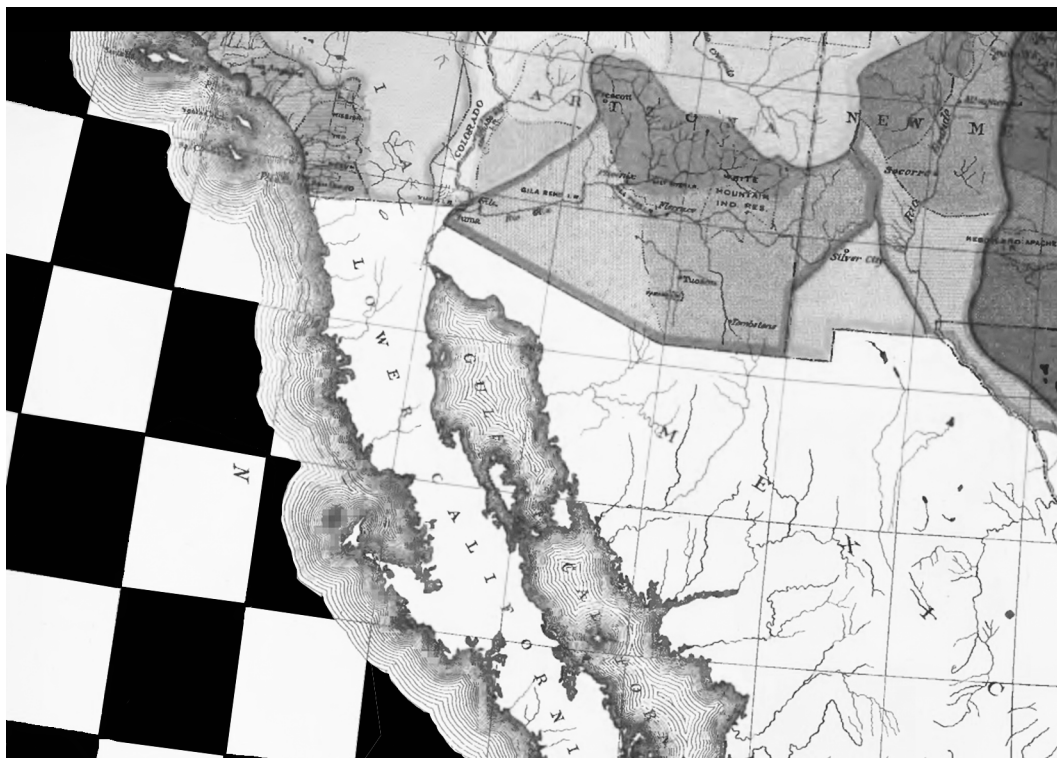


# THE GAMES THAT GOT US THROUGH



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# INTRODUCTION

How do you run out of water? Really slowly, and then all at once. These were the hard times, before the Desal and rewilding, before they redrew the states by watershed. Early days of a better nation, but we didn't know it then. We'd made a mess of things, that was for sure, and the cost was coming due. Folk had nothing to do but pack up and follow the clouds.

Bit by bit, town by town, the drylands emptied out, a crawling, clawing exodus up to Oregon and Washington, towards a dream of wet, balmy Canada. We jawed at each other on shortwave. We closed the gap between what we were given and what we needed. In these slow, hard times, thrown together with strangers, buffeted by drought and bureaucracy, the best way forward was to make a game of it.

Games to divvy up a windfall. Games to make do with a shortage. Games to form teams. Games to settle grudges. Games to spark productive rivalries. Games to protest with, and games to set down laws. Anything to take the mind off tomorrow, and take the edge off today.

And yes, we got good at finding new ways to lift water off each other. Nobody died of thirst...but surplus had a habit of moving around. Sneak up on some FEMA-juiced drinkers and take them for barrels, have a glorious few days of showers and moist lips before they stole it back out of our piss-tanks. We had to be so careful; we couldn't help but put rules to these raids and dust-ups.

In Cascadia, when they parked us in camps, the game went on as a way to settle deadlocks in voting, with jugs full of sand or garden soil, or the occasional beer raid. After a while, our gracious hosts wanted in on it. Sponsors, leagues, and a way for migrants to get paid. Cistern ended up a big-name sport. But it was one of many. Years on, we still play those games, out of habit and memory. They change, they mutate, but they remain: the games that got us through.



# A TIMELINE OF THE LONG WALK UP

**2016:** After an unusual seven years away, the strongest El Nino in nearly two decades brings relief to the drought-stricken American southwest. That winter is the last time major rains would be seen in the region for a generation.

**2019:** Interpol arrests of major Red Cross leaders in corruption scandal triggers wave of balkanization of international relief and disaster aid work, and a renaissance of new theories and methods pioneered by new kinds of organizations.

**2021:** Investigative reporters find evidence that officials in six states conspired to suppress information about failures at water treatment facilities. An emergency federal study finds unsafe levels of agricultural and industrial chemicals in water supplies throughout the country. Further study finds corrosive chemicals in some water supplies have caused “lead cascades” in dozens of cities. Bottled water prices pass the price of gasoline in some cities. 2016 crisis in Flint, Michigan declared the “canary in the coal mine” of the American water crisis.

**2024:** Water issues are a hot topic in the American election season, but a plan to revitalize water infrastructure flounders and is lost in the partisan shuffle.

**2026:** Significant rain has not been seen in the American southwest for a decade. Water rationing is now the norm, and agriculture has been pushed towards widespread fallowing. Competition between states for water rights becomes fierce. An activist movement calls for a “Dryland Treaty” to end infighting and enforce cooperation among states, as well as parts of Mexico. Though no treaty is ever signed, the term “dryland” becomes popular parlance to refer to the afflicted region.

**2028:** An earthquake in southern California causes major damage to the Colorado River Aqueduct and Central Arizona Project pipelines.

**2029:** Water problems reach crisis levels in the Drylands. A leaked government memo recommends a “general abandonment” of the region.

**2030:** As emergency relief efforts flounder, the General Abandonment order becomes official. A large wave of migrants rushes north, seeking water security in northern California, Oregon, Washington, Montana and Canada. In these states and those along the way, resources, services, public spaces and local supply chains are overwhelmed by the influx of needy people. Violent incidents ensue as some cities mobilize militias to keep out migrants. Calls are made to militarize state borders to control the flood of drylanders.

**2031:** The “Slow and Steady Compromise” is reached by states and federal government, allowing the northern migration to continue at a more measured pace. Government agencies plan checkpoints to stagger and slow the migration. California, seizing on language in the deal allowing governors to regulate the migration in ways “in keeping with the cultural and environmental priorities of the state,” restricts the use of cars and gasoline along the migration route, thus pacing the migration by forcing travelers to use slower forms of travel.

**2032:** FEMA sets up camps along the migration route to distribute water and other relief to migrants. A nongov aid network with roots in the Occupy movement coalesces around the Californian route, creating a series of intermediate camps and rest points, as well as providing semi-electric bicycles to drylanders.

**2033:** With the migration now formalized, many more drylanders leave their homes and set off north. Most aim for the safety and partial water security of the Californian route. The eastern routes feature less support and can be more hostile, but offer a faster, riskier way out of the drought.

**2034:** The migration peaks with satellite photos suggesting a total of 10 million people actively migrating north. Documentary series “The Long Walk Up” coins a universally accepted term for the drylander migration. One scene captures a frenetic but otherwise peaceful water raid by refugees on a neighboring camp—an activity that would later evolve into the sport of Cistern.

**2035:** The drylander camps on the outskirts of Portland (widely considered the nominal end of the migration trail and the gateway to the temperate north) become a hotbed of creative and political ferment. Refugee protesters demanding better treatment and more fair integration

into Oregon society stage a series of theatrical sit-ins at FEMA facilities and other government offices. The sit-ins feature an absurdist game called Ministry that becomes the crux of influential drylander critiques of Northern bureaucracy. Meanwhile, early forms of Cistern see play as ways to pass the time in migrant camps throughout the North.

**2036:** Drylands mark two decades of drought. Major cities have become ghost towns, with populations less than ten percent of what they were a generation ago. Debate about what to do with the abandoned region, and how to adapt to climate change in general, dominates the American election season. Rewilders put forward a compelling vision of dense urban life and argue that less populated areas like the drylands, as well as much of rural America, should be encouraged to overgrow to help bring greenhouse gas levels under control. Meanwhile, Reclamationists demand action to support a limited and sustainable resettlement of the drylands. Both factions see significant victories.

**2037:** A new breakthrough in desalination techniques offers a glimmer of hope. Seizing on the technology as a vindication of their ideology, the newly elected Reclamationists draw up plans for major desal facilities---and canals to carry sea water from the Pacific and the Gulf of California. Wishing to return home, thousands of drylanders volunteer to work on the projects. A half-civilian/half-military corps of engineers is given permission to “dig at will,” allowing the projects to move forward with unprecedented speed.

**2038:** Inspired in part by a series of failed New Secessionist efforts in the South, referendums in the Pacific Northwest states redraw borders to create the new American state of Cascadia, breaking centuries of ossification around state lines and sparking a decade-long redrawing of the states around watersheds, infrastructure planning and economic and cultural similarities.

**2039:** Cistern is now a regular feature of life in Cascadian drylander settlements. Rules are formalized by community organizers seeking to use the game to forge better relations between drylanders and their “host” communities. Exhibition games capture the imagination of bohemian games enthusiasts across the north.

**2040:** First Cascadian inter-city Cistern league founded.

# THE MOTHERLODE

It was the dog that led us to it. This dumb dog that I'd spent all week hating. We were at the first rest stop out of Paso Robles, and I turn my head for one second, all of a sudden Jamie is gone. Ten minutes later I find him with this skinny mutt of a dog licking his face and eating vending machine jerky from his hands. So of course the thing follows us. We pedal on a ways and make camp, and right as we sit down to eat, the dog comes trotting up like we rang the dinner bell. She must have walked all day without stopping, to catch up so quick.

I say we should leave it, try to scare it off or something, but Jamie cries, and dad has this soft spot. So we give it a tortilla, rub it down with hand sanitizer to help with the smell. Pour out a little bowl of water for it. Let me tell you, dogs are useless with water. When they drink, it spills everywhere. You can't stop them from pissing it away on some bush. All the next week I get this resentment building. Every day I'm squatting over a funnel, trying to catch every drop. Wiping myself clean with a damp cloth in this cramped, plastic recapture tube. The dog didn't get it about the drought. Didn't know how far we had to make our drink last. We hadn't been out of Slo that long, and already we were drying up faster than was safe.

Finally I've had it, and I'm screaming at the dog for shitting in front of my tent, and because I just want a proper shower. And Jamie is bawling, and dad is trying to get us to lower our voices, 'cause the other families are starting to look our way, and all of a sudden the dog just bolts. Runs straight into the hills. So dad and Jamie and I head after it. Once we get over the first hill, we can see it a little ways off, just standing still with its nose in the air. We call out, and it looks at us, but then it walks off along this faded valley path. So we clamber down the hill and follow it around a bend, and boom!—there is this weird dirt mound with a hatch in it, glaring at us with this angry 'keep out' sign.

I'm all for doing what the sign says, but dad is staring at this thing with a sort of fascinated glint in his eye. He raps on the hatch, just to be safe, but then we realize that it isn't even properly locked. Now, dad was pretty strong in those days, so he plants his feet and pulls on the handle, and after a second the hatch comes open with this screech and this big puff of dust and a wave of stink like I'd never smelled before.

We were used to riding through dust, so we cover our faces and pull down our goggles and creep in, dad leading the way with this little

flashlight he kept on his keychain. Under the mound someone had buried a shipping container. Judging from the pile of survivalist books we found, they must have figured this was a pretty good way to ride out whatever troubles they thought were here or coming.

Back then there was a real fetish going around about those big ugly boxes. They were cheap and sturdy-lookin', and with trade slowing down there were about ten million of 'em just sitting around, reminding everyone of all those old excesses. So people got to thinking of all kinds of ways to repurpose containers into little houses, or stack them up to make hotels or office buildings or whatever. Course, it's not comfortable, living in a thin metal box, but I suppose there's a kind of penance in that. Penance was on a lot of minds, those days.

Versatile as people seemed to think they were, shipping containers still had, you know, technical limitations. Main thing was they were designed to take weight on their corners, which meant you weren't supposed to bury them. I guess I didn't know that then, but it wasn't hard to see what had gone wrong with that bunker. The ceiling and walls had buckled under the weight of the soil, sagging inward and leaving little piles of dirt below spots where the material had cracked. The owner must have seen this starting, as they had tried to prop up the ceiling with a tall four-by-four board, wedged against the floor with a stack of martial arts magazines.

I remember feeling this flutter of scary excitement, just like I did that first day we left Flagstaff, when dad said we could quit school because we were going on an adventure. Or the day we got to California and traded in our car for Occupy-fabbed bikes and just pedaled on out of town. Hour to hour it was boring. Same scenery, same nervous people heading north beside us. Stale food and long waits in the water lines at FEMA check points. But every now and then there would be some moment when it hit me that we had no idea what was going to happen. I guess that day with the bunker was one of the big ones.

Dad called it 'the motherlode.' There was a big pyramid of canned fruits and a crate full of freeze-dried camping meals. Two barrels of water—slimy with algae but salvageable with a proper filter like we had back at camp. A tool rack hung askew, dangling with carbon fiber hatchets, hunting knives, carabineers and a big coil of rope. A first aid kit had fallen to the floor, scattering bandage rolls and pill bottles. There was a chunky hand-crank radio on a little table, and tucked into one corner was a half-empty case of California wine. Walking through that bunker, I pretended we were D&D heroes raiding a dragon's hoard.



That was before we saw the body.

In the back of the container was a little curtain, and when we pulled that aside we saw him, curled up in a big ugly ball on a cot. Dad told Jamie to wait outside with the dog, but I guess he figured I was old enough to handle it. That part of the state hadn't seen any rain in a few years, so the body was sort of half-rotted, half-mummified by the dry air. Like the bugs had stuck with him only long enough to suck him dry.

Our dead survivalist wore jungle camo cargo pants and some kind of kung fu jersey on top. He'd probably been a big, buff white guy at one point, but lying there, all empty, he just looked small. He'd died doubled over, clutching his stomach. Dad figured the water had gone bad, and the guy hadn't figured it out or hadn't known how to get it clean again. That's the thing about water, isn't it? If the sky and the land aren't giving it up, you need help to tend to it, treat it right. Water's a resource that takes a community to manage.

Our man in the bunker, he hadn't believed in community. Guess maybe he felt like community was the danger, and I can see the argument there too. But from my years, I can tell you: when the sky turns its back on you and things fall apart and you gotta get by with less than you thought you could, it ain't carbon fiber hunting knives that will save you. It's having other folks there to help you puzzle out the problems, share their surplus when you need it, spare you from your own ignorance once in awhile. Ever since I was little, my dad was always quoting this old game he loved: "It's dangerous to go alone."

Well we rolled the guy up in his scratchy army blanket, and dad dragged the bundle out of the bunker a ways. I guess it just didn't feel right to leave him behind that curtain if we were going to make off with all the stuff he left. Anyways, I was pretty jittery with the macabre thrill of it all, and I started poking around, thinking I might find a diary, maybe with a dramatic last entry and a bunch of blank pages. I looked under the bed, rummaged through a crate of clothes. Then I lifted up the pillow and saw the gun.

It wasn't a big gun. A pistol, I suppose, grey and military looking. It wasn't sinister or anything. But somehow I just knew it was loaded.

So dad comes back in and finds me staring down at the thing. He looks at me, then at the gun. Wasn't for a long time, when I had my own kids, that I got what that look in his eyes was all about. The fear that if you turn your back on your child she might find a way to blow her head off. He picks the thing up real gingerly, fumbles with it until he figures out how to get the magazine to slide out. Puts that in one pocket, puts the

gun in the other. Then he takes me by the hand and we all walk back to camp.

A couple of the others agree to take an impromptu rest day to help us sort out the motherlode and bury the survivalist. We get on the ham and find someone a little ways back with a couple shovels for us to borrow. Then we all tromp back to the bunker: me, dad, Jamie, Luis and Diego from Albuquerque, Gwen from west Texas, and Sally, who we'd known from the rec center in Flagstaff and who helped dad cook dinner with us most nights.

I was inside the bunker with Sally and Jamie, Sally sort of shaking her head at this sad little paper library stuffed into a cardboard box, and all of a sudden dad gave a holler. We run out and Luis is jabbing his shovel into the ground, and each time it makes a thunk sound. They'd picked a spot for the grave where the earth looked a little looser, but just a couple inches down there were these two big plastic barrels. For some fool reason, survivalist had buried his fuel supply. We crack one open and it's full to the brim of soapy, beer-colored liquid, wafting with the heady stink of gasoline.

Well it takes all morning, but we lug the barrels out and set the body down in the hole. Get it all covered over and buried. And we get the bunker cleared out of anything useful. Not that we needed most of that junk, but it wasn't doing anyone any good just sitting there. Back at the Starlight it'd get passed up or down the trail till it found someone with a use for this piece or that. The water we ran through our filters a couple times. Noxious stuff, when we tested it. But pretty soon we've all got plump saddlebags, with a few jerrycans to spare, and Sally and Gwen start talking about finding some way to rig up a proper shower in a recapture tube.

The gas, though, that was trickier. For one thing, it was sorta illegal along the trail, 'least for us drylanders headed north. But enforcement on that was pretty spotty once you got past LA. FEMA makes you swap out at the Cali border, turn in your old cars and your generators. Then you walk a little ways down the road, and the Occu-Dry people got their station handing out rolls of solar to folks that ain't have 'em. You get your charge bike, and you start pedaling. Nice and slow, just like the drinkers up north liked it.

Point is, none of us was traveling on anything with a combustion engine. Sun was plentiful, so we had no need for old-style generators. We'd all been on the trail a few weeks now, and life had a rhythm to it. Set out just before dawn, pedaling away, waking up by working our

muscles in the chilly air. Then when the sun gets high, stop for a few hours to eat lunch, soak up a charge. Read or take a nap. Then roll on for a few more hours until the light starts to go pink around the edges. In the evenings we spend the last of our afternoon charge to cook on heating coils. Maybe gather around a little twig fire if it gets cold, telling stories or playing games.

The trail wasn't so bad, really. We got to take our time with everything. Got to be with each other. But plenty didn't see it that way. Plenty had careers or houses they were leaving behind, or people they'd sent on ahead they were rushing to meet. Or they worried that by the time we got up north, Oregon would be full up and turn us away.

So those barrels of gas, they were a temptation. We didn't think much about digging them up, but once we'd gotten them hauled up outta the ground, it seemed a shame not to use them. By the time we rolled them back to our camp by the trail, Luis and Diego and Gwen were schemin' about how they could lay hands on something with an engine. They get on the ham, asking all casual-like, and sure enough they get word that not far off is a crossing where folks can spy an old junk yard. Now dad, I can tell he's reluctant, but his father had been a mechanic, so he knew about cars. Luis cajoles him a bit, and eventually dad tells us to wait with Sally while he and the boys cycle off with a jerrycan full of fuel and a box of scrounged up bike tools.

A couple hours later I'm sitting, playing a game on my tablet, and this heavy rumble comes rolling towards us. The dog starts growling, so I'm thinking it was some kinda weird animal. I'm about to dig in my bag for the can of mace dad gave me, when I see it coming towards us, bumpin' along in the gravel on the other side of the rail tracks. Big ol' black SUV, paint chipped and splotchy with rust, with a little pod of a trailer hitched to the back.

The thing must have been thirty years old, but dad said it would do for one trip. We strap our bikes onto the roof while dad sucks some gas into a rubber tube to start siphoning into the SUV. Man, I couldn't believe how much of the barrel disappeared into that thirsty monster. We packed the rest of the fuel, our excess water, and a bunch of the survivalists' food into the trailer, and all clambered in. 'Cept Sally.

Dad gets out, and they start talking real low. Let me tell you, me and Jamie were craning our ears like you wouldn't believe. Dad steps closer and puts his big hands on her shoulders, but Sally just tells him his breath smells like gasoline. And I guess that was the end of it.

It was well after dark by the time we crunch off along the gravel to a crossing, passing families we'd gotten to know from the ham, and from the weird accordioning traffic jam of the trail. We get some weird looks, and I had to resist the urge to wave. Our big, rumbling junker isn't a normal sight for the trail, where the only the only vehicle bigger than a bike is the occasional FEMA relief truck.

Then, after a few minutes on neglected back roads, we pull out onto the highway. Dad hits the gas, and I feel the rush of acceleration. Let me tell you, after all those days of pedaling along, it was wild. The vibration of the motor, seeping into my whole body. The wind whistling through little cracks. The headlights burning away the night before us. I started to feel like maybe we were real suckers for biking on the trail, camping in our tents, waiting for days in FEMA camps.

We tear up the 101 all alone, not another car in sight, only slowing down to bump over the spots where the road got bad. On our right I see the lights of camps along the Coast Starlight, thousands of them, stretching ahead and behind as far as we could see. I don't think I'd ever understood the scale of it all until then. Just how many folks there were headed north like us, towards where it still rained. Must've been millions, strung together into that thin line of light. And here we were, passing by all of them.

We drive for hours, Jamie asleep with his head in my lap, the dog curled up by my feet. Pretty soon Luis and Diego were talking about routing past the camps at San Jose and heading straight for Sacramento, or even cutting over to Nevada and making for Oregon from there, away from all the checkpoints. Dad nixes that plan, though, and says we should keep close to the trail just in case the SUV breaks down. The boys don't like it, but he's the mechanic so they go along. I wonder if maybe he was feeling bad about Sally, and some part of him was looking for an excuse to stay near the CS, just in case.

Eventually we are dead tired, and anyways we didn't want to risk driving in the daylight, when the drones might get too good a look at us. We make camp, rest all day, tossing and turning 'cause we ain't used to sleeping when it's light out. Come sundown we set out again, and everyone is starting to get into this new rhythm we got. Luis and Diego get into the survivalist's wine. Pretty soon Luis starts yowling about needing to pee.

We pull over, and Luis hops out and runs off. Only then do we notice these angular shapes in the trees. Tents. We must've been within

spitting distance of the trail, and here we were, barged right into someone's camp.

Figures come out of the dark tents. They must have been pretty shocked to see us, bunch of strangers, folks they haven't seen on the trail or talked to on the ham, travelling at night, rolling up in this ancient beast of a car. And these six guys, they look a little wrung out. We must've been a ways between checkpoints, and maybe they were getting close enough to dry to make them nervous. Dad tries to say hello, be polite, but Diego starts to whisper to him, worried maybe they'd snitch us out to FEMA. Then someone hollers, and Luis comes hoppin' back, big angry bloke in tow.

Maybe Luis was drunker than he'd looked. Maybe he was just tired of relieving himself into a bag. But when Luis had peed on the tree next to his tent, this guy had taken offense at the waste. He starts haranguing us, about water discipline and the drought and who did we think we were, throwing water away when that was what had put us all on the trail in the first place.

His people were nodding, looking at us mighty suspicious. Dad, he offers the guy a drink of water, trying to calm everyone down. He goes and pulls a jerrycan from the trailer. A quiet comes over the group, when they see the motherlode we have in there.

Later on we find out these folks had had problems with thieves, and been hearing rumors of raiders slipping over from Nevada to prey on migrants. But right then, all we knew was that the big guy was snatching at the jerrycan in dad's hand, and two more were heading towards the trailer. Luis and Diego got in front of them, and I heard a punch land, and a body hit the ground, and all of a sudden all the peace and camaraderie I'd known on the trail was gone. Gwen was shouting, and so were the strangers. The dog started yowling. Jamie was crying. No one can see what's happening. A headlamp flicks on, and I see retroflective armbands flashing in the dark.

Then there is this dull clang, and everyone stops moving for an instant. Dad's jerrycan had crashed to the ground, and the pin must've come out in the scuffle, 'cause there it was, top flipped open, spilling that precious water into the thirsty earth.

All at once six guys are all lunging for the jerrycan, hands scrabbling for a handle, trying to right the thing and wrench it away from the other side. More of the newcomers are heading towards the fray, and so is Gwen, and, crazy, so is Jamie. And then I feel this shockwave flutter over me, and there is this great crack. My first thought was that a tree

limb was about to fall on our heads. But then I hear Jamie. He kind of gasps, and then chokes and sobs all at once. Everyone stops and a light shines on him, and there is this dark splotch soaking into his t-shirt.

Quicker than I'd ever seen him move, dad has Jamie in his arms and lays him out in the back of the SUV. Most everyone else stands in shock, except one of the strangers turns out to be a nurse and starts shouting orders. Gwen rummages in the trailer for the survivalist's first aid stuff. I'm just frozen, staring at dad, wondering why he has a little hole in his cargo pocket.

It was the gun from the bunker. The one I'd found under the dead man's pillow. Maybe dad hadn't realized there was a round already in the chamber. Maybe he'd put the magazine back in for some reason. He never told me.

Looking back, it's a wonder the situation didn't escalate further. But seeing dad, weeping over his boy, guess it put everything in perspective. Jamie was wailing something crazy. The bullet had shot straight through him, in and out his right side, just below his ribs. The nurse staunched the bleeding and wrapped him up, and we piled back into the SUV and drove on. San Jose wasn't far now, and they had a big hospital at the camps there.

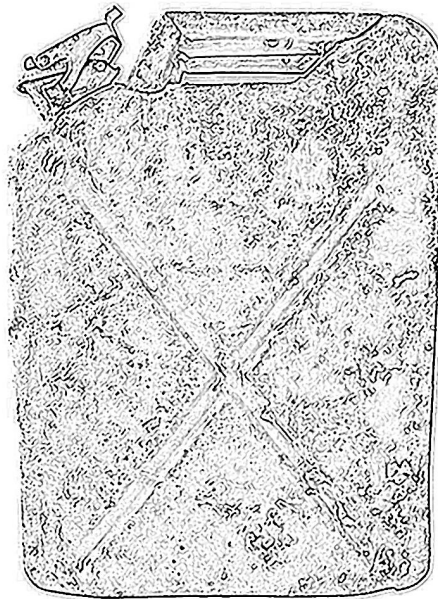
Luis and Diego dropped us off and kept heading north with the car, so we wouldn't get caught with it. Gwen stayed with us for a while, but after a couple days her FEMA ticket came through and she moved on north too. Took a few weeks for Jamie to heal up. The bullet missed everything important, but after three days he got an infection, one of the ones that the old antibiotics didn't work on. For a while it was scary, sitting by his bed while he shivered all night. But it cleared up, and Jamie got back to his old self, asking when he could get out to see the dumb dog that started all this.

Couple days shy of discharge, Sally showed up. It had taken her weeks to cover what we'd done in two nights. She and dad, I guess they reconciled, and when we got out of San Jose, she rode with us the rest of the way to Portland. After that, it didn't work out, and she went to find some of her people out in Montana. I asked her once why she hadn't gone in the car with us, that day we found the bunker. She told me she felt safer on the trail, surrounded by folks she'd known a while, couldn't see what good it would do to rush ahead. But she could see a hundred ways putting that gas to use could go wrong. 'Course, she'd been right.

Jamie grew up okay, but his wound never healed quite right. Left this nasty, white crater the size of an egg. Years on, when he thought no

one was looking, I'd see him wince and grip his ribs. Like he had a stitch in his side from running too fast. Scars, they do that.

I think a lot about picking up that pillow and finding that gun. Think of how bad that turned out, and how much worse it could have been. But I guess I don't blame the gun. The gun was a dangerous thing we didn't understand. But the gasoline, that we understood. Knew just how to put it to use, even when doing so opened up all kinds of uncertainties and dangers. We dug it up without a thought, and that's what punished us. We should've left it in the ground.



# CISTERN

Cistern is a game of ritualized water raiding where delicate treatment of a scarce resource is more important to either side than winning. The sport is played on a pitch of variable size with clearly defined edges.

Traditional Cistern is played with two teams of equal size: the convoy, and the raiders. The convoy begins at the center of the pitch, with the raiders at the edges. The convoy attempts to get the water out of the pitch, while the raiders attempt to seize it for themselves.

At the center point of the pitch: a plinth, called 'the motherlode,' with a supply of water atop it. At the beginning of each round, water is poured from the supply into a series of containers, usually seven 20-liter jerrycans. The number of containers slightly outnumbers the quantity of water, to allow for decoys.

Each team holds jerrycans by the handles. In order to capture a jerrycan, the opposing team must tag carriers in groups, with an additional attacker to actually capture the can. Ties halt all movement, until one side outnumbers the other. Referees call out how many raiders or convoy are on a can, and when tied halt movement or are broken.

Raiders, once they have captured a jerrycan, may "bury" it, making it inaccessible to the convoy by placing it on its side and giving it an audible slap.

The convoy team scores if they are able to move cans to one of either two (or more) endzones, called a 'cache.' When all cans are either cached by the convoy or buried by the raiders, the round is over. Similarly, if the time limit is reached, the round is over. The time limit varies depending on the number of cans used, but is usually two to five minutes.

At the end of each round, teams are scored based on the percentage of water they retained, measured by weight. The convoy gets points for the cans they cached, the raiders for the cans they buried. After each round, teams switch sides, usually for a total of four rounds. A total percentage is scored at the end of the game, after which teams share a conciliatory drink.



# THE MAP

I don't want you to take all this the wrong way, so let me say, right from the start, that the Sauvie Island Transitional Accommodation was, by far, the nicest, best organized refugee camp of all time.

The problems that historically make refugee camps living nightmares—lack of infrastructure for trash and sewage—were handled elegantly and sustainably. The buildings were bright and airy, and the paths between them paved and well-lit. The food was fresh and local. A lot of it was probably organic. Occupy and the PPB did a laudable job of sharing the security duties, made people feel safe, prevented the epidemics of theft and sexual assault that a lot of migrants experience.

There was reliable electricity. There was fast net. There was running water, pumped straight from the Columbia River and cleaned on the way by high tech pipes. For the quarter million people that packed into Sauvie Island after weeks or even months on the road, it had what we needed to make a real, honest-to-goodness home.

Which, of course, was the problem.

I was there when Sauvie Island opened, first day of spring in '32. My mom had committed suicide the year before, and not long after I realized that my dad was more interested in buying beer at two bucks a can than water at five bucks a gallon. We lived in Chino, right by the highway, and every week more and more people were streaming by our house from the east, headed for the Coast Starlight. One day I just got on my bike and joined them.

When I got to Portland, I ended up sleeping under the Morrison Bridge for a few months, slowly losing my mind. I was 19 with no money, no family, a mediocre education. Things were not looking good. Then I heard that they were opening up new housing for all the drylanders coming up from the south, and I thought, "well shit, I'm a drylander."

So I'm there that first morning, waiting in line with my California ID when they started checking people in, trying to look like I had just pedaled into town. I spent hours there, getting seasick on the shaky pontoon bridge they built to handle the bicycle traffic, terrified that one of the FEMA guys would have seen me panhandling on Alder Street. But I got in, and this nice lady took me on a tour, showed me to my little Swedish-designed eight-by-eight room, gave me a debit card for food and a sticky note with the lifi code.

It must have taken an act of tremendous political will to overcome the local NIMBYism and turn the pastoral playground of Portland's upper-middle class into a massive migrant settlement. They got us the whole of Sauvie Island, bigger than Manhattan, from The Pumpkin Patch all the way up to Warrior Point. One day I hope a better academic than me digs into the emails and figures out just what kind of Robert Moses-style machinations made this FEMA landgrab possible.

I can't tell you what a change this place was for me. Saved my life, probably. In those early days, before it got crowded, it seemed almost like some sort of rural utopian commune. A solar panel on every roof, a garden box in every window, that sort of thing. Shared meals and free healthcare. I started to unclench, started reading a lot. When Occupy got organized, I went to every general assembly, volunteered for committees, helped quickfab new housing as people poured in. Sauvie was my family, and it seemed unthinkable that I would ever leave.

Let me give you a little history lesson on the evolution of high-end refugee camps. In the teens the Turks set the gold standard with their Kilis and Nizip camps, taking in tens of thousands of Sunni Syrians fleeing the havoc of the Islamic Civil War. They set the Syrians up in clean, safe, cargo-container villages along the border, gave them schools, grocery stipends, satellite TV and free haircuts. It was an expensive vanity project that did little to contain the larger refugee crisis, but it got great press, and the people who lived there loved it. I mean, they were miserable—they'd been ripped from their homes and put in metal boxes—but not a one of them had an unkind word to say about the Erdoğan government.

Now like all refugee settlements, Kilis and Nizip were expected to be much more temporary than they actually turned out to be. That's the way it always works. The war drags on. The "durable solution" never materializes. The funds promised to rebuild home communities fall through the cracks. And the people, they are fleeing violence and catastrophe and who knows what else. They'll cling to any bit of stability. And who can blame them?

So anyway Syria just got worse, and meanwhile Erdoğan had a problem: radical Kurds and moderate secularists threatened to chip away at his party's supermajority. After years of energizing his red state base with big airstrikes against various neighboring ethnic groups, Erdoğan needed a more permanent solution. So in 2019 he naturalized about half a million Syrian refugees. And who do you think these grateful new citizens turned out to vote for?

This is not to say that the Sauvie Island camp was founded just to forward some kind of electoral strategy. I'm just trying to give you some background on why high-end refugee camps became this trendy, boutique policy among the international technocrat elite in the '20s. People saw how well it worked out for Erdoğan and took notice. Refugee crises got worse and worse, but a couple nice, clean camps with all the amenities became the norm. Gave the journos something photogenic to look at, and created a nice battalion of loyal subjects down the road, folks who will either vote for you if they stay or spread the good word of your generosity wherever they end up.

A few years later Cuba upped the ante by commandeering luxury hotel developments to house three hundred thousand Caribbean victims of Hurricane Bethel. Greeted half-drowned people washing ashore on driftwood with warm blankets and cool mojitos. That's when the number of climate refugees surpassed the number of war refugees for the first time. This was a big shift. See, when you are fleeing a place that is disappearing under rising seas, that's radioactive, that has broken ecology, or that doesn't have any water, it isn't like you can just go back home in a couple years. The sky doesn't sign peace treaties, would that it could.

So the paradigm of refugee camps, particularly the high-end, highly planned, state-sponsored ones, became "collect and disperse." Since you can't send them home, you gather people in camps to get them organized for programs that scatter them widely across your country or abroad. A few go here, a few go there. Noble Iceland takes a couple. Put a few to work on an infrastructure project. The kids become exchange students or go to foster families. You get all the 'loyalty' benefits, but—and this part is relevant to the Sauvie Island camp—you prevent refugees from coalescing into a voting bloc that can actually make political demands.

Sauvie was intended to be a kind of Ellis Island, gateway to the north. The mouth of a delta, through which people would spread into Washington, Idaho and British Columbia, left with fond memories of Portland's fine beer and finer hospitality. Integrating half a million refugees into Portland society was never part of the plan.

Well a few years of 'collecting' later, over 200,000 drylanders have settled on Sauvie Island. A lot of the utopian shine had worn off, but, as a community, we were functional. People had food, water and shelter. Kids got some schooling, even if it was in our cramped quickfab schoolhouses. Folks tossed around the ol' jerrycans to pass the time. Hundreds of thousands more sprawled into makeshift camps wherever

there was open land: around North Plains and Helvetia, the hills west of Scappoose, Hillsboro, Powell Butte Park, Scouters Mountain, Springdale. Never got a proper count, but unofficially we estimated that one-in-three people in the Portland area was a dryland refugee.

Cascadia has always prided itself on its welcoming magnanimity during the drought, but of course the reality of the situation, particularly in Portland, was more complex. Portlanders didn't like the FEMA takeover of Sauvie Island. They felt blindsided, and later in '32 they elected Terry Pierce mayor, who made a lot of noise in his campaign about "getting the city through this crisis" and "making sure the city got a fair shake from the feds."

Unfortunately, all the programs that were supposed to move folks out of Portland and give them real homes around the north, they never get off the ground, stymied by bureaucratic snafus and better organized NIMBY campaigns. 'Placement' was a joke, a trickle, and plenty of people, like myself, ended up setting down in Sauvie permanently. Case workers just gave up on a lot of us, focused on shipping off the newbies.

So these camps, they became settlements. But this reality was never acknowledged, least of all by the Pierce administration. Despite the fact that we had homes we'd made our own, had friends and neighbors, went to Portland parties and had Portland lovers, we were still considered temporary visitors, guests wearing out our welcome. And as such our communities were left off maps and out of databases cataloging residential addresses.

Back in the early days of network society people dreamed that living online would free you from needing a physical or geographical identity to get along in the world, but of course it didn't work out that way. Civic and digital life converged in weird ways. When urban real estate speculation and sharing economy schemes got out of control in the '20s, many cities tried to protect themselves by partnering with data mining firms to make sure their blocks weren't being bought up by Panamanian botnets. And the data giants wanted to know where you lived so they could pitch you the right ads and smoothly inculcate you into their ecosystems. So having a checkable, surveillance-confirmable permanent address agreed upon by both data corporations and the government was a major requirement for participating in huge swaths of public and commercial life.

You needed an address that you could point to on Alpha Maps to do anything. Get a job. Register to vote. Rent a house. But even if

you'd lived in the same building for three years, if you were a drylander on Sauvie Island, or in any of the far less serviced camps, you didn't get a permanent address, because your street wasn't on the map. Your address back home was a red lined vestige, a cruel joke. No one would give you a job or a loan if your paperwork made them think you were fresh off the trail, because—catch-22—refugee lives tended to be unstable even in cushy places like Sauvie.

So you'd go begging to FEMA, and FEMA would tell you they didn't have control over Alpha Maps. Alpha would tell you it was the city's job to designate streets and addresses. City hall would tell you its hands were tied until FEMA relinquished its emergency authority over "transition spaces." Round you'd go in a classic circlejerk of jurisdictional buck-passing. I can't prove it, but I've always suspected Mayor Pierce pulled a lot of strings to arrange things just so. Revenge for the seizing of Sauvie Island and crowding out the upscale bohemian paradise of his youth. Pierce was no Erdoğan.

Now, I hesitate to use the word 'apartheid.' It really wasn't fair, though it did get thrown around a fair bit back in '35. What we are really talking about is a concerted, bureaucratic *turning away* from the issue of legitimizing drylander communities and integrating drylanders into Cascadian society. And this refusal to deal with reality gave way to a poisonous divide, a suffocating of drylander opportunity and potential, and a resentment that brought heat and energy to a stagnant situation.

I understand why the city resisted integrating us. Refugees can strain local economies, flooding labor markets and driving down wages, while driving up prices on housing and scarce goods. We saw plenty of that in other communities—part of why there was resistance to FEMA's placement efforts. Portland didn't have that problem. In fact, with all the FEMA funding pouring in, and all the drylanders spending their savings going out on Division Street or buying clothes that weren't Occupy upcycles, Portland's economy was booming. Plush times if you had a real address and a legit job. Seeing all that, right across the river, it wasn't hard to see why people wanted to get rowdy.

I remember smelling the smoke first, blowing up across the Willamette from Lombard on a hot, southern wind. Running out of my little room, I joined the crowd at the shore and watched the red light creep over the hip, sleek factories-turned-condos across the water. Got to admit, it felt kind of good to see those luxury eyesores go up. But then the trees took, and I remembered the big birch in my backyard in Chino, the way it had peeled and shrivelled when we had to stop watering it.

Whatever our frustrations, they weren't worth torching homes and trees over.

We didn't know for sure that the fire was started by drylanders, but given that it was the fifth anniversary of the official General Abandonment notice, everyone assumed that anyway. All of a sudden the PPB was on our ass every day, tightening up checkpoints, restricting travel out of Sauvie, shutting down the gray markets that made our informal community possible. The FEMA bureaucrats had started off so helpful and able, but they had grown cumbered and overwhelmed as the scope of their burden increased. They were no advocates for us against these draconian measures. Near camps all around the metro, drylanders and Portlanders traded dirty looks and pejoratives like "dustback" and "drinker."

The next general assembly was five days later—just long enough for the angry energy to curdle into a frustrated impotence. I was an old hand at horizontal politics at this point, and I could read the mood of a crowd in the crispness of hand gestures and the reverb of the human mic. That night there was a jitteriness, a paranoid lack of focus, like picnickers who just noticed that they had laid out their blankets under a wasp's nest. No one had any ideas, just blame and complaints, a rehash of the "diversity of tactics" debate that had raged for decades. Twenty years on, Occupy still had a habit of spinning its wheels when the cops got rough.

So a few of us slunk off to get away from the negativity, passed around a bowl of Wy'east grass. And then this middle aged lady from south Texas named Tanya takes a big, long hit and points off across the river at the white and red lights of the Alpha Spire, poking up where the old University of Portland used to be. Then she says, "Shit, they can get our towns on the map."

I know it's a cliché to say a light went on, but that really was how the mapping project got started. We realized that the weak brick in the wall excluding drylanders from Cascadian society wasn't the FEMA bureaucrats that turned a blind eye to discrimination, nor was it the state and local officials that clung to the absurd idea that Sauvie Island would one day return to being all strawberry farms and bike paths. It was with the data stack that maintained the maps.

We started scheming up direct actions to run on Alpha. But of course first we needed our own dataset to advocate for. We asked around, and plenty of people had already poked at the problem, surveyed the camps, drawn up little maps of Sauvie, toyed with addressing systems to replace the FEMA housing designations. But there were lots of gaps, and

it was going to take a lot of work to unite these into a coherent alternative geography.

Despite the fact that 21st century urban America was probably the most thoroughly mapped time and place ever, cartography as a practice had mostly been turned over to software. So we had to do a lot of reinventing the compass, as it were, trying to synthesize bootleg sat and drone imagery with our ground-level notions of how our settlements were composed. And we had to come up with something that Alpha's AIs could parse and feed into the big map 90% of Americans used.

In the end we had to relearn optical surveying just to get the measurements to match up right. Then we had to do street walks with camerawands and get all that to sync up with the rest. Few of us had training in this kind of big data wrangling, so a lot of it was trial and error, guesswork, stalking Alpha engineers in downtown bars and getting them drunk enough to answer our innocent questions.

But as we worked, we found the mapping project was an antidote to some of the tension bubbling in the drylander settlements. Gave stirred-up people something to do that affirmed their communities. Everyone knows 'all politics is local,' but when you are making a map you learn really quickly that everything local is political. Wars, scandals, economic collapse—most people will shrug and go on with their lives. But everyone will have an opinion if you try to rename the street they live on. We had to do a lot of door to door work, getting people to agree on which landmarks to name bike paths after, what qualified as a road and what was only a lane. And we had to do it without the big public awareness campaigns that governments and stacks use, lest we tip our hand. 'Move quietly' and all that.

The names we picked for our streets and our camps reflected a burgeoning shared history. There was Picture Rocks Road and Harold Humes Ave. New Bumstead and Little Odessa. Half a dozen lanes named after rest stops along Interstate 5. Some folks took it seriously, lifting up the names of martyrs and heroes: Nasheed and Francis, Giffords and Mike Brown, Zapata and Chavez. Occupy old timers finally got Oscar Grant Plaza, as well as Graeber Square and New Zuccotti Park. Others found empowerment through levity. Multiple camps fought over "El Paso-the-Beero." Folks were insistent that we had to name something "F-Udall Road," but nobody wanted to be the ones to live there. One group from New Mexico decided to name their shanty town "Truth or Consequences or Whatever."

So meanwhile the main Occupy group got itself organized for a big coordinated set of protests at FEMA centers, PPB headquarters, Portland and Oregon government offices. You'll have heard of these. The networked sit-ins, watched live by millions, with their "bureaucracy games" and absurdist theater. Our mapping project was a rider to that effort, a satellite action in the lobby of the Alpha Spire.

We took a grey market ferry down the Willamette River, sloshing along between the flotillas of solar houseboats the clung to the riverbanks, and disembarked at the Swan Island Basin. Then we circled around towards the Alpha campus, acquired from the UofP during the mid-20s Vatican Debt crisis.

The Alpha Spire was a hard thing to get used to, up close. The "lobby" was actually a park, all manicured hedges and silky white concrete embedded with LED lighting, sitting right beneath the spire, propped up eighty feet off the ground on four giant stilts. The spire itself was hollow like an upside-down ice cream cone, with glassy offices looking out into a central shaft that tapered towards the top. Standing under it, the spire made you feel small and anonymous, like a render ghost in an architectural model.

We got onto the Alpha campus with the help of Vijay, a Portlander ally who worked in Alpha's HR department. While the other Occupy action groups prepared to storm their respective offices, we spent the afternoon slowly getting checked in one at a time by Vijay. Our plan was to use the inner walls of the spire as a kaleidoscopic canvas, onto which we would project portions of our map of the alternate geography of Portland, which of course was the actual geography of Portland. It was kind of one part showing off our work to geeky people that might appreciate it, one part shaming Alpha for being complicit in the drylander plight.

Luckily Alpha, old behemoth though they were, had a long history of supporting weird computer art. So no one paid us much mind as we strolled in, dressing the part of young, artsy tech workers, and started setting up our equipment in the central square. A couple wandered over and asked what we were working on—"this cool projection thing"—but we were left to our work. Once a security guard came over to check on us, but Vijay, who knew everyone, just shot the shit with him until he got bored and left.

Just as the sun started melting away into the horizon, we got the signal that the other protests were about to move. We turned the projectors on.



The map splayed out on the glossy windows of the Spire's conical inner shaft. We couldn't show the whole thing coherently on such a surface, of course, so we went with segments, showing different nooks and crannies of Sauvie and the other drylander camps. We projected street level panoramas and video of life in our communities: newcomers getting shown their rooms by the welcoming committee, elderly women gardening, kids walking to school, a wedding, a funeral, a pick-up game of cistern.

People leaving for the day gathered to look up at our map, asked us questions about our project. Most of the worker bees of the Alpha Spire, like most Portlanders, had never actually visited the Sauvie Island camp. We pointed out on the projection where our homes were, let folks zoom in to streetview our front doors. It was a strange catharsis to hear Portlanders ask "where do you live?" and be able to show them. We shared stories of how we had walked or biked or hitched on the big drone trucks from up Tucson or Santa Fe or Baja. Talked about our problems with FEMA and city hall, and, gently, explained how Alpha's inaction had helped exacerbate the drylander plight, caused de facto segregation in what was once such a bastion of progressive compassion.

To be honest, I figured we had half an hour or so at best before security showed up and dragged us out. That's what I expected to happen at all the protests. But most everywhere the cops were a little sluggish to react, and that gave us the time we needed to attract the attention of a few million viewers. With that kind of following, police were reluctant to handle you too forcefully. They knew that network society could be cruel to authority figures it took a dislike to.

To Alpha we were just a benign diversion. They had no vital stake in the outcome, not like Terry Pierce. Their company's global dominance was never in danger. So there we stayed, growing in numbers as more drylanders joined the various occupations. We won allies. We had a few shouting matches. We played the bureaucracy games with workers on their lunch break, giving them a glimpse inside the surreal maze of FEMA bureaucracy.

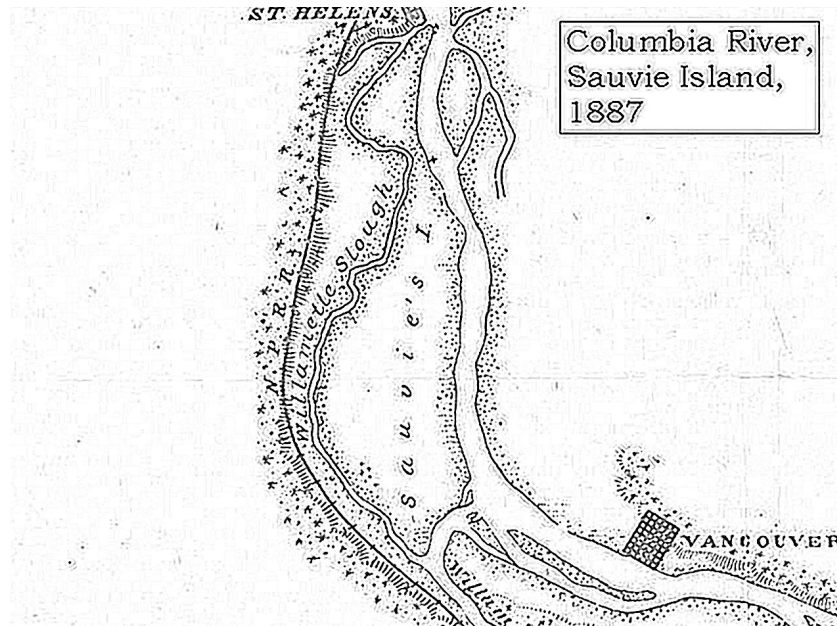
It took a couple days, but I guess when presented with a dataset that clearly enhanced their official one, the Alpha leadership's perfectionist itch to own all information kicked in. Plus, the sit-ins were making news, the confrontations at city hall playing poorly for Mayor Pierce. Better to avoid that kind of embarrassment.

So the head of the maps division had us come up to her office in the Spire and show her our data. She turned her nose up a bit at some of

our improvisations, but in the end they took it. I'm sure they redid most of the imagery, but that didn't matter, so long as the names and numbers stuck. Names on streets and parks, addresses on homes, from the FEMA-built apartment blocks to the trailers and shacks and tents that gathered at the edges of suburban subdivisions and on fallow farmland. That was what mattered.

You know, I've still got that map, a physical print of it. It's hanging in my office, up at Willamette, along with a bunch of old parchment maps of historical Sauvie Island my wife got me over the years, before I told her I wasn't actually that obsessed with maps. For me, it wasn't really about the map itself. It was about the way the map made the community real.

Building a refugee camp is the worst thing you can do for refugees aside from not building one. Sauvie was a pretty, green prison until we made it our own. Naming our streets, claiming our homes, it was a way of saying "I'm choosing to be here. I'm staying." People need that, to be able to say a place is theirs. It's why we built cities in the desert and sprawled out a million exurban subdivisions. It's why we stayed until the water ran out, and why, eventually, some folks decided to go back.



# MINISTRY

Ministry is a game that simulates the absurdities of person vs. bureaucracy conflicts.

The game is best played by two-to-six teams of equal size, in a defined playspace.

Each team is given a card (or, for an accelerated version of the game, three cards). On each card, each team writes a rule that must be followed or a goal that could be accomplished within the playspace.

The cards from all the teams are collected and shuffled together. Cards are then dealt out equally to each team.

Teams get a moment to confer, and then a five-minute timer begins. Each team must satisfy all of the rules or goals they have been dealt within those five minutes. Teams that fail to meet their requirements are disqualified.

Surviving teams are each given an additional card to write new rules. Cards are shuffled again, and the process repeats in increasing complexity until there is only one team remaining.

# THE RETURN

I grew up out in Imperial County, on the edge of the irrigated territory. It was one of the first sectors of the farmlands that started to go. The ploughed spots turned into an extension of places like Niland and Bombay Beach: those towns where people went to disappear or live cheap on low radar. My father had been a farmer, as his father had before him in a long stretch of men up-and-out from a Southern background before the West was won.

When I came of age I worked in the local store, selling cellphone minutes, cigarettes, and drink to retirees and hermits living on the gutted welfare benefits of the last decades of the ringmaster Fed. I ran off to university in Los Angeles for a while, and lived as a well read bum. I hustled dorm room poker games pocket cash, then escalated to counting cards in the Hollywood casinos. When I came home the winter lettuce trade had moved north with the shifting climate, so I returned to the store again, hiding myself in a little outpost of trade at the frayed edge of capitalism, watching as the distance the automobile had destroyed slowly returned to fill up the land beneath our dusty sky.

The migration began in fits and starts once the Colorado was stretched to its breaking point. First it was a migration between ways of life, farming giving way to service, commuting turned to running, but it quickly became straight-motion across the map. There were some folks out by Slab City who had prepared for this already, but their water-recycling abilities were not up to the test. A desert was a desert; even the most talented of Bedouin need aquifers.

My folks had passed, and my sister had found herself back East. I was living with a collection of slacker bachelors plucked from the local population. We headed out just ahead of the Mexicans who could make it past the border. The green fields were bleached. The Salton Sea kept on a wet mirage. The Walk wasn't that different from how I'd been living before, just a tad more cautious. We did not pray for rain, or barter with a local for a few drops from the well. Instead, we kept our eyes out on the hunt, drinking the water out of the back of toilets or trading electronics and narcotics for the privilege of a gallon from those foolhardy souls who thought they had us all outsmarted. They assumed they could run a way-station and just wait out the crisis. But the contents of the very ground had changed. Life would not simply go on without its necessary conditions.

There were five of us or so who'd taken the long walk up together. We'd gain one or lose one as time went on—a particular memorable clusterfuck around Red Bluff lost us two of our companions to a bartender who demanded them as indents. The set that made it past the Oregon border made it to Ashland. And all of them besides me made it to Portland, or so I heard on the net a few months later when I had access again.

Something shifted in Ashland. Some of us turned back. By the time you were in Ashland, you were basically safe. The climate wasn't trying to kill you too bad anymore, and while the water supplies were thin, they weren't price-inflated by capital the same way as in the burning south. It might have been inefficient, but federally trucked water lifted a burden on our minds, unquiet from that time on the road. I didn't have to think about if the market was right; life didn't have a price tag anymore.

The Ashland camp was bigger in square footage than most of the town, the lot of us cramped around the road in tents, mostly makeshift expansions of North Face jobs we'd stolen. They were trying to maintain a sense of normalcy in the town, which then, as now, is regionally famous for its Shakespeare festival. And so, in the same mold as wartime displays of Playboy bunnies or Johnny Cash at San Quentin, the thespians came to the refugee camp to ply their trade. They played right out in front of us, in the dirt among the unwashed—perhaps the replica of the Globe inside the gates was just worth too much. In some queer turn of the cards they ended up performing *The Tempest*.

I was sitting with my mate Ron, who hailed from San Diego and had been once an adjunct at UCSD. We watched the grand shipwreck at the beginning with the Boatswain's few moments in the spotlight. Couldn't help but feel a kinship there, run aground as we were by our own great storm of dust and heat. Then the drama played out slowly into the detente between Prospero's creatures and the royals. We were passing a bottle of black market Taaka that we'd bought off a nice kid in Mendo, and which we'd somehow saved for a rainy day, and played dice for pocket lint. We shared in the cheap pleasures of other centuries.

Drunk and comfortable sitting in the dust, I couldn't help but feel a certain kind of confusion at the end of the play. Ariel's set free—that spirit's destiny makes sense at least, and Caliban as well. But the magician Prospero, he had benefitted so clearly from his banishment. He used his island prison to ensure his resurrection as a true noble once more, and yet he chooses to go back to the world as a simple king; spells

broken and no spirits to invoke. Were urban comforts really worth the trade after that great wrangling of the elements?

I guess I'd become accustomed to the road. I am myself and my circumstances. The Cascadian rain was washing some of that circumstance away.

I wasn't a cowboy, and my companions certainly weren't those nameless men of the movies. In the real wild west you simply had men and women looking for open acres and stakeable claims in the eyeless silence of a world far from the city. There was indeed a great, untamed wilderness for you to live in—centuries of plague had transubstantiated the cultivated lands of the natives in a rough, deserted Eden. There was space for you there.

From an early age I had become accustomed to being at war with my environment, a space that intended so clearly to bleach my bones in the hot sun and freeze them at night while the vultures pick me over. There was no space for me there. We'd sacrificed the symbiosis with the land that was possible in the past. The assumption for a century or so was that we could simply build a future that substituted for nature, and continue along a great chain of progress. I hope I would not have chosen such a model for survival, but nevertheless I was locked into it—we were limited to the construction of enclaves of the human-livable.

The future, in its uneven tide, washed out from the cities but broke somewhere around San Bernadino and thus never hit Niland. Where the future landed, software ate the world, but it also made the world more like software—buggy, abstracted. That future never made it here. I stayed lodged in a world that was made of matter rather than ideas, and such matter was not soft. The future of the cities was simply too fragile to lie plainly under the sun. We still had to create enclaves and rebel against our conditions, but that rebellion had to be rooted in the same principles of frugality and managed complexity that already dominated the naturally evolved space.

If I were to run to Cascadia, I would be among people who might be close to the metal, but not close to the dust and dirt. I was convinced that I would never rise above my station: I'd be marked for a long time as a drylander. I did not know if that fear was born of reason or paranoia. I did not understand my position, but I felt a great need to evangelize it. People listened.

The drought was indiscriminate, so we had exactly the people that we needed. You had little microcosms of the world from El Paso to Los Angeles. You could find what you needed: a competent mechanic,

oilman, or farmer. You weren't in the market for a logger or a fisherman. There were enough folks with this similar death wish that they were easy to persuade without bribery. We met after the plays, drank more smuggled vodka and harassed our minds to a sequence of wholly apolitical plots to go back to the barrens and see how it felt.

The hardcore survivalists were already dead. Being antisocial was an express ticket to oblivion. One of the audiobooks I encountered as a child was the Lewis and Clark diaries. It laid out the notion that outside the cytoplasm of that superorganism called Modernity, it was generally a bad idea to operate with less than a band of four people. When one does not have an economy of scale, and instead one must provide for the bare necessities of survival with only your immediate companions, you may not hide in the abstractions of grocery stores and mass transport.

The survivalists' gear was still around, and we bolstered that with items of government issue. The Ashland camp was awash in a well-stocked market of near everything besides water. Solar panels were cheap and plentiful, and became the backbone of our strategy. There were a fair number of old hippies who'd carried seeds like that woman from the fourth *Mad Max*, and we bought their stores quickly. We assembled outfits that looked like Tusken Raiders, found or built bikes with hybrid motors to increase our range.

These are all components of survival you know about, either from movies or personal experience. We began play-acting at a lifestyle we'd already lived. I knew something was wrong when the Burners, from out in Frisco, tried to give me fashion advice, looking up from the freelance web gigs they did on surviving MacBooks. We'd started with the image of what we thought this project should look like, and worked backwards, slowly chipping away at the illusion that sustained us to reveal the true-pattern behind it.

They helped us out with the whole vision thing though. We found wireless signal at the edge of the camp and downloaded as much information as we could. Ron, the professor, still had JSTOR access, which we abused with impunity. We found a Russian site that was chock full of engineering books. We found Ragnar Benson, who was an amusing distraction in man-trapping. Someone had re-upped the AAAAARG servers as a subsidiary of some new service called Pyramid. As in the scheme after its name, we had to feed it enough texts to keep our ratio of taking to contributing right, otherwise we'd be IP banned for good. Around this time someone found, in a dropbox called "Neummania," Elinor Ostrom's work on resource sharing institutions

and muffling abuse of the commons. One of the Burners handed me a hardcover copy of Wolfram's *A New Kind of Science*, which was terrifyingly heavy to have carried all the way. Upon inquiry, I revealed him as a petroleum-user. As penance for my association, I dug up all I could on aquaponics and solar. There was salvation there.

Don't imagine that we had it all figured out. The process of surviving and thriving is only ever accomplished through trial and error. It was not as though our faux-systemic study of these texts was the key to developing a moving castle of reason within which we could wander the wastes. Instead we just got high on possibility, found the tools of the trade, and set out back down the highways along the coast. We took in the taunting salty Pacific and became the same type of grifter that we'd met on the way up. We lived in the calm eye of the crisis, leveraging price to keep us going, making bets here and there about the scarcity of a good further down the road, and measuring that scarcity to weight, price, fragility. I traded a gallon for an illuminated bible. I traded a quart for a bowie knife. I traded a cup for dried apricots and a story about a loving divorce. I took sips myself, and kept pedaling.

Every permutation of our party was engaged in dialogue. We had to move fast. The middle places between Cascadia and the far lands were the driest. We traveled at night, to avoid the heat exhaustion. And in those sunlit hours between shuteye, we spoke. A dialogue came to be. The pace was strenuous enough that we were not the typical vagrants. There was something ascetic to our conditions, but it was more natural than a guru atop a pole. Our travel was a repeat of the monotony of the journey north. It was punctuated only by the varied but un-novel specter of road-danger. That combination was a perfect container for world creation.

We knew in no uncertain terms that out on the edge we were not going to be able to survive as lone yeomen. This was not a landscape that could properly support hunters, gatherers, or traditional farmers. We were going to survive through technology, with the tacit understanding that trade and cooperation were the only tools we had to move beyond subsistence. We turned to Utopia. We considered Marx, for a moment, but then moved on. We considered the Austrians, and the Second-Wave Cyberneticists. In each way these thinkers provided patterns that were worth enacting in isolation, but we did not want to be limited by adopting them as a regular language. There were no crystalline polities of past prophets that we found worth repeating in tessellation.



The unpoisoned waters were in the great interior. The Texan oilfields had culled a few, but the more-northern reaches of the Colorado were accessible. The region was littered with frenetic dam-building. I lost count of these concrete acts of desperation. There were moist tributaries that alienated the land from itself. I imagined some local Gaia staring in the mirror and regretting her makeover.

We downloaded satellite data in the few remaining towns and tried to chart the movement of these streams to find a watershed that we could colonize. We found one off the Colorado, near the Arizona border. It wasn't perfect, but we were exhausted. Whole thing was minimum viable, about thirty clicks off a town.

For this first round, we broke the petrol taboo and hijacked as many cars as we could. They littered the roads, and one of the Angelenos was an experienced hot-wire artist. We took trucks and vans mostly, and looted tents and lumber. There was much lying around, the heavy, costly things that weren't worth shipping. Moving, in American style, depended on roads unclogged and ample banker's boxes. It depended on cheap labor and U-Haul. It didn't work when livable space was discrete, not continuous. Any twentieth century man underestimates the sheer quantity of matter to his name.

We built with adobe and scavenged steel. We erected Bucky domes. The whole affair looked sort of like a mini-Catalhoyuk with further curvature. It was rigged so that we'd take in water from the river, and push it through as many micro-ecosystems as possible. We tore up the tamarisk and salt-cedar to keep the waters flowing. The real trouble was finding fish for aquaculture. To make a decent aquaponic circuit we needed the right symbiosis, and that meant freshwater fish to keep the nitrogen cycle in motion. The real nutritional bedrock was aquatic plants, but we needed animal life to keep them running. We were getting low on canned goods, and trying as hard as we could to figure out the semi-closed ecosystem we were building.

Whole thing was speculative. Morale was low. We were considering cutting our losses and running back north. Then, somehow, I ended up in an SUV with a bunch of aquariums in the back, headed in a straight line to whatever northern river we could find. The stereo still worked, we blasted the only thing on its hard-drive: the Stones. We gunned it for the nearest cities, then tried to find remaining pet stores. We bought as many goldfish as we possibly could, and stole a few more, before riding back to our base. The system's efficiency increased significantly—we started growing beans, and they became the primary

unit of our diet. Things became a bit monotonous, but that was pleasurable in context. We scored off the better part of a year on our huts' walls. And then the water started dropping.

We sent out a brigade of scouting parties, well equipped and silent in the dark, and by the next week they'd located a camp up the river. I don't know how we missed them. Our vectors just never collided. Their rig was unsophisticated in comparison to ours, and they were taking more of the river than we could allow. Even though our model was based on a semi-closed system with rather intense greywater capacities, kept in greenhouses to avoid evaporation, we weren't capable of recycling urine. With inevitability, the planet's own water cycle was the thing keeping us alive, and what little snowmelt remained maintained our place in the realm of possibility.

Life does not have a terribly high price. By the standards of common megafauna, we are rather cheap. And, for much time, we did not seek to exceed this threshold of honest eating and drinking under the sun, even though small luxuries were in reach. Perhaps it was due to our circumstance. We were the ones who decided to go back when it was at its worst. That enforced a curiously consensual masochism upon us all. It was not as though we enjoyed pain. Rather, we fetishized struggle. Comfort out of discomfort. There was a sense that we were living on the human plan, in a state of both opposed to and embracing nature. It was intoxicating.

This new blood did not have that similar notion. After sending an emissary, we learned that they had tried to hold out indefinitely in some town in Texas, and had only recently been pushed northwest. They were part of the sort of counterculture that engaged in environmental concerns like another might start a garage band. They weren't a first generation copy though; we weren't talking to the John Lennon or Kurt Cobain of bootleg aquaculture. It was like listening to someone cover a song that they'd only ever heard off decayed recordings of recordings. We certainly weren't professionals either, but at least we had the humility to accept our failures, and enough resources to back ourselves up if things were going to go wrong. There was a paradox of seriousness to our action. We knew, on the one hand, that the price of preparing improperly and not listening to reason was death. Yet we knew this was a grand game, and that we few had chosen to play it.

One of our number was a neo-Kemetist, all the way from Atlanta, who christened herself Sobek and decided to become the emissary of the river's flow. And like a salmon she walked upstream in the

thin trickle, never more than calf high, the water's flow like a long natural mikveh. With two guards by her side she reached the other camp, the three of them plain in the sun with wide-brimmed hats and a calm aspect. Sobek spoke to the other camp's leader. He was a hard man of Dallas who'd earned the moniker Sharpe for his skill with a carbine in pursuit of the remaining boar and javelina. Most of his crew were former service industry personal out of Vegas, with a few expert opportunists out of Colorado. She knocked him to the ground with kindness. I was there on the sidelines.

We drafted a course of action, which was refined constantly through the next few weeks. Sharpe was smart enough to know that even if his band were to construct a viable ecosystem, another group might just show up further upriver and upset everything. There had to be a method of integrating new populations into the system. It wouldn't be like the artificial food systems we were building—each of our population centers would be fundamentally identical, arranged in sequence taking water. As we could not simply integrate the communities under essentially a socialist state, we had to determine a way to enforce a rate of consumption through a decentralized plan. Ostrom's work came into play. We had to design a system that was capable of self-regulating, so that should one group begin to overconsume, the rest of the polity could respond without triggering a tragedy of the commons.

The Vegas crew were into blackjack. That gave us an idea: blackjack is a game that is designed around the notion of cautions consumption. You try to rise up to 21. As long as you're under it you get a score, but if you're over it you're done. Still, there's a slightly higher chance that you'll make it to 21 or 20 than many of the other numbers, so the odds regress toward being close to giving everyone a full score.

So we figured the smart thing might be to assign the level of water consumption you were allowed to blackjack. Hit 21 and you got a full share. Go higher and you lose a few percentage points in kind. Hit less and you get less as well. This would cause some rather inconsistent levels in production, but ideally it would encourage the population to avoid overconsumption, and weight the watershed's motion so that our consumption would stay fairly low overall. We named the game *Ostrom*, after our inspiration, and we've been playing it for a few years now, with a new round every season.

If you're further down the river, you can monitor how much water's arriving at your position. There's a variety of methods for this—a number of us raided an abandoned electronics wholesaler a while ago and

managed to make off with a load of Arduino systems, only a bit outdated. Coupled with some some reverse-engineered motors to provide inputs, those served as a good method for monitoring flow. Whenever one sensor spots an anomaly in the system, it radio-relays it up and down the network. There are no secrets on the river.

Social pressure kept the system in line. It's not perfect. A year in one of the newer groups upriver across the border decided to go rogue, and we had to dispatch a fair number of able-bodied to rectify the scenario. I was tired of such affairs and stayed back, hearing only the chatter over the radio. There was no asymmetry of information, just chatter on a shared channel. *I'm sorry Henry but I cannot allow you to do that*, but with a modicum of human static. We had not gone out to the ends of the earth and become Anchorites in Nod to be governed in the same way as the cities. And there was no better motivator for collective survival than a clear notion of the approach—your countrymen moving slowly forward to your position to enforce the will of a people.

Sobek died last year but her name's lived on as a title. Each round of the game someone new is appointed *the* Sobek, and is sent up the river. There's a few new tributaries that have developed with the increase in flow, with smaller communities around them, and each time one of the rivers splits off we assign a new Sobek, and they roll down the river performing the same duties.

I want to give you an end to the story, where lessons are learned and somehow a sense of normalcy has been restored, as in the stories I was raised on. But I am inclined to believe that such narrative ticks are a cancer on the true life I have lived. Life does not have two, three, or five acts. The drying of the land and the northern shift were not a beginning, a conflict to be overcome. Moreover they were not a middle—a katabasis for our North American people to move through before reaching the other side with a new-found knowledge of life. And, moreover, as I write this down for you, they are not an end, as I am only beginning to reach the late-summer years of my life—autumn and my inevitable December solstice are still decades away by any reckoning.

I wake in my tent from my decades old bed. I drink water, and ingest tablets of caffeine. I move through the mud-tunnels and tend to our crops; we have developed a methodology for lentils and a better system for greens, as well as recent imports of chickens. We have considered growing papyrus as a recreational activity, but instead we have stayed to the solar life of kludged laptops, connected to the mesh by a satellite donated by admirers in New England. As a point on a map, far

and away from any other, we are still somehow connected to the globe,  
where no square mile of inhabited land is given rest from the constant  
barrage of signals.

I go for a walk in the sun.

I drink from the river.

I keep moving—



# OSTROM

Ostrom consists of a series of branching games of blackjack, played to symbolically distribute water along channels. The game is not for any one player to win, but for the collective to grow while successfully regulating itself.

A fixed pot is calculated at the start of each round, representing the output at the origin point of a watershed. This pot is divided equally among all the players, each of whom represents a settlement on the river.

Each round a new player is chosen to be the dealer, called a “Sobek.” Players are arranged in the order of their settlements’ positions on the river. The Sobek starts at the origin of the river and moves downstream.

With each player, the Sobek plays a ritual game of blackjack. Hitting 21 means achieving the full share of the pot. For each point below 21, players receive a proportionally smaller share for that round. When players go over 21—bust—they receive a full share but are penalized in the next round by the number of points they went over.

Each round will end with some amount of the pot left over. That surplus, representing increased efficiency in water usage, is added to the next pot with each new round.

This also allows new players to be continually cashed in, added at any point in the river, or on new branches of the water system for the Sobek to travel down. Adding new players temporarily decreases the size of each share, but benefit all in the long run by creating new opportunities for “efficiencies” to add to the surplus.

The game continues as long as no player receives nothing. The goal is to increase the size of the game without breaking the system. Ostrom maps can be huge. Though each player should break even in the long run, the satisfaction comes from creating a particularly complex “river.”

# CONCLUSION

Early days of a better nation, but it didn't have to go that way. The drought could have divided us. The storms could have left us cowering. We could have turned on each other, hid behind tall walls. We could have been picked off by little failures one by one. We could have come to fear the sun.

We could have shirked our responsibilities and carried on as the world burned. Or we could have been ground into the earth by the great weight of our guilt. We could have become fanatics, or hedonists. For some damn narcissistic reason we could have stopped having kids. The climate crisis was a great opportunity for everything to fall apart.

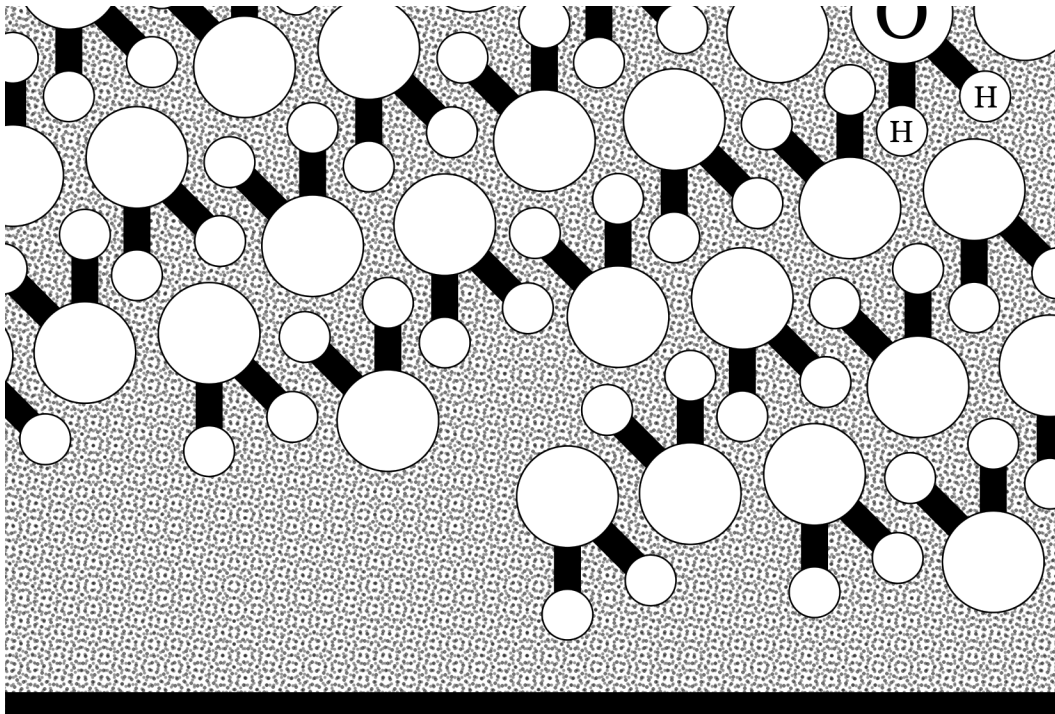
But none of those things happened, not as much as they could have. We chose to keep our humanity, hold close our trust of others. We chose to channel our pain into play. We chose to look on our changing landscape with more curiosity than resentment. We chose to hope.

The personal histories in this volume occupy the great, gray badlands that lie between crisis and adventure. At this intersection, events balance on a narrow edge. A wrong word, or a loss of patience, or a flagging of empathy, and a scuffle might turn into a massacre, a protest into a riot, a negotiation into a war. This is territory we all know well, because we've lived in it for a long time. At least since the atom bomb, history has been a long series of delicate de-escalations. It is a work that never ends.

The drylands are greener now, perhaps more than they ever were. They grow thick with crops and with fallows. When the noon heat lifts, we'll meet in a field to throw a can around or play some cards. Clouds gather. Maybe it will rain.

*"The Motherlode" and "The Map" were written by Andrew Dana Hudson. "The Return" was written by J. Bryce Hydysmith. Editing by Andrew Dana Hudson. Cover design by J. Bryce Hydysmith. Advice, guidance and edits by Adam Flynn. Helpful input from Alex Cotton and Adam Rothstein.*





# A HYDRO-LUDOLOGICAL INVESTIGATION

