

ART ISLANDS

Ecological Thought, Underwater Sculpture and the Nature of Development in the Canary Islands

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ABSTRACT: When modern artist and architect Cesar Manrique returned home to Lanzarote, the northernmost of the Canary Islands off the coast of Morocco, after a twenty-year sojourn abroad to study modern art in 1964, he returned to an island in flux. Energised by a burgeoning environmentalism acquired in New York City and terrified by the already-apparent impacts of mass tourism on this once-barren volcanic island, Manrique quite literally saw an opportunity in the landscape. Manrique and the local tourism bureau undertook a decades long project to rebrand and, more importantly, redesign the island as simultaneously artistic and ecologically unique. Thirty years later, UNESCO designated Lanzarote a World Heritage Site in part for this socio-ecological synthesis, in some ways precluding overdevelopment and in other ways encouraging Lanzarote's branding as a uniquely desirable tourist destination. Today, Lanzarote has made substantial public investment in the Museo Atlántico, a massive underwater museum and artificial reef, to extend Manrique's original legacy and sink tourism development to the seafloor. Lanzarote was one of the first 'art islands,' discreet geologic sites made unique in a competitive globalising island tourism industry by embedding art into the local ecology itself. This paper explores how island socio-ecology shaped Lanzarote's development into an art island, and illustrates how ideas of art, ecology, and value can cross oceans, create connectivity, and alter environments.

KEYWORDS: artificial reef, tourism, climate change, adaptation, Anthropocene, infrastructure, Lanzarote, Cesar Manrique

Introduction

Under thirty feet of crystal-clear seawater in the coastal waters of Lanzarote, neither natural nor unnatural, an army of humanoid figures redefine the seafloor. The Museo Atlántico, a public art installation commissioned for the northernmost Canary Island, Lanzarote (Figure 1) by the Centros de Arte, Cultura y Turismo (CACT), is considered the latest immersive environmental tourism installation in a series of projects highlighting Lanzarote's ecology (CACT, 2015).¹ Using striking sculpture, innovative construction methods, an environmental

¹ The Municipal Council of Lanzarote's Centres for Art, Culture and Tourism (CACT) is the main tourism regulator on the island. In January 2005 management of the Centres for Arts, Culture and Tourism was transferred to Local Public Business Entity (EPEL), belonging to the Municipal Council of Lanzarote (el Cabildo de Lanzarote). EPEL CACT, the Foreign Promotion Company of Lanzarote (SPEL) and the Domestic Tourism Office are the three public bodies that manage tourism in Lanzarote. While being fully public, CACT "operates with a business philosophy and is set up as the main economic engine of

ethos, and the marine environment itself, artist Jason deCaires Taylor hopes to raise global awareness by redefining the importance and audience of artificial reefs. In a series of ‘underwater museums’ in development across the planet, Taylor sinks humanoid sculptures under the ocean’s surface where they are visited by dive tourists and marine organisms alike. Each museum is unique and specific, both in content and ecology. The Museo Atlántico is his biggest installation yet, a curated, multi-sculpture dive site that invokes imagery from the refugee crisis, smart phones, narcissism, childhood, and climate change, while simultaneously (Taylor, 2007, claims) acting as an ecologically and economically productive artificial reef. The project, publicly funded for €870,000, is part of a long legacy of tourism developments on the island designed to commodify an island ecology that defies the typical tropical imaginary (Fischer, 2014).

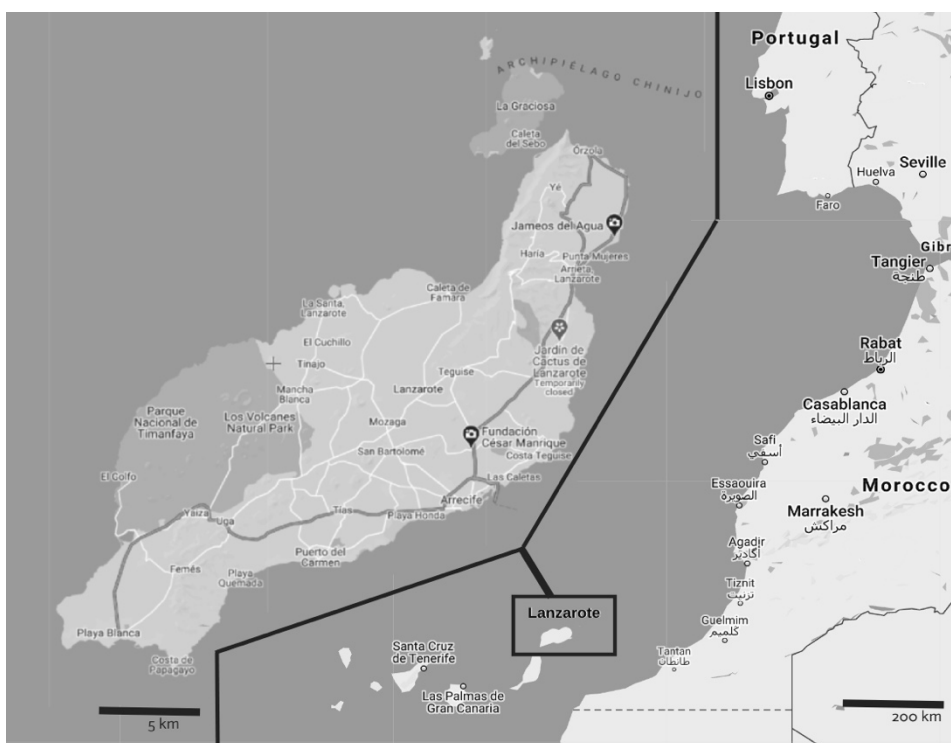


Figure 1 – Lanzarote and its position in the Canary Islands and broader region.

This article relates the story of the Museo Atlántico’s installation in Lanzarote’s waters in order to better understand the social lives of artificial reefs. Artificial reef installation is by no means a new phenomenon: shipwrecks, coastal revetments, and haphazard infrastructure have long been deployed to attract fish or reinforce shorelines in or by coastal communities. Deployment of artificial reefs as recreational objects, however, is a new and rapidly proliferating global phenomenon. It leverages consumer or citizen concern for threatened ecosystems like coral reefs alongside existing tourism and ecotourism economies to create

the island, dedicating its profits to finance the public policies of the islands through the payment of royalties to the Municipal Council of Lanzarote and Municipalities of Haria, Tinajo and Yaiza. and CACT Lanzarote”(CACT, 2005; online).

new, 'hybrid', development infrastructure. The Museo Atlántico illustrates how a recreational artificial reef project deploys its conservation or restoration components to overcome development or management obstacles. Considered to be more than a tourist attraction (as it is promoting or protecting the environment) and without the measured environmental standards of a conservation project committed to an explicit environmental outcome, the ability for hybrid' or 'green' infrastructure to provide ecosystems services becomes hard to assess without regulatory and governance structures that are responsive to the specific ecologies (like artificial reefs) in which that infrastructure exists. This article considers the diverse motivations and interpretations of the Museo Atlántico installation and the Museo's impacts on local regulation and politics in the Anthropocene era.

During an era of global climate change, terrestrial and marine ecologies alike adapt or fail to adapt to new material conditions like temperature and acidity. In the Anthropocene, conservationists, developers, and local government officials seek new strategies to live and grow in changing environments and their related economies. The Anthropocene, an epoch in which human activity has the capacity to alter geological processes, simultaneously incites a sense of responsibility for environmental degradation and inspires new tactics for growth in business and development (Moore, 2015a: 4).² In dialogue with political ecologist Aletta Biersack, anthropologist Amelia Moore argues that this epoch requires new understandings of "collectivity and responsibility", whereby "engaging the discourses and processes enabled by the Anthropocene idea... transform[s] practices of life and work, knowledge produced about place and space, infrastructural aesthetics, and the evolving language available for subjectivation" (Moore, 2016: 28). Policy proposals like the concept of the 'Green New Deal' first developed in the late 2000s (Green New Deal Group, 2007) emphasise the necessity of nature-based design solutions to mitigate and adapt to climate change at a landscape scale (Kurtzleben, 2019). Environmentally orientated actors hope that design solutions might simultaneously mitigate ecological impacts and encourage environmental stewardship of fragile offshore environments like coral reef communities (Chen et al, 2015; Fisher, 2016; Meyers, 2016). Tourism developers, alternately, can rearticulate fears of global anthropogenic change manifested by the Anthropocene as strategic opportunities to develop 'greener' mass tourism through design. Ironically occupying more space and requiring more resources, these tourism ventures leverage tourist and government concerns around global climate change while creating "projects and imaginaries that stem from ideas about global environmental change to accumulate more space for tourism" (Moore, 2016: 3). The Museo Atlántico is one such eco-art intervention project in a long history of tourism development.

Pioneered by architect and artist Cesar Manrique, Lanzarote's tourism brand draws attention to a local environment once perceived to be too arid and desolate to be of value to locals, let alone any number of tourists (García-Rodríguez et al, 2016). Manrique was a staunch advocate for land preservation and protested the overdevelopment of Canarian coastlines by foreign developers, opting instead for boutique and state-managed eco-art installations that emphasised the landscape. His "useful art" echoes Ralph Waldo Emerson's declaration that "Art must be a complement to Nature, strictly subsidiary," a continuation rather than a contradiction of nature's works (Emerson, 2007: 20). Manrique's near-prescient environmentalism was uniquely combined with tourism and environmental art in the early 1970s to highlight and protect Lanzarote's dreamlike landscape, as well as the adaptive

² Moore has established a framework for analysing development and tourism in the Anthropocene, which "enables conceptual anxieties, productive contradictions, research opportunities, and entrepreneurial actions; it enables actors to configure an increasing amount of thought and action in the name of anthropogenic sustainability" (2015a: 515). Also see Moore (2015b, 2016, 2018, 2019).

measures locals developed to live on this volcanic desert island. Now, CACT suggests its new development, the Museo Atlántico, is an evolution of this tourism brand in the 21st Century, or more specifically the Anthropocene, when environmental issues are global in scope, source, and solutions.

Using environmental history, participant observation, and ethnographic methods conducted over a combined four months of field work in 2016 and 2017, this article details the ideals, policies, and aesthetics that underpin Lanzarote's tourism infrastructure. As the Museo was installed over the course of two years off the southern shores of this small Canary Island, I visited twice after each installation phase, from June to July in 2016 and 2017. During the summer of 2017 I conducted ninety-one total interviews, fifty of which were full-length semi-structured interviews and forty-one of which were anonymous rapid response surveys of divers at a popular dive site. Semi-structured interviews were conducted with the artist, his manager and publicity staff, the local tourism board officials, dive tourists and dive operators. Participant observation, archive research, and document analysis were key components of this project. Trained as an environmental historian, I was committed to narrating the historical development of tourism on the island and situating the Museo within this history. I conducted three day-long archive visits to the Fundación Cesar Manrique, which holds now-deceased local artist Cesar Manrique's site plans, secondary histories of the island's development, and records of other artistic responses to Lanzarote's tourism model. Collaborating with the head archivist, we searched *El Diario de Lanzarote* and the local activist journal *Lancelot* for relevant articles and she pointed me towards relevant articles by Manrique that detailed his approach to environmentalism. Brian Larkin calls for a more attentive anthropology of the "poetics of infrastructure" that depicts how "forms of infrastructure can offer insights into other domains such as practices of government, religion, or sociality" (2013: 328). Situated within critical literature on Lanzarote's environmental history, Anthropocene development, dive tourism, and dive phenomenology, this article illustrates the social and political deployment of nature-based tourism infrastructure at the expense of rigorous environmental regulation.

The Museo Atlántico's success is contingent on support from Lanzarote's local government, which justified the project both as an investment in tourism infrastructure and as a manifestation of the local environmental tourism ethos. Archipelagic regions like the Canary Islands, consisting of small islands and extensive marine territories, have very specific policy, planning and development requirements driven by their constrained resources, making infrastructure developments from tourism development to freshwater desalination plants a matter of sustaining life on-island (Moore, 2019: 11-1).³ These socioecologies are "aquapelagic," defined by "human presence in and utilisation of the environment" and:

wax and wane as climate patterns alter and as human socio-economic organisations, technologies, and/or the resources and trade systems they rely on, change and develop in these contexts. In this sense, aquapelagos are performed entities. (Hayward, 2012: 6)

³ As various authors argue, islands have long been conceived of as laboratories for new visions of the world and "are continually remade to fit this vision" of utopianist experimentation (Moore, 2019: 160). At the same time, the islands became laboratories precisely because they were often subject to global networks of colonialism and globalisation that altered island ecologies and economies. Lanzarote is no exception.

The Museo Atlántico is one such performed entity, connecting land and sea, connecting the Canaries to “the rest of Europe” and expanding the jurisdiction of the tourism board below the sea surface. At once regulated as part of Lanzarote’s marine territory, protected under the United Nations Law of the Sea and marginally included in the island’s United Nations Educational, Scientific and Cultural Organization (UNESCO) Man and Biosphere Reserve protections; the Museo Atlántico represents the extension of the tourism board, CACT’s, activity into marine governance, protection, and global conservation efforts. This is part of the way in which the aquapelagic state has to configure its marine zones as “elements of an imagined national space and then translate this imagination into marine borders that could be nationally and internationally recognised” (ibid: 4). Proxies for CACT, artists Jason deCaires Taylor and Cesar Manrique both commodified the environment to make the landscape legible to mass tourism developers and thus obscured conflict between environmentalist and developer priorities. These are the stakes of ‘art island’ projects.

Lanzarote was, I argue, one of the first ‘art islands, discreet geologic sites made unique in a competitive globalising island tourism industry by embedding art into the local ecology itself. These developments treat ecology as art – static, preservable, delicate – and as abstractly consumable without deteriorating the value of the underlying environmental resource. Island ecologies across the globe have been shaped as part of a crusade to create consumable island tourism brands and managed as discrete laboratories for science and politics.⁴ Islands have long been particularly ‘consumable,’ and mass tourism from the global north has shaped island ecologies through colonisation, imposed capitalism, and economic pressure to make them more so (Thompson, 2006). Manrique’s sites sought to create value for landscapes that were not emblematic of ‘paradise,’ not altered to obscure the local ecology, but designed to emphasise difference and centre an ‘authentic’ sense of place at the centre of its brand, but ultimately failed to escape capitalistic pressure to extract value from the environment at additional environmental cost. This article will set out a timeline of Lanzarote’s development into an art island by Manrique’s initiative and trace how Manrique’s aquapelagic rhetoric manifested years later in the UNESCO designation and the installation of the Museo Atlántico. These developments have specific implications for island livelihoods, how our understanding marine space and deployment of compromised (pro-capitalist) environmentalism can enable overdevelopment, and how ideas of art, ecology, and value can cross oceans and alter environments.

Carrying Capacity: Archipelagic Interventions, Tourism, and Making Islands Liveable

Lanzarote was once considered too arid, inhospitable and volatile to host tourists and instead developed as an agricultural provider to mainland Spain. In the process of cultivating vineyards and small farms, local Lanzarote residents established a specific land ethic for their volcanic island. García-Rodríguez et al (2016) provide a long history of aridity in the eastern Canary Islands, Lanzarote and Fuerteventura, both found on the southern edge of the temperate zone in the subtropical anticyclone belt. With less than 150 mm of rainfall a year, Lanzarote’s inhabitants devised original agricultural systems to combat the aridity, although low yields have historically limited socio-economic development and population growth (2016). Tourism materials from Manrique’s *Jameos del Agua* guidebook note that “the struggle for survival in such a peculiar environment has given rise to ingenuity and an economy of productive resources manifest in the area’s onion, melon, prickly pear, tomato

⁴ See Sheller (2003, 2009) and Baldacchino (2007).

and fig crops, but particularly in its vineyards” (Maderuelo, 2006: 52). These farming systems have left behind an important regional heritage with an environmental and scenic value – decidedly human systems-oriented rather than untouched or pristine – that has played an integral role in Lanzarote’s development (Figure 2). These agricultural systems sufficed until the introduction of seawater desalination plants and the arrival of tourism in the last third of the 20th Century (first on Lanzarote in 1964), which improved living standards for the local population but also led to a socio-economic transition to tourism.



Figure 2 - Traditional, often gendered, agricultural practices once defined Lanzarote’s local landscape. (Photo by Javier Reyes Acuna with permission of Memorias de Lanzarote).

Expanded tourism development was only made possible through technical and political engineering. Until 1963, the aridity of the island posed a problem for developers. There was barely enough water on the island for Lanzarote’s inhabitants, let alone any number of visiting tourists (Maderulo, 2006: 143; García-Rodríguez et al 2016). The island had met its carrying capacity by the late 1950s, resulting in an exodus of island natives to other Spanish-speaking countries due to limited water resources (Meyers and Vega interview, 2017; Cabrera, interview with the author 2017). Limited water had cultivated a particularly intimate land ethic for this rural agrarian and artisanal fishing society. One local recalled growing up on the island, following her grandfather’s footsteps in the fields, careful not to disturb the rows of volcanic soil and upset the delicate arrangement that let the vineyard grow. “You learned to respect the landscape, living here,” noted the long-time island resident, now a biologist (ibid). Then two brothers, locals, installed the island’s first desalination plant in 1962 (Swyngedouw, 2013; Schallenberg-Rodríguez and Blanco-Marigorta, 2014). In so doing, they altered the socio-ecological context for island residents, increasing carrying capacity of the island and enabling further development, leading to roads and hotels (Figures 3, 4), and increasing mass tourism interest from the United Kingdom (García-Rodríguez et al, 2016). Tourism was particularly attractive as an alternative to the island’s failing mineral extraction industry. In 1968, synthesised products made much of Lanzarote’s mineral and produce exports irrelevant in the global markets (Moss, 1997: 50) and tourism was the most sustainable industry alternative (ibid). After decades of boutique tourism for British

merchant visitors, ecological pressures and subsequent adaptations opened the doors to mass tourism in the Canary Islands.



Figure 3 - 'La Grúa de Babel' (The Crane of Babel). This rendering of the Biblical Tower of Babel as a crane looming over the island of Lanzarote was featured at an exhibition hosted by Cesar Manrique's foundation in 2000 (artist unknown) and expresses the local sense of the hubris of mass development. (Permission of Fundacion Cesar Manrique)



Figure 4 - Mass tourism development on Lanzarote in the late 1960s. (Photo used with permission of Memoria de Lanzarote.)

Tourist development in the Canary Islands progressively changed the way of life and the economic strategies of the littoral populations of the islands for several centuries. First it modified the traditional activities that farming and fishing families traditionally employed to support their households (Pascual, 2004: 79). The early tourism of the 19th Century was linked to export agriculture associated with British capital and merchant shipping, as merchants would visit for the “perceived ‘health giving’ potential and the exoticism of the landscape” while researching their supply chain (Selwyn and Boissevain, 2004: 13). Mass tourism was popularised in the 1960s, engineered by the Spanish dictatorial state (Selwyn and Boissevain, 2004: 13). Despite the known deleterious effects large developments had on adjacent island’s ecologies, in the final decade of General Francisco Franco’s dictatorship the regime deployed tourism to improve Spain’s economy and end its international isolation (Lawrence, 2008). This expansion of tourism developments backed by international investors took place first and foremost in the littoral zone, where properties were purchased or taken from coastal residents to the exclusion of traditional fishing and agricultural practices (Pascual, 2004: 65).

Before Manrique’s installations, regional authorities considered mass tourism to be the only way to modernise Lanzarote’s economy. Broader constituencies of northern European tourists took advantage of booming resort development which, Bianchi and Talavera point out, invited “foreign residents and entrepreneurs and the speculative development of urban tourist infrastructure, in some cases driven by Spanish and international consortia of investors” (Selwyn and Boissevain, 2004: 13; also see Bianchi and Talavera, 2004). Often underwritten by public funds managed by public authorities, Canarian governments invested in an “infrastructure of pleasure”, which both “reflects the new spatial and symbolic arrangements of capital through which new sources of value are created in the tourist economy” and which consists of “urban spaces with consumption at the center” (Bianchi and Talavera, 2004: 96), fundamentally altering Lanzarote’s socio-ecology and residents’ interaction with the landscape.⁵ These hotels were under construction on rural Lanzarote when Manrique returned home permanently in 1964.

Cesar Manrique, Preserving Nature by Design

Many visitors to Lanzarote say that touching down on the volcanic island feels more like landing on the moon. Surrounded by crisp, clear cerulean seas that attract divers from across the European continent, the red-grey island rises up as a series of volcanic peaks streaked by black earth. While a majority of visitors to the island take up package tourism experiences bound to the coast, biking and wine enthusiasts visit the island for the dark volcanic soil that supports rare breeds of white wine grapes imported from Europe that locals have been farming with unique permaculture and slow food techniques since settling the island four centuries ago (García-Rodríguez et al, 2016). Equally embedded in the landscape are the designed social spaces of local artist Cesar Manrique, part of a decades-long project to elevate the status of the local environment from desolate and arid to an ecologically important and aesthetically unique tourism destination.

When modern artist and architect Manrique returned home to Lanzarote in 1964 after a twenty-year sojourn abroad studying modern art, he arrived in an island in flux. Energised

⁵ The Museo Atlántico is one of these very spaces, though submerged: publicly funded and selectively available to the public.

by a burgeoning environmentalism acquired abroad and terrified by the already-apparent impacts of mass tourism on this once-barren volcanic island, Manrique quite literally saw an opportunity in the landscape. Manrique and the local tourism bureau undertook a decades long project to rebrand and, more importantly, redesign the island as simultaneously artistic and ecologically unique. CACT has long leveraged these immersive art installations to brand the island, while local conservationists (including Manrique, until his untimely death in 1992) used Manrique's projects to establish Lanzarote as the first island site for UNESCO's Man and Biosphere Program in 1993 (UNESCO, nd). This certification requires reserves do more than preserve some genre of "pristine" natural sites, instead requiring that specific areas demonstrate a "strong historic link between man and nature" (Bridgewater, 2016). Manrique's art drew attention to the historic, traditional relationship between island residents and Lanzarote's environment, highlighting their agricultural techniques, low impact, and sense of harmony (Maderuelo, 2006).



Figure 5 - Manrique in his Cactus Garden. (Photo from Memoria de Lanzarote.)

Through his art installations, Manrique hoped to preserve the historic, environmentally intimate socio-ecology and heritage of Lanzarote. By building tourism experiences into the environment *as art*, Manrique created a concrete set of landmarks that demonstrated the value of Lanzarote's "naturecultures"⁶ through immersive experience and metaphor. He redesigned Lanzarote's environment into spaces that would attract tourists and create economic value for the island's undeveloped interior. Capitalising on the rawness and ruggedness of the volcanic environment, Manrique highlighted its alien and untameable landscape through built social spaces in the International Style. Manrique's 'interventions' took the form of monumental structures, wind toys and, most notably, embedded social spaces. These spaces (Figures 5, 6, 7 and 8) are built into and highlight natural geologic features of the island. Manrique intended to highlight the island's natureculture and relationship to the land and sea by embedding social spaces like bars, constructed pools, and

⁶ "Natureculture" refers to a synthesis of nature and culture in ecological relationships, deconstructing dualism and highlighting the mutual construction of niche and impact. (Fuentes, 2010 - also see Haraway, 2016).

living rooms into the island's pockets of lava and caves. Art and architecture were a vehicle to highlight what made Lanzarote unique.



Figure 6 - You emerge from los Jameos's natural pools to an artificial one. This plaza is home to a second café, bar, and subterranean concert hall to the West. There is a summer concert and dance party series, but otherwise most visitation is by daytime museum-goers. (Photo by author, 2016).



Figure 7 - Los Jameos de Agua, one of Manrique's first project, turns a lava tunnel's caves into social spaces. A café, music hall, and artificial pool are nestled in the inflationary caves around a natural pool filled with a rare, endemic white crab. (Photo by author, 2016.)

Take, for example, los Jameos del Agua (the ‘Lava tunnels of water’), Manrique’s first and grandest project. He created artificial pools and platforms for dancing, music, and restaurants around a pristine underground cave where an endemic protected species of white crab has its only habitat in a natural spring (Figure 7). Part of Manrique’s project to “envisa[ge] possible Utopias,” these “educational” sites emphasised, for Manrique, “a globalizing symbiosis of Art-Nature Nature-Art” (Manrique and Gómez Aguilera, 2004: 69). In throwing tourists deep in this alien environment, Manrique encouraged new ways of understanding, appreciating, and framing the world (sometimes literally, Figure 7). In such buildings Manrique dissolved the distinction between interior and exterior, site and structure. He envisioned a tourism specific to place rather than erasing place.



Figure 8 - The Fundacion Cesar Manrique, tasked with maintaining Manrique's legacy, turned his first home on the island into a museum. Another lava tunnel has been converted into a series of small lounges and bar spaces. (Photo by author, 2016.)

Manrique’s vision of tourism leveraged islander identity and the specificities of Lanzarote’s ecology to create a style of tourism defined in opposition to the mass tourism of other Canary Islands, at certain costs to traditional livelihoods. In this way, he was simultaneously a political actor in tourism development, a tourism developer acting politically, and a designer with a specific philosophy and aesthetic (Tendera, 2016). Manrique is often quoted for his brave anti-development rhetoric, standing in the face of local authorities and protecting the environment with his radical land ethic:

Those of us born of you [Lanzarote], those of us who know about your magic, your wisdom, the secrets of your volcanic structure, your revolutionary aesthetics; those of us who have fought to rescue you from your enforced historical isolation and the poverty which you have always suffered, begin to tremble with fear as we see how you are destroyed and submitted to massification. We realize just how futile your accusations and cries for help are to the ears of speculators in their hysterical avarice and the authorities’ lack of decision that sometimes tolerates and even stimulates the irreversible

destruction of an island which could be one of the most beautiful and privileged on the planet. (Manrique and Gómez Aguilera, 2004: 118–19)⁷

Manrique even criticised mainland economic policies for erasing a sense of place and ignoring the needs of coastal ecologies. He advocated for human adaptation to their ecological context rather than an erasure of unique environments:

It seems utterly incredible that, despite the catastrophic alteration of almost the entire Spanish coastline, blurring the traits of each piece with a complete lack of adaptation and the gratuitous introduction of a cold international standardization, we have failed to learn the lesson whereby we must stop and save what is left. (ibid: 108)

Manrique decried overdevelopment, creating and staffing his Foundation with environmentalists and activists. Manrique's rhetoric specifically highlighted island inhabitance, with visibly limited resources floating almost adrift at sea, as synecdoche for the Earth. Citing the island's carrying capacity, its "limited dimension and restricted space", he advocated for "balanced development" where "intelligent planning should put an immediate stop to the irrationality of its chaotic growth" (ibid: 119). On an arid island with limited space to accommodate land preservation and development pressure, Manrique's projects were intended to appease both developers and environmentalists without cutting Lanzarote off from Europe's booming tourism market. With restricted resources and poor incentives for sustainable development, Manrique hoped to use Lanzarote as an example for the world to follow. Today, the Cesar Manrique Foundation (FCM) is a staunch advocate for restricted development, aiding environmentalists and bureaucrats on the island as a non-governmental influencer.

At the same time, Manrique's projects were explicitly development, and tourism development at that. While the Jameos was a conservation project protecting the endemic white crab, it was part of an infrastructural overhaul by local government to take the island out of its 'backwardness' – including projects like the desalination plan (Maderuelo, 2004: 143). Arrecife Mayor Ramírez Cerdá, Manrique's childhood friend and war-buddy, continued to support Manrique's projects and whatever infrastructure (roads, toilets, electricity) was necessary for the construction or visitation of those projects. "If anything deteriorates the island [of Lanzarote], no matter what its source is, I shall never have anything to do with it," Manrique declared (Manrique and Gómez Aguilera, 2004: 108). Yet, the success of his own projects was contingent on the whole-island scale infrastructural development of Lanzarote.⁸ Manrique's design approach enabled compromised environmentalism in the name of sustainable development.

Manrique's 'silver bullet' approach to environmentalism might qualify as one such idea of paradise, an environment infused with brandable value through his immersive installations, creating spaces infused with island pride and literal value for the tourism economy. Design enabled Manrique to aesthetically highlight ecological features while still promoting development at odds with long-term environmental health. On his art island, he imagined a utopic tourism industry that could capitalise on the local environment with little actual cost

⁷ For more on "Land Ethics", see Leopold (1970) and the related environmental history literature.

⁸ In line with critiques of ecotourism ventures made by Carrier and McLeod (2005), the creation of infrastructure around ecotourism sites is at much open for critique as the operations of the ecotourism venture itself.

to that environment.⁹ While Manrique explicitly denounced the placeless ‘paradise’ of pools and palm trees as the touristic ideal, Lanzarote’s brand identity and landscape were still shaped by Manrique’s expectations of a paradise without conflict (Strachan, 2017: 36). Local developers could still exploit Manrique’s vision to the benefit or detriment of the island’s ecology through tourism-incentivised management and mismanagement.

UNESCO’S Man and Biosphere Program

The effect of the ‘art island’ approach to tourism branding on local environmentalism was twofold. First, the FCM and civil government leveraged these archipelagic eco-art interventions to draft rigorous zoning regulations that ostensibly limited overdevelopment. Second, these organisations preserved Lanzarote’s socio-ecology by establishing the entire island as a UNESCO Man and Biosphere site.¹⁰ While both were positive policy steps – progressive, innovative, and defensive of environmental health – neither ultimately prevented illegal overdevelopment, promoted the traditional ‘harmony’ with nature romanticised by Manrique, or made sure that traditional livelihoods could thrive in a tourism economy. The unique establishment of the *entire* island as a Man and Biosphere (MAB) site did not ultimately, effectively, promote comprehensive environmentalism on Lanzarote.

Manrique and his tourism-funded foundation championed aggressive development regulation to protect Lanzarote’s strange volcanic environment from overdevelopment. Redefined respect for the island’s aesthetic was so central to Lanzarote’s new self-image that well-regulated development became proxy for understanding the state of democracy on the island and in Madrid for local residents. Manrique’s work and networks also ultimately codified Lanzarote’s traditional socio-ecological relations through UNESCO’s nascent MAB program. Manrique’s personal crusade for ecological and social preservation paved the way to Lanzarote’s designation as the first island UNESCO World Biosphere Reserve in 1993. In the process of redeveloping the island, Lanzarote was designated as a UNESCO Biosphere Reserve in 1993, which more than preserving some genre of “pristine” natural site requires that specific areas demonstrate a “strong historic link between man and nature” (Morales, 2013: online). As the first MAB site to be designated over geographic entirety of an area (the whole island is a MAB site), it was the entirety of Lanzarote’s historic socio-cultural relations, the sustainable land ethic of islanders, and indeed Manrique’s focus on vernacular architecture and environmental design that won the designation. Lanzarote’s maritime heritage, its “perceptions, discourses, practices, customs, traditions... maritime culture, maritime-ness, distinguishing maritime features, and the relationship between the land and the sea, endowed with cultural, emotional, or use values” expanded and challenged the framework for MAB site selection (Tejero and Camós, 2014: 6). It recognised Lanzarote and the Canary Islands as an aquapelagic system driven by Lanzarote’s limited island resources.

Manrique’s commitment to building that relationship into Lanzarote’s volcanic ash were heralded as defining factors in this designation (Meyers and Vega interview, 2017). In public

⁹ A recent work by Jakub Kloc-Konkołowicz (2019) takes up the philosophical question of Manrique’s attempt to design utopia, exploring his failures and successes.

¹⁰ The Biosphere Conference, held in Paris in 1968, gave rise to a pragmatist, reasonable use and extraction framework that sought to satisfy both socio-ecological preservation and the resource demands of post-war modernity. Bridgewater (2016) describes the conferences of note, the missed opportunities to promote MAB program success within the shifting cultures of UNESCO, and the small successes that helped the MAB program ‘tread water’ to 2016.

dialogue with the economic pressures of package tourism, Manrique framed the island as a discrete, socio-ecological, delicate system whose aesthetic and ecological value *enhanced* rather than impeded the island's tourism value. It was thereby an exemplar of the "ecodevelopment" principle touted by the IUCN's *World Conservation Strategy* published in 1980 while simultaneously meeting Franco's development imperative.

At the same time, as a member of Spain's committee on site selection, Manrique had much to gain from designating the island as a MAB Reserve. Some speculate that the designation was meant to help regulate the illegal development slipping through the cracks of local government permitting more forcefully, with international aid and on an international stage. The MAB designation is also a boon to tourism. It is heralded on informational materials as you enter and exit the island's only airport and draws tourists to dive in the challenging waters off La Graciosa island.¹¹ The Man and Biosphere brand of environmentalism lends credibility, through its institutional affiliations with UNESCO, to Lanzarote's brand.



Figure 9 - Information stand (featuring logos designed by Manrique) at the World Conference on Sustainable Tourism that was held in Lanzarote (at Manrique's Jameos del Agua) between April 24 and 28, 1995 - two years after Lanzarote was declared a UNESCO Biosphere Reserve - at which UNESCO's 'Charter of Sustainable Tourism' was signed, two years after Manrique's passing. (Photo courtesy of Cabildo Insular de Lanzarote).

Today, tour busses shuttle families of tourists from installation to installation, incentivising road infrastructure development and pressuring the island's ecological systems. All-inclusive hotels still dominate the coast, though abandoned skeletons of similar development projects loom over the desert landscape (Figure 10). Based on data provided by the World Tourism Organization (2004) and Spanish National Institute of Statistics (2020), the Canary Islands can be considered to be among the top 20 tourist destinations, with 13.8 million international tourist arrivals for the year 2018 (Instituto Nacional de Estadística, 2020). But within the Canary Islands, almost 70 percent of all tourism arrivals are concentrated in the two main islands of Tenerife and Gran Canaria. In 2018, Lanzarote recorded 3,063,316 tourist arrivals,

¹¹ Shockingly, the only instance of fish feeding I saw in Lanzarote's dive industry (generally decried as poor practice in dive tourism) was by the divemasters who lead trips in the Reserve. They were relatively poor guides, mismanaging guests and putting several divers at risk to extend the length of the dive.

2.6% less than in 2017, and archipelago visitation has declined since a notable spike in number of tourists in 2016 and 2017 (Data Center of the Cabildo de Lanzarote, 2020).



Figure 10 – Abandoned, and now derelict, hotel developments are scattered across Lanzarote. (Author's photo, 2016).

In the context of declining tourism figures, CACT seeks to attract enough of the tourism market share from visitors to the Canary Island archipelago to support growth, especially in dive tourism. Increasingly, dive tourists make up more than 20% of Lanzarote's annual visitors in 2015 (Data Center of the Cabildo de Lanzarote, 2020; Meyers and multiple anonymous interviewees, 2016 and 2017). In March 2016, artist Jason deCaires Taylor installed the Museo off Lanzarote's coast, designed to promote a mindset of global environmental stewardship and stimulate the local dive tourism economy. Local tourism officials informally reported a 200% increase in dive tourists between 2016 and 2017 alone as justification for their investment in the Museo Atlántico, though the Museo only made up a small proportion of attended attractions (see Table 1). While wholly supported by Lanzarote's tourism board, locals question whether or not deCaires Taylor's work contributes to or corrupts Manrique's vision of planned development and environmental conservation.

YEAR	TOTAL visits to CACT centres	Visits to Museo Atlántico	Percentage of visits to CACT centres that were visits to Museo	Average visits to Museo per day
2016	2,956,322	4,225	0.14%	12
2017	2,871,547	8,729	0.30%	24
2018	3,004,611	9,543	0.32%	26
2019	2,908,337	8,040	0.28%	22

Table 1 - Visitation Data for CACT facilities, including Manrique's eco-art installations and the Museo Atlantico (data: Datos de Lanzarote, 2020).

The Museo Atlántico

Funded by local taxes, managed by local police and CACT, and officially inaugurated by the President of Lanzarote Pedro San Gines in 2016, the Museo Atlántico is technically a public amenity intended to facilitate Lanzarote's development as a tourism destination in a changing global dive tourism market. As much as the Museo can meet those explicit goals, it also, implicitly, creates new lifestyles, hopes, and conflicts for the people of Lanzarote. It alters the local dive economy by attracting greater visitation, reorganising the regions of Lanzarote that are considered 'diveable', and restructures the standard dive experience with the insertion of an object of focus for education. Taylor and his management crew are clear that they consider his art to provide a public service to that end.

The Museo is a means to develop and modernise the local tourism industry. It is meant to increase tourism visitation to the island and stabilise Lanzarote's dive tourism industry (more divers will attract more dive professionals, which will justify state measures to support the dive industry, one CACT official hypothesised) while remaining loyal to the 'art island' environmentalism fomented by Manrique. One CACT official interviewed by the author described the Museo as an extension of Manrique's legacy in sustainable development, that "Manrique was very modern for his period, innovative to create a sustainable way to develop tourism. On the other Canary Islands, development is very different."¹² He continued, "While the seven centres developed by Cesar Manrique ground tourism in Lanzarote, we need more artists to develop the idea of Lanzarote's nature being art in a sustainable way" (author's translation). In this context, Lanzarote's 'nature' is its brand, and the Museo is an extension of that approach. Lanzarote's legacy of environmental design and protection of marine and terrestrial resources through the Biosphere Reserve makes Lanzarote "a special place" for the Museo Atlántico (anonymous dive professional, 2017) where the politics of development on the island align with the political symbology of the Museo sculptures themselves in a way that attracts new, paying dive tourists.

As one of the closest tropical climates to Western Europe, the Canary Islands have healthy dive tourism economies and compete within the archipelago for all types of diver.¹³ Historically, Lanzarote was known for its colour, visibility, and large population of the rare angel shark (*squatina squatina*), but without a coral reef community to speak of, Lanzarote's dive economy was at a disadvantage. Other Canary Islands like El Hierro could advertise occasional manta rays or dolphin pod, with warmer waters coming out of the gulf stream. Over forty dive shops have opened their doors since the installation of the Museo, where once the focus of the tourism industry was bike trips and bus tours to Manrique's sites. As such, a CACT official interviewed during research noted that the Museo "is specially designed

¹² This tourism official described "sustainability" as necessarily connected to development, such that "it is impossible to make something sustainable if you just pay attention to the environment. It has to be sustainable in the social and economic point of view as well." This is distinct from other development patterns for him, "the same system that existed everywhere, during the 1960s in Spain", because "the way it was developed was by building, like, huge towers in front of the beach without paying attention to the seafront and things like that" (News from the Island, 2017a: online).

¹³ Todd, Graefe and Mann (2002) note that there are six major themes that attract people to diving: adventure, learn, escape, social interaction, stature, and personal challenge. Divers with higher levels of skill development are motivated to pursue the activity for different reasons, usually stature and escape; Other research on diver preference reveals that preference does vary according to years active as a diver (Lucrezi, Saayman, and van der Merwe et al, ; Lucrezi, Milanese, and Markantonatou et al, 2013; and Ramos, Santos, Whitmarsh et al, 2006).

for promoting the diving in the island” for a specific diving clientele. One stated goal of the Museo was to emphasise the necessity of aquapelagic thinking, ocean conservation, and cultivating the island’s ‘blue economy’ to island environmentalism, but the goals for sustainable development are less clear.

CACT solicits new projects to, as they see it, extend Manrique’s vision of naturecultural tourism into a new era of global environmental consciousness. The Museo Atlántico was solicited to develop new tourist attractions that follow Manrique’s vision of place-based, ecologically grounded immersive art experiences. Museum Studies scholars might consider the Museo a “post-museum,” an “emancipated” experience which liberates the content and viewer from proscriptive curatorial and learning styles through experiential learning that expands public participation in science (Hooper-Greenhill, 2000: x). Education scholar Richard Watermeyer calls the “post-museum” part of a postmodernist “Interactive Turn” that is either part of a “Disneyfication” or a “distraction machine” museum environment (Watermeyer, 2012: 2). Anita Maurstad argues that the materiality of museums opens up different interactions with museum objects, using context and expert guides to drive specific interpretations by the audience (2012). The Museo refers to these standards for terrestrial museums and capitalises on the cultural cache of the museum to draw tourists’ attention to environmental issues.

The Museo also creates a new category of tourist on Lanzarote. New relationships with dive technology and restricted access to air, intimacies with non-human marine organisms, and comfort with risk cultivated through diving now define a large segment of the tourist experience that once relied on the “primacy of land-based coordinates” (Picken and Ferguson, 2014: 329). This is one of Taylor’s considerations for underwater sculpture, which he thinks should “create an interface or bridge between an unknown marine world and our familiar earthly world, in a way that... offers a wider perspective through which to see our life in a greater context” (Cué and de Caires Taylor, 2015: online). The psychological response Taylor hopes to elicit for dive tourists through environmental interaction is deeply reminiscent of the nature experiences that catalysed Manrique’s environmentalism (Echarri and Echarri, 2018). He was shaped through phenomenological experiences with Lanzarote’s environment, and designed Lanzarote’s built environment, from the roadway to the restaurant, to provoke similar visual and physical experiences for visitors to the island. The Museo Atlántico presents a case study of fluid phenomenology similarly engaged with touristic performance, bodily engagement, and technological mediation as tourists find new ways to make contact with the environment, with Taylor notably playing on these phenomena to elicit a specific reaction from dive tourists (Picken and Ferguson, 2014; Blackman and Featherstone, 2010; Rozwadowski, 2010; Merchant, 2011; Park, 2017).

But the Museo is only intended for a certain type of body, one financially and technically able to visit the purported educational facility. CACT insists that the project is designed to enhance ocean awareness and draw curious, experienced divers and novice divers alike. The intrigue of the Museo project may even force non-divers to gain dive skills and become ocean explorers, the CACT official noted, saying “you have to learn to dive, so that we can be aware of what’s going on below the sea level and seeing what happens there. There is no excuse, we are surrounded by sea but sometimes we live with our backs to the sea.” A post-museum pedagogy would, alternately, recognise the variable social positions of people who enter post-museum space and inevitably leave with different interpretations of that experience (Watermeyer, 2012: 2). For Taylor, the Museo is a space only for a certified dive tourist with enough disposable income to afford an additional surcharge on their dive and able to interpret Taylor’s sculptures from his culturally specific set of symbolic cues. Lanzarote

residents, many of whom do not or cannot afford to dive but are ostensibly the beneficiaries of this taxpayer investment, are the Museo's most accessible public and least frequent visitors; the Museo has no program to certify residents in SCUBA and treats Lanzarote's public as potential consumers before recognising them as the primary backers of the installation. Even as the Museo opens up to uncertified divers supervised by instructors, Taylor forgets how overwhelming a skill like diving is to learn, and how hard it can be to learn while panicked;¹⁴ this emphasises the aspects of the Museo that are driven by profit, not public education. The Museo Atlántico is a public object that claims to contribute to a public good, but access to the project is exclusive and mediated by socioeconomic, material, and phenomenological difference.



Figure 11 - Schools of fish pool around one of the "Hybrid" series sculptures. (Photo used with permission of the Jason deCaires Taylor Studio.)

While Taylor focusses on the technical and educational function of his installations as artificial reefs (Meyers, 2018), Larkin points out that infrastructures “need to be analyzed as concrete semiotic and aesthetic vehicles oriented to addressees” that “store within them forms of desire and fantasy and can take on fetish-like aspects that sometimes can be wholly autonomous from their technical function” (2013: 329). Claiming status and regulatory exemptions as art installation and infrastructure, this is particularly true of Taylor's work. In other projects, I describe the implications of the Museo for Lanzarote's marine environment and for the local sense of democratic stake in infrastructure planning, which many found insufficient before the hasty funding of the Museo. Both Taylor and Manrique used art interventions to frame the environment and generate profit for tourism developers,

¹⁴ This was a common response that beginner divers reported when diving the Museo in diver interviews conducted between 2016 and 2017.

displacing environmental harm to other parts of the aquapelago, obscuring conflict between environmentalist and developer priorities – these are the stakes of ‘art island’ projects.

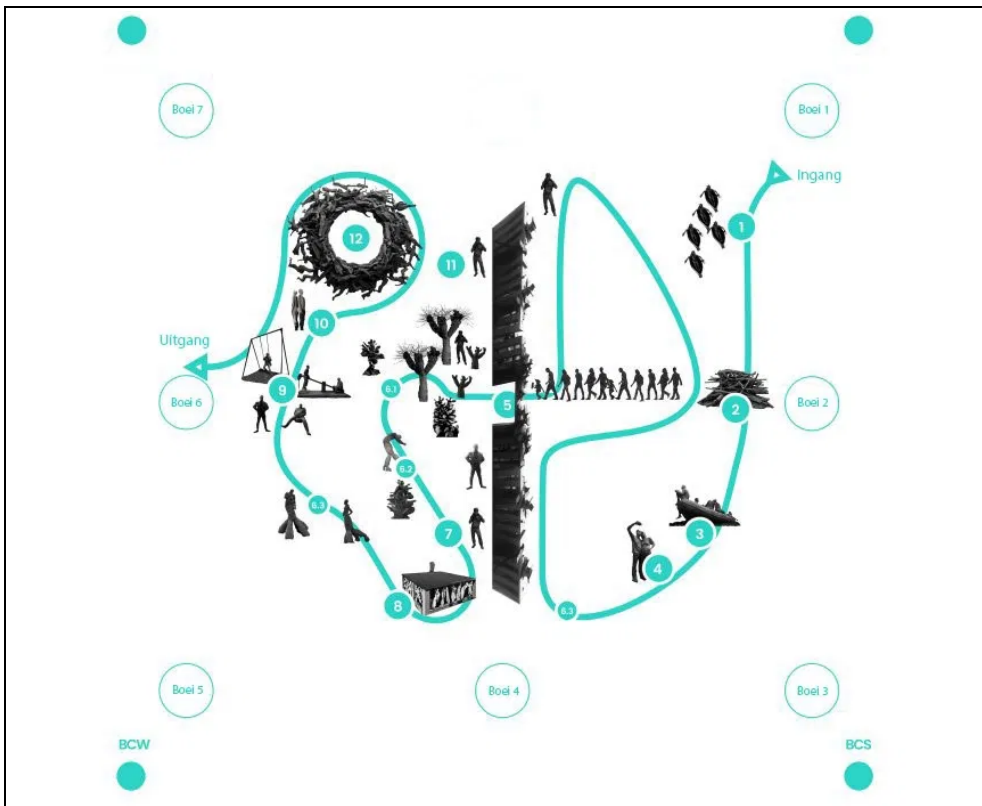


Figure 12 - A map of the route dive tourists take through their curated underwater sculpture experience. The white and teal circles indicate the buoys to which dive tour vessels and police patrol boats moor. (Photo provided in Museo Atlántico promotional materials.)

Publicly funded but exclusively accessible to those who can dive and afford the entry fee, the Museo is an aquapelagic development project for the Anthropocene – extending sociality below the sea surface to explicitly manifest human influence and dependency on the marine environment and climate. Manrique’s installations were designed with an environmental ethos that encouraged ‘man-nature’ symbiosis while remaining financially productive for the local tourism economy and locally engaged through public events at the FCM. Installing human social spaces in lava pockets and building roads for car tours of the geologic volcano features that defined Lanzarote’s history, Manrique developed tourism products at a specific scale for the dominant tourism culture of the 1970s and 1980s. Taylor’s Museo Atlántico indeed extends this development model into the 21st Century, part of the Anthropocene epoch, where humans influence geological systems at a molecular level and artificial products proliferate through every ecosystem (Crutzen, 2002; Fahrenkamp-Uppenbrink, 2018). Rather than guiding tourists around or through naturally formed volcano structures, Taylor creates an intervention in the marine environment that alters the entire ecological

system itself. Literal human forms are embedded in the environment and tell stories of human ignorance and impact. Proposed as a new, resilient form of coastal tourism and dive tourism, the Museo Atlántico is an artificial reef system leveraging the potential of marine flora and fauna to develop an underwater tourist attraction. However, the Museo Atlántico is as much a tourism development as it is an artificial reef, with real impacts on public coastal access and future heritage and tourism projects.

Art Islands and the Future of Heritage

Manrique's archipelagic eco-art interventions critically frame the relationship between human and nature, this 'harmony' as a type of heritage. Manrique grew up on an island immersed in manual agriculture with little technological intervention, and often recalled a connection to the landscape reminiscent of Aldo Leopold's land ethic (Worster, 1994). These practices remain a respected reference in contemporary life on Lanzarote, recalled in annual ceremonies and performed for tourists in traditional 19th Century field apparel. Manrique's installations were designed to reference historic vernacular architecture and protect Lanzarote residents' historical relationship to the environment. At the same time, Manrique re-envisioned what humankind's relationship to the environment could be in an era of increased industrialisation, pollution, and alienation from the earth. He believed that "we are witnessing a historical moment where the huge danger to the environment is so evident, we must conceive a new responsibility with respect to the future" (Manrique and Gómez Aguilera, 2004: 125). His installations were created to inspire a new land ethic, a new sense of heritage, driven by the ecological limitations of life on islands.

Harvey (2001) notes that what contemporary society designates as heritage and chooses to protect reflects contemporary ideals and beliefs as much as it connects the past, present, and future of a society. Manrique's art, designed for and financed by tourism, historicises Manrique's environmentalism, a response to global development pressures, in the name of economic development while simultaneously preserving local lands and waters through the Biosphere Reserve program. Lanzarote has been designed to look un-designed, from its rugged landscape preserved by Manrique's land-use laws to the crystal-clear waters offshore, prized by divers and made possible by stringent water quality regulation. Now, Lanzarote's tourism industry has attempted to adapt to a changing market and changing climate at the same time. CACT is making heritage out of climate adaptation, nature-based infrastructure, and the aquapelagic engagements of this island colony through the funding of the *Museo*.

Where Manrique engaged his sense of place and understanding of his island community to generate awareness of and preserve fragile local resources, Taylor's ideas and aesthetics were imported (along with his labour) from the United Kingdom to participate in the global expansion of tourism infrastructure. Taylor has installed similar projects around the globe, an aquapelagic network of submarine infrastructure that redefines ocean space and marine ecology as much as it redefines marine tourism and ecotourism. Taylor deploys his distinct symbolic vernacular in different coral reef and marine ecosystems across the world using the same process, same low-pH concrete formula, and same aesthetic. He has united sites in the Maldives, Bali, the United Kingdom, Australia, and Cancun with his sculptural style, his unique political symbolism, and his brand. These structures create a network of underwater concrete sculptures, a network of transport as Taylor and his assisting artists move from site to site, a network of dive tourists, and a network of tourism organisations dedicated to the maintenance and promotion of these expensive installations. More legacy than heritage,

Taylor's artefacts respond to global anxieties about broad phenomena like climate change, the creep of social media into our daily consciousness, and oil and gas executive's corporate greed. Following heritage scholar Felicity Picken, the creation of the Museo Atlantico as public infrastructure is emblematic of an Anthropocene ethos where creating heritage can simultaneously "portend a future, gesture towards the past, and condemn so many actions in the present" (2006: 59). As such, the sense of heritage they promote is, at best, our shared burden to understand climate change and resist the capitalist exploitation of the global commons. At worst, the Museo will become one more abandoned skeleton of half-baked international investment in a marginalised colonial economy. The real ecological, economic, and social resilience of this project demands evaluation and implicates dive tourism as its own mode of colonisation (Hall and Tucker, 2004).¹⁵

Modern faith in infrastructure, a belief that additional development or economic growth will solve rather than exacerbate conflict, is readily critiqued by historians of capitalism (Mrázek, 2002: 166; Berman, 1988: 23). Lanzarote's archipelagic eco-art installations attempt to remedy ecological and social deficiencies caused by anthropogenic climate change through further development, creating "perpetual disintegration and renewal" (Berman, 1988: 15, 35-36). Reliant upon the growth and colonisation of marine species, the growth of the tourism economy, and the extension of Lanzarote's governmentality to the seafloor, the Museo constitutes an Anthropocene infrastructure demanding, in fact, more investment, more carbon, more concrete - incapable of mitigating the impacts of mass tourism. While technologically the Museo is meant to restore or reinvigorate the seafloor environment, it is also an "excessive fantastic object" that Taylor hopes will inspire tourist imaginaries of other, more hybridised and sustainable worlds without enacting that vision (Larkin, 2013). The paradoxical politics of Taylor's work is precisely why the Museo Atlántico is a necessary study for a scholar of ocean and island governance. While participating in global networks of capitalism and development, the aesthetics of resilience commandeer the actual practices of resilient adaptive design and environmentalism.

In the last months of 2019, under new leadership, Lanzarote's government expressed anxieties over the viability of the Museo and its value to the taxpayer. Without demonstrating the economic, ecological, or educational value its promoters promised to provide, the Museo's relevance for the people of Lanzarote has slipped. The new CEO of CACT estimates that the project lost €44,809 over 6 months in 2019, finally dropping the admission fee in January 2020 and disqualifying the project from further public financial support (La Voz de Lanzarote, 2019 and 2020a). Some of Taylor's sculptures, visible from Manrique's modern art museum by the commercial port, were suddenly removed. María Dolores Corujo, president of the Cabildo, noted:

We do not have the will or the need to imitate any other territory. On the contrary, we must continue fighting to maintain the identity of this land and the singularities that distinguish us from other destinations. (Wilkinson, 2019: online)

Taylor has returned home to the United Kingdom, soon to deploy to new projects in Australia and France. Meanwhile, the FCM digs deeper and deeper into the utopian project for Lanzarote and relationship to place inherited from Manrique or, as locals call him, Cesar, still imagining new, resilient futures for this small island.

¹⁵ I am referring to the Museo Atlantico in Lanzarote, the Ocean Atlas in Nassau, The Bahamas, and Taylor's newest installation, the Coralarium at the Fairmont Maldives Resort in Sirru Fen Fushi.

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