On the Fractal Nature of Her Leaving

On the morning I found her gone, I woke with a peacock's tail of a headache—widespread, vibrant, multicolored. "Rachel?" I called out into the undarkening emptiness. My heart, as it's been written, throbbed tumultuously with hope and fear. But mostly fear. I rose and installed my socks.

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Our sex in those days prior to her apparent leaving on average in my opinion ranged from good to great. Afterward we'd recline untouching side by side on my bed and smoke invisible cigarettes. These were the thoughts that sprang tumescently to mind.

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In anticipation of my mourning (I knew, already I knew, how this would end), I pulled from my closet and encloaked myself in some nondescript black assemblage and hangovered down my hallway with my hands touching the walls, trainishly.

My bathroom is one of those matrimonially optimistic his and hers two-sinkers. A slanting light from a window over the toilet. Tiles the color of the leaves of linden trees. She once—oh, it seemed already so long ago now—stood barefooted and explained in a voice that cracked at the ends of phrases in a way I now hindsightedly find fleeting that each tile on my bathroom floor is a congruent diamond, a rhombus in fact. "Very simple," she said. "But they are assembled such that the illusion of an arrangement of stacked cubes can be observed, eliciting a strange metaphysical feeling of disorientation, insofar as what the viewer knows (or believes) to

be a two-dimensional surface *beneath* her becomes something of a three-dimensional Q*bertian structure *before* her." She took a step, looking down all the while. "The viewer," she continued, "is drawn to these cubes, she wants to climb them, as if the viewer might ascend step by step to the shimmering viridescent heights of some phantasmic empyrean of quietude and bliss."

"Wow," I said. I was sitting on my toilet, but not in a uretic or excretal sense. We were getting ready for I remember not what, shooting shit so to speak. She paused, reached up, moved the hair from her eyes; she was always moving the hair from her eyes; it was a performance of hers, a pageantry.

"Or," she continued, in a not-looking-at-me kind of way, "perhaps these cubes do not spread out *before* the viewer, but, with just a turn of the mind's eyes, the cubes snap, like those rubber toys that can be plonked inside out, into a completely different topographical field, and now they seem to extend *over* the viewer, and the viewer can stand here, staring down (but seemingly up) at a transcendent and unknowable superstructure of overhanging parallelepipeds."

"I guess I never really thought about my bathroom tiles in that way," I said, looking up in spite of myself.

"And so," she continued, "it seems there are in fact two structures of cubes, each exclusive, each a world of its own—for it is impossible to perceive one of these structures without at least temporarily obliterating the other—and the viewer, if she has the mind for it, may dance through the wormholes of her imagination from one possible world to the next."

"You," I said, "you have a way with words."

"Or," she continued ceaselessly, "perhaps these tiles—these diamond-shaped tiles (some call them kites)—are not at all cubic but, rather, stellate, that is, arranged into a pattern of

overlapping six-pointed stars—let me know when you see them," she said, "it might take you a minute to cleanse the mind's pallet of the cubes . . ."

Five to eleven seconds passed.

"Yeah, hey, wow, whoa, I see them," I said.

"These stars," she continued, "overlap such that, for example, the right diamond-point of one star"—pointing with toe—"is also, if the viewer merely shifts her focus, the left diamondpoint of the star to the right of the first star"—again pointing with toe—"and so on. How is it," she wondered aloud, "that one star takes shape only when its contiguous stars essentially recede to invisibility, and yet the viewer strongly believes that all stars are there always? It seems we have not a stable matrix of perceptions," she said, "but a shifting matrix of perceptions, a matrix of perceptions that is really a series of palimpsests of many matrices of perceptions mingling among themselves (and don't forget," she said, "the cubic possibilities of perception I'd already discussed) in ways that brings forward a single, ephemeral matrix of perceptions while concealing an innumerable number of other possible matrices of perceptions," she said. "And as these stars," she continued, "come in and out of focus—twinkling, as it were—the viewer ascends from the basilar, secularized space of the tiles, determined by the unremarkable, sublunary, and purely utile floor of your bathroom, Erik, to the sacrilized sphere of the heavens—the latter, suffice it to say," she said, "perfectly consecrated by the very stellate forms that set the viewer on her celestial journey in the first place."

"You absolutely sure have managed to deconstruct my bathroom tiles," I said.

"But," she continued, "we're not done yet, for one might notice a completely different tiled floor, one that, observed *via negativa*, is not so much of linden-green ceramic tiles (shaped like diamonds, cubes, stars, or otherwise) as of a grid of crisscrossing rectilinear lines of hazel-

colored grout—which is to say, we see the spaces between the tiles as the objects, and the tiles themselves as the background—and the viewer," she said, "might imagine herself a small insect, an earwig for example, and crawl or skitter along these linear ramifications, traversing node by node, starting at a point in the corner of the room near the door"—she walked over, touched with her right big toe the edge of a cracked tile, and then, somewhat balletically, progressed along the floor while talking—"until finally," she continued, "the viewer-cum-traveler arrives at your shower-cum-bath, the final destination. I have traversed this maze of grout many times," she said, "between these diamonds of tile, branches of possibilities exploding into branches and into branches, like a garden of forking paths, many times I have made this trip while you were sleeping in and sleeping in and sleeping in, with the only stipulation being that I, like a pawn in chess, may not move backward (for then," she said, "the endeavor would become infinite, futile, meaningless, and hardly worth delineating (so to speak)), and I have so far discovered well over a thousand different paths."

"Just, wow," I said.

"Or, to wrap things up," she continued, "perhaps we have nothing more than a two-dimensional arrangement of green ceramic tiles, each tile a simple congruent diamond (call it a rhombus if you'd like, call it a kite). Must we always find some significance, some thickness, some depth, in the simple mundanity of our shallow, immanent, superficial, earthly existences?"

"It's true," I said, "everything need not have a deeper meaning."

And then she was quiet, and from where I sat I observed the various curvatures of her.

Sometimes I think it was my bathroom tiles, it was my bathroom tiles that brought her to me, kept her coming around.

An admission: Ours was not a deep love. Was sidelong, glancing.

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I stood there now in the blue of my solitude. The green tiles were not cold under my socks, which were of suitable newness and thickness to create a good insulatory separation between ceramic and sole. I rubbed my temples, which provided some cephalalgic relief. I wished right then one could rub one's own heart.

I had given her the top drawer, exactly centered between the two sinks, for her toiletries and other necessaries. I pulled it out. The drawer's emptiness was what the ancients might call an unfavorable augury, and into this emptiness I stared and experienced something of a longing for transcendence, what Nietzsche probably called the hypnotized fixity of gaze in which nothingness is reflected. I kept the drawer open, perhaps hoping for illusions, time-reversals, raptures, genii, anything.

I should add, if I may, that above each sink was a recessed light, and I noticed now for the first time that when this top-center drawer was pulled out all the way, a rather complicated two-toned shadow appeared on the tiles (there are, of course, different shades to shadows, gradations). Displayed were (1) a large, roughly rectangular shape the color of ash stretching on both sides of the extended drawer, a shadow created by the drawer's obfuscation of exactly *one* of the two overhead lights (and lightened by the other); (2) a second shadow, this one the color of iron oxide, much darker than the first, in the shape of a line, perhaps an inch in thickness, centered exactly under the drawer and perpendicular to the front edge of the sink cabinet, a shadow created by the drawer's obfuscation of *both* of the overhead lights (hence the shadow's relative darkness); and finally, at the end of the line, (3) an arrowhead, also the color of iron oxide, cast by the drawer's front projecting knobbed fascia.

So we had an arrow here, and this arrow pointed directly to my dining room.

*

We all know that one's ability to refer to an absent entity is in fact a defining characteristic of human language, which is to say of human existence. This, I read somewhere. Or something like it.

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What she called herself was a tilist. She was, as far as I could tell, in some demand. Tiles represent," she told me once, "what we might call the thematic structure of the invisible molecular processes of our unconscious sense of reality's cohesion."

I gathered from her tone she was quoting, but it was a hell of a slogan. She would talk like this nonoccasionally, she really would, with the words in the right order and everything, and I would let her imponderabilia fall around me like raindrops flindering down a very waterproof, probably yellow, poncho.

And she went on, this fine long-gone day of felicity and mirth, to explain that there is a holy grail of tiling, an aperiodic monotile, which she called an einstein tile. I forget where we were when she told me this, out on the town probably, scuttering around somewhere, slinking into bathrooms to check out the tiles, beneath artificial lighting recalled only generally.

"Einstein?" I asked.

"Lowercase einstein," she said. "Not the scientist. From the German, obviously: *ein stein*—one stone."

"Oh yeah," I said. "Obv."

"An aperiodic monotile," she said. "This single tile (reproduced exactly, of course—the tiles may be reflected, rotated, translated; these are the rules), could in theory cover an infinite surface with no overlap and—more importantly—no repeated arrangements."

I think we were holding hands. She moved her free arm around and sometimes, I'm sure, brushed the hair from her eyes.

"We've seen an aperiodic arrangement of *two* tiles—Penrose's famous kite and dart (1973)—but never a single monotile," she said. "Most tilists consider the shape impossible."

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I do remember that she said the night prior to her leaving that perhaps we had run our course. Those were her words: *We, Erik, have run our course*. And since she was the science half of our dyad, and I the literary half (I am a writer, I hope that's clear, making something of a half-assed go of it), I felt obliged to point out to her that the idiomatic expression "to run his course" is defined in a gloss on page 30 of *Julius Caesar* (Pelican, 1988) as "to race naked through the city striking bystanders with a goatskin thong."

These, my flummeries, my asideries, I thought, might delay our unraveling, suppress its imminence.

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Imminence. Immanence. The two words have always befuddled me.

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So I followed the shadowed arrow from my bathroom back down my hall to my dining room, which is part of an open floorplan configuration that connects said dining room with the kitchen and the living room and a vestibular or foyeresque entry area, creating that odd impression of

being in all four rooms at once. This is good, I suppose. Progress. A great openness, bringing one closer to all-encompassing totality of being.

A table made of fruitwood supporting a bowl made of fruitwood containing wooden fruit. Matching chairs with little ridges on the seats to keep each of an ostensible single sitter's buttock separately cupped. Framed identical fictional heath paintings on the walls (on these paintings, more later). And here, resting on the table, more or less exactly at the place where I sit each morning to eat my bran flakes, was an issue of *Current Science* (vol. 79, no. 3, 10 August 2000), open, I am sure antiaccidentally, to a paper called "On the Fractal Nature of Penrose Tiling" by the triumvirate P. Ramachandrarao, Arvind Sinha, and D. Sanyal.

I slid the journal a little to the side, procured my bowl and cereal and milk and banana and spoon and sat, and then stood and procured knife and sat and poured cereal and peeled and cut banana (half) and poured milk and took a bite and chewed and perused "On the Fractal Nature of Penrose Tiling," grappled with it, one word at a time. "In this communication," Ramachandrarao, Sinha, and Sanyal commence, "we propose a novel algorithm for the growth of a Penrose tiling and relate it to the equally fascinating subject of fractal geometry pioneered by Mandelbrot," which led me immediately to the obvious questions: Could we use this "novel algorithm" to help find Rachel? I took a bite and chewed and perused "On the Fractal Nature of Penrose Tiling." The algorithm begins with two line segments of equal length intersecting at an angle of 108°. From there, the gentlemen (yes, they are males, it turns out) do things like creating isosceles triangles using golden means, leading somehow to rhombi that are "the thin and thick rhombi used by Penrose to generate an aperiodic tiling." Aperiodic tiling! It was if Rachel were speaking to me through Ramachandrarao, Sinha, and Sanyal's "On the Fractal Nature of Penrose Tiling." I took a bite, chewed, perused. The gentlemen then repeat the procedure described above

"by dividing all the 108° angles by erecting isosceles triangles of side 1/τ of the side on which they are being erected." I took a break to scrabble for a slice of banana, chewed, then recommenced my perusal. Next, the gentlemen rather daringly "join the newly formed vertices to already existing vertices at a distance equal to the side of the triangle erected." The gentlemen claim (with, I thought, some hubris) that this procedure could be repeated ad infinitum. At a certain point in the paper the gentlemen write that the "discovery of quasi-crystals has conclusively demonstrated that aperiodic packing of atoms occurs in nature." This, for me, I'm not sure why, was a comfort. I paused to pour a second bowl and cut banana (second half) and pour milk, followed by more perusing of "On the Fractal Nature of Penrose Tiling." The gentlemen (I'm skipping over less essential details) estimate that the fractal dimension of a non-random fractal is given by the following equation:

$$D_{\rm f} = \lim_{n \to n'} \left(\frac{\log N}{\log(\tau^{n-1})} \right)$$

and, according to the gentlemen, when we consider the Penrose tiling from a crystallographic point of view (and who wouldn't?), a limit has to be placed on the value of n, the number of recursions of the algorithm, and I noticed in my perusals that the limit turns out to be 39. An interesting number, although I couldn't say why. I stopped to let this all sink in. Took a bite, chewed, rerecommenced my perusal of "On the Fractal Nature of Penrose Tiling" to discover that "random branching during growth . . . can be shown as a non-deterministic fractal, governed by the sticking probability."

And here, it seemed to me, I had my clues. Random branching. A non-deterministic fractal. The sticking probability. Rachel was definitely speaking to me, in that distant, always

somewhat incomprehensible way of hers. And I believed, I believed strongly, that she was asking me to search for her, to find her, to pluck her pluckily from the clutches of oblivion, to bring her back.

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A few years ago—this was in the news, feel free to look it up—a team of chemists managed to successfully unboil an egg. I was not without hope.

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I will admit that if I were to stand outside of myself and see myself as I was then, eating my cereal and reading a science journal, I (that is, my outside self) might think that myself (that is, my actual self) was not exactly acting like a self whose girlfriend (or perhaps ex-girlfriend) had just ripped said self's heart out and left said self dejected and alone. But I (that is, a self outside of my first outside self) might walk up to myself (that is, my first outside self, standing there watching myself eating breakfast and reading a science journal) and explain to my first outside self that this is just how some people deal with heartbreak, the grieving process is multitudinous and multifarious, plus perhaps myself was in a state of shock, plus most importantly don't forget about myself's search for clues, as mentioned. So let's give myself a break, my second outside self might say to my first outside self in re myself eating breakfast and reading a science journal, on this day of catastrophe and strife.

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After breakfast—plates cleared, everything, as the French say, qui a l'air de sortir d'une boîte—I sat down again in front "On the Fractal Nature of Penrose Tiling" to make sure I hadn't missed anything. I was holding a pencil—standard, yellow, hexagonal, erasered—in my teeth, thereby

activating my smile muscles, in the hopes that it would produce a corresponding psychological state. Alas, no.

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Of course eventually she told me of her father and all that. Yes she was one of those who had known suffering. I did my best with it.

*

In any case, all of the above, for fairly complicated reasons with which I'd rather not tax my readers' tranquilities, suggested to me that I might find my inamorata (inamoratum?) that evening at a restaurant-cum-bar (as she'd put it) perched atop a hotel near the coast, a place she'd mentioned once or thrice or quarce. I passed the day in solitude and languor. A gray day, unfrolicksome, lacking birdsong.

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There were so many things—already, so many things—that I remembered about her, one such being the way she'd move the hair from her eyes. Some days she would lift her right arm to pull the hair back from her right eye and over her right ear, a very proper gesture, royalesque even, salutidunal. Some days, when she had the energy for it, she would turn her head to the right and lift her right arm and push the hair back from her left eye, push it over her left ear, where it would fall in little iridal arcs of auriferous, leprechaunal resplendence. Some days she would lift her left arm and very gently, very gracefully, pull the hair back from her left eye and over her left ear, tucking the hair behind the ear with her fingertips, she would take her time with this, as if she were softly planting carrot seeds in the loose soil of her temporal bone. (She might look at me, a questioning expression, an audible: *What?*) Once, perhaps just once, I saw her reach across her face with her left hand and push the hair back from her right eye and sort of fling it over her

right ear, where it did not stay, not even for a second, necessitating one of the more usual hair movings described priorly. Some days—difficult, treacherous days—she would lift both hands—this was not at all easy to watch—would lift both hands, raise them to where her hair covered both eyes, and then in a quick motion she would pull the hair back and over both ears at once, and on these days I knew to steer clear, give her the space she desired. And then some days she would merely flick her head naughthandedly—to the right or to the left, depending on the vicissitudes if gravity, the viscidities of her hair, etc.—and her hair would flip back like a bird in flight, light reflecting shimmeringly off walls like those anaclastic curves on the smooth bottoms of swimming pools.

The above is but a finite list of the infinite ways she would move her hair from her eyes.

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She, in every sense of her, would frequently accuse me of spending my days constructing my memories instead of enjoying my moments. And now that it seems she is gone, I am most grateful for these accumulations.

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The female blanket octopus—a large creature: some can grow to six feet in length—has been known to weigh up to forty-thousand times more than the male of the species, which latter is smaller than a Ping-Pong ball or a walnut.

Yes she pushed me down, engulfed me in her preponderating ascendance. And yet here I am, stricken, unmoored in the absence of her heaviness, her suffocations.

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I finally gave up on the pencil exercises. Needing something to do, something to frivol away the afternoon before embarking on my mission, I wandered the walled rooms of my apartment,

observing a series of identical, and identically framed, fictional heath paintings by an artist I only knew by his or her first or last name—Titorelli—signatured somewhat inelegantly in black at each painting's bottom-right corner. These paintings, my landlord explained to me, were done by an artist originally from the country of Temecula. Titorelli had apparently left them in lieu of rent. The landlord called them "heathscapes." "Do not get any ideas," the landlord—a tall, grallatorial woman who liked to keep things on the up and up—added on the day I moved in. To what she was referring (stealing the heathscapes? offering my own, in lieu of rent?) I wasn't sure. Each heathscape displayed two frail trees, standing at a great distance from each other in the dark grass. In the background was a multicolored sunset. The next heathscape, as I skimbleskambled around, also showed two frail trees, standing at a great distance from each other in the dark grass, against a multicolored sunset. And so on. To describe each heathscape in detail would be an exasperating exercise in redundancy, for as stated, they were all identical. (It was an exercise, that, however, it occurred to me once, would be a fructiferous way to fill up pages of a novella or somesuch—I wasn't entirely closed to the idea.) There were perhaps eighty heathscapes (I tried to count them once but forgot where I had started when I reached the end), scattered up and down the walls, that is nonlinearly, in every room, even the closet (which was a walk-in). They were not hung with care, or perhaps the apparent unintentionality of their hanging was intentional. I would, when the mood struck, rearrange the heathscapes, setting one on the ground to make space for another, for verity is the spice of life, as it's been said. Once I thought to record every possible arrangement, even got started on it, but Rachel explained that the number of permutations—her word—was roughly 80!, which, she continued, is a number far larger than the human mind can fathom. I replied that there was no need to shout about it.

In any case, the heathscapes, just their presence, sometimes seemed to me the only possible answer to the questions that were on my mind.

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Mathematics, I asked her once, was it discovered by, or invented by, the humans?

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A back-of-the-envelope calculation of my own, something I'd been working on, which I thought might impress her: Eros (E), it seems clear to me, equals memory (m) times the square of time, or chronos (c)). That is:

$$E = mc^2$$
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I'd wasted enough of the day. I showered, shaved, changed. My car started just fine.

I parked, if that's what you want to call it, on Wilshire. There was a very fine mist or drizzle, something like the *garúa* of the Andean region (especially Ecuador and Peru)—more than mist and less than drizzle, as I've heard it told. The violet of the sky was three parts sadness, two parts expectation, and one part jealousy, and jealousy, we know, is equal parts love and hatred and fear—what I'm trying to say is that I found myself under a complex convolution of sky, one not easy to calculate, to figure out. People were upright on the sidewalks, their inverted selves reflected hazily down at points of pedal contact. Steam rose lightly from the hoods of recently parked cars, as it does from damp horses in Russian novels. Dogs in velcroized coats sniffed around the bas reliefs of shoe treads at the bases of various trees blossoming from dirt squares scattered equidistantly near the curb. I looked up, and through a break in the clouds the

moon mooned me like an ass. In the fall somewhere I'm sure the aspens were beginning to pale, but here, everything was wet and colorful and frenzied.

I locked my car fobbily, hotfooted my way to the hotel, which was a block or two west, and a half block or so north. There were, as I imagined it, three possible outcomes to my evening's adventures: (1) she could be spectacularly happy that I had solved her riddle and found her, (2) she could be decidedly unhappy that I had same, or (3) she could be entirely absent from the restaurant-cum-bar but could have left me, therein, another series of clues.

The hotel: a tall building, the expected floors and windows and orthogonalities. In the lobby were mirrors and slices of stained, rough-hewn, wooden tree trunks set on their sides like hassocks and nonnative plants and unread, chromatized books with discarded dustjackets on shelves and the usual.

A fast-rising elevator, the kind that must confuse dogs spectacularly. The elevator opened, and there you are, without fanfare or fuss, right at the restaurant-cum-bar's greeting station (I believe that's what we call these now), which was decorated frontally with a tessellation of white, pinned piranhas, all swimming in the same direction, on a white ground. I moved in the opposite direction, upstream I guessed. I am meeting a friend, I said (with hope and fear) to the woman standing there sorting menus as I passed.

The restaurant's floor was wood, the tables and chairs white, the windows a shimmering collage of the reflections of diners and drinkers and the nonreflections of undulating hills specked with a cliché of tiny lights beneath gray-black scudding clouds. A hip-hop remake of Billie Holiday's "Baby Get Lost" was ebbing and flowing from hidden speakers as I reconnaissanced around. No Rachel.

I stopped near the bar, which was roughly centered in the restaurant, stood on my shoes in that standing kind of way, against a post that I suspected was not structurally pertinent with regard to the building—it had that discrepant, inutile, airy sense to it. I positioned myself into something of an adlocutio pose, whereby the weight of the stander is shifted to one leg, and the ipsilateral arm is raised (in my case, the right one), and sometimes a finger is pointed, suggestively but nondirectionally (that is, ambiguously). It is a pose, I've been told, that embodies control, power, leadership, virility. And while I stood there in my pretended serenities, a blazered man I did not know, with a haphazardry of curly hair like Alexander the Great's, came up to me like he owned the place. The man, clearly drunk, jumped right in (without fanfare of fuss), explaining that he had discovered an approach to the unification of quantum mechanics and gravity.

I think he thought he knew me, or thought I thought he thought I knew him. Or something. I stared past him, still scanning the room.

The man explained that there are individual units of space and time that represent the building blocks of the universe.

Without looking at him, I said that I didn't know about that, about these units of space and time. "Have you ever seen them?" I asked.

"Oh no," he replied. "They cannot be seen. They are only felt. Only imagined, really. Like recently forgotten dreams."

I followed literally not one word of what this man was saying and decided, unfortunately belatedly, that perhaps a countenance of noncommunication was in order, but he raised his voice. "How else," he said, moving his arms around and around with his hands at the ends of them, "how else could we explain all of this?"

And then, in that moment before the formation of memories has ensued, in that sliver of time that allows for no reflections or prophecies, I saw her. She just came into view, like the sun from behind drifting clouds shaped rather particularly like medusae. She was sitting—more contented, more at ease, than I'd hoped she'd seem—inside a light-pink blouse. She was with her friend M. (M: female, dark hair and so on. We met but once. I must of course burden the reader narrationally with this unwieldy friend of Rachel's, must plop her into my nonfictional essay, like the wrong puppet in a puppet show, reluctantly I must, for the simple reason that she was there.) They had their elbows up. They were slightly facing each other, but not quite symmetrically. Very still, the two of them. Isn't there a Picasso painting, Two Women Sitting at a Bar? I think there is. The blue period. I wondered if their knees—Rachel's right, M's left—were touching. The bar stools were like those tulip chairs, white and modern. They (the two girls) had their phones out, face-up on the bar. They (the two girls) did not appear to be talking. And then suddenly, as if a clock struck the hour, M looked up and opened her mouth and laughed, and Rachel lifted a glass of unclear liquid—the way she tilted her head back slightly, the way her hair fell, the sheer extravagance of her wondrous temerities: I'd seen it all, a million times—and drank. Rachel had not seen me.

The blazered man was still talking, and what I finally heard, perhaps nonsequiturly, was: "...I've been sent to you."

I looked at him. He seemed to be flickering through Ekman's seven universal facial expressions: fear, anger, happiness, contempt, surprise, disgust, sadness . . . He was like an android gone balmy.

"You were sent to me?" I asked.

He nodded. Curls curled into his face.

"Is this about the tiling?" I asked. "Crystallography? Clusters of atoms? Diffusion-limited aggregation? The sticking probability?"

He withdrew slightly. Disgust, sadness, fear, anger . . .

"Who sent you?" I asked.

His face settled on happiness and seemed to stick there. His eyes slowly closed, the way I've seen the eyes of turtles do, he turned his head up and his face followed, he put his arms out, roodly, and he said: "God."

I excused myself.

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There is a species of beetle, *Regimbartia attenuata*, which, after being swallowed by some species of frogs, apparently swims through darkness until it comes through the frogs' gastrointestinal system—battered, we assume, but alive. This is how I imagined myself, as I ducked into the urinal.

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I ducked into the urinal. A very white room. The basin of each of the urinal's urinals projected triangularly, creating an interesting effect over a black, semicircular, ridged rubber mat that reminded me of those lunettes sometimes placed in front of fireplaces to protect the flooring from sparks (the latter a function not altogether dissimilar to that of the rubber mat before me, I thought). I did not have to go. I just stood there in the halo of my ponderings. She said to me once that the entire universe is a gigantic metaphysical poem whose invisible interior shape is identical with its visible shape and of the exact same size. We were looking at the stars, when she said this. We'd trundled ourselves up to the mountains with our suitcases and books and other acquirements, up to a place I knew even then would outlast her. Someone else came into the

urinal and so I took a step forward and unzipped to play my part. I asked her, that night 'neath nebulae, why it is that we see any darkness at all in the sky. If the universe is filled with billions of galaxies, each swirling with billions of stars—all the stars that have ever existed—shouldn't we look up and see nothing but light? And she answered that the night sky is not dark. It is glowing, absolutely glowing with light. It is just that we cannot see it. I shook out a drop.

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In the movie version of this nonfictional essay, I would, at this point, pull myself together, gather the scattered pieces of myself, zip up and step back and notice the urinal floor, and I would see the tiles, the unbelievable tiles! Let me explain: each tile would be polyform, something of a cowboy-hat shape, made up of eight kites, each, as far as I could tell, one of the six pieces of a regular hexagon (cutting along lines connecting opposite midpoints)—I'm sure you can picture it—and I would notice the patterns, such as here a reflected cowboy hat embedded in a larger field of unreflected cowboy hats, or there an unreflected cowboy hat embedded in a larger field of reflected cowboy hats, but these patterns would never translate, would never repeat, the tiles would radiate in what one might call an uncanny aura of aperiodicity, and the proof of this aperiodicity would be apparent: I would simply try to posit the existence of a periodic tiling of the cowboy hats, and then I would derive an absurdity from this supposition, and indeed the periodicity of the cowboy hats would be clearly absurd—all of which is to say: I had found it! the einstein tile! and then (no time for handwashing) I would check my zipper like a twanging up-pluck on a guitar string, and mosey out to her, and I'd sidle up, tap her on the shoulder, tell her what I'd found, and a countrified remake of Peaches & Herb's "Reunited" would rill from those hidden speakers, and I would put out a hand, and we—Rachel and I—would dance dance

dance, and everything would be okay. This great, big, unruly confusion of a world would be okay. The End.

But this was no movie. This was my fucking life.

So I unducked from the urinal (the tiles were white and rectangular and terrible), and I strode past the piranhas, found myself some stairs to backforth down, and fled the hotel, into the gray, wet swirling air. There was some kind of a parade passing by, a protest maybe. I did not know where the people were coming from, did not know where they were going. But I let my legs scut me right in with them, so that I might march with them for a while, down these dark, unmoving streets.

Notes:

- My heart . . . throbbed tumultuously with hope and fear: See Marcel Proust, *In Search of Lost Time: The Captive* (1923), trans. C. K. Scott Moncrieff and Terence Kilmartin (New York: The Modern Library, 1992), 200–201.
- the hypnotized fixity of gaze in which nothingness is reflected: Friedrich Nietzsche, *The Will to Power (scriptum* 1880s), trans. R. Kevin Hill and Michael A. Scarpitti (s.l.: Penguin Books: 2017), 28.
- the thematic structure of the invisible molecular processes of our unconscious sense of reality's cohesion: A bad paraphrase from Robert Musil, *The Man Without Qualities (scriptum* 1930–43), trans. Sophie Wilkins, ed. Burton Pike, vol. 1 (New York: Vintage International, 1995), 607.
- For more on "On the Fractal Nature of Penrose Tiling," see P. Ramachandrarao, Arvind Sinha and D. Sanyal, "On the Fractal Nature of Penrose Tiling," *Current Science*, vol. 79, no. 3 (10 August 2000), 364–6.

- two frail trees a multicolored sunset: The heathscapes are described in Franz Kafka, *The Trial* (1925), trans.

 Breon Mitchell (New York: Schocken Books, 1998), 163.
- the only possible answer to the questions that were on my mind: See W. G. Sebald, *The Rings of Saturn*, trans.

 Michael Hulse (New York: New Directions, 1998), 248.
- haphazardry: Gary (Garielle) Lutz, "SMTWTFS," in *The Complete Gary Lutz* (Sezze, Italy: Tyrant Books, 2019), 35.
- a gigantic metaphysical poem . . . : Joyce Carol Oates, *Blonde* (New York: The Ecco Press, 2000), 287. an uncanny aura of aperiodicity: Craig S. Kaplan, "The Missing Piece: The Quest for an Einstein Tile," *Scientific*

American, vol. 330, no. 1 (January 2024), 65.