

The sail freight movement charts a course beyond the Hudson

A centuries-old form of logistics is back in the schooner Apollonia, but it must navigate modern challenges to grow

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— The schooner Apollonia is the only working sail freighter in the U.S. Over its first three seasons shipping up and down the Hudson River, it has moved around 110,000 pounds of cargo and burned fewer than 10 gallons of diesel fuel.

Sam Merrett

Over the last three years, mechanic-turned-ship-captain Sam Merrett has made a successful business out of a seemingly impossible idea. With the schooner Apollonia, he and a team of true believers have sought to revive sail freight as a viable, sustainable and even preferable way to transport commercial goods up and down the Hudson River.

The Apollonia is a 64-foot merchant schooner originally built in Baltimore in 1946. She spent three decades out of use in a Boston backyard before Merrett came along with a small crew of crafty friends and restored the boat over a five-year span. Since its first voyage in May of 2020, the Apollonia has kept a full manifest through 11 round trips and more than a dozen stops between Troy and Brooklyn, its steel-sided belly filled with grains en route to breweries, coffee beans for roasters, shiitake-inoculated logs for urban farms, alongside maple syrup, cider, pumpkins, salt, cider, “sail mail” and loot crates of local goods.

“As a business model, we’re doing remarkably well, almost breaking-even for the cargo and the crew,” said Tianna Kennedy, a farmer in the Catskills who is also an original member of the Apollonia’s crew.

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What they have pulled off might be compared to running a trucking company a century after paved highways became obsolete and decayed. Until the age of steam ships, sloops and other sailing vessels were once a common sight on the Hudson. Today, the Apollonia is the only working sail freighter in the country, but that may soon change. [A global sail freight movement](#) is growing, and there is now a push to advance and scale up efforts in the United States.

Fellowships and sailing ships

On a gray November morning at the Hudson River Maritime Museum in Kingston, the first annual [Conference on Small Scale Inland and Coastal Sail Freight](#) convened. A couple dozen people in a side room plus others attending virtually discussed the challenges facing sail freight in the United States: neglected port infrastructure, obstacles to funding, problematic regulations, the aging population of people who have the relevant skills and knowledge of how sail freight works.

“We are really just one or two generations away from people who still know how to do this stuff,” said Andrew Willner, a Kingston-based former shipwright and executive director of the [Center for Post Carbon Logistics](#), an advocacy organization dedicated to reviving carbon-free maritime and last-mile transportation and a close partner of the Apollonia.

In March, the two organizations collaborated to crowdfund a coordinator role, the Andrus Sustainability Fellow, named after Erik Andrus of the [Vermont Sail Freight Project](#), a short-lived experiment that inspired many involved in the Apollonia. Starting in June, the Fellow will take on building and coordinating the

various companies, municipalities and eventually other wind shipping concerns with the goal of revitalizing sail freight along the Hudson, Erie Canal and beyond.

Appropriately enough, the first Andrus Fellow is a member of the Apollonia crew: Brad Vogel, a Brooklyn-based poet who since 2021 has served as the Apollonia's "supercargo," the person in charge of overseeing the cargo on the schooner.

"I came into the role with no logistics training, or really arguably any relevant training whatsoever," Vogel said with a chuckle. "But I came in with lots of will and enthusiasm and energy and real belief in the cause. It's been a wild ride, but a very rewarding one to see two full seasons of sail freight happen on the Hudson with Apollonia."

Despite the initial lack of experience of its crew, the Apollonia has cut a striking course. Launched into its first season in the midst of the pandemic, it moved over 8,500 pieces of cargo that year, working with 15 cargo partners and 10 shipping partners. In 2021, the number jumped to more than 55,000 pieces shipped. Last year added new routes, such as for coffee, and engaged more than 50 shipping partners. Over all three years combined, the ship has moved around 110,000 pounds of cargo and burned fewer than 10 gallons of diesel fuel for maneuvering and docking purposes, using less each year.



The vast majority of energy has come from wind and human effort. According to a [paper authored by Captain Merrett and Steven Woods](#), a sail freight scholar formerly of the Hudson River Maritime Museum, for every gallon of diesel Apollonia can carry a ton of material 134 miles, compared to 72 miles for the average diesel truck.

Sail's pitch

It isn't clear when the last vessel carried cargo up and down the Hudson River by wind.

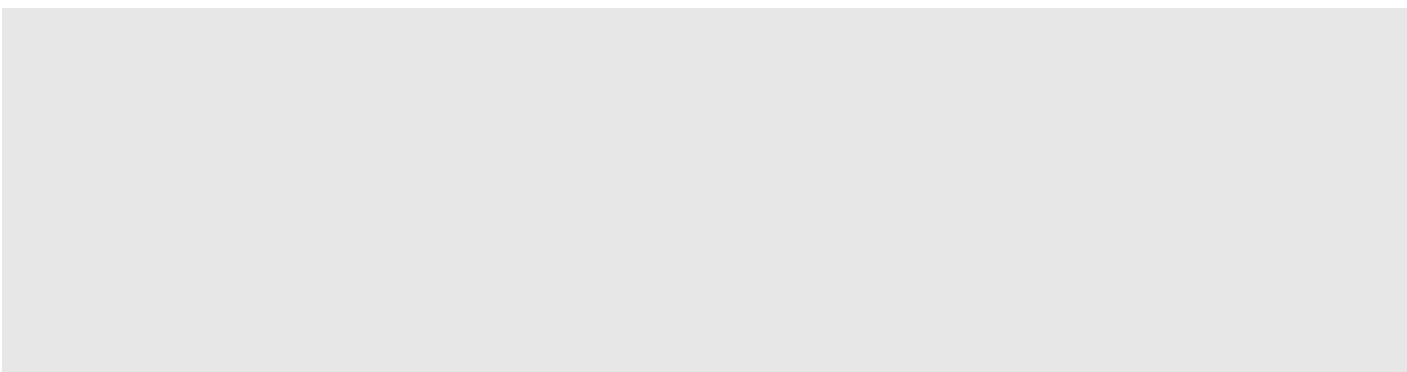
The practice goes back millennia and was commonplace at least as far north as Kinderhook, where Henry Hudson arrived on behalf of the Dutch East India Company in 1609. By the 1920s, any sloops and schooners still working on the river were nearing the ends of their careers as steamships took over. With rare exceptions, sail freight disappeared from the Northeast and much of the world. Along with it went a whole class of traditional maritime jobs that employed countless people for centuries, and a rich economy in which nearly every city and town up the Hudson took part.

“This is the place where the first marine highway existed, and with the addition of the Erie Canal, this became one of the largest inland waterway complexes,” Willner said. “There’s absolutely no reason, with all the improvements we’ve made to both sail quality and the ability to use solar and hydrogen for canal traffic, that we couldn’t replicate that — couldn’t have thousands and thousands of vessels using Hudson, New York Harbor and the coast for transporting goods and people.”

On top of learning to operate as a working sail freighter, the Apollonia has also taken on the ambitious task of catalyzing a revival of the Hudson’s maritime legacy. That comes with additional, unique challenges of establishing (or re-establishing) nothing less than a maritime trade route. This is why the coordinator role is crucial.

“The way the economic pressures work on us, we would have to just get a larger vessel,” Merrett said. “All of the challenges that are up against us, a lot of that could be taken on by a regional organization that could do more of the coordinating and support work, so that vessels like Apollonia could just do more of the actual moving-cargo work. What we need is an outside organization that can do some of the legwork to make it feasible for a network of small-scale vessels.”

Merrett grew up in Rensselaer County and has a passion for the river. He also works for the Hudson River Maritime Museum as the managing captain for the [Solaris](#), a solar-powered passenger boat, and he co-founded the [Hudson Sloop Club](#), dedicated to bringing the riverfront back into the daily lives of the community through activities, education and environmental stewardship.







SCHOONER

Apollonia

HUDSON
NY

CARBON NEUTRAL
SAIL FREIGHT
ON THE HUDSON RIVER

LOA: 64'
LOD: 52'
BEAM: 15'



BUILT: BALTIMORE, MD 1946
DESIGNER: J MURRAY WATTS

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Sail freight didn't disappear due to mass layoffs or artificial intelligence, but because the priorities of shipping have increasingly come down to expense and efficiency, despite costs to the environment, community and career prospects in deindustrialized regions. But many businesses are genuinely interested in finding less harmful ways of operating and finding other benefits that they value just as much.

“Brass tacks, the grain is actually the most expensive grain I buy,” said Jamie Bishop of Mill House Brewing in Poughkeepsie, which receives its entire supply of grains in 2,000-pound shipments, carried by the Apollonia from Hudson Valley Malt in Germantown. “There’s intrinsic value in it – not everything is about pennies or dimes.”

Mike Love, co-founder of Coffee Labs Roasters in Tarrytown, said his company only receives a fraction of its supplies by sail, but is fond enough of its relationship with the Apollonia to mark its 20-year anniversary with a specialty roast named after the schooner.

“We’re hoping to get two deliveries, possibly three this season, depending on what our consumption looks like, and just hoping to expand what we do and how much we utilize and the vessel,” said Love, noting that any cost discrepancy was considered secondary to the benefits of relying less on trucks. “It’s such a marginal amount of money, and it’s cost-effective for the conscience.”

Sail freight does present some advantages, even in a modern context. For example, maintaining a local supply chain has been insulation from international disruptions. The price of grains, for instance, has been dramatically impacted by the war in Ukraine.

“If you’re on board with the local program, you haven’t seen these wild price fluctuations that are happening everywhere else,” said Matt Curtin, head brewer at Sing Sing Kill Brewery, which sources 100 percent of its base grains through deliveries from the Apollonia, the only all-sail supplied brewery in the United States. “When we tell our story, people kind of don’t believe it. At every step, it gets a little more fantastical and it’s, ‘Yeah, this should be the way things happen.’ ”

Tricky passages

The last decade has seen a variety of efforts at reviving sail freight in the U.S. and abroad. Internationally, particularly in Europe, there are significantly more mature sail freight enterprises, such as the Netherlands-based [Fair Transport](#) or the Costa Rican company [Sail Cargo](#), which has built two wooden sailing schooners so far. Large companies are also designing modern container ships with high-tech sails as part of a larger shift to reducing carbon.

Expert groups like the International Windship Association argue that [wind power is essential for a carbon-neutral future](#) — and even ships the size of the Apollonia are part of that future.

The task facing the Apollonia is at least as much about spreading the message as it is about overcoming technical challenges. Having proven the ability to operate a vessel successfully and even profitably, for the project to grow beyond a small curiosity into a legitimate shipping concern, with connections to the growing international wind-shipping network, local and state governments will need to get involved.

Reviving local waterfront economic activity will have knock-on effects, too, including bringing life back to small docks and their surrounding parks along the Hudson that have sat unused for decades.

“That makes a lot more of these parks viable and more vibrant and livelier without sacrificing any of the qualities that you’re looking for in parks,” Vogel said. “You’re going to have the potential for a much more robust set of linkages that really starts to provide people with a sense that there actually is an alternate green logistics chain, that is not just regional but actually starting to become global. And I think that’s a really exciting prospect.”