INTRODUCTION

My interest in the home aquarium was spawned by deprivation. My parents would not let me have one, and the reason for this deprivation was excess. The aquarium was too much: too much mess, money, space, and time. It was too watery, too chemically, too much a potential replication of too many flushy good-byes to bleached and bloated goldfish found belly-up in countless bowls. It was too much like the microscope, the telescope, the chemistry set, the specimens for dissection bobbing in their formaldehyde-filled baggies—enthusiastically enjoyed until they weren’t any longer, demanding storage space, posing disposal problems. And my parents were right.

Excess and aquaria are intimately linked. In mid-nineteenth-century Britain, where the tank was first popularized as a hobby and home accessory, it became a full-blown craze, inspiring middle- and upper-middle-class families to head to the shore in droves, buckets and trowels in hand, to stock the latest “rustic adornment for homes of taste.” Coastal “rock pools were pounced on and stripped of their inhabitants.” That aquarium craze ended in a national version of precisely what my parents had feared. Neglected tanks stunk up genteel parlors before being emptied and relegated to storerooms where they took up space, reproachful reminders of time, effort, and money wasted. In stark contrast to other British natural history mania involving ferns, shells, and seaweeds, however, the tank never completely disappeared. David Allen posits that “[u]nlike the ferneries . . . aquaria were not expressive of Victorianism: they bore no burden of symbolism that dictated that they should vanish once that symbolism lost its force.” Allen is partly correct, but he stopped short. As the tank expanded geographically across the Atlantic and chronologically to the present, it is not its lack of symbolic fixity but, rather, its remarkable visual and rhetorical mutability that accounts for its enduring popularity.

This book examines the cultural work of the American home aquarium from 1850 through 1970 by probing its productive elasticities. The tank
drew on the perceptual logics and plots of the shop window, the theater, the panorama, and literal and fictive travels to become an amalgam of all of them. Aquarium texts—for general readers and, later, for dedicated hobbyists—used recurring tropes, humor, and the odd anthropomorphic potential of tank residents to offer more than just information about the pragmatics of maintenance. The home aquarium’s uncanny ability to draw on multiple, even competing visual and textual logics is central to its cultural work. It is an emblematic product of modernity, one using elements of exploration, technology, science, and a commitment to rigorous observation to contain anxieties spawned by industrialization, urbanization, changing gender roles, and relations with the global south.

The tank is all the more potent a cultural actor for its innocuousness. Framed as a mere toy, a decorative frill, or an enthusiasm for children or eccentrics, it operates as a practice of everyday life, at the intersection of work and play. It was one of a number of tools used by the middle class, especially middle-class men, to carve out a seemingly neutral and, for this reason, restorative personal and social space, out of the public sphere yet replete with potential for a selective sociality of hobbyists. The tank was a personal water world that allowed aquarists to feel, paradoxically, both larger through their mastery of “lower” beings and smaller through communion with the glories of nature. It was a place of revelation, fascination, and rejuvenation not because it exempted its enthusiasts from the tides of modernity but because it contained them in a glass box.

Aquariums enabled hobbyists to manage and even seemingly resist the challenges of profound historical changes by using the very logics and products of those changes to construct private refuges against public dilemmas. These challenges were immense. The birth and rise of the home aquarium detailed in this book coincided with a series of cultural shocks that irrevocably altered the American landscape: the Civil War; increasing urbanization and demographic diversity; the changing nature of work; shifting class, gender, and moral relations; accelerating globalization and imperial entanglements; even the size of the buildings Americans inhabited and the types of vehicles that carried them there. As Walter Lippmann observed in 1914, near the midpoint of the period covered here, “The modern man is not yet settled in his world. It is strange to him, terrifying, alluring, and incomprehensibly big.”6 Almost seventy years later, Marshall Berman famously posited this enervating unsettledness as constitutive of modernity itself. “To be modern,” Berman writes, “is to experience personal and social life as a maelstrom, to find one’s world and one-
self in perpetual disintegration and renewal, trouble and anguish, ambiguity and contradiction: to be part of a universe in which all that is solid melts into air.” Zygmunt Bauman characterizes modernity in terms that are particularly congenial to the aquarium’s cultural work: as a process of dissolution from its “solid,” “heavy” iteration—territorial, industrial, bureaucratic, rational—to a “liquid” form that is faster, lighter, though not more equitable or just.

Nothing has changed in this respect with the passage from heavy to light modernity. But the frame has filled with a new content . . . People who move and act faster, who come nearest to the momentariness of movement, are now the people who rule. And it is the people who cannot move as quickly, and more conspicuously yet the category of people who cannot at will leave their place at all, who are ruled. Domination consists in one’s own capacity to escape, to disengage, to “be elsewhere,” and the right to decide the speed with which all that is done—while simultaneously stripping the people on the dominated side of their ability to arrest or constrain their moves or slow them down.⁸

Life in liquid modernity “is consuming life. It casts the world and all its animate and inanimate fragments as objects of consumption.”⁹

The aquarium was one of a number of technologies that inserted nature into solid and liquid modernity, while domesticating the underlying logics of both. Like the shop window, the panorama, and other urban entertainments, it linked seeing to owning, a domestic iteration of imperial orientations to landscape going back to sixteenth-century voyages of discovery. But seeing was not simple. Just as nature was shaped by modernity into a consumable remedy for modernity’s own excesses, seeing was refashioned by rationality into an imperative to observe and manage attention that increasingly linked leisure to work. By arresting water worlds and using them as personal ornaments, aquariums celebrated modernity’s prowess. But they also revealed another unsettling possibility lurking below the surface: aquarists, not just their finny charges, might also be small fish consigned to glass boxes in which they were ever visible and from which they could not escape. The tank suggests that solid modernity and particularly its construction of nature were, if not fully liquid, at least moist all along.

Ornamental fish keeping does not, of course, begin in 1850. It is an ancient practice. But from the nineteenth century to the present, historians view the modern Western aquarium as the offspring of the Ward Case, an
airtight glass environment for growing ferns that we would recognize as a terrarium. The Ward Case was responsible for the fern craze, and with the discovery of complementary respiration of plants and animals, the “aquavivarium” followed as a logical next step. Early on, aquariums were transatlantic affairs. In its first formative decades, British aquarium celebrities, particularly Philip Henry Gosse, provided crucial conceptual infrastructure for understanding and maintaining the tank, as well as its multiple intersections with and repairs to the vexations of urban, industrial modernity. The American hobby started later, stoked by the steady flow of British publications; the first American books were published in 1858. The hobby later expanded to become a transnational site of sometimes literal and sometimes vicarious global exchanges as it included fish from the literal and fictive tropics.

The semiotics of the home aquarium were and remain remarkably variable. There is no simple “typical tank,” even within the same period, region, or demographic. Indeed, one reason for the aquarium’s enduring popularity is its ability to indulge and contain aquarists’ idiosyncrasies along with its residents. Early in the hobby’s history, tanks were circular and shallow, spherical and deep, octagonal, or rectangular, with glass on all sides or on only one. Rectangular tanks might have had straight or slanted backs. They were framed with wood or zinc or iron and resembled boxes, birdcages, fountains, or greenhouses (see figs. 1–3). Arthur Edwards, author of one of the first American aquarium books, states plainly that “the vessel may be of any shape and size” (see fig. 4). Variability of tank setup continued to be a key feature of the hobby even after Gosse popularized the four-sided glass rectangle with which we are now familiar. Bottoms could be lined with sand, gravel, a few rocks, or nothing at all. Fish were optional; anemones, crabs, or coral could fill one’s water world, and British aquarium writers were particularly fond of them, though Edwards dismissed such arrangements as mere “quiet flower gardens.” Tank populations depended on access to native freshwater and saltwater species and, much later, to the vicissitudes of local breeders, markets, and retailers. Darters, dace, and sticklebacks were perennial favorites in American aquarium books from the mid-nineteenth into the early twentieth centuries, but this is most likely a function of both the books and the fish originating in the New York area—preference born of proximity. Initially, plants and their complementary respiration were essential to the survival of tank fish. With the advent of electric aeration technologies in the 1920s, they became optional.

Some tanks were housed in parlors, others in children’s rooms; and later,
Fig. 1. Parlor aquarium with fountain: *Manufacturer and Builder* 10, no. 7 (July 1878): 163. (Courtesy of Cornell University Library’s Making of America Digital Collection.)

Fig. 2. Design for parlor aquarium, *Manufacturer and Builder* 10, no. 7 (July 1878): 163. (Courtesy of Cornell University Library, Making of America Digital Collection.)
Fig. 3. Aquarium and fernery combined, reminiscent of the tank's origins in the Ward Case. (From Gregory C. Bateman and Reginald A. R. Bennett, *The Book of Aquaria* [New York: Scribner's, 1902], 45.)
Fig. 4. Cover plate to Arthur M. Edwards, *Life Beneath the Waters; or, The Aquarium in America* (New York: H. Balliere, 1858). Note the different options for aquariums, including a slanted slate back and sides and an internal fountain.
as the hobby increased in popularity and advanced technologically, tanks moved into “fish rooms” dedicated to or reappropriated for the purpose. Typically, these were converted spaces in lesser-used parts of the home, designed both to minimize potential damage done by routine maintenance, especially water changes, and to provide a place apart from the rest of the household for the hobbyist’s exclusive respite. In this sense, the tank was an early forerunner of the radio and the television and traced a similar trajectory. Over time, it became progressively less and less like a parlor ornament or piece of family furniture and more an extension of an individual’s highly personal habitus—an escape from the interpersonal, if not the literal, confines of both parlor and family. Aquarists’ tanks were personal theaters, and while there were certainly general dramaturgical and theatrical principles, as well as scientific ones, to be observed in their construction, authorities from the earliest texts to contemporary ones “leave the student to make his own discoveries, in all mere matters of convenience; as he will necessarily adapt them more aptly to his own peculiar views and wants.”

For example, despite frequent and recurring appeals from some aquarium authors to maintain the tank as a “natural” landscape, it became, over the time period covered by this book, a site for highly individualized decor, enabled by an emerging industry in tank accessories. No longer parlor ornament, it was itself a potential parlor to be ornamented. When hobbyist Nina Quart wrote about “keeping your aquarium alive” one hundred years after Arthur Edwards offered the basic how-tos, she meant this phrase aesthetically and highly individualistically, not biologically, and “nature” was not necessarily helpful: “Your aquarium setting can and should be as creative an expression as your painting.” Because “not all nature is beautiful,” an aquarist might add plastic plants, hippos, divers, and treasure chests to the tank; might organize it narratively or visually around a theme or motif; and might even dye living anemones artificial colors “that defy recognition and are quite as dazzling as some of nature’s handiwork.”

These highly variable semiotics of the tank are not matched by variable demographics of its keepers. This was an urban middle- and upper-middle-class hobby from its earliest beginnings, a way to parlay native aquatic capital into the manageable equivalent of little parlor estates. Enthusiasts on both sides of the Atlantic extolled its ability to alleviate the deleterious effects of increasingly bureaucratic modernity while instilling the very norms central to successfully navigating it: rigorous observation and discipline; a working knowledge of science and technology; access to urban infrastruc-
ture and the ability to escape the city, when needed, to collect specimens; specialized books; and recognition of the self as the apogee of progress over against lower beings. This class position has stayed remarkably consistent. Home aquarium keeping is still primarily a middle-class practice and a mark of distinction, signifying the hobbyist’s access to resources; mechanical, scientific, and husbandry skills; capital; and good taste. In the United States, the hobby is overwhelmingly white. Further, despite early vigorous marketing to women as a parlor decoration and educational toy for children, it is also overwhelmingly male, dominated by the very population putatively threatened by the feared effeminizing anomie of modern institutions. A close reading of aquarium publications demonstrates that the tank is an unjustly underregarded middlebrow technology for maintaining class, gender, and racial privilege. It manages encounters with difference intrinsic to modern urbanism by unproblematically coupling artisanal rhetorics of personal competence to the promise of exploration enabled by technical and scientific progress. The aquarium unites the mind, the eye, and the hand in productive leisure, honing skills transferable to the workplace even as it repairs the workplace’s psychic predations. It is a tool for asserting individual mastery of the home because it is itself a home: the “happy family” inside the tank could reciprocally construct one outside. Yet it can conjure exotic locales through tropical fish, even if those fish come from the United States. These locales and, by extension, global entanglements situated there are made conceptually manageable by demonstrating that colorful foreigners can be consumed unproblematically at home.

The aquarium’s visual and rhetorical promiscuity demands an interdisciplinary approach that the field of performance studies is ideally positioned to provide. First, the tank inserts nature into aesthetics and particularly into theatricality. It borrowed the perceptual dynamics and textual conventions of the theater to make its pedagogical and moral contributions to the home and the antics of its residents intelligible to viewers. The aquarium drew back the curtain on heretofore-unseen worlds and presented them through “rhetorics of spectacular display.”18 Stock characters and plots circulate through early aquarium books, lending potential personalities to specimens who were so obviously other that early audiences did not always know what they should be looking at. Finally, as discussed in this book’s concluding chapter, the underlying promise of the aquarium is the promise of theater itself: that presentational and representational elements can somehow combine to spawn a brave new world of edification and enjoyment betwixt and
between reality and its more domesticated, contained other. In addition to its visual orientation and its plots, the aquarium also inserted the world-making promise of theater into the home.

The first four chapters of this book detail how the home aquarium works, through its multiple visual affinities, the narrative and rhetorical strategies of its early British and American proponents, and the queer alterity of fish themselves. These elements trained viewers in how to see the tank—what privileges accrued to spectators, what plots they should look for and what conclusions they should draw, and, most crucially, the difference between observing and merely looking. Thus, the tank exemplified modern attempts to structure spectatorship and attention and inserted these into the home as a comfort and a pleasure, domesticating, aestheticizing, and normalizing operations essential to modernity itself. Chapter 1 examines these visual affinities and what they bequeathed to the aquarium.

Likewise, early aquarium writing provided textual templates that enhanced its potential for cultural work. Slippages between the tank and the sea allowed aquarists a measure of conceptual control over nature and its meanings. The tank expanded to include other landscapes, particularly, in its British antecedents, rural ones. This containment of a premodern, seemingly timeless past served as a palliative for anxieties about industrialization and urbanization while fashioning aquarists into itinerant naturalist-artisans and, at the same time, scientifically literate people of their age. The tank was a tool for self-fashioning, a reflection of elevated taste. In American aquarium writing, it was a home, a business, and a progressive tool for social reform. Chapters 2 and 3 examine British and American aquarium writings, respectively. Chapter 4 analyzes the ways the tank works through a complex surrogacy involving fish, whose own representational fluidity enables them to stand in for a wide range of positions. Their behaviors were read through plots of domestic bliss or strife, martial bravery, busy industry, exotic difference, or equally exotic and sensational violence. Not quite animals and not quite toys, fish were also representationally fungible: they could stand in for people, but, often disconcertingly, people could also stand in for fish—captive, ever on display, and easily disposable.

Chapters 5 and 6 are case studies examining where the tank works. Its visual and textual templates endow it with the ability to manage a range of dilemmas, including those dealing with gender relations and foreign others. The first four chapters discuss the aquarium’s cultural work as it emerges in publications for those with a general interest in aquariums as well as those specifically for hobbyists. These two chapters focus solely on the latter.
byist magazines and journals offer a neglected but immensely valuable opportunity to explore how and where the aquarium worked for its most dedicated devotees. Issues and dilemmas both large and small were routed through the tank to resurface in editorials, poems, reference articles, and humor, including the seeming caprices of modern commerce; tricky negotiations of balances of power in the nuclear family; science envy and antipathy; and fear of and desire for colorful, exotic others. Hobbyist journals offered opportunities for self-display that matched those of the tank itself. They enabled aquarists to wade into the currents of public life, as in appeals for industry assistance during the Great Depression through Franklin Roosevelt’s National Recovery Act. These publications gave earnest amateurs an opportunity to vent their rage or revel in their own “author-ity” through their own cartoons and personal narratives. Above all, these outlets demonstrate the hows and wheres of the aquarium’s social work through the words and images of its most ardent enthusiasts.

Finally, the conclusion addresses the why of the home aquarium by probing its potential for excess, as well as its participation in and reproduction of the logics of the theater. This is the only part of the book to consider contemporary aquaria and its new rhetoric, born of increasing environmental exigencies that are, in part, the product of those same excesses. The conclusion takes up the tank’s overarching mimetic promise and probes some of the less fortunate consequences of its enthusiasts’ infatuations.

Though this book is not a history of the hobby, the chapters do proceed roughly chronologically. Chapter 1 examines the mid-nineteenth-century urban entertainment and consumer technologies that made the tank initially intelligible, even familiar. British antecedents described in chapter 2 paved the way for the tank’s American popularity. As demonstrated in chapter 3, writings from 1850 to 1915 situated the tank in American private and public life. Chapter 4 offers a survey designed to demonstrate the equivocal construction of fish as pets throughout the period covered by the book. Chapter 5 details various versions of the domestic tank and its attendant gender troubles from, roughly, the 1920s through the 1960s, while chapter 6 analyzes the cultural utility of the so-called tropical tank from the 1930s to 1970.

The hobby changed subtly but significantly after 1970. Technologies for water quality improved, and as a result, saltwater tanks gained in popularity over freshwater versions. Small, highly idiosyncratic hobbyist magazines increasingly gave way to scientific publications or were subsumed into and re-shaped by conglomerates in the pet industry. Greater and greater attention was given to ecological concerns. Some of this was defensive. Aquarists had
to answer for ecological disruptions and predations, including release of potentially destructive nonnative species and environmentally disastrous collecting practices like the cyanide poisoning of rivers in the global south to more efficiently gather specimens for the trade. In other cases, aquarists recognized the importance of the tank to emerging rhetorics of ecology and sustainability and attempted to both change the footprint of the hobby and use aquaria to communicate larger messages about the fragility of ocean and river ecosystems. Increasing recognition of the potential for global environmental catastrophe was only one of a number of exigencies to be routed through the tank after 1970; these included shifting ideas about the nature and promise of modernity itself. While these recent turns in the partnership between the tank and ideas of the modern are beyond the scope of this book, they paved the way for contemporary reefers, reef tank enthusiasts who, in some respects, bring us full circle back to the madrepores and anemones that so engaged English enthusiasts over a century before. My conclusion considers the reefers as the latest to succumb to the peculiar mix of desire and excess that defines the hobby, a mix, I argue, that can be rendered intelligible by reading the tank as part of the affective and mimetic economies of the theater.

The aquarium makes virtue and ideological utility out of its most basic characteristic. It is a container that holds some things in while keeping others out, a virtue that does not necessarily translate easily into comparable analytical parameters. With the same giddy fear that reefers feel when they contemplate tanks big enough to house every coral they ever wanted, I quickly discovered that the topic had the potential to overflow its artificial limits. It seemed to me that all of American history and culture from 1850 forward could be routed through the intoxicating, world-making power of the tank. Rather than be swamped, I adhered to some artificial boundaries. Though public aquariums are fascinating in their own right, I only discuss them as they intersect with their domestic siblings. Likewise, I focus on aquarium texts and hobbyist culture, rather than mainstream media representations. Though I believe the analyses here can apply to them, I offer no explication of Disney’s Nemo or discussion of that famous frame in the film The Graduate where Benjamin stares blankly through his tank, both master of his water world and a fish out of water. I do not take up detailed discussion of goldfish or aquatic plants. Both freshwater and saltwater tanks are discussed together, demonstrating their technical and ideological similarities. Thus, like even the largest tank, this book is inevitably partial, gesturing to the plenitude left outside.
Aquarists always counsel moderation, even if they don’t often heed their own advice. You can’t keep everything, so you have to leave something out. But in books as in tanks, the pleasures and surprises come from what you put in. Here, that means the words of aquarists themselves, from the indefatigable Gosse and his citational solidarity with romantic poets; to self-proclaimed fish guy Don Simpson; to Diane Schofield, the Erma Bombeck of the hobby; to others whose prose reveals that the aquarium was not always the progressive force for enlightenment and uplift its early proponents proclaimed. In “Bodies and Their Plots,” Hayden White asks us to imagine how the bodies of/in historiography “sounded, smelled, felt, and tasted.” In aquariums, these aren’t just human bodies. They include those of soldierly crabs, gentlemanly sticklebacks, and flirtatious bettas, as well as finny celebrities like “Snoz” and “Blanche,” introduced in chapter 4, all ventriloquated by hobbyists whose fish were both more and less than pets—toys and alter egos; faithful companions or nemeses; hectoring reminders that predators were not limited to those in the tank or even the sea and that falling prey to them was not a worry only for little fish. I quote extensively from the voices of aquaria, not only for the denotative content of their utterances, which is often remarkable enough, but to capture, if only partially, the textures of their thinking and the grains of their voices. Reduced to the dry two-dimensionality of print, they are as close as I can come to providing readers with a sense of what the hobby has sounded like.

Aquaria flow unseen through so many channels of American modernity, as part of the background, a social force hiding in plain sight in the living room, basement, or fish room. At the same time, fish keeping is a significant industry. The 2009–10 survey of pet owners by the American Pet Products Association found that 14 percent of U.S. households have freshwater or saltwater fish; nearly 183 million aquarium fish are kept as pets. The U.S. Census Bureau estimates that aquarium fish and products comprised over 9 percent of the pet industry’s total sales in 2002. In both capacities, the aquarium repays careful attention. And it speaks beyond its boundaries to raise questions about larger interconnections between nature and consumer culture, the consumption of theatricality in everyday life, the construction of hobbyist rhetoric as a tool for managing and wading into public discourse, and ongoing relationships between modernity and the animal. The home aquarium also asks us to take water worlds and their inhabitants seriously, not just as sources of pleasure and respite, not merely as a limitless bounty of found objects that might become our pets. It asks us to regard these worlds as the most praiseworthy hobbyists regard their tanks, as part of a

Introduction
meaningful network of personal and social obligations that demands commitment, concern, and continual investment in the most rigorous and humane stewardship.

• • •

My acquaintance was outraged. Though an academic herself, she did not hide her disdain for my assertion that the U.S. home aquarium managed and allayed anxieties about industrial, imperial modernity. People keep aquariums, she countered defiantly, because they are beautiful and peaceful and because pretty fish make them happy.

Exactly.