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ABOVE: Kofa National Wildlife Refuge; Lisa Spangler photo. OVERLEAF: Pulpit Rock, Norway (58°59'11.353"N, 6°11'17.761"E); Jason Spafford photo. COVER: May 19, 2005, NASA's Mars Exploration Rover Spirit captured this stunning view as the sun sank below the rim of Gusev crater (14.6°S and 175.4°E). Panoramic camera mosaic: 6:07 in the evening of the rover's 489th Martian day, or sol (NASA/JPL/Texas A&M/Cornell).

EXPLORATION Pol. 2, No. 1 (October 2025) Quarterly

66WE SHALL NOT CEASE FROM EXPLORATION

And the end of all our exploring

Will be to arrive where we started

And know the place for the first time." – T.S. Eliot

Welcome to *Exploration Quarterly*, the publication for those who do not cease to BE CURIOUS . . . to LEARN . . .

to EXPLORE . . .

We define exploration in the broadest sense:

Exploration can be geographical.

Exploration can be fractal.

Exploration can be introspective.

Exploration can be expansive.

Exploration can be structured.

Exploration can be unplanned.

Exploration can happen every day.

Exploration is continuously seeking new places, new ideas, new knowledge.

Exploration is the essence of being human, what brought us from the forests into the savannahs, and beyond the horizons of Earth to the edges of the known universe.

We shall not cease from exploration.

Thank you for joining us.

Jonathan Hanson

Roseann Hanson

Founders, Curators, Editors, Designers



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LISA MORRIS & JASON SPAFFORD



For over two decades Lisa Morris and Jason Spafford have pursued meaningful adventure across every continent—by fin, foot, throttle and on four. After a decade teaching and leading scuba diving expeditions, they traded the ocean for overland life and an 80,000-mile, almost five-year motorcycle pilgrimage from Antarctica to the Arctic, followed by five years exploring Europe in a 2015 Toyota Hilux known as Rhino. More recently, the duo traversed the American West's backcountry on two KTM 500 EXC-Fs, and now continue with Rhino on the Mega Transect Expedition through the Americas, Africa, and Europe.

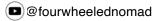
Lisa is an accredited British travel writer whose narratives have appeared in leading publications across the UK, Europe, and North America. A passionate advocate for female riders, Lisa has been a consultant to help develop women's motorcycle gear, and in 2022, she was named 'Overlander of the Year' by a leading vehicle-based adventure travel platform.

Jason is an internationally published adventure and commercial photographer with a career spanning more than three decades. From editorial features and commercial campaigns including a BBC wildlife production to film screenings, Jason's work captures the thrill of the journey and the texture of the untamed. Jason is the recipient of several film festival accolades and photography competition awards.

Lisa and Jason founded Four Wheeled Nomad-a creative platform devoted to documenting the Earth's wilder side.

Fourwheelednomad.com

(a) @fourwheelednomad



JANET RITH-NAJARIAN

Janet Rith-Najarian, PhD. is a biogeographer and educator in the northwoods of Minnesota, among the "Sky-Blue Waters" of her home state's storied 10,000 lakes. Along with survey work and research for various natural resource agencies, she is a National Geographic certified educator and teacherconsultant who works with the Minnesota Alliance for Geographic Education. She is also a Minnesota Master Naturalist, a Teacher-Ranger with the National



Parks Classroom, a naturalist, and a Wild Wonder Foundationcertified nature journaling instructor. With her interest in historic cartography and scientific illustration, she was recently invited to join the Art of Exploration Collective of the Royal Geographic Society. Along with fellow explorer and filmmaker Norwood Hall, Janet's most adventurous work is now as a storyteller, creating a documentary series about expeditions and famous explorers of the past with a special focus on the Mississippi River. Their next presentation will be in October 2025 for the National Council for Geographic Education.

Rivergeo.org



(a) @riversedgegeographics

NORWOOD F. HALL, II

Norwood F. Hall II is a multidisciplinary artist and researcher from Puposky, Minnesota. whose recent work focuses on the, historical, cultural, and geographical



significance of the Mississippi Headwaters region. He is a lifelong paddler, explorer, and adorer of northern Minnesota's abundant and intricate waterways, particularly the Upper Mississippi and its sources. With a background in music, performance, and visual storytelling, Norwood integrates historical reenactments and primary resources with his original music and soundscapes to examine the River's role in history and identity. Norwood has presented his work for the Minnesota Alliance for Geographic Education, the Society for the History of Discoveries, and numerous other local educational institutes and organizations. Through his research and creations, Norwood seeks to preserve and interpret the stories and sounds of this landscape for both academic and public audiences.

GRAHAM JACKSON



A scientist by trade and an explorer by passion, Graham Jackson has been combining both for three decades as a guide, instructor, and expedition leader. Born in Lesotho in southern Africa, Graham started racing motocross at age six, as well as helping his father design, build, and race off-road buggies. At age 10, Graham completed his first safari across the Kalahari in a

Range Rover with his family. That trip planted the seed for Graham's lifelong obsession with deserts, off-road vehicles, and overland travel.

In 2004, Graham and his wife Connie Rodman led a 30,000-mile overland adventure from London to Cape Town, which, arguably, was a key inspiration for the launch of the overland industry in the U.S. and formed the feature story in the first edition of Overland Journal. He spent several years as Overland Journal's gear editor and has written for Outdoor X4, Land Rover Owner International, and Exploring Overland's online blog. He also contributed to two of Chris Scott's books-Overlanders' Handbook and Sahara Overland—as well as Tom Sheppard and Jonathan Hanson's Vehicle-dependent Expedition Guide.

Graham has run and guided expeditions in Africa, Australia, South America, the American West, Mexico, and Central America. He is recognized as one of the premier expedition trainers in the world, conducting overland training in the U.S., Central America, and Africa as well as co-founding Overland Training and 7P Overland. He was Director of Training for Overland Expo for its first decade, helping develop it into the premier overland event in the world.

In 2023 Graham started Overland Passage and Barefoot Productions to produce adventure-travel-related content of competent people exploring the remote reaches of the magnificent planet we call home.

Graham is a member-national of the Explorers Club, a fellow of the Royal Geographical Society, and a member of the Field Guides Association of Southern Africa. He holds an NPTC assessor's certification for off-road driver and recovery training.

Overlandpassage.com

@graham.l.jackson & @overland_passage

@overland-passage

JONATHAN and ROSEANN HANSON

Born and raised in southern Arizona. the Hansons have worked together for 40 years as writers, photographers, artists, biologists, and explorers. They are endlessly curious humans who love nature. the visual arts. the written word, and above all, they love to learn, constantly reading, exploring



new ideas, new crafts, new skills, and new places.

The Hansons met and married in 1984 while studying at the University of Arizona under many renowned field ecologists, solidifying their passion for fieldwork and science. They have worked as resident naturalists and caretakers for U.S. Fish and Wildlife in Arizona's Baboquivari Mountains; managed a nature lodge in the Chiricahua Mountains; taught dozens of nature, field arts, and writing workshops; lead safaris in Kenya and Tanzania and overland journeys in Mexico and the American Southwest; explored five continents together by overland vehicle; and founded Overland Expo, the world's largest do-it-yourself adventure travel event, which they sold in 2018. Jonathan is an accomplished solo bicyclist and sea kayaker, and Roseann worked for three years as a conservation program director for a Kenyan organization and traveled solo extensively in East Africa.

Their co-authored books include Southern Arizona Nature Almanac, Basic Essentials: Animal Tracking, National Park Tours of the Southwest, Desert Dogs, The Ragged Mountain Guide to Outdoor Sports, which won a national book award, and 50 Common Reptiles and Amphibians of the Southwest, which won a National Park Service award for Interpretive Excellence, Jonathan was founding editor of Overland Journal and collaborated with Tom Sheppard on the reprint of the seminal Vehicle-dependent Expedition Guide. Roseann wrote a nature guide to the San Pedro River and published two popular guides to nature journaling and field arts.

Both are elected fellows of the Explorers Club and the Royal Geographical Society for their work as explorers, writers, and conservationists. They are pleased to be returning to their roots as writers and publishers with the founding of this magazine.

ExploringOverland.com

@roseannhanson @jonathanhansonwriter

(**f**) /roseannhansonexplore

@exploringoverland

A True Prospect of the Giants Cawsway
near Pengore-Head in the County of Antrim
About Six Miles to the North West of Colerain
Taken from the North West By Edwin Sandys, 1696
at the Expence of the Dublin Society

f a picture is worth a thousand words, the "true prospect" of the 1696 Giant's Causeway map on the overleaf is worth a great deal more. This image is not just a surprisingly accurate birds-eye view of a fascinating geologic feature, but the culmination of a whole new paradigm showcasing experimental imaging at the birth of modern science, a new way to effectively collect, synthesize, and communicate visual data, according to historian Gregorio Astengo writing in the Public Domain Review. Looking at it today one can easily think it's a modern drawing, not realizing that in 1696 proper drawing perspective—let alone creative views like panoramas and aerial depictions—were new and groundbreaking. The techniques were the product of nearly five decades of intense work by members of the Royal Society, whose goal was to improve instruments and skills for creating better visual representation in publications.

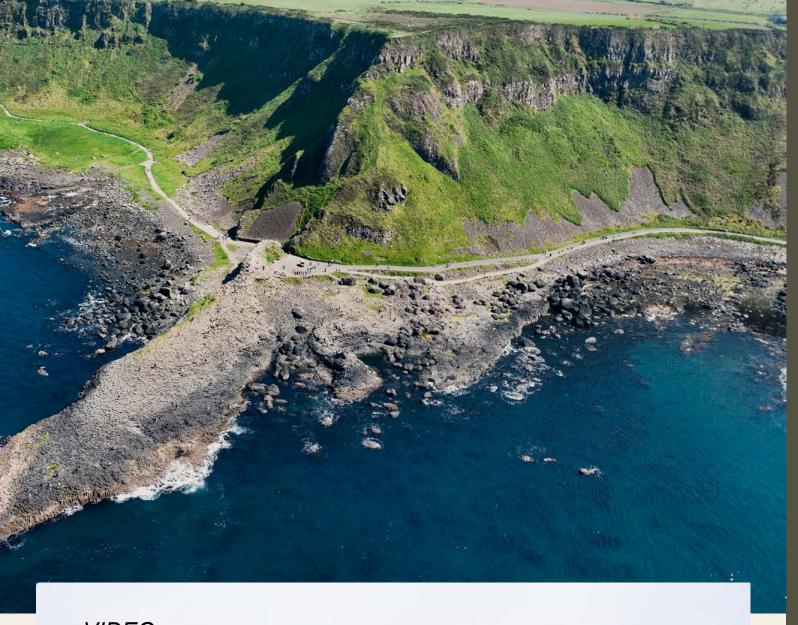
The Royal Society of London for Improving Natural Knowledge was founded in 1660 by 12 men who shared a passion for studying the natural world and sharing new knowledge. Called natural philosophers, they were not professional scientists because science (or scientific enquiry) as we know it was just being created, largely by them—lawyers, merchants, physicians, aristocrats, and landowners. Founders and active fellows included Isaac Newton, John Locke, and Christopher Wren. The Royal Society's charter bade fellows to gather information by correspondence, but also to observe the natural world, conduct experiments, discuss their outcomes, and publish the results. To accomplish the latter, in 1665 the society began publishing its *Philosophical Transactions of* the Royal Society. It appeared in small quarto format (17x22cm) with a dozen or so articles per issue and costing one shilling (about £5 today).

The birth of *Philosophical Transactions* is noteworthy for a number of reasons. It was the world's first scientific journal and it is, remarkably, still in print. Additionally, the timing of its debut could not have been better: books and periodicals were being printed by presses and were more widely available and affordable than just a few decades before, providing an excellent way for natural philosophers to share their knowledge to a



large audience. (By 1500, only 50 years after Gutenberg introduced his press, there were more than 9 million books circulating in Europe; in the following century, some estimates indicate around 500 million books were printed, making the mission of the Royal Society that much easier and acting as a catalyst for the Age of Enlightenment and the birth of modern science.)

Today we enjoy a vast array of forms in which data is shared accurately and in depth: photographs, scientific illustrations, diagrams, info-graphics, motion-graphics, and video. Modern media boast high-resolution full color reproductions, with crisp type set on high-quality, glossy paper and likewise beautiful digital products on websites and universally shared documents such as portable documents (PDFs). But when *Philosophical Transactions* began, its editors and contributors bemoaned the lack of accurate visual representation of their work. Engravers who created the illustrations struggled with perspective





Click the image above to view video.



A Table's Tale

by Jonathan Hanson

bout 30 years ago my friend Bruce was browsing a junk shop in Kelso, Washington, when he spied two old roll-up camp tables. One was in very poor shape; the other showed wear but was still completely functional. Bruce recognized the top surface as genuine oilcloth. The wood leg assembly—permanently attached to the top at one end—folded out on a clever configuration of hinges and struts.

The shop's owners called it a sheepherder's table—Bruce wondered if that was simply because they had found both tables inside a sheepherder's wagon they had purchased. For \$30, Bruce couldn't pass it up, and brought it back to Tucson, where Roseann and I were consumed with unmitigated avarice at the sight of it. At the time we had our own roll-up camp table:

a blue vinyl and aluminum item called a Roll-A-Table, originally designed for river rafters—perfectly serviceable but utterly devoid of character. Make that *utterly devoid* of character.

Jump ahead 30 years, during which time our hopes that Bruce would be hit by a bus and we'd somehow inherit that table slowly diminished. A couple of weeks ago, when we were in the middle of moving our entire household 60 miles, Bruce and I were chatting when he mentioned he had something to give us. I thought, *Bruce, we're* moving, *we don't need any* . . . and then he produced the sheepherder's table.

Oh. Well. *Okay*. (Added to this priceless gift was—not making this up—an authentic wood and leather dromedary camel saddle. But that's another artifact ...)





Pack Gold Medal in Your Camping or Touring Outfit

TWILIGHT! The end of another glorious day in the Open. The leaves overhead gently whispering of coming nightfall. Down below—hungry stomachs, weary limbs, joyful hearts. Yet here—in tourist camp, in woodland depths or lakeside retreat—miles from nowhere—one finds comforts of home. Peeking out from the tent is a cot, the kind adopted by Uncle Sam—sanitary, comfortable, lightweight and capable of being folded in a twinkling into the small-

capable of being folded in a twinkling into the small-est, most compact space imaginable. In the foreground, a table of the same illustrious fam-ily—a table that folds in a roll. Ideal for the meal— handy for bridge. Around the table, chairs—with a light and airy gracefulness that would enhance the charm of any porch, sun parlor, lawn or club. Folding comfort de luxe! Comfort that takes the rough

out of roughing it—that costs little, yet adds much to outing pleasure. Furniture that may be folded up, packed into a minimum of space, whisked away on the running board — Gold Medal.

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"Whisked away on the running board"

— inside of car left free.

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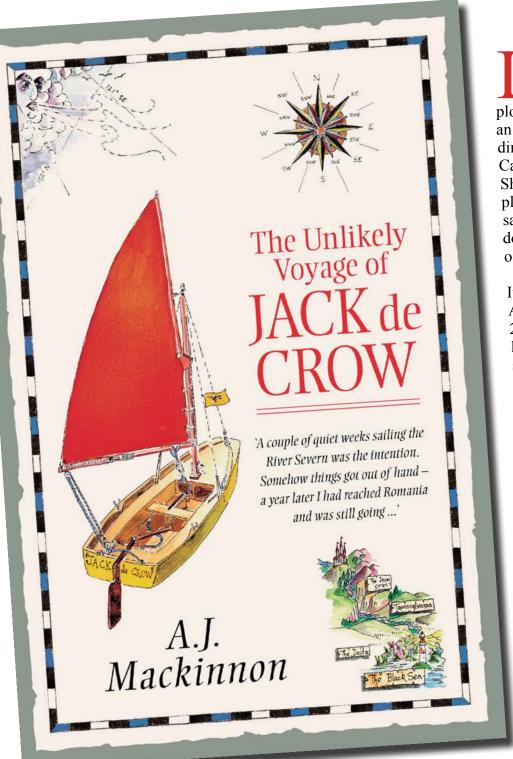
Beginning today, and through July 5, representative dealers will make special displays of Gold Medal Folding Furniture and other dependable Sporting Goods and Camp Equipment. Wherever you see the Gold Medal Sign on the dealer's window, go in. You will get unusual values, a square

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ike Bilbo Baggins, A. J.
Mackinnon was not looking
for an adventure when he
plopped a pith helmet on his head and
an abandoned, 11-foot-long Mirror
dinghy into the overgrown Union
Canal near Ellesmere College in
Shropshire in WHAT YEAR. His
plan was to spend a couple weeks
sailing, rowing, and pub-hopping
down to Gloucester, near the mouth
of the Severn.

It didn't quite turn out that way. A year, 3,000 miles, 12 countries, 282 locks, and one drunken sinking later he was still going—having sailed the square-prowed, gaffrigged cockleshell of a boat down the Thames, across the English Channel, across France and Germany, and eventually to Bulgaria (where he was kidnapped by pirates) and the Black Sea.

The Unlikely Voyage of Jack de Crow is the unlikeliest adventure book I have ever read, and one of my very, very favorites. I've lost count of how many hands my tattered paperback copy has been through, from friends to near-strangers to whom I said, simply, "Just read it." More than a few returned it within days, saying, "I couldn't put it down."

Current version published 2014 by Black Inc.

Hardback, 6.46 x 1.57 x 9.49 in. \$35.77

Paperback, 5.16 x 1.22 x 7.8 in. \$22.71

Review by Jonathan Hanson

Artwork courtesy A.J. Mackinnon; crow image by Veronica Dudarev (Unsplash.com)

The secret is not just Mackinnon's fine prose—as one would expect from an English Lit teacher—it is his self-deprecating and frequently hiccup-and-tear-inducing humour. Consider this early passage, of the "christening" of the dinghy as Mackinnon was preparing to launch.

"... my dear friend Debbie officially christened the boat with a bottle of homemade hawthorn brandv. This clear amber liquid I had distilled some vears previously from hawthorn blossom, collected one sunny May afternoon on the banks of the Whitemere, and it had been from the start utterly undrinkable. It was good to find an appropriate use for it at last.

Debbie had dressed superbly for the occasion in an Edwardian outfit and her short speech was touching and apt, but she was clearly unfamiliar with the usual protocol of ship launching. Instead of the customary shattering of the bottle on the prow,

for reasons she has yet adequately to explain, she uncorked the bottle and proceeded to pour the rancid fermenting liquor into the dinghy, liberally scattering it over thwart and deck and rucksack. Three thousand midges dropped like confetti out of the air over a fifty-foot radius, the merry throng on the bridge above us reeled back clutching their throats, and I half expected to see the newly varnished deck start to bubble and peel like frying bacon as the brandy got to work on the timbers."

For a good while it pretty much goes downhill from there, beginning with Mackinnon's realization five minutes after launching that rowing a dinghy is harder than it looks, especially as one has to face whence one has come rather than where one is going. The first day wasn't over before an alder tree ripped off one of the rowlocks (which, by the way, are correctly pronounced "rollocks") and two feet of gunwale ("gunnel"). Mackinnon describes his odds of self-repair thusly:



"I am no carpenter. When in woodwork lessons at school other boys were knocking up drop-leaf coffee tables and walnut roll-top bureaux to take home to their adoring parents, I was struggling to produce a breadboard."

He manages to temporarily re-attach the broken bit with screws pinched from unused fittings, using the Leatherman (please see page ... if you haven't yet) obtained as a going-away present from prescient fellow Ellesmere staff members.

Of course an account like this would be mindnumbing if it were nothing but disaster, and the voyage of Jack de Crow is anything but that. Things look up when Mackinnon finally reaches a waterway broad enough to raise the scarlet

sail and revel in the grace of wind power. Things further improve when he hears a voice from the bank:

"'Twenty years I've been on this river,' it barked, 'and I've never seen a sail. Come and have lunch!' Well my friends say I'm slow at many things, but when it comes to free lunch invitations my reactions are those of an electrocuted stoat. I put the tiller over, gybed neatly and came to a graceful halt on a grassy bank below a wall bright with purple aubretia and snow-in-summer. At the top on a sunny terrace sat an iron-browed gentleman with a gamy leg, reclining in a garden chair. He introduced himself as Kiril Gray and waved me towards the French windows behind him.

Grace Under Gravel: The road's quiet lessons



Text by Lisa Morris Images by Jason Spafford

iving out of panniers, a backpack, or a duffle has a way of stripping things back. You learn what matters when everything you need has to move with you and when life (or a whisky throttle!) throws you completely off-balance. In my case, the road became a place to explore the world while understanding my strengths, letting go, and learning the value of staying open—especially when things go sideways—whether emotionally or mechanically.

For over a quarter century, my partner Jason and I have overlanded across continents—by foot, on two wheels, and in four—shaping chapters of our lives around the rhythm of the road. It began with an energetic pace of headfirst intentions and ambitious bucket-list routes, sure, but over time, what resonated more than the majestic landscapes and miles covered was what unfolded in the gaps: the mishaps, the yellow flags on the field turning red, and the lessons that took root somewhere between fatigue and flow.

Before I fully grasped what the road could give, I took my first big motorcycle ride chasing freedom along the Pan American Highway. It was all there: the draw of open spaces and that visceral connection between rider and earth—and it still rings true. But ride far enough, through enough lands, seasons, and setbacks, with your whole self in it, and the journey offers inner recalibrations you didn't even know you needed. Beyond being one of the greatest adventures of my life, it was also a mirror. And in rare moments, a kind of grace—ground into the gravel.



Relationship Battles and Wins

Turns out, the most challenging terrain isn't always beneath your wheels. Overlanding sheds as much light on your inner landscape as the one outside tests it. You're navigating backroads, border crossings, and if you're with someone, the twists and turns of a relationship to boot. I used to think the hardest hits would be physical, like when my subframe cracked in the Bolivian wilds, my suspension linkage snapped clean off in Peru, or Patagonian winds hurled me off the road like a rag doll. But it's the human complexities—loving your partner under pressure, staying present without sliding into old patterns—that call for a different kind of toolkit: emotional socket sets, empathy torque, and the patience to keep things running when the road gets rough.

TOP: Parking *Pearl* alongside Licancabur, a 19,409-foot stratovolcano on the Chile–Bolivia border, I'm reminded that some of life's greatest places aren't found on a map...until they are, and you realize the true discovery was the moment spent taking it all in.

RIGHT: Amid Alberta's fall colours, I unearthed one of my simple truths: the long roads are best traveled when I'm not riding them alone.







fierce they reportedly launched a local onto the roof of a corrugated outbuilding. One night, when our rooftop tent's support bar collapsed onto our faces mid-sleep, we ditched our elevated quarters for the Hilux's front seats—economy class, sans the pretzels. Of our ten weeks in Iceland's wintry grip, eight were spent in minus four degrees Fahrenheit. No diesel heater. Just Arctic sleeping bags and a laughable amount of British grit wrapped in martyr's stoicism.

Then came reality, louder still. After reaching Nordkapp, we shipped the truck to South Africa in early 2020 to continue our Cape-to-Cape endeavour—only for the world to go off-script, applauding frontline workers from balconies and collectively mastering banana bread. When Rhino finally rolled back onto British soil, Scotland greeted us with horizontal rain driven by Highland hoolies, and a midge assault that made us question our place in the food chain. Turns out, what we'd built for equatorial adventure wasn't quite fit for the upper latitudes. Somewhere between damp canvas walls and creeping madness, the blueprint for a new Rhino

emerged—this time, built for sanity over endurance living.

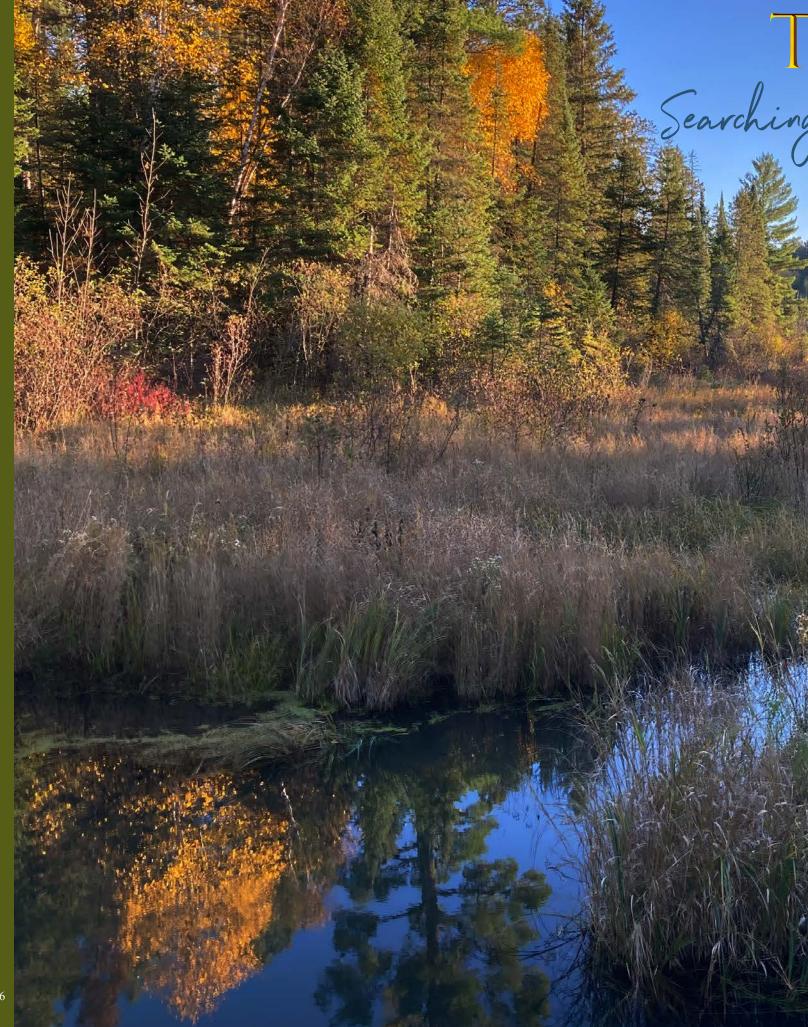
The Unicorn Paradox

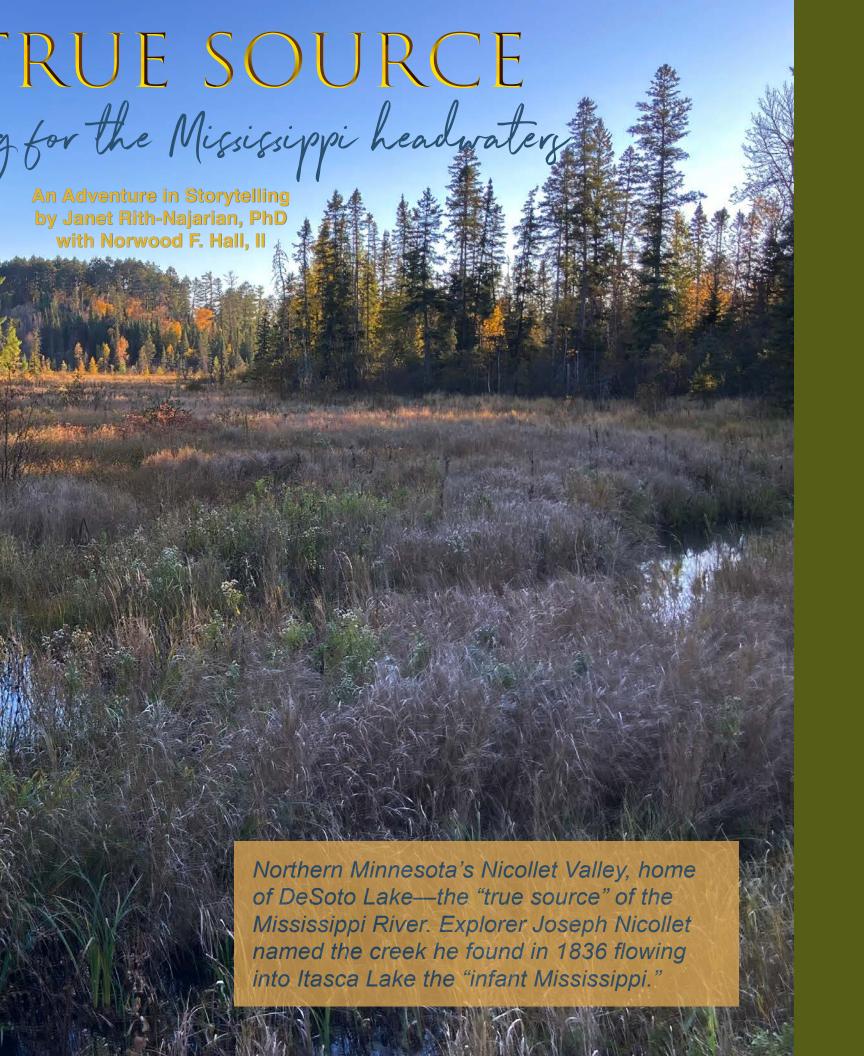
After five formidable years of living out of our Hilux, it was time to pull up the handbrake. We mothballed Rhino, tucked him into storage, and shifted our gaze back to two wheels—not out of restlessness, but from a longing simmering beneath the surface. Beyond the thrill of riding, it went deeper. Maybe it was nostalgia masquerading as reason, or the fresh hope that a new pair

LEFT: Perched on the icy rim of a water-filled crater, we plunged into a lesson colder than any long road could teach: even in Iceland's raw temperatures, its grandeur prevails.

ABOVE: Deep down, I always knew this moment was coming—a monumental whiskey throttle on a dirt bike with the ability to put me in orbit.

PAGE 36: Cocooned in the camper at Factory Butte, we discovered one of our top-ten wild camp spots in Utah—a remote, hard-to-reach place we were grateful to find without breaking down.





It was well over 90 degrees on an August afternoon in 2012, and we were all dripping with sweat. The humidity was fast approaching the dew point, and our only relief was an occasional light breeze as we paused in the shade of trees hanging over stones at the water's edge.

There had already been three takes of the scene we were filming: footage captured from the front, side, and back of a vintage birchbark canoe as it slid down the current

of the Turtle River. Jeremiah Liend, the sole occupant of the canoe, was paddling hard but had "lost control" of the craft, flipping over again and again. Mike Bredon was knee-deep on the far side of the water, adjusting the polycarbonate housing over his handheld camera. Norwood Hall splashed along the near shore with another camera on a tripod, trying to avoid tripping over submerged boulders. I was stationed along the bank ready to reload the canoe with travel trunks and maps and baskets of gear so Jeremiah could go overboard with it all once again. And this time, according to the call sheet on the clipboard, we'd be filming underwater.

Norwood pondered angles again. How to get the best shots on this take? Mike would need to crouch and use snorkel gear so he could stay underwater close to the canoe and Jeremiah's paddle, and Norwood needed to be walking along the far side of the canoe with camera above the water, avoiding both the rocks and Jeremiah's flailing limbs as the canoe capsized. I made

sure Jeremiah's moccasins were laced tightly before he launched the canoe for the last time, then I sized up the layout of the scene from the sandy bank above. I double-checked the direction of the late afternoon sunlight for blocking purposes, watching as it filtered down through cedar branches and birch leaves to the dappled river water flowing by, crystal clear, out of Three-Island Lake. It was a good day to be playing dress-up and

make-believe in the cool waters of Turtle River here in northern Minnesota, surrounded by the deep quiet of the Buena Vista State Forest.







We had turned back the clock to re-create and film the historic journey of Giacomo Costantino Beltrami (1779–1855), a hapless but adventurous Italian who had passed by these very cedars in a canoe nearly two centuries before. We wanted to tell the tale of Beltrami and his intrepid search for the source of the Mississippi River in all its glory—and all its misadventure—in time for the upcoming bicentennial celebration of Beltrami's 1823 expedition. In addition to this day of reenacting along the Turtle River, we had incorporated several afternoons on a steamboat on the Mississippi River; a day trekking with horses on a dusty trail leading west towards Pembina. North Dakota; a sole-sucking slog through marshes of the Mud River downstream from Puposky, MN; an early evening climb to the heights of the Continental Divide at Buena Vista Hill; and a final exhilarating sacramental plunge into the northern headwaters lake named for Beltrami's beloved lady friend, Julia. There was also our subsequent re-creation of Beltrami's momentous meeting with President James Monroe, his perilous sojourn to Fort St.

Anthony, the encounters with numerous Ojibwe who assisted his journey en route to the north, and many scenes foraging in survival mode in the wilderness after his Ojibwe guides abandoned him.

There is a world of difference between the wild Mississippi river near its source and what it's like as it flows south through more developed metropolitan areas



The 440,000-square-mile watershed of the Mississippi River, showing from its source to the Gulf of Mexico, flowing 2,340 miles. (Map courtesy Shannon1, Wikipedia, from USGS sources, 2016; GNU Free Documentation License, Version 1.2)

"From an eagle's eye view, this area shines like a mirror to heaven; in fact, within the Mississippi River headwaters region there are places where up to 75% of the land is under water."



Mexico, lies the source of the Mississippi River at Lake Itasca. It was discovered in 1832 by Henry Rowe Schoolcraft (who was led here by Indian guides)."

That statement baffled me, because I felt Schoolcraft couldn't have "discovered" the source if he was led to it by the local inhabitants. Over the years that followed, as I began to explore the river for myself along with various adjacent waterways that contributed to it, I wondered how this single spot on the north end of Lake Itasca could be officially considered the sole *veritas caput* ("true head") for this whole jewel of a river system.

I mulled over the question with likeminded friends: fellow paddlers Reis Hall, his son Norwood, and our mutual friend Jim Miller. All were avid paddlers, and Reis himself guided local river trips, a legacy he passed on to his adventurous son. In the 1980s, all of us had participated in a local Mississippi River Revival conservation group, and it became a passion for us. Though lumberjacks had cut some wide swaths of forest on their way through this region a century ago, much of the land and water in this part of northern Minnesota has been preserved in a natural state within a mosaic of county and state parks, state and national forests, privately conserved land, and the tribal reserves of the local Anishinabe, who are native to these sacred lands and waterways. For those of us who live here today, the history and nature of the Mississippi River headwaters form an iconic part of local identity, and we are passionate about preserving the remaining forest and the waterways that traverse it. But as many local people know, the story of defining (and thus conserving) the headwaters basin is not as clearcut as the official story would lead outsiders to believe.

As I dug further into the history of our area, I realized that numerous explorers had come to valid—but sometimes very different—conclusions about where the

What Makes a River?

Today the source of a river is defined as "the distance from the mouth to the most distant headwater source" (U.S. Geological Survey). But definitions and techniques used by early-1800s scientists to define river sources in mountainous Europe did not translate well to the Mississippi, whose source meandered somewhere in the flats of northern Minnesota's bogs, marshes, and waterlogged forests.

Indigenous Americans, French fur trappers, and early American hunters and tradesmen had a familiarity with the headwaters region that, while not defined on paper in the form of published accounts or maps, nonetheless aided other early explorers in finding their way along various headwater tributaries. Early European-Americans concurred with the Ojibwe reference to the Mississippi River officially starting at its confluence with the Raven's Feather or Crow Wing River (see right, and page 45, end).

In the winter of 1806, Zebulon Pike (for whom Pike's Peak was later named) traveled as far north as what is now called Pike Bay, between Leech Lake and Cass Lake. As he went, he looked at every confluence he encountered and calculated which was the main channel and which was a smaller contributing stream or river. At the confluence of the Mississippi and the Leech Lake River, he determined the latter was the larger of the two, based on the width of the two frozen rivers joined together. However, as it was winter he wasn't able to compare the volume of each. So he followed the Leech Lake River to the large Leech Lake, and declared that the source. If Pike had been there in summer, he would have seen that the volume of the Mississippi was greater than that of the Leech Lake River, and would have disqualified it. (The distance along the Leech Lake River to Leech Lake is also shorter than the Mississippi to either Lake Itasca or Lake Julia farther upstream.)

When Lewis Cass paddled up the Mississippi in 1820, using the same techniques as Pike, he was looking for the largest lake upstream that would be considered a source reservoir for the river. When he got to Red Cedar Lake, now known as Cass Lake, it looked to be an ideal candidate. He asked the local Ojibwe if they considered the river to go farther upstream from there, and they mentioned that there were three small tributaries: a short one connecting to Pike Bay to the south, one to the north called Turtle River that they definitely did not consider to be the Mississippi, and a small river coming in from the southwest corner of Cass Lake and flowing west and south to a couple of much smaller lakes along what they called the Elk River. The mosquitos were bad that summer and the Cass expedition had experienced many cold, rainy days on their trip, so Cass neglected to investigate these small tributaries and proclaimed Cass Lake as the source.

In the early 1820s, when Giacomo Beltrami began his "pilgrimage" to the headwaters, a river's source was generally defined by European hydrologists as being that tributary source which sprang from the farthest end of a rivers flow, and in the cardinal direction opposite the river's mouth. Using that definition in 1823, Beltrami was justified in claiming Lake Julia and the Turtle River as the northernmost source of the Mississippi, as it was the farthest north one could paddle in the opposite direction from the mouth at the Gulf of Mexico. And while it is indeed the farthest north source, the distance to it from the Gulf of Mexico is somewhat shorter than if paddling to Lake Itasca.





he very *idea* of a "multitool" flies in the face of my most unshakable axiom regarding implements used for assembling, adjusting, or repairing manufactured products: *Use the right tool for the job.* Need to remove or tighten a nut or bolt? Use a wrench or socket. Need to cut something? Carry a fixed-blade knife or a high-quality folder with a solid locking blade. Screwdrivers? Have a full set so you can exactly match the tip to the screw to avoid stripping it. Need to trim overgrown tree limbs on a trail? Carry a Silky saw.

It would be theoretically possible to achieve this goal of always having the right tool in any unexpected situation—*if* you were willing to lug around a 40-pound cantilever toolbox everywhere you went: out to lunch, on hikes, bicycling, fishing . . .

Which brings us to my second most unshakable axiom: *Any tool is better than no tool*. Which inevitably brings back us to . . . the multi-tool.

Any tool is better than no tool was certainly on Tim Leatherman's mind in 1975, while he and his wife, Chau, were on a penny-pinching trip through Europe. Tim had his Scout knife with him, but an unreliable Fiat 600 rental and other annoyances such as leaky hotel plumbing made him wish he had a pair of pliers along as well. He sketched the idea for a combination tool and set about building a prototype when the couple returned home. What he thought might take a month took three years—and he spent another three years collecting rejection after rejection trying to market his invention. Finally, after taking on a more business-savvy college friend, Steve Berliner, as a partner, the pair made their first sale of 500 units to Cabella's. And the rest is history—many people I know still use "Leatherman" to refer to any multi-tool.

I've had a lot of "better than no tool" moments with multi-tools over the last 30 years, but a remarkable percentage of them occurred on a single safari Roseann and I led in Tanzania. Lastminute circumstances forced us to rent four Land Cruisers that turned out to be in—how shall I put this—less-than-optimum condition. Two were 40-series models evincing 30 years each of obviously sadistic treatment by guides; the other two were 70-series in not much better shape. The supplied tools comprised, if I recall correctly, a hammer and an adjustable wrench large enough to be used on a locomotive engine. I lost count of the bits and pieces on those Toyotas I tightened or actually reattached with my Leatherman Charge. The FJ45 had a petrol engine with a badly worn distributor that would throw its dwell off enough to refuse to start in the morning. I reset it several times using the screwdriver on the Charge, employing the saw blade as a rough feeler gauge. I won't say the tool saved the trip but it prevented several major delays.



former but not well on the latter. In fact I found that the 3mm flat blade on the can opener worked better on #2 Phillips screws. The can opener ties for the best here; it is the push-forward style and sharp enough to slice the tin effortlessly.

The knife on the first Swiss Tool I reviewed years ago was a joke—a butter-knife-blunt tip and a fully serrated blade. This one is much better: plain-edged with a drop point. The blade is just 2.25 inches long, so it's not useful for much besides opening boxes and cutting cheese; nevertheless it's a huge improvement. The steel is high-quality X55CrMo14, which should hold an edge well and resist rust. The scissors are sturdy and operate smoothly, but the blades are only just over a half-inch in length, so any long cuts will require a lot of finger action.

The single major design drawback of the Swiss Tool, in my opinion, is that it is not user serviceable. The pivot shafts of the implements are pinned in rather than secured by hex or Torx fasteners. This contributes to the sleek look of the tool; however, as a result, the owner cannot disassemble the tool either to thoroughly clean it or to replace a broken implement. Partially compensating for this is Victorinox's lifetime warranty, but if you break an implement you'll be subject to the company's decision as to whose fault it is.



Victorinox.com



GOAT modular -\$125

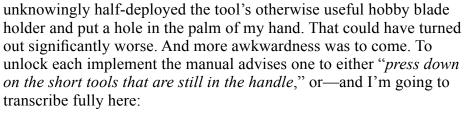
It all started with a Kickstarter and Indiegogo campaign that raised a half-million dollars.

The GOAT (which stands, in this case, for Gear Of All Trades) is like no other tool here: with a flip of a lever on the side of each handle, you can in under a minute remove any implement and replace it with one from a selection of alternates offered by the company. If the selection continues to grow, it could easily make the GOAT multi-tool the most versatile on the market.

The system works exactly as advertised. Simply deploy the implement you want to replace, and flip the Hot Swap lever (their term, not mine!) about 130 degrees until it clicks in place. The implement will then lift straight out. To install the replacement just reverse the order. Brilliant. The choice of optional implements includes a knife blade made from premium S35VN steel to replace the standard blade (a reasonable \$24), a combination bottle/can opener, a gut hook/safety cutter, and a couple others so far. You can also order fancy scales (side plates) that attach to the existing handles of your GOAT. One set is brass, another titanium. (I tried, and failed, to figure out why one would spend \$34 on lightweight titanium scales that would actually add weight to your multi-tool. But what do I know?)

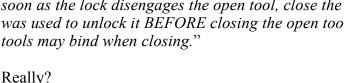
With the innovation out of the way, I started looking at the rest of the tool's functions—and here I ran into some issues. All the GOAT's tools are, commendably, accessible with the pliers closed. Unfortunately, opening one tool invariably brought up several others with it. In fact, the first time I deployed the scissors (which are stout, with useful

7/8th-inch-long blades), I also

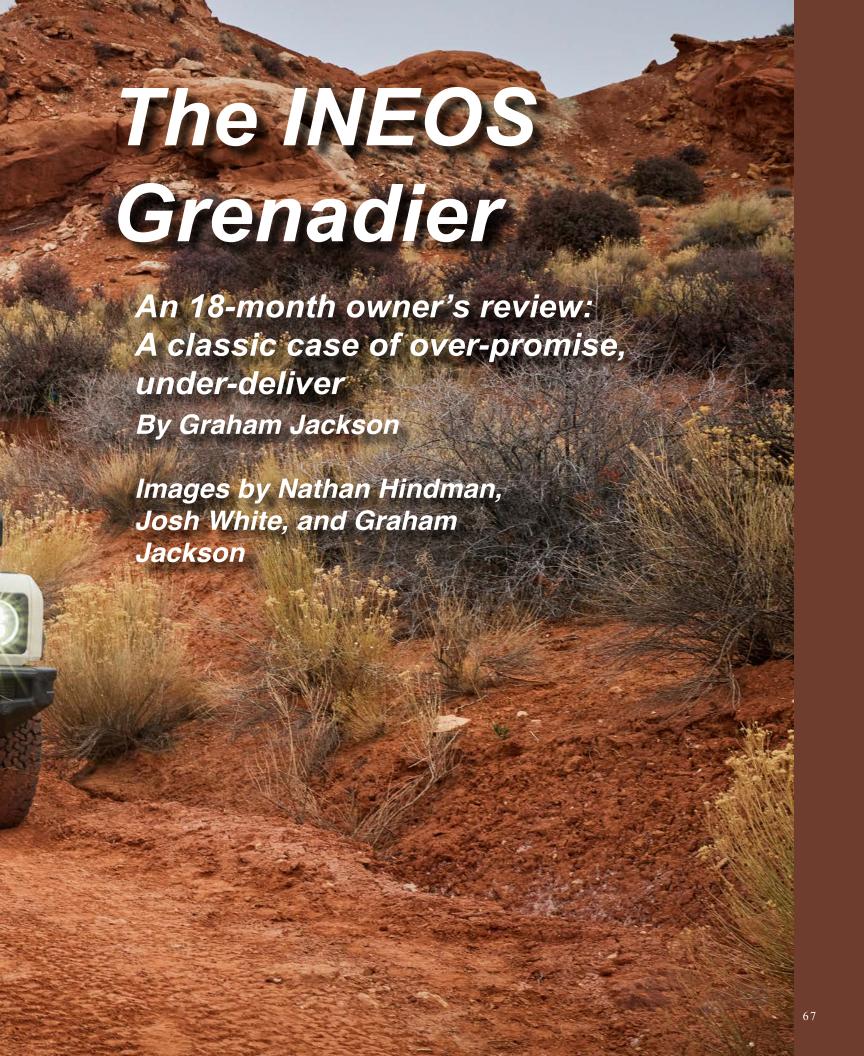


"Press on the back of the open and locked tool. While applying pressure on the back of the open and locked tool, slightly open one of the long tools or the Hot Swap lever (approximately 30 degrees). As soon as the lock disengages the open tool, close the lever or tool that was used to unlock it BEFORE closing the open tool. Otherwise the tools may bind when closing."

· GCJAT









y Grenadier tried to kill my wife.

Departing Overland Expo West in May 2025, I was driving my Defender to Durango and Connie was driving the Grenadier back to Denver, towing the empty car trailer we used to haul the Defender on the way down. She was passing a semi on I-80 when it began to drift into her lane, so she drifted left and the outside trailer wheels went off the asphalt roll onto the apron. The trailer began to fishtail and she accelerated to pull out of it. That was when the automatic emergency braking kicked in. The system took over brake and throttle control and braked as hard as it could while disabling the throttle. The weight of the now severely fishtailing trailer was almost enough to capsize the Grenadier.

Braking with a fishtailing trailer is the wrong thing to do at any time, but *especially* in the fast lane on an interstate. Connie didn't die, as you already knew from the opening line, but she flatly refused to drive the Grenadier for the next couple of months.

For those who are unaware, the Grenadier is the first vehicle built by INEOS, touted as the successor to the classic Land Rover Defender (of which I own two—a first disclaimer). With body-on-frame design, solid axles, coil springs, and full-time-four-wheel-drive, the Grenadier was supposed to be a utilitarian, capable,

no frills off-road workhorse. "Built on purpose" is the INEOS tag line. Conceived in London's Grenadier pub (whence it gets its name) by a group of Defender enthusiasts including Sir Jim Radcliffe, owner of the chemical giant INEOS, the story is that they first tried to buy the Defender production line from Land Rover, who refused, so they moved on to building something similar but far enough away to be legally different.

The promises started soon after the concept hit the internet in 2017, and they were music to the ears of Defender owners, who felt that the new direction of Land Rover did not include them. Enticing details included service manuals in PDF format, parts to be ordered online and delivered anywhere in the world, minimal electronics, the ability and instruction to be able to work on the car yourself, and the ability to modify and customize to your heart's content. Having experienced the new Defender, this was very exciting to me, so I threw down the \$450 to be on the early adopter list and started waiting.

It was a long wait.

In 2020, when the Grenadier was getting close to production, INEOS reached out to me and my company 7P Overland for two things. One, they were trying to get a feel for what the aftermarket product community would want on a vehicle to facilitate accessories—dual

batteries, load rails, and the like—and so what they should concentrate on as factory options versus what would be better produced by the aftermarket. Number two centered around a way to market the vehicle following the brief Sir Jim Ratcliffe had given them: to be as reliable as a Toyota Land Cruiser, capable of being hosed down inside and out, and driven by scientists, farmers, explorers, African adventurers, and those who just want to misbehave. He also wanted it to be a "legend before it comes out."

My second disclaimer is that I never got paid for any of the work I did for INEOS.

On June 26, 2023, I got an email saying I could create my build for the pre-order. I grabbed another beer and got on their website. At this point, still not convinced I was going to complete the purchase, I went all out just to see what it would cost and how close I could make it to my Defender 110 station wagon. I specced it from scratch rather than choosing one of the INEOS trim levels: steel wheels, BFG KO2 tires, front and rear lockers, raised air intake, winch, carpet delete, rubber mats, cloth seats, 'safari' windows, the 'utility belt' (L-track on the outside of the doors and rear body), auxiliary battery, tow package, interior utility rails (L-track in the load bay), checker plate on the wings, and the rear access ladder. I would have preferred the diesel engine, but alas, it is not allowed

Exploring Utah's San Rafael Swell in the new Grenadier.





Engine: BMW 3.0L turbo gasoline,

straight-six

HP: 281 (PS: 286) at 4,750 rpm

Max torque: 331 lb.-ft. (450 Nm) @

1,750–2,000 rpm

Transmission: 8-speed automatic with

manual override

Drive: 2-speed transfer case; center

differential lock; permanent four-wheel-

drive

Frame: Full box-sectioned ladder

Axles: Carraro beam axles front & rear

Suspension: Heavy-duty coil

Body: Galvanized steel; front & rear skid

plates; roof rails & protection strips; Scottish

Exploration Quarterly ~ Vol. 2, No. 2 (October 2025)

white paint

Wheels and tires: 17" steel with

BFGoodrich All-Terrain KO2

Dimensions and capability:

Length (including full-size spare wheel):

191.2 in.

Width (including mirrors): 84.5 in.

Height: 80.7 in.

Wheelbase: 115.0 in.

Ground clearance: 10.4 in.

Wading depth: 31.5 in.

Approach angle: 36.2 degrees

Departure angle: 36.1 degrees

Breakover angle: 28.2 degrees

Towing capacity: 7,716 lbs.

Accessories:

Access ladder

30/70 split rear doors

Safari windows

17" steel with rain KO2

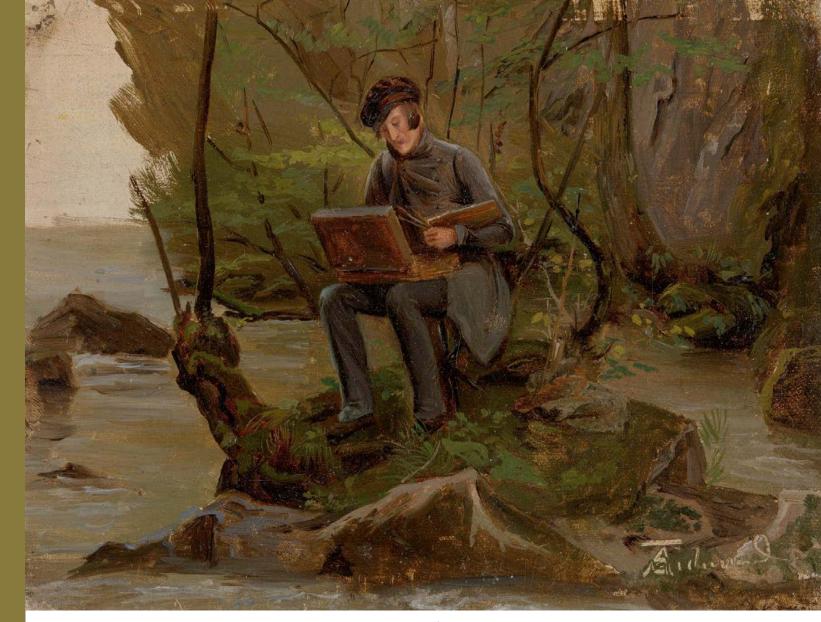
Spare wheel cover

Exterior utility belt
Central stowage box, lockable
Nappa leather driver's pack
Heavy-duty utility flooring with drain valves
LED headlights
LED auxiliary high beam lights
Central control system / overhead panel
Full-Size spare wheel
Toot button
Off-road & wading modes
Pathfinder off-road navigation
RECARO seats
Raised air intake
Integrated heavy-duty winch (5.5 tonnes)

Class III 2" NAS tow hitch and electrics
Auxiliary battery
High-load auxiliary switch panel &
electrical preparation
Auxiliary charge points
Power take-off, 400W
Interior cargo Interior utility rails
Advanced anti-theft alarm & immobiliser
Park-assist rear (PDC)
Rear camera
Power heated exterior mirrors
Heated windshield washer jets

Price as specified: \$88,000





The Perfect Field Arts Studio

by Roseann Hanson

poche / poʃ / posh [Fr., pocket, from Old French puche, poche "purse, small bag;" Wiktionary]

pochade / poʊˈʃɑd / *poh-SHAHD* [Fr., 19th Century, a rough sketch, f. *pocher* to sketch in the rough, also to blur; Oxford English Dictionary] ost of us field artists carry our sketching and painting kit in a shoulder bag or backpack— I've favored a simple fisherman's canvas-and-leather bag for years. But recently I've been wondering if there is another way—not necessarily a better way—but a more elegant way that would inspire us to get out more. What if you could carry a small studio in a clever and beautiful box that holds your pencils, pens, watercolor paint (or other media), brushes, paper, and a water container—organized and ready to deploy out

in the wilds during your explorations studying and recording the world around you?

Meet the pochade box, an artist's mobile studio that grew out of the en plein air painting movement in the early 1800s. Artists in Europe were venturing out of their studios and into "full air" in order to paint more realistic landscapes. An important part of the plein air practice was to make multiple small sketches before starting a larger canvas. This allowed the artist to try different framings and to capture the color and light of the moment, and these small sketches were pocketsized. In 19th century French a poche was a pocket, and by 1846 the Nouveau Dictionnaire Anglais-Français et Français-Anglais (ed. 35) included the word pochade for the first time, defined as "a rough sketch." (Oddly, there is another oft-promulgated suggestion across the internet blogosphere that the etymology of *pochade* links to pocher, which today means to poach. I can't wrap my head around what poaching something has to do with sketching, though it's been suggested that at the time eggs and meats were poached in small pockets of cloth, though that seems a stretch . . . qui sait?)

But on to the pochade box—the field artist's ultimate mobile studio that is so appealing to many of us. Why do we love these beautiful boxes? You probably know someone who has a bit of a box obsession. I am one, and my interest pales in comparison to Jonathan's, which can be defined as covetous and sometimes larcenous (as in I have to carefully defend my own box stash, particularly those of vintage pedigree). Boxes satisfy something deep within us—perhaps it's a cacheing instinct; a yearning for organization, a place for everything; and an appreciation for fine purpose-made boxes such as leather jewelry cases, hand-crafted wooden tool chests, and artist's pochades that express human ingenuity to an admirable degree and harken to a time when things were handmade and beautiful.

Friend, field artist, and reader of this magazine Deborah Conn pointed out that Steve Jobs well understood the power of aesthetically pleasing boxes, and packaged his high-end devices accordingly—who else reading this never threw out their original elegant, satin-white Macbook and early iPhone boxes? In fact, the Apple marketing strategy included the directive "to impute" the quality of the product through exquisite presentation; Steve understood that people really do judge a book by its cover. A beautifully made pochade box imputes an impression of quality, value, and beauty—and we

instinctively project that to the work that we will do using that box out in the field.

Embracing this theory, I have compiled here a survey of some of the beautiful, useful, and unique pochade boxes on offer throughout the world, selected on the following somewhat arbitrary criteria, largely based on the style of work and needs of a field artist who uses watercolor (refer to the note below about using gouache or natural non-plastic acrylic):

- ✓ I limited my pochade box selection to those that hold 6 x 8-inch or smaller sheets, boards, or sketchbooks, trying to keep weight down and also in keeping with the original idea of what a pochade is—a small, quick "pocket" sketch.
- Ways to hold and organize field arts tools—pencils, pens, watercolor paint (or other media), brushes, small sheets of paper or sketchbook, and a water container.
- Small and light enough to carry in the field for short to medium distances.
- Handcrafted by small businesses.
- Aesthetically pleasing.
- Optional: able to mount on a tripod (or other mounting mechanism)
- Note: almost all pochade box companies make them primarily for oil painters who use a flat palette for mixing fresh paint and who need space for storing the freshly painted boards; watercolor versions from these companies often just comprise add-ons that seem like after-thoughts. Some do it well, others do not. I've tried to choose those that have true watercolor functionality.
- An alternative for field painting would be to use gouache or non-plastic <u>Natural Acrylik</u>* on a palette the same way oil painters work. (*Acrylic paint is very toxic—it can contain volatile organic compounds such as formaldehyde, ammonia, and benzene—and its binder is acrylic polymer emulsion, a micro plastic resin that permanently contaminates water supplies since it transits right through water treatment plants.)

A Painter at His Paint Box by Adolph Tidemand (created 1837-1840; courtesy the National Museum of Art, Architecture and Design, Oslo, Norway)





or where you place your own watercolor palette (you can order either a left- or right-hand slide).

An included extra palette clips to the other side and is a mixing surface as well as accessory holder; eight holes accommodate brushes or clips to hang a towel or water pot. This panel stores on the top lid (in the palette space) when the box is closed. A tripod mount is included, as is a leather carry handle but not a shoulder strap (and it does not appear to have clips as standard, but you could enquire about an addition).

Ben makes larger pochade boxes, as well as a line of lighter ones (thinner; the Lite 6 x 8 Belly River weighs 10 ounces less and is \$356). I would not hesitate to own this beautiful and inspiring work of art.

Overall dimensions: 8 5/8" x 7" x 4 7/8"

Weight: 2 lbs., 12 oz. Tripod mount: Yes

Carry style: Included leather handle

Link: AllaPrimaPochade.com/products/6-x-8-belly-river

RIGHT: Ben White in his Missoula workshop.

ABOVE: Showing the different configurations of the Belly River Pochade Box. Watercolorists note that the tubes of paint shown are oil, which are considerably larger than standard watercolor paint tubes.





Box-n-Paint Pochade Master Set – \$360

Husband and wife architects Klarens Karanxha and Nensi Bregu Karanxha—originally from Albania, now settled and working in Massachusetts—designed and produce this very clever and lightweight multi-media-capable pochade box that I really like. Their Etsy store is eight years old with a 4.7 approval rating over 4,200 sales.

Made from maple plywood, stainless steel, and aluminum, the pochade box weighs just 1 pound, 2 ounces but is a generous 8.8 x 7 x 2.3 inches. Two small clip-on side shelves accommodate brushes (one has five holes) and cleaning pots, and the lid opens on strong friction-hinges for easy adjustment to act as an easel.

The best thing about this pochade box is it comes with two complete setups for different media: a mixing palette, paint holder, and twin clip-on reservoirs for oil painting (or Natural Acrylik) and a mixing palette, paint holder, and collapsible water cup (with a magnet on the bottom) for watercolor or gouache. Bonus: it includes a neoprene carry bag. Total weight of all the kit and box is 3 pounds, 4 ounces.

The lid looks deep enough to carry a small sketchbook or several panels. This box is available as oil-only for \$200 but it does not look like they offer a watercolor-only version, just this all-in-one (perhaps you could enquire). This is a very light and well-made box for the field.

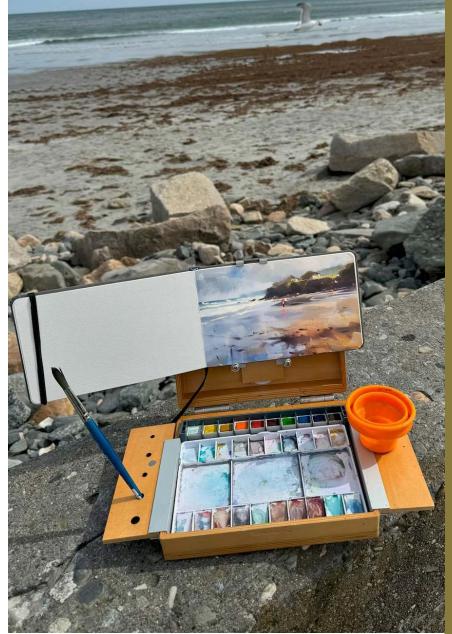
Overall dimensions: 8.8" x 7" x 2.3"

Weight: 1 lb., 2 oz. Tripod mount: Yes

Carry style: Included neoprene bag

Link: Etsy.com/listing/1824268316/box-n-paint-pochade-

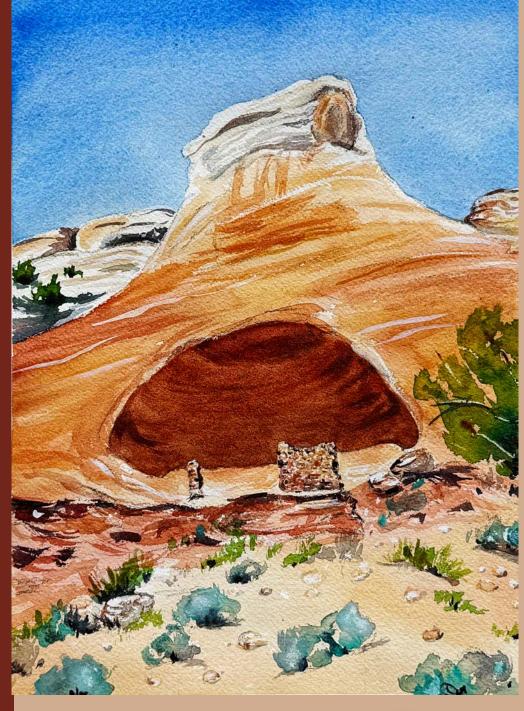
master-set-oil



















"I soon realized that no journey carries one far unless, as it extends into the world around us, it goes an equal distance into the world within."

– Lillian Smith