

The Geometry of Lilies · *Steven Harvey*

FLOWERS CAN BLOOM from the mathematical mind. Matt, the mathematician in the family, wrings petals from paper by practicing origami, the ancient, Oriental art of paper folding. Given enough paper and time, he can create a garden of intricate shapes. It is the complexity of origami that drives him—a hundred folds for a single design is not uncommon—but what he does has its own grace, a thumb-twisted elegance. The result is a wondrous mix of clarity and clutter, a paper knot in the form of a rose, perhaps, or a daisy, a creation that seems light and whimsical, the intricacy relegated to accordion folds hidden away.

Matt wadded up a lot of paper in his early attempts at the art. He found a book on the subject—a bad translation from the Korean with sentences like this: “Through the occlusion of fold ‘a’ angles ‘b’ and ‘c’ emerge simultaneously.” Little emerged from such language, unfortunately, and even when the instructions were clear, the task remained complex and difficult. The simplest shape required ten to twelve folds any one of which, done wrong, turned up a donkey with two tails or a three-legged giraffe, mutants which found their way, in a wad, to my son’s trash can.

With practice Matt learned most of what he needed to know and eventually mastered the subtleties of the art. In minutes now he can turn a sheet of colored paper into a flower, a donkey, or a star. No flat page in the house is safe. A quick inspection of one shelf turns up a dog, a swan, a camel, a grasshopper, a pig, and a panda. Pterodactyls, wings clipped snugly to the next shelf up, hover menacingly above the scene. I love to watch him amid such clutter create designs, his fingers producing abundantly within the constraints of his own devising. Love and discipline meet in these shapes, a boundless, creative energy in the mix. I see in them a rough draft for the geometry of lilies and catch a glimpse of the folds in our lives as well.

“There’s something to keep you busy for the next twenty-one years,” my brother-in-law said folding back the baby’s blanket when Matt was born. Barbara—the new mother—and I looked at each other, dumbstruck, but after a night in which both of us had walked the crying baby we knew he was right. Something had changed. Until that time our lives had seemed

one long Sunday afternoon, the only imposition on romantic bliss an enormous lab-collie that scratched the door on rainy nights. Now a baby!

It was not the work that worried me. An eager volunteer, I charged into dribbled breakfasts of strained peas, limped through afternoons hauling a tot on my hip, and dragged my feet all night over a square of carpet in the nursery, flopping in bed at dawn, a weary veteran, tired but okay. I could deal with drudgery, but the lost spontaneity ate at my soul. In my memory I see Barbara taping a calendar to the refrigerator the day we brought Matt home. I bet the hospital supplied it. From now on we live according to a schedule—that was the message sent with our folded bundle.

We're not talking about a big loss here—Barbara and I were not flower children—but we did at times just take off, telling no one. I remember before Matt was born, going to the pancake house at midnight on a whim and eating a big breakfast. Barbara was in her ninth month then, and I should have realized when she waddled with me to the check out that changes were on the way. I didn't. "No dust upon the furniture of love"—it could have been our motto. Two weeks later when the source of Barbara's waddle slept in my lap, we ate pancakes at home and turned in by ten.

We devised escape plans, of course, like everyone, hiring baby sitters and imposing on grandparents in order to slip away and taste the old freedom, but such wanderlust required planning, jottings on the calendar, groveling phone calls, and haggling over money. Moments became precious, not to be wasted on the casual or frivolous; they were big events with maps, and grandma waving good-bye from the porch, and suitcases thrown in the back of the station wagon. Such occasions required haute cuisine. Sadly, I haven't had a midnight breakfast at the pancake house since.

And what does the poetry between the lines of our calendar say now?

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|----------|-------------------------|
| Monday: | Alice (gym) 3:30 |
| | Elementary (Alice) 6:30 |
| | Soccer 5:30 |
| | Band Boosters |
| Tuesday: | Soccer 4:30 S & A |
| | 5:30 Nessa |
| | EVERYONE! 4:00 |

Wednesday: PICTURE DAY!
 Dr. Revell 10:30 Alice
 Sandy's 7:30
 Body Shop!
 Thursday: (Sam) Elementary 7:00
 Hum Workshop
 Lynne's 6:00
 Friday: Elementary 11:00
 Body Shop!
 3:45 (Sam)
 Saturday: Whitleys' brunch
 Matt Magazine Sale Key Club Party!
 Body Shop!
 Dinner Dale
 Soccer Game 4:00
 Sunday: To Tennessee!

Ah, Sunday. Ah, Tennessee! Leave soccer and PTA and gym behind. That's the wish. Leave behind the Hum Workshop and Dr. Revell and Alice (gym) and (Sam) elementary. Strike out for the territory. Go and *go*! Go west, to *Tennessee*! The phrase may be nothing more than another bit on the calendar, one more place where two or more must gather at least in name, and (Alice) and Sam no matter the wishes of Mom and (Dad) come too and the receipt from Dr. Revell tucked in Barbara's purse and the soccer ball lolling about in the back of the mini-van and the mini-van newly undented for now. They all come and more, with new fillings and PICTURES! and, of course, EVERYONE! (the auditory delights of the Hum Workshop still ringing in their ears), these and a clarinet and flute and all the exclamation points we wanted to use (but hesitated), these come, too. Come and go. Go west! *To Tennessee!*

Sometimes in the folds of my calendar days I recall — with neither fondness nor regret — my last fling. It was spring break, a few months before my wedding, and several of us concocted a trip to Florida. The goal was a little peach-colored cinderblock house somewhere in Dade county. I could go, I was told by my friends. In fact, I could drive. Barbara stayed behind.

We were an odd assortment, the embodiment of the American dream, I later came to see as this trip took on mythic dimensions. We had an Indian with us named Selwyn and a pretty blonde with porcelain-white skin named Scolley. There were others too, in other cars. We were young, headed for the tropics, and giddy with freedom.

I don't remember much of the actual stay in the pink beach house. All night we huddled together in the living room sitting cross-legged on a circular scrap rug, passionately dissolute, drinking and singing songs. Sometimes a joint was passed around the circle. Sleeping consisted of crawling off to some corner, alone or with someone else, and passing out in our clothes. By day we found ourselves, somehow, on the beaches going through the motions of an ocean holiday which included a good deal of prone sun worship and burial in sand. The temperature of air and water and body were all nearly the same, and we floated through endless liquid afternoons, animals living in the mere present, perfectly suited to our world. I recall my delight in being able to walk into the front yard and pick an orange from a tree!

What I remember most, though, was the trip down in the car. We sped along 95, driving at night when it was cooler, a silhouetted backdrop of palms and palmettos darkening the west and, to the east, the ocean spreading beside us, a moonlit runway to adventure. Miles of orchards lined the highway, the globed fruit dotting dark trees with a thousand temptations far into the long night. We stopped to steal oranges from a grove only to discover—after we were back in the car and safely down the road—that they were, much to our disappointment, grapefruit.

Somewhere in Florida, the sun rose. Palm trees, backlit by ocean, crisscrossed the sky in a striking imbroglio of glitter and darkness. Dawn light filled the car, illuminating cut-off denims, a long blonde thigh, and a brown arm flopping across a pastel blouse. Scolley and Selwyn were asleep in a tangle in the back seat among pillows, suitcases, boxes, and guitars. As dawn light filled the car, their bodies began to take shape in the rear-view. Cherubic faces. Closed eyes. Tousled hair. In the coppery glow, I could see that they were holding hands, the fingers interlaced. Suddenly hungry for home, I looked past the mirror, ahead at the open road, a straight and endless trail of tolls.

Under the glow of a desk lamp, triangles give way to other paper shapes as Matt makes new creases, each one folded on the table and set in air between thumb and forefinger. At some point the folds become interlocking, like a knot, held by the integrity of the shape rather than the sharpness of the crease, and another lesson sinks in at the finger tips.

It is hard to see the final design of one of these gestating creatures until it is too late. Until, that is, the final shape is inevitable. Eventually something forms, a red bird in this case. It rests on my palm, dead and still to be sure, but animated by the tensile energy of its folds, the mixture of care and grace hidden in the cavities of its twisted breast. It is hard to resist the temptation to open folds and take a peek—find the secret of this little miracle.

The secret isn't in the creases, though. What, after all, are they? I open the design and spread the page out on the kitchen table, a web of lines. Spine disappears among ribs and the heart—which is the shaping, not the shape—has gone out of it all.

When the heart goes out of it all, I'm at the crossing, parked in a vacant lot by an anonymous intersection in the middle of nowhere. Two stars rise in clouds beyond the windshield. Two points. The shortest distance. Clean and uncomplicated. The geometry of desire brings me here. She walks up, her footsteps resonating among the clatter of dripping trees. She has black hair, say, and long legs, her skin a sea of milk. She stops—the night stops—and she stoops by the passenger window, tilting her head in greeting, her hair spangled by rainwater.

I stretch across the seat and let her in. A rush of perfume floats ahead of her into the cab—the stab of the illicit—but she sits like a little girl, leaning against the door and looking into her lap. I pat the seat closer to me. When she slides over, I put my hand on her knee and . . .

. . . the dream scene shifts, a freckled knee now under my palm, and the day a sun-drenched hillside dotted with daisies and clover and dappled lawn stretching behind the girl down to a stoney creek. She squints at me across the quilt, her mouth hesitating just shy of a smile, and looks away again quickly at some warm sunlit square between us, her fingers playing carelessly with the fabric fold, her red hair a blaze of afternoon orange, a color I have never seen before. I lower my head so that my eyes can engage hers—

my look a question. Are you sure? She nods again, looks up at me . . .

. . . and bites her lip. A birthmark runs down the inside of her thigh, a small dragon shape just above the knee. In the motel room, bed and girl look unreal—sheets and long blonde hair swirled in some dreamy confection. I'm unreal, too, some joke of myself standing there in underwear and T-shirt, in a room of commonplace fairy tales, where little in fact seems real, but . . .

. . . the dragon, and when she bends her knee, oh, *does* it seem real. All . . .

. . . this, that never happened, happened easily enough on impulse one day when I put my hand on her breast, a girl who last week ran into the arms of some boy her age, the two of them alive in the giddiness of my dull days, and tossed her head back for him shouting with glee, a girl who . . .

. . . now rides in my arms, drenched in the reds of the motel marquee, and throws her head back for me this time—a long blonde dream of a pony-tail bobbing on my forearm—releasing me from the origami of my calendar life with one deep groan.

“It’s dumb to stake your life on something like that,” Barbara says, snapping the black head of a spent day lily from its stem. To make the earth say beans—that was Thoreau’s goal. Barbara thinks the earth should sing and the tune should be day lilies.

Fluted, thick-lipped, and heavily veined, the day lily bloom rises to the dawn. Straining for light, this garish imitation of the true lily, peaks by mid-morning, its cheeks following the sun to an apex in the long summer sky. By late afternoon it begins to flag, the heavy head drooping at sundown and blackening with night. Many days Barbara walks the garden snapping dead-heads and pulling up desiccated stalks. She’s right of course. All these pretty colors. It is dumb to stake your life on something like that.

She sets the plants in fall. It doesn’t take much—a shallow trough and a sprinkling of dirt over the tuber. She’s no avid gardener, but it is common in the evenings to find her standing in the garden squinting at what’s left of the sun, her jeans mudstained at the knees, her gloveless hands brown with dirt, the veins at her temple and wrists blue from stooping. When I come on the scene dressed in a tie and jacket for work, she smiles sheepishly and invariably brushes loose hair back from her forehead, leaving a brown

streak. Sometimes, acting coy, she threatens to give me a muddy hug. Such are the requirements of the geometry of lilies.

I'm the first one up in our house, usually. I grope downstairs in the dark and sit alone in all the quiet I can muster. It is the delicious time when silence fills with the clicking of the house and the rustle of loved ones clutching pillows and turning away into the dark. All settles into a quiet made thick and sweet by subtle violations: creaking footsteps, distant cars. Soon morning takes the duskiness out of windows and the mechanical aubade begins. Clocks sound off, one after another, faraway alarms that lose all urgency in the distance and become, like any faraway noise, a song not of ourselves. The interlocking music of other spheres. A love song.

Such is the geometry of lilies.

Barbara has brown hair—not blonde or black or red—and she wears it simply, pulled back some days by a tortoise-shell clip. I remember my joy when we first got married at finding hair clips in my sock drawer. We are after all what we take for granted and what we misplace gives us away. The ribbon in with the pencils makes us real.

Such are the requirements of the geometry of lilies.

“If your trade is with the Celestial Empire,” Thoreau writes, “then some small counting house on the coast . . . will be fixture enough.” The shack at 2000 Pacific was not, I suspect, what he had in mind, though the building was plenty small and what happened there accounted for much of my future dealings with the universe—celestial and otherwise.

I had come to the place in Virginia Beach by accident at the end of my freshman year. Not really by accident, I guess, though all that was lovely that summer had the authority of the accidental about it. I came harboring some elaborate scheme for meeting a girl I had seen at school that year, a dark-haired ingenue with big eyes and a habit of tugging at the cuffs of her blouses in a way that, somehow, endeared her to me. I was, I suspect, ripe for love.

The only place I could find to live was a tiny, two-room frame house with an enormous sign announcing the address: 2000 Pacific. A waitress in the local donut shop/restaurant/ bar helped me go through the newspaper

looking for possibilities. She also poured coffee, cracked jokes, found two roommates for me, and made fun of my laboriously carefree pose: sunglasses, cut-off jeans, and ratty loafers. When I got discouraged about finding an apartment, the waitress pulled my glasses over my nose comically or popped me on the side of the head until I cheered up. She found dimes for my phone calls, poured more coffee for free, and slipped extra donuts to me when the manager wasn't looking. The waitress, of course, was Barbara.

Soon I forgot all about the ingenue. She didn't arrive until midsummer anyway, looking a little pathetic in a white waitress uniform with smudged cuffs. By then I didn't care.

All of us that summer worked indoor day jobs. Barbara used her influence to get me installed in the backroom as a dishwasher. My roommates took jobs as hotel janitors. We worked long hours, fueled by summer love, and walked home from our jobs pasty white but proud among bronzed vacationers. When it got hot—and it did get sheet sticking hot daily—we went to the local convenience store, the Slurpy an excuse to stand in the air conditioning.

It was easy under the guiding lights of the celestial empire of that summer to fall in love. Above us the stars swirled like dust tossed to the wind in a moment's caprice and set in the sky for a lifetime. At our feet waves crossed each other and in the ripples, back eddies, and rills, churned a shape of endless intricacy, a design repeated in the eroding hillside, the splayed branches of the elm, and later in the whorl of my son's own fingerprints. The intricacies these share is the geometry of lilies.

Nights when Barbara and I walked the beach we held hands, a parody of the old couple we might one day become. We followed the slow, jetty-fractured curve of the coastline where water, crashing against breakers with all the force of the heavens, spends itself in a white rush, carves cozy places in sand, and languishes in pools. On those summer nights the planets lined up for us without our knowing (which is just as well), and the impulse to flee a family and the inevitability of becoming enmeshed in one met when we held hands. The celestial empire spread above us in the sky and reflected before us in water found an outpost on earth in the counting houses of our hearts, the folds of Matt's graceful designs implicit in the splash of stars, the crossing of waves, and the easy interlacing of our fingers.

Geometry was the only kind of math I could do in school. Picture math. I liked to fill a notebook with drawings that looked like spilled tinkertoys. The language of geometry claimed my attention as well. Cuts, intersections, vectors, angles — the vocabulary of new directions, the vocabulary of change. There were circles, of course, pure and wholesome pies, but these waited helplessly on the page, ready to be cut into slices by some shortest distance between two points.

In geometry, one becomes two with a slit of the pencil and two become many at the slice of an angle. Given enough intersections, the pie begins to look more like the calendar on the refrigerator than a math problem — more like the mess of our lives. When it reaches that point geometry alone probably cannot handle the tangle.

But math has gotten shaggier recently and its students have begun taking clutter seriously. What, they ask, is the structure of a mess? They study fractals, the building blocks of irregular edges, and wonder at shorelines or leaf-shapes or riverbeds. They take on the whole universe with a word that best describes my life — chaos — and study the way things pile up and overflow, embracing all that is baggy and rumpled. They try origami, the art of knotted paper, and, alas, consider the lily, aware that complexity has a hidden elegance. Accumulation — the junk of our lives — has a loveliness we are just beginning to understand.

This faith in life's messes is nothing new. Even the austere Thoreau could not resist the ragged edge that forms when man and nature meet. "Simplify!" he exclaimed, but secretly he admired the messy cuts railroads made through hillsides. "Few phenomena give me more delight than to observe the forms which thawing sand and clay assume in flowing down the side of a deep cut." What struck him was the way such a flow imitated other forms in nature, the churn of ocean currents, say, or the fluted splurge of vegetation. These shapes may be "grotesque," Thoreau writes, the world's "excrement," he admits, but he finds in the mess — in the apparent randomness of this flow — a common creative gesture, a unifying force. "You find thus in the very sands an anticipation of the vegetable leaf," he says, and adds: "No wonder the earth expresses itself outwardly in leaves, it labors with the idea inwardly."

There is nothing mechanical in the way nature repeats itself, though — not according to Thoreau. "Simplify, simplify," is *not* the way of God who

like all artists creates by metaphor: “with excess of energy strewing his fresh designs about.” The creases in nature sink deep, but the fold is on the oblique, the shapes spinning out from the center by surprising analogies, not symmetries, the unity—the elegance—in the shaping, not the shape.

And so . . .

The weekend says Tennessee and carries a crumpled dentist bill in its pocket.

The earth sings lily and traces the blue veins of Barbara’s wrist on a petal.

The tangle of arms—coppery, aglow—in the dreamy rear-view mirror says go home, *be* home.

The thigh says dragon.

And the blank sheet of paper says fold—this way and that—the shape of your life emerging in your hands.

Such is the geometry of lilies.