Flooding the Exhibition
Oceanic Encounters in the Age of Aquarium

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Abstract
This essay considers a history of exhibitions beyond the category of art and expands the museological to that of an apparatus displaying and maintaining nature, life, and a number of Western modernist dichotomies. Wunderkammern, containers of the world's wonders, have frequently been discussed as a precursor to museum collections, but the aquarium has, so far, largely been overlooked as a form of exhibiting with a long history that provokes an invention of non-human worlds while framing non-human lives as superficial metaphors. Because oceans themselves have complex physical properties and are difficult (although not impossible) sites for land and sea habiting species to encounter one another, the aquarium attempts to bring the ocean into the home and in public view, reflecting greater colonial projects synonymous with patterns of biocapitalist control. The invention and popularization of the aquarium in Victorian England domesticated nature for amateur naturalists and entertainment alike. Today, the aquarium continues to prescribe a frame though which we encounter otherness while perpetuating dualistic ontological and epistemological claims regarding how non-human environments should be perceived, rather than helping us understand that humans are never autonomous beings, but realized by and through our relations with other entities.

Ferrante Imperato's 1599 multi-volume publication *Dell'Historia Naturale* includes the earliest pictorial record of a natural history collection. A famous woodcut image reproduced in the introduction of the publication shows the expanse of the private collection: a grand room covered floor to ceiling with taxidermized flora and fauna, and Imperato and three other well-heeled men looking and pointing up at individual specimen. Nearly 250 years later, the first aquariums are also produced in private: the Victorian naturalist Anna Thynne publishes her innovative research to sustain aquatic life, "On the Increase of Madrepores," in 1859, triggering the craze for hobby aquariums that takes hold of the bourgeois home. The mysterious ocean and unruly natural world are once again domestically tangible and manageable.

This essay questions the practice of exhibiting nature and the role it has played in furthering the (re)production of nature as external to the self. Wunderkammern, containers of the world's wonders, have been discussed as a precursor to museum collections, but the aquarium has, so far, largely been overlooked as a form of exhibiting with a long history that provokes a spectacle of non-human living worlds while framing such non-human lives as superficial metaphors. The episteme of the aquarium relies on a reduced understanding of non-humans and their habitats as either other or anthropomorphized. I argue that the aquarium is more about the invention rather than

the representation of the ocean.

The tank is emblematic of imperial modernity through its employment of explorational, technological, mythologizing, and scientific operations. It over-represents the Western anthropocentric gaze, as its inhabitants are physically separated by water and glass and cannot survive outside their artificial world. The aquarium provides the illusion of unfettered access to an alien ocean environment, and at the same time reinforces its inaccessibility through barriers such as glass and water. It is intentionally a "naturalized" orchestration of life that employs a number of technologies to order and make sense of another environment.

The invention and popularization of the aquarium in the early 1850s, the origin of which is often disputed, brought this display form and living animals into the home for commonplace consumption, domesticating nature for amateur naturalists and entertainment alike. In due course, the public aquarium extended Victorian ideals through institutional authority. Today, the aquarium continues to prescribe a human frame though which we encounter animals and the ocean. It is an exhibition technology, a meaning-making machine, that perpetuates dualistic ontological and epistemological claims regarding how non-human environments should be perceived, rather than helping us understand that humans are never autonomous beings, but realized by and through our relations with other entities.

This essay synthesizes the history of early aquariums and aquarists' writings, read alongside decolonial, feminist, and environmental theory projects, to argue that the domestic commercialization and the public presentations of such display apparatuses continue to contribute to capitalist consumptions of nature as well as the naturalization of a human-animal dualism. I draw connections between the exhibitionary complex, postcolonial theory, and the production of nature to read the aquarium as one that regulates biopower and perspectives of objectivity. Can the institution ever be turned against itself? Can such an apparatus ever be appropriated against the interpellation of the human visitor within an ideology of the construct of nature? What would it take to break the glass and flood the exhibition?

Exhibiting Nature

Ferrante Imperato. Woodcut of the Wunderkammer room, from Dell'Historia Naturale. Libri XXVIII. Published in Naples, 1599. Credit: Wellcome Collection.

Dell'Historia Naturale was first printed 1599 in the form of 28 volumes and covered Imperato's entire collection, room by room, combined with more detailed specimen studies, including 119 woodcut illustrations in total alongside his written analysis. Imperato was a wealthy Italian apothecary and herbalist who assembled a proto-museum at Palazzo Gravina, Naples, which comprised specimen he personally collected on research expeditions, or obtained through trade with other Italian naturalists in his network. These once-living organisms were then permanently preserved and exhibited as tools of science to tell a particular history of the world. *Dell'Historia Naturale* was created during a period of new discoveries in the sciences by Europeans through geographical expeditions and growing imperial powers, which would eventually lead to the colonization of non-European lands and peoples. Objects were exhibited throughout rooms and no corner was considered ineligible for display. The perspectival notion of immersion within such bounty and abundance demonstrated an impressive wealth of personal taste and acquisitions.

Besides publishing *Dell'Historia Naturale* (republished posthumously in 1672), Imperato invited scholars and other naturalists to visit him, and even persuaded the Accademia dei Lincei to bring Galileo in for research.[1] His Wunderkammer also operated as a social space, a place for scientific exchange and a model of his social status. Michel Foucault's *The Order of Things: An Archaeology of the Human Sciences* (1966) attributes new European observational privileges in the seventeenth and eighteenth centuries to a curiosity that piqued ideas of the life sciences among the upper classes.

> Great voyages of inquiry… brought back descriptions, engravings, and specimen; and then, above all, the ethical valorization of nature, together with the whole of that movement, ambiguous in its principle, by means of which whether one was an aristocrat or a bourgeois one "invested" money and feeling into a land that earlier periods had for so long left fallow.[2]

Scientific discovery was inexorably intertwined with the investment of knowledge produced through conquering and mastering. Collecting thus animated a desire to share knowledge of the world as an intellectual and colonial investment available only to a privileged few.

Dell'Historia Naturale's introductory illustration mentioned earlier consists of a two-page spread that allows the reader to understand how the collection was organized and utilized. In the image, all specimen are fixed to the wall or ceiling so that the visitor can stand underneath them. In terms of perspective, the placement of this eclectic collection of objects on one plane allows the viewer to observe everything at once with a universalizing understanding of being. By placing these items on the ceiling and upper walls, *Dell'Historia Naturale* points to a heavenly or cosmic interconnectedness of species, with the European collector's anthropocentric gaze as the rooted and central positionality. *Dell'Historia Naturale* is illustrative of Renaissance Humanism, an age of rising scientific interest still entangled with religious epistemology. The dominant belief was that God had given humans the ability to think and act, and so humanity must be reformed by making new sense of the world. Favoring hagiography over history, a collector could assemble their own narrative of life as long as it reflected religious beliefs.

Once unfamiliar worlds were now organized and laid bare to witness through this material culture of souvenir. Animal artifacts were understood by their exoticness to the viewer instead of relationally by what was placed next to them. Their position in the Wunderkammer was indicative of the end of a voyage of discovery and an impulse to consume. *Dell'Historia Naturale's* naturalia include an image of one room cloaked with taxidermized sea creatures, such as a massive alligator mounted above the viewer's head in the center of the ceiling. It is

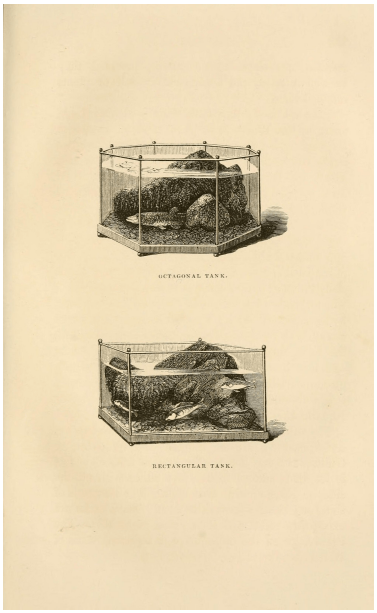
surrounded by other water-dwelling species such as a lobster, crab, salamander, seaweed, starfish, walrus, eel, and others. Some are saltwater inhabitants, others freshwater. This uniform taxonomy also includes a few non-water dwelling species such as cranes, armadillos, and dogs. Within this presentation there seems to be no visible genealogical order, because all animals are intertwined into the same network of life, that is one, of "natural history," where what can observed is understood as "truth."

The concept of "nature" has been exhaustively studied and discussed, and what continues to change are the discourses, values, and actions associated with it. It is impossible to illustrate a complete genealogy of the concept of nature in this essay, however what follows are a few general ideas that help to situate the Western culture of exhibiting nature, and dissolving the animal into that category away from the human. In 1637, despite humans and animals being capable of sentience, Descartes deduced that, since animals lacked the ability to reason, they were merely machines that could not possess consciousness. Therefore, a line was drawn between humans and animals within the larger framework of dualistic thought in the West. Then, according to Foucault, Kant's later contribution to the Enlightenment was brought on by understanding the self through its capabilities of representing the other, i.e. through the process of categorizing and naming the other and situating the self within that world.[3] Kant's *Sapere aude* (dare to know) motto of individual agency, according to geographer Neil Smith, was also the genesis of the bourgeois ideology of nature, a dichotomy in which "the internal nature of human beings comprised their crude passions while external nature was the social and physical environment in which human beings lived."[4] In other words, there are different versions of nature for example, the internal/external dualism that can be identified as a set of relations always realized through the human. In terms of the ever-evolving ideologies of nature, Smith returns to exhibiting, stating "many old conceptions of nature have been fossilized as museum pieces while other comparatively obscure concepts have risen rapidly to prominence."[5] In this analogy, museums are receptacles for reinforcing outmoded ideas, while new ones continue to develop.

Central to the Enlightenment was the pursuit of progress through science. Wunderkammern had shifted into more formal institutions museums which offered linear and didactic narratives of evolutionary scientific progress. Charles Darwin published his *On the Origins of the Species* in 1859, which introduced the idea of species evolution based on natural selection and an ability to adapt and survive. Evolution contradicted earlier notions of "natural" selection through the work of a god or higher beings. This concept of evolution thus effected the hierarchy and ordering of the world that earlier Wunderkammern aimed to uphold. The Wunderkammer's systematic organization works to inscribe the exhibit to look as natural and truthful as possible as an extension of power. As Donna Haraway would later come to describe the presentation of nature in the newer, more formal museums, specifically the American Museum of Natural History in New York several centuries later, the specimen become "actors in a morality play on the stage of nature, and the eye is the critical organ."[6]

Alongside the rise of a new rational science, which valued empirical data over religion and its extension by way of European monarchies, the idea of nature as external to the self began to develop. If nature was no longer entangled with human life through the gods, then its subjugation became more acceptable as desires to search for new raw materials expanded. This later perpetuated the idea of external nature as raw material, and eventually gave rise to mass industrial production in the mid-eighteenth century. The more answers science provided, the more traditional beliefs were being undermined. Those who were not yet ready to abandon their beliefs continued to rationalize the world through the Christian God. As a consequence, the naturalist emerged an individual who pursued independent research on the natural world and believed it was not necessary to study the world through institutions, because nature was universal and an extension of God.

The Victorian Hobby Aquarium

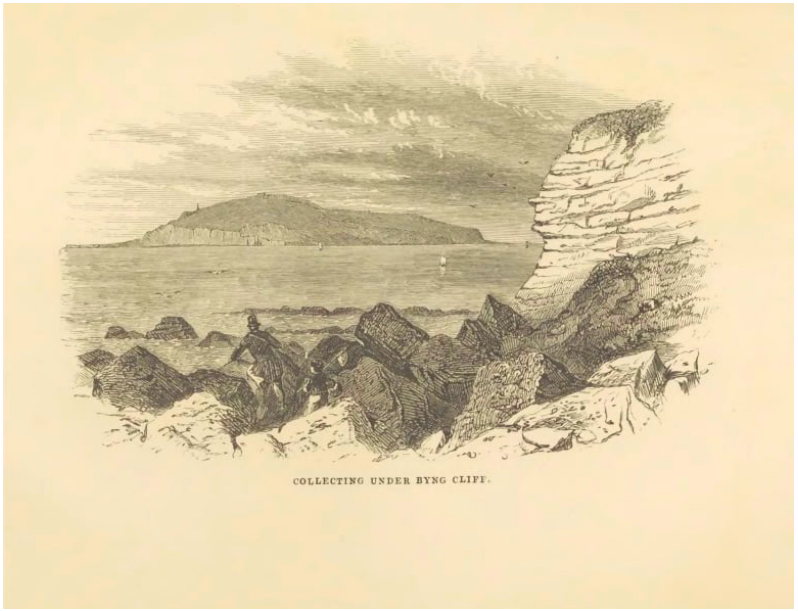


Philip Henry Gosse. Lithograph, reproduced in The Aquarium: An Unveiling of the Wonders of the Deep Sea. 1856.

The rise of the aquarium is credited to a few individual naturalists closely tied to religious ideology and with a passion to study the oceanic world representative of God's greatness. The invention of the first sustainable aquarium is muddy and disputed, however, recent scholarly research attributes the first glass tank to sustain marine life to Anna Thynne in 1847.[7] Thynne often brought her family to holiday in Devon, a coastal county in southwest England. She developed her tank by recognizing that continuous aeration of water was necessary to produce oxygen and mimic the ocean environment. Thynne then incorporated stony coral collected from Devon in a glass bowl of saltwater back at home in London, where she changed the water every other day in front of an open window, adding seaweed and eventually sustaining the coral's lives, watching them grow and breed. Because of the challenges of publishing as a women at the time, Thynne only published one article on her groundbreaking research in June 1859 in *The Magazine of Natural History*.[8] In 1851, Robert Warington, a chemist and founder of the Chemical Society of London, published his "aquarium principle" in the *Quarterly Journal of the Chemical Society*, which was later republished in the *Literary Gazette, Gardeners Chronicle, Bicks Floristry* and *Zoologist*. Warington argued that by adding plants to glass fish bowls, they would produce enough oxygen to sustain a small quantity of underwater life.[9] Around the same time, nature writer Philip Henry Gosse found himself at the Devon coast to improve his ailing health conditions away from a polluted London. A pre-Darwinian naturalist, Gosse was deeply religious and set out to explore God's creations. It is no surprise that he eventually came to meet Thynne, wife of a local reverend who shared his religious passion, and wrote the foreword for her 1859 article. To coin the term "aquarium," Gosse reconsidered the popular vivarium, and published *The Aquarium: An Unveiling of the Wonders of the Deep Sea* in 1854.

In the nineteenth century, "natural history" offered an alternative to the realm of an industrialized, taxonomized and scientific modernity centered in London. Gosse, Thynne, Warington, Henry D. Butler and other aquarists privileged with time and money could study and promote themselves as experts of a divine world without distraction. Butler, the American author of *The Family Aquarium Or, Aqua Vivarium*, attributes his 1858 publication as one "designed to familiarize amateurs in a novel branch of natural science with an attractive instrument enabling them to 'look through nature up to nature's God.'"[10] In *The Aquarium*, Gosse describes himself as a devotee of the theological sublime, even when doubting the strange difference he encountered in

ocean life. “In natural action, their purposes become evident, and the perfection of their contrivance becomes admirable; and we may use them as a fresh occasion of ascribing honour to the Infinitely Holy, Wise and Good God, all whose works praise Him.”[11] The study and observation of nature kindled a religious spirit in Gosse and his readers, reflecting their own moral and religious values rooted in Romanticism and antagonistic to the Industrial Revolution and scientific progress.



Philip Henry Gosse. Lithograph, reproduced in The Aquarium: An Unveiling of the Wonders of the Deep Sea. 1856.

Alongside Gosse’s descriptive encounters with ocean life were his English seascapes and detailed illustrations of specimen in tanks that inform the reader’s understanding of his written studies. These include feathery sketches of the coastline and varying shapes of tanks for different preferences. If Gosse could render it, then he could master it, and in turn the aquarium became the apparatus in which encounter, albeit heavily mediated, was somewhat possible. Gosse’s *The Aquarium* became widely popular as he continued to publish and influence public perception of the aquarium and its role in stimulating appreciation for the unexplainable. He could be spiritually observant, and at the same time a technological expert. Gosse and others would maintain the world through their tanks, casting themselves as artists and stand-ins for the divine creator.

Like its predecessor, the Wunderkammer, the hobby aquarium brought the world into the home for private, contemplative consumption and entertainment, rendering the ocean and its inhabitants a consumable nature. During the Victorian era, the home was a quiet place for intimacy and a haven in opposition to the loud and busy exterior world of work and industry. Through collecting and other forms of material spatial ordering, such as interior design, the home came to represent a bourgeois concept of privacy and consolidated acceptable norms of domestic life.[12] The domestication of the ocean became a reductive act based on a series of choices: the design of the aquarium, the selection of animals and flora, the placement of the aquarium in a particular room in the home, and ultimately, the use value of the aquarium to one’s habitus. Relations with ocean animals were dependent on human control of the tank, through maintaining the correct water temperature and flow of oxygen, expressions of both domination and care. While ocean life was being physically reduced to a mere few feet and gallons of water, the Victorian aquarium was also an elaborate piece of furniture made of wood or steel designed to fit the décor of the home. Aquariums were designed to be as ornate and visually pleasing as their contents. They were both time consuming and expensive to maintain and therefore became status symbols reflecting the lifestyle, class, and tastes of the owner.

Reminiscent of landscape painting, the aquarium is a self-contained universe to be aesthetically organized, mastered, and sustained from the comfort of one's own home. In addition to the hobby naturalist, another reaction to the scientific Enlightenment was Romanticism. As a cultural movement associated with artists including J.M.W. Turner, William Blake, and the Hudson River School, Romanticism rejected scientific progress and promoted sublime depictions of the environment in which nature is everywhere. Romantic artists became synonymous with landscape painting and the prominence of visual representations of a small human figure amidst idealized nature. J.M.W. Turner's *Wreckers Coast of Northumberland, with a Steam-Boat Assisting a Ship off Shore* from 1833-34, John Martin's *The Deluge* from 1834, and Caspar David Friedrich's earlier *Monk by the Sea* from 1809 are key examples of Romantic paintings in which seascapes overshadow and overwhelm the small human figure.

In *Landscape and Power* (2002), W.J.T. Mitchell calls for a revised thinking of landscape, not for what it symbolizes but for what it does as a tool of power itself, "representing an artificial world as if it were simply given and inevitable, and it also makes that representation operational by interpellating its beholder in some more or less determinate relation to its givenness as sight and site."[13] If landscape itself is a medium, then the aquarium can also be considered as such, naturalizing itself as an environment and forming ideas about human and animal life at sea. Rarely did these tanks really reflect environments founds in oceans and lakes. Ideologies perpetuated through landscape, seascapes, and the aquarium often included the legitimization through representation of colonial frontiers. They were also often divorced from the intricate ways humans encroach on the ocean and ocean life, materially or symbolically.

Possession of the aquarium and acts of maintaining an entire microcosm reflects greater colonial projects of control, because it allows for the Western bourgeois hobbyist to extract and sustain exotic life. The inclusion of tropical animals and flora often stood in for colonial lands themselves, as representations of conquests of remote territories. Importantly, the aquarium reduces our encounter with animals down to a single sense: vision.[14] We cannot touch, hear, taste, or smell these animals as much as we can gaze at them swimming by in circles. This ocular-centricity not only informs our understanding of the animal but the vast complexity of the ocean and ocean life together.

Making the connection between power, visuality, and the aquarium, John Berger noted in *Why Look at Animals?* that animals that have been transformed into spectacle to resemble "fish seen through the plate of glass of an aquarium." Thus, ideologically, once they are domesticated, animals are always objects of the observed. "The fact that they can observe us has lost all significance. They are the objects of our ever-extending knowledge. What we know about them is an index of our power, and thus an index of what separates us from them."[15] While Berger is right to criticize the practice of domesticity as a proponent of the objectifying anthropocentric gaze, his assertion that the animal's gaze has no significance hinders any curiosity towards what the animal might be feeling or thinking in looking back. Is it possible that these animals could swim by us and intervene in their own representations rather than remain passive objects behind the tank? Could another kind of encounter be possible?

Transparency

Henry Noel Humphreys. Illustration (hand-colored plate), from Ocean Gardens: The History of the Marine Aquarium and the Best Methods now Adopted for its Establishment and Preservation. Published in London: Sampson Low, 1857. Credit: Smithsonian Libraries.

The aquarium provides the illusion of unrestrained and transparent access to an alien ocean environment, and at the same time reinforces its inaccessibility through a number of material and symbolic operations. Ocean creatures swim past us in an array of colors and shapes that have dazzled human imagination for centuries now. During the Victorian era, glass was everywhere from the Paris arcades to the Crystal Palace, and the lenses found in the budding field of photography. As glass became fairly cheap to produce at the end of the nineteenth century, the aquarium became more affordable. In *Victorian Glassworlds: Glass Culture and the Imagination 1830-1880*, Isobel Armstrong clarifies that in this period,

> a world, newly mediated by glass, was one of the projects of Victorian modernism, or, more exactly, a place where related and complex Victorian modernisms played out their concerns. In the nineteenth century glass became a third or middle term: it interposed an almost invisible layer of matter between the seer and the seen the sheen of a window, the silver glaze of the mirror, the convexity or concavity of the lens.[16]

At times, glass attempts to mimic water, reflecting and refracting the world like glittering waves. Likewise, water can appear imbued with a kaleidoscopic number of meanings as well. During the Victorian era, as nature became understood as other compared to the interiority of the bourgeois home, traditional places where potable water could be located changed through the domestication of water. Like elements of nature itself, water was considered safe, sanitary, good when it was located inside the home, but dirty and bad when it was found externally. Aquarium water offers a third option: water that is not made to contact the human body, but has been extracted from lakes and oceans, cleansed and purified, and brought into the modern bourgeois home. In tracing the production of water as a commodity and symbol during this period, Maria Kaika argues that, “This double process of casting processed nature outside the modern home, while allowing controlled commodified nature inside, reinforced the ideological construction of the private sphere as the utopia of the autonomous and the protected, and of the modern private individual as clean, pure, and free of fear and anxiety.”[17]

In order to keep the home safe, the natural is confined externally (the ocean) or neatly presented in a selective

manner (the aquarium). Glass and water together provide a false sense of amicable inter-species transparency, where the human spectator is able to mobilize nature as safely packaged ornamentation. In reality, its transparency is never really invisible, but overemphasized through its difference and uncanniness, as Kaika notes what Sigmund Freud called that which frightens us but actually leads us back to what is safe, familiar, and known.[18] With its material and symbolic barriers, bourgeois interior domesticity is able to remain shielded from the anxiety of nature.

Although aquarium animals can be seen without visual obstructions, the physicality of these barriers do not allow us to "meet" them as we would a domesticated dog or cat.[19] Nor can these animals survive alongside us and outside this artificial world. The surveillance of the tank became a leisurely wonderment, an objectified spectacle, where glass and water are both the technology and barrier of how meaning is reinforced. Aquarium inhabitants were now situated in domestic environments but not enmeshed in it, which means they are always already understood as both part of the human world and radically other. In other words, the modernity of the tank allowed humans to be aesthetically close to nature while conveniently staying apart from it. It is no metaphor, then, when Donna Haraway describes the American Museum of Natural History's display as "spectacle, entertainment under the guise of a 'window onto knowledge.'"[20]

The Public Aquarium

J. E. Mayall. Crystal Palace, 1851 Exhibition. Steel engraving. Credit: Wellcome Collection.

The enmeshing of transparency and surveillance continued to extend outside the home and into the formation of public institutions of power. Consider the museum exhibition, a site of enclosure filled with transparent vitrines to protect precious art objects from abject human interference: our breath, the oil on our fingers, the debris we cast off our bodies, and our bodies themselves become a threat. The exhibitionary complex, as noted by Tony Bennett, is not an institution of confinement, but of visibility that has been structurally designed to manage human behavior through a transparent expression of ideology. It is, in short, a disciplinary technology. Instead of obscuring access and power, early examples of the exhibitionary complex sought to "allow the people to know and thence to regulate themselves; to become, in seeing themselves from the side of power, both the subjects and the objects of knowledge, knowing power and what power knows, and knowing themselves as (ideally) known by power, interiorizing its gaze as a principle of self-surveillance and, hence, self-regulation."[21]

Exhibitions build ideology through surveying order in which the viewer themselves is a participant, interpolated into both seeing and being seen. The power of the exhibitionary complex lies in the act of seeing, an authoritative vision that assembles and perpetuates understandings of the world. This complex of social and physical relations allows visitors to identify with power and order, while simultaneously having their bodies and perspectives controlled within the space. For Bennett, it "manifested itself precisely in continually displaying its ability to command, order, and control objects and bodies, living or dead."

The first public aquarium opened in London in 1853. The "Fish House" as it was commonly known, was conceived by none other than Philip Henry Gosse at the London Zoo in Regent's Park. This was only two years after the Crystal Palace was built nearby in Hyde Park to host the Great Exhibition of the Works of Industry of All Nations, a public symbol of British industrialization and empire. While the Crystal Palace was known internationally for its towering glass and steel architecture, the Fish House was a single room in a stand-alone building. It contained a number of small, cubic tanks positioned around the room, on view at eye level for the public. Guides were published so that visitors could categorize and identify the small exotic sea animals, translating scientific data into consumable details that moved the animals further and further away from the category of "human."[22] Such imperial exhibitions mediated the relations of encountering otherness, and often compared the West to "non-civilized" worlds equated with primitivism and wild nature. As Haraway suggests, "The social relations of domination… are frozen into the hardware and logics of technology. Nature is, in 'fact,' constructed as a technology through social praxis. And dioramas are meaning-machines. […] Machines are maps of power, arrested moments of social relations that in turn threaten to govern the living."[23] We might think of the aquarium as an exhibitionary *technology* as well.

Bennett extends our understanding of the exhibitionary complex through the carceral connections between the museum and the prison, noting their institutional births arrive at nearly the same time. "The exhibitionary complex and the carceral archipelago develop over roughly the same period the late eighteenth to the mid-nineteenth century and achieve developed articulations of the new principles they embodied within a decade or so of one another."[24] Pentonville Prison, known for its use of the panopticon, opened in London in 1842, the Crystal Palace debuted in 1851, and the Fish House arrived in 1853. It is no coincidence that these three institutions were built within a span of ten years of one another, when the Victorian era was a leader in technological advancements including photography, electricity and the telephone on the heels of the Industrial Revolution, and most relevant here, bodily regulation. As empire grew and globalized, so did the institutions which were meant to produce and control public knowledge and behavior.

It should come as no surprise, then, that the public aquarium attempts to bring the ocean into public view, while reflecting greater colonial projects being synonymous with patterns of biocapitalist control. For example, the tank is emblematic of imperial modernity through its employment of explorational, technological and scientific operations. Eva Hayward has connected early aquatic exhibitions to their colonial history and nationalism, outlining that

> The monumental scale and architectural detail of these buildings demonstrated the power of nation and the ability of civilization to maintain dominion over its nonhuman inhabitants. The most prized organisms were "exotics" from non-European environments that fueled ongoing colonialism in the mode of animal husbandry. As these spaces gave entry into inaccessible environments for most visitors, they also suggested the extension of biological knowledge, the prowess of technological achievement, and the expansion of nation under the salty waters.[25]

Itself an apparatus of power, the aquarium comfortably confirms the idea of human sovereignty over nature. It frames and reproduces a view of the world that is specifically a Western anthropocentric one. The practice of environmental extraction was initially organized by colonialism and a desire to dominate difference. In early modern Europe, humans were situated between god and animals, more closely aligned with the divine, and therefore the boundary between humans and animals was sacred.[26] Kay Anderson has noted that the normative "human" identity was constructed alongside technological, militaristic, social, and scientific enterprises, to justify the ordering of other spheres of life that include the feminine, the racialized slave, the animal, and the environment in general, while also paying attention to the different specificities and manifestations of such ordering.[27]

Sylvia Wynter has extensively written about how European colonialism reorganized the world into racial classifications beginning in the fifteenth century, and how this reorganizing centered on a difference of dehumanization.[28] Under white supremacy, all other racializations were constructed to be ideologically less-than-human. Wynter describes how "Man" saw himself as separate from the natural world, and legitimized himself through the subjugations of others. She notes a fundamental inability to imagine the human other than Man, which obstructs a possibility of what else could be considered human, and therefore *not human*. With this in mind, one can understand why humans outside of dominant racialized categories have been treated *as* animals sold, traded, and confined. Enslaved Africans had been bestialized and classified in a category "not far removed from the apes, as man-made degenerate by sin."[29] When considering the relationships between human and animal oppression one cannot appropriate their different forms of subjection for another, which can lead to harmful historical and embodied erasures. Rather, the goal would be to bring attention to the power structures that create such oppression in the first place.[30] For our conversation here, that power structure is colonialism.

Flooding The Exhibition

The narrative laid out thus far traces the history of the hobby and public aquarium as part of the colonial project. How far has the contemporary aquarium come from the days of Gosse, when animal affect was packaged and a fetishization of the other institutionally authorized? Unfortunately, not much has changed in regards to their transparent infrastructure, symbolic meaning, and production of relations for encountering. If we recognize that our human species extracts, represents, and naturalizes life in hierarchies in order to maintain power, but that it wasn't always like this, might that change our encounters with others and cause us to act differently? What would it take to undermine the aquarium, to break through the glass and flood the exhibition?

Stefan Helmreich has suggested we consider "extraterrestrial relativism," a relativism of ocean and non-ocean life situated within interpretations of the world as "made of creatures who all experience themselves as subjects (even 'humans') while also each summoning forth their own unique embodiment of 'nature.'"[31] This would reinforce the notion that humans are never autonomous beings, but are realized by and through relations with other living things in the world. Such ways of relating activates knowledge about life both on and beyond firm ground as respective to a nature that we do not fully comprehend and cannot really predict. Thinking in terms of extraterrestrial relativism can challenge the complex and uneven relationships that humans inflict on other animals and nature, and potentially change our own habits when encountering animals in the wild and in captivity. Without foregoing our own human desires, recognizing that animals also have needs, interests, and an awareness of their world helps to develop similarities and begin to relate and actively understand one another while working towards common goals.

The museum, the prison, and the aquarium are all institutions that regulate power in different ways and with

different consequences, yet they share similar origins. It matters that the apparatus of the aquarium has been produced by colonial interests, just as it matters that humans are made prisoners predominantly along racial and class divisions as an extension of that same colonial project. This kind of mattering recognizes that colonialism has atrocious impacts for many of the planet's inhabitants, both human and non-human. If the aquarium is to continue, those upholding it must acknowledge its fraught history and the ways it has made meaning of ocean animals, maintained their lives, and defined and enforced certain boundaries. In order to relate to others beyond colonial tropes of violence and bodily management, encounters that value difference, sentience, and sociality would help bridge mutual interests and concerns. Likewise, aquariums would do well to focus on local animal species and to technologically consider if and how to present animals in their own natural communities and habitats. This aquarium could be designed around the desires of the enclosed rather than exclusively the desires of those who produce enclosure. Only then can we imagine what the aquarium might be otherwise.

Footnotes

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