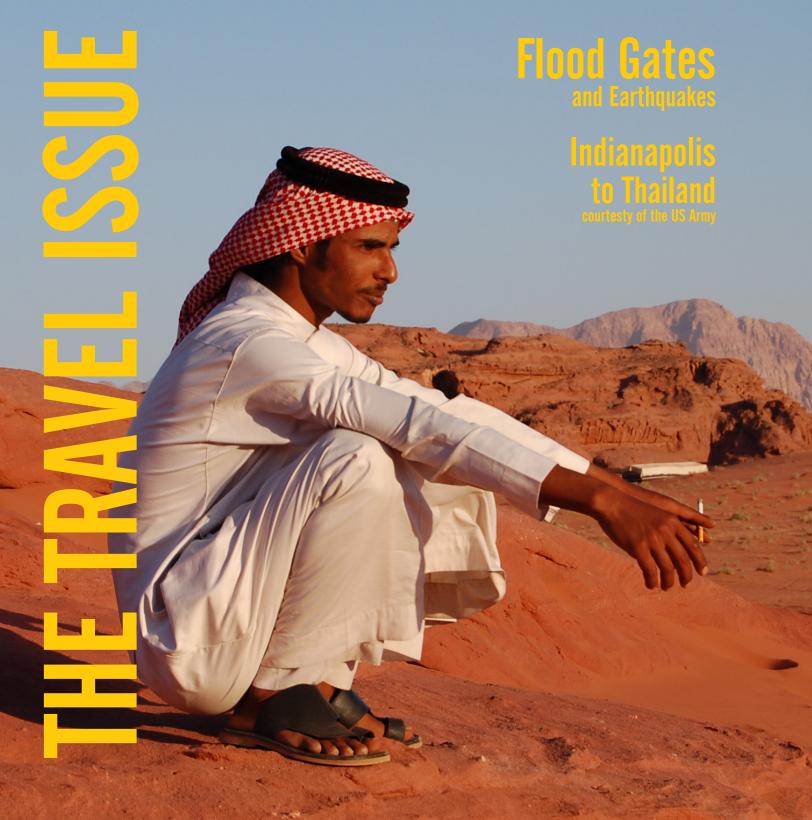


Hormigas

Exterminating Angel Syndrome





SHOTSY (STUART SMITH)

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Editor's Note

This is a magazine written and shot all over the world — from Japan to Texas, Scotland to Pennsylvania — then compiled in California, laid out in a secret lair on the East Coast and printed back in California.

With that global community in mind, and with summer approaching — which increases the number of travel questions (pg. 16), it made sense to pick a Travel and Place theme for June.

We have stories on how the land shapes narrative (pg. 20), on what proximity means for relationships (pg. 12), and on whether you can ever really leave (pg. 8).

No good trip is without some tangents, and even as place stretches into landscape (pg. 18) and travel turns into journey (pg. 7), or you just get covered with a bunch of ants (pg. 4), I think we've included enough detours and rambles to be worth at least one trip to the beach.

While reading these stories again and again means that I'll probably choose something else for my beach reading, I do encourage the rest of you to print the issue out and take it somewhere away from the computer. Enjoy half an hour or so of being somewhere else.

Then maybe shove it in the glove compartment or the seat-back pocket (this is better than SkyMall) and let someone else read it.

We hope that both you and this issue travel well

[+]

klangklangston (Josh Steichmann)

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Bedouin relaxing at sunset in the Wadi Rum desert, south Jordan.

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Enjoying the morning sun before it becomes oppressive, Giza, Egypt.

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Ants. In Spanish, Hormigas. We tend to think of them as pesky little critters that sometimes get into the sugar. Oh, sure there're fire ants. Step in a nest of them and stand there for a minute, and you're in a world of hurt. But fire ants don't roam the land in swarms, denuding the landscape of all living creatures within the wide swath of their path. No, that is the exclusive domain of the Army Ant.

"Lac," they're called in Huastecan, the indigenous language spoken around San Luis Potosi, Mexico, where I camped with six frineds from the Austin area for a week in 2003. "Hormigas Militar" was the best we could do with our limited Spanish vocabulary while gesticulating wildly, trying to explain to the locals just what had gone on in our campground the night before.

Imagine, if you will, six gringos jumping up and down, stamping their feet, running around with flashlights in the

Marchade Ids Hormigas

by Devils Rancher (Chris Vreeland)

new-moon darkness shouting random phrases of surprise and dismay, and you'll have a clear enough picture of the scene as it began.

Mark was the first to notice, as he'd wandered off into the vanguard of the storm before they completely engulfed us. It was mid evening, and we'd been sitting serenely around our little campfire for a good while when he decided he needed something from his tent. "Man, there's a bunch of ants over here," was the first thing the rest of us heard, followed by "Shit! They're all in my tent!" (Lesson one, dear gringos: Keep your tent zipped up tight) followed by "Shit! They're everywhere! Thousands of them!" This of course got the rest of us up on our feet to see what all the excitement was about.

"Whoa! Geez, look at all of 'em," was the first thing Jerry said, followed pretty quickly by "Oh shit! They're over here too!" About this time, I decided to get up from my comfy chair and see what all the hubbub was about. I grabbed my headlamp and headed over to where Jerry and Ron were now busily exclaiming and doing a little "they're on me" dance and sure enough, all our caving gear — ropes, drills, tubs of carbide, etc — which we'd gathered in a pile under a little rain fly, were an undulating mass of black. "Where the hell are they coming from?" I wondered. I started to look around the periphery

of the swarm as Ron headed for his truck to fetch a camera so he could get some shots of Mark furiously sweeping ants out of his tent. Mark at least had come prepared. His Taj Mahal-sized tent had all the comforts of home, including a full sized broom, which was coming in really handy right about then.

It was about this time that Mark made a couple of observations — one was that his tent was also full of other hapless bugs who were fleeing ahead of the marauding invaders, and the other was that they seemed to be underneath everything and weren't climbing up at all. He'd sweep for a bit, then pick something up and say, "Oh, shit! There's a thousand more ants under here," followed by a fresh frenzy of sweeping and foot-stamping, until he'd brought that spot under control, whereupon he'd move something else and repeat the process.

While the emergency tent-decontamination was underway, Jerry, Enora, Ben and I were wandering about the campground, trying to find the edges of the swarm and figure out where they were coming from and what general direction they were moving in. What we found were several wide trails of streaming ants, moving more or less from lower ground to higher ground across the front third of a little wooded area we'd occupied between two pastures. There were two ant superhighways, one going under, and one emerging from underneath Mark's tent, both at least three to four inches wide. Another was moving right along the rain diversion trench he'd dug behind his tent. Another large streaming trail had begun to form in front of Ben's tent and was moving through the gear tent, where previously they'd been just swarming in every direction. We began at that point to get a picture of the Modus Operandi of the invaders. They apparently have a roving swarm which seems almost directionless, but which really moves as a front, and they overwhelm whatever insects they happen upon in the 20- to 30-foot wide engulfing action. Behind the front come the columns, two, three, four inches wide. And they come, and they come.

While the sweeping was winding down in Mark's tent, Ron had determined that a good spray of Off! would generally deter them from moving in a certain direction, so those of us who hadn't had our tents overrun yet proceeded to spray a nice, fat line around them. We retired to the relative safety of the campfire for a while until we noticed that the swarm had taken an ominous turn towards the cooking tent. "The food!"

We jumped up again and hurriedly carted all our food tubs off to various vehicles, the whole time wondering aloud what good that could possibly do should the ants decide to mount the vehicles. It was probably futile, but we felt like we were doing something, and as it turned out, they never moved towards the trucks.

We watched from the periphery of the swarm for a good while as they caught and devoured one hapless bug after another. Jerry spotted a spider attempting to effect an escape after losing all the legs on one side of his body, and everywhere out ahead of the swarm was a scattering herd of bugs of all sorts doing what they could to get gone before they "got et."

After determining finally that they really weren't getting into the shut tents, Mark decided he'd had enough excitement and went to sleep even though ants were still moving under his tent in giant four-inch swaths.

Those of us still around the fire got a good laugh watching him in silhouette shining his light in all the corners again and again. Ben camped in his Jeep, as his tent, though shut, was still surrounded by the beasts and he didn't think he could even get to it.

By then, a couple hours had passed, and there seemed to be no end in sight. Jerry and I sat up for a while after everyone else had decided it was safe to go to sleep. Jerry and Enora's tent seemed to be outside of their path, as did mine; Ben and Ron were sleeping in vehicles, and Mark was there in the thick of them, with the ant superhighway going right under his tent as he slept. Jerry and I watched, just sort of marveled at the phenomenon. We could actually hear them where the swarm was sufficiently dense — a sort of crackling, rustling noise as they walked through the grass and leaves. That gave a particularly ominous feeling, Hitchcockian even. These weren't (thank god) the kind of army ants that denude absolutely everything, like the Brazilian leaf-cutter army ants you see on the Discovery Channel. They seemed to be only interested in insects, and ignored the bits of food we tossed into the swarm out of curiosity. They also stayed on the ground, except for one tree that they climbed. Although they bit, they didn't leave a stinging welt, like a fire ant, which is a good thing because we all got bitten a lot. They didn't go over anything that they could go under. They gathered in dense numbers under stuff, like ice chests or rocks that were lying on the surface, and they seemed to move mostly uphill.

When we got up the next morning, they were entirely gone. Thursday was Thanksgiving, and we had invited the rancher Juan Casillo and family to Thanksgiving dinner at our camp, as a way of paying them back for generously allowing us to camp on their land. That evening, after dinner, we tried our best to explain what had befallen us the previous night, and we managed to glean a bit of information between slugs of caña, the potent sugar-cane hooch that the natives bootleg up in the hills. The ants are indeed pretty common, and people pour gasoline around their houses to keep them out when they swarm. What did they do before gasoline? I have no idea. Carlos, one of Juan's sons, explained in his broken English that the army ants always precede a rain. Sure enough, late Thursday night it came, just like he said, just in time to wash away the second invasion as it was beginning. We had barely enough time to jump up and shout "¡Hormigas!" before the sky opened and carried the pesky buggers away in a brief but effective torrent. MFM



by Polyhymnia (Hannah Rose Baker)

e are driving to Santa Fe. And it is snowing, hailing, sleeting, raining, gray, frigid. We mistakenly thought we'd be basking in the southwestern sun, failing to check the weather and to realize that Santa Fe is at a very high altitude, so high in fact that one of us will have to take naps every day that we are there in order to cope with altitude sickness. We have been on this one-lane highway for what feels like days, all the way from west Texas with its fields of wind turbines, which always look to me like a slow invasion by a strange life form that doesn't run on human time.

You can't see them moving, but every year you notice they're a little closer to the highway and to home.

The landscape is stark, pale, washed out. The land is filled with a thousand shades of gray-green. We were expecting red, ochre, turquoise, a Georgia O'Keeffe painting passing over our windshield and by our windows. Instead we contemplate miles and miles of anemic landscape, every now and again cut by red gashes of clay that catch your eye and make you wonder at the geological story that put them there. We were expecting the sun, instead there is deep fog, an unworldly fog. I expect to see ghost ships sailing over the sickly grass that runs beside the car, a prairie schooner.

Instead, there are trains. In the dusky gray light, you see their headlamps first, a triptych of warm yellow balls appearing far off in the distance. Because it is flat here, a flat that I've never seen before, a flat where you're not sure you're moving, because nothing around you is changing. And the trains stretch for miles it seems. My father taught me to count train cars when I was a child, but these trains are uncountable, an endless stream of oil tanks or coal cars running right up against the road. They somehow seem both clichéd and out of place in the landscape. I feel as if I could sit here forever, staring out the window at the trains, the ships on a grassy sea. MFM



by hot soup girl (Carlie Lazar)

I did some calculations, and in the end, decided on a pelican. My first choice, a swan, appealed for romantic reasons, but lacked stamina. Geese, though stout, resilient and certainly capable of flying across whole oceans at a time — as I myself would need to – were too trapped by flock mentality. I mean honestly — who can be bothered with fixed migratory routes and V-formations? Pfft. It's a culture I have no time for, and frankly that's why I dropped out of high school in the first place. And so, a pelican: clumsy, sincere, beautiful in flight; ugly, so they say, in repose. Good at fishing. Longest beak in the world. I'd hoped you might like that.

Next thing you know, there I am, stumbling out of the library with an armful of books on feather chemistry and wind dynamics and maps of tiny un-named mid-Pacific atolls (just rocks really, but somewhere to rest along the way). With a scalpel, I cut out pictures and made a collage: a caricature, sure, but good enough for creative visualisation. Then I stole a bunch of graph paper from the art shop and spread it out on the carpet at home. For diagrams. I turned the laundry into the Coral Sea; the hallway runner into the Equator. Micronesia sprinkled across the kitchen floor like crumbs.

Abraham Ortelius drew the first map of the Pacific ocean in 1589, and these days they take photographs from satellites. But there's never been a map like mine: a bird's eye view, for reals. I've sent it to you in the mail, fifty sheets rolled up inside a gym bag. It'll get there before I do.

When I arrive, I'll come to you as you leave the office. I don't know what day, or even really what month, but I'll get there and I'll wait for you in the carpark at closing time, pectinated claws folded neatly beneath my soiled plumage. Perhaps I'll sit on the bonnet of your burnt umber Ford Escort and rest my wrinkled, scrotal neck pouch against your windscreen. I will preen, I will oil myself, I will run my tattered bill through my down, because I want to look my best for you. But there will be broken feathers, injuries, a bleeding tongue. Lice too, no doubt. I could almost fall asleep there on the hot metal, dreaming of the many times I considered drowning. I could have happily dropped straight into the sea – plummeted, pinions tucked to my sides – were it not for the memory of your soft seafoam skin, the white sandbar of your forehead, the coastal sweep of your receding hairline.

I will tuk-tuk my lower mandible in exhaustion, and wait. I'll be patient. I'll shut my eyelids and picture a nest: three plain, bluish eggs. I'll be patient, and wait for you to finish work and find me. What a surprise it will be. I'll be patient. I know how your boss likes to keep you late on Fridays. I can wait. MFM

55 THEY SUFFERED FROM

WOULD PREVENT THEM

BY LEN (LEON MCDERMOTT)

I don't remember my uncle Gerald. He died before I turned three. All I have of him — even all my little brother Gerald (the first boy in the McDermott family born after his death) has of him — are photographs and brief snippets of Super 8. Those, and stories. Stories from his children (my cousins, David and Morag) but mostly stories from my father, Gerald's younger brother. When I was a kid, Gerald was an almost mythical figure — a man so important and exciting and brilliant and full of intrigue that my parents had named their own son after him. He might as well have been Leon Trotsky, which is who they named me after: distant and historical and looking at you from black and white photographs with a sly smile on his face and a mischievous glint in his eyes.

He was always the man against whom my dad measured himself. An elder brother who became a father figure to a boy who lost his own father at seven years old. There's a photo of my dad taken in 1953: he stands on the steps of his parents house kitted out like Roy Rogers. Toy gun in hand, Arthur The Kid is ready to take on the world, or at least that week's enemies. And I could never look at that photograph without the knowledge that within a couple of years of it being taken, that small child would be fatherless. So Gerald became my surrogate grandfather. I never knew him either, but he lived much more vividly in my imagination than my actual grandfather did. He became the source of my dad's sense of humor. He became the reason my dad was so dedicated to science, to education, to politics, music and culture and the kind of European arthouse cinema which one might deride as aloof and pretentious but which nevertheless spoke directly and loudly to two brothers in a working class family growing up in a grotty part of central Scotland.

Blantyre was an old mining village that had seen better days by the time my parents were born there in 1948. It had been the scene of a horrific pit disaster fifty years before and had not improved much in the meantime. By the 1960s, it had been almost consumed whole by the surrounding conurbation. The vast sprawl of Glasgow and the ever-encroaching outskirts of Lanarkshire's major towns like Hamilton had turned Blantyre into something halfway between a giant sink estate and a promised land for the aspirant, home-owning commuter masses in their three-bed semis with gardens and garages and pebbledash driveways. It was, and still is, the kind of westcoast Scottish town where Protestant/Catholic sectarianism is rife and frequently, literally, murderous. Fuelled by Northern Irish politics and the associated rivalry between Rangers and Celtic, the last time someone in Blantyre was killed over which team they supported was less than six months ago.

Combine that with the collapse in industry which had hit much of central Scotland – the shuttered shipyards and railway works of Glasgow; the huge steel mill at Ravenscraig, which once employed thousands and is now eight square miles of chemically-contaminated scrubground – the resulting unemployment problems, a culture steeped

in machismo, alcoholism and violence, and the withering of hope that results from all of the above. You'd be forgiven for thinking that Blantyre, then or now, was a deeply unappetising place. My dad and Gerald would have agreed.

By the 1960s – when my dad and Gerald were at the opposite ends of their teenage years – they were three brothers and three sisters, and a single, bereaved mother trying to hold everything together. And it's from this period that all those stories about Gerald that I remember come from: how he piled up seemingly endless copies of The Economist and The Times in their shared wardrobe; how



Blantyre, Scotland

he would, in ten or fifteen minutes, finish the famously-difficult crossword in The Times with a mock taunt of "Fleet Street's finest, fucked again"; how he once attempted to – and I've never quite been able to work this one out – convert the record deck in their bedroom to stereo and somehow ended up fusing the electrics of the entire street; how a bet between my dad and him went wrong and ended with my dad's hand being almost impaled on the bedroom door by a dart, very possibly after drink had been taken.

The story which stuck with me the most is that of Exterminating Angel Syndrome. He – and therefore, my dad, and therefore, me - loved the films of Luis Buñuel. Not the easiest thing to hunt down in a town like Blantyre in the 1960s, where the local cinema was usually playing Hollywood hits and B-movies of a few years before. In Buñuel's film, The Exterminating Angel, someone holds a dinner party. The dinner is finished, the servants go home, and the guests repair to the drawing room. They spend a few hours there, conversing, bickering, flirting, pretending they're being alive, being witty, living a life. The end of the evening comes, and they find that none of them can leave. Nothing physically stopping them from stepping over the threshold of the room; they just cannot bring themselves to do it. Some psychic trauma - this being Buñuel, probably related to being bourgeois Catholics - prevents them from doing so, and they descend into base atavism.

According to Gerald, the residents of Blantyre – despite being only about 50 percent Catholic and few of whom

would count as members of Buñuel's bourgeoisie - suffered from the same thing: born there, raised there, marrying people from there, having kids there, and dying there. Unable to escape despite their being no physical barrier to doing so, they suffered from Exterminating Angel Syndrome. They might want to leave, they might even try; but some unstoppable force would prevent them. Gerald, being Gerald, was determined to break this cycle of misery.

DOWA He was well-placed: extremely intelligent, he went to Lilongv University in Glasgow and studied engineering. Not long after graduation he was living in London and working for Hawker Siddeley, testing the engines for the Trident airliner. And then, after that contract finished, he was offered a job as a teacher at Holy Cross in Hamilton. He was teaching physics and engineering - including to my dad, in one class - and living back at home in that same room with its piledhigh copies of The Economist and The Times, and a record deck that probably hadn't worked right in years.

Gerald was determined to beat Exterminating Angel Syndrome. After all, he'd identified it, and that was at least a start to defeating it. He encouraged my dad to do the same: get out, go elsewhere, make sure your motto is you can't go home again. Because you don't want to go home, because it's a grim tarpit that will claw you under without you even realising what it's doing. My dad was probably more interested in chatting up my mother than he was in semi-abstract notions of whole towns being defined by their collective consciousness' curious resemblance to Luis Buñuel films (he may have been thinking both; knowing my dad, he probably was). My mother also grew up in Blantyre - a few streets away from my dad - and so was herself a product of Exterminating Angel Syndrome.

Gerald was getting there: he married a woman from Kilsyth, for a start, and that was almost 20 miles away. Secondly, he took up a job teaching in Glasgow, which necessitated a move to Glasgow itself. Kids happened, as kids do, for Gerald and his wife Helen; and as kids happen, so, eventually, do moves to better-equipped places than west end tenement flats. So Gerald and Helen make a decision: not elsewhere in Scotland, not even to another part of Britain. They say fuck it, let's go to Africa. Let's go somewhere that we've never lived before, somewhere that we have no experience of. Let's go somewhere that will truly give our kids the kind of education about the world that you can never learn in books. Let's go somewhere that will teach them and us so much more about the human experience than we've ever been able to learn in our so-farcircumscribed lives. Let's go somewhere that Exterminating

Angel Syndrome will never be able to get us.

NORTHERN

NTCHISI

Nkhata Bay

SALIMA

DFD7/

Monkey

Blantyre, Malawi

Zomba

MALAY (')(')

So they start planning. They look at brochures and books and educational programmes. They fill in forms and they get vaccinations. They tell their kids they're going somewhere different. They go through the selection process and the background checks and the interviews with the British Overseas Development Corporation. At the interviews they're asked where they want to go in Africa, and Gerald and Helen say anywhere, really, as long as it's not too dangerous and not an apartheid state. They think about what good they can do, in a place where infrastructure is a thing that happens to other people. They think, good socialist humanitarians that they are, that they

can go somewhere and Make A Difference, because they're optimistic and knowledgeable and basically dedicated to helping people live a better life. And they get accepted. OUTHERN

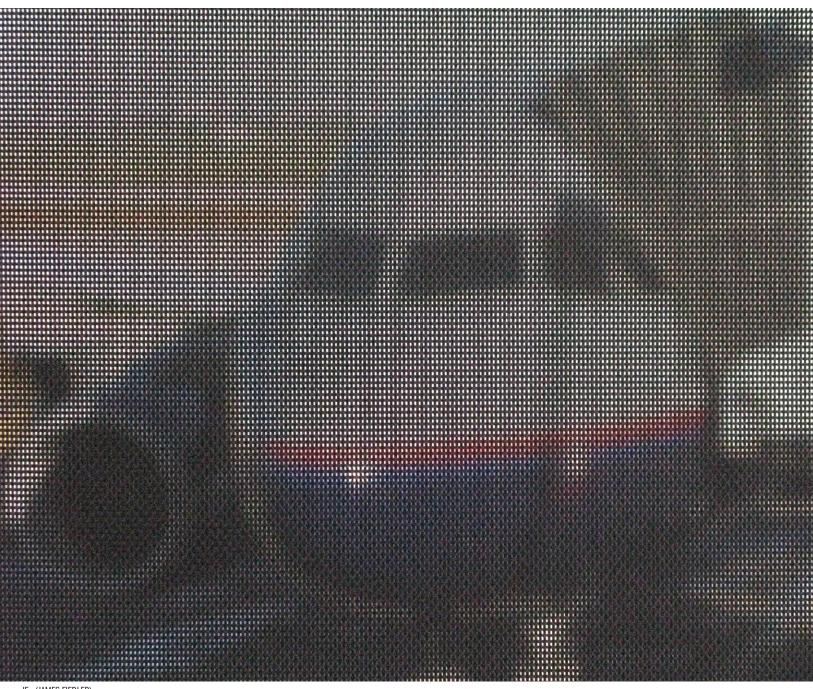
And they get asked: how about Malawi? And Gerald gets asked: when you get to Malawi, would you like to be the head of the science department at St Andrew's High School in Blantyre? The Malawian Blantyre is named after the Blantyre Gerald grew up in, because David Livingstone, African colonialist

extraordinaire, was born in Blantyre, Lanarkshire. And there Gerald and Helen go. There's a photo of David and Morag taken in Malawi. They're both up in the branches of a tree, looking solemnly and sternly at the camera and

it's maybe one of my favourite photos of all time. Both of them, despite being no older than about six or seven, look cool and calm and collected; the perfect image of a carefree 1970s childhood, as if they're staring the camera down in some game of "dad doesn't impress me much." They're not smiling. But you know that they're happy. They are in Blantyre, Malawi, and there they stay for the next few years, blissfully happy and contented and living a life that they could never have had if the family had remained, straining and yearning, in one of Glasgow's decaying satellites.

Gerald got out, all the way to Malawi. My father got out too, despite marrying someone from a few streets away. But in 1980 - when he was not even 40, when his kids were not even in their teens, when I was not even three years old, before my dad told me any of these stories - Gerald had a heart attack. It was the middle of the night. He died in his sleep. Any ambulance that was called came too late to save him.

So he made it to Africa, but he never got out of Blantyre. He's still there now, with his own plot and headstone. Exterminating Angel Syndrome got him in the end, and I've always thought that, were he conscious in his last few moments, he'd have loved being proved right, as much as he loved the idea of escaping in the first place. MFM



-JF- (JAMES FIEDLER)



FLICKR/VICTORIAPECKHAM

Using Smartphones to Understand Human Behavior at Large Scales by jasonhong (Jason Hong)

WHEN COMPUTERS WERE first being researched and developed, the original focus was mainly on computation. This first phase of computing is where all of the classic work in computer science came about, in the form of operating systems, programming languages, databases and so on. Industry was mainly focused on selling bulky computers and software for office productivity. In the early 1980s, though, the focus began to shift towards the second phase of computing: communication. People began to see the benefit of connecting computers together, and the World Wide Web showed us new ways of interacting with each other. Cloud computing and mobile computing are the latest trends enabled by dropping costs in computation and communication, and we'll still be seeing the benefits of these efforts for many years.

What's interesting is that we are just at the beginning of what might be the third phase of computing. No one really knows what to call it yet, but names include Post-PC, pervasive computing, ubiquitous computing and embodied computing. Whatever the name people decide on, what's clear is that there is a new element at play here: sensing. The sensing might come in the form of cars that drive themselves, or the Nintendo Wiimote or the XBox Kinect, which let people use their physical bodies to play games. The sensing might also let us monitor our electricity usage through smart grid technologies, quickly check the structural integrity of buildings and bridges through smart dust technologies embedded in the



concrete or monitor traffic flows in real-time. What all of these examples have in common is that they use sensors to make a bridge between the physical world we live in and the virtual world of computers.

Modern smartphones are technological wonders that represent the convergence of all three of these trends. They have fast processors, wireless networking and voice communication, as well as an array of sensors for detecting light, motion, proximity, and location.

My colleagues and I have been investigating these smartphones over the past few years, with two main themes: what are useful things we can we do with them, and how do we manage the legitimate privacy concerns caused by these technologies? Here, I'll talk about the work my colleagues and I have been doing in these two areas.

Computational Social Science meets Reality Mining

With respect to useful applications, the one I'm most excited about right now is using smartphones to model and analyze real-world behaviors and real-world social networks. In the past few years, researchers have pioneered what some are calling computational social science, which lets us investigate such behaviors as cooperation, competition and conflict at the scale of hundreds of thousands of people, by analyzing large-scale social web sites such as Facebook, Wikipedia, and Twitter. What we are doing is applying similar techniques to sensor data to understand real-world human behavior and social networks.

This kind of reality mining has already started to bear fruit. Researchers have been able to map out simple forms of social graphs using proximity data (via Bluetooth) and call log data, model human mobility patterns using cell phone tower data, and even accurately predict who in a college dorm has the flu based on mobility and communication data.

In some of our own work, we analyzed location traces of 489 participants of Locaccino, a friend finder system we created for iPhone and Android. Locaccino scans your location about every five minutes. Overall, we had 2.8 million location observations primarily around Pittsburgh, where our university is.

We played around with the data for a while, to get a feel for it and see how to develop techniques to analyze it. The most useful one we developed was entropy, an idea that we adapted from ecology, and which in turn was adapted by ecolo-

gists from information theory. In ecology, one way of measuring biological diversity is by measuring the number of unique species seen in a given area. The more unique species seen, the higher the entropy.

(As a tangent, I talked to a statistician one time about what we did with entropy, and he mentioned that he had helped computer scientists use other methods from ecology to measure Internet routing. It turns out that models used to estimate the population of a given

species is also useful for estimating overall packet flow. Who knew?)

Dining and Shopping Chatham University Residential Areas Schenley Park Solf Course University Campus Low Entropy

Figure 1. Entropy map for Pittsburgh, showing number of people at given locations. This map was generated with data from our Locaccino friend finder, representing 489 users and 2.8m sightings. Areas of high entropy include our university, dorms, and streets lined with cafés and restaurants. Areas of low entropy correspond with residential zones.

Entropy was a useful measure for analyzing collocations, as it approximated how public or private a place was. We have used entropy to infer location sharing preferences and predict friendships.

Inferring Who Your Friends Are

We applied this idea of entropy to the number of unique people seen in a location, and it turned out to be very effective for a number of uses. One analysis we did was to see if we could infer who was friends on Facebook based on collocation patterns. Intuitively, people spend time with their friends. However, people also spend time with co-workers, people on the bus, and people they happen to live next to, all of whom might not be friends.

The way entropy helped here was to characterize the places people were at. High entropy places tend to be more public places such as our university, cafés, and restaurants. In contrast, low entropy places tend to be residential areas. If you think about it, the number of unique people seen at your house over any given time range probably isn't all that high. At the same time, if you go to a person's house or if they come to

your house, you are more likely to be friends than not. Thus, we believed that being collocated with someone at a low-entropy place is a strong signal that two people are likely to be friends. We played with a lot of other features like this, such as being collocated on weekends or being collocated in lots of places. Using these, we created a model that could predict with pretty good accuracy who was likely to be friends.

So why is being able to guess who your friends are useful? One application we think is possible is inferring if you are undergoing depression: you seem to be going out less often (low mobility pattern), and you aren't interacting with friends or family as much (few collocations and few phone calls). If this really is the case, then we can offer useful interventions to help people.

We think that there are lots of other possible applications as well. For example, helping to triage your messages (separate work messages from friends and family), prioritizing information seeking (you tend to get new information from weak ties rather than strong ties), and making sure that the person who is friending you is someone you have actually met (or understanding how your friends know that person).

Helping People Manage Their Privacy Preferences

Another analysis we did with the location data was to see if we could predict people's privacy preferences. Part of our thinking here was that people might generally be less concerned about their privacy in public places where lots of people go. When we plotted people's preferences in sharing their current location with various groups (family and friends, university, Facebook friends, and strangers), there actually was a pretty strong trend towards increased comfort in sharing for higher entropy places. If this finding generalizes to other cities, it means that we might be able to help people set their location privacy policies for a given city with a lot less effort.

(As another tangent, there's a fascinating paper by Bernardo Huberman's group at HP Labs, which found that people were more sensitive about sharing their weight the further they were from the perceived norm. We think our finding with respect to location sharing may be a variant.)

We are also currently pushing on a research thrust that combines understanding who your friends are with better ways of managing privacy. The idea is to transform the blob of "friends" we all have on social networks into a richer social graph that captures notions of relationship and tie strength. Although it seems like a paradox, the larger one's online social network, the less useful it is in practice because all the different spheres of your life are collapsed together online. In his talk "The Real Life Social Network," Paul Adams gives the example of a swimming teacher who has friends that like to go to gar bays, but is also friends with ten-year-olds that she teaches swimming. If she comments on pictures of her adult friends, the tenyear-olds can also see the pictures and other comments too.

People must carefully curate status updates, comments, and photos so that they are appropriate for all people, often leading to lowest common denominator usage and self-censorship. The alterna-

tive is accidental self-disclosures, where messages meant for one group of people is unintentionally shared with everyone.

We have some early results in how social networking information can actually help people manage their privacy. We just finished conducting a user study with 42 people in different life stages, to understand how they organized their relations and how their perceived relationship impacted their preferences for sharing personal information (such as location, location history, calendar, pictures, and so on). Surprisingly, people's self-reported closeness (scale of 1–5) was a much stronger predictor than factors such as what group a person was in (i.e. college friends, coworkers, soccer friends, etc), similarity in age or sex, or years known. We also found that frequency of communication was a very good predictor for closeness, while frequency of seeing a person was only somewhat so. This finding suggests that it may be possible to use relatively simple computational models built from smartphones to automatically infer closeness, and in turn help people manage their privacy by helping them project the desired persona they want to each of their different groups of friends.

My colleagues and I believe that there are many opportunities in using smartphones to understand real-world human behavior and social networks, and I've only outlined just a few possible applications. However, there are still many legitimate privacy concerns that need to be addressed before people will be willing to adopt these and other technologies. We are designing a number of mechanisms to help keep people in control of their information, to ensure that the benefits of these technologies for society and for individuals vastly outweigh the potential for negative consequences. MFM

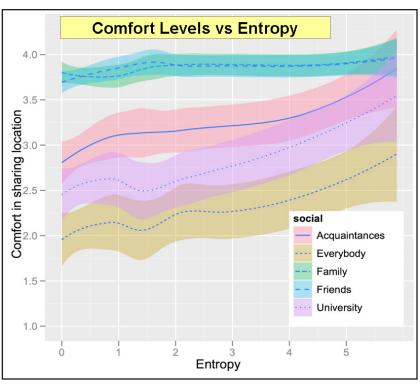


Figure 2. Comfort in sharing (4 point scale with 4 being high level of comfort) increases as entropy increases for various social groups.

oes MetaFilter users' activity depend on when they joined MetaFilter? In keeping with this issue's travel theme, I focused on comments in the AskMe category of "travel and transportation" to see what drove changes in AskMe commenting behavior.

MAYNARD

RAMINGH

How to use the graph: The graph is labeled on all four sides. On the left and right, the labels show when the users joined. Each row represents the set of users that joined in a single calendar month. The dates across the top show when the comment was made, e.g. the top row represents the January 2000 users, and along that row you see the number of comments they made across the history of AskMe on travel and transportation questions. Instead of the total number of comments made by the cohort, shading shows comments per user in order compare differently sized groups. If you then move down any column, you see how different groups of users commented in the same month.

The continued growth of AskMe accounts for the diagonal bottom; as new users join, they can only comment going forward. However, anyone that joined prior to AskMe's launch in December 2003 could comment immediately.

The most obvious bands on the graph are the green at the top, the white and blue speckled band in the middle, and the mostly blue band on the bottom. The green band shows us that older users are a lot less active per user ("users" and "accounts" are used interchangeably). Why is unclear, but possibilities include free signups leading to duplicate accounts or less investment in the site and later turbulence may have driven some users away.

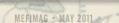
The middle, white-and-blue band shows that groups in these months are either very active or very inactive, probably due to the small size of these groups. The line graph on the right tracks the number of new accounts created each month and it is nearly zero for most of these months (when exactly zero, the row is omitted). With small groups, a few very active or inactive users can skew the results.

The transition from the white-and-blue to the mostly blue below seems to come with beginning the \$5 signup fee. From this region of the graph, and knowing a little bit of the history of MetaFilter, I get the impression of a more settled, less turbulent MetaFilter.

In the other direction, there are two strong patterns. There are more comments per user on the left than the right, and on the right there's clear seasonal variation. Since the main graph only tracks comments, we may ask whether these patterns are dependent on trends in AskMe questions, i.e. is the number of comments changing because the number of questions is changing? The bottom graph shows the average number of travel and transportation questions per user and we see similar trends here. There's an overall growth in the number of questions until around 2007, and strong seasonal variation after that, implying that comments are dependant on questions. Seasonal variation isn't surprising; MetaFilter users are mostly from the northern hemisphere, so do more traveling in the middle of the year.

The graph opens up further questions, such as whether the steep decline in travel questions in 2008 was linked to the financial collapse. MFM

GUT ON A look at comments on AskMe "travel & transportation" questions By -jf- (James Fiedler) Average number of comments, for accounts created in a given month Rows represent users that joined MetaFilter in a given month. AskMe launched New accounts in December 2003. Columns represent the month in which posts were made. 1200 2400 2005 2006 2009 2010 2011 The first cohort, 2000 2000 users that joined in January 2000, also includes users that joined in 1999. 2001 2001 April 2001: 2,396 new usernames 2002 2002 November 2002, signups "closed" 2003 2003 High variability in these rows might only be due to the small numbers joining. 2004 2004 April 2004, signups reopen November 2004, \$5 signups begin 2005 2005 on the 18th. 2,034 new usernames this month. 962 of these join on the 18th. 2006 2006 2007 2007 2008 Comments per user (divisions are not evenly-spaced) 0.015 0.034 0.05 0.067 0.087 0.127 2009 2009 Made by James Fiedler. Data from the MetaFilter infodump: http://stuff.metafilter.com/infodump/ Historical details from the MetaFilter Wiki: http://mssv.net/wiki/index.php/Timeline The form of the graph above is inspired by a graph by Crestmont Research and The New York Times: http://www.nytimes.com/interactive/2011/01/02/business/20110102-metrics-graphic.html?ref=business 2010 2010 2011 Number of "travel & transportation" questions per 1000 users Number of posts in a month divided by the number of MetaFilter accounts at the end of the month 8



2008

2009

2010

2011

2007

2006

2004

2005

Landscape

by juv3nal (David Chong)

They have in common the warp & woof of weathered wood & beams bending from out of frame to out of frame the shadows between them broken windows blackened bombed out

That we should come to "curse our inventions."

The scene offstage in which a life could be extinguished almost without notice.

We'd like pigeons here, or gulls, strutting about in their featheriness, but none are to be found — neither on the apartment building's roof nor along the length of the pier. There's a little boat with a white sail. One of them at least, possibly another. A toy one, maybe, out of focus in the shop window or tucked away in one of the rooms overlooking the street, hidden by curtains. Someone scribbling away inside

As if she means to circumscribe the curvature of the earth where the swell of water occludes sunlight protects children from calamity

Fold the message over & seal it with a thumb, how wax softens next to the flame or when worked between fingertips, leaves the incriminating trace of loops & whorls

GOMICHILD (MEGAN JANE DANIELS-SUEYASU)





Floades and earthquakes

By DestinationUnknown (Joanna Kaplan)

In New Madrid you can drive right up to the edge of the earth, where the road runs alongside the Mississippi river. There is a wooden observation deck where you can stand and gaze out at the still water and attempt to picture the long-lost days when this place was significant. I stop in front, where the road widens into a little parking area. As I stand gazing at the river, I hear a motorcycle come to a stop behind me. A man's voice says, "Hey Darlin'."

There is a line, somewhere near the start of the Ohio River, west of which men talk to and at me regularly, and east of which men wouldn't notice me if I were on fire. Just a few days ago, in Marietta, Ohio, a man sitting on a lawn chair on the sidewalk called to me, "Hey lady!" and told me I looked "miiighty fiiine."

I can't ignore the motorcycle man; we seem to be the only two people in downtown New Madrid this Saturday morning. But when I turn, he only says, "You're gonna get a ticket." I stare, uncomprehending. "You can't park that way, it's blocking the road." If thought it was a space," I say. It takes me a while to see it, but he's right, of course: my "space" is not designated parking for the scenic view, as it would be anywhere else, but simply the unmarked shoulder of the last road in town. "You're from Connecticut?" he says, looking at my license plate. "What brings you here?" I mumble some excuse about visiting friends, and thank him several times for saving me from what I imagine is New Madrid's only policeman. His young child, perched on the back of the bike, stares quizzically at me the whole time, no doubt wondering how anyone could be so stupid.





NILE_RED (MAGGIE CORLEY)

On the pastel paper of my map, the New Madrid Seismic Zone seeps out from Missouri over Tennessee, Arkansas and Illinois like a spilled drink. This harmlesslooking splotch represents the location of the largest recorded earthquakes in North American history, which took place in the winter of 1811-12. At that time, the area was sparsely populated frontier. The earthquakes wreaked their havoc on almost empty land. Today the fault line runs below large cities, small towns, major corporations, cultural institutions, farms, schools, roads, train tracks, airports, and factories. It lies beneath the feet of millions of people. If the river changed course again, if the ground dropped out, leaving swamps where there once were hills, this is where it would happen: a fully modern, populated slice of America that the rest of the country tends to ignore. That is why I came here. I wanted to see this place before the next disaster and our collective forgetfulness destroy it to see what would be lost.

In St. Louis, earthquakes are not at the top of anyone's list of potential calamities. Tornados are, and levees failing, and shootings, and baseball-sized hail. Not earthquakes. Even historically, they don't really rank. I went to the Missouri History Museum, in the city's vast Forest Park, in search of the horrors of 1811. They get a small mention on a timeline on the wall, but understandably, other disasters prevail. In 1849, there was a cholera epidemic and a Great Fire. In 1896, a tornado devastated most of the neighborhood of Lafayette Square, which didn't fully recover until the 1960s. And then there was the record-breaking flooding of 1993. There is a song about the earthquakes by the band Uncle Tupelo, called New Madrid. "All my daydreams are disasters/ She's the one I think I love/ Rivers burn and then run backwards/ For her, that's enough." All the daydreams of this whole region are disasters, and there are so many to choose from. I suppose I can't expect people here to worry that some day the earth might open and swallow them up.

In 1811, St. Louis had about 1,200 residents, all living between the Mississippi and where the Gateway Arch now stands. Today this is Laclede's Landing, one of those districts known for refurbished buildings, chain bars, and tourists. Standing there now, it is difficult — cobblestones aside — to get a sense of how it was then. The Arch, built to sway slightly with the movement of the wind or the earth, gleams in the sun. It has been raining heavily for the past few days, and the road that runs between the Arch and the river, usually traveled by horse-drawn carriages and joggers, is flooded. I realize I've never before seen St. Louis's flood gates closed.

Before I start my drive south along the Fault, I go back to Forest Park and wander the grounds of the Jewel Box, the glass Art Deco bauble where Tennessee Williams's Laura spent the days she should have been in typing class. There are placid pools of water with lily pads arranged on their surfaces, purple flowers open wide in the stifling heat. The sun shines through the building's shimmering

panels. Groundskeepers busily maintain the perfection. It is meticulously beautiful, and it demands constant attention. It requires the ground to stand still.

Heading out of St. Louis on I-55, I expect farmland but find a never-ending loop of fast food restaurants, gas stations and construction. The road looks like it has been patched together out of bits of other highways. I pass miles of orange cones, MODOT workers, and police cars. There is a wall with little blue outlines of the state of Missouri carved into it, municipal almost-art to counteract the Cracker Barrels. I take the exit onto the Great River Road towards Sainte Genevieve, which calls itself "the only original French Colonial village left in the United States."

When I get out of the car it is hot, that special Missouri kind of hot where sweat actually drips down your legs. There has been a heat wave this week to accompany the flooding. (Other places would have one or the other, but Missouri, which when I lived there struck me as a magnet for natural disasters, has both at once.) In Sainte Genevieve everything is small – the town itself, the buildings, and the goal, which seems to be simply: attract tourists and sell them things, but look a little surprised when they actually show up. Sainte Genevieve has elements of every tidy little river town, the rows of houses and shops in soft pastels and a slightly grand red-brick inn. But the older buildings, mostly of a style known as French Creole vernacular post-in-ground, are low and hunched over, like the bastard children of thatched-roof huts and plantation houses. The flowers and trees are aggressively fragrant, as sure a sign as can be without an actual sign saying: You Have Now Entered the South. Despite its quiet and slow pace, the town seems to be frantically attempting to sell itself and preserve itself at the same time. Or maybe they're the same thing.

Just outside of the Historic District I notice a pillar, which I think at first is an evacuation route sign, but which is actually a marker of significant flood levels. I gaze at it for a minute. Maybe you don't evacuate, I think. Maybe when the river rises here you just stay, and make sure to measure it.

Back on the highway south of Sainte Genevieve, I speed past the unrelenting signs for lodging and dining options. The few recorded victims of the New Madrid quakes were mostly rivermen. If they were around today they wouldn't be in flat-bottomed boats, but plying the Interstates in tractor-trailers, eating at Bob Evanses and staying at Days Inns.

The Mississippi is also flooding at Cape Girardeau. They have closed the main floodgate, which would look more imposing if it weren't painted baby blue. The muddy river seeps under it. I come from a place where floodgates are a metaphor. The next gate is open, and I step beyond it, outside of the floodwall, so that the town is behind me and the sprawling river before me. The floodwalls in Cape

Girardeau are painted on both sides with bright historical scenes. A delicate white bridge spans the river, soaring upward triumphantly. I stand on the few feet of cobblestones that the river has not yet claimed, surrounded by these displays of human ingenuity and the water that could, in an instant, sweep them away.

The next morning, I admit to myself: I am slightly afraid of Cairo. I have read so much about it: how it's abandoned, overgrown, a metropolis turned feral. I have seen the pictures — because everyone has to take pictures — of crumbling mansions on ghostly streets. I have said "Kayroh" in my head so many times, I forget that Egypt has a Cairo too.

Driving from Cape Girardeau to Cairo on a back road, I pass through the town of Thebes. Thebes has a water tower, a campsite, and a courthouse. Thebes and Cairo are in Alexander County, like a parallel universe of fallen ancient greatness. I see a sign for a town called Future City.

The red railroad bridge with "Cairo" painted on it in bright white looks new, and the town is not the post-apocalyptic horror I had pictured. The library looks cared for; some people are going into the Customs House; and there are customers inside the diner. There is a recently and quixotically opened coffee shop.

I have heard that Fort Defiance, the former state park at the southern tip of Illinois, where the Ohio meets the Mississippi, is now totally forsaken, and possibly flooded. Still, I want to go — until I follow a sign toward it, and see a terrifyingly high narrow bridge that looks as if it had been constructed out of pick-up sticks sometime around the Ford administration and left untouched since. I decide instantly that I do not want to be on that bridge, and I do not want to be the three-millionth outsider who takes well-meaning pictures of beautiful dilapidation in Cairo. Instead I become the three-millionth outsider to come to Cairo and make a rapid U-turn.

Later I look at a map and see no bridge, indeed no body of water, between where I was in Cairo and Fort Defiance, where I thought I was going. So where was I going? Kentucky? What misleading sign could I have followed? How can one miss an entire ex-state park? I pore over online satellite images and photos of the Kentucky bridges, and they look nothing like the thing I was afraid of. Anywhere else, I would want to go back someday and find out, but something about Cairo makes me wonder, if I ever did make it back, whether the bridge and the town itself would still be there.

There was no Richter scale in the early 19th century, but it is estimated that the four largest quakes that struck near New Madrid would have measured somewhere between 7 and 8. The shaking woke people from sleep, in their houses and on their boats. The boats "rocked like cradles — men, women and children confused, running to and fro and hallooing for safety — those on land pleading

to get into the boats — those in boats willing almost to be on land." Riverbanks collapsed, and chimneys toppled. Seven Indians "were swallowed up; one of them escaped; he says he was taken into the ground the depth of 100 trees in length; that the water came under him and threw him out again — he had to wade and swim four miles before he reached dry land." There were rumors of erupting volcanoes lighting the sky for days. Land turned to liquid; rivers filled with sand. The Mississippi boiled. Some thought the Day of Judgment had come, till they "reflected that the Day of Judgment would not come in the night" The earthquakes went on for months. They were felt in Natchez and Charleston, and by trappers 400 miles west of the frontier. Aftershocks continued to rattle Virginia and Pennsylvania and Quebec for years.

Today, downtown New Madrid does not look like the epicenter of anything. Its emptiness is like the end of a movie, when the townspeople who have been away throughout some great calamity come home and exclaim, wide-eyed, "What happened here?!"

When the man on the motorcycle drives away, I move my car and cross the street to New Madrid's Historical Museum. Inside, a well-mannered elderly Southern lady, the museum's only employee, shows me, its only visitor, a movie. It is called something like "The Night The Earth Went Crazy!" I don't write down the title, because I'm afraid that if I pull out my notebook the museum lady will notice and begin telling me New Madrid trivia and never let me leave. Otherwise, the earthquake exhibit consists mostly of charts, and is not as interesting as the ones about Mississippian culture or the Civil War. Of course, Mississippians left pots, and Civil War soldiers left uniforms and weapons and letters home. The unremarkable family whose belongings make up the second floor, "model historic home" of the museum have left everything. "There's a wreath made entirely of human hair," the museum lady says. "Make sure you see that." Earthquakes leave only new lakes, and odd geological formations, and warnings. New Madrid takes these warnings seriously, but it's as if they know they're fighting for an obscure lost cause. I get the sense that if it happens and they escape with their lives, they'll get some small amount of pleasure from shaking their heads and muttering, "We told you." In the museum's little store, I buy a shot glass imprinted with the words "It's Our Fault!"

A disappointing fact: the epicenter of the initial earth-quake of what scientists call the New Madrid Sequence was in truth located in ... Blytheville, Arkansas. I go there mostly because I've never been to Arkansas. With the new state comes a new color palette. Green turns to yellow, and everything — roads, fields, sky — looks bleached by the sun. Pieces of rusty equipment perch amid the crops like long-spined, many-legged bugs.

The earthquakes in the file footage of my mind take place in dramatic, craggy places, with mountains and seaside cliffs. It is hard, driving through this flat landscape, to picture anything spectacular happening here. It sometimes seems like it was hard for people who experienced it to believe it, too. "I cannot give you an accurate description of this moment," one man wrote. "The earth seemed convulsed — the houses shook very much — chimnies falling in every direction. The loud hoarse roaring which attended the earthquake, together with the cries, screams, and yells of the people, seems still ringing in my ears." When the road changes slightly, and something about the asphalt and the wake of the truck in front of me makes my car wobble, I imagine the movement of tectonic plates.

Historic Downtown Blytheville is bisected by railroad tracks. A bright mural of a train is painted on the side of a brick building beside them. Whether this celebrates the trains that pass through today, or commemorates the absent trains of days gone by, I do not know. What's more interesting to me is how they park their cars. Every block of Main Street has its own small parking lot, separated from the road by a curb. So easy, so thoughtful, and so unnecessary all at once. I find the bookstore — the only place in Blytheville, as far as I can tell, that has attracted attention from anyone outside of Blytheville. I stumble on a book set in New Madrid, which I feel compelled to buy. The total comes to something ending in 30 cents. I glance at the mess of change I've been accumulating, and say to the girl at the register, "I won't waste your time with pennies!" "Oh, that's fine," she and her co-worker respond. "We'd love pennies. Last week we had to run out to our cars to get pennies." And despite my protestations they practically insist on waiting, patiently, as I rummage and count. In New York, seven people would have yelled at me by now. I would have yelled at me by now. Here, the scenario I was trying to avoid seems unthinkable. They don't appear to recognize the concept of wasting time.

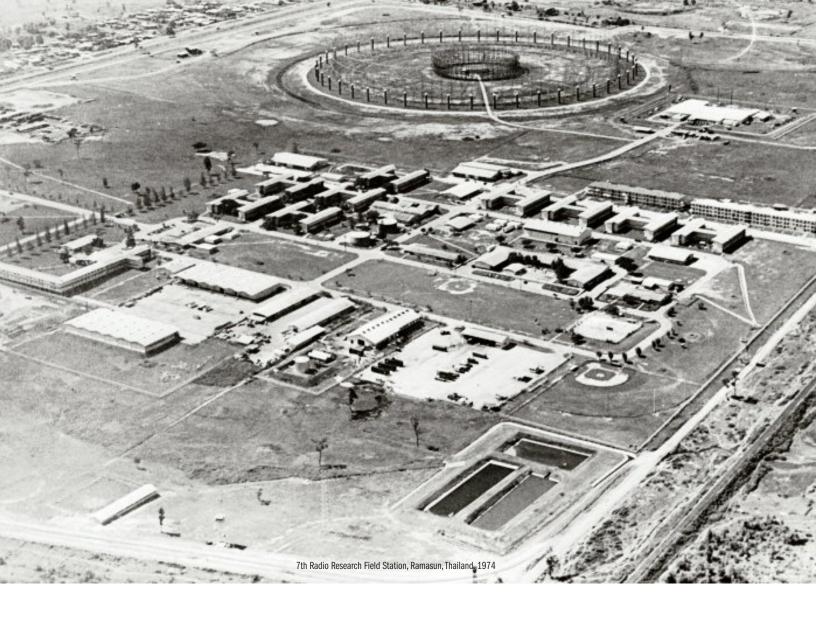
In the non-Historic part of Blytheville, on the main strip mall drag where they put the Sonic, kids ride bikes on the dotted lines between the lanes. This town makes me wonder whether anyone would miss it, or even notice, if it was gone.

In 1814, years after the quakes, Missouri Territory Governor William Clark (whose name is always unidentifiable for a moment when not linked to that of Meriwether Lewis) wrote what is thought to be the first American request for Federal disaster relief. It begins, "Whereas in the catalogue of miseries and afflictions, with which it has pleased the Supreme Being of the Universe, to visit the inhabitants of this earth there are none more truely...distructive than earthquakes..."The hotel I'm driving to in Memphis, according to its website, is "FEMA Approved." Clearly FEMA is thinking of the kind of emergency in which there would still be a hotel.

In 1811, there was no Memphis; the place known as the Chickasaw Bluffs would not become part of the United States until 1818. I'm going there not to imagine what happened then ("even the Chickasaw Bluffs, which we have passed, did not escape; one or two of them have fallen in considerably") but to see the city — the 19th largest in the nation — that has been built on this precarious location since. I cross the Hernando de Soto Bridge and duly begin discovering things other people have known about for ages. An enormous shiny silver pyramid, which turns out to be a brilliantly tacky un-stadium-like stadium, so fabulously turns the 19th century antiquity-naming craze on its head that I like it immediately. Trolleys, each painted a different color — bright orange, yellow, white, dark blue — that make a horrible squeaking noise but look so adorable I don't mind. I walk past Beale Street as hordes of tourists begin streaming towards the bars. A guy on a bike weaves along the sidewalk beside me, turning around repeatedly to ask me, "You like the bike? You like the bike?" "Why are you talking at me?" I wonder. Then I remember: I am west of the line.

There's a place in Memphis called Mud Island. It rose out of the Mississippi in 1910. Today it has an amphitheater and a New Urbanist neighborhood and a somewhat dingy museum featuring a scale model of the Lower Mississippi River that stretches for blocks. You can step right over it where it is narrow. Standing five flights above it, by the pedestrian walkway, I look down at the other visitors as they step through the mock river in the stifling humidity of the morning. The walkway lies on top of a monorail track, and as I cross it the trains rattle by below my feet. From this vantage point, the island feels as ephemeral as the sandbar it once was. The rest of Memphis — the crowds of slowmoving people, the sturdy houses on the bluff above the river, the scent of barbeque drifting skyward — seems a bit impermanent too.

Driving east across Tennessee, I pass Reelfoot Lake, which was supposedly created when the earthquakebefuddled Mississippi flowed backwards for several hours — some say days — to fill it. I feel as if by returning to the Northeast I am evading danger, abandoning this perilous place, though I know the New Madrid quakes caused church bells to ring in Boston, and chandeliers in New York to sway. The Connecticut Mirror published an overwrought editorial asking,"What power short of Omnipotence, could raise and shake such vast portion of this globe ... May not the same enquiry be made of us that was made by the hypocrites of old — 'Can ye not discern the signs of the times." But eventually we, the rest of the country, forgot. And even now, as I drive, I am forgetting. The rising floodwaters seeping through the gates are behind me. It's not our fault. MFM



HARD2H1P TOUR

1. BEGINNINGS UDON THANI, JANUARY 1974

BY PJERN (PHI∠ JERN)

As the door of the aircraft opened, I was stunned by the bright sunlight and a blast-furnace wave of heat. I stretched and looked out the door. A small figure in a coolie hat was setting out the plane's staircase. Beyond him, the nose of a Phantom fighter intruded into my first view of sunny Udorn Air Force Base, Thailand.

We filed out onto the tarmac. I squinted in the light and tried to take stock of my new surroundings. The terminal building, an aluminum prefab job, was a hundred yards away, shimmering in waves of heat radiating from the asphalt.

The walk to the terminal was interrupted by three Phantoms screaming back to the airbase from what must have been a training mission. An Air Force type came out of the nearby operations hut, pointing up. A thin trail of white smoke streamed from the third jet. Activity ceased while the airplane turned towards the runway, losing altitude at an alarming rate. Everyone held their breath and time took on a surreal quality.

The aircraft narrowly cleared the last trees across the road and plopped down, racing down the runway until it was lost in the haze at the far end.

"Holy shit!" muttered the sailor who had occupied the seat next to me on the flight, in a loud whisper. "I thought the fighting was over. At least that's what they said on the news last week."

"Somebody go tell that pilot," countered a warrant officer, "before he gets in trouble for taking unauthorized enemy fire."

I stood there, dumb, listening to the repartee and gazing down where, I hoped, the airplane had stopped in time. As a private pilot in civilian life, I had a strong feeling of empathy for the pilot of the stricken fighter, and hoped he was all right.

We gathered our bags and trooped over to the terminal. Most passengers were already stationed here and knew where they were going. I stood out as the only soldier of the "army persuasion." My orders were a "Permanent Change of Station" from "Advanced Individual Training" at Ft. Gordon, Georgia to the 7th Radio Research Field Station in Ramasun, Thailand. The instructions stated that I was to call the Transportation Officer at the 7th and arrange a ride to the unit.

I was here to serve a one-year "hardship" tour. Tours of duty were classified by their relative closeness to civilization. A "long tour" was usually three years and likely to be in Europe. A "short" or "hardship" tour of one year could be anywhere. Short tours were commonly referred to by GIs as "a hitch in Bumfuck, Egypt."

The terminal emptied out in no time, and I was left to my own devices. I looked around for some means to communicate with my new unit. A phone on the wall had a placard reading "NEW ARRIVALS FOR 7TH RRFS USE THIS PHONE AND CALL 4318 FOR PICKUP."

I picked up the phone. No dial tone. Shit.

I grabbed my bags and headed out towards the road, with absolutely no idea where I was going or where I was, for that matter.

INDIANAPOLIS, DECEMBER 1972

One year before, I had been pumping gas in Indianapolis and desperately looking for a way out of the deadly, deadening boredom of Hoosier summers and Bible Belt moralities.

In high school civics class, we were taught that Indianapolis was "the Crossroads of America," an assertion that was laughable at best. In 1972, Indianapolis was a sleepy city with limited prospects. Nixonomics had taken its toll, and the best jobs available to a recent high school graduate were pumping gas and stocking groceries. College was out of the question, given the socioeconomic status of my family.

I thought I was reasonably intelligent; I couldn't accept a life of pumping gas and repairing tractor tires. How could I escape this sentence of boredom? The answer seemed clear: join the Army.

I never gave a thought about the current social acceptability of being in the service. It seemed to be a logical way to further my education and escape a stifling situation. The war in Vietnam was winding down, and I felt that physical danger would not be a major factor. It never occurred to me that I would be in any other kind of danger. That

spring, after receiving notice that my "number was up," I had joined an Indiana National Guard unit as a means of deferring the draft. After a summer in that unit, transferring to the regular Army was fairly easy.

I duly reported to the examination station on West Washington Street to be inspected, injected, and otherwise prodded and poked. All was proceeding according to plan until early in the afternoon.

"Jern!" This from a Sergeant, poking his head in the door.

It took me a while to respond, as I was surprised to be singled out. "Here."

"Grab your packet and follow me. They want you in Special Section."

"What's wrong?" The noncommunicative NCO led me down a maze of hallways and parked me in a waiting room. It was plush, very unlike the austere decor of the main reception station.

The NCO disappeared, leaving me to quake in my boots for a very long time. After about ten minutes, a door opened down the hall and I heard a voice.

"There he is." A Lieutenant Colonel was poking his head out the door. "Send him in."

I followed the NCO down to the Colonel's office, frightened, not knowing what to expect. Had I been disqualified for something horrible in one of the examinations?

"Mr. Jern? Please sit down. Make yourself comfortable." It seemed odd to be called "Mr. Jern" by someone so authoritative.

The Colonel was still on the phone, so I took a look around his office. Wall to wall carpeting, a stereo and color TV — it was far from the Spartan look I had learned to expect from the military.

The Colonel finished his phone call and leaned back. He was a short, scrawny man with ridiculous eyebrows that made him look like a cross between Don Knotts and Groucho Marx. He picked up a sheaf of papers in front of him, and rummaged through them. "You have some unusual test scores here," he opined, concentrating on one sheet.

"Is that good or bad?" I was still sweating this out. I felt hot and a little flushed. I began to think that the Army was a bad idea, or that I was about to be accused of cheating or some other major criminal activity.

"Very good, actually," he remarked. I began to breathe a little easier. "We are always on the lookout for people like you."

"We who? What is all this about?" I was still in the dark, although I felt a little relieved, seeing that I was not about to have my as-yet-unworn epaulets ripped from my 18-year-old shoulders.

"We would like you to consider the ASA enlistment option. We try to select applicants from the top ten percent of enlistees, based on entry-level testing and screening." He leaned back, waiting for my answer.

"What is the ASA?"

"ASA stands for the Army Security Agency."

"What does the ASA do?" I asked.

"I can't tell you that."

This was not exactly the response I was expecting. "I beg your pardon?"

"The exact functions of the ASA are classified," he explained, "although I can tell you that it is excellent duty. A lot of people would give their eyeteeth to have this opportunity."

I pondered this for a moment. "What happens if I decide not to join?"

"Nothing. You can just go back to the main group and take your chances with the rest of them."

"My chances? What do you mean?" I was interested, now. There seemed to be an indirect threat in the Colonel's words.

"Simple. As an enlistee, you take your chances with assignments and duty stations. If you choose the ASA, you will be guaranteed certain schools and options if you qualify." The Colonel was pouring on the hard sell. He went on at some length, pointing out various advantages of his organization.

"What do I have to do to qualify?"

"You must pass a background investigation by the FBI and qualify to receive a Top Secret security clearance." The Colonel lit a cigar and sat back.

I thought quickly. What was all this stuff with the FBI and secrets? I was just a few months out of high school and perhaps not ready for all this.

"What happens if I sign up and don't qualify?" I asked.

"You would be reassigned according to the needs of the Army, like any draftee. With your test scores, though, I don't think you have anything to worry about. Look at it this way — you don't have anything to lose by signing up. If you don't measure up to our standards, you'll end up in the same place that you would have anyway."

"I need to think about all this. Would it be all right if I slept on it and let you know tomorrow?" I was being bombarded with too much, too soon. The Colonel nodded and the interview was over for the time being.

After a few formalities, I was out the door and walking to the bus stop on Washington Street, watching my breath in the cold December air. That night, I bought a canvas overnight bag at the local K-Mart and sat in a coffee shop, thinking about my options. The Colonel's offer sounded too good to be true. I didn't think of myself as anything special. I just wanted to get the hell out of Indianapolis, see someplace else and learn some skills. Why did he want me to join this mysterious ASA? What was this ASA all about? What on earth would I do with a Top Secret clearance? For that matter, what was a Top Secret clearance?

I couldn't answer my own questions, and knew no one to turn to. I got in my trusty 1964 Pontiac and drove around in a blue funk, chain-smoking the ashtray into a state of submission. The next morning, I got on the bus,

having entrusted my car to my mother. I was still in a quandary, and my appointment was only forty-five minutes away. As the bus passed a theater, I looked up to see the owner putting up the marquee for the next movie. It was a 007 flick. I took it as an omen. If they could offer, I could accept, and treat it as adventure.

UDON THANI, JANUARY 1974

If it was adventure I wanted, this was certainly a start. I was walking down towards the highway in the oppressive heat. I accosted an airman and asked him how to get to the 7th.

"Didn't you see the phone?" he asked.

"The goddamned thing is broken. I don't have the slightest idea where I am." I was pissed off and soaking in my winter dress uniform. It was January in the United States when I had boarded the first of the series of airplanes that would bring me here, just a few degrees north of the Equator.

"Shit. You didn't get an arrival briefing or anything?" he inquired.

"Nope."

"Well, the 7th is about five miles south of here, out Friendship Highway. You can't miss it. There's a huge antenna right next to the place."

Well, now I had a destination. "Is there a bus or something?"

"Next one is in two hours," he said, "but I'll tell you what. Got a quarter?"

I dug into my pocket and handed him one. He, in turn handed me a nine sided coin that looked like it belonged in a kid's play money set.

"That's five Baht," he said. "What you need to do is, go on down to the highway and cross over to the other side. They drive on the left side of the road here, and you'll be on the right side to get to the 7th. Wait for a Layolayo truck and hold out your hand like this." He demonstrated.

"What's a Layolayo truck?" He pointed.

Down at the highway, I saw a small pickup truck with a colorful canopy.

"One of those" he said. "Just get in and tell the driver 'Bai Nongsoong, kop."

"Bai Nongsoong kop" I repeated, trying to capture the sound.

"You got it. Good luck."

"Thanks, man." I picked up my gear and trudged down to the highway. Bai Nongsoong, kop. I repeated it over and over. As I got nearer the highway, I began to see the sights and smell the smells of Thailand. Peddlers with colorful pushcarts, little food stands that emanated strange odors, Buddhist monks in orange robes, and wizened elders were among the kaleidoscope of images that overlapped each other. My mind swam trying to take in all this colorful novelty. Mentally overloaded, I reached the highway.

Traffic of all shapes and descriptions roared by. It was a two-lane blacktop road with clay shoulders about twenty feet wide. I made several false starts, trying to get across. Finally, after a close brush with what appeared to be a taxicab, I made it. I began to look for a Layolayo truck. Several passed me by, but finally, one stopped at my somewhat tentative signal. I tossed my gear in the back. Opening the door, I slid in on the left hand side. The driver looked at me expectantly. I opened my mouth, but no sound issued forth.

I panicked. I couldn't remember the words! Oh shit. What now?

"Kop ow bai nongsoong?" The driver furnished the missing words. I felt a flood of relief. Of course! I was in uniform, and the 7th was the only Army outfit in this neck of the woods. I nodded, glad that this smiling little man was on the ball.

I was physically exhausted; three days and five airplanes had taken their toll. Nevertheless, I was not sleepy. The excitement of being in a foreign land for the first time and seeing all the things I had only read about in high school had driven all thoughts of sleep from my mind. I watched the passing countryside with fascination. Water buffalo and rice paddies lined the road, punctuated by the occasional small bungalow built up on stilts.

We had been on the road only about ten minutes when I saw something that had me rubbing my eyes. An arc of steel was peeking above the trees perhaps a mile and a half away. As we got closer, it became apparent that the apparition was of enormous scale. It resolved itself into an antenna array of monstrous proportions, at least half a mile in diameter and 250 feet tall. The feeling of unreality was compounded when this monster was contrasted with the primitive surroundings. The guy at the airbase was right. There was no way anyone could miss this thing.

The driver grinned and pointed at the antenna, and said "Kop work elephant box?"

I nodded, still amazed. The driver pulled up at the guard shack just outside the fence. I handed him the coin the airman had given me, and pulled my bags out of the back. He drove off in a cloud of black smoke.

I walked up to the MP on duty and presented my orders.

He studied them, and picked up the phone. "Hey, Sarge. I gotta new guy here. Where do you want him?"

After a short conversation, he pointed me towards a small, whitewashed building down the road.

I trudged down the road, the fatigue getting to me at last. I walked in, signed the incoming register and got a barracks assignment. Fortunately, my assigned building was right across the road. I made it up the steps and opened the door.

It was like walking into a deep freeze. For a "hardship" tour of duty, the place was air conditioned to within a half a degree of frostbite. I stood in shock. The cold, however, was not the only reason. Walking towards me was the single most beautiful girl I had ever seen.

"Sawadee, kah." Her soft voice sounded like a small

wind chine in a light breeze. She smiled. I melted, despite the air conditioning. She took my hand and led me to an empty bunk and said "You stay here, OK?" I was too stunned to argue. With swift efficiency, she took my linens and made the bunk, and then produced a clean towel. I took the hint, and grabbed my kit, setting out in search of the shower.

After cleaning twelve thousand miles of sweat and dirt off of my body, I explored the barracks. I found a central room where three Thai women were busily ironing uniforms and other articles of clothing. Maids? I was still under the impression that this was a short tour because conditions were so unbearable here. If this is what the Army considered unbearable, I hoped to go to Hell, Army style.

I headed back to my new bunk, hoping to find my angel still there. She was, and had finished unpacking my clothes and hanging my uniforms in the locker. She turned down the sheets on the bunk and said "You sleep now?" The trip had totally exhausted me, but I couldn't restrain my imagination concerning the possibilities of this lovely girl joining me between the sheets.

I sat down and looked at her. "What's your name?" I asked. "My name Ling Saam" she chimed. "I be your Number One housegirl, OK?"

"OK." I fell back into the freshly made bed and thought that if I had known that this was duty with the ASA, I would have accepted the Colonel's offer immediately, instead of waiting as I had on the occasion of our first meeting.

INDIANAPOLIS, DECEMBER 1972

I got off the bus and walked over to Monument Circle, deciding to spend a few minutes in the familiar environs of the Soldiers and Sailors monument while I thought things out one last time. I was convinced that this ASA business could be an interesting thing.

I smoked a couple of cigarettes and went over to the Test Building, where I had once held a summer job as a mailroom clerk. Bernard, the building security guard I had developed a friendship with during my stint there, was on duty.

"Hi, Bernard. Remember me?"

"Look who's here! Come to get your old job back?" He wore his usual smile, and came over to the door to greet me.

"Not on your life." I said, feeling better seeing a friendly face. I told him about the Army, and of the strange offer the Colonel made, and of my indecision.

He didn't hesitate a minute. "Take it, boy. I always knew you were a smart feller. Don't you worry about it. Like as not you'll get a good job with them ASA folks and learn a lot, too."

I asked him what he thought of all the secrecy and cryptic comments that the Colonel made.

"Probably nothing. Maybe they just want to see what

yer made of, and whether or not you'll run or take the bait and make the best of it."

We said our goodbyes and I made my way over to the recruiting station. I signed in at the desk and made my way back to the Special Section.

The Colonel was waiting, "Did you make up your mind?"

I told him I had, and that I was willing to give the ASA a try.

"Fine." He beamed, "Come into my office and we'll get things going." We sat down, and he produced a cryptic list of letters and numbers.

"The first thing we have to do is select a school and a MOS for you to be trained in. This is a complete list of those Military Occupational Specialties that we use in the ASA."

I scanned the list. There were job titles for Morse Intercept Operators, Intelligence Analysts, Cryptologic Technicians, and a hundred other equally arcane titles. I couldn't make up my mind, and told the Colonel as much.

"I would suggest something in a technical or maintenance field for you, considering the excellent score you got on the General Technical and Electronics portions of your enlistment tests." The Colonel produced a smaller list, and pointed out a subsection.

I looked this list over. The job titles were more specific here. Fixed Station Ciphony Repairman, Tactical Cryptologic Specialist, and Intercept Equipment Repairman were some of the titles.

I was about to hand this list back when one item caught my attention. MOS Code 31J20, Teletypewriter Repairman. As a student pilot and airplane fanatic, I had spent hours at the airport looking around, and had been particularly fascinated by the Teletype machines that printed out weather sequences. I could remember peering down into the glass that afforded a view of the printed copy, and being stunned at the intricate mechanisms whirling around like small machined dervishes. I made up my mind on the spot.

"This one." I pointed it out to the Colonel. He agreed, and we filled out the proper forms. I would be attending the Southeastern Signal School at Ft. Gordon, Georgia following Basic Training. This done, we turned our attention to the paperwork necessary to obtain my security clearance, the backbone of the entire process. Without it, all my worry would be in vain. I asked the Colonel what my chances of obtaining the clearance were.

"Have you ever been arrested or used drugs?" he asked. I told him I had not. "If you're telling the truth, there should be no problem." This disturbed me. The implication was that I was not telling the truth, and I didn't enjoy the feeling at all. I suppose that in 1972, I was something of an odd one out, not having been involved in demonstrations or recreational drug use.

The Colonel handed me a three-page list of "subversive organizations" and asked me to identify any that I be-

longed to or had contributed to. I read the list, and could honestly tell him that I had never even heard of most of the organizations listed, and certainly had never contributed to any. "Fine," he said, "Are you ready?"

"For what?"

"To be sworn in," he replied. "After you are sworn in, I'll give you a briefing and you'll be on your way to Basic." We went back to the main area, and I joined my fellow enlistees in the swearing-in room.

The room was bare, save for a podium that supported a Captain as he administered the oath, and a solitary American flag. For better or worse, I was now committed. The Colonel was waiting for me when I came out.

"Congratulations." He offered his hand. I shook it, wondering why I felt like I had just sealed a bargain with Beelzebub. We walked back to the Colonel's office and filled out some more papers.

Finally, we finally got to the briefing. Basically, it called for me not to discuss the ASA with anyone during basic training. I would be protected from being shanghaied against my will by the Army, by a notation in my personnel file that said that I could not be diverted from my orders without "express consent of the Commanding General, ASA." Finally, the Colonel gave me a phone number to call if I got into any trouble with the 'Army Idiot Bureaucracy,' as he called it.

I began to sense a truth about the ASA. They operated as an independent agency within the Army, with their own personnel. They were using the Army as a paperwork machine to cover up their actual activities. This was going to be interesting. MFM



