A Singularly Marine & Fabulous Produce

The Cultures of Seaweed

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new bedford
whaling museum

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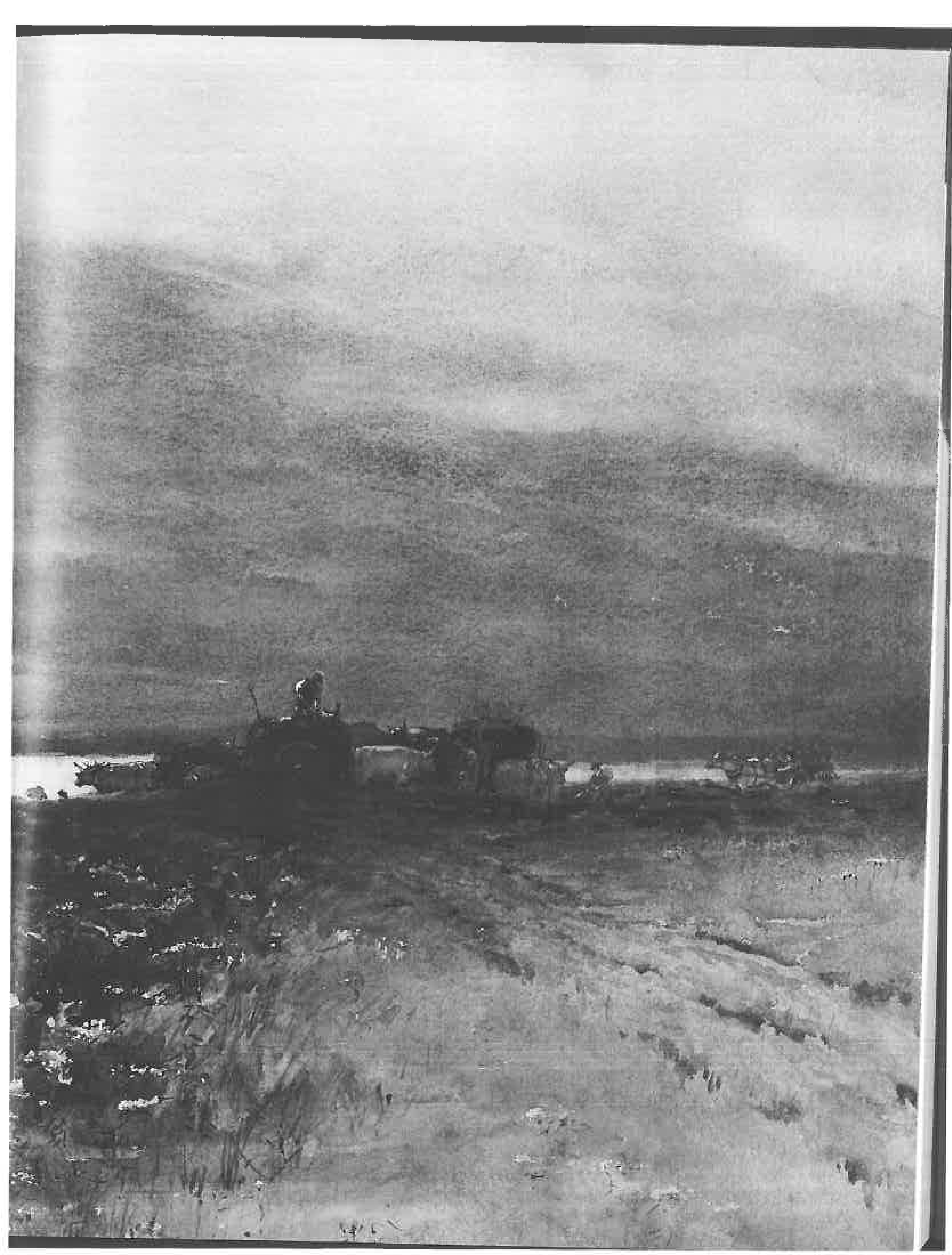
Naomi Slipp and Maura Coughlin

with contributions from Stacy Alaimo, William L. Coleman, Kathrinne Duffy, Melody Jue, Line Le Gall, Anjuli Lebowitz, Christina Michelon, Jessica Skwire Routhier, Marina Wells, and Charles Yarish



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Chapter 1

Seaweed Gathering in American Art and Intertidal Economies as Coastal Culture

Naomi Slipp

In 1878, Massachusetts-born artist Clement Nye Swift (1846–1918) exhibited the monumental *Une charretée de goemon sur une plage de Bretagne* (*Seaweed Gatherers*) (Plate 1) at the Paris Salon. This painting vividly demonstrated the processes and pressures of extraction forged in maritime communities around the environmental resources of the shoreline commons. When Swift returned home to Acushnet, Massachusetts, in 1881, *Seaweed Gatherers* came with him, unstretched, rolled, and stored in the hold of the ship for its transatlantic journey. Like driftweed, it returned to sea and floated from one Atlantic shore to the other. As in Brittany, seaweed was an important coastal resource in Massachusetts, used for fertilizer, home insulation, and bedding for livestock. It played a role in traditional foodways and had scientific and aesthetic applications. Swift and other New England artists, such as Robert Swain Gifford (1840–1905), Edward Mitchell Bannister (1828–1901), and Sydney Richmond Burleigh (1853–1931), pictured the local seaweed economy in paint and photography. Using Swift's painting as a touchstone, this essay explores how visual and material depictions of seaweed extraction contributed to transatlantic cultural dialogues around the seaweed industry, registered the ecological import

Figure 1.1. Rachel Carson (American, 1907-1964), "The Edge of the Sea: The Rocky Shores," in *The New Yorker* (August 27, 1955), 36-37.

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PROFILES

THE EDGE OF THE SEA

II—THE RIM OF SAND

Figure 1.2. Rachel Carson (American, 1907-1964), "The Edge of the Sea: The Rim of the Sand," in *The New Yorker* (August 20, 1955), 34-35.

of the intertidal zone, engaged the coastal cultures that arose around seagrass, rockweed, and other forms of marine algae, and visualized the economic benefits of seaweed extraction for local communities.

Follow the Shoreline

In August 1955, Rachel Carson published two profiles on "The Edge of the Sea" in *The New Yorker*: "The Rocky Shores" and "The Rim of Sand" (fig. 1.1 and 1.2). Carson envisioned these littoral spaces, where the edge of the sea meets the land, as a stage. "The shore," she writes, "is an ancient world, and each time I enter it, I gain some new awareness of its beauty and its deeper meanings. . . . As the tide goes down, we can see for ourselves. Here at the edge of the sea, we do not have to wait for some scientist to return in his submarine spacesuit. Here all men can make their own voyage to another shore. . . . Here the sea around us, draws back and lets us touch its depths."[1] As Carson explains, the intertidal landscape is a place of discovery, of unusual environs exposed for a short period of time before they are submerged again and transformed. The waterfront can be made up of tidal pools, marshlands, rocky outcroppings, or sandy stretches. It is a zone of discovery—of two worlds meeting: the terrestrial and the aqueous. It is also a sort of primordial soup, an alien world, a place of mysteries to be hidden or uncovered, a place of voyaging down into a new underwater landscape.

The shoreline is an interstitial space, a zone of betweenness, a constantly shifting border or boundary, that marks the place where the land stops and ocean begins. Or, from a less anthropocentric and more ocean-centric vantage point, it is where the ocean stops and the land begins. Yet the shoreline is never fixed. It is affected day in and day out by the pull of the tides, by the ebb and flow of the water, by wind, salt, surf,

shifting sand, and storms. The shoreline is always in a state of becoming. The fact that a shoreline is never fixed is one of many reasons it remains a site of human fascination. Its fluctuations and very unfixedness are embedded in how we think about shorelines.

Similarly, seaweed is transient in its form and shape. It dances under water, enlivened by the current, and glistens in vivid colors, only to become murky, flat, and limp when removed from the sea, or crispy and dry when exposed to the sun. The colors and shape change. It is transformed by the water, or the absence of it. Henry David Thoreau described how "this kelp, oar-weed, tangle, devil's apron, sole-leather, or ribbonweed,– as various species are called—appeared to us a singularly marine and fabulous product, a fit invention for Neptune to adorn his car with, or a freak of Proteus. All that is told of the sea has a fabulous sound to an inhabitant of the land, and all its products have a certain fabulous quality, as if they belonged to another planet, from seaweed to a sailor's yarn, or a fish story. In this element, the animal and vegetable kingdoms meet and are strangely mingled."[2] The changeability of seaweed—its qualities as a "singularly marine and fabulous product," as explored poetically by Thoreau—have made it a subject of middle-class parlor entertainments, personal gifts, and scientific examination. The exhibition title is inspired by Thoreau's musings and explores the allure of this oceanic "produce." Replacing "product" with "produce" shifts seaweed from a thing that is made (product) to a living organism or verb (produce). It speaks to growth and development; to come into being; to produce as a generative or creative act. Seaweed is an important coastal resource contributing to the shoreline economy and supporting local communities through traditional practices related to collecting and gathering in intertidal zones.

Shorelines functioned historically as economic and working spaces, and as sites for resource extraction and economic opportunity for communities that themselves tended to be interstitial and liminal, or at least working class, marginalized, or somehow disenfranchised. The coastal economies of shorelines, tidal zones, and marshes include environmental resources like sand, salt, heavy minerals, driftwood, peat, and shell; abundant marine resources, including fauna, such as mollusks, crustaceans, and tidal fisheries; and flora, like reeds, marsh grasses, beach heather, beach plums, and beach roses[3]; and seaweed and algae. Knowledge of the location and use of such resources was and still is a community possession. Some activities are high impact in terms of ecological and environmental effects, including sand mining or peat harvesting, while others are relatively low impact and sustainable. One such practice is the farming and collection of seaweed, which has deep historical roots and continues today.

The wrack line is the place along the shore that marks high tide and where ocean debris regularly collects. The wrack—which often includes marine vegetation, seaweed, and rubbish—is pushed by the tides and action of the waves. "Seawrack" specifically describes the detached seaweeds that collect in large quantities upon the shore. Many seaweeds from the family *Fucaceae* also include "wrack" in their common name: bladder wrack, grass wrack, lady wrack, horn wrack, knobbed wrack, flat wrack . . . and on and on. These seaweeds are technically different forms of marine algae, and were historically collected from the wrack line to make manure or potash. Wrack also refers to remnants from a shipwreck, or the right to claim such items. In many ways, the wrack are the "shoreline commons." Commons are the cultural and natural resources held in common, including air and water, that are accessible to everyone. In New England, the town common was a designated public space for livestock grazing and small-scale agriculture. Defining shoreline commons is complex because, while property ownership does not usually extend past the water's edge, many laws that define shoreline commons and the right to the wrack use the wrack line as the separation between private and public space. As already noted, the wrack line is not a permanent or fixed position. It changes daily and yearly. Talking about coastal shoreline economies therefore opens us up to complex conversations about privilege and property, access and use value. The historical tensions and desires surrounding the economic and social politics of the coastline and private and public access—especially related to seaweed collection—were also replicated in art and visual and material culture.

Clement Nye Swift, Seaweed Gatherers in France

In 1870, SouthCoast Massachusetts native Clement Nye Swift traveled from Paris to Pont-Aven in Brittany, where he joined a coterie of American expatriates, including Frederick Bridgman, Robert Wylie, William Lamb Picknell, and Thomas Hovenden, who had settled there starting in 1866, following the completion of the first Breton railway line from Paris. Much later, in 1886, Paul Gauguin would visit, establish the Pont-Aven School, and make his postimpressionist renderings of the Breton people, landscape, and customs. However, in 1870, when Swift arrived, these expatriates aimed to be antitourists, to get away from the mainstream tourist destinations and urban life of the bustling city of Paris and instead steep themselves in traditional culture and local scenery. As art historian Julia Myers notes of American artists in Pont-Aven, they "presented an idealized view of the peasant as embodying such values as devotion to family and community."[4] They were drawn to the unique cultural environs of rural Brittany, which was deeply Catholic, included unique traditional folk costumes and peasant customs and had a language distinct from French. Such particularized aspects of native peasant life appealed to artists like Swift, who lived abroad until 1881.

Sometime in the 1870s, Swift painted *Seaweed Gatherers*, a monumental oil that depicts three men pushing an oxcart laden with seaweed from right to left across an open beach. The sea is a foreshortened strip of blue in the middle ground beyond. The pile of glistening blue and brown kelp is topped by a woman, who looks off into the far-left distance of the picture towards their destination. A man at the front yoke of oxen uses a whip to drive the beasts forward. The second yoke pitch their bodies low and strain against the weight of the cart, their bovine shoulder muscles rippling with the effort. The three men at the back struggle and heave, pitching their bodies almost horizontal to give their weight to the task. The wooden wagon wheels sink into the sand, and deep ruts stretch out of the right front corner hinting at the distance they have already traveled and the struggle they still face. The scale of the cart, almost double the height of the men, amplifies their heroic task. Shorebirds cavort in the crashing waves; their airy play marks a stark contrast to the heavy labor at the center of the composition. Clumps of seaweed mounded in the sand provide a close-up view of the bounty these individuals have gathered. The artist's signature, rendered in the same brown as the seaweed, sits naturally on the sand.

While the dappled application of paint across the moody cloud-filled sky is reminiscent of the works of Monet and French impressionists, such artists would not begin exhibiting collectively until 1874. Instead, the composition, subject matter, and fine detail mark this as a realist work, inspired by the paintings of Jean-François Millet, Rosa Bonheur, and the French Barbizon School. Popularized in the late 1840s by French artists like Gustave Courbet, Jean-François Millet, and Charles Daubigny, and famously adopted by American artists like Winslow Homer and Thomas Eakins, the artistic style of realism was inspired by the 1848 publication of the *Communist Manifesto* and the over fifty global revolutions of that year, otherwise known as the Springtime of the Peoples. The revolutions focused on calls for participatory democracy and issues of class and property and included the 1848 Revolution in France. Realist artists focused on pictures of "honest" labor. This was at a time when industrialization, urbanization, and

Figure 1.3. Clement Nye Swift (American, 1846-1918), *Seaweed Gatherers, Brittany*, undated. Oil on canvas, 15 x 30.6 in. (38.1 x 77.7 cm.), Location unknown/previously in the Fuller Art Museum collection.

modernization were transforming the world, work, and the working classes. This placed strain on class relations and led to increased social tensions and anxiety. Agriculture was being replaced with machinery, and farmers were becoming factory workers. Realist artworks both unmasked the social conditions of the peasant classes and romanticized labor concurrent with its global and industrial transformation. Details in *Seaweed Gatherers*, including the sabot—a wooden clog—and woman's conical flat hat with wings that cover her shoulders like a capelet, firmly situate it as a Breton subject, depicting the

Celtic peasant class of Brittany, on the far northwest coast of France. Artists in Brittany in the 1860s and '70s presented a reassuring sense of rural tradition and continuity during this period of rapid social and cultural upheaval.

In many places, including in France, there is a lengthy and respected history of public "gleaning" that allows communities and individuals protected privileges to benefit from the land, especially in harvested fields and spaces like coastal shorelines or intertidal zones. In Brittany, seaweed was collected for myriad purposes. It could be used as an agricultural fertilizer, fuel, or food. Agar and carrageenan, thickening agents in numerous products, could be extracted from it. Or it could be burned into potash, which was a key ingredient in iodine, used in early medical and photographic processes; in saltpeter, a component of gunpowder; as well as in soda for bottle-glass production and other industrial manufacturing. In Swift's painting, Breton peasants have harvested seaweed from the shoreline and are probably taking it to be burned, after which the ash will be sold to an iodine factory built on the shoreline. The Breton seaweed industry was almost entirely run by women, as the men were often out fishing at sea. The success of the industry in Brittany is due to the rocky coastline and extreme variation of the diurnal tides—the tidal range in Brittany is greater than elsewhere in Europe, from 5.45 meters to over 16 meters at the Bay of Mont-Saint-Michel. Live or "green" seaweed collecting was forbidden; instead, gathering focused only on the dead seaweed washed up on the shoreline. Rules regulated where and how one could dry or load the seaweed, and dried seaweed left on the beach overnight returned to the sea to be collected by another.

A second, unlocated painting by Swift (fig. 1.3) also depicts seaweed gathering. The foreground depicts the treacherous space at the sea's edge, coated with green slick algae and strands of wet kelp. In the middle ground, a man pitchforks a load of kelp into the back of a wooden cart yoked to a team of oxen. A woman in red on the cart bends to arrange the oceanic bounty. In the background stretches a rough sea, with crashing waves and areas of white that imply reflection from cloud breaks above. A massive monocolor gray cloudbank hovers over the scene, dominating two-thirds of the composition. A single jagged break draws our attention to diagonal streaking washes of color that descend to meet the horizon line, implying a coming rainstorm off in the distance. The couple must move quickly to beat the storm and get their cart off the rocky shore. This painting vividly demonstrates the processes and pressures of extraction forged from the environmental resources of the shoreline commons.

The obvious difference in size between these two paintings by Swift invites consideration of intended audience. One was no doubt created for private ownership, the other slated for public exhibition.

Swift was very successful in his applications for public exhibition in Paris. He exhibited in the Paris Salon in 1870, 1872, 1874, 1875, and in 1877 through 1881. Breton subjects seem to dominate his output, and he was particularly drawn to picturing peasant labor at the shoreline. For example, he exhibited *Souvenir de basse Bretagne* in 1872 and *Souvenir de finistère* in 1874. He also exhibited Breton seascapes of shipwrecks and marauders. *Seaweed Gatherers* is most likely a work exhibited in the 1878 Paris salon as *Une Charretée de goemon sur une plage de Bretagne* (A Cart of Seaweed on a Beach in Brittany). It hung beside other realist works depicting

Figure 1.4. Jules Bastien-Lepage (French, 1848-1884), *Les Foins* (Haymaking or Resting in the Fields), 1877. Oil on canvas, 61 x 70.75 in. (154.9 x 180 cm.), Musée d'Orsay, Museum Purchase, RF 2748. © RMN-Grand Palais (Musée d'Orsay) / Hervé Lewandowski.

Figure 1.5. John Singer Sargent (American, 1856-1925), *En route pour la pêche* (Setting Out to Fish), 1878. Oil on canvas, 31 x 48.4 in. (78.8 x 122.8 cm), National Gallery of Art, Washington, DC, Corcoran Collection, 2014.79.32. Image courtesy of the National Gallery of Art.

French peasants, like Jules Bastien-Lepage's *Les Foins* (fig. 1.4), a scene of haymaking, and fellow countryman John Singer Sargent's intimately scaled *En route pour la pêche* (Setting Out to Fish) of 1878 (fig. 1.5), which depicts the quiet fishing village of Cancale on the north coast of Brittany.

Despite how such pictures present the gathering of seaweed as a romantic cultural tradition removed from modern life and industrialized labor, by the late 1870s and into the 1880s such coastal economies were in fact becoming increasingly industrialized in Brittany. As Maura Coughlin explores elsewhere, during the period when artists like Swift were depicting the seaweed harvesting, it was being transformed by large-scale enterprises.[5] The shoreline too was changed through the construction of iodine factories, built almost at the water's edge. In turn, large-scale harvesters organized seaweed collecting on a corporate scale, pushing out local traditions and individual gatherers, instituting mechanized labor, and prompting lower prices. Steeped in nostalgia, pictures like Swift's highlight a tradition that was rapidly disappearing. Numerous American, British, and French artists pictured seaweed gatherers, a subject that held broad appeal as the nineteenth century gave way to the twentieth and modern life transformed regional labor and cultural practices.[6]

U.S. Traditions of Seaweed Gathering

When Swift returned to the United States in 1881 and settled in his hometown of Acushnet, *Seaweed Gatherers* came with him. The painting remained unsold, either by choice or not, and stayed in his possession until 1931, when his widow donated it, along with two other paintings, to the Free Public Library of Acushnet. There it took on new meanings and spoke to particularized applications for seaweed that were distinctive to the coasts of the eastern United States. New England had its own cultural traditions and industries of seaweed gathering. It was used as fertilizer for farming, as house and shipping

insulation, as mattress ticking, and as bedding and fodder for livestock. Scituate, Massachusetts, had an active industry based around Irish mossing, the harvesting of *Chondrus crispus* to extract carrageen, begun in 1847 by Daniel Ward. However, access to the shoreline and its materials was not universal.

Shorelines are key to the coastal resource economy and the leisure economy—two alternative purposes that apply most directly to individuals in different classes. While the extraction of shoreline resources such as seaweed is a part of many local economies and community traditions, the shoreline also supports larger industrial development and economic growth. In addition, starting in the mid- to late nineteenth century, as shorelines became valued as spaces of leisure, real estate development, and elite recreation, the industrial and economic uses of the shoreline by the working classes came into conflict with the desires of the wealthy.

Access to the intertidal zone in Massachusetts is regulated; private property extends to the mean low tide area, unless one is engaged in "fishing, fowling, and navigation."[7] While the exact application of this law to seaweed collection is under debate today, local ordinances in the nineteenth century—like those in Nantucket, Westport, and Winthrop—allowed for daytime seaweed collection from beaches by residents or with a permit.[8] In contrast, shorelines are open property in most places; intertidal zones are publicly protected unowned spaces; the ocean life and resources within them and those that migrate through them are likewise unclaimed. This contradicts modern American ideas about property ownership, rights, and privacy and leads to tension and conflict. Take for example Charlestown, Rhode Island, resident Scott Keeley, who was arrested in 2019 for trespassing on private property while collecting seaweed on a South Kingston, Rhode Island, beach. As Article I, Section 17 of the Rhode Island Constitution outlines, "The people shall continue to enjoy and freely exercise all of the rights of fishery, and the privileges of the shore, including but not limited to fishing from the shore, the gathering of seaweed, leaving the shore to swim and passage along the shore."[9] A similar suit in Maine arose in 2017 over seaweed gathering, indicating the pervasiveness of this practice and concerns over it in contemporary life. As the *Providence Journal* summarized, Keeley's arrest underscored a central problem in interpreting coastal rights: "Where do the public's rights begin and private landowners' rights end along the water?"[10] Such cases are vivid contemporary illustrations of how public right of ways, shoreline access, and the very unfixity and variability of tidal boundaries—day to day and year to year—challenge societal ideas about privacy and property.

Agricultural, Industrial, and Domestic Applications

In a hand-colored wood engraving (Plate 44) of *South View of New-London and Fort Trumbull*, originally a plate from John Warner Barber's *Connecticut Historical Collections*, published 1836–38, a lone figure rakes seaweed from the wrack line on the shore—the area where coastal debris deposits at high tide. There were many uses for the seaweed such individuals collected. The first and most common application for seaweed was for agriculture. It was used for animal feed and bedding, and as fertilizer for crops. In 1849, at Cohasset, Massachusetts, Henry David Thoreau encountered, within "a little cove[,] ... an old man and his son collecting, with their team, the seaweed which that fatal storm had cast up. It was the wrecked weed that concerned him most, rock-weed, kelp, and seaweed, as he named them, which he carted to his barnyard."[11] Surely his cattle would benefit from the collected materials, for warm bedding and fresh feed, as those in Nantucket did, when "in the lanes of Nantucket ... seaweed was gathered along the shores and carried to farms for bedding for horses and cattle."[12] Beyond bedding, it could be used for mulch and to fertilize crops. Paoli Lathrop described in 1864 how a farmer on Nantucket grew hay, corn, potatoes, beets, cabbage, and carrots, "as good as can be shown by any farmer in the Commonwealth." His secret was fertilizer made from "a small quantity of animal manure, with the addition of kelp and seaweed."[13] Today seaweed is still popular with local gardeners.

As building insulation, seaweed was used both on the exterior of buildings and inside the walls. About fifteen or twenty oyster huts at Milford point were "covered in sea weed, &c," and "are quite novel in their appearance."[14] The illustration that accompanies this quote (fig. 1.6) shows the huts mounded with seaweed that piles around the sides and over the roofs. In Nantucket, "seaweed, which covered many of the shores at

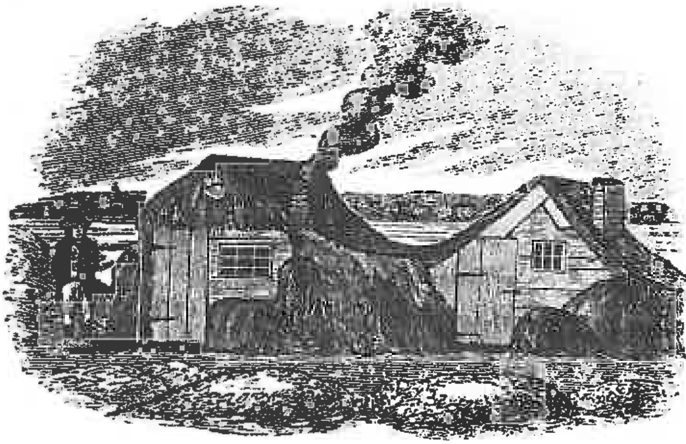

Figure 1.6. John Warner Barber (American, 1798-1885), "Oyster Huts on Milford Point," from *Connecticut Historical Collections* (New Haven, 1836), p. 238.

high water line, was used to *bank* the foundations of houses against the winter winds."[15] While seaweed may have been used as makeshift insulation in this fashion, over and against the exterior, it was also a common form of nogging (the loose material, such as straw, mud, sand, or clay, packed between the open spaces of wooden studs or framing) around coastal New England as early as 1625.[16] A sample of eelgrass wall filling recovered from Pierce House, Dorchester, is dated to around 1650 (Plate 119). By 1900, it was being industrially produced by the Boston-based firm Samuel Cabot Co., which collected the eelgrass, dried it, and then stitched it between sheets of heavy paper (Plate 120). It was marketed as a sound barrier and thermal insulation (Plate 121) and could hold heat "better than 40 layers of common building paper or 3 inches of board or 12 inches of brickwork."[17] By 1935, eelgrass beds were in decline due to a disease, impacting the production of Cabot's Quilt, which ultimately went out of business.

In New Bedford, seaweed was also used to cover the oil casks stored on the wharves. It served as insulation, but—as the casks were highly flammable—had the secondary benefit of stifling fire when wet. Photographs (Plates 122-126) show the immense amounts of seaweed that were used to cover the casks. As one source notes, "In the heyday of whaling, oil casks were loaded upon the dock in front of the building where they were carefully covered with seaweed to prevent the sun from drying them out and spreading the seams."[18] And Z. Pease notes how "the power of smells to evoke pictures" applied to seaweed and its uses: "There is today, an odor of whale oil about Merrill's wharf . . . which brings back memories of departed days to the old citizen who gets a whiff of oil and seaweed once so familiar."[19] The smell of seaweed is something hard to convey; it is pungent, briny, vegetal, and fishy. The olfactory memory of a place, especially a coastal landscape, is generative and sensory.

Finally, seaweed was a key ingredient in a popular New England culinary tradition: the clambake. Stones and driftwood line a deep pit in the sand on the beach. A fire burns for most of the day, until the rocks are heated. Damp rockweed—seaweed with sacks filled with ocean water—is gathered from the shore. The fire dies down, coals are raked out, and the gathered seaweed is laid over the hot rocks. Then the food—often a combination of lobster, mussels, crabs, scallops, soft-shell clams, quahog, corn, potatoes, sausage, and onion—is placed on top of the seaweed, layered with more seaweed, and covered with burlap sacks, or a canvas tarp soaked in seawater. As the seaweed heats, it releases salty steam that cooks the food. Photographs of clambakes (Plates 112-116) at Rockland Beach, Siasconset, Fairhaven, and Nashawena Island show how these foodways were popular summertime events for gathering. In 1880, the first clambake lease on Fort Phoenix Beach was awarded, launching a tradition that would last through the 1900s. Rail travel and a steamboat pier by 1895 made the beach a premier destination for tourists throughout the northeast, and public establishments like Grimshaw's, Brown's, and Whitfield's, served hundreds of customers at a sitting and sold individual clambake portions for fifty cents per person. So-called clambake pavilions dotted the eastern seaboard of New England, and drew thousands of residents and tourists in the summertime to dine on local seafood cooked under heaping mounds of wet seaweed.

New England Aesthetics: Seaweed in Art and Design

Alongside the cultural and economic traditions associated with seaweed gathering—unique to geographic location and communities—there are aesthetic practices that reference seaweed gathering. Numerous artists, designers, and amateur collectors drew inspiration from seaweed. U.S., European, and British audiences were drawn to the unique, mysterious qualities of this vegetation of the sea. Seaweed was a subject

of middle-class parlor entertainments, personal gift-giving practices, serious scientific study, industrial application, "making-do" working-class culture, culinary experimentation, and aesthetic examination. In various locations, seaweed appealed to working-class laborers and farmers, and middle- and upper-class collectors and scientists. It appeared as a subject and a material in various shoreline industries, personal scrapbooks, and fine art.

Massachusetts artist Robert Swain Gifford repeatedly pictured seaweed gathering in various media. Gifford, who was born on Naushon Island, off Woods Hole, and kept a summer home at Nonquitt in Dartmouth, Massachusetts, depicted seaweed gatherers frequently. In *Seaweed Gatherers at Nonquitt* (Plate 28), Gifford carefully renders a group of figures loading seaweed from the sea onto a flat-bottom skiff and wagon. Beyond them, the distinctive cliff and rock formations offer geographic specificity to this curving bit of coastal shoreline. In an 1886 engraving (Plate 11) of the same subject, Gifford shows a lone man, pitchfork in hand, heaving dried seaweed off the beach. The line marking where it has washed in on the tide is delineated clearly. His cart, hitched to a team of two horses, appears empty; his day's labor just begun. Gifford also photographed scenes of daily life (Plates 29-35) throughout the SouthCoast, including wagons hitched to oxen teams, as in Mr. Wood's Ox Team, where two laborers fork seaweed up onto the cart, and flat-bottomed skiffs laden with seaweed, as in one image where a lean man with a bowler cap and mustache poles the skiff forward across a flat and placid waterway. Gifford's interest in this cultural tradition and its documentation in paint, lithography, and photograph indicate that he viewed it as a picturesque aspect of daily life on the SouthCoast, one that was familiar and tied to the coastal landscape of his childhood.

Providence-based African American artist Edward Mitchell Bannister captured seaweed gatherers in an 1898 painting of that name (Plate 27), showing a laborer cresting a dune with a hand wagon loaded with seaweed. The man wears a loose open-collared shirt, suspenders, and a rumpled dark hat. He lifts the wagon and bends his knees into it, pushing the heavy burden over the grassy ridge. His knuckles are white on the handles, his forearms are heavily veined and muscled, and the strain on his face implies the weight of his load. Another laborer on the shoreline beyond builds up a seaweed stack. Bannister rarely titled his works with the name of the specific geographic location depicted. In rare cases, he identified scenes at Rehoboth, Newport, and Providence. This scene is probably either seaweed gathering on the Massachusetts or Rhode Island coast, which Bannister would have seen first-hand.

Finally, Sydney Richmond Burleigh pictures seaweed gathering along the Sakonnet River (Plate 45) in his turn-of-the-century watercolor. The foreground shows a green meadow with wildflowers like goldenrod; a rutted track runs from the lower right corner of the picture into the middle, where there is a cluster of wagons with teams of oxen. The middle ground is a strip of reflective water with a placid sailboat. Laborers fork the seaweed from the water's edge up onto the wagons. Burleigh, who was born in Little Compton, Rhode Island, pictured the landscape around his hometown, including the Sakonnet River, an inlet that runs from the Atlantic Ocean between Little Compton and Aquidneck Island and terminates at Mount Hope Bay.

Each of these artists presents the harvesting of seaweed in New England for vernacular applications in a different fashion. While Gifford presents the laborers as balanced with the landscape, Bannister makes the figure monumental within the confines of the canvas. Burleigh, in contrast, focuses on the blooming flowers of the meadow. Each pictures a local tradition and emphasizes its import by making it the subject of artistic study.

Conclusion

As has been explored, gathering seaweed is a local practice in New England that has myriad applications—from industrial to agricultural to aesthetic—and links it to other places across the Atlantic, like Brittany and places in southeastern England. Images of coastlines and decorative arts celebrate the bounty of the sea, its abundance and shape. Decorators saw seaweed as a visual language that brought the mystery of the marine environs—one explored in literary works like Jules Verne Twenty *Thousand Leagues under the Sea* and the vogue of home aquaria—to life in new materials. Modern designers and artists employed seaweed as a decorative motif in everything

from textiles to wallpaper, silver to china, and everything in between.

American silver manufacturers adapted the visual language of seaweed onto the hammered, repoussé, or chased surfaces of their vessels and tableware. Artisans such as those at the Gorham Manufacturing Company celebrated the visual diversity of algal forms, as in a monumental loving cup from 1887 (Plate 180) adorned with cast seashells and a profusion of different seaweeds. The levels of relief, especially between the flattened fronds that frame the central vignette and more rounded bladders on the bladderwrack, demonstrate careful study from life and a desire to animate the rigid metal surface. A very well used specimen book from 1880 (Plate 91) of mounted seaweeds with their Latin and English names vividly illustrates the references that Gorham designers had available to them to study seaweed from life in the Gorham Design Library, and that were employed in other Gorham pieces to spectacular effect (Plates 84-86).

Silversmiths at Tiffany & Company also explored the aesthetic possibilities of algae by employing various techniques and adopting diverse visual languages from Japonisme to Aestheticism to celebrate the watery fronds and radial shapes of twisting seaweeds. A hammered silver flask (Plate 176) decorated with a fish swimming among tall stalks of sea grass demonstrates an interest in Meiji period Japanese metalwork and sits in conversation with a pitcher (Plate 83) from the New Bedford-based Mount Washington Glass Company vividly hand-painted with goldfish and aqueous green and purple seaweeds. Goldfish were introduced to the United States around 1850 and quickly led to the popularity of home aquaria, while Japanese design came into fashion in the US through international displays like the 1893 Chicago World's Fair. In contrast to the simplicity of these works, a marine water pitcher of 1891 (Plate 177), seahorse flask of 1882-1883 (Plate 178), and elaborate punch bowl (Plate 179) of 1885 with a gilded interior – all by Tiffany & Company – tend towards the exuberant in their elaborate, organic surface decorations. Each one combines multiple sea creatures and vegetation into spiraling motifs that are full of energy and dynamism. A similarly ornate yet diminutive card receiver from Rogers, Smith and Company of around 1880 (Plate 62) has turtle feet, a coral stem, and a shell-shaped dish with a gilt seaweed frond curled around its interior. The textured surfaces and alternative finishes distinguish each element. These examples reveal how seaweed proved a material of fascination and was manipulated and rendered by designers and artisans in American silverwork and glass. Consumers clamored for these oceanic decorative arts, adorning their tables and homes with sea referents and forms of maritime vegetation.

The scientific study of seaweed had its heyday in the 1840s through 1860s promoting an interest in collecting, drying, and pressing specimens. Artists and publishers attempted to capture the mystical qualities of seaweed, which dances under water. While some used color lithography to capture the jewel-like tones and animation of the underwater forms, others took the original materials, pressing them onto the page and presenting them as dried specimens. Such practices then transformed into a popular pursuit, especially for middle- and upper-class women. Shoreline collecting offered rare freedom outdoors for women of a certain class and background. Women were among the most avid collectors of seaweed and algae; they created artistic arrangements of dried specimens for display or as elaborate albums. These pressings and dried seaweed collages were often accompanied by verses and given as gifts. More unusual examples include books of pressed seaweed specimens with Atlantic scallop shell covers (Plate 148-149). As objects of material culture, such works indicate how coastal communities took a deep scientific interest in the materials of the sea, engaged in explorations of its potential personal value within cultures of gift exchange, and evaluated its aesthetic qualities, creating an amateur artform from once-living seaweeds.

Seaweed has no roots and is neither a plant or an animal. Seaweeds and microalgaes are uniquely invigorated by their marine environment and are always changing, both in form and appearance and in their cultural and social meanings and uses. Like Clement Nye Swift and fellow New England artists of the 1800s, today contemporary artists continue to explore seaweed's unique qualities. Seaweed offers one avenue for thinking through our historical relationship with the Atlantic Coast, the shoreline commons, and our shared futures.