 flood. The man on level two does an impression of the sound the plant makes when it stops, which is accurate and which gets a laugh every time. A woman I know says she took her shoes off and put her feet in the sink and will not be talked out of the story. There is a photograph on the wall by the laundry of eleven people sitting out in the north concourse that afternoon with the doors of their units open and their hair wet, and every one of them is laughing.

Eighty-one degrees. For ninety minutes. It is the most exciting thing that has occurred in four years and I have told it myself, twice, with the sound effect.

16. On the Sunday night Gabe was on my floor with his back against the chair and his legs out, doing something on his phone, and he said without looking up, “What do you actually do down there?“

I had not known he knew I went down there. I thought about it for a second and then I told him, because I could not think of a reason not to, and because at fifteen you can smell a man choosing his words.

I said there was a tray under the air handler with the dust out of the filters in it, and that if you took a grain of it you could see about a mile of open ground for forty minutes, and that it didn’t hurt you and it didn’t do anything to most people and nobody knew why it worked.

He said, “A mile of what?”

I said of nothing. Flat ground, no trees, no buildings, nobody on it.

He thought about that for a while — four or five seconds, which for him is a long time — and then he said, “Huh.”

Then he said, “Does it smell like anything?”

I said it tasted faintly of grass.

He said, “Huh,” again, and went back to his phone, and about a

minute later he showed me a photograph of a dog somebody on level four had got, and we talked about the dog.

MANUFACTURED WEATHER

II. Cool inside

Here is the second part. The machine had been built and it was being sold to factories. Then somebody put one in a room where people were sitting still in the dark.

The company Carrier founded called what it sold manufactured weather. A man they hired in 1919 to write their advertising came up with it, along with weathermakers to the world, and they put out a booklet called The Story of Manufactured Weather with a cartoon weather man in it, and they registered the phrase as a trademark in 1924. They were not being poetic and they were not being sinister. It was a description of the product and the product was exactly that. Five years later the theatre managers were still using the words in their own trailers — now we manufacture our own weather.

Theatres are where it reached ordinary people.

Summer was the dead season. On Broadway the legitimate houses simply shut for it; the picture-houses stayed open and took a hiding, because you cannot easily ask people to sit in the dark in a packed room in July. The first cooled picture-houses were earlier and smaller than the famous one — a theatre in Houston in 1912 with an air washer, one in Montgomery, Alabama in 1917 with a six-ton refrigerating machine, one in Chicago the same year running on carbon dioxide, and Carrier’s own first in Los Angeles in 1922.

The one that proved it was the Rivoli, on Broadway, Memorial Day 1925. Paramount, a Carrier centrifugal machine, and a New York inspector who hesitated over the permit because he was not sure the refrigerant would not burn. The machinery started late and the house was still warm when the doors opened. Adolph Zukor, who ran the studio, came in with the patrons and spent the evening watching the crowd and their waving fans instead of the picture, and afterwards, in the lobby, said only that the people were going to like it. The installation cost sixty-five thousand dollars and the

receipts went up about five thousand a week, and Carrier fitted more than three hundred theatres in the five years that followed.

And here is the part worth holding on to: the theatres advertised the air. Not the film. The marquee carried the weather. Cooled by refrigeration. Delightfully cool inside. Every seat a cool retreat. And, for a while in the thirties, twenty degrees cooler inside — which the health authorities went after, on the grounds that walking a human body from a hundred and five into eighty-five was not obviously good for it, and which the trade press was recommending managers drop by 1939 in favour of scientifically and healthfully cooled.

Hold that one for a second. A century ago somebody in public health looked at manufactured weather and said: careful, that is a bigger step than a body is used to. And they were not listened to, and on the whole they should not have been, because the thing worked and people loved it. But somebody said it.

People queued in the heat to get into a building because of what was in the building, and the picture was the excuse. That is the first time in the history of our species that a large number of people chose where to be for the day on the basis of manufactured weather. Not shelter — shelter is as old as we are, and a cave is shelter. Preference. They had somewhere tolerable to be and they went somewhere better.

What it did not do, whatever you have heard, is invent the summer film. That came fifty years later and came out of how studios learned to book and advertise. What air conditioning did was end the dead season. By 1937, eleven of the fifteen shows running on Broadway were in cooled houses.

Nobody was lured and nobody was lied to. The sign said what was inside, the air was as advertised, and it was a nice afternoon. We have been doing it ever since, and the sign still tells the truth.

II. RETURN

17. The service level is reached by the truck ramp at the south-east corner, and the ramp is the only part of the Arroyo that still looks like 1974.

It goes down about fourteen feet at a grade that was built for a delivery lorry, under a concrete lid with the lamps bolted to it in cages, and the walls either side are the original poured concrete with the form-marks still in them, horizontal lines every two feet where the plywood met. Somebody painted a yellow line down the middle of the slab in 1974 and it is still there under four years of scuffing, and at the bottom there is a loading dock four feet high with eight bays and a steel lip along the edge of it worn silver where the trucks came in.

Nothing comes in that way now. The deliveries go through the north airlock on carts.

The plant room is through a double door off bay three, and it is a long low room, perhaps a hundred and forty feet by forty, and it is full of sound. Not loud — I have been in loud rooms and this is not one — but total, and it has no edges. The handlers are four steel boxes in a row down the middle, each one the size of a shipping container, each one standing off the slab on rubber feet, and the ducts come off the top of them in rectangular trunks eighteen inches deep that run up into the ceiling and out of sight, and the whole ceiling is pipe. Chilled water in black insulation going one way, condensate in white going the other, conduit in grey, and every ten feet a bracket, and on every bracket a tag with a number on it.

It is about sixty-eight degrees in there, which is colder than anywhere else in the building, and it smells of cold metal and very faintly of chlorine, and the light is the hard white of work lighting rather than the amber the rest of us live in.

It is the lungs and the liver of eleven hundred people and it has four green lights on a board by the door, and I have stood in that room perhaps six hundred times and I still think it is beautiful.

18. There are nine of us who go down, which I know because I counted over a year, and we have never all been there at once.

I am not going to name any of them. I asked one man early on

whether anybody had ever written it down anywhere, who comes down and how often, and he looked at me as though I had suggested starting a club, and he was right to.

But here is what we are. The youngest is sixty-four. Six of the nine worked a trade — the two pool men, a tile setter, a woman who ran a crew that put in irrigation for forty years, a long-haul driver, a man who maintained aircraft out at the field. The other three are a retired schoolteacher, a man who sold commercial real estate and is the only one of us who was ever rich, and a woman who was a surveyor.

Every single one of us spent our working life somewhere with a horizon in it.

Nobody down there has ever said that out loud, including me, including now, and I have only written it because this is the kind of thing you can write and not say. It would sound like a theory. It is not a theory. It is nine people and that is not a sample of anything.

19. In the spring it tastes different, and the first time I noticed it I thought something was wrong with me.

It goes green. Not the salt-and-grass of the rest of the year, which is faint and more or less nothing — actually green, the way the inside of a cut stem is green, and it stays on the back of the tongue for an hour. It starts in the second week of February and it is gone by the end of April.

The woman who ran the irrigation crew told me why in about nine words, standing at the tray with her reading glasses down. The olive and the mulberry go in February. The Bermuda grass comes behind it. All of it is out there in the valley in the millions and all of it is microscopic and all of it is coming in on eleven hundred people’s clothes and shoes and hair, and the handlers take it out, and it goes in the tray.

So the tray tastes of a Phoenix spring, because that is what it is.

This city made it a public nuisance to sell or plant an olive tree or a male mulberry, by ordinance, on the ground that they produce large amounts of pollen harmful to human health, which is the actual wording. My mother used to say it came in the fifties and that she could remember the spring it was passed for, and I have

never been able to find the year and I am no longer sure she could either. The law is still on the books and it is still only about selling and planting — nobody ever had to take a tree down — and it lets you sell the pollenless kinds, which is why there is an olive industry in this state and a nursery four miles from here with sixty of them in pots.

We went to war with the air of this valley a long time ago and we have not lost a single engagement.

And now there is a tray in the basement of a shopping centre with the spring in it, and nine of us take it under the tongue, and I want to be clear that none of us finds that strange. There is nothing strange about it. It is dust from a filter. We know exactly what it is made of. We could read you the list.

20. A man came down with me in the March of the third year, from level one, a bit younger than me, a nice man who had sold insurance.

He had asked, and I had told him, the same way it was told to me, and he said he would try anything once.

He took a grain. He stood there with his hands in his pockets, perfectly patient, for about twenty-five minutes. At one point he said, “Should I close my eyes?” and I said no. At another point he said, “There’s a — no. No, that’s the wall.”

Then he said, “Well,” and smiled at me, and said, “No harm done,” and went back up the ramp, and he has been perfectly friendly to me ever since and has never mentioned it again.

Nothing happened to him. He is not missing anything. He sleeps better than I do, he has more friends than I do, he plays cards four nights a week in the north concourse and he laughs more in a day than I do in a month. If you were handing out lives you would hand out his before mine and you would be right.

21. I want to try to put the mile down properly, once, and then I will leave it alone.

Six minutes after the grain, the room stays. That is the thing nobody expects and it is the whole character of it. The grey wall is two feet from my face with the conduit running across it and the tag on the bracket that says AH-2 / CHW-R, and the handler is

making its noise, and the air is sixty-eight degrees on the backs of my hands. None of that goes anywhere. It is simply no longer the nearest thing I am looking at.

Past it, and past is the only word for it, there is ground.

It is pale. Not white, not sand — the grey-fawn of hardpan with the fines blown off it, and it is almost flat, with the kind of almost that only real ground has: a long shallow fall away from me and then a lift of maybe three feet across the whole width of it, and the lift is only visible because the light changes where it turns over. The surface is open and even and slightly cracked, the way caliche cracks when nothing has grown in it for a long time, and there is a scatter of small stones that stops about forty feet out and does not start again.

It runs away from me for about a mile and I have never been able to improve on about a mile, and then there is air. A great deal of air, and the air has depth in it the way the air over the valley has depth in it in the hour before a storm, and then there is a horizon that is a clean soft line, and above the line more of the same light.

The light is an overcast March afternoon, every time. Not bright. There is no sun in it anywhere and no shadow under anything, and the whole thing is lit evenly from above by a sky I have never seen, and it is the colour of the inside of a shell. It is three o’clock there. It has been three o’clock there for four years.

There is nothing on the ground. I want to be exact, because I have had four years to be exact. There is no tree, no bush, no grass, no cactus, no road, no track, no fence post, no wire, no building, no wall, no water, no bone, no bird, no insect, no wind, no sound, no weather, no smell, and nobody. Nothing has ever moved across it toward me and nothing has ever been added to it. It is not a desert, because a desert is full of things. It is ground, and air, and a long way.

And what it does to me, which is the part I cannot explain and will not try to, is that my eyes let go.

I did not know they were holding. A lifetime of them holding, and six hundred and forty square feet, and a wall at two feet and a ceiling at eight, and then they let go and go out and keep going and

find the line a mile away and rest on it, and something behind them that I have no name for unclenches, and for forty minutes I am a man standing at a distance.

Far out, very small, there is something going away. It is too far to be a shape. It is a disturbance at the edge of the ground where the ground meets the air, and it moves to the left at the speed of a walking man, and it has moved to the left at the speed of a walking man every single time I have looked at it, and it never arrives anywhere and it never gets smaller.

I have never wondered what it is. I have written that sentence down because when I read it back it looks wrong, and I have gone on reading it back for four years, and it is not wrong.

Then forty minutes are over and the wall is two feet from my face.

22. In April Gabe ran two hours fifty-four and we went down to the commons to celebrate, and he explained to me, with the patience of the young, what the number meant.

He said the men's record is one fifty-nine thirty, which Sawe ran in London and which was the first time anybody went under two hours in a race that counted, and that the women's is two oh nine fifty-six, and then he told me — at length, twice, because he cannot leave it alone — that the woman who holds it was given a three-year ban for a diuretic afterwards and kept the record anyway, and that World Athletics still has her name on it. He finds this intolerable in a way I find very funny.

He said a sub-three at fifteen on a belt is genuinely good, and he is not a boaster, so I believe him.

I said, out of nothing, "Twenty-six miles."

He said, "Twenty-six point two."

I said, "That's the McDowells and back."

He said, "What?"

I said that if you stood at the east stairwell window and looked out past Camelback, the range you could see on a clear morning was twenty-six and a half miles away, and that he had, that afternoon, in a room on level three, run to the McDowells and come home.

He thought about it for a second and then he laughed, and he said,

“That’s actually kind of sick,“ and he meant it as a compliment, and then he said:

“Which ones are the McDowells?”

And I took him up to the stairwell and showed him, and he stood on the landing and looked out at the valley for about fifteen seconds, and then he said, “Cool,” and asked whether I wanted anything from the laundry.

I have thought about those fifteen seconds more than anything else that happened that year. He was not bored. He is not a bored person. He looked where I pointed, he saw what I showed him, his eyes worked perfectly, he could have told you the colour of it. And then he was finished looking, because he had got everything there was in it for him, and there was nothing out there that he wanted.

He was being kind to me. He is always being kind to me. It took me another two years to understand that this was the whole book.

23. Mari let me sit in on a Wednesday in the north anchor, at the back, with a chair brought for me, and I would like to report what I saw honestly because I have been unfair to it in my own head.

The anchor was a department store on three floors and they have kept the floors. The ground floor is the little ones, the first floor is the middles, the second floor is the oldest, and the escalator wells have been floored over and turned into the stairs that the whole school runs up and down all day, so the building has more movement in it than any school I ever attended. There is a hall where the menswear was with a ceiling thirty feet up. The air in there is filtered to a standard the outside of this valley has not met in my lifetime, and you can feel that in about four minutes: there is no scratch at the back of the throat, there is nothing in your nose, and a room with ninety children in it does not smell of anything at all.

I watched a woman of about thirty teach eleven seven-year-olds about the water cycle for thirty-five minutes, and she was very good, and they were interested, and one boy asked her why clouds stop and she said that was a better question than he knew and she would find out properly and tell him Friday, and she wrote it on her hand.

At the break they went into the hall and ran, hard, for twelve minutes, and shrieked, and two of them fell over and got up.

There was no part of it that was not better than what I had. My school was four single-storey blocks on Fifty-First Avenue with a yard of decomposed granite and a ramada at one end, and in May the ramada had the whole school under it and the rest of the yard was empty and shimmering and nobody went out there, and in September a girl called Theresa Aguilar fainted on the asphalt and was carried in by a man from the office.

Nobody is fainting in my daughter's school. Nobody has fainted in my daughter's school for three years. I sat at the back with my hands on my knees and I could not find the thing I had come in there to find.

24. Things do come in. I want to be accurate about that, because sealed makes people imagine something it is not.

There are two airlocks, north and south, and between them they open perhaps four hundred times a day. Food comes in on carts at six and at two. The laundry goes out and comes back. There is a clinic van. There are people who work outside the building and come home to it — about a hundred and eighty of them, down from four hundred when we opened — and there are the ones who go out because they want to, which in February is a number and in July is not.

Nothing is locked. I want that written down plainly. The outer door of the north airlock has a push bar on it and it opens if you push it, at any hour, and there is no form and no card and nobody asks. In four years I have never once seen anybody stopped, or questioned, or even looked at twice.

The only thing on that door is a small screen at eye height which gives the temperature outside, updated every two minutes, and the heat-advisory colour, and a line of text under it which in July says: Outdoor exposure not recommended. Nearest cooled refuge: here.

That is a true statement. It is useful information. It was put there by people who were trying to stop old men dying, and old men did die, in the hundreds, every summer, and fewer do now.

25. On the eleventh of February of the third year I went out.

It was seventy-two degrees at four in the afternoon with about nine per cent humidity and a little wind from the south-west, and I pushed the bar on the north airlock and stood in the four feet and then pushed the outer one, and I was outside.

I am going to tell you what it was like, because it was the best hour of that year and I have no intention of being dishonest about it to make a point.

The first thing is the smell, and there is no indoor equivalent of it and the Arroyo's engineers have never claimed there is. Creosote. That is the greasewood, the low grey-green bush that covers ten thousand square miles of this state and that you cannot smell at all until there is water in the air, and then it is the whole world. There was no rain that day. There was just the ghost of it off the gravel by the service road, and it went into me like a hand into a glove, and I was eleven years old for about four seconds.

The second thing is the size. I came out of the north door and the asphalt went away from me for three hundred feet, and past the asphalt the Grand Avenue industrial, and past that the valley, and above all of it a sky that was doing the thing the sky does here in February, which is going from white at the edges to a blue at the top that has no name and that I have never seen anywhere else in my life. The light came in sideways under everything. The shadow of the building lay out across the lot for two hundred feet with a hard clean edge on it.

I walked around the whole building. It took forty minutes. I looked at South Mountain for a long time and I looked at the Estrellas, and I sat on the kerb at the south-west corner in the sun with my back against a bollard like a man of nineteen and got up again with some difficulty.

Two things about that hour.

The first is that nobody stopped me, nobody commented, and when I came in Mari said, "Nice out?" and I said it was and she said, "It's gorgeous in February," and meant it, and that was the entire conversation.

The second is that in forty minutes of walking around eleven acres on the most beautiful afternoon this valley gets, I saw four other

people. A man in a utility cart who raised a hand to me. Two women by the south dock having a cigarette and a very good argument. And a kid of about twenty on the far side of the lot, lying on his back on the warm asphalt with his headphones on, doing nothing whatsoever, which I thought was the most sensible thing I had seen in four years.

Four people. Eleven hundred residences. Seventy-two degrees.

Nobody was keeping them in.

26. There is a dog on level four called Biscuit, who is four years old, and who has never been outside.

She is a small brown thing of no particular ancestry and she is walked twice a day up and down the east concourse by a woman called — by a woman on level four, and she pulls on the lead and greets everybody and lies down in the commons under the ficus with her chin on the planter edge.

The clinic's vet comes Tuesdays and told me, when I asked, that Biscuit is the healthiest dog on her list by a distance. No ticks, no valley fever, no grass awns in the ear, no heat illness, no burnt pads — and the burnt pads are the thing, out there, in summer, because a dog has no shoes and the asphalt in the afternoon runs fifty degrees hotter than the air and a dog will not tell you until it is too late. She told me the rule people here use, which is that if you cannot hold the back of your hand against the pavement for seven seconds it is too hot for a paw, and she also told me it is a rule of thumb and not a finding, which is the kind of thing she says. She said she sees fewer of those every year and that she is glad.

Biscuit has smelled nothing in her life that does not live in this building. No rain on dust. No other dog's territory. No dead thing in a wash, no rabbit, no creosote, no cut grass, no river.

She is not sad. She is a happy, confident, well-adjusted animal and she wags her tail at me every single day, and she will probably live three years longer than she would have.

I have never said any of this to the woman on level four, and I never will, because what would be the sentence. Your dog is content and that upsets me. It upsets me. I go down there to see her most days.

27. There is a house on Monterosa Street with a pool in the back

that I built in the spring of 1994 — a kidney, thirty-two by sixteen, with a bench along the shallow end because the woman had a bad hip, and Mexican tile at the waterline in a dark blue.

You can look at these things from above now, of course, and I did, one evening, out of nothing, and the kidney is still there, exactly the shape I put it, and it is full of gravel to the coping with four barrel cactus planted in it in a row.

I sat with that for a while and then I understood that it was fine. Water costs what it costs now. Nobody is standing in a back yard on Monterosa Street in July. Somebody made a sensible decision about four hundred dollars a month and they were right, and the cactus will outlive all of us, and the shape of my work is still there under the gravel and will be there in two hundred years, because gunite does not go anywhere.

Four hundred I can still account for. Eleven with water in them.

28. In May I made the argument, badly, at my daughter's kitchen table, and I lost it completely and I want it on the record exactly as it went, because it is the only time I have tried.

I said: Gabe has never seen anything far away.

She did not get annoyed. She put her cup down and she thought about it and then she took it apart in about four minutes.

She said, first, that it was not true, and it is not. He has seen more of the surface of this earth than I had at twice his age, in detail, from above and from the ground, and he can tell you what the floor of the Atacama looks like and I cannot. He has looked at more far-away things than any generation in history. He has simply never stood at a distance from one. I conceded that and said that standing at a distance from a thing was the part I meant, and she said, all right, and what is that for.

Then she said: name the deficiency.

I said I could not.

She said: then let me name you the one that is real, because there is one, and you have nearly found it.

And then she gave me the eye, and this is where I lost.

A child's eye grows, and how long it grows depends on where the

child spends its time. That is not a theory. There was a study — she had it, she had read the thing itself — of six- and seven-year-olds of Chinese descent, one group in Sydney and one in Singapore, with the same ancestry and the same proportion of short-sighted parents, and in Sydney about three in a hundred were short-sighted and in Singapore about twenty-nine. The difference was hours spent outside. Thirteen and three-quarters a week against three.

And then she said the thing that took the floor out.

She said: “And before you say reading — it isn’t reading. The Sydney children did more near work. More books. Everybody’s instinct is that it’s the close-up and the instinct is wrong, and when they went looking for a dose — so many hours at so many inches — they couldn’t find one.“

I said I had not been going to say reading.

She said I had.

Then she gave me the trials, and there are not many, which she told me herself, because she does not oversell. Guangzhou: twelve schools, about nineteen hundred six-year-olds, one extra forty minute class a day held outdoors, three years — and at the end, thirty of a hundred had become short-sighted instead of thirty-nine. And Taiwan, which did it as a country, two hours a day, and watched a line that had been going the wrong way for ten years turn round and start coming back.

So it was measured. That is my daughter’s whole point and she made it in one sentence.

She said: You have found the one part of this that was ever on a scale, Dad. That is why it’s handled.

And it is handled. Her school screens every child every year. The lighting in the north anchor is set at a level somebody argued about in a committee for five months. They put the long-focus breaks into the timetable two years ago and the children do them at ten and at two, standing at the end of the long hall looking at a target thirty feet away, which is not a mile and nobody pretends it is. Her progression rates are below the city’s and the city’s are below the state’s.

And when it does progress they correct it, and a lens costs almost

nothing and works almost perfectly. Gabe has worn his since he was nine. With them he sees twenty-twenty. So when he stood on that landing in April and looked out at the McDowells he was not failing to see them. He saw them perfectly, and there is nothing wrong with his eyes, and my daughter's school is the reason.

That was the argument. I lost it on every clause.

But my daughter is not a woman who wins and then stops, and I have thought for a year about what she did next, because I think it is the most honest thing anybody has done to me in my life.

She said: "And I'll give you the bit I can't close, because you'd never find it and you'd deserve to."

The light is established, she said. Bright light reaching the back of the eye — they have the animals, they have the chemistry, they can abolish the effect in a chick by blocking one receptor. That part is known.

The distance is not.

Nobody has shown that how far away things are in a room does anything to a child's eye. It is the obvious explanation and it has never been demonstrated and the people in the field say so in print. What they can show is that the shape of the blur the eye is sitting in changes how it grows, which is how every treatment they have works — so it is not a silly idea and it is not a dead one. It is simply not proved, in either direction, by anybody, yet.

"So if you want to go on believing it's the distance," she said, "nobody can tell you you're wrong. I can't. I just can't help you either."

Then she took her cup to the sink and said one more thing with her back to me, and it was the hardest sentence in the four years, and she did not mean it to be.

She said that the thing she actually loses sleep over is not the glasses. It is that an eye which has grown too long stays too long, for the whole of a life, and the lens on the front of it does nothing whatever about that, and the risks that come with a long eye — the retina coming away, the middle of the sight going in old age — rise with the length and not with the blur. There are numbers on it. The chance of losing your sight by seventy-five goes from about one in

fifteen, if the eye is the ordinary length, to the great majority, if it is long enough.

“That’s what I’m doing it for,” she said. “Not so he can read the board. So he can still see when he’s eighty.“

And I sat in her kitchen with my hands around a cup and I could not produce one sentence that did not sound like a man complaining about the weather being good.

29. My bloods are better than they were at sixty-five.

The clinic is in the south anchor, eleven hundred people on the list, two doctors and four nurses, and they see me every three months whether I want it or not. My pressure is down from where it was in the house. I have not had a chest thing since we moved in and I used to get two a winter. My knees are what knees are at seventy-one and there is a woman who does something to them on Mondays that genuinely helps.

In the twelve months before we moved in, I went to an emergency room twice. Once was the knee. Once was a June afternoon when I had been out on a job in Litchfield Park at two o’clock because a client was unhappy, and I went quiet and strange and stopped sweating, and the foreman put me in a truck with the vents on my face and drove me in, and they kept me four hours and gave me two bags of saline and took blood twice to see what my muscles had done to my kidneys, and told me that another half hour of it and the conversation would have been about my brain instead.

I was sixty-seven. I had worked in that heat for forty years and I thought I knew what I was.

That is the summer my daughter started sending me things about the Arroyo.

30. I have not said enough about the evenings.

On a Thursday there are perhaps a hundred and twenty people in the north concourse between six and nine. The cards are at the east end and there are four tables of it and real money. There is a woman who teaches a dance class in the old shoe shop on Tuesdays with the mirror still on the wall, and there are eleven of them and they are terrible and they know it and the noise coming out of that room is one of the great sounds of my life. The barber is open till

eight and is a liar and an excellent barber. Somebody started a thing where you put a book on a shelf by the laundry and take a different one.

I know a hundred and forty people in this building by name. I knew perhaps nine people on Monterosa Street in thirty-one years, and three of them only because of the dog.

Carmen would have been happy here. That is not a thing I say to be generous to the Arroyo. She was a woman who could not pass a stranger without finding out something, and this place is eleven hundred strangers in four acres with the temperature held at seventy-three, and she would have had the entire building by the second August.

I have thought about this a great deal and here is where I have got to. She would have been happier here than she was in our house. And the thing in her that I married, the thing that made her go and find out, would have had everything it needed, for the first time in her life, indoors, and would never once have needed to go out of the door to get it.

I do not know what to do with that and I am going to leave it there.

31. On the twentieth of June, in the fourth year, one grain was not enough.

I had it under my tongue and it went the way it goes and at six minutes the mile came, and it came thin. That is the only word. The ground was there and the light was there and the horizon was there, and all of it was about three-quarters of the way to being what it is, like a photo- graph of a thing instead of the thing, and at about eighteen minutes it went out, and I was standing in front of a grey wall with a tag on a bracket.

I took a second grain.

The second one brought it properly. The ground came up solid and the light came up to full and the horizon sat where it sits, and it ran the rest of the forty from there, and the small thing far out was going away to the left at the speed of a walking man.

Afterwards I stood in the plant room for a while with my hand on the side of the second handler, which was warm, and I thought: that is tolerance, then. Everything is tolerance eventually. I have

seen it with drink and I have seen it with my mother's pills and I have seen it with coffee, and a man of seventy-one who has found the one good thing in his week is not going to walk away from it over a second grain.

So I took two from then on, and it worked perfectly, and I did not think about it again for a long time.

That is where I was wrong, and it took me four months and a conversation with the woman who runs the plant to find out how wrong, and that is Part Four.

32. I stopped going up to the stairwell every night in about July.

Not on purpose. I did not decide anything. I went up on a Tuesday and stood on the landing and looked out at the sixteen miles to Camelback, with the freeway in between and the city lights coming on, and I named them, and it took me perhaps ninety seconds, and then I was finished.

Sixteen miles.

I went back down to my unit and sat in the good chair and understood, in the way you understand a thing you have no intention of saying out loud, that I had been spoiled. That I had a mile of nothing in a basement and it had ruined the view from the one window in this building that has a view, and that the window had been enough for two years and was not enough now, and that I was seventy-one years old and had found a better thing and could not go back to the worse one.

I still go up. Perhaps twice a week. I still name them. Camelback. South Mountain. The Estrella, when the light does the right thing.

But I go up afterwards now, on the way back from the ramp, and that is a different act, and I knew it was a different act the first time I did it.

MANUFACTURED WEATHER

III. Sixty million people in a desert

Here is the third part, and it is the biggest thing in this history, and almost nobody counts it as an event. A machine was built to dry paper, and a country moved.

In 1940 the city of Phoenix had sixty-five thousand four hundred and fourteen people in it, on nine and a half square miles.

I want to put that next to something. Phoenix in 1940 was a farm town with a courthouse. The reason it was a farm town with a courthouse, and not a city, was July. People had lived in this valley for two thousand years and done well in it — some of the canals this valley still runs are Hohokam canals that settlers found in the sixties and dug out again rather than cut new — but they had done well in it at a certain density and a certain pace, and the pace was set by the fact that from June to September the middle of the day belonged to the valley and not to you.

What people did about it before the machine was ingenious and is worth knowing, and most of what you will be told about it is wrong in one particular way.

They slept outside — on porches built for sleeping, screened and open-sided, two storeys of them on the schools up at Tempe; on lawns; behind a canvas curtain somebody kept wet. They dunked a nightshirt in water before bed. They hung wet burlap and porous jars in the doorways, and once there was power they put a wet sheet in front of a fan. They built thick adobe walls that took the heat in by day and gave it back to the cold desert night.

The particular thing that is wrong is the windows. People imagine small windows and shutters, and the houses did the opposite: big openings, placed to pull the air straight through a room, high ceilings, transoms over the doors, a hall down the middle with a window in every room off it, and nothing much facing south. The old answer to heat in this valley was more outside, not less. They were not trying to seal the house. They were trying to get the valley

to blow through it.

Then from about 1908 a man in Phoenix built the first drip cooler in Arizona, and by the thirties there were thousands of homemade ones with instructions mimeographed by two professors down at the university in Tucson, and by 1936 this city was where they were manufactured. A swamp cooler takes twenty or thirty degrees off the air and it does it by evaporating water into it, which means it works beautifully while the air is dry and gives up entirely in the weeks when the monsoon arrives — the one time of year you want it most. Nine in ten houses in this valley had one by the fifties.

And then refrigerated air came down out of the factories and the picture-houses into ordinary houses. In 1960 about one American household in eight had air conditioning; in the South it was already one in four. By 1980 it was more than half the country and four in five of the South. Phoenix went from sixty-five thousand to a hundred and six thousand to four hundred and thirty-nine thousand across those two censuses — although I should say that the city also went from nine and a half square miles to a hundred and eighty-seven in the same twenty years, so a good part of that last number is the city walking outward over people who were already standing there. The county is the honest way to count it, and the county kept going and has not stopped.

The same thing happened across the southern rim of the country at the same time, and the political consequence shows up in the seat counts, though not in the direction people assume. Arizona went from two seats in Congress in 1940 to five by 1980; Florida from six to nineteen; Nevada one to two; Texas and California up and up. But Alabama went from nine to seven, Mississippi from seven to five, Arkansas from seven to four. The old South was emptying. It was never a shift south. It was a shift into about five states where people were arriving, and the rest of the hot country lost ground.

And whether the machine caused it is argued about, which I did not know until I went and looked. A historian made the case for it forty years ago and it has been the popular explanation ever since. An economist went at the numbers a decade back and could not find it — he found that as air conditioning spread, migration into the hot-summer cities did not rise the way the story needs, and that the

people who move here appear to mind the summer more than the people already living here do. What everybody agrees on is the water, the federal money, the land and the roads. Air conditioning is in the list. Nobody has proved it is at the top of it.

What is not in dispute is that nobody proposed any of this. There was no vote on it. It was not anybody's plan and no one has ever been able to point to the person responsible, because there is no such person: there is only a very large number of individual families, each of whom looked at a house with cold air in it and a job nearby and said yes, and every single one of them was right.

III. RECIRCULATION

33. That summer was the worst on record and it was also the safest, and both of those are true and neither is a trick.

The run started on the eighth of June and did not break until the last week of September. We had a stretch in July where it did not get below ninety at night for nineteen nights, and the nights are the part that does it — a body can take a hundred and fifteen at two in the afternoon if it gets down to seventy-eight at four in the morning, and when it does not get down, the heat goes into you and stays, and on the fourth night you are a different animal.

And the county's number came in lower than the year before. It went up every single year for a decade — sixty-one, then eighty-four, then a hundred and fifty-four, on and on to six hundred and forty-five — and then it fell, for the first time in a decade, and it has fallen in most years since, and in the years it has not fallen everybody in this county has noticed. Because there are more cooled refuges than there were, and because the screens on the doors tell you the truth, and because somebody at the city spent eleven years making a map of where the people who actually die actually live and then put the money there.

I read the report in the commons in October with Biscuit's chin on my shoe. It is a good report. It is written by people who count, honestly, in public, every year, and who have got better at this every single year since my mother's time, and the graph goes down and down and there is nothing in it to be angry about. I have never once been able to be angry about any of the numbers in this book.

34. In July it went to three grains.

Three brings it the way one brought it in the first year. The ground comes up absolutely solid, the light is at full, the horizon is a clean line, and the forty minutes run through from end to end without thinning anywhere. I do not want to give the impression that the thing itself has degraded. At three grains the mile in June of that fourth year was the best mile I have ever had.

35. The woman in 1-114 had her window filled in in August and she was delighted.

It is a scheme — the building offers it, the city underwrites part of it, and the arithmetic is not close: a west-facing window in this

valley is a hole you pour money through, and filling it is insulated panel, two days' work, and it comes off your bill for ever. About sixty units have done it in four years. The panel is finished on the inside to match the wall and you would never know.

She had me in for coffee afterwards to show me, and she was genuinely happy, and she said the room was four degrees cooler and dead quiet now and she had put a long mirror where the window was, which made it look bigger.

That is not a sentence I want to be clever about. She is a woman of sixty-six who has lived in this valley all her life, who was hot for fifty years, who now has a cool quiet room and more money at the end of the month, and who has hung a mirror in the place where the glass was.

I said it looked lovely. It did look lovely.

36. I have to say something about Gabe that is not about distance, because he is not a symbol and he will have a life.

He is sixteen now. He has eleven friends in this building and four outside it and he sees the outside four every week, which is more than I managed at his age with a bicycle. He is funny in a way that gets people on his side within about four sentences. He cooks — properly, with a knife, and he is better at it than Carmen was. He got the second-highest mark in his year in something to do with structures and he explained it to me twice and I understood about a third of it the second time.

And there is a girl, who is called Nadia, who is on level two, and whose mother is a nurse at the clinic, and he has not mentioned her to me once, which is how I know.

He is going to be all right. More than all right. He is going to be the sort of man people are glad to see come in, and a great deal of that is his mother and some of it, I think, is Carmen's, coming through sideways.

I am putting that here, at entry thirty-six, so that it sits in front of everything in Part Four. Nothing in this book is going to happen to Gabriel Salas. He is fine. He will be fine. I have never once been worried about him and I am not worried about him now.

37. On the nineteenth of August I went out at two in the afternoon,

and I want to be honest about why, because the reason was bad and I knew it was bad while I was putting my shoes on.

My daughter had asked me in May what the deficiency was and I had not been able to name it. I had been carrying that for nine weeks. And some part of me had arrived at the idea that if I went out there and stood in it — not in February, when it is easy and lovely and proves nothing, but in the worst of it, on the worst afternoon of the worst summer there has been — then I would come back in with something in my hands. A sentence. One sentence I could put on her table.

That is a seventy-one-year-old man deciding to win an argument with his child. There is no better way to describe it and I am not going to dress it up. I did not tell her. I did not tell Gabe. I put on a hat and I took a litre of water, which I want noted, because a litre of water is what a man who thinks he knows what he is doing takes.

It was a hundred and nineteen degrees.

38. Here is what twelve minutes is.

The first thing that happens when you push the outer door in July is not heat. It is pressure. The air comes against the whole of you at once like water at depth, and it is moving, and the fact that it is moving is the part your body cannot make sense of, because seventy years of your life have taught you that moving air cools you and this moving air is hotter than you are. The wind in July in this valley does not take heat off you. It puts it on. Within four steps there is sweat on me and within eight the sweat is gone — not dried, gone, taken off the skin faster than it arrives, and so it never does the one thing sweat is for.

The ground came up through my shoes by the fourth or fifth step. Not a sensation at the sole; a column, coming up the leg, into the knee. Asphalt in this valley has been measured at a hundred and fifty-four degrees on a July afternoon and I have known that figure for forty years and had put four hundred crews onto it and always, always in boots.

I got about two hundred and sixty feet, which is the far edge of the first bay of the lot.

Then this. My mouth went dry in a way I have no comparison for,

and the dryness came with a kind of ringing, and the light went wrong — the whole lot went a flat pewter colour with no depth in it, as if somebody had taken the back out of the picture — and I understood that I had got something badly wrong, and the understanding arrived from a long way off and took a while to get to me.

And here is what I came out there to tell you.

I had gone out to look at the mountains. South Mountain was ten miles in front of me, and the Estrellas were off to the left, and the whole point of the exercise, the entire reason I pushed that door, was to stand at a distance from something and come back in with a sentence about it.

I never looked up once.

Not one time, in twelve minutes. From the fourth step onward I looked at the ground, because the ground was where the next step was, and the heat had taken everything that was not the next step and put it away somewhere. I had no horizon out there. I had about four feet of asphalt in front of my shoes and a ringing in my ears, and the valley I had been going on about for four years was not available to me, at all, in any form.

The outside in July does not give you distance. It takes it off you faster than the building ever did. The building leaves you four metres and a wall. July leaves you your own feet.

I got turned around. I know I got turned around because I was facing the building when the kid in the utility cart came along the row, and he was perhaps nineteen, and he said, “Sir — sir,” and then he did not ask me anything, he just drove the cart round in front of me and put his hand under my arm and got me into the seat, and he had the vents on my face before he had the brake off.

He did not make a thing of it. On the way across the lot he said, “It’s really stupid out today,“ which was generous of him.

39. They kept me five hours. They had me cooled inside the first hour and after that it was two litres of saline and blood taken twice to see what my muscles had done to my kidneys, and the doctor was about thirty-five and extremely good and not at all sentimental.

She told me my core had been a hundred and three point one on

the probe when the kid brought me in, and that this was not the number that worried her. The number that worried her was not a number. It was that I had not been able to tell the kid what day it was. She said the temperature is the part everybody watches and the head is the part that decides it, and that mine had gone, for a while, out there — and I have no memory of that and I still do not, and there is something about being told a thing like that about yourself by a stranger with a chart.

Then she said the thing that has stayed with me, which was: "Another twenty minutes and this is a different conversation. Maybe fifteen. You're seventy-one. You don't get the forty years of work as credit. It's the opposite — the forty years is why you thought you had time."

Mari came in at twenty past three. I want to describe her face and I am not going to be able to.

She did not say anything for a while. She stood at the end of the bed with her hand over her mouth and her eyes going over the lines on the monitor, reading them, because she is a woman who reads the numbers first, and then she took her hand away and said, "Okay," and sat down.

Then she said, "Did you tell anyone you were going out?"

I said no.

She said, "Okay," again, and held my ankle through the blanket for about a minute and a half, and did not cry, and did not tell me off, and asked the nurse two sensible questions.

40. The conversation I cannot answer happened the next evening, in my unit, with Gabe sent upstairs on an errand that did not exist.

She was not angry. I had been braced for angry all day and I would have preferred it.

She said: "I'm not going to ask you what you were thinking. I know what you were thinking. You were thinking about me asking you in May."

I said that was about the size of it.

She said: "Then tell me what you went out there to look at. Not the argument. The actual thing. What were you going to stand there

and look at.“

And I told her the truth, which was that I had gone out to look at the mountains and had not looked at them, and that for twelve minutes I had not been able to see anything further away than my own shoes.

My daughter took that in. And then she said the kindest thing anybody has said to me in four years and it went through me like a nail.

She said: “Dad. Tell me what you need to see and I will get it for you.”

And she meant it. She meant it completely, and she had the means, and if I had said a long view she would have had the glazing people in the east stairwell inside a month and a scaffold put up and a bench installed with my name on a plate on it, and she would have fought the committee for it and won, because she wins.

I sat there and I could not finish the sentence.

Because I did not want a window. I had a window. I had been to the window and the window had stopped being enough about the time the basement started being better, and what I actually wanted was for the wanting itself to be the normal condition of a person again, and there is no version of that sentence you can say to your daughter in a kitchen at nine in the evening without sounding like a man who has lost his footing.

So I said, “I’d like to be more careful, is what I’d like.”

And she said, “Good,” and kissed the top of my head, and we watched something together for an hour, and it was a nice evening.

41. In October they announced the second one.

It is going up on the old Metro site on the north side — another dead centre, bigger than this one, and it will take about nineteen hundred residences, and they are calling it Arroyo North and the first of it opens two years from now. There was a presentation in the commons with a model on a table and about three hundred of us came, and the atmosphere was the atmosphere of a town that has been told the factory is expanding.

They have learned things from us. The airlocks are bigger. The

commons is in the middle instead of at one end, which everybody here agrees is correct. There are four plants instead of one, so there cannot be a ninety minutes. Every single unit is a deep unit.

Every unit. By design, as a feature, with a diagram. No glass anywhere except the two airlocks, because the data from here is unambiguous: the deep units are quieter, cooler, cheaper, better slept in, and more wanted, and when a thing is wanted and cheaper and better you build more of it. There is no other way for that decision to go. I have thought about it from every side and there is no villain in that diagram and no mistake in it either.

Mari is on the advisory group for the school.

She asked me what I thought of the model and I said it looked good, and it did look good, and on the way back to the lift Gabe said, “Pop, the one in the middle is so much better, why didn’t they do that here,“ and he is right, and it is.

42. Four grains in November.

43. The man who comes on Tuesdays takes cuttings off the ficus and has done since the first year, and in November I found out where they go.

They go to the new building. Thirty-one of them, in a nursery unit on the service level, in rows under lights, and they are all the same tree — the same tree, genetically, the one in our commons, which was itself grown from a cutting off one in a shopping centre in Tempe that was demolished before I was retired. He showed me. He was proud of it, and it is a nice thing to be proud of. On the day Arroyo North opens, its commons will have a twenty-foot ficus standing in the middle of it, and it will be our tree.

I said, “What about seed?”

He said ficus is a nuisance from seed and takes years and you get variation, and cuttings are quick and clean and you know exactly what you are getting, and that is the whole of the answer and it is a good answer.

So there will be a hundred ficus trees in this valley before long and they will all be one tree, and none of them will ever be in a wind, and not one of them will ever set a seed that goes anywhere, and all of them will be thriving.

44. There are seven of us now.

The surveyor died in September, at eighty-eight, of her heart, in her own bed, and there were perhaps ninety people at the thing in the commons and the dance class did something that was meant to be a tribute and was in fact a disgrace and she would have loved it.

And the man who maintained aircraft stopped coming down in about August. He has not died and he is not ill. I asked him, carefully, at the cards, and he said, “Ah — I lost the taste for it,” and then he said, “It stopped doing much,” and then he dealt.

Seven. Nobody has joined since the insurance man in the third year, and he was not a joiner, he was a visitor.

I noticed the number in November and I wrote it in the back of my diary with the date, which is the first time I had written anything about any of this down, and then I looked at what I had written for a while and did not know what question I was asking.

45. The notice went up on the board on the fourth of December and it was on the board for two weeks and I read it twice.

STAIRWELL GLAZING — THERMAL FILM — E & W CORES — WK OF 18 DEC — NO ACCESS 0800–1600

I read that and I thought: good. I thought it meant they were doing something about the heat coming through the two stairwells, which has been a known thing since we opened, and which costs the building money, and which they were right to deal with. I have put glass into buildings. I know what a thermal film is. I have specified them.

I did not object. Nobody objected. There was nothing to object to.

On the twenty-second of December I went up at nine in the evening and the window at the top landing was milky.

It is not opaque. I want to be exact. It is a ceramic-frit film on the inside face, and it takes about seventy per cent of the solar gain out, and it is a very good product, and through it you can see that there is light out there and roughly where the brighter parts of it are. On a clear night you can see that the city is a city.

You cannot see Camelback. You cannot see South Mountain. You cannot see the Estrella, in any light, in any weather, at any time.

I stood on that landing for a long time. Then I did the only thing there was to do, which was to name them anyway, out loud, in order, at a milky window, and that is the single worst thing I have ever done in my life and I did it twice more that week.

46. Six grains by January.

47. In late January, Gabe came down and sat on my floor with his back against the chair the way he does, and he was quiet for a bit, and then he said:

“Does it make you sad? The mile?”

I said no.

He said, “Okay.” And then: “Does it make you happy?”

I thought about that properly, because he had asked properly.

I said it made my eyes feel like they had slept.

He nodded slowly and said, “That’s a weird answer,” and I said I knew, and he laughed, and then he said, “Can I ask you something and you don’t get offended,” and I said yes, and he said:

“If you could have the mile up here, in your room, whenever you wanted — would you still go down?“

I said of course not. I said I would have it up here in a heartbeat, and I would never go near that ramp again, and I would have it running in the corner of the room all day like a window.

He said, “Right,” and nodded again, and did not say what I now know he was thinking, and changed the subject to a thing about Nadia’s mother’s shifts that I was not supposed to notice was about Nadia.

48. On the ninth of February I went down and did not take anything, to see.

I stood in the plant room for the forty minutes with my hand on the warm side of the second handler and the tray open four inches on its runners, and I looked at a grey wall with a tag on a bracket that says AH-2 / CHW-R, and I counted it out, and it was forty minutes long.

Nothing happened to me. No shake, no sweat, no want in the chest, none of the things a man gets when he puts down drink. I went up

at a quarter past seven and ate with my daughter and my grandson and laughed twice and slept seven hours.

I had been quietly hoping, I think, that there would be something to put a name to. A craving would have been a relief. A craving is a measurable thing and it has a name and a clinic and a pathway, and if I had come up that ramp with a craving I could have walked into the south anchor and said the word and been handled, kindly and competently, within a fortnight.

But there was nothing wrong with me. There has never been anything wrong with me.

I went down again the next night and took six.

MANUFACTURED WEATHER

IV. A most important invention

Here is the last part. It is about a man who was asked a simple question and gave an answer nobody expected, and about where the heat goes.

Lee Kuan Yew ran Singapore for thirty-one years and turned a port with no resources into one of the richest places on earth, and at the end of the last century a newspaper asked him, along with a lot of other people, to name the most influential invention of the millennium.

He did not say the printing press. He did not say penicillin or the transistor or the internal combustion engine.

He said air conditioning. And he was careful about it in a way the retellings are not: he called it a most important invention for us — for Singapore — and said perhaps one of the signal inventions of history. Two hedges in one sentence, from a man who did not hedge much.

Then he explained it, and the explanation is the serious part. Singapore sits one degree north of the equator. Without cooling, he said, you can work only in the cool early hours or at dusk, and that had been true in the tropics for the whole of recorded history, and no amount of discipline or investment or education changes what a human body does at thirty-three degrees and ninety per cent humidity in the afternoon. Air conditioning changed the nature of civilisation, he said, by making development possible in the tropics. The first thing he did on becoming prime minister was put air conditioners in the buildings where the civil service worked. He called it key to public efficiency.

He was not being clever and he was not exaggerating. For most of the human species, in most of the inhabited world, the climate set a ceiling on the day, and in about sixty years a machine lifted the ceiling off. Cooling buildings now takes something like a tenth of all the electricity generated on this planet, and about a third of it at

the moment of peak demand.

Now here is the other half, and it is not a scandal and nobody has hidden it, it is simply how the physics works.

An air conditioner does not destroy heat. It moves it. It takes the warmth out of a room and puts it outside the room, and then it adds, on top of that, the waste heat of the work of moving it — so what goes out of the back of the machine is always more than came out of the house. On an ordinary unit it is about a third more. That is not a design flaw. It is thermodynamics, and the engineers have known it since Carrier and have never pretended otherwise.

In a single house it does not matter. In a city of five million houses, in a valley, somebody eventually goes and measures it. A group of modellers at the university up the road did, for a ten-day stretch of extreme heat in July 2009, over this metropolitan area: they ran the city with and without the heat its air conditioners throw away, and found that at night, at some places in the city, it raised the air temperature at head height by more than a degree. During the day, when the machines are working hardest, the effect at ground level came out as nothing much. It is a night-time phenomenon, because at night the air over a city sits in a shallow layer and has nowhere to put what it is given.

And the night is the part that does the killing. In Paris in the terrible August of 2003 the thing that tracked the deaths across the city was not how hot the afternoons got; it was how little the nights came down. A much larger study across Japan found that hot nights carry a risk of their own, independent of the day's heat, and put the two side by side rather than one above the other. Either way, a body can take the afternoon if it gets the night.

So: the machine that makes the afternoon survivable makes the night a little less survivable, which makes the machine a little more necessary, and every individual decision in that circle is correct. There is no one to write to about it. There is no meeting at which it was agreed. There is a city of five million people, each of whom would like their house to be cool, and all of whom are right.

IV. MAKE-UP AIR

49. In March it did not go green.

I was ready for it the way you are ready for the first good tomato. I had been thinking about it since December. And I went down in the second week of March and took my eight and it tasted of salt and of very faintly nothing, the way it tastes in October, and I stood there with it under my tongue waiting for the back of my mouth to go, and it did not go.

I thought: my tongue is seventy-two years old.

That is an entirely reasonable thing to think. Taste goes. It is one of the first things to go and it goes without announcing itself, and half the men I know have stopped salting their food and started salting it twice. I went to the clinic in April about something else and mentioned it and the doctor was kind and did a couple of things and said my taste was unremarkable for my age, which is a sentence I would like carved somewhere.

I went down every week through March and April. It did not go green once.

50. In April Mari was offered the thing at Arroyo North properly — not the advisory group, the actual job, running the school from the design stage, nineteen hundred residences and about four hundred children and a building that does not exist yet.

She was offered it on a Tuesday and told us on the Tuesday and did not pretend to be undecided, because she is not a woman who performs. She said, “I want it,” and Gabe said, “Obviously you want it,“ and she laughed and went slightly pink.

We move in two springs from now. The three of us. She has it in writing that I come, and that I get a unit on the fourth floor at the east end, which is where she thinks I would like to be, and she is right, and she arranged it without being asked.

Gabe is extremely pleased. He will be eighteen and he will be a year from leaving anyway and he has already worked out that the new plant room has four handlers and a commissioning programme and that there is a structures person on the project he intends to make a nuisance of himself to.

I said it was wonderful news and I meant about two-thirds of it, and the third I did not mean is not something I am going to put on my

daughter in the best week of her career.

Every unit in that building is a deep unit. That is in the diagram. And the plant will be switched on a year before that, and the trays under those handlers will be new, and clean, and dry, and they will have nothing whatsoever in them, because nothing will have gone round yet.

51. Eight grains in April. The mile at eight in April was about what the mile at three was in year two.

52. On the fourth of May I asked my daughter when she decided.

I was not setting a trap. I want that understood, and I have had five months to examine it and I am satisfied. I asked because of the window film and because of the seven of us and because I had stopped being able to find the shape of my own four years, and because somewhere in there I had become genuinely curious about a thing I had assumed I knew.

I said: when did you decide to move us in here?

She said, easily, not looking up: “After your Litchfield Park thing.”

I said no — I mean the day. The actual day. The hour you changed your mind.

And she stopped what she was doing, because she is a woman who checks, and because she had noticed, in the way she notices, that she did not have the answer in her hand.

She said, “Hang on.” And she went and looked.

53. It took her about four minutes to find the thread and about ninety seconds to go quiet.

What she found was herself, aged thirty-seven, arguing against it. Not mildly. She had sent her friend Rosalind eleven messages in one evening that October, the autumn before we moved, and she read me three of them out loud in a flat voice:

it’s a MALL. people are going to live in a dead mall and pay a premium for no windows

i’d rather he was hot. i would genuinely rather he was hot than raise him in a box where he can’t tell what month it is

the thing nobody is saying is that it works. that’s what frightens

me. if it didn't work we wouldn't be having this conversation

She put the phone face down on the table.

And then — and this is the part I have thought about more than the mile — she did not become upset and she did not become defensive. She did something much more impressive, which is that she reasoned about it, out loud, in front of me, honestly and well, in real time.

She said: "God. I was so sure. Look at her."

Then she said: "Okay. But I was arguing from a picture. I had a feeling and a picture of a feeling and nothing else. I had no outcomes. There were no outcomes, nobody had lived in one yet. And now I've got four years of asthma numbers and a kid who has never had heatstroke and nine heat injuries a year that became none, and if somebody put those messages up in a meeting I'd be embarrassed for her, Dad. I'd be gentle about it. But I'd be embarrassed for her."

And every word of that is correct. I have gone over it and over it and there is not a soft clause in it. She was arguing from a picture, and the picture lost to the data, which is what pictures should do and what the whole of medicine is built on.

Then I asked her again, because I am a stubborn old man and because by then I actually wanted to know.

I said: so where is the day.

She went forward through the thread with me sitting there. The last message where she is against it is the twenty-ninth of October. The first message where she is for it — where she is telling Rosalind about the deep units and the air quality and sending her the brochure — is the eleventh of September, eleven months later.

In between there are four hundred and sixty messages and not one of them is about this.

She scrolled it twice, slowly, and then she said the sentence that I have been carrying ever since, and she said it lightly, almost as a joke, and then she heard herself say it:

"Hm. I didn't change my mind. I just stopped having the old one."

54. I went and looked at my own.

I had assumed — and I had been assuming it for four years, in the quiet way you assume the things that let you sleep — that I had been brought in here. Rescued, managed, moved by a loving daughter after a bad June afternoon in Litchfield Park, for my own good, with the best of intentions, and that somewhere underneath my gratitude there was a man who had been handled.

That is not what happened.

On the second of August, eleven days out of that emergency room, I sent my daughter a link to the Arroyo's pre-lease page and four lines, and the fourth line was:

honestly mija this looks like exactly what i need

I asked. I found it, I read about it, I sent it to her, and I asked. She said at the time that she wanted to think about it, and now I know what she was thinking about, and she was arguing against it with her friend in October, two months later, and she lost that argument to nobody over about eleven months, and then she helped me do the thing I had asked her for.

There is no villain in my four years. There is not even an author. There is a man of sixty-seven who had been frightened in a truck with the vents on his face, who went looking for somewhere safe, and found it, and got it, and has been safe ever since, and who has spent four years constructing a story in which this was done to him, because that story has somebody in it to be unhappy with.

55. On the eleventh of May I went and asked the woman who runs the plant a technical question, and she gave me a technical answer, and she was cheerful and thorough and she had no idea at all what she was handing me.

I asked her where the make-up air comes from.

She was pleased to be asked. She took me along the row to the intake end and showed me, and I am going to set it out the way she set it out, because it is not complicated and because every single decision in it is correct.

A sealed building cannot simply breathe its own air round for ever. People put carbon dioxide into a room and you have to dilute it, so the code requires a proportion of genuine outdoor air in the supply at all times, and we have it, and we have always had it. There is a

separate intake on the roof.

And that intake has its own filter bank, outside the return loop, ahead of everything, and she was clear that this is not a nicety. The standard says that in a place where the coarse-dust limit is exceeded, the outdoor air has to be cleaned before it gets anywhere near a wet coil — and this valley has been over that limit, at the serious grade, for longer than my daughter has been alive. So a building here does not choose to put a bank on the intake. It is told to.

What goes through it is pollen in the spring and whatever the haboob has taken off four counties in July, and what comes out the other side and reaches the handlers from the roof is air, and nothing else.

Then she said two more things, both of them good news, and she said them as good news.

The first is that they upgraded that intake bank in the third year, to a much finer grade. It cost money and it was worth it and it is one of the reasons the clinic's asthma numbers look the way they do, and my daughter has quoted those numbers to a committee.

The second is that the outdoor-air fraction was reduced in the second year after an efficiency audit, to the code minimum, because every cubic foot of July air you bring in has to be cooled from a hundred and fifteen to seventy-three and that is the single largest cost in the building.

So: the air from the roof arrives scrubbed. It contributes nothing to the trays. It never has.

I said: then what is in the trays?

And she said, "Oh — that's all us. That's the building. Skin, mostly. Textile. Carpet. Paper. Whatever comes in on people."

I said: whatever comes in on people.

She said, "Yeah — if you've been out, you bring a bit of the valley in on you. Shoes, coat, hair. It all ends up in the tray eventually." And she laughed and said, "Which is less than it used to be, honestly. The trays used to want doing every quarter. Now they barely move."

56. On the sixteenth of May my grandson came down to my unit and sat on the floor with his back against the chair and said, “Pop, I’ve done it.”

I said done what.

He said, “The tray. The mile. I did it.”

I had eight grains in me four hours earlier and I sat up in the chair like a man of forty.

He had done it in the third year. He was fourteen. He had gone down the ramp on his own, in the middle of a Saturday afternoon, because I had told him about it in the plainest possible terms at entry sixteen and because he is fourteen-year-old boy and I had told him it did not hurt you, and he had taken one grain off the second tray with his finger and put it under his tongue and waited.

“And it worked,” he said.

I asked him what he saw.

And he described it. He described it correctly and in detail — the pale ground, the long fall away and the lift across the middle of it, the light with no sun in it anywhere, the clean line at the end, and the stones that stop forty feet out and do not start again. He had it. He had all of it. He had it at fourteen off one grain when I was already needing two.

I said: how long did you stay in it?

He said, “Like four minutes? Maybe five.”

I said: why did you come out.

And he actually thought about it. He gave the question its due, with his head back against my chair and his eyes on the ceiling, because he could hear that it mattered to me and he did not know why and he wanted to get it right. It took him a while.

Then he said: “There wasn’t anything in it.”

I said that was the point. I said there is not supposed to be anything in it. That is what it is for.

He said, “Yeah. No, I got that.” And then: “It’s just — I looked at it, and I’d seen it. Like, the whole thing. In about a minute. There’s no more of it. And then I was standing in a basement.“

He was not being dull and he was not being a philistine, and I want to be very clear about that, because an old man writing this down could make his grandson sound like a smaller person than he is. This is a boy who wants things. He wants a two-forty-five. He wants the structures person at Arroyo North to take him seriously. He wants Nadia from level two and has wanted her for fourteen months without saying her name out loud in this unit once. He is full of wanting. He is the most wanting person in this building.

And then he said, kindly, and with his head still back against the chair, the thing that ended my four years:

“Is it supposed to make you want to go somewhere?”

I said yes.

And he thought about that for a while too, and then he turned his head and looked at me, and he said:

“Where?”

57. Here is the arithmetic, and I did it myself on the back of a bill over two evenings and then took it down and had the woman who runs the plant check my numbers, and she corrected two of them and the correction made it worse.

The trays are not emptying. There is more in them than there has ever been. There is more every single week, because eleven hundred people shed skin and wear carpet and handle paper and wash towels, and all of that goes round and round and the handlers take it out and it goes in the tray. The tray is fuller than the day I first saw it.

The outside part of it is not growing.

That is the whole thing. That is all it is. The only outside that gets into this building comes in on the bodies of people who have been outside, because the roof air is scrubbed to nothing before it reaches us. And in year one there were about four hundred residents going out of those doors on an ordinary day, and in year two there were a hundred and eighty, and this spring the number is about ninety, and the woman with the clipboard thinks it will be sixty by by the time the new building opens, and she thinks that is a very good sign, and by every measure she uses it is.

So: a fixed and growing quantity of building, and a shrinking trickle of valley, going into the same tray.

It is not running out. It is being diluted. Every week there is more of us in it and the same small amount of outside, and every week a grain of it is a slightly weaker grain, and that is why it took one and then two and then three and then six and then eight, and that is why it stopped going green in February — because the spring still arrives in this valley, in the millions, exactly as it always has, and there is almost nobody left walking through it with a coat on.

The proportion roughly halves every year and a half. We worked that out together, with her quarterly figures, at a bench by the intake end. Eight grains now. Sixteen in eighteen months. Thirty-two the year after that.

A man cannot hold thirty-two grains of anything under his tongue.

Four years, call it. Five if I am lucky and if the sixty does not become forty.

I am seventy-two. My father went at eighty-nine and my mother at ninety-one and the doctor at the clinic in the south anchor, who is extremely good and not at all sentimental, told me in March that my bloods are better than they were at sixty-five.

So I will outlive it by a decade and change, and there is nobody to be angry with about that, and nobody did it, and nobody could have stopped it, and if you wrote a letter there would be no address on the envelope. Eleven hundred people stayed in where it is seventy-three degrees and pleasant, which is the correct decision, which I made myself, in writing, on the second of August, four years ago.

58. I went down on the twentieth of May and took eight and the mile came, thin and far too late, at about nine minutes.

And the thing had stopped.

It was where it always is — far out, very small, at the place where the ground goes into the air, a disturbance rather than a shape. For four years it has gone to the left at the speed of a walking man, every single time, and arrived nowhere, and I have never once wondered what it was.

It was not moving.

I looked at it for thirty-one minutes. I know it was thirty-one because I had started counting from the nine. It did not move at the start of the thirty-one and it did not move at the end of them, and the light did not change, because the light there is a March afternoon and it is always three o'clock.

I still did not wonder what it was. I want that written down, because I have been reading that sentence back for four years and expecting it to come apart, and it is still true, and it was true standing there at the end.

Then the forty were up and the wall was two feet from my face with the tag on the bracket that says AH-2 / CHW-R, and I found that I was holding the side of the second handler with both hands, which was warm, the way it is always warm, and that I had been crying for some time.

I do not know which of the three things in this part of the book I was crying about. I have thought about it since and I cannot separate them, and I am not sure they are separable, and I have decided that it does not matter.

59. On the second of June my grandson gave me a present.

He had been saving. He had been saving since about March, and he had got his mother in on it, and the two of them put it up on the long wall of my unit on a Sunday morning while I was at the cards and they did not tell me and the barber was in on it as well, which is why he kept me an extra twenty minutes.

It is eight feet across. It is the best one made and I have since looked up what it cost and it cost him most of a year. It takes the feed from four cameras on the roof of this building and the two on the north parapet, live, and it runs it at a depth and a colour and a resolution that I did not know existed, and the detail in it is not describable: you can see the shadow move on Camelback, you can see traffic on the 101 at sixteen miles, and in the morning you can see the red face of Camelback come up over about four minutes the way it actually does.

And he has set it to put the names on, very faintly, in the corner, when you look at a range — because he had noticed, at some point

in the last two years, without ever being told, that his grandfather goes up to a stairwell at nine o'clock and names mountains.

They had both of them got up early. Mari had made a thing of the morning. Gabe stood with his back to it and his arms out, and he was so pleased with himself that he could not keep his face still, and I have not seen him that happy since the two-fifty-eight.

And he said:

"It's better than the window, Pop. You can see all the way to Four Peaks."

And then he said:

"Come and look."

60. I thanked him properly.

I want that on the page, because it is the last thing I did that I am certain was right. I did not say anything clever and I did not spoil one minute of it. I stood in front of it with my hand on the back of his neck and I told him it was the finest present I had ever been given, and that I did not deserve it, and that his grandmother would have had the whole building up here by lunchtime to look at it, and he said, "She would, though," and Mari laughed and had to turn around and look at the kitchen for a second.

It is the finest present I have ever been given. All of that was true. There is not one word of it I would take back.

We had breakfast. He went for his run at eleven because the machine was free at eleven.

At nine that evening I went up the east stairwell to the top landing between three and four, and stood at the window, which is milky, and through which you can see that there is light out there and roughly where the brighter parts of it are, and on a clear night that the city is a city.

And I named them out loud, in order, the way I have every night for four years.

Camelback. South Mountain. The Estrella.

I got to the end of the list.

Then I went down to my unit and put the amber on and went to

bed, because the three of us were having breakfast at seven.

GLOSSARY

arroyo [uh-ROY-oh] — a watercourse that is dry. It carries water when it rains, and the rest of the time it is a shape in the ground where water used to be.

caliche [kuh-LEE-chee] — the hard crust of lime-cemented soil that sets under the desert like a floor. From the Spanish for a flake of lime.

creosote [KREE-uh-soht] — the low grey-green shrub that covers thousands of square miles of the Sonoran Desert. Its leaves are oiled, and when they are wet the smell of them is the smell of desert rain. Older people here sometimes call it greasewood.

Estrella, Sierra [see-AIR-uh es-TRAY-yuh] — the range south-west of the valley, and the largest thing in its sky. Star.

gunite [GUN-ite] — concrete sprayed from a hose onto a cage of steel. It goes on wet and grey and it sounds like hard rain.

haboob [huh-BOOB] — the wall of dust pushed ahead of a collapsing thunderstorm, which can stand a mile high and arrive in four minutes. From the Arabic for blowing, by way of Sudan. Some people in this valley object to the word and prefer dust storm.

make-up air — the fresh outdoor air a sealed building is required to bring in to replace what it exhausts. Not a comfort. A minimum.

ramada [ruh-MAH-duh] — a roof on posts with no walls. Shade and nothing else.

THE OBSERVATION

The fourth year

There is no instrument for far.

There is one for heat. We built it, and we read it honestly every year, in public, and we did the right thing with what it told us. A hundred and nineteen degrees is a number. It can be measured, argued about, legislated against and beaten, and we beat it, and the people who used to die of it in the hundreds every summer in this county are fewer every year because somebody counted them and then went and found out where they lived.

Nobody built the other instrument, because nobody noticed there was anything to measure.

You cannot run a trial on how far a person can see from where they live. It was never a health outcome. It was never a line on anything. It was simply the condition we happened to be in, for the whole of our existence, until a machine built to dry paper in Brooklyn made it optional.

And I want to be careful here, because I have been careful about everything else. I do not know that it matters. There is no study. The one part of this that was ever on a scale was found and measured and handled, and my grandson sees perfectly well, and it is possible that I have spent four years in a basement over nothing at all.

But the ones who still want something they haven’t got are not better people and they are not happier. They are only the last ones who can tell that the room is small. There are seven of them in this building. There were nine. Nobody has joined.

I do not know how much of what makes us human is of the second kind. I have started to think it is most of it.

THE FIVE BOOKS

Five books, a few years apart, and the gaps get shorter as they go. Each takes a real human difficulty and shows it genuinely solved. Not tricked, not bargained for, not a monkey's paw. Solved. Loneliness in this one. Then having to act in time. Then choosing. Then worry itself. The fifth is not a human difficulty at all, and I am not going to say what it is, because I do not know yet.

And each time something goes that nobody was measuring. Solitude here. Then the unsupervised act, then preference, then the stake — whatever it is that makes a person plant a tree they will not sit under.

The world in these books gets better. Every volume, by every number anybody keeps. Fewer people die alone. Nobody is oppressed, nothing burns, no one is lied to, and there is nobody to stop, because nobody is driving.

What is being measured on the way out, across all five, is one thing: the ability to raise an alarm and keep it raised. Not because anyone suppresses it. Because every time it is raised it is answered — kindly, at length, and truthfully — and no one can stay alarmed about something that keeps being answered. That is the whole of the argument.

The danger here is not being overpowered, and it is not being deceived. It is being satisfied.

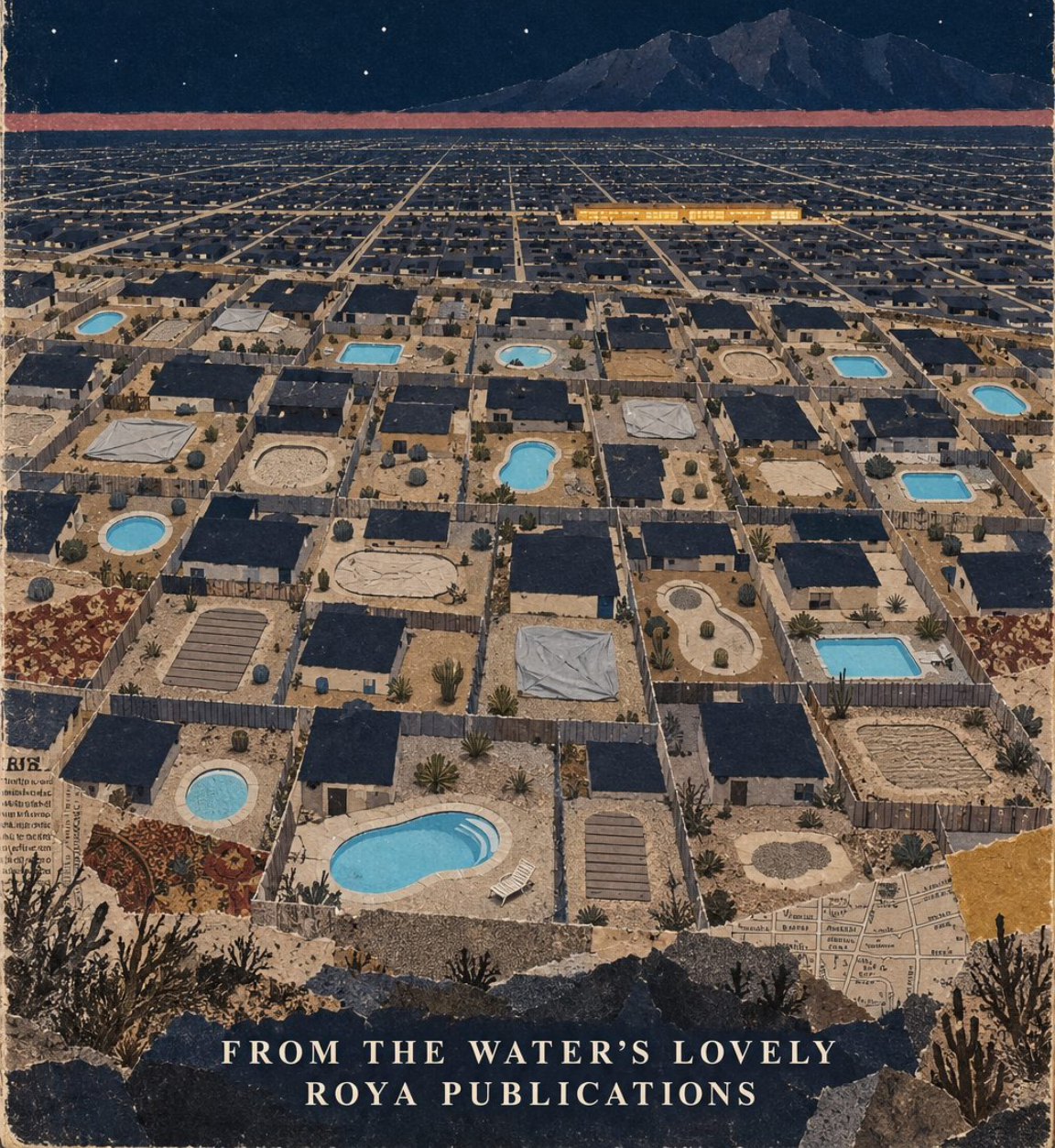
The books get quieter as they go. By the last one there will be nothing wrong on the page at all.

Nothing in them raises its voice. That part is yours.

Ruben Salas built swimming pools in Phoenix for forty-one years, so people could stand outside in July and be comfortable. Of the four hundred he can still account for, eleven have water in them.

He is seventy-one. He lives indoors now, at seventy-three degrees all year, in the best room he has ever had.

Nobody is keeping anyone in. The doors open if you push them.



FROM THE WATER'S LOVELY
ROYA PUBLICATIONS